



JIM PETRO
AUDITOR OF STATE

STATE OF OHIO

CLERMONT COUNTY
FACILITIES MANAGEMENT
PERFORMANCE AUDIT

OCTOBER 17, 2000



STATE OF OHIO
OFFICE OF THE AUDITOR

JIM PETRO, AUDITOR OF STATE

To the Clermont County Commissioners, Mr. Steve Wharton, County Administrator, and the citizens of Clermont County,

The State Auditor's Office is pleased to provide the completed performance audit of Clermont County's Facilities Management Department. As a component of Clermont County's long-range performance improvement plan, the County requested a performance audit of four departments which have already implemented Managing by Results and activity based costing. The State Auditor's Office conducted this independent review of the Facility Management Department's operations with the objective of evaluating current operations and costs in relation to best practices in government and industry. Recommendations provided to County management focused on areas where the Facilities Management Department can implement best practices in operational efficiency and service delivery. This performance audit is the first of five performance audits focusing on the four County departments.

The performance audit focused on nine core aspects of the Facility Management Department's operations including Staffing, Capital Planning and Budgeting, Repair and Maintenance, Strategic Planning, General Operations and Contracted Services, Building Capacity and Utilization, Technology and Energy Management. These service and operating areas comprise all aspects of Facility Management Department operations. The performance audit contains recommendations for improved operations or service delivery based on best practices and industry standards, as well as numerous commendations highlighting best practices within the Facilities Management Department

An executive summary has been prepared which includes the project history, purpose and objective of the performance audit, an overview of the Facilities Management Department, and a summary of each of the nine areas. The executive summary also includes a summary of background information, findings, commendations and recommendations.

Additional copies of this performance audit can be requested by calling the clerk of the bureau at (614) 466-2310 or the toll free number in Columbus, 800-282-0370. In addition, this performance audit can be accessed online through the State Auditor Office's Web site at <http://www.auditor.state.oh.us> by choosing the "Online Audit Search" option.

Sincerely,

A handwritten signature in black ink, appearing to read "Jim Petro", written over a large, stylized flourish.

JIM PETRO
Auditor of State

October 17, 2000

EXECUTIVE SUMMARY

Project History

In January of 2000, the Clermont County Office of Management and Budget contacted the Auditor of State's Office requesting a performance audit of various County departments. Clermont County has undertaken a performance improvement process to improve accountability to County residents and increase the efficiency of the County's services. As a component of the performance improvement process, the County requested a performance audit of four County departments to determine the efficiency and effectiveness of operations in each department. Meetings between the Auditor of State's Office and County management were held to discuss the scope and objectives of the performance audit.

As a result of these discussions, it was determined that the performance audit would focus on the following areas and departments:

- Facilities Management
- Child Protective Services, Policies and Procedures Establishment and Implementation
- Child Support Enforcement
- Permits Central
- Child Protective Services, Agency Program Operational Assessment

The Facilities Management Department performance audit is the first of five performance audit sections to be released. Each performance audit compares the County to standard industry benchmarks and best practices in the specified area. Within the Department, the report focuses on the following areas:

- Staffing
- Capital planning and budgeting
- Repair and maintenance
- Strategic planning
- Contracted services
- General operations
- Building capacity and utilization
- Technology
- Energy management

Department Overview

The Facilities Management Department (the Department) is responsible for the operation and upkeep of the majority of the County's buildings and grounds. The County facilities consist of 38 structures and 2 vacant sites ranging in size from 120,000 square feet (Adult Detention Center/Jail) to 1,030 square feet (Milford Auto Title Building). The Department maintains and repairs the County's facilities, equipment and plants; constructs and renovates County facilities; plans and designs work spaces; manages supplies and logistics in support of all County departments; and provides custodial services and support.

Thirteen employees work within the Facilities Management Department and, because of the small staff, the Department relies heavily on contracted services to provide specialized services to the County. Functions, including custodial work and ground maintenance, are out-tasked through competitive contracting. In FY 1999, the Department allocated approximately 14 percent of its total FY 1999 expenditures to contracted services. Through using competitive contracting, the Department has maintained expenditures at rates below International Facility Management Association (IFMA) averages for most custodial services. Department out-tasked custodial operations were \$0.99 per square foot compared to \$1.27 for government facilities in the Midwest, as reported by IFMA.

While the County has shown a commitment to its facilities by allocating 2.0 percent of every significant facility's installation cost for capital improvements, funds have not been set aside for building replacement. A ten year capital plan was developed in a spread sheet format, but this document does not include key components such as costs, responsible parties, and due dates. Capital planning has not been linked to preventive maintenance or long term building replacement and the County has not examined building capacity and utilization, resulting in the County having substantial excess capacity in five of its facilities.

The Department has been highly proactive in achieving energy savings through deregulation. The Department decreased utility expenditures and save approximately \$12,000 from March 1998 to December 1999. In addition, the Department is planning for the de-regulation of the electric industry by convening an energy de-regulation task force. Because of efforts to reduce costs, utility expenditures are generally below IFMA averages, except for the Adult Detention Center and the Sheriff's Office. Yet, the Department has not conducted analyses of energy utilization on a per building basis.

Summary Results

The summary results of the performance audit are contained within pages 1-3 through 1-13. The summary result is followed by overall performance audit information, including a definition of performance audits, the objective and methodology of performance audits and comparisons of key information.

The performance audit addresses Clermont County's Facilities Management Department and focuses on staffing, capital planning and budgeting, repair and maintenance, strategic planning, contracted services, general operations, building capacity and utilization, technology, and energy management. Major findings, commendations, and recommendations are provided for each area. A thorough analysis of each of the Departments, including detailed findings and recommendations, is contained within the corresponding section of the report. All interested parties are encouraged to read the entire report.

The results of this performance audit should not be construed as criticisms of Clermont County's Facilities Management Department. The performance audit should be used as a management tool by Clermont County and the Department to improve operations within the agency, as the performance audit provides a series of ideas which the County and Department should consider in its decision-making process.

A table representing a summary of the financial implications of the recommendations is presented on page 1-13. However, this performance audit also contains a number of recommendations that may not generate estimable cost savings but will result in enhanced service delivery within the Facilities Management Department operations. If implemented, these recommendations would improve the operational efficiency of the Department and its effectiveness in achieving its mission.

Staffing

Findings: The Facilities Management Department reports to the County administrator and currently consists of 13 full-time equivalents (FTEs). Within the Department, administrative employees do not fulfill the tasks indicated in the job descriptions. Most job descriptions have not been updated in the past ten years. Because the work being performed does not meet the criteria of the job description, some tasks are not completed, while others may be duplicated. The essential responsibilities of the CAFM specialist remain unfulfilled and the CAFM specialist has not made significant headway in cataloging the County's buildings or fixed assets. The County employs more full time administrative employees, excluding clerical staff, per maintenance employee than similar sized counties. With the addition of the management systems specialist, the County will essentially have two Facilities Management Department directors and will spend nearly \$98,000 in salaries for both the two positions, which is twice the average amount expended by similar size counties for overall department management.

The weighted average base salary for the maintenance staff in Clermont County is \$29,242. On average, the maintenance and custodial gross salaries are 7.3 percent higher than the base salary amounts, reflecting overtime used by maintenance worker 2s (MW2s) and maintenance worker 3s (MW3s). Clermont County's Facility Management Department hourly wage rates are similar to the surrounding counties. Entry level positions are slightly higher than those in the surrounding counties, but skilled maintenance salaries are lower. In FY 1998, County employees were paid a total of \$6,897 in overtime, compared to \$15,446 in FY 1999, an increase of approximately 124 percent. Additional overtime was paid in FY 1999 because of the installation of a new HVAC system in the Medical Social Services Building and an increase in emergency snow days over FY 1998.

Recommendations: The County should determine which tasks are most appropriate for each administrative employee within the Facilities Management Department. Job descriptions for the Facilities Management Department should be updated to accurately reflect the roles and responsibilities of each position in the Department and should be reviewed on a regular basis.

The County should ensure that the CAFM specialist has the necessary computer skills to complete the required duties of the job. The CAFM specialist should complete CAD drawings showing utilized space for all of the County's facilities. The County also should designate department representatives to compile what the County considers to be fixed assets. The fixed asset database should be tied to the County's accounting system to ensure that all items designated as fixed assets are captured and tagged as soon as they are received by the County departments. Furthermore, Clermont County should examine the administrative staffing levels in the Facilities Management Department and consider reducing administrative staffing levels to be more in line with staffing levels in similar sized counties.

Capital Planning and Budgeting

Findings: Clermont County facilities consist of 40 sites with a total square footage of 537,092. The County was not able to provide ages for all of the County's buildings. Including only County buildings for which the age is known, the average age of the facilities is about 36 years old, but four facilities are over 100 years old. The County estimates the total cost to renovate existing and construct new facilities to be approximately \$26.2 million dollars. Renovations of existing facilities would cost \$6,115,000 and \$20.1 million would be needed to construct new facilities to reduce overcrowding.

The County funds building maintenance, capital improvement and repairs through approximately 1/3 of a 3.2 mill inside (non-voted) levy and state and federal grants which are paid from the general fund. The Facilities Management Department is funded through a General Fund appropriation which amounted to approximately \$2.0 million in FY 1999. The County allocates an additional 2.0 percent of every significant facility's estimated installation value from the General Fund to a Capital Projects Fund which is used for both repairs and improvements within the facility and facility replacement. The

2.0 percent significant building set-aside is also used by the County to fund major capital improvements that will extend the life of a building and aid in the preservation of the County's capital investments. Facilities not considered to be of major status, including the majority of buildings constructed before 1993, are funded out of the Facilities Management Department's annual budget.

Clermont County's facilities-related expenditures are lower than or equal to IFMA reported averages for government institutions. Factors which contribute to the low expenditure level are the County's low custodial and maintenance salaries and benefits expenditures including lower hourly salaries. Lower purchased services per square foot are facilitated through the use of out-tasked custodians and JIP operating at a relatively efficient cost per square foot.

The County has developed a 10 year capital improvement list forecasting anticipated capital outlays for renovation and construction of the County's facilities and uses linked spreadsheet files that comprise a multi-year capital improvement plan. The plan does not address the County's plans for leased buildings that may be rendered obsolete by the construction of new facilities such as the Municipal Courthouse.

Commendations: The County has been able to keep its facilities-related expenditures lower than or equal to IFMA averages through the use of sound management practices such as out-tasking custodial operations at a relatively efficient cost per square foot and gross square feet cleaned per employee, and augmenting custodial operations by the use of JIP, which costs the County about half of the IFMA average custodial cost per square foot.

Also, the County has developed an appropriate and effective methodology to fund the capital and replacement needs of significant buildings. Subdividing the fund ensures that each building will have the necessary capital improvement resources to fund large repairs and upgrades during the building's useful life.

Recommendations: The County should examine its facilities-related expenditures to ensure that funding levels are adequate to ensure the continued upkeep of the County's buildings as the County currently faces costly repairs to many of its buildings. The Department, with the assistance of County management, should update the facilities survey and include prioritized repairs and associated funding sources in Departmental planning documents.

The County should consolidate the linked spreadsheet files into a comprehensive capital improvement plan in an effort to centralize planning. The plan should include an overview of critical investments that are planned during the life of the plan, a detailed explanation of how the County will finance these projects, sources of funding, links to long-term facilities and preventive maintenance plans, and Americans with Disabilities Act (ADA) compliance funding measures.

Repair and Maintenance

Findings: The County owns 28 facilities and leases 10 facilities. Buildings are leased at a cost to the County of \$8.00 to 10.00 per square foot, of which approximately \$1.70 per square foot (based on FY 1999 expenditures of \$92,000 for 52,000 feet of leased space) is maintenance costs. The County leases primarily smaller structures that County officials feel are more cost effective to lease than building dedicated structures. The Facilities Management Department provides minimal maintenance on the leased spaces. Most maintenance done to the leased facilities is the lessor's responsibility and is performed at the lessor's expense. Custodial services are provided by either the lessor, although the County provides custodial services to three of the leased buildings.

Maintenance and custodial services provided to the Professional Building, the Milford Auto Title Building, and the Williamsburg Records Retention Center Building all reflect higher costs to maintain and provide custodial services than County owned buildings and IFMA averages. Custodial costs are high because the MW1 provides custodial services to the Professional Building and Milford Auto Title at \$5.90 per square foot.

The Building Research Board of the National Research Council published a report in 1990 in which they recommended that an appropriate budget for routine maintenance of a facility should fall within a range of 2.0 to 4.0 percent of current replacement value. The County dedicates two percent of each significant facility's installation cost to capital improvements and replacement. The County does not track replacement costs, but monitors the construction cost, the annual and accumulated depreciation, and net book value of each building over a fifty year depreciation schedule. IFMA reports that maintenance costs as a percentage of replacement costs averaged 1.9 percent overall and generally increase with the age of the facility. The overall amount expended on the County's significant facilities is 1.05 percent of the installation cost, which is 44.7 percent below IFMA averages. The County's repair and preventive maintenance costs are approximately 10.0 percent lower and 19.1 percent higher than IFMA averages respectively.

Although the County sets aside funds to replace buildings after their useful life span, the County is only providing set-aside funds for the newest buildings under its management. Plans have not been made to replace older buildings or to fund future expansions of County facilities. The IFMA recommends an annual set aside of approximately 2 to 4 percent of a building's replacement value which is allowed to accrue until a replacement building is required. Furthermore, the County does not have a comprehensive preventive maintenance plan. The Department relies on the contracted service providers to relay maintenance concerns occurring in the buildings. To address and evaluate maintenance issues raised by contracted staff, the County employs one multi-functional MW2 that can evaluate most areas of a building's operations. This employee is often sent into buildings after contractors have reported maintenance concerns.

Recommendations: In order to offset the high custodial costs, the County should monitor services provided by the Facilities Management Department to the leased buildings. If the County determines the JIP program can be expanded, the County should consider using the JIP to clean the Professional Building and the Milford Auto Title Building and eliminating the MW1 position.

The County should develop a replacement schedule for aging buildings in conjunction with a detailed capital improvement plan. Revenues from the levy should be set aside in increments sufficient to fund a building's replacement after the fifty year expected life span of the building has expired. Finally, the County should implement a planned preventive maintenance program. An effective preventive maintenance program can help improve worker productivity by proactively maintaining equipment rather than responding to breakdowns and emergencies. The County has several options regarding the development of preventive maintenance software. The County could use the County Management Information Systems Department in conjunction with the CAFM specialist and management systems specialist to develop a preventive maintenance system in-house. The County could purchase a stand-alone preventive maintenance software application or it can purchase an add-on Facilities Maintenance Module to the CAD program already in existence. A preventive maintenance software program would flag preventive maintenance items and notify the appropriate personnel when items are scheduled for preventive maintenance.

Financial Implication: Eliminating the MW 1 position would save the County about \$33,000 in salaries and benefits. Using the JIP to clean the buildings currently maintained by the MW1 would cost approximately \$8,200. A total cost savings of \$24,800 could be realized through shifting the MW1's cleaning duties to the JIP.

The County could implement a preventive maintenance program without increasing staffing levels. If the County decides to develop preventive maintenance software in-house, the cost is unquantifiable. If the County purchases stand-alone preventive maintenance software, it should expect to pay approximately \$6,000. If the County purchases the CAD add-on facilities maintenance software, the cost is between \$3,000-\$4,000, depending upon the options the County decides to purchase.

Strategic Planning

Findings: The County does not have an up-to-date long range facilities plan to address its future needs. In June 1992, NBBJ Architects/Interior Space Designers/Site and Community Planners developed a master facilities plan for the County that evaluated County growth trends, outlined specific facility site recommendations, and analyzed space utilization, existing location and proposed area required for facilities needs based on FY 1995 County population projections. Despite the 1992 facilities assessment, the County and Department have not referred to the plan when considering building utilization. Since 1992, the county has completed HVAC upgrades to several buildings. Two new buildings have been added to the downtown Batavia complex, but the Department has not examined energy efficiency in many of the buildings outlined in the 1992 report as less than adequate. The County has a risk assessment plan and tool box that was developed by an outside consulting firm

in January 1998. The plan outlines the County's risk management policy and breaks down potential areas of risk by department, such as the Department of Human Services, Facilities Management, Water and Sewer Department and the Fleet Management Department. Although the County does not employ a risk coordinator, the facilities coordinator and safety officer for the Engineer's Office currently facilitate organizational safety systems and processes through formal monthly meetings in which aspects of the risk management plan are explained and OSHA safety standards are discussed.

Clermont County contracts with a third party administrator, CompManagement Inc., to oversee all workers compensation issues. The Facilities Management Department filed one claim in FY 1999 that resulted in an award of approximately \$200. The Department has not filed any other claims in the last five years. From 1995 to 1999, the County's experience modifier status remained constant at 0.81, which indicates the third party administrator is effectively managing the contract. In 1999, the County saved \$96,000 in workers' compensation premiums.

Commendations: The Department has been proactive in helping management and staff identify accident prevention by using the risk assessment plan and other resources to regularly discuss worker safety issues. These regular meetings ensure employees are trained in safety related issues and may contribute to controlling overall worker's compensation costs by preventing claims from the outset.

Recommendations: The County should develop a comprehensive long-range facilities plan which contains historical information about the County's demographics and community characteristics. The County should revise the 1992 facilities plan to include the most important repairs based on the current condition of County facilities. The plan should include an annual maintenance plan detailing by year the types of work to be performed; an ongoing preventive maintenance plan for each of the County's facilities; planned public access within County buildings that ensures a reduction of barriers for compliance with the Americans with Disabilities Act (ADA) statutes; facility evaluations, capital improvement needs, and capacity and space utilization analyses to guide long-term plans and shape the space needs for future generations of citizens; an implementation plan and budget which includes funding sources and an evaluation process to guide facility spending and help anticipate funding needs; and formal written standards outlining space allocation.

General Operations

Findings: The County does not make adequate use of quantitative data to determine the appropriate number of custodians necessary to maintain its facilities. The County's facilities are currently cleaned by a combination of in-house and contracted employees and jail inmates that are part of the Jail Industrial Inmate (JIP) program. County custodial staff is cleaning approximately 8,000 square feet per custodian less than averages reported in IFMA Research Report #16. Although the County is operating its custodial operations at \$1.02 per square foot, which is less than IFMA averages reported for government facilities in the Midwest, two providers, the MW1 and Hoffman, are providing custodial services to the County at 46 percent and 42 percent above IFMA reported averages respectively. The County is cost effectively using minimum security jail inmates to clean

approximately 134,000 square feet of the County's facilities at about \$0.53 per square foot, the lowest custodial cost per square foot of the County's custodial providers. In FY 1999, the County furnished approximately \$29,000 in cleaning supplies to NSG and the jail inmates in the JIP.

The County does not have a formal equipment replacement policy for maintenance equipment of charge back end users for services rendered by the Facilities Management Department. IFMA reports that 55 percent of government facility management departments charge users for expenses in some manner.

Recommendations: The County should use quantitative data to determine custodial staffing levels which would help to reduce costs and bring the County more in line with IFMA averages. When determining the number of custodians necessary to maintain its facilities, the County should take into consideration factors such as the building's age, condition, size and layout; access to equipment; number of restrooms; and industry standards published by the International Sanitary Supply Association and the Building Service Contract Association International.

The County should also consider the following:

- Expand the JIP program.
- Establish custodial supply budgets for each building and track supply costs
- Establish a formal departmental equipment replacement policy
- Charge back end-users for services rendered by the Facilities Management Department
- Establish fixed rate charges for services provided to lessors and the Williamsburg Records Retention Center, and special projects charges for services

Financial Implication: Decreasing the cost of cleaning supplies from \$0.10 per square foot to the average best practice cost of \$0.05 per square foot will save the County approximately \$15,000 per year.

Contracted Services

Findings: The County currently expends about 14 percent of the Facilities Management Department's annual budget on contracted services. The majority of the out-tasked activities have been contracted out because of liability issues. Based on an assessment of out-tasking opportunities, it appears that the County should continue to out-task the custodial operations, elevator repair and maintenance and pest control functions. The out-tasked service providers generate minimal complaints regarding service levels. In addition to gauging service levels by the number of complaints

received, which averages about one complaint every two weeks, the County monitors contractor service levels on a daily basis.

The County does not annually assess its out-tasked services to determine if improvements, such as cost savings can be realized by bringing the activity in-house. Although a significant amount of funds are expended on out-tasked services, the County and Department have not performed analyses to determine if some services could be performed in-house at a lower cost by certifying County personnel.

Recommendations: The director, management systems specialist and facilities coordinator should perform an annual cost-benefit analysis of out-tasked activities to determine whether the County would benefit from bringing some out-tasked operations in-house. Some operations may be able to be performed in-house at a lower cost through certifying existing personnel, such as the plumber and electrician.

Other significant recommendations include:

- Increase the number of unannounced building inspections
- Install all fire and burglar alarms in-house.

Financial Implication: Based on FY 1999 costs, the County could save approximately \$2,400 in alarm installation charges by transferring installation responsibilities to the MW 3. Hardware costs are not included in this analysis.

Building Capacity and Utilization

Findings: The County has not examined building capacity and utilization. County employees are currently occupying about 218 usable square feet per employee. The County has an average vacancy rate of 17 percent, which can partially be attributed to the large amount of unused space in County buildings like the Coroner's Office, Old Courthouse and Service Center.

Recommendations: The County should develop formal written standards outlining space allocation and include the standards as part of the long term strategic facilities plan. The County should also consider closing some of its facilities with substantial unused excess capacity, such as the Coroner's Office and Service Center. By closing underutilized buildings, such as the Service Center and the Coroner's Office, the County could save approximately \$34,000 in custodial, utility and maintenance costs. Also, a methodology for projecting population that accounts for the County's needs and services should be adopted by the County and used to determine facility capacity and utilization at least every five years.

Financial Implication: By closing underutilized buildings, such as the Service Center and the Coroner's Office, the County could save approximately \$34,000 in custodial, utility and maintenance costs.

Technology

Findings: The current work order processing system limits management's ability to make effective decisions regarding the needs of the Facilities Management Department. The management systems specialist has expressed interest in purchasing Work Director software which will track work orders; work order requests; labor activities; compile work history and costs; track equipment and materials inventory; maintain maintenance and scheduled activities logs; and perform other user defined functions.

All of the County's boilers and HVAC systems are equipped with audible alarms that are tied into the security system at the Communications Center Building. If an alarm sounds, it will show up as a boiler alarm, prompting a 911 dispatcher to contact the HVAC technician, who is on 24 hour call. Because of this, the Department does not conduct weekend building checks. The boilers at the Medical/Social Services Building are the only boilers remotely monitored by a computer software package. The boilers systems can be monitored through a modem.

Commendations: The County has eliminated the need for weekend building inspections, which saves the County from paying unnecessary overtime. The use of alarm systems tied to the Communications Center and the remotely controlled boiler allow the County to monitor the boilers without on-site presence of Facilities Management Department staff members.

Recommendations: The County should purchase an automated comprehensive work order system such as the Work Director software which will allow the County to track work orders, material use figures, personnel information and productivity statistics with relative ease.

Financial Implication: The cost of automated comprehensive work order system, such as the Work Director software, is approximately \$2,100. However, in-direct costs may also occur due to installation of the software and employee training.

Energy Management

Findings: The County purchases self-help gas from Cinergy Resources and the Department has saved nearly \$12,000 from March 1998 to December 1999. The County has convened an energy deregulation task force consisting of representatives from the Sewer and Water Department, Facilities Management Department, Permits Central, Office of Management and Budget and the Information Systems Department. The task force meets monthly to discuss options for the County in anticipation of electrical de-regulation. The County appears to adequately monitor energy consumption in the

majority of its facilities and is expending utility costs at below IFMA averages. However, the County has three facilities that exceed IFMA averages in average utility costs per square foot: the Adult Detention Center, Communications Center and Transportation Connection/Adult Treatment Center Building. While these higher costs may be a result of 24 hour building use, the County has not studied electricity usage in a majority of its buildings.

In 1996, the County Water and Sewer Department purchased a systems analyzer that attaches to the in-coming Cincinnati Gas and Electric Company (CG&E) power supply to monitor and electronically log energy utilization. Because of these monitoring efforts, the Water and Sewer Department has been able to reduce electrical costs by approximately \$128,000 between 1995-1998. The Facilities Management Department declined to take advantage of the Water Department's systems analyzer. In 1999, the Facilities Management Department purchased an Amprobe data/logger recorder and an oscilloscope, which the Department uses to troubleshoot electrical problems and determine if problems lie within the County's electrical system or within CG&E. The Facilities Management Department has not used the equipment to perform a systems analysis that could better track utility costs and monitor high use areas. Utilities for the Adult Detention Center and the Sheriff's Office are paid out of the Facilities Management Department's annual budget, although the Department does not perform work at either facility. Because the Facilities Management Department does not perform services at either building, energy analysis and conservation efforts are not addressed or overseen by Facilities Management Department personnel. Utility costs for both facilities amounted to \$166,999 for 1999, or about 8 percent of the total Facilities Management Department budget.

Beginning in 1995, the County started retrofitting building light bulbs from larger T-12 type fluorescent bulbs to smaller, more energy efficient T-8 type bulbs. However, only 4 of the 40 buildings in the County were completely retro-fitted with both the T-8 bulbs and the electronic ballasts. The remaining buildings have been partially retrofitted with only the T-8 bulbs, have not been retro-fitted because they are leased, or have been recently constructed with more efficient lighting already in place

Commendations: By taking advantage of the deregulation of the gas industry, the County has decreased its utility expenditures and increased funding to support facilities-related programs. In addition, conducting regular meetings made up of diverse county departments and personnel dedicated to electrical deregulation will ensure adequate communication and input regarding upcoming electrical deregulation options for the County.

Recommendations: The Facilities Management Department should analyze building energy consumption to help reduce utility costs. The County should also request that its present electricity provider, CG&E, conduct an energy consumption audit on those facilities that have the highest kilowatt per hour and utility cost per square foot. The Department should ensure that the Adult Detention Center follows through on recommendations for energy management upgrades. Also, the County should install T-8 fluorescent bulbs and electronic ballasts in the remaining buildings.

Because utility costs for the Sheriff's Office and Adult Detention Center/Jail represent a substantial part of the total Facilities Management Department budget, the County should better regulate energy consumption at these facilities. In doing so, the County should consider centralizing the maintenance and operation of the two facilities under the Facilities Management Department.

Summary of Financial Implications

The following table summarizes the performance audit recommendations which contain financial implications. These recommendations provide a series of ideas or suggestions which the Facilities Management Department should consider. Detailed information concerning the financial implications, including assumptions, is contained within the performance audit.

Recommendation	Estimated Annual Cost Savings	One-time Implementation Costs
R3.7 Eliminate the MW1 positions and use the JIP to clean the Professional Building and the Milford Auto Title Building	\$24,800	
R3.10 Purchase and implement preventive maintenance software to manage preventive maintenance efforts		\$3,000-\$6,000
R3.14 Through bulk purchasing, decrease the cost of cleaning supplies	\$15,000	
R3.17 Transfer alarm installation from Honeywell to an in-house employee	\$2,400	
R3.20 Close the Service Center and Coroner's Office to reduce unused space	\$34,000	
R3.22 Purchase automated comprehensive work order system software		\$2,100
Total	\$76,200	\$5,100 - \$8,100

The County estimates the total cost to renovate existing and construct new facilities to be approximately \$26.2 million. Renovations of existing facilities would cost \$6,115,000 and new construction would amount to \$20.1 million.

Objectives and Scope

A performance audit is defined as a systematic and objective assessment of the performance of an organization, program, function or activity to develop findings, conclusions and recommendations. Performance audits are usually classified as either economy and efficiency audits or program audits.

Economy and efficiency audits consider whether an entity is using its resources efficiently and effectively. They attempt to determine if management is maximizing output for a given amount of input. If the entity is efficient, it is assumed that it will accomplish its goals with a minimum of resources and with the fewest negative consequences.

Program audits normally are designed to determine if the entity's activities or programs are effective, if they are reaching their goals and if the goals are proper, suitable or relevant. Program audits often focus on the relationship of the program goals with the actual program outputs or outcomes. Program audits attempt to determine if the actual outputs match, exceed or fall short of the intended outputs. The performance audit conducted on the Facilities Management Department contains elements of both an economy and efficiency audit and program performance audit.

The objectives of performance audits may vary. The Auditor of State's Office has designed this performance audit with the objective of reviewing systems, organizational structures, finances and operating procedures to assess the efficiency and effectiveness of the Department. Specific objectives of this performance audit include the following:

- Determine the efficiency and effectiveness of the in-house staffing level and mix
- Determine the effectiveness of capital planning, budgeting and strategic planning
- Evaluate repair, maintenance, and custodial service levels and operations
- Analyze the efficiency and effectiveness of in-house general operations and contracted services
- Review building capacity and utilization
- Evaluate the use of technology and energy management techniques by the Department

The performance audit of the Authority covers the following areas of operations:

- Staffing
- Capital planning and budgeting
- Repair and Maintenance
- Strategic Planning
- Contracted Services
- General Operations
- Building Capacity and Utilization
- Technology
- Energy Management

Planning for the performance audit began in February 2000. The actual performance audit was conducted primarily during the months of March 2000 through mid-June 2000. Regular progress meetings were conducted throughout the entire period. Draft reports were discussed with the staff and management of Clermont County and the Department.

Methodology

To complete the performance audit, the auditors gathered and assessed a significant amount of data pertaining to the Department, conducted interviews with various individuals associated with the Department and assessed information from industry benchmark and best practices reports. The methodology is further explained below.

Use of previous studies, reports other data sources

In evaluating the various performance audit areas, the Department was asked to provide any previous studies or analyses already prepared on the subject areas. In addition to reviewing this information, the auditors spent a significant amount of time gathering and reviewing other pertinent documents or information.

- International Facility Management Reports #16 and #18
- Clermont County Master Plan of Facilities and Risk Management Policy/Tool Box
- City of Milwaukee Capital Plan
- CG&E Energy Consumption Report (1994-1999) and Internal Utility Data
- Clermont County Vendor Contracts
- Maintenance Solutions Reports
- KPMG Activity Based Costing Report FY 1999
- CAD Documents
- Salary and Benefit Data from Clermont and surrounding Counties
- Fiscal Information from FYs 1998, 1999 and 2000 projections
- Office of Management and Budget

Interviews and Discussions

Audit staff also held numerous interviews and discussions at many levels and with groups of individuals involved internally with the Department. These interviews were invaluable in developing the overall understanding of departmental operations and in some cases, were useful sources in identifying concerns with facilities management operations and in providing recommendations to address these concerns. Examples of the studies, reports, other data sources and organizations and individuals which were reviewed and interviewed include the following:

- Clermont County Facilities Management Department staff
- Facilities Management Department directors in Clark, Greene, Lake, Licking, Medina, Portage and Warren Counties
- IFMA personnel
- CG&E representatives
- Clermont County Office of Management and Budget personnel

Benchmark Comparisons with Other Agencies

Benchmark comparisons were developed through best practice agencies, International Facilities Management Association (IFMA) benchmarks, and like sized counties: Clark, Greene, Lake, Licking, Medina, Portage and Warren. Performance indicators were established for the various performance audit areas to develop a mechanism to compare how effectively and efficiently the Department is providing necessary functions. The information was gathered through interviews, data reports, and industry publications.

Comparative Statistics

Comparative statistics and information regarding Department operations are presented in **Tables 1-1 (A)** through **1-1 (D)**. **Table 1-1 (A)** shows the Facility Management Department's number and square footage maintained by facility site type. The categories of facility types are drawn from the IFMA Benchmark Reports #16 and #18

Table 1-1 (A): Indicators by Facility Type

Site Type	Number by Type	Square Footage by Type
Headquarters	1	19,281
Multi-use	16	292,395
Offices (Non-headquarters)	5	24,547
Other Use	14	177,604
Data Center	1	17,681
Customer Service	3	5,584
Total	40	537,092
Total Square Footage Maintained by Facilities Management Department		339,453

Source: County Records

Clermont County is considered a medium sized county in Ohio when evaluated on population levels. When compared to IFMA indicators, Clermont County’s facilities fall into the second to the largest grouping which encompasses departments managing 500,000 to 1 million square feet. **Table 1-1(B)** shows in-house and out-tasked activities and the square footage maintained by each, as well as the cost to maintain the County’s facilities by square foot.

Table 1-1(B): In-house and Out-tasked Functions

Custodial Functions	Average Positions	Square Footage Maintained	Average Square footage Maintained by Position
Total Square Feet Maintained In-house	1.0	17,167	17,167
Total Square Feet Maintained by Contractors	8.0	181,787	22,723
Total Square Feet Maintained by Jail Industrial Program (JIP)	9.0	134,415	14,935
Total Square Feet Contractually Maintained by Lessors	N/A	50,189	N/A
Total Square Feet Per Custodial Staff	N/A	339,453	18,520
IFMA Government Average Gross Square Feet Maintained	N/A	N/A	26,593

Source: County Records, IFMA Benchmarks III Report # 18

The square footage maintained by Clermont County is low when compared to the IFMA average. Overall, the Department maintains between 3,870 and 9,426 less square feet per worker when compared to the IFMA average. Yet, **Table 1-1(C)** shows Clermont’s costs are below the IFMA average. Low costs are facilitated through low negotiated contract costs and the low costs to operate the JIP program.

Table 1-1(C): Facilities Management Department Costs Per Square Foot and as a Percent of County Budget

Total 1999 Maintenance and Operations Expenditures Per Square Foot	\$3.95
Maintenance Expenditures by Component	
- Maintenance	\$1.46
- Utilities	\$1.76
- Purchased Services	\$.70
IFMA Cost Study Average cost of Facility Operations	\$4.52
1999 Facilities Expenditures as a % of County General Fund Expenditures	5.2%
IFMA Average Facility Expenditures as a % of General Fund Expenditures	8.5%

Overall, Clermont County's Facility Management Department expenditures are below or equal to IFMA averages in all categories. **Table 1-1(D)** below shows a breakdown of costs by square foot between Clermont County and the IFMA industry averages for government institutions.

Table 1-1(D): Facilities Expenditures per Square Foot

Expenditure Category	Clermont County	IFMA Average
Maintenance and Custodial Salaries and Benefits	\$1.08	\$1.33 ¹
Purchased Services	\$0.70	\$1.80
Utilities	\$1.76	\$1.64
Supplies/Materials	\$0.23	N/A ¹
Capital Outlay	\$0.02	N/A ¹
Maintenance and Repair	\$0.13	\$1.02
Total Department Budget	\$3.95	\$4.52

Source: Office of Management and Budget

¹ The IFMA average for maintenance and custodial includes salaries and benefits, supplies and materials and capital outlay. For comparison purposes, the County's costs for all three categories is \$1.33 per gross square foot, equal to the IFMA averages

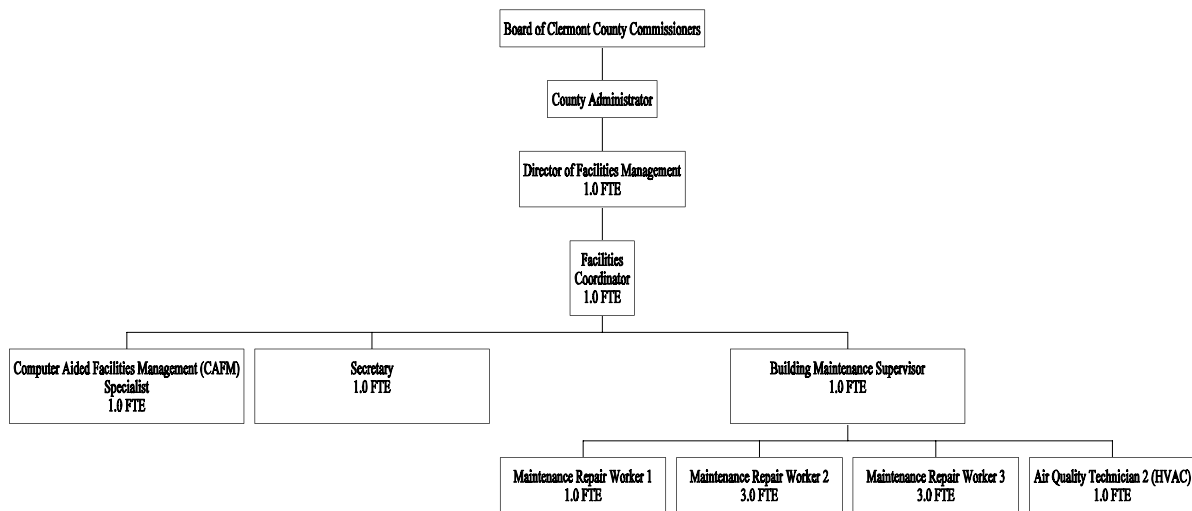
Facilities

Background

Organizational Chart

The Department of Facilities Management (the Department) is responsible for maintaining Clermont County's (the County) facilities. The director of facilities management is responsible for county-wide maintenance operations and reports to the county administrator. The facilities coordinator prioritizes day-to-day work order assignments and oversees the Department's budget. The organizational structure and staffing levels are depicted in the following organizational chart.

Chart 2-1: Facilities Management Department



Source: County organization charts

Organizational Function

The Department is responsible for the operation and upkeep of the majority of the County's buildings and grounds. The County uses contracted custodial providers to clean 16 of 40 locations, and utilizes minimum security jail inmates that make up the jail industrial program (JIP) to clean 9 locations. An in-house employee, the MW 1, cleans four locations. The remaining 11 sites are either maintained by building staff internally or are leased, in which case the lessor provides maintenance and custodial services. In FY 1999, the Department allocated approximately 14 percent of its total FY 1999 expenditures to contracted services.

The functions of the Facilities Management Department include maintaining and repairing the County's facilities (except the Adult Detention Center, Sheriff's Office and leased buildings), equipment and plants; constructing and renovating County facilities; space planning and design; managing supplies and logistics in support of all County departments; and providing custodial services and support.

The Department staff consists of the director, the facilities coordinator, the building maintenance supervisor, the computer aided facility management (CAFM) specialist, an air quality technician (HVAC specialist) and seven repair workers who report to the building maintenance supervisor. Additionally, the Department has one full-time secretary who provides clerical support primarily to the director and facilities coordinator.

Summary of Operations

The County facilities consist of 28 owned structures, 10 sites leased from private individuals and two vacant sites. The facilities range in size from 120,000 square feet (the Adult Detention Center/jail) to 1,030 square feet (the Milford Auto Title Building). The buildings were constructed between 1884 and 1998 and are housed primarily at three locations within the County: Downtown Batavia, Bauer Road and Filager Road. Although the total square footage of all 40 buildings is approximately 537,092 square feet, the Facilities Management Department is directly responsible for maintaining approximately 339,453 square feet. Custodial and maintenance work for the 10 leased buildings is contractually provided by the lease owners, and the Adult Detention Center and Sheriff's Office are maintained by funds derived from the Sheriff's Office budget.

While the MW1 and contracted custodial staff are assigned to specific buildings and clean each on a nightly basis Monday through Friday, the remainder of the maintenance staff is a mobile crew which travels from building to building. The maintenance staff is assigned jobs based on work order requests which are submitted by designated building contacts through fax or electronic mail to the Department secretary and facilities coordinator.

Staffing

The Facilities Management Department is comprised of 13 full-time employees (FTEs), consisting of the director, two supervisors, the CAFM specialist and air quality/HVAC technician, seven general maintenance repair workers and the secretary. The CAFM specialist develops and maintains computer generated drawings of buildings and systems, as well as space allocations by department. The air quality/HVAC technician position monitors County heating and electrical systems. The general maintenance repair 1 (MW1) position acts as a custodian and is assigned to clean four buildings. The three general maintenance repair 2 (MW2) positions perform general maintenance duties in the County. The three general maintenance repair 3 (MW3) positions consist of a plumber, carpenter and electrician. All of the general maintenance worker positions report to the building maintenance supervisor.

The contracted custodial staff, NSG Inc., averages between six and seven workers and one supervisor while Hoffman Inc. averages one worker. The jail inmates performing cleaning duties vary between 6 and 12 inmates and 2 correction officers. Currently, the jail inmates clean the Old and New Courthouse, the Heritage Building, the County Administration Building, the Sheriff's Office and Adult Detention Center/jail, the Vehicle Garage, the Sign Shop and the Engineer's Office. Staffing levels are shown in **Table 2-1**.

Table 2-1: Number of Budgeted Employees (FTEs) for 1999-2000

Classification	Admin Office	Mobile Crew	Total FTEs
Administration¹			
Director, Facilities Management	1	0	1
Facilities Coordinator	1	0	1
Supervisor, Building Maintenance	1	0	1
Secretary	1	0	1
CAFM Specialist	1	0	1
Total Administration	5	0	5
Maintenance			
Maintenance Worker 2 (MW2)	0	3	3
Maintenance Worker 3 (MW3)	0	3	3
Air Quality Technician 2 (HVAC)	0	1	1
Total Maintenance	0	7	7
Other			
Maintenance Worker 1 (MW1)	1	0	1
Total Other	1	0	1
Total	6	7	13

Source: Facilities Management Department

¹ The Management Systems Specialist (1.0 FTE) is not included in the Administration classification.

Key Statistics

Key statistics related to the maintenance and operation of the County are presented in **Table 2-2**. In addition, results from the International Facility Management Association (IFMA) Benchmarks III Research reports #16 and #18 are included in the table and throughout this report. These studies surveyed private and public facility managers across the country to gather information about the size and use of facilities, office space planning, staffing levels, expenditures and salaries for maintenance and custodial operations, and utility costs and usage. In general, the IFMA found that the majority of facilities management policy areas remain unwritten, the majority of facilities managers surveyed report charging back end users for facility management services. Security and computer usage were reported as the most troublesome departmental issues. In addition, the report suggests facility managers are doing more with less internal facility management staff and are exploring greater outsourcing opportunities. Best practices from nationally recognized local governments are also included to provide examples of potential enhancements to the Facilities Management Department.

The IFMA Report #18 categorizes facility management by ten facility use definitions, including headquarters, multi-use, non-headquarter office space, customer service, and data center. In addition, the study categorizes the gross square footage (GSF) of facility types into five GSF sizes, ranging from less than 100,000 to greater than 1,000,000 gross square feet. Clermont County falls into the fourth largest category, with total gross square footage ranging between 500,001 to 1,000,000. This performance audit breaks down the County facilities into relevant categories presented in the IFMA Report #18. The categories are outlined in **Table 2-2**.

Table 2-2: Indicators

Number of Sites	40
Headquarters ¹	1
Multi-use ²	16
Offices (Non-headquarters) ³	5
Other Use ⁴	14
Data Center ⁵	1
Customer Service ⁶	3
Total County Gross Square Feet	537,092
Headquarters	19,281
Multi-use	292,395
Offices (Non-headquarters)	24,547
Other Use	177,604
Data Center	17,681
Customer Service	5,584
Total Square Feet Maintained by Facility Management Department	333,453 ⁷
Total Square Feet Cleaned By Custodial Staff (MW 1, Contractors and JIP's-Average 18 positions)	333,369
Total Square Feet Maintained by Contractors (Average 8 positions)	181,787
Total Square Feet Maintained by Jail Industrial Program (JIP) (Average 9 Positions)	134,415 ⁸
Total Square Feet Contractually Maintained by Lessors	50,189
Square Feet Maintained In-house (Maintenance Worker 1) (1 FTE)	17,167
Average Square Feet Maintained per Contractor Position	22,723
Average Square Feet Maintained per JIP Position	14,935
IFMA Government Average Gross Square Feet Maintained	26,593
IFMA Cost Study Average cost of Facility Operations	\$4.52
FY 1999 Maintenance and Operations Expenditures Per Square Foot	\$3.95
- Maintenance	\$1.46 ⁹
- Utilities (based on 486,903 square feet, which excludes 50,189 in leased space square footage)	\$1.76
- Purchased Services	\$.70
FY 1999 Facilities Management Department Expenditures as a % of Total County General Fund Expenditures	5.2%
IFMA Cost Study Average	8.5%

Source: Treasurer's Office, Facilities Management Department

Note: The Department has verified square footage in 60 percent of the County's facilities. Remaining square footage calculations are based on estimates provided by the Facilities Coordinator.

¹ The Sheriff's Office

² Includes the Old and New Courthouses, the Adult Probation Annex, the Kahle and Heritage buildings, the Service Center/Facilities Management Building, the Medical Social Services Building, the County Administration Building, the Municipal Courts-Civil Building, the Communications Center, the Juvenile Court Building, the Juvenile Detention Center, Permits Central, the CTC/TASC Building, Public Utility Building-Amelia, and the Domestic Relations Building

³ Includes the Prosecutor's, Engineers', Public Defender's, and Municipal Court Probation Offices and the Professional Building

⁴ Includes the Coroner's Office, Vehicle Garage, Adult Detention Center/Jail, Animal Shelter, the Wiseman Property, the Clergy Building, the Mental Health Outpatient Center, three Family and Children's First Buildings and the Agricultural Building, the Sign Shop, Recovery Center and Haskell Lane buildings.

⁵ Includes the Williamsburg Records Retention Center

⁶ Includes the Milford Auto Title, New Richmond Auto Title and Batavia Auto Title buildings

⁷ Excludes the ten leased buildings, Sheriff's Office and Adult Detention Center.

⁸ Excludes the Sheriff's Office and Adult Detention Center, which are maintained by funds derived from the Sheriff's Office budget

⁹ Includes salaries and benefits, materials and supplies, capital outlay and maintenance and repair

Financial Data

The following table shows expenditures to maintain and operate the County's facilities for FY 1998 and FY 1999 and budgeted expenditures for FY 2000.

Table 2-3: Facilities Management Department Expenditures, Three Year History

Accounts	FY 1998	FY 1999	Difference between FY 1998 and 1999	Percentage Change	FY 2000 Budget	Difference between FY 1999 and 2000 Budget	Percentage Change
Salaries ¹	\$393,041	\$444,123 ²	\$51,082	13.0%	\$462,332	\$11,791	4.1%
Benefits	\$115,808	\$124,071	\$8,263	7.1%	\$135,088	\$11,017	8.9%
Purchased Services ³	\$379,931	\$379,412	\$(519)	(0.1)%	\$640,000	\$260,588	68.7%
Utilities ³	\$796,395	\$857,285	\$60,890	7.6%	\$965,000	\$107,715	12.6%
Supplies/ Materials	\$94,035	\$124,420	\$30,385	32.3%	\$100,000	\$(24,420)	(19.6)%
Capital Outlay	\$5,674	\$12,915	\$7,241	127.6%	\$15,000	\$2,085	16.1%
Maintenance and Repair	\$24,246	\$71,767	\$47,521	196.0%	\$78,000	\$6,233	8.7%
Total	\$1,809,130	\$2,013,993	\$204,863	11.3%	\$2,395,420	\$381,427	18.9%

Source: Clermont County Facilities Management Department

¹ Includes overtime, temporary workers and costs associated with retirement buyouts. This category also includes salaries and benefits for the MW 1 who provides custodial services to two leased buildings.

² FY 1999 had an additional payroll totaling approximately \$17,081 which was backed out of the calculation to better reflect the 26 pay periods in FY 1998 and FY 2000 budget.

³ Excludes costs for leased buildings.

An explanation for some of the more significant variances in **Table 2-3** are as follows:

- *An increase in salaries in FY 1999:* The County awarded \$12,000 in merit pay bonuses in FY 1999 for completing a re-modeling project under budget. One employee received \$10,000 in retirement benefits and two part-time employees converted to full-time status.
- *An increase in purchased services in the FY 2000 budget:* The primary reason for the significant increase in the FY 2000 purchased services budget was because the County shifted approximately \$200,000 in building and property insurance from an insurance cost center fund into the Facilities Management Department cost center fund in FY 1999. Both cost center funds are part of the general fund.

- *An increase in utilities for FY 1999 and FY 2000 budget:* The County anticipated increased costs for gas and electricity. The winter of 1998 was mild and the County budgeted for harsher weather conditions. In addition, the County budgeted for increased utility costs due to the installation of additional beds at the Adult Detention Center in FY 1999. Also, the County purchased a new building to act as a planning building in FY 1999 that was occupied in April 2000, causing a slight increase in overall utility expenditures.
- *An increase in capital outlay and maintenance and repair for FY 1999.* In FY 1999, the County upgraded its snow removal equipment and installed upgraded cooling towers at the Permit Central building, causing increased capital outlay costs. In addition, the county was required to spend funds on fire prevention equipment and elevator maintenance due to the findings of state mandated inspections. The department also expended funds repairing HVAC systems, vehicles and general building repairs.

Performance Measures

The following is a list of performance measures that were used to conduct the analysis of the County's Facilities Management Department operations:

- Utilization of staffing resources
- Appropriateness of lines of authority and responsibility
- Efficiency and effectiveness of custodial services
- Effectiveness of facilities maintenance
- Utilization of existing facilities
- Efficiency of out-tasked operations
- Effectiveness of long range facilities planning
- Effectiveness of current needs assessment and prioritization processes and procedures
- Adequacy of operating policies and procedures
- Adequacy of preventive maintenance system
- Effectiveness of energy conservation programs

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Findings/Commendations/Recommendations

Staffing

F3.1 The Facilities Management Department reports to the County administrator and currently consists of 13 full-time equivalents (FTEs), including a director, facilities coordinator, facilities supervisor, computer aided facilities management (CAFM) employee, administrative assistant and eight maintenance workers. In addition, the County has reassigned a management systems specialist with the County Commissioners Office to act as a management systems specialist within the Department. The management systems specialist will help to implement computer software programs for the Department and will assist in overseeing the Facilities Management Department. The management systems specialist will start in Summer 2000. The following is a brief description of the responsibilities of administrative members of the Facilities Management Department staff according to job descriptions and interviews with personnel. The majority of the Department's job descriptions have not been updated in at least 10 years.

- *Management Systems Specialist:* The management systems specialist, in conjunction with the facilities director, serves as an overall leader for the Department and is responsible for developing and implementing a cost allocation time tracking system for the Facilities Management Department. In addition, the position is responsible for overseeing the quality of a time tracking and work order system and assists in problem resolution, training of necessary staff and planning, implementing and inspecting capital improvement projects. The management systems specialist is also responsible for developing a preventive maintenance program and fixed asset inventory system for facilities management.
- *Facilities Management Director:* The facilities management director primarily oversees energy utilization and de-regulation issues, building leases and telecommunications needs for the County's facilities.
- *Facilities Coordinator:* This position assists the director in researching and compiling data for report preparation, developing new procedures and programs, overseeing the computer aided facilities management (CAFM) position, preparing the department's annual appropriation, scheduling personnel for training, and scheduling and coordinating requests for service. This position was created approximately two years ago to replace the business coordinator who acted as a liaison between the Office of Management and Budget (OMB) and the Department.

- *Building Maintenance Supervisor:* According to the job description, this position supervises and assists the facilities management director with all assigned skilled and unskilled maintenance staff and contractors. However, this position currently reports to the facilities coordinator and acts as the field supervisor of all in-house maintenance and custodial employees. In conjunction with the facilities coordinator, the building maintenance supervisor prepares annual employee evaluations for all maintenance staff.
- *Computer Aided Facilities Management (CAFM) Specialist:* The CAFM specialist is responsible for developing and maintaining computer aided design (CAD) drawings of buildings and systems, and space allocations of the County's facilities by department. The CAFM specialist reports to the facilities coordinator. The position is also responsible for maintaining a graphical user interface (GUI) to a fixed assets database, developing and maintaining a GUI for preventive maintenance procedures, and performing data entry to maintain accurate records and maximize efficiency of operations.
- *Administrative Secretary:* This position reports to the facilities director and facilities coordinator. This employee functions as a liaison between building staff requesting service and the Department, manages employee files and enters employee payroll and work order information into the time tracking system.

F3.2 The Facilities Management Department administrative employees do not fulfill the tasks indicated in the job descriptions. For example, the facilities director position description states the director supervises workers engaged in general building maintenance and administers the annual operating budget for the Department. These duties are currently performed by the building supervisor and facilities coordinator, respectively. On a daily basis, the director oversees energy conservation and de-regulation projects in the County, two areas not outlined in the position description. Also, the facilities coordinator prepares the Department's annual appropriation instead of the director, and the facilities supervisor reports to the coordinator rather than reporting to the facilities director, as outlined in the respective position descriptions. Because the work being performed does not meet the criteria of the job description, some tasks are not completed, such as fixed asset tracking and preventive maintenance, while others may be duplicated, such as contract compliance monitoring and personnel scheduling and evaluating.

R3.1 The County should determine which tasks are most appropriate for each administrative employee within the Facilities Management Department. Job descriptions for the Facilities Management Department should be updated to accurately reflect the roles and responsibilities of each position in the Department and should be reviewed on a regular basis. Doing so will

provide the County with the foundation for establishing internal job equity and will clearly outline specific responsibilities, levels of decision-making and knowledge, skills and ability requirements. Monitoring the work being performed against the formal job description will help ensure that all important tasks are completed, reduce duplication of effort and should be used as the basis for evaluation.

- F3.3 The essential responsibilities of the CAFM specialist do not appear to have been fulfilled. The CAFM specialist's primary duties are to develop and maintain computer generated drawings of buildings, systems and furnishings and enter numerical data to ensure proper building plans, dimensions and measurements. About 60 percent of the County's facilities were placed on the CAD system by a consultant in 1998. Two additional buildings under Facility Management control were recently added to the CAD system by the CAFM specialist, but several other buildings used by the County have not been added to the CAD system. In addition, the CAD system contains incomplete data on County buildings such as the Service Center/Facilities Management Building, which has three floors of unused space but is depicted in the CAD system as consisting of only the basement level. Incomplete CAD data has resulted in the Facilities Management Department having to estimate space utilization in many of its facilities. Because square footage analysis is partly used by the County to determine annual Department appropriations, and is an important component of space utilization studies (*see building capacity and utilization subsection*), it is important that the County determine the actual square footage existing in the facilities.

In addition, the CAFM specialist recently began implementing a fixed asset database through the CAD system that includes entry of all fixed assets in the County's facilities. The fixed assets database includes furniture and items needing preventive maintenance, such as heat pumps, fire extinguishers and smoke alarms. The CAFM specialist records all items in the building manually, then reconciles the date of delivery of the item, cost, purchase order number and ten-year depreciation with a purchasing clerk in the OMB, and finally records them in a fixed asset module of the CAD program. The CAFM specialist has completed recording fixed assets in only two of the County's facilities, stating that problems with the software and the manual process currently used has led to delays.

- R3.2** The County should ensure that the CAFM specialist has the necessary computer skills to complete the required duties of the job. The CAFM specialist should complete CAD drawings showing utilized space for all of the County's facilities and includes the completed document as part of a comprehensive, long-range facilities plan as outlined in **R3.11**. Because essential job duties have not been addressed, the County should consider having the CAFM specialist report directly to the management systems specialist and should consider examining additional training opportunities for the position. The management systems specialist should work closely with the CAFM specialist to ensure these responsibilities are completed.

In addition, the County should designate department representatives to compile what the County considers to be fixed assets. The fixed asset database should be tied to the County's accounting system to ensure that all items designated as fixed assets are captured and tagged as soon as they are received by the County departments. For example, the County may consider furniture, furnishings, instruments, and machines that cost at least \$500 as a single unit and do not lose their identity when incorporated into a more complex unit as fixed assets. The County should ensure that fixed assets are affixed with a bar code or pre-numbered tag that can be used to account for the asset in the fixed asset system. Proper inventory control over the County's assets can aid in establishing adequate insurance coverage and promote accountability. Furthermore, accurate inventory records allow the County to assess its needs when procuring fixed assets, thereby reducing the risk of purchasing unnecessary items.

- F3.4 The County employs one administrative secretary who appears to provide adequate support to all areas of the Facilities Management Department. The secretary spends the majority of time inputting employee workday and payroll information into the time tracking system, serving as a liaison between building contacts requesting service and Department staff, ensuring purchase orders for supplies purchased by the Department are paid, and updating badges and employee ID numbers, which are kept in a database in the Facilities Management Department.
- F3.5 The County employs more full time administrative employees, excluding clerical staff, per maintenance employee than similar sized counties. **Table 3-1** compares administrative staff, including directors, coordinators and supervisors, to the number of custodial and maintenance employees supervised, and indicates that Clermont County employs the highest number of administrators to custodial and maintenance employees among seven similar sized counties: Clark, Greene, Lake, Licking, Medina, Portage and Warren. Even in cases where administrative employees monitor contracted services (Clark, Green, Licking and Medina), the Department has the lowest ratio of administrators to supervised staff. **Table 3-1** also compares salary levels of the various director's or building superintendent's of similar sized counties.

Table 3-1: Facility Management Staff by Employee by Type

County	Clermont	Clark	Greene	Lake	Licking	Medina	Portage	Warren	Average ²
Administrative Employees	4	3	6	3	3	2	2	3	3.14
Custodians	1 ³	N/A	N/A	65	N/A	1 ⁴	12	14	18.60
Maintenance Employees	7	9	28	12	11	7	7	12	12.29
Other Employees	2	0	0	4	0	0	0	1	0.71
Director Salary	\$51,000 ¹	\$46,500	\$62,000	\$44,000	\$44,000	\$41,000	\$35,000	\$51,000	\$46,200

Source: Interviews with County personnel

¹ The County also expends \$47,000 in salary for the Management Systems Specialist position.

² Excludes Clermont County

³ In house custodian. Clermont out-tasks approximately 18 positions.

⁴ Medina outsources approximately 18 positions.

F3.6 With the addition of the management systems specialist, the County will essentially have two Facilities Management Department directors and will spend nearly \$98,000 in salaries for both the two positions, which is twice the average amount expended by similar size counties for overall department management. The management system specialist will be performing many of the same functions as the director of the Department. The following table shows the similarities and differences between the management systems specialist job and the Facilities Management Department director's job.

Table 3-2: Administrative Job Similarities and Differences

	Management Systems Specialist	Director
Similarities	<ul style="list-style-type: none"> Identify work activities Develop a preventive maintenance program and fixed asset inventory for facilities management Develop and track budgetary information including activity based costing and performance based accounting measures Plan, implement and inspect capital improvement projects pertaining to County infrastructure and manage contracts pertaining to planning, engineering, construction and operation of County facilities 	<ul style="list-style-type: none"> Develop work sequences Develop standard maintenance procedures for maintenance and preventive maintenance of building and grounds. Maintain control and inventory of maintenance equipment and supplies Exercise total budgetary control of the Department for long-range plans, review of proposals and contracts and preparation of progress reports of maintenance projects and problem resolution
Differences	<ul style="list-style-type: none"> Develop and implement cost allocation time tracking system for Facility Management Department work activities Act as coordinator and liaison between OMB and consulting vendor on project management Participate in the development of computer software programs for planning and management of water, wastewater, storm water and other County systems 	<ul style="list-style-type: none"> Supervise skilled and semi-skilled workers engaged in general building maintenance Supervise maintenance staff and outside contractors including estimates of time, material and labor costs Oversee energy conservation programs, telecommunications needs Manage building leases

Source: County job descriptions and interviews with administrative staff

R3.3 Clermont County should examine the administrative staffing levels in the Facilities Management Department and consider reducing administrative staffing levels to be more in line with staffing levels in similar sized counties. Reducing staffing levels would help to reduce costs associated with salary and benefits and would ensure the Department is operating under the goals and objectives of one director. Reducing staff in the Department by one position would lower the ratio of managerial staff to employees to 1:3.5 FTEs, which is similar to staffing levels in other similar sized counties. The County should evaluate the responsibilities of the director of facilities management in relation to the responsibilities of the in-coming management systems specialist, and should ensure tasks and responsibilities are not duplicated.

F3.7 Maintenance operations are managed by the facilities coordinator and the building maintenance supervisor. The department employs one in-house custodian (MW 1), three general maintenance workers (MW 2), three specialized maintenance/craft workers (MW 3- a plumber, carpenter and electrician) and one air quality/HVAC technician. The maintenance workers and HVAC technician report to the building maintenance supervisor. The following are brief descriptions of the responsibilities of maintenance and custodial members of the Facilities Management Department staff according to job descriptions and interviews with select personnel.

- *Maintenance Repair Worker 1 (MW1)*: Under general supervision of the building maintenance supervisor, the MW1 performs unskilled maintenance duties and general custodial duties. Assists maintenance repair worker 2 and 3 positions with semi-skilled electrical and plumbing repairs. Performs routine maintenance of facilities including painting doors and windows; mowing grass, cleaning sidewalks, planting flowers and shrubbery and removing snow and ice from sidewalks and driveways and performing minor repairs of Facilities Management Department equipment.
- *Maintenance Repair Worker 2 (MW2)*: Under general supervision of the building maintenance supervisor, performs semi-skilled maintenance duties. The MW2 directs, guides and oversees the work assignments given to community service workers; performs maintenance, replacement, minor installation and repair of plumbing and electrical equipment; performs carpentry work involving maintenance, alteration and/or repair to buildings and equipment; and performs interior custodial duties and exterior grounds keeping duties.
- *Maintenance Repair Worker 3 (MW3)*: Under general supervision of the building maintenance supervisor, the MW3 performs semi-skilled and skilled maintenance work and serves as lead worker over lower level maintenance repair workers and/or community service workers. The MW3 performs semi-skilled and skilled carpentry repairs, and semi-skilled and skilled electrical and plumbing tasks.
- *Air Quality Control Technician 1 (HVAC technician)*: Under general supervision of the building maintenance supervisor, the HVAC technician performs skilled installation and preventive maintenance on HVAC and electrical equipment.

F3.8 The MW 1 has been employed by the County for approximately 26 years and is currently assigned to clean 4 single story County buildings because of health problems that prevent the employee from climbing stairs. County officials have indicated that when the employee retires, the position will be eliminated and custodial operations under control of the Facilities Management Department will be entirely out-tasked.

F3.9 **Table 3-3** shows the average salary for County maintenance and custodial employees for FY 1999. The weighted average base salary for the maintenance staff is \$29,242. The chart also shows prevailing wage rates for three surrounding counties, (Hamilton, Warren and Butler) as reported by the Bureau of Labor Statistics.

Table 3-3: Maintenance and Custodial Salaries

Position	1999 Average Base Salary	1999 Average Gross Wages ²	Difference as a percentage of Base Salary	County Hourly Rate ¹	Surrounding County's Average Hourly Rate ¹
MW 1	\$24,293	\$25,513	5.0%	\$12.10	\$7.50
MW 2	\$24,709	\$26,098	5.6%	\$11.74	\$11.00
MW 2	\$25,983	\$27,476	5.7%	\$12.35	\$12.60
MW 2	\$25,984	\$26,913	3.6%	\$12.35	\$11.00
MW 3 (Plumber)	\$30,995	\$32,006	3.3%	\$14.73	\$18.30
MW 3 (Electrician)	\$31,052	\$35,663	14.9%	\$14.73	\$18.80
MW 3 (Carpenter)	\$30,225	\$32,664	8.1%	\$14.73	\$15.60
HVAC Technician	\$40,693	\$44,651	9.7%	\$19.35	\$16.40
Weighted Average	\$29,242	\$31,373	7.3%	\$14.01	\$13.90

Source: OMB, the Department and the Bureau of Labor Statistics

¹ Hourly rate does not include benefit costs

² The average gross wages do not include a bonus amount of \$1,246 received by the maintenance workers in FY 1999 for completing the renovation of the CPS building under the bid amounts submitted by private contractors.

On average, the maintenance and custodial gross salaries are 7.3 percent higher than the base salary amounts, reflecting overtime used by MW2s and MW3s for snow removal, and emergency call in time for the HVAC technician, electrician, plumber and carpenter. The HVAC technician and electrician are continually kept on call and receive \$20 per hour for a minimum of four hours if called in. All other employees call-in rates are based on their hourly wage.

Overall, Clermont County's Facility Management Department hourly wage rates are similar to the surrounding counties. Entry level positions are slightly higher than those in the surrounding counties, but skilled maintenance salaries are lower. The hourly rate provided to the HVAC technician is substantially higher than the average rate of the surrounding counties, but may be attributed to the certification levels of the HVAC technician.

F3.10 **Table 3-4** shows overtime for maintenance employees for FY 1998 and FY 1999. In FY 1998, County employees were paid a total of \$6,897 in overtime, compared to \$15,446 in FY 1999, an increase of approximately 124 percent. Additional overtime was paid in FY 1999

because of the installation of a new HVAC system in the Medical Social Services Building and an increase in emergency snow days over FY 1998.

Table 3-4: FY 1998 and FY 1999 Overtime Expenditures

Year	Number of Maintenance Employees	Total Operations Salaries	Total Maintenance Department Overtime	Amount of Overtime per Full-Time Maintenance Employee	Overtime as a percentage of Total Salaries
FY 1998	8	\$229,304	\$6,897	\$862	3%
Fy 1999	8	\$250,984	\$15,446	\$1,931	6%

Source: OMB

R3.4 The Department should more closely monitor the overtime used by maintenance staff. Although all overtime is pre-approved, the County should generate reports indicating overtime charged by task for each employee. The reports should be generated on a monthly basis and can be used by the County to troubleshoot potential areas needing additional preventive maintenance. With the implementation of an effective preventive maintenance program, overtime should be reduced because emergencies repair needs occurring in the facilities should be reduced.

Capital Planning and Budgeting

F3.11 Clermont County facilities consist of 40 sites with a total square footage of 537,092. The County was not able to provide ages for all of the County's buildings. Including only County buildings for which the age is known, the average age of the facilities is about 36 years old. Four facilities are over 100 years old, 3 facilities are between 80 and 50 years old, 8 facilities are between 50 and 25 years old, and 13 facilities are less than 25 years old. The most recently constructed facilities in the County are the Juvenile Court, the Administration Building, the New Courthouse, the Domestic Relations Building and the Agricultural Building. **Table 3-5** illustrates the significant buildings housed at each location, whether the facilities are owned or leased, and the provider performing custodial services at the location.

Table 3-5: County Site Listing

Location	Owned vs. Leased	Custodial Provider	
		In-House	Contracted
Downtown Batavia Site			
Prosecutor's Office	Owned	N/A	NSG
Heritage building	Owned	JIP	N/A
Old and New courthouses	Owned	JIP	N/A
Public Defender's office	Leased	Internal	N/A
Coroner's office	Owned	N/A	NSG
Kahle building	Owned	N/A	NSG
Professional building	Leased	MW 1	N/A
Batavia Auto Title	Leased	N/A	NSG
Administration building	Owned	JIP	N/A
Municipal and Civil Courts buildings	Owned	N/A	NSG
Municipal Courts and Adult Probation	Owned	N/A	N/A
Bauer Road Site			
Permit Central	Owned	N/A	NSG
Communications Center	Owned	N/A	NSG
Juvenile Detention Center	Owned	N/A	NSG
Juvenile Court/Domestic Relations	Owned	N/A	NSG
Medical/Social Services Center	Owned	N/A	NSG
Planning Center	Owned	N/A	NSG
Filager Road Site			
Animal Shelter	Owned	Internal	N/A
Salt Barn	Owned	N/A	N/A
Sheriff's Office	Owned	JIP	N/A
Adult Detention Center (jail) and Clergy	Owned	JIP	N/A
Facilities Service Center	Owned	MW 1	N/A
Vehicle Garage and Engineer's buildings	Owned	JIP	N/A

Source: County records

F3.12 The County estimates the total cost to renovate existing and construct new facilities to be approximately \$26.2 million dollars. Renovations of existing facilities would cost \$6,115,000 and \$20.1 million would be needed to construct new facilities to reduce overcrowding. Planned renovation projects include expanding the booking and holding area of the Adult Detention Center/Jail and paving a vacant lot to provide more parking space for the downtown Batavia Courts Complex. New construction projects include constructing a new animal shelter and a new juvenile detention facility.

F3.13 The County funds building replacement and maintenance, capital improvement and repairs through approximately 1/3 of a 3.2 mill inside (non-voted) levy and state and federal grants which are paid from the general fund. The Facilities Management Department is funded through a General Fund appropriation which amounted to approximately \$2.0 million in FY 1999. The County allocates an additional 2.0 percent of every significant facility's estimated installment value (see **Table 3-8**) from the General Fund to a Capital Projects Fund which is used for repairs and improvements within the facility. The Capital Projects Fund is subdivided by building for each major structure and unspent funds are carried over on an annual basis. In FY 1999, the transfer from the General Fund to the Capital Projects Fund amounted to approximately \$450,000.

Facilities not considered to be of major status, including the majority of buildings constructed before 1993, are funded out of the Facilities Management Department's annual budget. In addition to the levy and regular appropriations, the County uses grant money, provided by various state and federal grants, which generally requires the County to match awarded amounts. The County currently estimates grant sources will total \$2.3 million which will be used to assist in completing the renovation and construction of new facilities.

F3.14 Revenue from the General Fund is used to support the maintenance and operation of the County's facilities. As shown in **Table 3-6**, the General Fund provides approximately \$2 million annually to pay for contracted services, custodial and maintenance employees' salaries and benefits, supplies and materials, and purchased services. The following table illustrates the County's FY 1999 General Fund facilities-related expenditures in terms of cost per square foot and compares those square footage categories to IFMA averages.

Table 3-6: FY 1999 Facilities Expenditures per Square Foot

Expenditure	Clermont County	IFMA Average
Maintenance and Custodial Salaries and Benefits	\$1.08	\$1.33 ¹
Purchased Services	\$0.70	\$1.80
Utilities	\$1.76	\$1.64
Supplies/Materials	\$0.23	N/A ¹
Capital Outlay	\$0.02	N/A ¹
Maintenance and Repair	\$0.13	\$1.02
Total Department Budget	\$3.95	\$4.52 ²
Total Department Budget as a % of General Fund	5.2%	8.5%

Source: Office of Management and Budget

¹ The IFMA average for maintenance and custodial includes salaries and benefits, supplies and materials and capital outlay. For comparison purposes, the County's costs for all three categories is \$1.33 per gross square foot, equal to the IFMA averages.

² The amount reported by IFMA for this category includes four cost categories; maintenance, janitorial, indirect (supplies and materials) and utility. When taken as a whole, these costs represent a facility's cost of operations.

F3.15 Clermont County's facilities-related expenditures are lower than or equal to IFMA reported averages for government institutions. Factors which contribute to the low expenditure level are the County's low custodial and maintenance salaries and benefits expenditures including lower hourly salaries for MW3 positions than surrounding counties (see **F3.9 and Table 3-3** for salary information). Lower purchased services per square foot are facilitated through the use of out-tasked custodians and JIP operating at a relatively efficient cost per square foot. Also, the Facilities Management Department's operating budget is below the average operating budget ratio as reported by IFMA, which shows the average total facilities budget as a percentage of the entity's total budget at an average of 8.5 percent.

C3.1 The County has been able to keep its facilities-related expenditures lower than or equal to IFMA averages. The use of sound management practices, such as out-tasking custodial operations at a relatively efficient cost per square foot, and maintaining high productivity, as shown by the gross square feet cleaned per employee, has contributed to the low expenditure levels. Also, augmenting custodial operations by the use of JIP costs the County about half of the IFMA average custodial cost per square foot. In addition, the County has kept its maintenance and salaries lower than or equal to those in surrounding counties.

F3.16 The 2.0 percent significant building set-aside is used by the County to fund major capital improvements that will either extend the life of a building and aid in the preservation of the County's capital investments or be used to replace the building. Through transferring funds

from the General Fund to a Capital Improvements Fund, the County not only ensures that funds will be available for significant capital improvement projects, but also restricts the use of those funds to capital improvement items only. Capital Improvement funds are restricted to repairs such as roof replacement, HVAC upgrades, and other large expenditure items. The County has not linked the revenues available for significant capital projects to a long term capital plan.

C3.2 The County has developed an appropriate and effective methodology to fund the capital needs of significant buildings. Subdividing the fund ensures that each building will have the necessary capital improvement resources to fund large repairs and upgrades during the building's useful life.

R3.5 The County should examine its facilities-related expenditures to ensure that funding levels are adequate to ensure the continued upkeep of the County's buildings. As discussed in **F3.24 and F3.25**, the County currently faces costly repairs to many of its buildings. The Department, with the assistance of County management, should update the facilities survey and include prioritized repairs and associated funding sources in Departmental planning documents. See also **R3.6, R3.9, R3.10 and R3.11**

F3.17 The County has developed a 10 year capital improvement list forecasting anticipated capital outlays for renovation and construction of the County's facilities. The forecast details the project that is to be completed, such as renovation of the Adult Detention Center/Jail, the year the work is to be done and the estimated cost of the project. The county administrator, in conjunction with the Commissioners, determines how the projects are prioritized and how capital improvement funds will be spent.

The County uses linked spreadsheet files that comprise a multi-year capital improvement plan. The files are maintained on a database in the OMB. The files encompass a total of 10 years and include the following:

- Ten year capital improvements listing anticipated fund outlays and encumbrances
- Pending capital improvement projects with estimated costs of projects and source of funds
- County building depreciation schedules
- County debt strategies and projected debt

Although the capital improvement plan anticipates projected costs of projects and sources of funds for 10 years, it is not encompassed in one centralized document and it appears to be incomplete, which can negatively impact the County's planning efforts. For example, the plan does not address the County's plans for leased buildings that may be rendered obsolete by the

construction of new facilities such as the Municipal Courthouse. The Department has stated that they perform only superficial preventive maintenance work and energy conservation measures on leased buildings because the County is seeking to close, consolidate or resume ownership of the majority of the leased buildings.

R3.6 The County should consolidate the linked spreadsheet files into a comprehensive capital improvement plan in an effort to centralize planning. The City of Milwaukee, for example, has developed a comprehensive capital improvement plan which contains the following elements:

- An overview of critical investments that are planned during the life of the plan
- Projects differentiated into **preservation** (capital improvement projects whose major objective is to reconstruct, rehabilitate, or otherwise restore an existing facility to full functionality) and **expansion** (capital improvement projects whose major objective is to construct or expand a new facility to meet increased demands or to enhance development)
- Projects the County intends to fund over the next 6 to 10 years with a detailed explanation of how it will finance these projects. In addition, the plan should contain an overview of critical investments projected during the life of the plan
- Sources of funding, such as tax levy supported debt, cash revenues, tax levies and grants
- Links to long-term facilities and preventive maintenance plans
- ADA compliance funding measures on public buildings to ensure the construction of ramps, installation of power door openers, modifications of service counters and appropriate signage

The City of Milwaukee's capital improvement's plan estimates future costs based on present value and does not adjust for inflation, which is comparable to other local taxing jurisdictions who do not adjust for inflation in their capital improvement plans.

Repair and Maintenance

F3.18 The County owns 28 facilities and leases 10 facilities. Buildings are leased at a cost to the County of \$8 to \$10 per square foot, of which approximately \$1.70 per square foot is maintenance costs (based on FY 1999 expenditures of \$92,000 for 52,000 feet of leased space). The County leases primarily smaller structures that County officials feel are more cost effective to lease than building dedicated structures. The County determines the base rental price for the leased facilities by negotiations and competitive bidding, and uses the Consumer Price Index as an escalator from year to year for lease contract cost increases. Leases are managed by both the OMB and the director of facilities management.

F3.19 The Facilities Management Department provides minimal maintenance on the leased spaces, limiting maintenance responsibilities to replacing parts for lighting fixtures and changing HVAC filters. All other maintenance done to the leased facilities is the lessor’s responsibility and is provided at the lessor’s expense, except in the case of emergencies where the tenants request the services of the Department because the lessor can not immediately address the problem. The County does not charge lease providers for services provided by the County beyond what is contractually required of the lessor (see F3.33 for information on charging back for service’s provided).

Custodial services are provided by either the lessor or the County. The County provides custodial services to three of the leased buildings. The MW1 cleans the professional building and the Milford Auto Title building, while NSG cleans the Batavia Auto Title building. **Table 3-7** compares gross square footage costs for maintenance and custodial services for the County’s owned versus leased buildings to IFMA averages of \$1.33 for maintenance costs per square foot and \$1.16 for custodial costs per square foot.

Table 3-7: Owned vs. Leased Facility Maintenance/Custodial Costs

Category	Maintenance Cost per Square Foot	Percent Above/ (Below) IFMA Average	Custodial Cost per Square Foot	Percent Above/ (Below) IFMA Average
Owned	\$1.10	(17.29)%	\$1.30	12.07%
Leased	\$0.34	(74.44)%	\$5.90	408.62%
IFMA Average	\$1.33	N/A	\$1.16	N/A

Source: KPMG Activity Based Costing cost pool report

Note: Thirteen buildings were omitted from this analysis because KPMG determined the Facilities Management Department conducts minimal work on the facilities, and the costed activities for those facilities was not broken down into leased vs. owned buildings.

Maintenance and custodial services provided to the Professional Building, the Milford Auto Title Building, and the Williamsburg Records Retention Center Building all reflect higher costs to maintain and provide custodial services than County owned buildings and IFMA averages. Custodial costs are high because the MW1 provides custodial services to the Professional Building and Milford Auto Title at \$5.90 per square foot.

R3.7 In order to offset the high custodial costs, the County should monitor services provided by the Facilities Management Department to the leased buildings. If the County determines the JIP program can be expanded, the County should consider using the JIP to clean the Professional Building and the Milford Auto Title Building instead of the MW1. Enlisting the JIP to clean the Professional Building and the Milford Auto Title Building would save the County approximately \$24,8000 in custodial salary and benefit costs, based on providing

cleaning services at a square foot rate of \$0.53 (see **F3.29 and Table 3-10** for cost per square foot analysis).

Financial Implication: Eliminating the MW 1 position would save the County about \$33,000 in salaries and benefits. Using the JIP to clean the buildings currently maintained by the MW1 would cost approximately \$8,200. A total cost savings of \$24,800 could be realized through shifting the MW1's cleaning duties to the JIP.

F3.20 The Building Research Board of the National Research Council published a report in 1990 in which they recommended that an appropriate budget for routine maintenance of a facility should fall within a range of 2.0 to 4.0 percent of current replacement value. The County dedicates two percent of each significant facility's installment cost to a capital improvements and building replacement fund. The County does not track replacement costs, but monitors the construction cost, the annual and accumulated depreciation, and net book value of each building over a fifty year depreciation schedule.

IFMA reports that maintenance costs as a percentage of replacement costs averaged 1.9 percent overall and generally increase with the age of the facility. **Table 3-8** illustrates the installment cost for the County's significant buildings renovated or purchased since 1976 and the amount expended on maintenance for each building in FY 1999. The overall amount expended on the County's significant facilities is 1.05 percent of the installation cost, approximately 44.7 percent below IFMA averages.

Table 3-8: Significant Facilities Installment Cost and Maintenance Expenditures

Facility	Installment Cost ¹	1999 Maintenance Costs ²	Maintenance Costs as a Percent of Installment Cost
Administration	\$4,265,954	\$28,201	0.66%
Juvenile Justice Facility	\$1,203,430	\$7,032	0.58%
Domestic Relations Court	\$934,472	\$11,735	1.26%
Communications Center	\$4,165,000	\$27,269	0.65%
Medical/Social Service Building	\$4,878,658	\$74,119	1.52%
Heritage Building	\$1,134,200	\$24,228	2.14%
Juvenile Detention/Probation Facility	\$720,000	\$8,115	1.13%
Common Pleas Courthouse	\$4,785,332	\$17,246	0.36%
Courthouse Renovation	\$899,965	\$23,813	2.65%
Permit Central	\$825,000	\$10,656	1.29%
Prosecutor's Office	\$208,500	\$18,734	8.99%
Totals	\$24,020,512	\$251,148	1.05%
IFMA Average	N/A	N/A	1.90%

Source: OMB and Facilities Management Department

Note: Excludes the Sheriff's Office and the Adult Detention Center.

¹ Based on December 1999 figures obtained from the OMB

² Includes repair and preventive maintenance

Table 3-8 shows that several of the County's facility's have had less than IFMA's recommended capital expenditures, mainly because they have been constructed within the last 10 years. Four buildings fall within the appropriate percentage allocation, but several buildings, such as the Prosecutor's Office, Courthouse, and Heritage Building, are well above IFMA averages indicating increased maintenance needs. Also, Capital Improvement Funds have not been allocated based on the replacement value and may not be sufficient to meet the ongoing maintenance needs of the County's facilities during their final years of depreciation.

F3.21 **Table 3-9** compares the County’s repair and preventive maintenance costs per square foot to IFMA averages. The County’s repair costs are approximately 10.0 percent lower than IFMA averages while preventive maintenance costs are approximately 19.5 percent higher than IFMA averages. The analysis also indicates that the majority of funds expended by the County were on repairs rather than preventive maintenance, but the difference in costs is marginal. This analysis includes only those buildings the Facilities Management Department is responsible for maintaining. Leased buildings, the Sheriff’s Office and the Adult Detention Center/Jail are excluded.

Table 3-9: Repair versus Preventive Maintenance Costs by Square Foot

Repair Maintenance	IFMA Repair Maintenance	Difference Between County and IFMA	Preventive Maintenance	IFMA Preventive Maintenance	Difference Between County and IFMA
\$1.08	\$1.20	(10.00)%	\$1.00	\$0.84	19.05%

Source: Facilities Management Department

Note: Based on 335,801 square feet

R3.8 The Department should examine the current facility maintenance funding system to determine if present allocations are sufficient to meet the maintenance and repair needs of the County’s buildings. As shown in **Table 3-8 and Table 3-9**, the County spends less than the IFMA recommended amounts for facility repair but exceeds IFMA averages in preventive maintenance expenditures. Through the use of a preventive maintenance plan (see **F3.10**), the Department should be able maintain preventive maintenance expenditures within IFMA guidelines.

F3.22 Although the County sets aside funds to replace buildings after their useful life span, the County is only providing set-aside funds for the newest buildings under its management. Plans have not been made to replace older buildings or to fund future expansions of County facilities. The IFMA recommends an annual set aside of approximately 2 to 4 percent of a building’s replacement value which is allowed to accrue until a replacement building is required.

R3.9 The County should develop a replacement schedule for aging buildings in conjunction with a detailed capital plan. Revenues from the levy should be set aside in increments sufficient to fund a building’s replacement after the fifty year expected life span of the building has expired. Through developing a replacement plan with a dedicated funding stream, which should include such considerations as location, future growth of departments, and future space needs, the County can ensure that future facility needs are met without increased borrowing. See also **R3.6**.

F3.23 The County does not have a comprehensive preventive maintenance plan. Currently, the Department determines maintenance intervals according to factory specifications and the frequency of use of the equipment. For example, HVAC filters are changed every three months as outlined by the manufacturer. Seasonal equipment, such as snow removal and lawn care equipment, receives preventive maintenance at the start of every season.

The County relies on the contracted service providers to relay maintenance concerns occurring in the buildings. For example, the state elevator inspector relays maintenance information to the Facilities Management Department corresponding to repairs and maintenance on County elevators. Pest control personnel, who normally work in facility areas inaccessible to other personnel, relay information to the Facilities Management Department on possible maintenance issues that have been encountered while spraying. The custodial contractor, NSG, furnishes a written report every morning to the facilities coordinator outlining maintenance issues encountered by custodial staff that may need to be addressed by the maintenance workers.

To address and evaluate maintenance issues raised by contracted staff, the County employs one multi-functional MW2 that can evaluate most areas of a building's operations. This employee is often sent into buildings after contractors have reported maintenance concerns.

R3.10 The County should implement a planned preventive maintenance program. **Table 3-9** indicates that, while the County is addressing preventive maintenance, the current methodology incurs costs that are higher than IFMA average preventive maintenance expenditures. An effective preventive maintenance program can help improve worker productivity by proactively maintaining equipment rather than responding to breakdowns and emergencies. A preventive maintenance program can also decrease energy consumption because equipment will run more efficiently, and can result in reduced maintenance and capital expenditures since equipment should last longer. Finally, a preventive maintenance program will improve customer satisfaction since there should be fewer interruptions to County services from faulty or inoperable equipment. The Department could implement a preventive maintenance program within the existing staffing levels.

The County has several options regarding the development of preventive maintenance software. The County could use the County Management Information Systems Department in conjunction with the CAFM specialist and management systems specialist to develop a preventive maintenance system in-house. The County could purchase a stand-alone preventive maintenance software application or it can purchase an add-on Facilities Maintenance Module to the CAD program already in existence. A preventive maintenance software program would flag preventive maintenance items and notify the appropriate personnel when items are scheduled for preventive maintenance.

Financial Implication: The County could implement a preventive maintenance program without increasing staffing levels. If the County decides to develop preventive maintenance software in-house, the cost is unquantifiable. If the County purchases stand-alone preventive maintenance software, it should expect to pay approximately \$6,000. If the County purchases the CAD add-on facilities maintenance software, the cost is between \$3,000-\$4,000, depending upon the options the County decides to purchase. Additional costs may be incurred to implement this technology. However, these costs are dependent upon the extent of implementation performed in-house.

Strategic Planning

F3.24 The County does not have an up-to-date long range facilities plan to address its future needs. In June 1992, NBBJ Architects/Interior Space Designers/Site and Community Planners developed a master facilities plan for the County that evaluated County growth trends, outlined specific facility site recommendations, and analyzed space utilization, existing location and proposed area required for facilities needs based on FY 1995 County population projections. As part of the plan, a building condition audit was included that summarized the conditions of the three different sites of buildings as follows:

- **Downtown Batavia Sites-** Downtown buildings are structurally sound, with a few buildings in need of structural repair. Most of the windows are in poor condition and should be replaced. Interior building conditions range from poor to adequate. Interior climate control is very inadequate and most of the departments are housed in buildings which do not conform to current codes for mechanical, plumbing and electrical systems. Heating and distribution in general are inadequate, obsolete or worn out. Ventilation and air conditioning is either inadequate or non-existent.
- **Bauer Road Sites-** The buildings at the Bauer Road site are of recent construction and are generally in good structural condition. The buildings are energy efficient and doors and windows are in adequate condition. Interior conditions range from fair to good; however, the environmental climate control is less than adequate and there are life safety code violations in each building. HVAC, plumbing and electrical systems require repair.
- **Filager Road Sites-** Service Center buildings generally are structurally sound; a few of the buildings require a structural review and repairs. Energy efficiency is less than adequate and most of the windows and exterior doors should be replaced. Interior conditions range from very poor to adequate and most of the departments are housed in buildings that do not meet current codes. Energy efficiency is less than adequate and many of the buildings do not conform to current codes for mechanical, plumbing and electrical systems. HVAC systems generally are less than adequate.

F3.25 Since 1992, the county has completed HVAC upgrades to several buildings, and two new buildings have been added to downtown. However, the County and Department have not referred to the 1992 plan when considering building utilization. The Department has not conducted more recent studies to show completed repairs or possible changes in County facility priorities. Despite completion of some repairs outlined in the 1992 study, the County continues to face large scale repair or replacement issues with several older County buildings.

The 1992 plan states that smaller structures leased or owned by the County should be phased out beginning with those in the poorest condition. The County continues to lease and own smaller structures considered by the Facilities Management Department to be in poor condition, including the Batavia Auto Title building and the Coroner's Office. The Facilities Management Department relies on the county administrator to provide guidance concerning facility planning and building usage, mainly through formal weekly meetings and informal interaction.

F3.26 According to IFMA Report #16, 65 percent of facility operations surveyed had formal, written programs and policies dealing with overall facility planning, space planning, training and communications, and maintenance and operations. A long range facilities plan can be used to provide a continuous basis for facilities planning that will meet the changing needs of the community and can assist management in making more effective decisions regarding the allocation of limited resources to achieve the County's capital goals and objectives. In addition, a comprehensive facilities plan can be used to determine the appropriate number of buildings required to adequately serve both current and future needs; estimate the funding needed for repairs, renovations and new construction; document the need for building closings and consolidations; justify buying and selling properties; and develop cost-effective alternative uses for existing facilities.

R3.11 The County should develop a comprehensive long-range facilities plan which contains historical information about the County's demographics and community characteristics. The County should revise the 1992 facilities plan to include the most important repairs based on the current condition of County facilities. When developing the plan, the County should obtain input from a variety of sources including architects, space planners, electrical, mechanical, plumbing and structural engineers and building cost analysts. The plan should include the following areas:

- An annual maintenance plan detailing by year the types of work to be performed and the funds allocated to each project. The annual maintenance plan would allow the Department to more effectively allocate time and resources to critical areas.
- An ongoing preventive maintenance plan for each of the County's facilities. The plan should identify tasks and stipulate the frequency of projects. An effective preventive

maintenance program may reduce overtime, energy consumption, maintenance and capital expenditures and work orders, and improve worker productivity by maintaining County infrastructure rather than responding to breakdowns and emergencies.

- Planned public access within County buildings that ensures a reduction of barriers for compliance with the Americans with Disabilities Act (ADA) statutes
- Facility evaluations, capital improvement needs, and capacity and space utilization analyses to guide long-term plans and shape the space needs for future generations of citizens. Specifically, the County should consider consolidating existing buildings and departments into more cost-effective space.
- An implementation plan and budget which includes funding sources and an evaluation process to guide facility spending and help anticipate funding needs
- Formal written standards outlining space allocation

The plan should be updated on a regular basis and adjusted for factors such as housing starts and shifts in employment, which could impact the County.

F3.27 The County has a risk assessment plan and tool box that was developed by an outside consulting firm in January 1998. The plan outlines the County's risk management policy and breaks down potential areas of risk by department, such as the Department of Human Services, Facilities Management Department, Water and Sewer Department and the Fleet Management Department. The tool box provides workplace audits and inspection reports by area of the County, such as office areas and welding areas, and provides a narrative outlining the proper procedures on investigating accidents or incidents. The risk assessment plan also describes the safest procedures to use when operating hand-tools, ladders, and other potentially hazardous equipment.

Although the County does not employ a risk coordinator, the facilities coordinator and safety officer for the Engineer's Office currently facilitate organizational safety systems and processes through formal monthly meetings in which aspects of the risk management plan are explained and OSHA safety standards are discussed. In addition, the Department holds weekly meetings on a variety of topics, including safety issues that are suggested by staff.

F3.28 Clermont County contracts with a third party administrator, CompManagement Inc., to oversee all workers compensation issues. The Facilities Management Department filed one claim in FY 1999 that resulted in an award of approximately \$200. The Department has not filed any other claims in the last five years. From 1995 to 1999, the County's experience

modifier status remained constant at 0.81, which indicates the third party administrator is effectively managing the contract. The experience modifier status is based upon factors such as the number of total claims in any previous time period, the severity of those claims and the extent to which lost time claims went into effect.

In 1999, the County saved \$96,000 in workers' compensation premiums over 1998, due to the following factors:

- Participation in the group experience rating plan
- Development of a 10 step risk assessment plan as an incentive for a reduced penalty plan
- Payment of premiums in full in June of each year

Additionally, the frequency of the Department 's safety training classes may contribute to controlling worker's compensation costs by preventing claims from the outset.

C3.3 The Department has been proactive in helping management and staff identify accident prevention by using the risk assessment plan and other resources to regularly discuss worker safety issues. These regular meetings ensure employees are trained in safety related issues and may contribute to controlling overall worker's compensation costs by preventing claims from the outset.

General Operations

F3.29 The County does not make adequate use of quantitative data to determine the appropriate number of custodians necessary to maintain its facilities. The County's facilities are currently cleaned by a combination of in-house, contracted employees and jail inmates that are part of the Jail Industrial Inmate (JIP) program. The MW1 is responsible for cleaning only single story County buildings because of health problems that prohibit the employee from climbing stairs. The Hoffman cleaning service is responsible for the Agricultural Building because it is nine miles out of town and not cost effective to assign internal or other contracted cleaning staff to the building. NSG's current janitorial services contract outlines suggested employee and supervisory hours to clean buildings under its responsibility. However, the contract does not take into account factors such as the building's size, age or condition. Low risk inmates making up the JIP program are assigned custodial duties at the request of County officials.

Table 3-10 presents square footage cleaned by each provider, the cost per provider and IFMA custodial cost benchmarks for public sector (government) institutions. Overall, IFMA reports that custodians cleaned 26,593 square feet per employee in counties that had between

500,001 and 1,000,000 square feet. In addition, janitorial costs averaged \$1.16 per square foot for government institutions overall, and \$1.27 per square foot for facilities located in the Midwest.

Table 3-10: Square Footage per Employee

Provider	Gross Square Footage Cleaned	Average Number of Employees	Average Square Footage Cleaned per Employee	Amount Paid by County for Services ²	Custodial Costs per Square Foot
NSG	178,987	7	25,569	\$225,575	\$1.26
In-house ¹	17,167	1	17,167	\$35,921	\$2.09
JIP	134,415	9	14,935	\$72,000	\$0.53
Hoffman ³	2,800	1	2,800	\$6,279	\$2.24
Total	333,369	N/A	N/A	\$339,775	N/A
Average	N/A	4.5	18,520	N/A	\$1.02
IFMA	N/A	N/A	26,593	N/A	\$1.27

Source: Facilities Management Department

¹ The MW 1 cleans the Professional Building, Service Center/Facilities Management Building, Milford Auto Title Building and the Recover Center.

² This amount depicts labor costs only for NSG and the JIP. The Facilities Management Department furnished approximately \$29,000 in cleaning supplies to NSG and the JIP in 1999.

³ Although the square footage in the agricultural building is 14,325, Hoffman is responsible for cleaning offices in the building, which represent approximately 2,800 square feet.

Table 3-10 shows that the County custodial staff is cleaning approximately 8,000 square feet per custodian less than averages reported in IFMA Research Report #16. In addition, although the County is operating its custodial operations at \$1.02 per square foot, which is less than IFMA averages reported for government facilities in the Midwest; two providers, the MW1 and Hoffman, are providing custodial services to the County at 46 percent and 42 percent above IFMA reported averages, respectively.

R3.12 The County should use quantitative data to determine custodial staffing levels which would help to reduce costs and bring the County more in line with IFMA averages. Because Hoffman's services are negotiated on a yearly basis, the County should perform a cost/benefit analysis when re-negotiating Hoffman's services to determine whether another contractor could perform custodial duties at the Agricultural Building at a reduced cost. The County should also evaluate the necessity of the MW1 position, and should consider transferring custodial services performed by the MW1 to the JIP. The County should also amend the contract with NSG, which is set to expire in March 2001 with options to renew until 2003,

to include quantitative data that takes into consideration the size, age and overall condition of the County's facilities.

When determining the number of custodians necessary to maintain its facilities, the County should take into consideration factors such as the building's age, condition, size and layout; access to equipment; number of restrooms; and industry standards published by the International Sanitary Supply Association and the Building Service Contract Association International. Using quantitative data to determine the appropriate number of custodians to maintain its facilities will allow the County to assign the proper number of custodians necessary to adequately maintain the facilities. In determining the value of custodial contracts, the County should ensure quantitative data is used to determine the number of contracted employees cleaning the facilities.

F3.30 **Table 3-10** indicates the County is cost effectively using minimum security jail inmates to clean approximately 134,000 square feet of the County's facilities at about \$0.53 per square foot, the lowest custodial cost per square foot of the County's custodial providers. The County pays for the JIP to clean facilities other than the Sheriff's Office and the Adult Detention Center out of the Department's annual budget, which in FY 1999 amounted to approximately \$72,000 for the salaries of two supervising corrections officers. Jail inmates are assigned cleaning responsibilities based upon requests from County officials. County officials have indicated that the jail inmates do a far superior cleaning job than other providers because of the lack of time constraints on their work day.

R3.13 The County should consider expanding the JIP program. In doing so, the County should perform a cost/benefit analysis on those buildings currently cleaned by the MW1 and Hoffman, who are currently performing work at about four times the cost per square foot of the JIP. The County should determine if it is cost effective to transport the inmates to the Agricultural Building, which is currently cleaned by Hoffman, and should determine the feasibility of taking over custodial duties currently being performed by the MW1.

F3.31 In 1999, the County furnished approximately \$29,000 in cleaning supplies to NSG and the jail inmates in the JIP. Building custodians determine what supplies they need in their buildings on a weekly basis and submit requests to their supervisors, who forward the requests to the field service supervisor for approval. The overall budget for the Department is tracked through the County accounting system, but is not broken down by funds allocated for cleaning supplies.

R3.14 The County should establish custodial supply budgets for each building. The budget should be based on the building size, number of rooms and the number of personnel in the building. The building custodians should be trained in the most efficient use of supplies and held

responsible for establishing and monitoring the budget. Currently, the cost per square foot of the County's cleaning supplies is approximately \$0.10. The Department does not use bulk purchasing for most supplies which contributes to the high cost. In developing quantitative performance measures, the Department should strive to keep custodial cleaning supplies at the best practice cost of \$0.04 to \$0.06 per square foot as identified in a 1999 management report.

Financial Implication: Decreasing the cost of cleaning supplies from \$0.10 per square foot to the average best practice cost of \$0.05 per square foot will save the County approximately \$15,000 per year.

F3.32 The County does not have a formal equipment replacement policy for maintenance equipment. The County currently owns two trucks dedicated to snow plowing, two lawn mowers, five snow blowers and one garden tractor. The facilities director has indicated that one of the trucks may not pass the emissions check process and will have to be replaced. Other equipment is replaced based on expected useful life and cost to repair compared with the cost of replacement.

R3.15 The County should establish a formal equipment replacement policy which takes several factors into consideration such as the manufacturer's projected life of the equipment, the useful life of the equipment, and the history of repairs for the individual piece of equipment.

F3.33 The County does not charge back end users for services rendered by the Facilities Management Department. IFMA reports that 55 percent of government facility management departments charge users for expenses in some manner. Typically, 27 percent of government facility management departments charged rates for fixed and special projects, 9 percent charged a fixed rent based rate, 15 percent charged by special project and 3 percent charged by another method.

The Department provides services beyond their normal duties to the following entities:

- *Williamsburg Records Retention Building:* The Department transports all County records to this building for storage, and transports records from this building to the local pulping center after they have surpassed their Ohio Revised Code retention requirements.
- *Leased Facilities:* The Department provides infrequent emergency services such as plumbing repairs to leased facilities because of the absence of on-site landlords. The lease contracts do not stipulate who is to perform emergency services, nor do they outline maintenance problems considered to be emergencies.

In addition, the Department provides services at the request of County officials, such as hanging pictures and re-arranging office furniture. The Department time tracking system was not able to easily quantify the amount of time spent performing emergency services on leased facilities, assisting County officials, or transporting records to and from the Williamsburg Records Retention Center.

R3.16 The County should consider charging back end-users for services rendered by the Facilities Management Department, particularly for those services provided to leased facilities, the Williamsburg Records Retention Building and for miscellaneous services provided to County officials. Several methods of charging back end users exist:

- Marion County, Indiana has established internal building rental agreements within the county. The department using the facility is charged a fixed square footage rate on a monthly basis for maintenance and custodial services.
- Phoenix, Arizona has implemented a work order system where the department requesting the service is billed for the services performed. The City of Phoenix Facility Maintenance Department is fully funded through the work order charges.
- Santa Clara County, California has established a standard internal service fund where the facilities management department is self supported through charges billed to end user departments.

The County should establish fixed rate charges for services provided to lessors and the Williamsburg Records Retention Center, and special projects charges for services which the County considers beyond the normal functions of the Department. The charges for services should include compensation for staff and travel time, and for supplies, materials and capital outlay used to complete the projects. The funds received should be set-aside in an internal service fund and be used to help fund the Department and lessen the Department's reliance on the general fund. As the County further develops activity based costing, the County should consider funding the Department through an internal service fund and end user payments. Finally, the County should ensure leases have a provision regarding emergency services, such as what constitutes an emergency and who is to provide the emergency service.

Contracted Services

F3.34 About 14 percent of the Facility Management Department’s annual budget is expended on contracted services. According to IFMA, approximately 75 percent of responding institutions out-task rather than out-source many of their maintenance and janitorial functions. Out-tasking is the act of hiring individual, specialized vendors to provide one or more functions. Out-sourcing is the act of hiring a full service, single source vendor to provide many services that are bundled together. Approximately 14 percent of responding institutions out-source. The County is not required to formally bid out requests for out-tasked or outsourced activities under \$15,000. **Table 3-11** presents the Facility Management Department’s out-tasked activities, the year first contracted, the annual charge, the approximate number of hours and hourly rate charged to perform the activity.

Table 3-11: Out-Tasked Services

Function	Provider	Year Out-tasked	Annual Cost	Approximate Number of Hours Required to Perform Service	Total Hourly Rate to Perform Service ¹
Elevator Repair/Maintenance	Millar Elevator Service	N/A	\$17,019	96 Hours	\$177
Security Programming/Install	Honeywell Inc.	1996	\$2,481	160 Hours	\$16
Fire Prevention Inspection	Silco Fire Protection	1992	\$6,092	120 Hours	\$51
Back Flow Prevention Testing	ER Plumbing	10+ Years	\$2,210	16 Hours	\$138
State Elevator and Boiler Inspection	State of Ohio	10+ Years	Boiler-\$2,195 Elevator-\$1,649	2 Hours N/A	\$1,097 N/A
Lawn Service	Ralph's Lawn Service	10+ Years	\$7,634	224 Hours	\$34
Roofing	Singleton Roofing	10+ Years	\$4,050	160 Hours	\$25
Pest Control	Taylor Made and Orkin	1982	\$11,351	168 Hours	\$68
Cooling Water Treatment	Thermodyne Engineering	1997	\$3,980	24 Hours	\$166
Custodial Services	NSG Inc., and Hoffman	1992	\$231,854	9,217 Hours	\$25
Total			\$290,515	10,187	\$ 29.00

Source: Facilities Management Department

¹The total hourly rate includes materials and supplies as well as personnel costs.

The majority of the out-tasked activities have been contracted out because of liability issues. For example, roofing activities have been contracted out because the variety of roofing styles in the County make it more practical to hire professional staff. Cooling water treatments and pest control require chemical and technical expertise, as well as proper job-related equipment. Also, many of the out-tasked activities require state mandated inspectors, and staff within the Department lack certification to perform such tasks. County officials have indicated a reluctance to certify internal staff to perform inspections because of the potential of increased staff turnover due to greater marketability once personnel are certified.

F3.35 In performing a high-level analysis of opportunities for cost savings by bringing out-tasked services in-house, major functions and activities were evaluated with respect to a number of criteria important in assessing internal control of out-tasked activities. The table below details the assessment criteria and provides a description of the key issues for four of the contracted services.

Table 3-12: Assessment of Performing Selected Out-Tasked Activities In-house

Assessment Criteria	Key Issues	Custodial Services	Elevator Repair/Maintenance	Security Installation	Pest Control
Sufficient Volume?	Is the volume of work associated with function/activity sufficient to justify internal performance?	Yes	Yes	Yes	Yes
Prohibitive control requirements?	Are the management, oversight and control requirements associated with external performance of the functions excessive?	No	Yes	No	No
Complexity?	Is the function/activity too complex to be effectively and efficiently performed by internal resources	No	Yes	No	No
Restrictive regulatory environment?	Is the performance of the function/activity regulated?	No	Yes	No	Yes
Significant capital investments?	Are significant capital investments required in association with the internal performance of the function/activity?	No	Yes	No	Yes
Procurable services?	Are high quality, external service providers available to perform the function/activity?	Yes	Yes	Yes	Yes
Significant operating costs?	Will the potential benefits of utilizing external resources likely offset/exceed the potential costs?	Yes	Yes	No	Yes
Quality?	Is there a high probability that internal performance of the function/activity would reduce quality and service levels?	Yes	Yes	No	Yes
	Potential Opportunity for Bringing Activity In-House	Low	Low	High	Low

F3.36 It appears that the County should continue to out-task the custodial operations, elevator repair and maintenance and pest control functions, as well as back-flow testing and lawn care. The County does not currently have the proper staffing levels to perform custodial duties in-house, and the current custodial contractor provides quality services resulting in a minimal number of customer complaints. Because of the potential for reduced quality and increased cost if performed in-house, this function has a low potential for in-house performance.

F3.37 Likewise, the elevator repair/maintenance and pest control functions are most efficiently performed by contracted staff. The elevator repair/maintenance function is highly regulated because of liability issues and requires state certified elevator inspectors. This function also requires significant capital investments to certify internal staff and purchase equipment. The pest control function is also best performed by contractors. As with elevator repair/maintenance, the County would expend significant capital certifying internal staff and purchasing pest control equipment. In addition, extensive technical knowledge is required to effectively perform this function. Because of the potential for increased cost and the number of regulator issues surrounding these services, the potential to realize any cost savings or increase in quality through in-house operations is low.

Also, back-flow testing and lawn care have a low potential for internal performance. While the County employs a MW3 with plumbing certification, back-flow testing requires additional skills and equipment which the County has not invested in. Lawn care, while not highly regulated, requires a substantial investment in equipment that would make performing this task in house prohibitive.

F3.38 The County uses Honeywell brand burglar alarms and fire alarm systems to monitor activities in every building and, on occasion, for the installation of alarms. The burglar and fire alarms are monitored 24 hours per day by the public safety department through dedicated phone lines that send an alert to the Communications Center Building where all 911 calls are dispatched.

The MW 3 is responsible for testing the equipment to ensure proper operation, and for installing the majority of the equipment. In 1999, the County incurred \$2,481 in installation charges for Honeywell's services, although the MW 3 is certified in installation of burglar and fire alarms and all staff are trained in alarm testing.

R3.17 As trained, in-house employees exist to perform alarm installation and testing work, the County should install all fire and burglar alarms in-house. For example, enlisting the MW 3 to perform installations of all fire and burglar alarms in County facilities would offset the costs charged by Honeywell. Installation of alarms occurs on an infrequent basis throughout the County and would not adversely effect the workload of the MW 3. In doing so, the County would better centralize installation operations, improve installation time and lessen its reliance on the outside service provider.

Financial Implication: Based on FY 1999 costs, the County could save approximately \$2,400 in installation charges by transferring installation responsibilities to the MW 3. Hardware costs are not included in this analysis.

F3.39 The County does not annually assess its out-tasked services to determine if improvements, such as cost savings can be realized by bringing the activity in-house. Although a significant amount of funds are expended on out-tasked services, the County and Department have not performed analyses to determine if some services could be performed in-house at a lower cost by certifying County personnel. The following table describes areas which should be considered when undertaking an internal opportunities assessment.

Table 3-13: Internal Opportunities Assessment Criteria

Assessment Criteria	Description/Key Issues
Sufficient Volume	Is the volume of work associated with the function/activity sufficient to justify performance by internal staff?
Prohibitive Control Requirements?	Are the management, oversight and control requirements associated with external performance of the functions excessive? - Would management time requirements increase as a result of internal performance of the activity/function? - Would standardization of work methods and service levels be better achieved by bringing the activity in-house?
Complexity?	Is the function/activity too complex to be performed by internal resources? - Are the technical skill requirements of the activity excessive? - Are the workload requirements associated with the function/activity difficult to predict?
Influenced by regulatory/compliance environment?	Is the performance of the function/activity regulated? - Are regulatory issues complex? -Are noncompliance liabilities significant? -Are documentation and reporting requirements significant?
Significant capital investments?	Are significant capital investments required in association with the internal performance of the function/activity?
Significant operating costs?	Will the potential benefits of utilizing internal resources likely offset/exceed the potential costs?
Quality?	Is there a high probability that internal performance of the function/activity would reduce quality and service levels? - Would customer complaints likely increase? - Would responsiveness likely decline? - Would the quality of workmanship decrease?

Source: Auditor of State

R3.18 The director, management systems specialist and facilities coordinator should perform a cost-benefit analysis of out-tasked activities using the above outlined assessment criteria; and determine whether the County would benefit from bringing some out-tasked operations in-house. Some out-tasked services may be able to be performed in-house at a lower cost through certifying existing personnel, such as the plumber and electrician. Based on the hourly rate being charged for services, the County may be able realize cost-savings by bringing selected out-tasked services in-house.

F3.40 The out-tasked service providers generate minimal complaints regarding service levels. In addition to gauging service levels by the number of complaints received, which averages about one complaint every two weeks, the County monitors contractor service levels in the following ways:

- *Time Sheets and Nightly Cleaning Checklists:* All NSG employees are required to record services provided by building on a nightly checklist and turn the checklists into the Department on a daily basis. The NSG employees are also required to manually record the time spent in each building. The County uses this information to ensure work is being performed in the facilities.
- *Informally:* Because of the close proximity of the county's facilities, Department supervisory staff members travel frequently throughout the County's various buildings where they can observe the general state of cleanliness and discuss maintenance issues with building personnel. Also, the facilities coordinator performs building walk throughs with NSG supervisors about once every three months to discuss work that may need to be modified due to changes in the building's infrastructure.
- *Contractually:* The NSG contract has a minimum acceptable scope of work clause that allows the County to remove individual facilities from the coverages of the contract if the work provided does not meet the minimum level of performance. Also, the contract has a termination clause that allows the County to obtain services from other contractors at any time during the life of the contract.

Despite the outlined compliance measures, the County does not have formal, written procedures for monitoring service levels provided by the contractors. Also, the facilities coordinator performs unannounced building inspections infrequently and does not formally document inspections that take place with NSG supervisory staff or on any of the infrequent unannounced building inspections.

R3.19 The number of unannounced building inspections should be increased as these inspections are an effective way to evaluate the contracted and in-house custodial staff and observe the cleanliness of the buildings. A minimum of four to six inspections should be performed annually at each facility cleaned by contracted or in-house staff. Once an inspection is completed, the results should be documented, and a copy of the report retained in an organized filing system arranged by facility. Also, building inspections should be included as a way of evaluating NSG's contract and the MW1's performance.

Because the County expends significant funds on contracted custodial services, the Department should carefully manage the custodial providers to ensure service delivery

standards and other commitments are met. Contract management requires the County to incur expenses (personnel wages and benefits), in addition to the actual contract expense. To assure that service delivery goals are met, the County should be prepared to take the following steps:

- Implement administrative procedures and processes to monitor and control vendors, such as assigning specific staff to act as a liaison with the vendor; establishing time frames for delivery of service reviews; and defining service delivery goals, evaluation criteria and evaluation timing
- Monitor and evaluate vendor performance in areas such as response time, number of customer complaints, quality of work, standardization of materials and audits
- Revise policies and procedures as appropriate on an ongoing basis

Building Capacity and Utilization

F3.41 The County has not examined building capacity and utilization. County employees are currently occupying about 218 usable square feet per employee as shown in **Table 3-14**, which is below the square footage per occupant averages for the two categories outlined by IFMA. The square footage per occupant was calculated by excluding primary circulation areas such as lobbies and public corridors from the facility's interior square footage. The square footage analysis indicates that the County is generally utilizing space efficiency, although a few of the buildings have substantial excess capacity.

Table 3-14: Square Footage Per Occupant

Category	Usable Square Footage	Number of Occupants	USF per Occupant ¹	IFMA Median USF per Occupant	Percent Over (Under) IFMA Median Benchmark
Multi-Use	147,349	731	261	374	(30.3)%
Offices (Non-HQ)	8,172	54	196	327	(40.1)%
Other Use	8,909	29	399	N/A ²	N/A
Data Center	13,502	3	5,850	N/A	N/A
Customer Service	3,361	12	364	N/A	N/A
Totals	181,293	829	218 (Average)	N/A	N/A

Source: IFMA Research Report #16 and County OMB

¹ Includes circulation factor of 30 percent as suggested by IFMA.

² Nothing reported for these categories by IFMA.

Note: The Sheriff’s Office and the Adult Detention Center/Jail are excluded from this analysis because of the lack of services provided to these facilities from the Facilities Management Department. Because the sheriff’s office represented the only facility in the Headquarters category, the Headquarters category has been eliminated from this analysis. Also, the analysis excludes nine buildings which the department could not provide square footages without core areas.

F3.42 In conjunction with **Table 3-14** above, **Table 3-15** illustrates County wide vacancy rates per category of facility. The vacancy rate of a facility is the current total square footage available for usage divided by the total usable area. For this analysis, the total square footage available for usage includes office space, workstation space, conference rooms, receptionist areas, break rooms, file rooms, libraries, Commissioner session rooms, computer rooms, storage and copy rooms. The total usable area is the floor area that can be assigned to occupant groups within the total square feet available outlined above. Usable area excludes primary circulation areas, building core areas, such as lobbies and public corridors and building service areas. Of the 239 IFMA responses, the average vacancy rate was four percent. A low vacancy rate indicates superior space utilization and occupancy management.

Table 3-15: Overall County Vacancy Rate

	Total Square Footage Available for Usage	Total Area Used	Vacancy Rate
County Buildings	145,448	120,964	17%

Source: CAD Records

Note: The Williamsburg Records Retention Center was not included in this analysis because it is dedicated to records retention and is not available for usage.

The County has an average vacancy rate of 17 percent, which can partially be attributed to the large amount of unused space in County buildings like the Old Courthouse and Service Center.

F3.43 **Table 3-16** illustrates facilities that have been identified as having excess vacant space.

Table 3-16: Facilities with Excess Capacity

Facility	Excess Space	Reason
Old Courthouse	11,000 Square Feet	Largely vacant due to construction of the New Courthouse, which opened in 1998. The County has tentative plans to convert the vacant area to office space.
Service Center	12,000 Square Feet	The vacant space consists of the top three floors of the building, which the County feels are uninhabitable because of its poor condition. The 1992 facilities master plan states that records retention and storage is a major county concern and suggests that the uninhabited space could be used as a file/warehouse storage area. The County does not currently have plans for the unoccupied floors.
Medical/Social Services Building	3,125 Square Feet	Vacant square footage is due to an unused conference room that was used as a staging area for the Child Protection Service (CPS) staging area.
Coroner's Office	3,238 Square Feet	The building is used by the coroner on an infrequent basis and the second floor is uninhabited.
Wiseman Property	N/A	This is vacant property only with no structure. Tentative plans include additional paved parking for court utilization.

Source: Department records

R3.20 The County should develop formal written standards outlining space allocation and include the standards as part of the long term strategic facilities plan discussed in **F3.26**. The County should also consider closing some of its facilities with substantial unused excess capacity, such as the Coroner's Office and the Service Center. By closing the two buildings, the County could save approximately \$34,000 annually in utility, maintenance and custodial costs.

In addition, the County should consider using the vacant space in the Service Center as a storage facility for files or other records the County is required to keep due to the records retention schedule. Out-tasking of the record keeping function should also be compared and contracted costs should be assessed against the cost of maintaining the Records Retention Department and the buildings in which records are currently housed.

Financial Implication: By closing the Coroner's Office and Service Center, the County could save approximately \$34,000 annually in utility, maintenance and custodial costs.

F3.44 A County population projection was completed in 1992 as part of the master plan of facilities. The plan shows low range and high range population estimates in five year intervals. The low range plan is an extrapolation of 1980 to 1990 growth trends when a total of 5,538 single-family and 4,309 multi-family building permits were issued. The high range plan is 5 percent to 6 percent greater than the low range estimate. **Table 3-17** illustrates the low range and high range population projections for the County.

Table 3-17: Population Projections

Year	1995	2000	2005	2010
Low Range Population Estimates	159,800	167,900	175,650	183,700
High Range Population Estimates	159,800	174,945	189,100	203,175

Source: 1992 NBBJ Master Plan of Facilities

The sustained population growth of Clermont County could be a major factor in determining the County's facility needs and is useful in determining the impact of the desirability of the locations of County government functions.

The 1992 Master Plan of Facilities predicts that the location of the population growth outlined in **Table 3-17** will take place along the corridors surrounding the towns of Batavia, Amelia, Williamsburg and Bethel. The significance of the pattern of predicted growth is that the existing three major County facility sites (Downtown Batavia, Bauer and Filager roads) will become increasingly central to the growing population. In actuality, the majority of the County's growth has occurred along the interstate 275 corridor, which could have been more accurately been predicted through population analyses.

R3.21 A methodology for projecting population that accounts for the County's needs and services should be adopted by the County and used to determine facility capacity and utilization at least every five years. The County can use population projections to evaluate building location, usage, capacity, and estimating staffing needs. Building capacity and utilization should be reviewed periodically in conjunction with population projections to determine the appropriate number of County facilities needed to serve the current and projected population of the County.

Technology

F3.45 The current work order processing system limits management's ability to make effective decisions regarding the needs of the maintenance department. Work orders are generated by

designated building personnel who send service requests to the Facilities Management Department via fax or electronic mail. Service requests are given to the facilities coordinator for review and then given to the appropriate maintenance worker for completion. After the work order is completed, the date it was completed, a description of the work performed, and the time the task was completed are recorded on the service request form. They are then given to the facilities supervisor for review and entered into a time tracking database by the Department secretary. The time tracking system is used to access daily work output, payroll calculations and work order reconciliations, and is used by the OMB to calculate maintenance and repair costs for the County's facilities.

To calculate payroll for the Facilities Management Department, an administrative assistant in the OMB downloads the time tracking information entered by the Department secretary and manually reconciles the information, such as vacation time, overtime and other benefits, to payroll information kept by the County auditor. Although the time tracking system tracks projects and hours worked by employees per building, the County does not know how many work orders are outstanding and has not established a method to monitor worker productivity.

The management systems specialist has expressed interest in purchasing Work Director software which will track work orders; work order requests; labor activities; compile work history and costs; track equipment and materials inventory; maintain maintenance and scheduled activities logs; and perform other user defined functions. The software costs approximately \$2,100.

R3.22 The County should purchase an automated comprehensive work order system such as the Work Director software which will allow the County to track work orders, material use figures, personnel information and productivity statistics with relative ease.

Using accurate cost data and time-to-completion information may result in improved resource allocation. The department would be able to track the status of outstanding work orders, monitor open work orders, forecast workload and staffing needs, and analyze the cost to do the work. The information provided by the comprehensive work order system would be useful in budgeting and capital planning. The work order system should be used to track material and labor costs and the actual time used to complete work orders in order to better monitor maintenance levels and staff productivity.

Financial Implication: The cost of the Work Director software is approximately \$2,100. However, in-direct costs may also occur due to installation of the software and employee training.

F3.46 All of the County's boilers and HVAC systems are equipped with audible alarms that are tied into the security system at the Communications Center Building. If an alarm sounds, it will show up as a boiler alarm, prompting a 911 dispatcher to contact the HVAC technician, who is on 24 hour call. Because of this, the Department does not conduct weekend building checks

The boilers at the Medical/Social Services Building are the only boilers remotely monitored by a computer software package. The boilers systems can be monitored through a modem, which allows the boilers temperatures to be changed from any computer terminal by the HVAC technician. The boiler system at this location is also tied into the HVAC's pager, so that if the temperature of the boiler becomes too high or low, the boiler alarm will activate security at the Communications Center as well as directly paging the HVAC technician.

C3.4 The County has eliminated the need for weekend building inspections, which saves the County from paying unnecessary overtime. Because county personnel do not perform off-site inspections, the use of alarm systems tied to the Communications Center and the remotely controlled boiler at the MSSB allow the County to monitor the boilers without on-site presence of facilities management staff members

Energy Management

F3.47 Due to the de-regulation of the gas industry, the County can purchase gas from any supplier and pay the local utility to transport the gas. The County started purchasing self-help gas from Cinergy Resources in March 1998. By purchasing self-help gas, the Department has saved nearly \$12,000 from March 1998 to December 1999.

F3.48 Deregulation of the electric industry will go into effect in 2001, which will allow the County to purchase electricity from any supplier, although Cinergy will continue transporting and delivering electricity for the County. The County has convened an energy deregulation task force consisting of representatives from the Sewer and Water Department, Facilities Management Department, Permits Central, Office of Management and Budget and the Information Systems Department. The task force meets monthly to discuss options for the Department in anticipation of electrical de-regulation.

C3.5 By taking advantage of the deregulation of the gas industry, the County has decreased its utility expenditures and increased funding to support facilities-related programs. In addition, conducting regular meetings made up of diverse county departments and personnel dedicated to electrical deregulation will ensure adequate communication and input regarding up-coming electrical deregulation options for the County.

F3.49 **Table 3-18** lists County costs per gross square foot for utilities and electricity use by kilowatt hours (KWH), and compares those costs to IFMA averages. For this analysis, the other use, data center and customer service facility categories are included in the multi-use category to more closely correspond to the IFMA Benchmarks III Report # 18 categories for utility costs.

Table 3-18: Electricity Costs and Kilowatt Usage by Exterior Gross Square Foot

Category	Lowest County Utility CSF ¹	Highest County Utility CSF	Average County Utility CSF	IFMA Average CSF	Average County KWH Used	IFMA Average KWH Used
Headquarters	N/A	N/A	\$1.20	\$1.88	15.08	26.82
Multi-use	\$.04	\$3.40 ²	\$1.30	\$2.29	19.41	37.76
Offices	\$.52	\$.97	\$.78	\$1.75	7.53	28.27

Source: County records and IFMA Benchmarks III Report #18

¹ CSF- Cost per square foot

² The Adult Detention Center and the Communications Center. These have the highest electricity consumption because they are in constant operation.

Note: Fourteen of the County's facilities were not included in this analysis because utilities for those facilities are not paid from the Facilities Management Department's budget. The Sheriff's office and the Adult Detention Center/Jail are included in this analysis.

The County appears to adequately monitor energy consumption in the majority of its facilities and is expending utility costs at below IFMA averages. However, the County has three facilities that exceed IFMA averages in average utility costs per square foot: the Adult Detention Center, Communications Center and Transportation Connection/Adult Treatment Center Building. While these higher costs may be a result of 24 hour building use, the County has not studied electricity usage in these buildings.

F3.50 In 1996, the County Water and Sewer Department purchased a systems analyzer that attaches to the in-coming Cincinnati Gas and Electric Company (CG&E) power supply to monitor and electronically log energy utilization, including peak load and amperage, primarily on air conditioning and heating elements in use by the Water and Sewer Department. Because of these monitoring efforts, the Water and Sewer Department has been able to reduce electrical costs by approximately \$128,000 between 1995-1998. Water and Sewer Department personnel offered to analyze the HVAC systems in the County for a nominal charge covering staff time; however, the Facilities Management Department declined to take advantage of the systems analyzer. In 1999, the Facilities Management Department purchased an Amprobe data/logger recorder and an oscilloscope, which the Department uses to troubleshoot electrical problems and determine if problems lie within the County's electrical system or within CG&E. The Facilities Management Department uses the equipment solely to troubleshoot problems as they occur and has never used the equipment to perform a systems analysis that could better track utility costs and monitor high use areas.

R3.23 The Facilities Management Department should analyze building energy consumption to help reduce utility costs. Because the Water and Sewer Department staff have the expertise to properly analyze the County's air conditioning and heating elements, the Department should request the assistance of the Water and Sewer Department to perform analyses on the County's HVAC systems. Also, the MW3 electrician should use the Department's Amprobe system to perform a systems analysis on each facility's power supply to monitor and log energy utilization that includes peak load and amperage.

The County should also request that its present electricity provider, CG&E, conduct an energy consumption audit on those facilities that have the highest kilowatt per hour and utility cost per square foot. The CG&E audits not only provide an assessment of energy consumption by building, but also suggest ways in which an entity can reduce their overall utility consumption, such as optimal heating and air conditioning temperatures, optimal HVAC efficiency and current technology advances that can better regulate energy consumption.

Finally, the County should follow recommendations for the Adult Detention Center, outlined in a March 2000 report by the engineering firm of Fosdick and Hilmer. The report suggests that the County should replace lighting ballasts, upgrade chillers, and upgrade and calibrate the building's automation system.

F3.51 Utilities for the Adult Detention Center and the Sheriff's Office are paid out of the Facilities Management Department's annual budget, although the Department does not perform work at either facility. Maintenance and custodial operations at both facilities are performed by internal staff and JIP. A sample of four similar sized counties revealed that utilities, preventive maintenance and custodial operations of the Sheriff's Office and Adult Detention Center all were under the jurisdiction of the various facilities management departments. Because the Facilities Management Department does not perform services at either building, energy analysis and conservation efforts are not addressed or overseen by Facilities Management Department personnel. Utility costs for both facilities amounted to \$166,999 for 1999, or about 8 percent of the total Facilities Management Department budget. The majority of this expense can be attributed to the fact that the buildings are in continuous operation and have unique electricity consumption demands.

R3.24 Because utility costs for the Sheriff's Office and Adult Detention Center/Jail represent a substantial part of the total Facilities Management Department budget, the County should better regulate energy consumption at these facilities. In doing so, the County should consider centralizing the maintenance and operation of the two facilities under the Facilities Management Department. This would be more in line with other similar sized counties and would increase centralization and oversight of the County's utility consumption. In addition,

the Sheriff's Office should take advantage of the Amprobe system discussed in **F3.49** and perform an energy analysis. In conjunction with the CG&E energy audits, this data can be used to help control and reduce overall utility costs.

F3.52 The County has not significantly addressed energy conservation measures in County facilities. Beginning in 1995, the County started retrofitting building light bulbs from larger T-12 type fluorescent bulbs to smaller, more energy efficient T-8 type bulbs. In conjunction with the bulb replacements, electronic ballasts were installed with the new bulbs that regulated electrical consumption and minimized electrical lighting current flowing to the more efficient bulbs during peak times. According to the facilities coordinator, approximate savings of between 3 and 5 percent in utility costs were realized from the retrofit. However, only 4 of the 40 buildings in the County were completely retro-fitted with both the T-8 bulbs and the electronic ballasts. The remaining buildings have been partially retrofitted with only the T-8 bulbs, have not been retro-fitted because they are leased, or have been recently constructed with more efficient lighting already in place.

R3.25 The County should install T-8 fluorescent bulbs and electronic ballasts in the remaining buildings. In doing so, the County should assess further options that will match the County's facilities needs with electronic monitoring equipment that can analyze electric power use patterns to control energy costs. The County should take into consideration the following measures when analyzing electronic consumption to their facilities:

- **Load Profile:** The County should assess the power distribution systems in every facility and document the results in CAFM diagrams.
- **Equipment Options:** The County should determine where monitoring equipment would prove the most beneficial, such as the largest lighting, motor and heating loads.
- **Software Opportunities:** Software and meters that are tied into monitoring equipment can detect peak demand and power factors to track disturbances and energy cost per department or tenant. Meters and software can provide 24 hour 7 day load profiles, as well as automate load control and load management.

Financial Implications Summary

The following table summarizes the total estimated savings and implementation costs for the recommendations in this section of the report. For the purpose of this table, only recommendations with quantifiable financial impacts are listed.

Summary of Financial Implications

Recommendation	Estimated Annual Cost Savings	One-time Implementation Costs
R3.7 Eliminate the MW1 positions and use the JIP to clean the Professional Building and the Milford Auto Title Building	\$24,800	
R3.10 Purchase and implement preventive maintenance software to manage preventive maintenance efforts		\$3,000-\$6,000
R3.14 Through bulk purchasing, decrease the cost of cleaning supplies	\$15,000	
R3.17 Transfer alarm installation from Honeywell to an in-house employee	\$2,400	
R3.20 Close the Service Center and Coroner's Office to reduce unused space	\$34,000	
R3.22 Purchase automated comprehensive work order system software		\$2,100
Total	\$76,200	\$5,100 - \$8,100

The County estimates the total cost to renovate existing and construct new facilities to be approximately \$26.2 million. Renovations of existing facilities would cost \$6,115,000 and new construction would amount to \$20.1 million.

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