



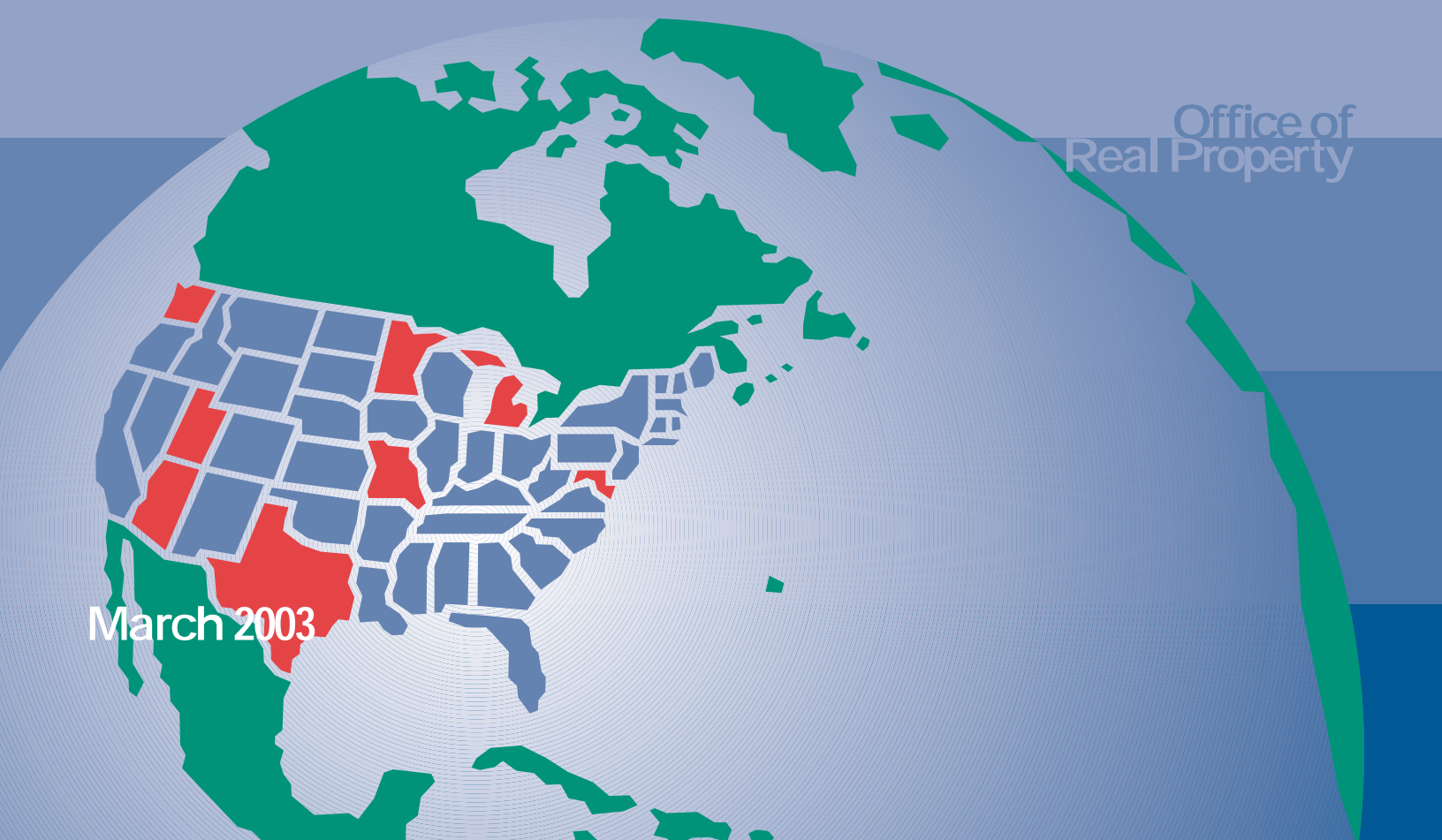
Best Practices

in Real Property Management

in State Governments

Office of
Real Property

March 2003







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Foreword

On behalf of the Administrator of the General Services Administration, the Office of Governmentwide Policy and the Office of Real Property, I am pleased to issue Best Practices in Real Property Management in State Governments. This report offers details on innovative, best practices in operation at the state level, with the intent that sharing these practices may lead to creative, new approaches throughout other levels of government.

I would like to recognize David Bibb, Deputy Associate Administrator for the Office of Real Property, whose staff undertook this research effort. Under the guidance of Marjorie Lomax, Director of the Evaluation and Outreach

Division, and Andrea Wohlfeld Kuhn, the team leader, the project team consisted of Dennis Goldstein, Sheldon Greenberg, Robert Harding, Jonathan Herz, and Rebekah Pearson. I would like to commend George Washington University's Department of Public Administration for their role in the project, particularly Dr. Kathryn Newcomer, Principal Investigator, and Robin Kane and Howard Smith, Research Associates.

Most importantly, we would like to recognize the contributions from experts at the state level who provided extensive information and first-hand knowledge of best practices in their states. Their participation enabled us to provide examples of best practices at the state level.



G. Martin Wagner
Associate Administrator
Office of Governmentwide Policy
U.S. General Services Administration



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Executive Summary

Imagine...

...a rooftop ice pond system that freezes water at night and blows air across it by day to provide the primary source of air conditioning.

And then...

...imagine grass growing on other portions of the roof, for use as insulation and as a storm water measure. The building also stores storm water, pumps it to the roof, and then uses it to flush the toilets.

Imagine...

...finding all maintenance materials for a building on a CD-ROM, complete with links to drawings, manuals, etc.

And then...

...imagine trading in your existing property with its outmoded facilities for a new site with facilities built to your specifications, valued at twice the value of your original property.

Imagine and now acknowledge...

...that each of these scenarios are real and exist as a result of

innovative best practices undertaken by states throughout the country.

These are only a few of the innovative practices you'll find detailed within this study. You'll find more details about Maryland's Smart Growth program and movement to create "green" buildings. Washington's "Buildings on a Disk" system that provides maintenance information electronically is explained. The unheard of real estate transaction in Washington, which turned a \$4.8M asset into one worth at least \$9.5M is detailed within. Each of these practices is further highlighted within this report, with more detailed specifics in the appendices. Additionally, an explanation of the methodology employed in determining best practices and states is found in Appendix I.

The following states were chosen as exemplars in the following study areas:

- Acquisition and Construction (Maryland, Minnesota, Utah)
- Operations and Maintenance (Michigan, Missouri, Utah)
- Web-Enabled Software (Texas, Washington)
- Public-Private Partnerships (Arizona, Washington)



I. Acquisition & Construction

Maryland, Minnesota, and Utah were identified as leaders in the acquisition and construction of real property, which includes planning, design, construction, leasing and capital improvements.

These states have integrated processes for determining statewide priorities for limited capital development resources. In the area of leasing, the three states all have centralized most leasing functions in one agency. Officials in the three states identified the following key practices as instrumental to their success.

A. Design and Construction

- Maryland's Smart Growth System chooses projects that reflect its commitment to advancing most growth within central business districts while protecting green space and rural areas.
- Minnesota's Integrated Predesign and Budgeting Process uses a hierarchy of tools that integrate the process into the Capital Budget System from predesign through occupancy.
- Utah's Value-Based Selection (VBS) uses a combination of factors in choosing construction contractors, including qualification, past performance, on-time delivery history, and others, in addition to price.

B. Leasing

- Maryland's Procurement Law guides the acquisition of leasehold interests, encouraging competitively solicited proposals and a system of ranks and scores.
- Minnesota's Mixed System functions by having the central state leasing agency work collaboratively with the requesting agencies in a system that often uses competitive bids.
- Utah's Request for Proposal (RFP) System works by having the responsible state leasing agency work with the requesting agency to develop an RFP, and choose the winning bid not on lowest bid but rather on the best property within the allotted budget.

II. Operations & Maintenance

This section features practices in Michigan, Missouri, and Utah, although leaders in the first practice area, acquisition and construction, tend to also excel in this practice area.

The practices identified by state leaders as influential in their success are the following:

- Michigan's Maintenance Excellence Program is based on a sophisticated software program, MAXIMO, which has coordinated nine project teams into a proactive maintenance program.
- Missouri's Maintenance Software and Evaluation System uses a new software program, MS 2000, to coordinate numerous maintenance functions.
- Utah's Capital Facility Assessment features a comprehensive program to assess the maintenance needs of facilities, including a three-year survey of nearly all of the state's property.
- Utah's Preventive Maintenance Audits set minimum maintenance standards for all agencies in the executive branch, and conduct audits to determine whether those standards are being met.

III. Web-Enabled Software

Washington State and the Texas Department of Mental Health and Mental Retardation (DMHMR) are leaders in the use of web-enabled software to manage real property. Michigan's use of its MAXIMO program in upgrading the state's preventive maintenance program is also highlighted.

Compared to the practices of acquisition, construction, operations and maintenance described above, fewer states are pursuing innovative practices in the use of web-enabled software. Experts hypothesized that this may be due to an early focus by states in developing Internet applications for agencies that deliver services directly to citizens rather than for internal purposes.

Washington and Texas use web-enabled software to assist in leasing, planning and construction, and maintenance. The following is a list of practices highlighted by state officials.

A. Leasing

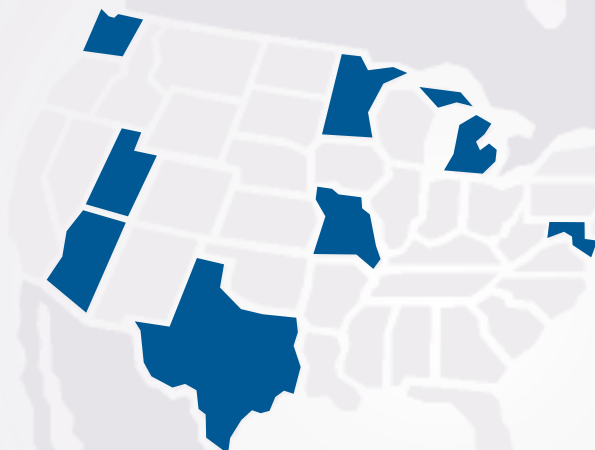
- Washington State's Leasing program uses software for solicitation outreach and to maintain a Lease Inventory System database of all property leased from the private sector.

B. Planning and Construction

- Washington's Public Works Bidding Process uses an advanced web-based software system called FastBid™ to streamline the process for soliciting public works construction bids.
- Texas' Capital Assets Planning uses VFA Facility software for strategic purposes to plan capital projects and construction, and to construct project proposals used in formal requests for funding.
- Texas' Construction Project Management System uses Expedition software to manage construction projects, including bids, specifications, expenditures, contracts, and more.

C. Maintenance and Management

- Washington's Building on a Disk gathers all operations and maintenance information for a facility on a single CD-ROM (which could also be available on an Intranet), providing a snapshot of all maintenance materials for the building.
- Texas' Facility Assessment creates a baseline of the agency's needs and facilities to utilize all its other software programs for maintenance and construction.
- Texas' FacilityCenter™ uses a single software system to order materials, handle lease management, manage maintenance and operations, and produce work orders.



IV. Public-Private Partnerships

There are three practices described in Arizona and Washington.

- Arizona's Privatized Lease-to-Own (PLTO) System pays for new state-owned buildings without upfront funding or state-backed bonds. The system saves state money in both the short- and long-terms, and gives the state a multi-million dollar asset at the end of a 25-year lease.
- Washington State's Land Swap involved the state patrol exchange of an old light-industrial facility and property appraised at under \$5 million in exchange for new property with newly built facilities worth nearly \$10 million through a unique process with a private developer.
- Washington State's Lease Development Proposal implements a new method in which developers can respond to an RFP by submitting a proposal to build on state-owned land.

Many of these innovative and best practices have resulted in streamlined operations, cost savings, and innovative solutions to complex problems. They offer new ideas for real property management. We hope that these best practices will inspire you to take a new look at your asset management practices and enhance or perhaps develop new management approaches. While the findings in this report reflect best practices identified by state real property organizations, their applicability at the Federal level will vary depending on many factors, such as enabling authorities and legislation, current fiscal/budgetary limitations, operating policies and procedures or other considerations.

I. Acquisition & Construction

Maryland, Minnesota, and Utah were identified as leaders in the acquisition and construction of real property, which includes planning, design, construction, leasing and capital improvements.

Introduction

States that are exemplars in the acquisition of real property typically have integrated processes for determining statewide priorities for limited capital development resources. State planning is coordinated across multiple agencies, sometimes directed by the department or agency with day-to-day responsibility for real property management, sometimes directed by a central planning board. State capital decisions are based on structured scoring models that take strategic priorities into account. All three states centralize most leasing functions in one agency.

Design and Construction best practices include:

- Maryland's Smart Growth system
- Minnesota's integrated predesign and budgeting process
- Utah's Value-Based Selection (VBS) system

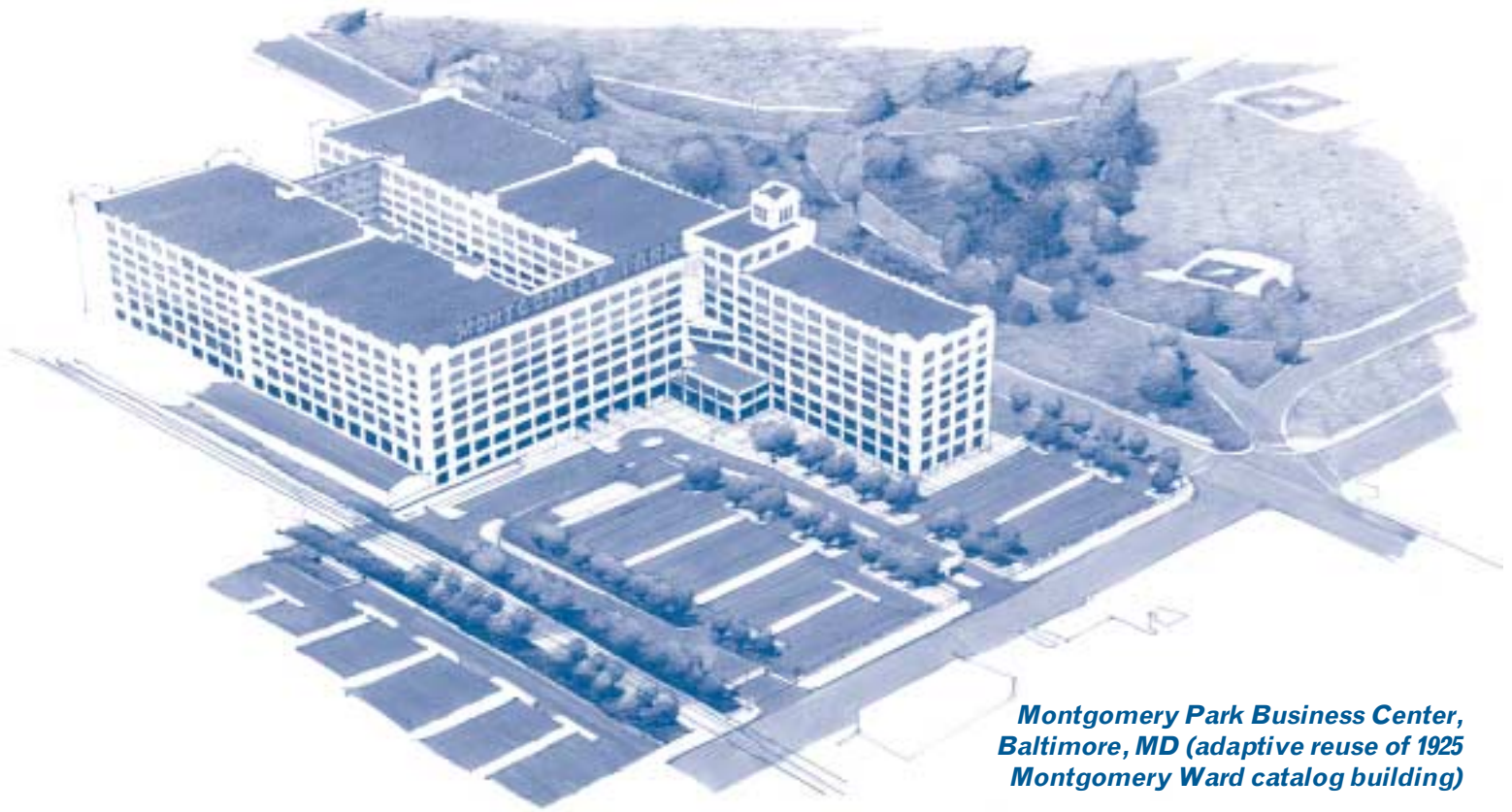
Leasing best practices include:

- Maryland's procurement law
- Minnesota's mixed leasing system
- Utah's RFP system

This section also highlights cost savings due to the practices above.



I. Acquisition & Construction



**Montgomery Park Business Center,
Baltimore, MD (adaptive reuse of 1925
Montgomery Ward catalog building)**

A. Design & Construction Services

This section summarizes practices in the planning, design, and construction of new facilities or in capital improvements that state leaders identified as key to the success of states in this area.

Maryland's Smart Growth

Maryland has instituted a wide-ranging program to foster "smart growth" in the state. From purchasing property to leasing private space, the state chooses projects that reflect its commitment to advancing most growth within central business districts while protecting green space and rural areas. In recent years, the state has purchased and protected more land than it has developed, according to the Office of Real Estate in the Maryland Department of General Services (DGS).

According to one official, the state "achieves smart growth goals through competitive means." In order to achieve these goals, the state has created a smart growth checklist. This list is publicly available and offers private proposers in real property transactions an opportunity to win points by creating proposals that incorporate smart growth ideas. These could include projects such as remodeling underutilized buildings within central business districts of older communities that have declined.

Maryland's Green Buildings program:

- Offers guidelines to the private sector regarding the types of buildings most likely to lure state agency rentals.
- Uses the U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) criteria for green buildings. (See http://www.usgbc.org/LEED/lead_main.asp for further information).

- Criteria begin with the site, where points are given for buildings in areas that will not require new infrastructure, sewers, roads, etc.
- Outlines criteria in a range of areas such as HVAC systems, energy efficiency, and the use of recycled materials in wallboard.
- Allows the private sector to bring green buildings to the state for leasing and therefore increases the state inventory of more sustainable buildings.
- Remains flexible as to the specifics.

Through its Green Building program, the state realizes significant cost savings through better energy and resource management. Operating overhead will be lower in these

buildings. While some argue that constructing green buildings increases costs, the state has negotiated leases in green buildings at or below market rates.

The Maryland Energy Administration also offers low- or no-cost loans for energy efficiency projects. The Facilities Planning, Design and Construction division of DGS recently completed a \$19 million remodel of an entire physical plant of one building; it will be paid back in full through energy savings during a maximum of 15 years. The contractor guarantees the energy savings, so that if the energy savings do not meet expectations, the contractor pays the difference.

See *Appendix 2: Maryland's Smart Growth* for more information.

Maryland Smart Growth checklist

	A	B	C	D	E	F
1	ELIGIBILITY SCREEN	Project must answer yes to all questions				
2	Is the proposed project located in an approved Priority Planning Area as outlined with the 1997 Smart Growth Act?					
3	Is the project located in that area designated for development that is not already targeted by state or local government programs or projects?					
4	Is the project in an area of the project within a 1/2 mile walking distance from public transit (i.e., including "light rail transit," or a "Rapid Area" of 2)?					
5	SMART GROWTH SCORECARD	Overall Rating				
6	ATTACHMENT 1 (refer to detailed score card for explanation of attributes)	N/A	Poor	Fair	Good	Excellent
7	A. Location					
8	Is the proposed project located adjacent to existing development?					
9	Does the project require a brownfield site?					
10	Does the proposed project or its location require other structures to support vehicle egress?					
11	B. Service Provision and Government Expenditures					
12	Does it require or planned roads and road capacity within 1/4 mile of the project site as planned or under way?					
13	Does it require or planned road capacity or additional capacity planned (Y/N for non-residential projects)?					
14	Does it require or planned road capacity?					
15	C. Density and Land Use					
16	Project density					
17	For residential projects, is there adequate density?					
18	For projects that are not residential, is there adequate density?					
19	If project is in a "brown field" area of a planned or existing transit infrastructure, the project is developed at a density supporting the transit infrastructure.					
20	Is the project developed at "brown field" densities based on potential future transit?					
21	Site was developed to accommodate transit.					
22	Site was developed to parking in a transit lot.					
23	Transit structure/parking is used.					
24	D. Mixed Use					
25	Does the project have a mix of uses (i.e., includes housing, retail, office/commercial, public buildings, entertainment, public space)?					
26	Is, for small, multi or single use projects, the project able to be developed in a mix of uses within 1/4 mile?					
27	Does it have a mix of uses physically mixed in the project or within the immediate adjacent neighborhood?					
28	E. Housing Diversity (Applicable to projects with residential)					
29	Does it have a mix of housing types as proposed?					
30	Is, if project is small, multi or single use, the type of housing provided increases the diversity of housing options in the immediate neighborhood?					
31	Does the project provide housing priced to different income levels?					
32	Is, if project is small, multi or single use, the housing provided increases the diversity of housing prices in the immediate neighborhood?					
33	Housing types and price levels are physically mixed in the project or within the immediate adjacent neighborhood.					
34	F. Transportation					
35	Accessibility, Walkability and Connectivity					
36	Proposedly needed uses are within 1/4 mile.					
37	Proposedly needed uses are safely accessible without a car.					
38	Is the project or served by public transit?					
39	Is an existing or planned transit facility to serve the project, and is safely accessible without a car?					
40	Does the project have a transit system, or is it physically adjacent to transit systems at multiple locations?					
41	Does the project provide an essential transit system that is interconnected, without tolls or fees?					
42	Is the project or served by an existing transit system that is interconnected?					
43	Does the project provide an essential transit system that is interconnected, without tolls or fees?					
44	Does the project provide an essential transit system that is interconnected, without tolls or fees?					
45	Does the project provide an essential transit system that is interconnected, without tolls or fees?					
46	Does the project provide an essential transit system that is interconnected, without tolls or fees?					
47	Does the project provide an essential transit system that is interconnected, without tolls or fees?					
48	Does the project provide an essential transit system that is interconnected, without tolls or fees?					
49	Does the project provide an essential transit system that is interconnected, without tolls or fees?					
50	Does the project provide an essential transit system that is interconnected, without tolls or fees?					

I. Acquisition & Construction

Minnesota's Integrated Pre-design/Budgeting Process

Minnesota has instituted an integrated system for budgeting, designing and building capital projects. Beginning at the top, the hierarchy of tools in this process includes:

- Capital Budget System (CBS)
- Pre-design Manual,
- Design Guidelines
- Design-Bid-Build delivery method for construction projects.

The Department of Administration's Division of State Building Construction (DSBC) leads this effort from pre-design through occupancy.

By statute, the state requires that agencies submit a pre-design document to the Department of Administration for all new construction or major remodeling project requests. The state assesses the need, cost, scope and schedule of the project, all of which are then subsequently used in the Capital Budget System. The state initiated this integrated system in the mid 1990's, with capital projects requests on even-numbered years.

Along with the Department of Finance, which manages the CBS, the Department of Administration reviews and comments on all capital requests. Agencies may then clarify or correct their proposals, based on those comments. The DSBC focuses on pre-design

STATE OF MINNESOTA

Department of
Finance

FY 2002 – 2007 Capital Budget Instructions



UTAH STATE BUILDING BOARD Five Year Building Program

For State Agencies and Institutions
Prepared for the Governor and the 54th Legislature
General Session 2002



First District Court
Logan, Utah

VCBO Architecture
Oakland Construction

issues, commenting on cost and program regarding architecture and construction. Ideal predesign documents include all items required under the CBS system, such as linking capital projects to an agency's strategic plan.

Under current law, the state uses a traditional project delivery method: Design-Bid-Build. With legislative pre-approval, the state may under limited circumstance utilize a Design-Build method. For example, the state might seek such a method if there is a time deadline tied to a lease, or other critical need.

Minnesota's stringent predesign requirements likely save the state money by averting errors during design and construction. However, the agency has not yet quantified such savings.

See *Appendix 2: Minnesota's Integrated Predesign/Budgeting Process* for more information.

Utah's Value-Based Selection Process (VBS)

Utah has switched to using a value-based selection (VBS) system to choose architects, engineers and contractors for design and construction services. Under the previous process, the state used a low-bid model of selection for construction contractors (but not for architects and engineers). Under VBS, the state weighs a combination of factors for construction contractors, including qualification, past performance, on-time and on-budget delivery, prior litigation against the state, and price. The state also rates the proposal based on which subcontractors and superintendents the general contractor proposes.

When Utah previously chose contractors by the lowest bid, the state often suffered financial costs due to wasted time, poor

I. Acquisition & Construction

quality of workmanship, and additional administrative work involved in solving problems created by substandard contractors. Project superintendents were sometimes inexperienced in handling large, complex projects.

Utah's Value-Based Selection (VBS) system for procuring construction saves the state money. For example, although the state may pay \$10,000 to \$15,000 more for a project that uses a higher-quality subcontractor, the state saves more through the improved quality, lower number of legal claims, and improved on-time delivery rate.

During the previous two years, Utah set aside \$2 million in its capital improvement money for energy efficiency upgrades and water conservation projects. Each agency can promote efficiency projects. The state also hired a design consultant to develop standards for water-saving landscaping standards during new construction. (The state

had previously implemented a policy for energy efficiency standards that all new buildings must exceed.)

See *Appendix 2: Utah's Value-Based Selection Process (VBS)* for further information.

B. Leasing

This section summarizes practices used to lease facilities for state agencies. State leaders interviewed for this study identified these practices as key to the success of their states in this field. Utah and Maryland use extensive request for proposals (RFP) processes to secure leasing arrangements for state agencies, while Minnesota uses a mixed system dependent upon the individual request and other circumstances at the time. All three states have centralized systems for leasing properties, where one leasing division handles most or virtually all requests for state agencies.

**AGENCY CAPITAL
Fiscal Year
Dollars in Thousand**

Project Title	2002 Agency Priority Ranking	Agency Project Request (\$ by State)	
		2002	2004

I. Acquisition & Construction

amenities, number of people in the space, need for public access, and a wide range of other issues.

- The division conducts a comparative market analysis to see what is available that would meet the needs, and identifies possible properties.

The public notification process for state space needs varies by type of request, the rental market, and other issues. In most cases, the Real Estate Management Division will first look at the availability files. Landlords regularly contact the division to update the files on space availability. Because the system is centralized, everyone in the division is extremely knowledgeable of space available in the rental market. Therefore, the division rarely puts out solicitations for information in the form of an advertisement.

However, depending on the economy, and for requests larger than approximately 50,000 square feet, the division might prepare a formal request for proposals (RFP). In some situations, this might create a more competitive situation and lead to a better product.

Officials in Minnesota believe that the state's centralized leasing system generates better rents. The Real Estate Management Division staff members have expertise in everything from real estate negotiations to space planning and programs. This expertise helps the division negotiate better rents and space.

See *Appendix 2: Minnesota's Mixed System* for more information.

Utah's RFP System

In Utah, the Office of Real Estate and Debt Collection in the Division of Facilities Construction and Management (DFCM) manages leasing for virtually all state agencies. It works with the requesting agency to identify space needs, complies with a space standards book, and then develops the RFP around the program that will be delivered in the requested leased space.

After disseminating the RFP, the state chooses a proposal not based on the lowest bid, but the best property within the allotted budget. One official said this system "makes for happy, productive employees" in the new space. Also, by focusing all leasing through one agency, the level of space and service quality has improved.

Utah owns approximately 60 percent of the property it occupies and believes that it is generally better to own property than to lease it.

Utah leaders believe their consolidated system of leasing may lower the state's costs, but they said it is difficult to quantify because the system has been in effect for many years. Anecdotally, officials estimated that based on current market and advertised rates, the state is saving approximately 50 to 75 cents per square foot on its 1.6 million square feet of leased office space.

Appendix 2 offers more details on:

- Design & Construction Services
 - Including: Maryland's Smart Growth, Minnesota's Integrated Predesign/Budgeting Process, Utah's Value-Based Selection Process (VBS), and Maryland's Special Roofing Team.
- Leasing
 - Maryland's Procurement Law and Minnesota's Mixed System.
- Creative Building & Leasing in Action
- Construction Budgeting & Funding Processes
- Customer Feedback
- Other Factors
- New Ideas in Leading States
- Relevant Web Sites
- Contacts

II. Operations & Maintenance

This section discusses practices in the operations and maintenance of facilities, including the management of deferred maintenance. Leaders in three states, Michigan, Missouri, and Utah, identified specific practices as key to the success of their programs.

Introduction

While the states highlighted in the Acquisition and Construction section also have strong capabilities in this practice area, Michigan, Missouri, and Utah are particular standouts.

Michigan is noted for having a comprehensive approach to the sustainability practices through its “Maintenance Excellence” program. The program appears to be analogous to the “National Performance Review” approach, with teams being constituted in each area to design and implement reforms.

Several states are notable because they go farther than others to accurately identify the significant backlog of maintenance on existing

buildings. These states are creating special facilities maintenance reserve accounts, setting aside earmarked funds to address the problem. By law, Utah’s State Building Board controls a set aside 1.1% of the total current value of real estate for maintenance. Similar efforts are underway in Missouri, Iowa, and Minnesota, although those states do not have legislative requirements.

A summary discussion is provided on the following practices:

- Michigan’s Maintenance Excellence program
- Missouri’s maintenance software and evaluation system
- Utah’s capital facility assessment
- Utah’s preventive maintenance audits



II. Operations & Maintenance

The section also describes some cost savings due to the practices listed above. As would be expected, the new systems in Utah, Michigan and Missouri require initial and ongoing investments. At the same time, the states have all experienced savings due to the advanced operations and maintenance systems described here. Some savings are quantifiable while many are not.

Leaders compared the preventive maintenance now occurring in these states to properly changing a car's oil – it is helping the facilities to function at their peaks, and is preventing untold problems and associated expenses.

Officials in each state used a metaphor of an oil change on a car when describing the unknown savings their state is reaping. Without regular oil changes and proper care, an automobile can develop numerous, sometimes catastrophic problems. If cared for properly with regular oil changes, an automobile will perform up to its peak.

A. Facility Assessment & Preventative Maintenance

Michigan's Maintenance Excellence Program

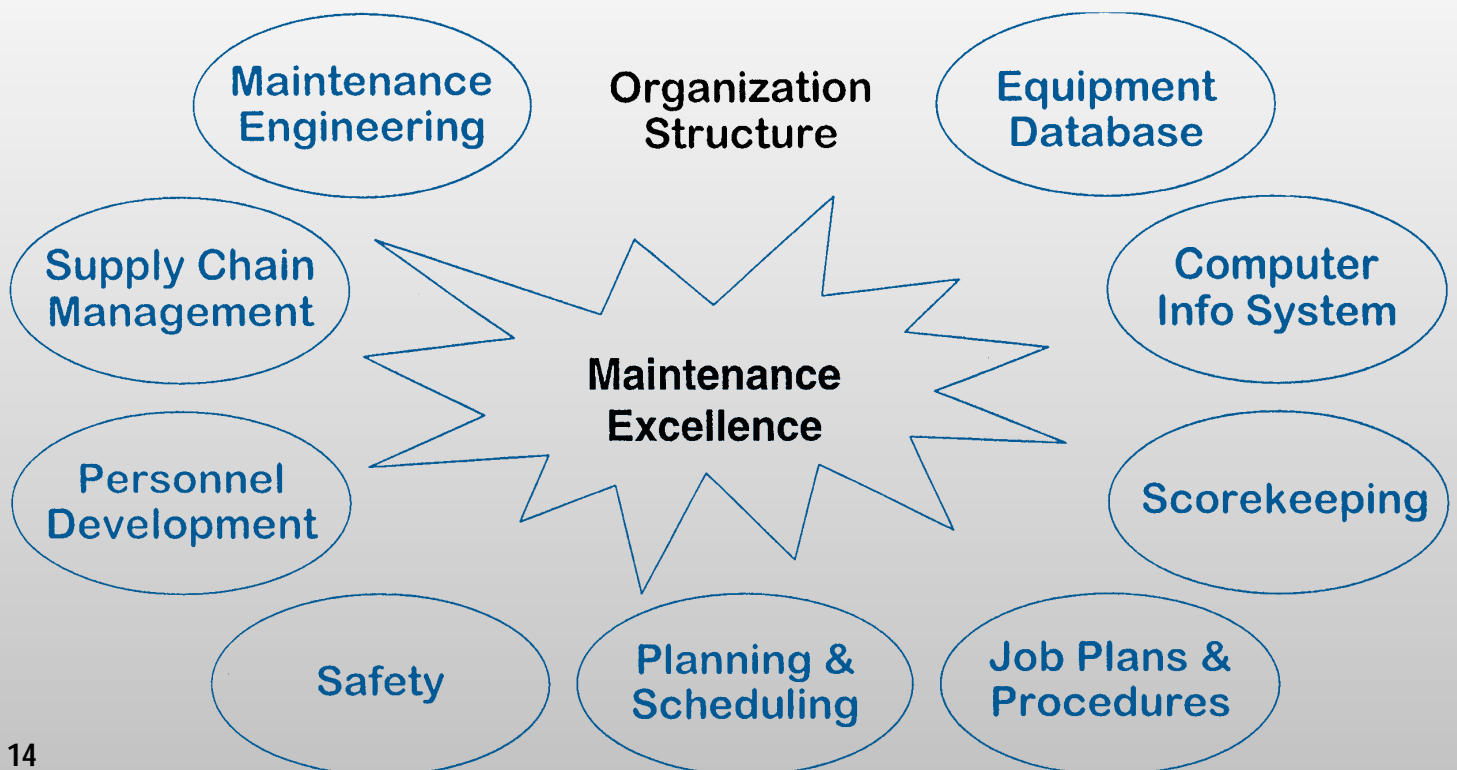
This section summarizes those systems or processes that state leaders identified as integral to the success of their states' operations and maintenance programs.

Michigan is instituting a comprehensive Maintenance Excellence program to enhance preventive maintenance and improve its customer service.

Description of Program:

Using a sophisticated software system called MAXIMO, the program coordinates nine project teams in order to transform the state's maintenance program from one that is reactive to one that is pro-active. These teams are responsible for initiating the following systems, according to documents from the

State of Michigan - Office of Property Services



Michigan Department of Management and Budget (DMB):

- Equipment Database – to provide consistent identification of all major equipment and essential data, in MAXIMO and in facility records
- Computer Information System (MAXIMO) – to implement MAXIMO software modules, processes, technology and training
- Supply Chain Management – to develop a process to reliably meet material supply needs at the right time, with the right quality, at the right place and with the lowest total cost
- Job Plans and Procedures – to establish a system for documenting essential maintenance tasks and procedures
- Planning and Scheduling – to redirect the Office of Infrastructure Services from a reactive to a proactive maintenance culture
- Scorekeeping – to establish a system to measure key internal processes and performance outcomes
- Safety – to establish essential health and safety programs, processes, and training
- Personnel Development – to establish competency-based employee performance development
- Maintenance Engineering – to establish a system for continuous quality improvement in maintenance

The software system, personal digital assistants, system-wide training, and other components entailed significant expenses up front. However, officials are confident that “it pays for itself in short order” by creating efficiencies, reducing work and costs over time. They identified a few key areas of savings and cost improvements based on the new system.

- More efficient labor utilization, less reactive work
- Reduced material and tool costs, because the state will have the correct tools in stock and will not buy unnecessary materials

- Extended asset life due to reduction in premature failures through proper maintenance

See *Appendix 3: Michigan's Maintenance Excellence Program* for more information.

Missouri's Maintenance Software and Evaluation

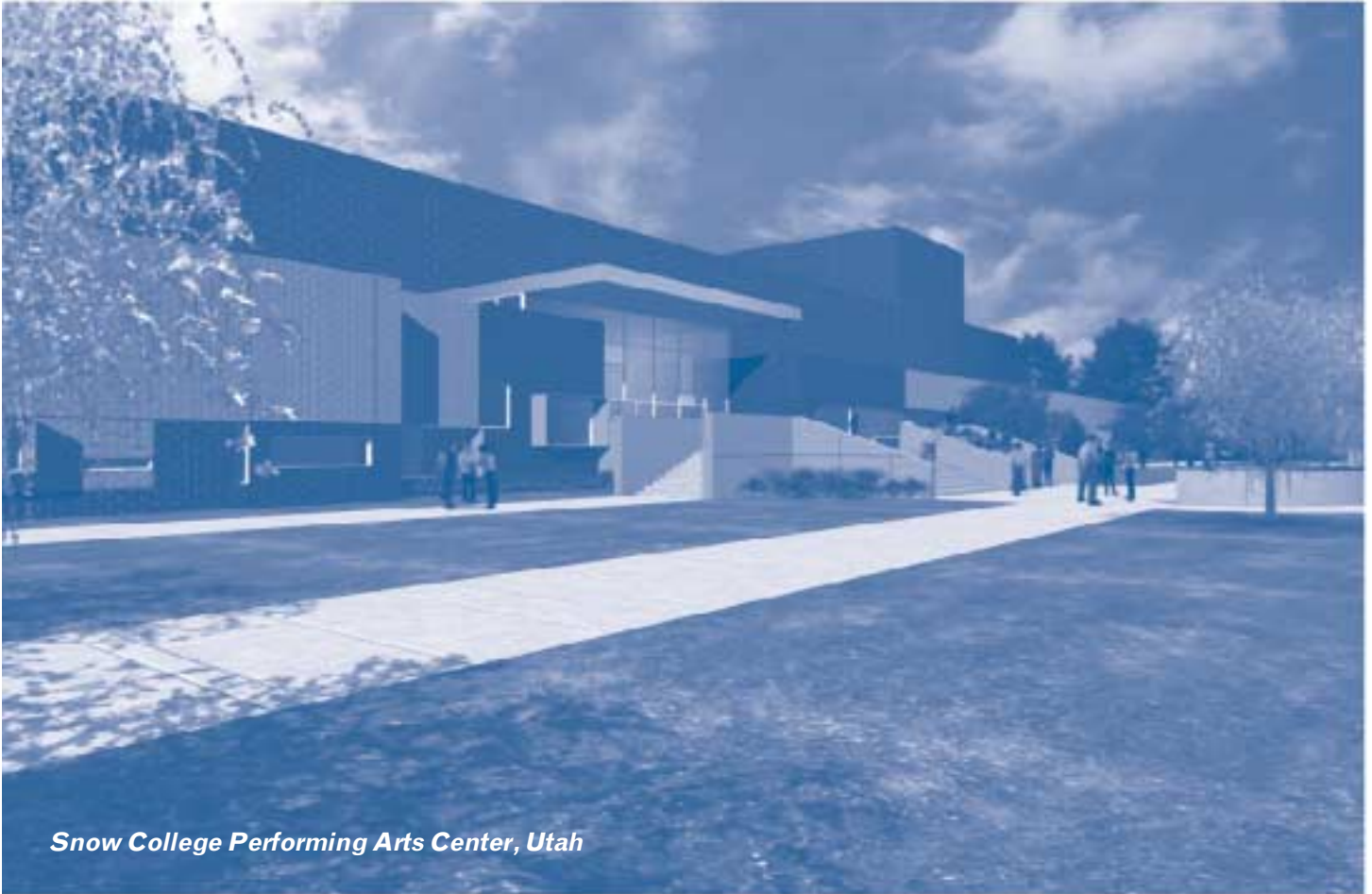
Missouri's relatively new computer program was identified as one of the best management tools in the maintenance of state buildings. The software program, MS 2000, coordinates numerous maintenance functions. It includes modules for equipment and parts, equipment maintenance schedules, preventive maintenance systems, and manuals, and identifies future inspection and maintenance dates.

Importantly, the software will remind maintenance staff to perform work assignments. This will improve customer service because maintenance staff members are often pulled in many directions with numerous work orders. In the past, some work orders have fallen through the cracks. The new software program sends reminders to staff until all necessary information is updated manually into the program.

The building operations team holds comprehensive weekly evaluation meetings. The team reviews the maintenance status of each state building, upcoming operations activities based on the computer program, all electrical systems, housekeeping issues, and more.

The software system has improved the agency's efficiency, cutting down on administrative overhead. However, one official said it does not decrease the amount of work the agency does, because now it must conduct more preventive, pro-active work than before. While the hours spent by maintenance staff may have simply shifted from reactive to preventive, the new system certainly improves the impact on tenants. In the past, mechanical and building failures disrupted tenants, as did the repairs. Preventive maintenance sharply reduces major system failures, improving the productivity of the tenants in state-owned buildings. The state has not formally calculated these savings, officials said.

See *Appendix 3: Missouri's Maintenance Software and Evaluation* for more information.



Snow College Performing Arts Center, Utah

Utah's Capital Facilities Assessment

Utah has implemented an aggressive, comprehensive program to assess the maintenance needs of its facilities. The Division of Facilities Construction and Management (DFCM) is responsible for this system.

The state's Capital Facility Assessment included a three-year audit of nearly all of the state's property. The state paid a third-party team of engineering and architectural consultants to assess state-owned property and buildings, document the status of all equipment, and estimate life expectancies for all properties. The team identified which items need maintenance or improvement immediately, those that require it within five years, and those within 10 years.

This conditions assessment now serves as a baseline for future maintenance and

capital improvement decisions for state agencies, and is used in agency budgeting.

Under the new system, the state is able to prioritize and plan for upcoming maintenance needs. The entire system will be linked through a live database.

Leaders in Utah believe the state has already recouped its investment in its Capital Facility Assessment, especially through the efficiency opportunities in energy. Mechanical equipment is the largest contributor to ongoing operations and maintenance costs of a building. When new buildings are constructed in a more efficient manner or old systems are replaced with newer, more efficient models, the savings over time are significant.

The DFCM has average costs of \$3.98 per square foot for operations and maintenance. Of that amount, \$1.10 is for electricity. Officials said this is lower than the national average. Over the past three years, DFCM has

captured 5.5 percent savings per year in reduced electricity costs. This process began three years ago. “We think there is another 10 to 15 percent savings out there,” through re-engineering and retrofitting, an official said.

The state also experiences fewer emergencies. Prior to the launch of the conditions assessment, maintenance requests were based on observations. But many facilities managers are not trained engineers, and therefore could not identify larger system problems before an emergency occurred. One leader noted that “the new system has improved the quality of requests; it brings forward the truly needed items.” For example, an agency might request a remodel for its office from the DFCM to solve some observable problem, but at the same time the mechanical systems are failing, out of view. The new system allows the DFCM to focus on needs rather than wants and to prioritize more efficiently.

See *Appendix 3: Utah’s Capital Facilities Assessment* for more information.

Utah’s Preventive Maintenance Audits

In addition to its Capital Facilities Assessment, Utah has a process whereby it sets minimum maintenance standards for all agencies in the executive branch and conducts an audit to determine whether the agencies have created adequate plans to meet these minimum standards. The state scores each agency on its ability to meet these standards. The DFCM audits the maintenance practices of executive agencies to ensure they are scoring properly – they must score a 90% or better.

Institutions for higher education, which comprise two-thirds of state-owned property, audit their own abilities to meet the standards. However, DFCM encourages higher education institutions to invite the agency to participate in these audits. DFCM then conducts an independent audit and compares its score to that of the educational institution. The two then discuss any substantial differences. If the DFCM believes that the institution’s own



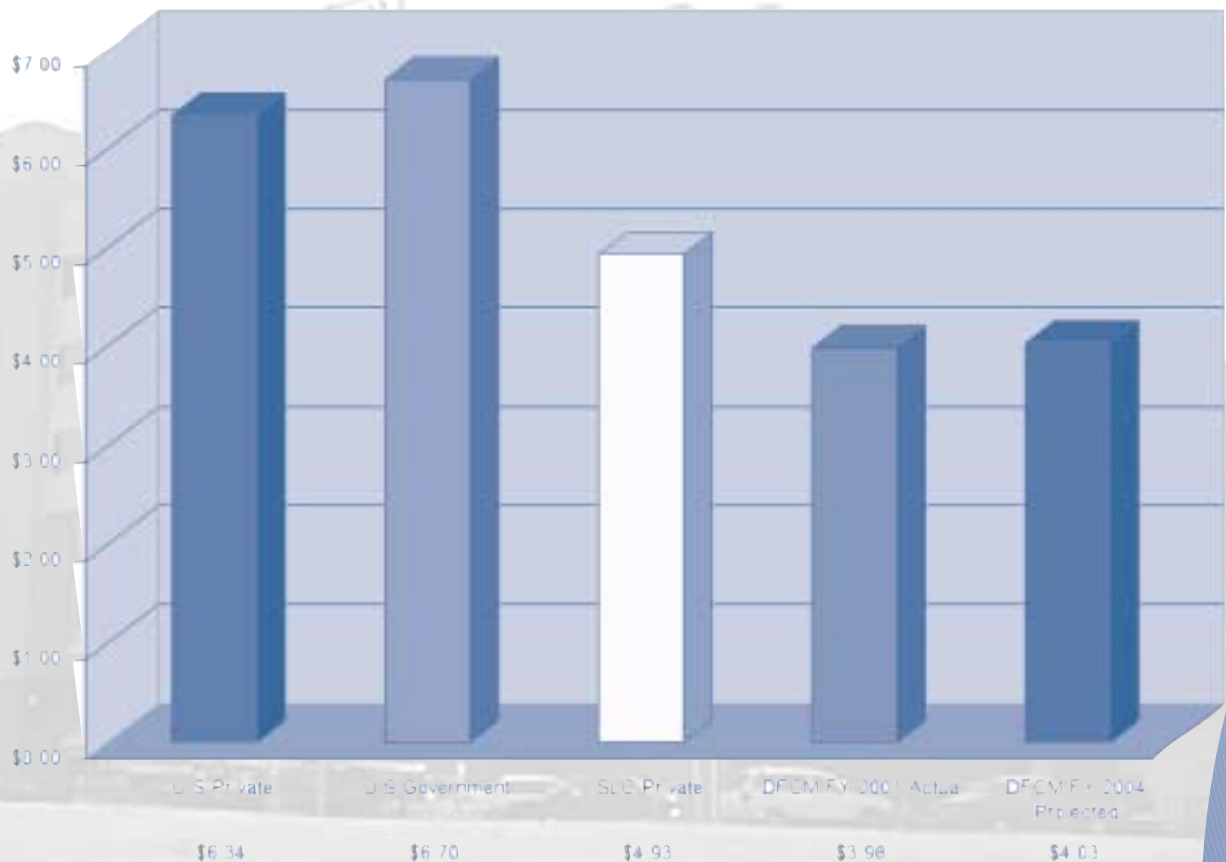
II. Operations & Maintenance

score is inappropriate to be reported, the DFCM offers the institution an opportunity to re-evaluate. If the two continue to disagree, they send both scores to the Building Board.

Appendix 3 offers more details on:

- Facilities Assessment & Preventive Maintenance including:
 - Michigan's Maintenance Excellence Program
 - Missouri's Maintenance Software and Evaluation
 - Utah's Capital Facilities Assessment
 - Utah's "campus versus shops" system
 - Other systems
- Budgeting & Funding Processes
- Feedback
- Relevant Web Sites
- Contacts

FACILITIES MANAGEMENT ISF RATE COMPARISON



III. Web-Enabled Software

Washington State and the Texas Department of Mental Health and Mental Retardation (DMHMR) are leaders in the use of web-enabled software to manage real property. Michigan's use of its MAXIMO program in upgrading the state's preventive maintenance program is also highlighted.

Introduction

Washington has developed web-enabled and Intranet services for a wide range of state agency purposes. The state has created a "Buildings on a Disk" service for state owned buildings. This system provides building managers with a complete inventory of all the physical systems in the building, as well as maintenance and repair planning and tracking capabilities connected to the centrally provided state services. The state also has a sophisticated online bid package for construction projects.

The Texas Department of Mental Health and Mental Retardation (TDMHMR) has established a Computer Aided Facility Management (CAFM) System covering its 1500 buildings at 22 agency schools and hospitals. The CAFM operates an enterprise system over the departmental Intranet that incorporates a web-based application, client-server, and hand-held computers to track and manage maintenance services, building conditions, property, assets, capital construction, and legislative reporting and requesting. The system has been used as a model for other departments in the state and other states in the region.



III. Web-Enabled Software

As discussed in more depth in *Practice Area 2: Operations & Maintenance*, the “Maintenance Excellence” program in Michigan includes the computer maintenance management system, called MAXIMO, which is currently online in all of the Office of Property Services managed buildings. The capability to support maintenance needs online has reduced cycle times and improved cost performance for the state.

Following is a summary discussion on these practices:

A. Leasing

B. Planning & Construction

- Washington’s public works bidding process
- Texas DMHMR’s Capital Assets Planning System
- Texas DMHMR’s construction project management program

C. Maintenance & Management

- Washington’s “Buildings on a Disk”
- Texas’ FacilityCenter™ maintenance program

D. Feedback & Internal Communications

A. Leasing

This section summarizes web-enabled systems in Washington and Texas that assist in real property planning, design, and construction, including major maintenance projects.

The Washington State Department of General Administration uses web-enabled software in simple and sophisticated ways. On the leasing side, the section uses it to lower costs and to enhance its solicitation outreach. The Real Estate Services (RES) section advertises all its space needs and co-location opportunities to reach private sector landlords and tenant agencies. It previously placed advertisements only in newspapers. These ads were wordy, hard to read, and very expensive. Now the agency places simpler, less expensive ads in newspapers and refers interested individuals to the agency’s web site for the complete request for proposal, resulting in agency savings of \$40,000 per year. It also has expanded its outreach since many businesses with available property did not necessarily see the ads in the paper. Now those companies can bookmark the agency’s web site and review it regularly for new space needs. (See: <http://www.ga.wa.gov/DRES/LeasedSpace.htm>).

■ Current Solicitations

Seeking space for leases over 5,000 sf

Location	Closing Date	Square Footage	Project Number

Internally, the Washington Real Estate Services section maintains a Lease Inventory System (LIS), which is a database of all property leased from the private sector.

B. Planning & Construction

Washington's Public Works Bidding Process

The Engineering and Architectural Services (EAS) section of the Washington State Department of General Administration uses an advanced web-based software system to streamline the process for soliciting public works construction bids.

Created and managed by a private company – the Builders Exchange of Washington – the FastBid™ software allows web access to an entire bid package, with drawings and all details. The Washington State Engineering and Architectural Services section web site links to the Builders Exchange site, where all its public bids are listed and available for contractors. Contractors can use this site to review building documents and to measure, estimate and prepare construction bids, and to print any number of plans or specifications, order prints, or register to be notified of new

documents on a given project. (See: <http://www.ga.wa.gov/eas/easvend.htm>, click on "Current Projects Advertised for Bidding." First-time users will need to download the free software.) The Builders Exchange promotes the system as "the world's first Internet blueprint reader that loads in 10 seconds."

The goal of this system is to move away from paper and keep as much as possible online. If fully implemented, the EAS official estimates that the state agencies alone would save \$1 million each year just in printing costs. An online system would also save time. When all participants are fully using the online system, an EAS official said the time to put a project out to bid would be cut in half at a minimum.

Capital Assets Planning System in Texas

The Computer Aided Facility Management (CAFM) Office of the Texas Department of Mental Health and Mental Retardation is an enterprise program of various systems designed to capture, retain and manipulate capital assets and facility management information for the agency. CAPS (Capital Assets Planning System) uses VFA Facility software for strategic planning purposes while the Construction Project Management System

■ Washington Current Market Searches

Seeking space for leases under 5,000 sf

Location	Square Footage	Date Posted	Project Number
Gig Harbor	8,822	1/06/2003	332-12-02
King & Snohomish Counties	1-6 acres	10/17/2002	274-10-02
Olympia, Lacey, Tumwater	7,747	6/5/02	248-10-01
Puyallup	4,685	6/5/02	188-06-00
Wapato/Toppenish	2,500 - 3,000	6/5/02	221-07-00

III. Web-Enabled Software

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Builders Exchange
of Washington

uses Expedition software to manage building projects.

CAPS is a tool for planning capital projects and construction. The system can construct an actual project proposal that an agency could then use in a formal request for funding from the state legislature. Using standards and estimates entered into the system, it produces the proposal and can distribute it electronically to relevant legislators and committees. This system also contains the Department's deferred maintenance list.

An official with the CAFM office said this system saves numerous hours of work.

Construction Project Management System in Texas

While the CAPS system is a planning tool that can create construction project requests for

the legislature, the Expedition Contract Management System manages the construction itself. Information from CAPS moves easily into Expedition, which then handles all documents through the construction process including bids, specifications, expenditures, contracts and more. This system is also used for major renovations.

Expedition is one aspect of the larger Construction Project Management System, which also includes the state's accounting and procurement systems, and more. The state uses separate software for those systems, which are not included in Expedition.

After the completion of a project, the information from Expedition is moved into the system for facility maintenance, called FacilityCenter™.

C. Maintenance & Management

This section highlights web-enabled programs that manages the operations and routine maintenance of real property.

Buildings on a Disk

The Engineering and Architectural Services section of the Washington State Department of General Administration has created a system known as "Buildings on a Disk." The system gathers all operations and maintenance information for a facility on a single CD-ROM, providing a snapshot of all maintenance materials.

EAS staff members go out to facilities and work with facility managers and their staff members to identify all relevant maintenance documents. These include architectural

drawings, maintenance manuals, and all other documents that maintenance staff members use regularly.

EAS places all this material onto a CD-ROM and burns five to ten copies for each facility.

Facility Assessment in Texas

The Computer Aided Facility Management Office in the Texas Department of Mental Health and Mental Retardation uses CAPS for capital planning, Expedition for managing construction projects, and FacilityCenter™ (see below) for its daily maintenance needs. Before implementing any of these systems, however, CAFM first needed to conduct a complete assessment of the Department's needs and facilities, to create a baseline for all its new software systems.

The Department hired Graphic Systems Incorporated, a Cambridge, Massachusetts

CAFM Program Overview

The CAFM initiative is an "Enterprise System" designed to capture, retain, and manipulate capital asset and facility management information.

III. Web-Enabled Software

facility management technology company, to assess the Department's needs and create a process for the entire effort. This step involved a steering committee, focus groups and some facility site visits.

GSI recommended VFA, Inc. as a sole source vendor to conduct a comprehensive assessment of all MHMR facilities, including schools and hospitals. (VFA is also the company that produces the software used in the CAPS system). The company began the assessment in late 1996 and completed it 13 months later in late 1997. The process employed two teams of four to five people – an architect, a mechanical engineer, an electrical engineer, a life safety code expert, and one or two others depending on the type of facility. A team generally spent one week assessing a facility, and the following week entering data. CAFM officials said that the teams assessed everyone from the agency's CEO down to managers and housekeepers in buildings. The long distances between locations in Texas added time and travel to the process.

"We assessed everything we had, from fence to fence," an official said. The \$2 million process identified 1,500 buildings at 22 sites with 10 million square feet.

FacilityCenter™ in Texas

While conducting the facility assessment, the Department also launched its search for a Computerized Maintenance Management System. However, the Department soon realized that it needed more than a system to simply handle maintenance. Instead, it needed to handle broader issues, covering the whole management of a facility.

The Department wanted a single software package that could order materials, handle lease management, manage maintenance and operations, and produce work orders. The Department purchased software now called FacilityCenter™, owned by Peregrine Systems. Importantly, the system can manage the work order system through Palm Pilots, eliminating printed work orders.

Michigan's Maintenance Excellence Program

As discussed in *Section II. Operations & Maintenance*, Michigan is instituting a comprehensive Maintenance Excellence

program to enhance preventive maintenance and improve its customer service. The state is using a sophisticated web-enabled software system called MAXIMO to coordinate nine project teams in order to transform the state's maintenance program from one that is reactive to one that is pro-active. Michigan received an award in 2001 from the National Association of State Facilities Administrators for this excellent program.

D. Feedback & Internal Communications

The Real Estate Services division in Washington State distributes an electronic transaction survey at the end of each project to all who worked on it, whether it is for new space, alterations, or lease renewal. The division said that it has a high response rate to the survey, likely because it is electronic and simple to complete. "It's a good communications tool, and we use the information to help us rate how we're doing with our clients and how our services are functioning," one official said. "It helps us set meaningful goals for the future."

The division also posts all internal forms are on its web site, with manuals and guides on how to use the division's services. The division does not provide property management unless agencies request it – instead, agencies tend to manage their own building. The RES division's web site includes information on how agencies can manage their own properties. (See <http://www.ga.wa.gov/DRES/HandBook.pdf>).

Appendix 4 offers more details on:

- Planning & Construction:
 - Washington's Public Works Bidding Process
 - Capital Asset Planning System in Texas
- Maintenance & Management:
 - Buildings on a Disk
 - FacilityCenter™ in Texas
- New Ideas
- Relevant Web Sites
- Contacts

IV. Public-Private Partnerships

This section summarizes the unique examples of state-level partnerships in Arizona and Washington State and briefly covers Maryland and Minnesota.

Introduction

The Department of Administration in Arizona has received two awards for its program, one from the National Association of State Facilities Administrators and another from the National Association of State Chief Administrators. This program is a response to limited office space for agency tenants in the state Capitol Mall area, and the high rental costs in the private sector. In this program, the private sector developer will own, develop, operate and maintain buildings on state-owned land. The state will lease the buildings from the private developer, and at the end of the 25-year lease, will own the buildings.

The State of Washington has also completed a program where it gives underutilized state property to a private sector firm, who then develops the property, and in

exchange gives the state a different property equivalent in value to the fully developed value of the state land.

As previously discussed in Practice Area 1: Acquisition and Construction, Minnesota is also pursuing a lease-to-own project that may serve as a model in the future while Maryland is pursuing creative ways to encourage development on state-owned property near mass transit.

This section includes a summary of the following:

- Arizona's PLTO System
- Washington State's Land Swap
- Washington State's Lease Development Proposal
- Maryland and Minnesota



IV. Public-Private Partnerships

A. Arizona's PLTO System

The General Services Division of the Arizona Department of Administration (ADOA) has implemented a Privatized-Lease-to-Own system (PLTO, pronounced "Plato") to meet a number of challenges.

The state had not constructed a building on the capital mall for seven years and instead had expanded leases for state agencies in private office space at high and increasing rates. At the same time, the legislature believed in "pay-as-you-go" methods of funding by disapproving the use of bonds for construction of state buildings. While the state owned land on the Capitol Mall, it had been unable to build on that land. The ADOA challenged its General Services Division to create a plan to meet the needs of housing state agencies, given these restrictions.

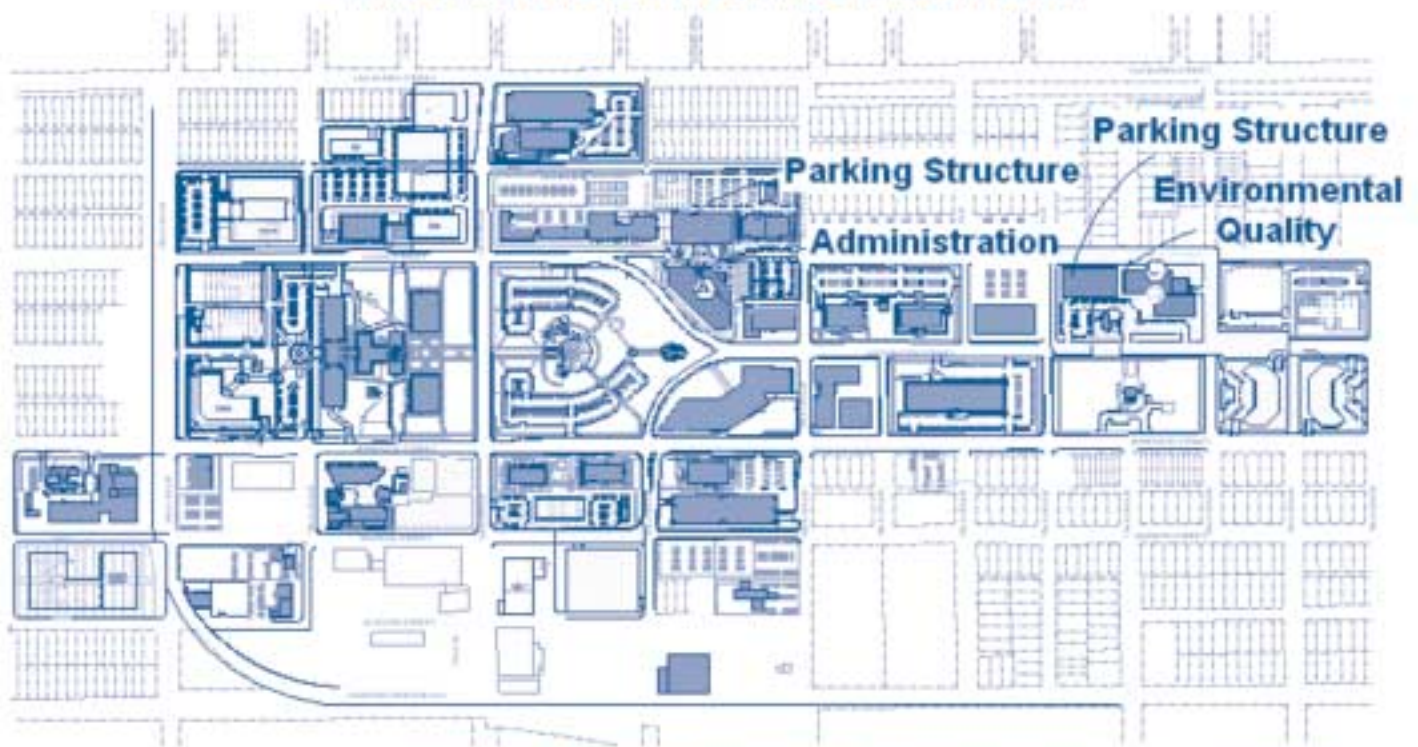
General Services pursued a method in which a private developer would finance the

construction of new buildings, then design, build and operate it on state-owned property, leasing it back to the state at or below the current state lease appropriation. The master plan called for 11 new buildings over a 10-year period, beginning in the first year with the construction of two buildings totaling 485,000 square feet for the Department of Environmental Quality and the ADOA.

The state needed its payments to be less than or equal to its current lease costs. The ADOA estimated that the first phase of PLTO would save \$300,000 a year from the amount the state had been spending in the private sector on agency leases. The state would then own the two buildings after year 25. Because the ADOA expects the buildings to have 50-year useful lives, the state would occupy the buildings rent-free for the second 25-year period. In total, this phase of the plan would save the state \$70 million during that time.

The developer broke ground on the project on February 21, 2001 and two state agencies began moving in on July 1, 2002.

ARIZONA STATE CAPITOL MALL MASTER PLAN





An agency document described the PLTO program's significant features in this way:

- No up-front capital appropriation is required.
- The developer provides all financing. The state does not back the bonds.
- The developer designs and builds to the state's specifications, and operates and maintains them for the term of the lease.
- The state owns a \$100 million asset at the end of the lease.
- The state moves from class "B" or "C" space to class "A" buildings and saves \$300,000 per year on lease costs.
- Building renewal costs are built into the lease payments and are carried in an interest bearing account. Any balance remaining at the end of the lease reverts to the state.
- Value based selection and design-build fast track procurement provides more value and saves time.
- Customer service is improved by providing one-stop-shopping for the public.
- Consolidating agency functions improves

A public/private partnership is developed such that the state wins, the private sector wins, and best of all the taxpayers of the state of Arizona win.

operational efficiency and eliminates duplicate support operations.

B. Washington's Land Swap

Background

The Washington State Patrol traded property with old buildings for a new property with new built-to-suit facilities, while turning a \$4.8 million asset into one worth at least \$9.5 million. An official with the Real Estate Services division of the Washington State Department of General Administration described the project as a "win, win, win, win, win" for many sectors.

Fifty years ago, the State Patrol obtained land in an area that was an unincorporated section of rural Olympia. The property is now located in the midst of the high-volume retail center of the city and county, surrounded by other newly incorporated towns.

Project Goals

- **Replace existing outmoded light industrial facilities**
- **Re-locate facilities to a site with appropriate zoning and growth potential**
- **Accomplish relocation and construction without requesting capital funding from Legislature**

The old property contained 20 acres of level, rectangular ground surrounded by retail development. The State Patrol used it for light industrial and storage purposes. The facility included four buildings containing 54,000 square feet. Buildings ranged in age from 20 to 45 years.

About 6 years ago, the State Patrol determined that its site was in the wrong location for its purposes. The buildings were old and the area around the site was crowded. The property was appraised at the time at about \$4.8 million. Officials with the State Patrol thought the land was worth much more than that amount to a retail developer given its location.

Process

Leaders with the State Patrol considered the

innovative idea of exchanging that valuable piece of property for other property in a light industrial park with new facilities that matched the State Patrol needs.

After a lengthy process (see Appendix 5 for further details), a developer proposed to build new facilities on new property (valued at approximately \$10 million) in an exact exchange for the currently-appraised \$4.8 million piece of land. The developer would secure national retailers to lease space on the old property. By securing those lease obligations, the property is worth significantly more.

Benefits

State officials described the numerous benefits for the state and others:

- The original \$10 million capital request for new State Patrol land and property is

moot, freeing that state money for other purposes, such as schools.

- This swap returns the old, valuable property to the tax rolls. The city of Olympia will receive approximately \$600,000 in sales tax a year and the local school district will receive about \$250,000 a year in property tax.
- The new site is sized for normal growth at the agency for the next 20 to 25 years, and the agency expects to have 50 years of life.
- The new site consolidated the agency, incorporating some other functions into the fleet facility, which has improved the agency's ability to equip cars at less cost.
- The old space, most of which was built in 1949, was in poor repair and some functions were in cramped quarters. One building in the old space was 8,000 square feet while it has 30,000 square feet in the new space. This change has improved morale and productivity.
- Employees do not struggle through the high volume traffic of the previous location. The new site is closer to employees' residences compared to the old site. Whereas some employees previously had one-and-a-half hour commutes each way through traffic; they

now have commutes of about 20 minutes, with no traffic.

- Operating expenses will likely be reduced (on a per square foot basis). The old site and its old buildings required a lot of resources for capital improvements. The new buildings are energy efficient and economically designed. The temperatures are very stable, leading officials to estimate that heating and air conditioning bills will be more predictable and reasonable. Although the new location has three to four times more space, the operating expenses will not be proportionately higher.
- Consumers benefit from having access to popular stores in this retail location.

See *Appendix 5: Washington State's Land Swap* for more information.

C. Washington's Lease Development Proposal

The Real Estate Services division of the Washington State Department of General Administration has launched a new Lease Development Proposal. Using this method, when the state puts out an RFP for a building,



IV. Public-Private Partnerships

one available opportunity is for the developers to propose to build on state land. The state would lease the land to the developer, and would eventually own the entire property. Rent would need to be similar to current market rates.

A common problem facing states when considering building construction is the initial up-front appropriations, which are higher than leasing. It often takes 10 to 15 years before it is less expensive to own than to lease. With states experiencing budget shortfalls, legislatures may not be concerned with saving money in 10 to 15 years rather than today.

With the Lease Development Proposal, the private sector will take on the financing, the state will pay lease rates, and it won't require any initial capital appropriations from the state. An official said the system will be slightly more expensive than current rentals only because the state will want to build better quality buildings than some of their private sites.

Developers have expressed strong initial interest in this program. Right now, the state needs approximately 200,000 square feet of space. Traditional state developers have expressed interest, as have out-of-state developers. Under the current system, the Real Estate Services division deals mostly with investment developers. However, the Lease Development Proposal system should be attractive to merchant developers, mostly from out of state, setting up a competition between a bigger pool of developers.

D. Maryland & Minnesota

As described further in the "New Ideas" section of *Appendix 2: Acquisition and Construction*, Maryland is pursuing new methods of developing property through public-private partnerships. The state has offered property to the development community, which must propose projects for mixed-use, transit-oriented space, with use by government and retail.

Minnesota is mid-way through a lease-to-own project to create new space for three state agencies. As discussed in the "Creative Building and Leasing in Action" section in *Appendix 2: Acquisition and Construction*, both the Division of State Building Construction and the Real Estate Management Division of Minnesota's Department of Administration are working with three agencies to both build and lease new property. Like Arizona's PLTO system, the lease-to-own model in Minnesota does not require significant initial state appropriations or state-backed bonds. However, in Minnesota the construction bonds will be backed by another public agency.

Appendix 5 offers more details on:

- Arizona's PLTO System
- Washington State's land swap
- Washington State's Lease Development Proposal



Appendix 1: Methodology

A variety of sources were used to identify leading states. Two reports were used: a U.S. General Accounting Office report from December 1998 entitled, "Executive Guide: Leading Practices in Capital Decision Making," and "Grading the States," a February 2001 special report published by Governing magazine. Experts were contacted in the field of property management, including officials, reporters and experts from the National Governors Association (NGA), Governing magazine, Syracuse University's Maxwell School of Citizenship and Public Affairs, The National Association of State Budget Officers (NASBO), the National Association of State Procurement Officials (NASPO), the National Association of State Facilities Administrators (NASFA), the National Council for Public Private Partnerships (NCPPT), Stainback Public/Private Real Estate LLC, the University of Nebraska at Omaha, and the U.S. General Accounting Office.

Based on this research and interviews to ascertain exemplary states, the following states were selected:

- Acquisition and Construction:
Maryland, Minnesota, and Utah
- Operations and Maintenance:
Michigan, Missouri, and Utah
- Web-Enabled Software:
Texas (DMHMR) and Washington State
- Public-Private Partnerships:
Arizona and Washington State

GSA sent an introductory letter to the top official at the relevant agency in each of the above jurisdictions. GSA also sent copies to the leaders of the specific divisions most involved in managing the key functions under study. A George Washington University (GW) team under contract to GSA then contacted the office of the top official to determine or



Appendix 1: Methodology

approve the list of officials who would be interviewed for the purposes of this study.

The GW team then contacted these officials, sent them brief additional background on the purpose of the GSA study, and an outline of the topics to be explored during a phone interview.

During phone interviews, the GW interviewer asked officials:

- To identify practices that make their agencies function successfully and contribute to their leadership in the field.
- For any unique funding and budgeting systems for those practices
- Cost savings that could be attributed to those practices.

- To identify other officials in their states who should also be invited to participate in the GSA study.
- To identify representatives at customer or tenant agencies who are familiar with the practices identified and who could offer more details for the study.

The GW team interviewed 22 officials in eight states. Interviews generally lasted 45 minutes to one hour. Some states provided additional documents to supplement the information provided during the interviews, or directed the GW team to web sites for further information. The interviewees all had an opportunity to review relevant sections of the report before its publication.

Further details about the practices are provided in the Appendices that follow.

Many of the states had previously been publicly praised or given awards for their leadership, and some officials in the states have been contacted by other states and agencies seeking information about their successful programs.

Appendix 2: Acquisition & Construction

This section offers further details on the practices identified by state leaders.

A. Design & Construction Services

Maryland's Smart Growth

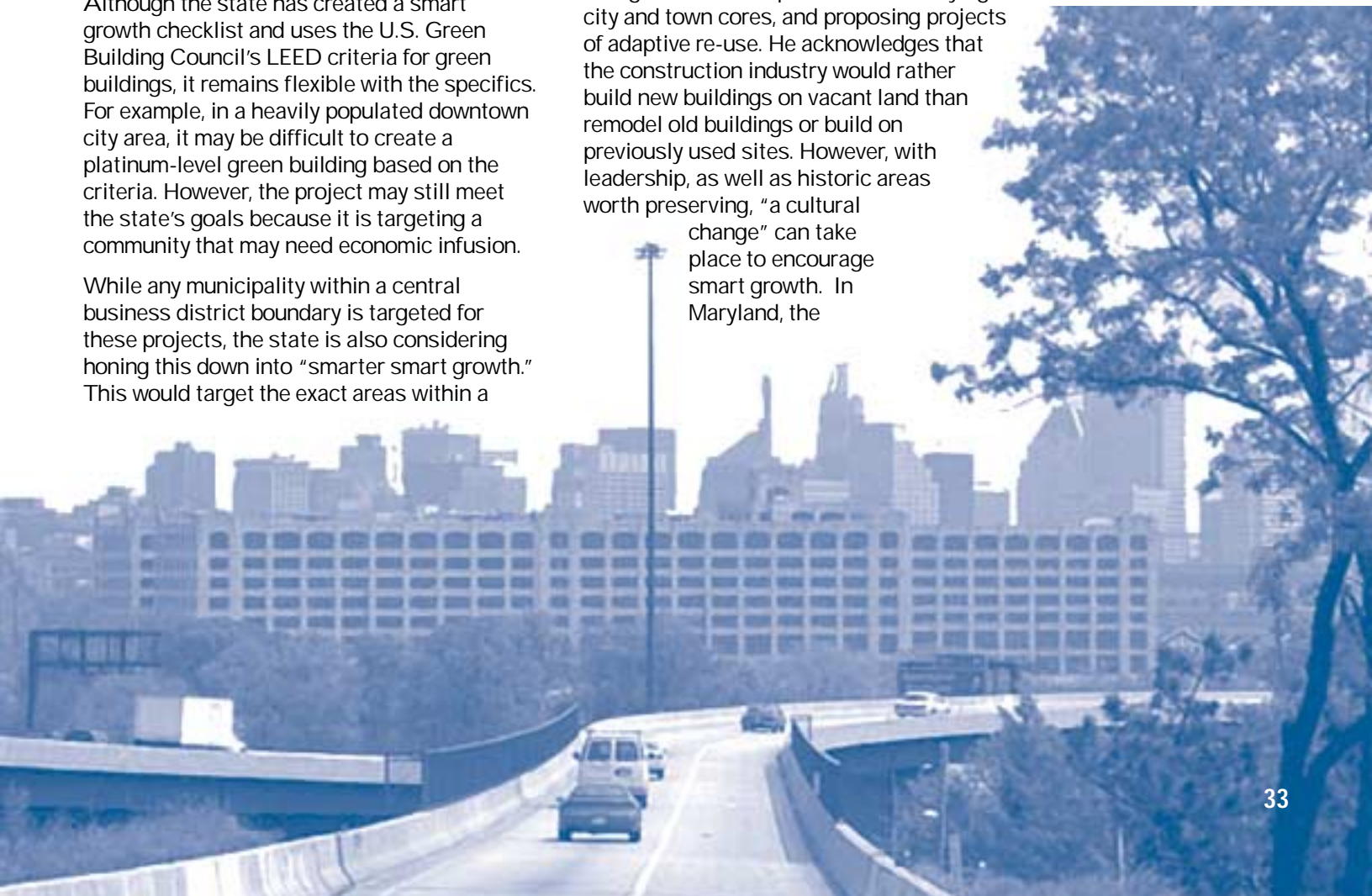
Maryland's wide-ranging program to foster "smart growth" in the state affects its actions from purchasing property to leasing private space. The state chooses projects that reflect its commitment to advancing most growth within central business districts while protecting green space and rural areas. The Office of Real Estate in the Department of General Services (DGS) leads this work.

Although the state has created a smart growth checklist and uses the U.S. Green Building Council's LEED criteria for green buildings, it remains flexible with the specifics. For example, in a heavily populated downtown city area, it may be difficult to create a platinum-level green building based on the criteria. However, the project may still meet the state's goals because it is targeting a community that may need economic infusion.

While any municipality within a central business district boundary is targeted for these projects, the state is also considering honing this down into "smarter smart growth." This would target the exact areas within a

central business district that most need the investment and have the best opportunities to flourish economically with such investment. Through state investment in these areas, Maryland hopes to promote activity and bring people back to older communities. As one agency official said, people bring security to blighted areas, and help promote further economic activity. Some of these areas also bring additional benefits to developers, such as historic tax credits, making the project more appealing.

"Smart growth has taken off and has been embraced by more developers to combat sprawl," according to one official. He points to "enlightened developers" who are staying in city and town cores, and proposing projects of adaptive re-use. He acknowledges that the construction industry would rather build new buildings on vacant land than remodel old buildings or build on previously used sites. However, with leadership, as well as historic areas worth preserving, "a cultural change" can take place to encourage smart growth. In Maryland, the



Appendix 2: Acquisition & Construction

government even canceled prior building projects as the state focused its resources on core cities and towns.

In recent years, the state has focused mainly on construction of public schools and higher education, along with district court facilities. The state generally eschews building government agency offices, instead believing that “you get a good value for your dollar in leases” given how agency needs change.

Smart Growth in Action

The Office of Real Estate in the Department of General Services (DGS) negotiated space for two state agencies to move into a completely refurbished site that incorporates the state’s green office/green building criteria. In Fall 2002, the site of the old Montgomery Ward distribution center in Baltimore will be the new home to both the Maryland Department of the Environment (MDE) and the Maryland State Lottery Agency.

The building, now known as Montgomery Park, with more than 1.3 million square feet, is the largest building in Baltimore, located in a section of the city that is designated a

Maryland Enterprise Zone, a federal Empowerment Zone and a Revitalization Area of Baltimore. The MDE will occupy 262,300 square feet and the Lottery will occupy 72,271 square feet of the site. The site meets smart growth criteria by reusing an old, unused building with all infrastructure already in place – including three bus lines and access to area highways. The building will feature extensive use of green building techniques including recycled materials, a state-of-the-art energy management monitoring system, reduced wattage efficient lighting, recycled carpet, water conservation systems, and a green roof with plants.

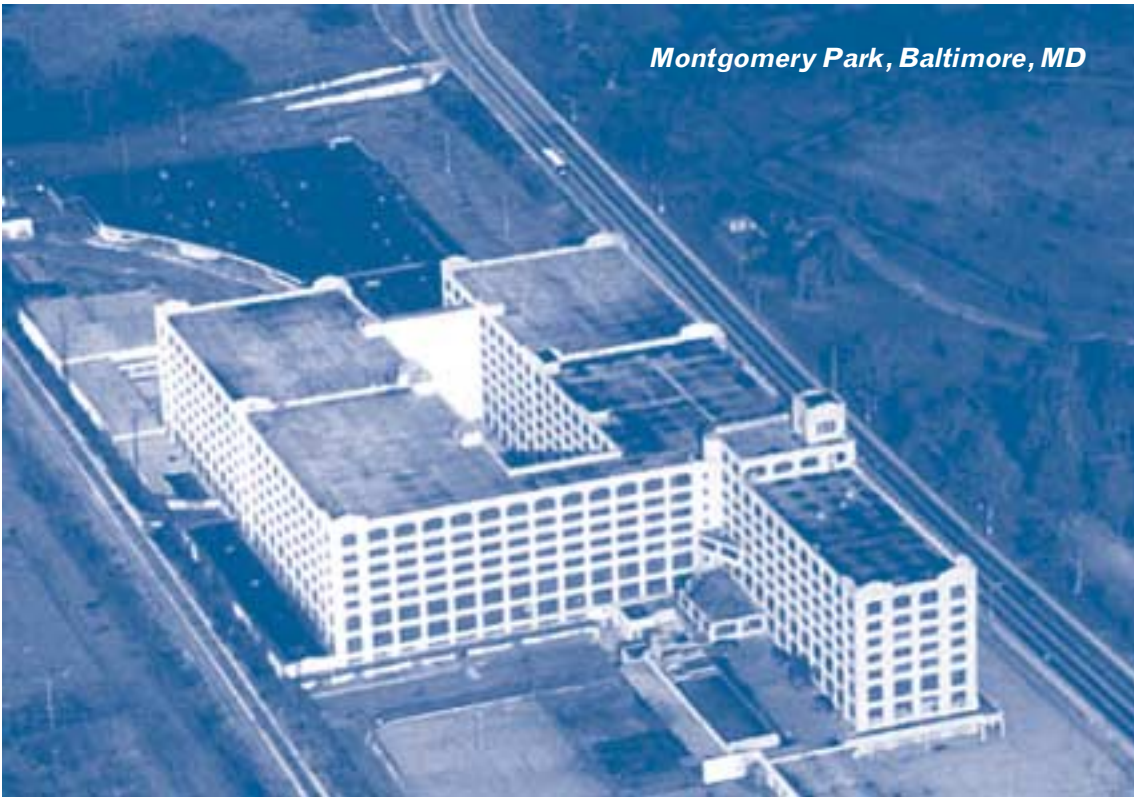
Process

DGS put out a request for proposals in March 2000 for the MDE space needs, and this site won the bid. The 10-year lease includes a five-year renewal option and a guarantee that the state will pay no more than 98 cents per net usable square foot for energy consumption – anything higher will be paid by the owner.

MDE first received budget approval to seek new space as its current lease was set to expire. MDE officials then worked closely with

caption to be identified by original manuscript





the staff members in the Office of Real Estate to identify preferences and specifications to include in the procurement document. They explored ideas involving water conservation, energy conservation, green building methods, use of sustainable materials, recycling materials and more. The agencies needed to develop new criteria for the selection process, to ensure that it was fair and defensible, while also ensuring that the state would not need to accept the lowest bid proposal that did not include the preferred specifications. These agencies created a matrix for assigning points based on the criteria for selection. As one official said, "We didn't want low bid only. We wanted to be able to make the decision on the good stuff," meaning key green building criteria.

Proposals

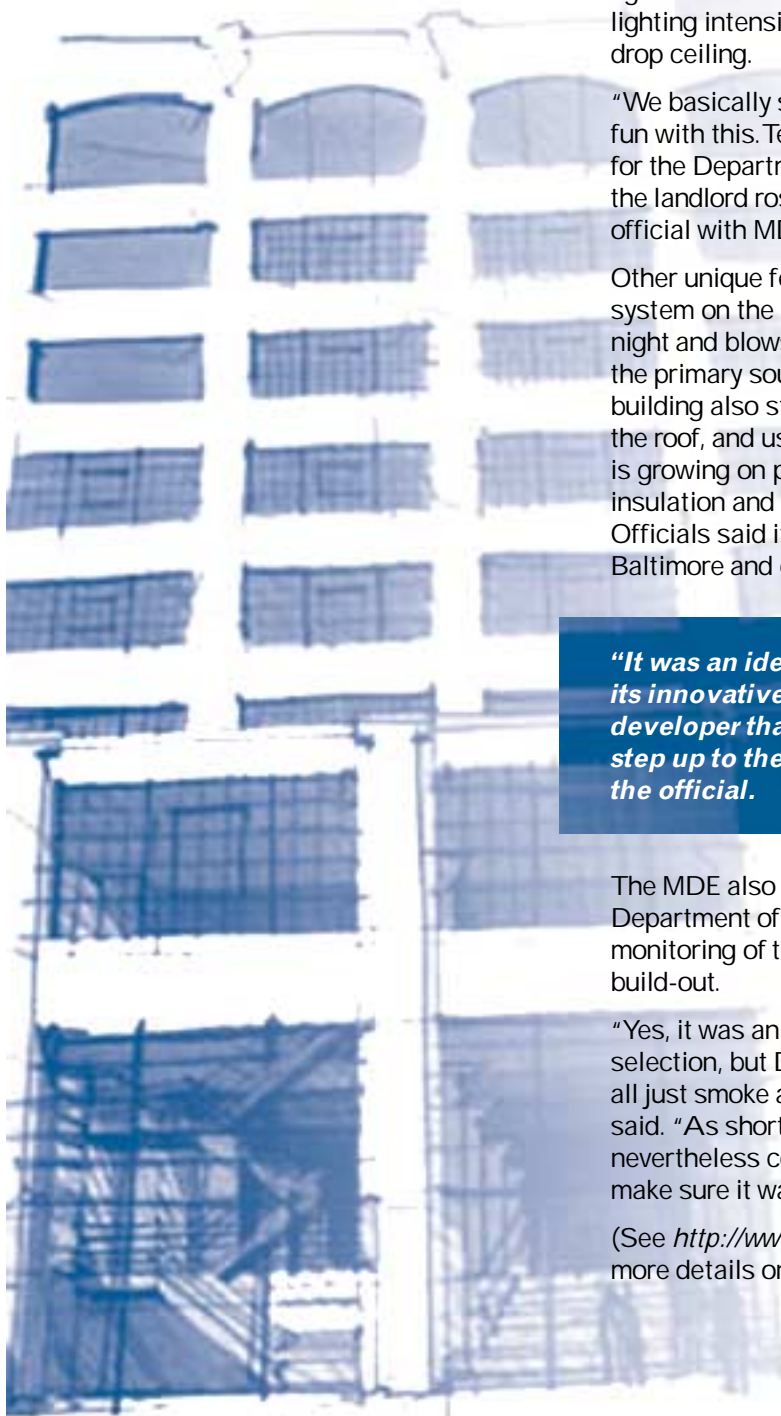
Maryland received four responses to its RFP. "The responses ranged from the winning proposal that exceeded nearly every aspect of our RFP, to a losing proposal that basically just Xeroxed some old floor plans." The official said that three of the four companies submitting proposals clearly spent some time and money to respond.

"The winning Montgomery Park proposal was light years ahead of the other three," this official said.

MDE is scheduled to move to the new location over three consecutive weekends in late August 2002. An official described the new facility as "amazing." The developer replaced over 60,000 individual windowpanes. Private offices, lunchrooms, and restrooms are limited to the center space to make sure that natural light shines through the exterior windows throughout the rest of the office. The developer creatively used the standard state allowance for the build-out for 5-foot high partitions to define 1200 work stations, ranging from 80 to 125 square feet. The MDE official said the developer accomplished this "at a fraction of the price you pay for systems furniture, including the cost of the work surfaces and other office systems."

The Facility

Many of the unique features of the facility are due to the leadership and flexibility of the Office of Real Estate in DGS, said the official with MDE. Leaders there were "open to alternative proposals from the developer and new ideas."



For example, in a typical procurement, the state requires standard drop ceilings. But in this space, which has 10-foot ceilings with large interior columns that have a mushroom shape at the top, the developer proposed an alternative system so that the height of the ceilings and the interesting columns would not be completely concealed. Instead, the developer created a system with hanging lights and ceiling tiles that offers the required lighting intensity and sound protection of a drop ceiling.

“We basically said to the developers, ‘Have fun with this. Tell us what you can do. This is for the Department of the Environment.’ And the landlord rose to the occasion,” said the official with MDE.

Other unique features include an ice pond system on the roof, which freezes water at night and blows air across it during the day as the primary source of air conditioning. The building also stores storm water, pumps it to the roof, and uses it to flush the toilets. Grass is growing on portions of the roof, used as insulation and also as a storm water measure. Officials said it is the first green roof in Baltimore and one of the largest in the country.

“It was an ideal partnership of DGS and its innovative procurement (process), a developer that was more than willing to step up to the plate, and the MDE,” said the official.

The MDE also praised the Maryland Department of General Services for its monitoring of the actual construction and build-out.

“Yes, it was an innovative procurement and selection, but DGS had to make sure it wasn’t all just smoke and mirrors,” the MDE official said. “As short-staffed as they are, they nevertheless committed the resources to make sure it was built as promised.”

(See <http://www.montgomerypark.com> for more details on the project).

Minnesota's Integrated Predesign/Budgeting Process

Minnesota uses an integrated system for budgeting, designing and building capital projects. Key tools in this process include the Capital Budget System (CBS), the Predesign Manual, the Design Guidelines, and the Design-Bid-Build delivery method for construction projects. The Department of Administration's Division of State Building Construction (DSBC) leads this effort.

Requesting agencies must submit a predesign document to the Department of Administration for all new construction or major remodeling project requests. The state assesses the need, cost, scope and schedule of the project, all of which is then subsequently used in the Capital Budget System.

Depending on the level of the agency's construction sophistication, the predesign document may include all necessary items or require significant revision to meet the requirements. Some agencies build more frequently and are therefore more familiar with the process depending on their capital needs. Some agencies, such as the state college and university systems, have their own power to purchase predesign. Others, such as health services, corrections, and economic security, do not conduct their own predesign and instead work with the Division of State Building Construction to secure consultants and meet the requirements. Those become projects in the DSBC office.

The Predesign Manual (<http://www.dsbc.admin.state.mn.us/pdfs/predesign-manual.pdf>) incorporates the same system and forms used in the CBS for determining costs. It asks the agency to align its request with its strategic plan, to establish the need for the project and substantiate costs.

The updated Predesign Manual now includes the Minnesota Sustainability Guidelines in its requirements. Agencies are beginning to incorporate these guidelines into their timelines and goals. Because the DSBC reviews all predesign for school districts that receive block grants from the state, the agency expects that the new sustainability guidelines will have a significant impact on all future school projects.

After approval, agencies use the new Design Guidelines to assist in the actual design of the building or facility. (See <http://www.dsbc.admin.state.mn.us/pdfs/desguide.pdf>.) Prior to the use of these new guidelines, which are being released for the first time this summer, the state relied on the expertise of the professional community. The state outsources all design projects, but the Design Guidelines offer specifications for those projects.

Utah's Value-Based Selection Process (VBS)

Utah has switched to using a value-based selection (VBS) system to choose architects, engineers and contractors for design and construction services.

The state launched this system first as a quality-based selection system, but modified it into its current form.

Original System

The original system involved a complicated mathematical formula that quantified thousands of items. Many people did not understand how the system arrived at its final ratings for a proposal. Under the VBS system, officials said, participants understand the process and are accepting of the ranking system.

The state's Division of Facilities Construction and Management (DFCM) has completed dozens of contracts under this system. This new system did not require legislative action – it is permissible under the state's procurement statute. However, the Legislature's Capital Facilities Committee (which oversees the DFCM) gave its unanimous endorsement to this process. Some legislators originally opposed the new system, believing that it would throw money away. Officials with DFCM met with legislators to explain the system.

"Let's say you're building a house, and you receive a low bid but you know the builder has a bad reputation for the quality of his product, and is often late or over budget," an official explained to legislators. "You receive another bid that is higher, but within your budget, and he has a great reputation. Which would you choose?"

An official said that other states that have a two-step process for procurement involving

pre-qualification and then bidding might be able to utilize a VBS system without legislative changes. However, those states that require low-bid selection by statute would not be able to use a VBS system.

When Utah previously chose contractors by the lowest bid, officials said they believe the state often suffered financial costs through wasted time and poor quality of workmanship.

“With low-bid, you get the leftover superintendents,” one official said. “To win the bid, the firms hire lesser quality workers...with less experience. Now we’re getting people with 20 years experience and others who wouldn’t have worked on state projects in the past.”

Some higher quality contractors never bid for state projects in the past. They said that they could not compete in low-bid situations because they do not cut corners or hire poor quality subcontractors. One official said the number of those high quality contractors bidding on projects has increased in the past few years.

A previous experience with an unscrupulous contractor inspired the new system. According to one official, a large contractor submitted the lowest bid on a significant state project and then siphoned off the cash, did not pay subcontractors, and did not complete the work. In an industry where many projects may take six months to two years to complete, months may pass before the state would discover that a contractor is not completing the work.

“We’re looking for contractors who are performers,” said a Utah official. The state “still needs to make sure that there is a fair and open process – but that doesn’t mean you have to select a poor performer.”

Another official said that VBS “seems to have made quite a bit of impact on how we do things... We are seeing better results now. (Firms know that) how they perform today affects their ability to get a state project in the future. Now it takes little coaxing to encourage a contractor to finish a job appropriately.”

An official said that it has had a noticeable impact on general contractors, instilling a “real attitude change,” although that change has not yet reached the subcontractor level.

However, the state notes when a subcontractor performs poorly, informing the general contractor and lowering its ranking. Eventually, these general contractors will likely use poor performing subcontractors less frequently if their ranking from the state suffers due to these subcontractors.

Officials said that state agency representatives have praised the new system, saying that they are working with better contractors, receiving better products, and ending more projects on time. Additionally, because contractors are more careful now in providing the end users with all necessary operations and maintenance documents, the occupants of the new buildings are better able to maintain the new facilities from day one.

The system allows the eventual occupants to rate the contractors, which encourages contractors to be more responsive. The state now also evaluates architects and engineers in this way, giving contractors the opportunity to rate the designers. This encourages architects to be more responsive to the contractor. Now, architects are less likely to let contractors’ requests for information sit for three weeks and more likely to attend meetings asking how they can help solve problems, according to one official.

“Now there’s more cooperation and coordination” between architects and contractors, this official said. “We’re making progress. There is a lot of team effort, from the selection process through to the end of the project. If someone is not part of the team, it will affect their ability to get a job with the state again in the future.”

Utah also uses a Design-Build process of delivery on many projects, while maintaining a Design-Bid-Build process for others. The DFCM uses whichever delivery system works best given the type of project.

VBS in Action

One current Design-Build project involves 600,000 square feet of classroom space at four different universities. Rather than hire four separate architects to design the project, the state combined all four projects into a modular system. The state hired one architect to come up with a design that could be expanded based on space needs of each of the colleges

or universities. The state also hired one contractor to build all four buildings. By hiring one architect and one builder, the state saved staff contracting time. By standardizing all space sizes, the state received savings by ordering all components in bulk. This process reduced the price tag to the state government 25 percent from the initial estimate, according to an official.

An official said that Design-Build is a faster process, but it can lead to more generic buildings. The Design-Build projects have tended to involve simple, square designs rather than circular or more difficult construction. The state would not be likely to use such a system for constructing a performing arts building, or other signature buildings. "There is a place for each" of these delivery methods, an official said.

At a courthouse in Utah, a large parking terrace had been leaking snow onto cars and causing damage. The DFCM's Capital Improvements department sought a contractor to seal the parking deck. Five contractors bid on the project. Of those, one company had experience only in smaller driveways and had never managed a job on a large parking garage. While it did not have the qualifications that the state was seeking from contractors, it offered the lowest bid. Under the previous process, the state would have been required to hire that company. "It would be just a roll of the dice as to how (that company) would perform," one official said. Instead, the state looked at three other companies with equal experience and qualifications. All had good track records and past performance ratings. The final selection was therefore based on their end products. The three contractors each met with state agency officials, along with the manufacturers of the products to be used on the job, to discuss the products' guarantees. The state could then look at product, price and guarantees. The state chose a contractor with a good price, product guarantees for 15 years, and past performance history with several successful jobs. A Utah official said he believes this process saves the state money and time by satisfactorily completing jobs.

Maryland's Special Roofing Team

The Facilities Planning, Design and Construction division of Maryland DGS

formed a special roofing team to manage all aspects of roofs, from construction through maintenance. With their propensity to leak and create large-scale damage, shoddy roofs can present unique challenges and significant costs to maintenance agencies. To limit damage and costs, the three-person team in Maryland reviews every roofing design in the state, ensuring proper construction at the outset, and monitors all roofing maintenance plans, to protect current roofs. The team spot-checks roofs under construction, and also holds workshops for maintenance staff members to ensure that they properly care for the roofs. By reviewing original plans and construction, and doing spot-checks on builders and maintenance staff, the division is "solving problems before they arise" according to one official.

B. Leasing

This section includes further information on leasing practices.

Maryland's Procurement Law

In Maryland, the Office of Real Estate in the Department of General Services is responsible for approximately 90 percent of all leasing for state agencies. This totals approximately 377 office leases of 4.3 million square feet with an annual rent payment of \$59 million. Maryland owns approximately 90 percent of the property it occupies, and rents the remaining 10 percent.

The tightly controlled procurement system in Maryland encourages competitively solicited proposals and involves little delegation.

One official said that although the process takes a little longer than in other states, it is highly competitive and very fair to those competing for state business. No protest from a proposer has ever advanced beyond the first level.

Another unique aspect of Maryland's system is that the state leases space based on a Net Usable Square Foot (NUSF) method, rather than the more common Rentable Square Foot (RSF) method. RSF is larger, so Maryland actually pays for less space in comparison. In multi-tenant areas, the state does not pay for common areas – only the space it occupies.

For larger leases, Maryland enters 10-year lease deals. In the 1980s, it entered five-year deals, but realized it could secure better rents while avoiding frequent moving costs if it entered longer deals. The state does not enter capital leases, which would count as debt under the state's debt affordability cap. Leases must therefore remain below the capital lease triggers, in which the sum total value of a lease is under 90% of value of the building.

Leaders in Maryland noted that they use software programs to better manage their leasing systems. Maryland uses a new, modified system called ElmPro Property Management System for its leasing program. When fully implemented, the system will integrate many leasing functions, including trigger dates for renewals and generating leasing agreements. A separate database system is used on the land acquisition side. According to one official, such systems "should help you work, not just keep track of what you're doing."

Minnesota's Mixed System

By Minnesota statute, the commissioner of the Department of Administration is responsible for finding space for state agencies, unless an agency is exempt or has authorization to find its own space. Therefore, Minnesota has a centralized system for the acquisition and disposition of state property for state agencies.

Disposition is guided through a specific chapter in the state code (<http://www.revisor.leg.state.mn.us/stats/94/>). Minnesota Statute 16B.24 guides the leasing process for the state (<http://www.revisor.leg.state.mn.us/stats/16B/24.html>). This sets a maximum lease term of 10 years, but includes very little other regulation, according to one official. The state does have contract law that guides leases, but it does so similarly for all contracts.

For acquisition, an agency requesting space must secure appropriations from the state legislature along with authorization to proceed. On the leasing side, agencies send requests to the Real Estate Management Division of the Department of Administration, based on the legislative appropriation and the programmatic operations of the agency.

Steps of Process

- Officials with the real estate division meet with representatives from the agency to gather details, such as location, amenities, number of people in the space, need for public access, and a wide range of other issues.
- The division then conducts a comparative market analysis, sees what is available that would meet the needs and identifies possible properties.
- Officials conduct tours of those properties with representatives of the requesting state agency. Along with those representatives, the real estate division evaluates and selects a preferred site.
- The division then begins negotiations with the landlord, and sets the terms and conditions.

The Minnesota Real Estate Management Division's goal is to settle as many details up front, so that by the time a contract is ready to sign, it is comprehensive in its coverage.

"We have expertise in real estate, but they have expertise in the delivery of their programs," explained one official. "The more we know about their program, the better we can identify appropriate space."

Minnesota's state form lease has been in use for the past 20 years, so companies are very familiar with it. This familiarity helps make the process simpler for both the state and the landlords, according to one official.

The division also provides planning services on a limited basis. State space planners participate with agency representatives in planning meetings with the landlords.

When using an RFP system, the division will spend a significant amount of time up front before sending out the RFP. The experience and preparation of the requesting agency will impact the amount of time this step takes. An agency might not know all the details of its space needs, and might require more time to gather that information.

If an agency requests 150,000 square feet, for example, it may take several months to create a space program for the agency based on the agency's response to the real estate division's analytical forms.

"We start from the questions, 'What is your real need? How can your people get their job done well? What are the actual functions of the job?' It's a time consuming process," explained one official. However, "the better we define the needs, the better product we'll get in the RFP."

The division leaves the RFP on the market for five to six weeks, or perhaps longer. The division expects a lot of work and planning from proposers, including a preliminary floor plan layout and other details. Therefore, the division wants to allow companies enough time to create thorough proposals.

After the division receives proposals, it evaluates and identifies the first preferred site through a ranking system.

One official said that this extensive preplanning process, which includes much fact gathering from the requesting agency, is a system that evolved over time. Prior to five to ten years ago, the division might have looked at an agency's request and determined the space needs based on the number of workers at certain levels of employment classification, regardless of the type of work these workers actually conducted. So in an agency with 80 staff members at X job classification, the agency would need Y amount of space. One official referred to this cursory process for

space planning as "archaic." Now the division focuses more on the program of the agency, and reviews work surface space, accessibility issues, the need for public access and much more.

In the new system, this official explained, an administrative support person might receive more space than his or her manager if that is what it takes for each of them to get their jobs done.

This shift in the division's way of doing business did not occur overnight. Instead, it was a gradual evolution as the division responded to the changing work force, new technology, ideas of comfortable work spaces, and needs for increased productivity. Those changes affected many space choices, including carpet, lighting, and common space. Now the main question the division asks, according to one official, is "What do you need to get the job done?"

Not long ago the state created a strategic plan for the location of state agencies. Like other studies, this plan noted that it is generally better to own than to lease and estimated break-even points for leasing versus owning. However, the state also determined that it should keep some portion of its portfolio in leased space to stay diversified. Therefore, the state evaluates each space request on a case-



by-case basis for purchasing versus leasing.

Of the space that the Department of Administration controls, i.e. those buildings that it leases for state agencies or owns, the state leases 70 percent while owning 30 percent. However, several state agencies, such as the Department of Transportation, the Department of Corrections and others, have custodial control over their space. That space is not included in the above estimate.

One official noted that the level of centralization of leasing functions varies dramatically between states, and that some states are moving toward more centralization while other are moving in the opposite direction. This official hypothesized that the manner in which a state is organized and the specific way that a state constitution is written may dictate what system works best in each state.

"I know that in Minnesota, clearly, centralization is working best," this official said.

C. Creative Building & Leasing in Action

The Minnesota Department of Human Services (DHS) is currently working with both the Division of State Building Construction and the Real Estate Management Division on a major capital project.

DHS leases a significant amount of office and administrative space in the Twin Cities, with some leaseholdings elsewhere. The agency manages the mental health and chemical dependency facilities throughout the state, most of which are state-owned. The agency also manages some group homes, which are a mixture of owned and leased property.

For more than 15 years, the agency's administrative offices have been entirely in leased office quarters. Four years ago, the agency hired a consulting team to create a facilities master plan. In doing so, a financial analyst developed a model to assess the cost effectiveness of leasing versus owning. After considering all the variables that the agency was able to identify, the model indicated that the cost to own is lower over a 20 to 25 year period, although the costs are higher in the beginning. While this finding was expected,

the savings over time were not as significant as anticipated.

The somewhat volatile real estate market challenged the ability of the agency to budget and plan for future space needs. According to one official, it was difficult to find affordable, suitable office space, especially given the agency's space needs – it rents just less than 600,000 square feet for administration facilities.

The master facilities plan also assessed the organizational needs of the agency. The agency is currently in eight separate rented facilities, which makes communication and coordination difficult and interferes with policy making and meeting the mission of the agency.

DHS began conversations with two other agencies with which it often works – the Minnesota Department of Health (MDH) and the Minnesota Department of Agriculture (MDA) – to consider co-locating facilities. The Department of Health leased facilities, and had an outdated laboratory, and the Department of Agriculture had substandard facilities and needed a new lab.

The three agencies then requested funding for predesign work from the state legislature. The legislature granted \$1 million for the work; the agencies then had two years to complete the predesign stage. One official said that although a three-agency predesign was a little unwieldy, it was a successful effort.

The Division of State Building Construction assigned a project manager for the entire predesign, making sure the project stayed on schedule and on course. That division received the predesign money, so it also served as the financial clearinghouse for the project. The project as envisioned was extremely large: nearly 600,000 square feet for DHS, just a little less for the Department of Health, and a smaller site for Agriculture but one that included a complex lab.

After the completion of the predesign work, the agencies submitted this proposal to the governor's office to create a budget for the state legislature to consider. Given the economy and its effects on capital bonding, the governor's office required the agencies to scale back the request significantly.

The final proposal put forward to the state

legislature included space for half of the administrative offices of DHS, new labs for Health and Agriculture, and office space for all of Agriculture. Because the labs were highly specific facilities, the state sought bonding to build the labs and they would therefore be state-owned. For the DHS and Agriculture office space, however, the state decided to pursue a lease-to-own approach, using a bonding authority other than the state but with a rating similar to the state's.

During this past legislative session, the agencies received the bonded money for the labs and the authority to move forward in a long-term lease-to-own arrangement for the office space.

The property on which the project will be built is itself state-owned. The agencies are currently working with the Real Estate Management Division to finalize the lease-to-own agreement with a non-state bonding authority. The agencies anticipate a three-year construction process after the lease agreement is finalized. The lease-to-own contract will be for a 20- or 25-year period. The legislature insisted that the state must have the right to buy out the contract at an earlier date. According to one official, this adds to the challenge of finalizing the very complex arrangement.

The Division of State Building Construction, meanwhile, has assigned a project manager to the lab building project, and a number of consulting teams have been hired for different aspects of the project, including lab design and interior space planning for the entire project.

The project is currently at its mid-way point.

The agencies decided to pursue a lease-to-own method because they felt it offered the best opportunity for legislative approval. It is challenging for legislators to spend scarce resources to house state agencies, officials said, even in a strong economy. In the current context of budget shortfalls and weak state economies, there are many competing capital needs. So although the agencies considered all financing alternatives, including straight leasing and bonding for state ownership, one official said that the project might never have moved forward without this creative financing approach.

This unique method has created several challenges so far. The capital budgeting system (CBS) is designed for straightforward bonding requests. The agencies encountered some obstacles in using the CBS system for a lease-to-own project, because it was the first time that such a large project used such a method. However, one official believes those systems will be smoother in the future.

Another challenge has been to generate legislative understanding and support for the project. Lawmakers understand and can judge bond requests relatively easily, but the somewhat confusing nature of this project made such judgments more difficult.

"This is a model that should be looked at elsewhere, with eyes open," one official said. "Other methods are fairly simple – it's easy to estimate construction costs, and you know the bond rating. So when using this method, there may be a certain amount of frustration because matters are more complicated."

Because the project is just at its mid-point, another official said it is too soon to judge whether this will be a model for future development. However, the state is open to considering concepts such as this to convert leased space into owned space where warranted.

D. Construction Budgeting & Funding Processes

As illustrated by the example in Minnesota, leading states consider creative funding mechanisms to ensure that they have adequate resources to secure necessary property while protecting their long-term financial interests. Below are a few examples of the budgeting and funding systems that state leaders highlighted in their acquisition and construction processes.

Maryland

Maryland has a five-year capital improvement program, and funding must be approved before any bidding on projects begins. Most projects follow the five-year schedule, but there are times when projects must be approved out of sequence. For example, there were a number of

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security projects that took precedence following the attacks of September 11.

According to one official with the Office of Facilities Planning, Design, and Construction, the capital budget process gives the department a clear game plan for maintenance, design and construction. As soon as the legislative session comes to an end in April, the department knows what will be funded for the coming year.

Minnesota

In Minnesota, the state legislature considers capital funding requests from agencies, via the governor, biannually on even numbered years. (Agency operating budgets are addressed on the odd numbered years).

All divisions of state government make capital requests for funding through the Capital Budget System (CBS), which is managed by the Department of Finance. The CBS is a computerized, online system, with controlled access. The CBS is composed of the following components: strategic planning, project narrative, project costs, project detail, and project analysis.

Strategic planning includes a review of an agency's mission statement, trends and policies affecting the demand for its services, facilities or capital programs, long-range

strategic goals, and assessment of its current facilities and assets, and a review of the agency's capital requests in the previous six years. The project narrative includes a project description and rationale, including the project's history, program, and purpose, as well as an assessment of the impact on the agency's operating budget. Project costs must include a spreadsheet with cost estimates for property acquisition, predesign, design, project management, construction, relocation expenses, and occupancy. Project detail includes costs to changes in operating expenses, previous appropriations to the project, and any statutory requirements. Finally, the project analysis is where the project requesters and the project reviewers interact, and includes the strategic scoring and prioritizing steps. (For more on this system, see <http://www.budget.state.mn.us/budget/capital/index.html>.)

Utah

Utah uses two bonding mechanisms for property acquisition. The state is one of only a handful whose general obligation bonds are triple-A rated, according to one official. This allows the state to keep its debt structure for facilities down to three to four years.

The state also uses lease revenue bonds. These are used in circumstances where, for



example, an agency is in a leased building with a rent line in its budget. If the agency receives authorization to build, the Real Estate and Debt Collection office will take the rent, which is static for 20 years, after which point the state owns the building. According to one official, these bonds are well received and considered by the market to be as close as possible to general obligation bonds.

Special Impacts of Budget Shortfalls

Utah's Division of Facilities Construction and Management (DFCM) is not facing any staff reductions, but some work will be deferred. Other agencies, facing budget cuts, may want to consolidate and shrink the amount of space they lease. DFCM's Real Estate office will pursue strategies to deal with those space needs, moving agencies around in leased space. However, exiting a lease is a last resort and renegotiating leases is not simple. The stability of state finances allows the agency to negotiate good, tenant-oriented contracts; therefore, during a budget shortfall, it is not feasible to claim hardship and improve the terms.

In Minnesota, officials noted that agencies seeking new construction approval might increase their demands for the services of the Division of State Building Construction. With the budget shortfall this year, legislators used the quality of the predesign documents of requesting agencies as criteria for approval. To succeed in this process when resources are scarce, more agencies may seek assistance from the DSBC to create better predesign documents.

E. Customer Feedback

States leading in this field frequently assess their systems to assure quality for their client agencies. An example is provided on some of the actions of a Maryland agency to secure feedback on its construction projects.

To assess customer service in Maryland, the Office of Facilities Planning, Design and Construction of the Department of General Services distributes surveys four times during each project – after program, design, construction and warranty phases. The

surveys are designed to capture feedback from different players – for example, capital planners after design, customers or maintenance crews after construction – to determine their view of how the previous phase worked. This gives the agency information to make better decisions. Through this process, for example, the agency may learn from a maintenance crew that the air filters as constructed are difficult to access and therefore not easy to maintain. The agency could make sure to make appropriate changes in the future.

Additionally, the Office holds an end-of-project review at the completion of every project over \$500,000. At this meeting, key stakeholders discuss design, changes in construction, lessons learned for future projects, any potential legal actions that might be needed against architects or contractors, etc. This allows the agency to make conscious decisions for the future, and helps prevent problems.

F. Other Factors

Maryland

Officials in Maryland and Utah highlighted the following state-specific variables that affect the successes of their agencies.

Relevant agencies in Maryland are operating with tight staffing due to budget cuts in the mid-1990s. Officials in several divisions noted that the cuts forced the agencies to streamline their agencies and do more with fewer people. The restructuring that occurred also encouraged the departments to create clearer standard operating procedures, which sharpened employees' understanding of their roles and tasks and improves the efficiency of the division.

Utah

Leaders in Utah said they share a philosophy of interagency cooperation, which includes input from as many decision-makers as possible. This is apparent from the top down, according to one official. Like the U.S. General Services Administration, Utah's DFCM is an internal service agency. Its primary clients are state agencies and its mission is to serve them in a cost-effective manner. One official

described his work in this way: “We’re here to provide a service...Let’s do it right, let’s do it one time, let’s not have to do it again.”

G. New Ideas in Leading States

This section includes a brief description of new acquisition and construction ideas in the leading states. States are either considering these ideas for possible future implementation, or have just launched these programs, limiting the ability to evaluate their impact to date.

Maryland

Maryland is pursuing new methods of developing property through public-private partnerships. The state has offered property to the development community, which must propose projects for mixed-use, transit-oriented space, with use by government and retail. Increasingly, public-private partnerships are being considered for projects on property other than that which is controlled by the Maryland Department of Transportation.

The Facilities Planning, Design and Construction division is planning methods to involve end users more fully in the construction planning process. Believing that “a good plan helps make a good project,” the agency hopes to have more actual users involved in that planning. In planning for hospitals, schools and universities, the actual end user is often not involved at all, and instead administrative officials of the agency lead the planning. The division is conducting surveys to consider the best method to expand early input from end users. Because of the expense of making changes after the fact, leaders believe this will save the state money while also making the tenants happier when a building meets their needs.

Minnesota

Minnesota is considering a Post-Occupancy Evaluation (POE) system to close the feedback loop. After construction is completed and occupancy has begun, the stakeholders would evaluate how the building functions to better meet the mission and operate the programming of the agency. (This would not assess how specific systems function, which would be part of the new

facility management function). Such feedback would help future design projects. Client agencies would need to fund this step, so the Division of State Building Construction needs to first demonstrate its value.

Utah

Utah is just beginning to implement a Construction Management General Contractor (CMGC) process for some projects. Under this system, the state asks a contractor what fee it would charge to manage a specific construction project for the term of the project.

This general contractor then participates from the beginning, attending design meetings with architects. In this way, the contractor can offer hands-on feedback about materials and building choices. The contractor can also give the state frequent cost estimates in choosing materials, saving money on some while upgrading others. They involve the end users in these choices, explaining the trade-offs within the constraints of the project budget.

Previously, an official explained, the state might have started with a design that an architect would insist was under budget, but when the state put out an RFP the bids were 20% over budget. In that scenario, the state would need to scale the project back, which slows down the process and disappoints the end users of the facility. “Everybody got irritated,” one official said.

The state also has an open book policy in which it may audit the financial books of contractors it hires. It has begun auditing some projects under this system. This brings savings to the state. If, for example, the state believes that an electrical system will cost \$4 million but a contractor hires an electrical subcontractor to complete the system for \$3.2 million, an audit will help ensure that those savings go back to the state, not to the contractor. At the same time, the state offers incentives in the contract regarding delivery date, quality and price range, offering to share some of the savings with contractors if they meet certain criteria.

“(Contractors) see if they save money for the state, when they come back for the next project, they can highlight those savings,” the official said.

H. Relevant Web Sites

Maryland

Maryland Department of General Services (DGS):
<http://www.dgs.state.md.us/>

DGS Office of Real Estate:
<http://www.dgs.state.md.us/overview/real2.htm>

DGS Office of Facilities Planning, Design and Construction:
<http://www.dgs.state.md.us/overview/const2.htm>

Minnesota

Minnesota Department of Administration:
<http://www.admin.state.mn.us/>

Minnesota Facilities Management Bureau:
<http://www.admin.state.mn.us/descriptions1.html#facilities>

Division of State Building Construction (DSBC):
<http://www.dsbc.admin.state.mn.us/>

Predesign Information:
<http://www.dsbc.admin.state.mn.us/dpm/predesign-info.asp>

Predesign Manual for Capital Budget Projects:
<http://www.dsbc.admin.state.mn.us/pdfs/predesign-manual.pdf>

Designer Procedures Manual:
<http://www.dsbc.admin.state.mn.us/dpm-top/prcmnlix.asp>

Design Guidelines:
<http://www.dsbc.admin.state.mn.us/pdfs/desguide.pdf>

Real Estate Management Division:
<http://www.mainserver.state.mn.us/rem/> (under construction)

Minnesota Department of Finance:
<http://www.finance.state.mn.us/>

Capital Budgets: <http://www.budget.state.mn.us/budget/capital/index.html>

Capital Budget Instructions for state agencies, FY 2002-2007:
<http://www.budget.state.mn.us/budget/capital/2002/instructionsagencies.pdf>

Capital Budget System User Manual for state agencies, FY 2002-2007:
<http://www.budget.state.mn.us/budget/capital/2002/cbsusermanual.pdf>

Utah

Utah Department of Administrative Services (DAS):
<http://das.utah.gov/>

Utah Division of Facilities Construction and Management (DFCM) (a division of the DAS):
<http://www.dfcf.state.ut.us/>

DFCM Design & Construction:
<http://dfcm.utah.gov/about/history.htm#design>

Utah Building Board: <http://buildingboard.utah.gov>

Utah State Building Board's 5-Year Building Program:
http://buildingboard.utah.gov/five_year_book.pdf

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Appendix 3: Operations & Maintenance

A. Facility Assessment & Preventive Maintenance

This section includes further details about those systems that state leaders identified as integral to the success of their states' operations and maintenance programs.

Michigan's Maintenance Excellence Program

Implementation Process

With the implementation of the state's Maintenance Excellence program, the department plans to move from reactive to proactive, thus gaining better control over budgeting and planning. Additionally, by anticipating problems, the department hopes to prevent some problems and thereby reduce costs for the state.

One official said the department previously had a good record of responding quickly to

reactive work, but had no program of preventive maintenance. At the same time, the department had a \$125 million backlog in deferred maintenance.

The state is about halfway into the five-year process for full implementation of the new system. The MAXIMO software system is in place, as is the database. The Job Plans and Procedures team has also met its goals. However, the DMB has yet to implement significant segments, including the Supply Chain Management concept and the Safety module.

One official said that it is relatively easy to implement the preventive maintenance portion of the program. However, the Supply Chain Management system presents a more difficult challenge and will also lead to more significant improvements. According to this official, the industry average for maintenance staff productivity is only about 30 percent. In a common scenario, staff members must receive a work order, go to the location experiencing a problem, investigate, travel to buy the specific parts necessary for the job, then travel back to



the location, and conduct the repair or maintenance work. Through a planned approach, as exemplified in Supply Chain Management, those staff members would go to the location experiencing a maintenance problem and conduct the maintenance work, period. This efficiency saves staff time and it saves transportation costs for each maintenance call.

Michigan is using a pyramid approach to implementation of the Maintenance Excellence program. The DMB first launched the Equipment Database and MAXIMO Computer Information System, which form the foundation of the pyramid. The implementation will end with the Supply Chain Management system, which is at the top of the pyramid. The department considered implementing the entire program, from database to Supply Chain Management, one building at a time. However, it opted for the current implementation plan after it assessed that it would be confusing to maintenance crews who move between different buildings.

The DMB directed a system-wide maintenance inventory of all six million square feet of state-owned space. An outside consulting team conducted the inventory, which took six months to complete. The department opted for outside consultants who worked together during the course of the six-month inventory, an official said, because it wanted consistency from one set of eyes rather than from different teams of people. As this was conducted, the department updated the maintenance status information for the database building by building. The database now contains complete information on all buildings. Officials in Michigan said they do not plan to conduct another system-wide inventory in the future. Instead, internal maintenance engineers, planners, and tradespeople assigned to specific buildings will be responsible for inspecting the property and updating the inventory. Without such in-house tracking, one official said that the original inventory would quickly lose its value.

Results/Benefits of Implementation

One of the most powerful aspects of this system, said one official, is its ability to generate meaningful data about the needs for staff, money, problem areas, deteriorating

buildings, and more, all in real-time. Because service staff members often dislike paperwork, according to one official, the state has moved to a system using handheld devices. The personal digital assistants (PDAs) guide the staff member through a series of direct questions regarding the maintenance, requiring the user to simply check boxes in response. Because they are portable and easy to use, maintenance staff generally complete this step immediately after finishing the maintenance job, assuring that the information is more accurate and complete than ever before. At the same time, this means that all data is constantly updated, serving as a tremendous help in planning for the future. The department launched the PDA system in the spring of 2002; PDAs are now in use by approximately 75 percent of the workforce. The Maintenance Excellence program will provide numerous additional benefits to the department, its workers, and the agencies it serves, according to leaders in Michigan. One example is in the area of safety. When an employee now receives a work order to conduct preventive maintenance, the order includes a reminder about specific safety concerns for the assigned task. This safety module can be updated as new information is learned, and can therefore reduce safety risks for department employees.

One leader offered an example of the wider impact that preventive maintenance can have. If the department conducts appropriate preventive maintenance on an air handler, this will likely lessen the system's downtime overall. This improves the work atmosphere and productivity of state employees in the building where the air handler is located. It is also easier for the department to schedule the time of its employees when focusing on preventive maintenance rather than reacting to emergencies.

Tradespeople have not had extensive computer training, according to one official, so a system such as the one in Michigan requires basic computer training for a large staff. The training must be ongoing and repeated, not conducted on only one occasion. The program must be implemented gradually, to ensure that it is done correctly. All of this requires staff members to buy-in and support the new vision, and a belief that it will improve the ability to do

their jobs well. “Don’t expect overnight success,” cautioned one official. Additionally, because the effort is so extensive, top leaders in the agency and state government must support the effort.

After its complete implementation in two to three years, the Maintenance Excellence program “will become simply the way we do business – it won’t be seen as a new model” anymore, one official explained.

Based on reports from building managers, Department of Management and Budget officials said that the system is reducing the number of lighting service calls. Generally, the agency spends a lot of time responding to lighting service calls after bulbs burn out. Using the new system, the agency knows when bulbs are at the end of their useful life, and maintenance employees replace the bulbs just before they are scheduled to fail. This leads to few service calls, lowering the reactive time, which allows the agency to better coordinate staff time and save money. While the state does not yet have formal cost saving figures, building managers report that it has led to a real and noticeable improvement to how they do their work.

Some savings will never be fully identified. Prior to the new system, without its powerful database, the agency did not have a comprehensive knowledge of how it spent its time. Without that baseline from before, officials said, it is not possible to measure the improvements of the new system.

Missouri’s Maintenance Software and Evaluation

Description of Product

The state purchased the MS 2000 software five years ago. The Division of Facilities Management (DFM) then spent two years gathering and loading information into the program. The division trained all staff in the use of the software and brought it online in smaller facilities to conduct pilot tests.

During the building operations team’s weekly evaluation meetings, the team notes any workplace safety concerns such as slips, trips, and falls in buildings. The meetings also include a review of customer service issues, discussing feedback from building tenants as well as the impact planned maintenance will

have on tenants. The frontline building supervisors are responsible for raising priority maintenance issues in their jurisdiction. One official said that the meetings of the 25 to 30 supervisors create competition to maintain buildings and property.

According to an official with an agency that is a major tenant of the Division of Facilities Management, the communication and meeting system between the Division and its office buildings functions well. One person is designated from the agency to serve as a liaison with the Division, attending weekly meetings and communicating between meetings by phone and e-mail. The official said the Division is responsive to trouble calls and the lines of communication are clear.

The team also measures incoming trouble calls during its weekly meetings. The DFM tracks these against previous calls, to assess any pattern of maintenance needs or complaints. For example, one building may frequently receive calls from tenants complaining that the building’s temperature is too cold. The DFM may discover that these calls continue to be received even after maintenance staff members have responded several times to previous calls by adjusting the thermostat. The DFM will determine that a larger investigation into the problem needs to be conducted, to ensure that the complaint is solved more permanently. “We help unravel those problems,” said one official.

Officials in Missouri said the state is trying now to focus on preventive maintenance, and these systems assist with that goal. Division officials said they believe they offer valuable services and preventive maintenance to their tenants because many state agencies prefer to be located in state-owned property, which is managed by the Division of Facilities Management, rather than leased space managed by private companies because the tenant services and response time to maintenance, cleaning, and security issues. One tenant noted that preferences vary based more on the quality of space rather than whether it is state- or privately-owned.

One area undergoing changes for cost efficiency is staffing decisions. About 10 to 15 years ago, the agency expanded the number of in-house craftspeople responsible for

repairing and maintaining facilities. At the time, this was a trend in the industry and the most cost-effective method for service delivery. Officials said they need to re-examine this idea as the industry and economy change.

The state formerly housed both maintenance and design/construction functions within one agency. Officials at the current Division of Facilities Management said they believe that a 1993 decision by the late Governor Mel Carnahan to split the functions in two has contributed to the success of both agencies. By breaking down the bureaucracy and encouraging participatory management, they believe the agencies are more productive and save more money.

The state has instituted a new system of incentives in energy management. If the DFM saves money through energy efficiency, the

agency can redirect those savings to additional energy saving measures. In the past, the agency would have been required to send the money saved back to the state general fund. The new method offers the agency's staff an incentive to be inventive. "We can't reward staff financially like the private sector," one official explained, but if the maintenance staff members are respected and praised by tenants in state-owned facilities "it's a great morale booster."

Utah's Capital Facilities Assessment

To date, Division of Facilities Construction and Management has assessed approximately 30 million square feet of its 38.7 million square feet inventory. Some of the property not yet assessed is auxiliary space that will be assessed in the future and some is storage property that will not be assessed.

Based on this process, Utah has estimated the following maintenance needs:

Immediate maintenance needs	\$192 million
5-year maintenance needs	\$470 million
10-year maintenance needs	\$234 million

The information from the conditions assessment is stored in a database. DFCM will lead efforts to keep this information current and to meet the identified maintenance requirements. Using these internal mechanisms, the DFCM currently plans to regularly assess the status of maintenance needs in-house rather than conduct full assessments by outside consultants in the future. The agency may utilize third-party consultants in the event that there is a difference of opinion between an agency and DFCM.

The state's Building Board, which is the policy agent for facility construction, uses this assessment when reviewing annual capital funding requests from agencies. Requests for all state-owned property must go through the Building Board. According to one official, the board has adopted a policy that if a request falls outside the parameters of the baseline,

there is a vigorous argument before it receives approval. An agency submits its request to the Building Board; the DFCM evaluates those requests and reviews it with the requesting agency before making a judgment. There is an opportunity for the agency to dispute the conclusions of the DFCM. The entire process occurs in an open, public forum, and is "quite extensive" according to one leader.

During the fiscal year that ended June 30, 2002, the DFCM based 100 percent of its decision-making on the conditions assessment.

This process has significantly altered the way that Utah decides its maintenance priorities and funding. Before this process was launched four years ago, one official said that the state "couldn't assess needs."

"An agency would come in, and tell us horror stories about some problem. The Building Board would consider it.

Someone would go out and look at it and assess whether it needed repair. It might have been able to limp along further, but there was no sense of priorities. So we'd fund it. Meanwhile, by virtue of some failure or some emergency, we'd discover some other more pressing problem, which would also get funded."

Under the new system, the state is able to prioritize and plan for upcoming maintenance needs. "Now, we're making brighter and better decisions," said one official.

The entire system will be linked through a live database. If, for example, a state agency conducts some maintenance itself, it will update that information in the computerized facilities management program, which then takes that project off the maintenance list. The DFCM and all the buildings it manages are using the database, meaning that approximately 20 percent of state property is on it. The agency will add other buildings to the system slowly, ensuring that all systems are functioning properly and additional support is available. The DFCM plans to include all agencies on the system within three years. The state already bought the license to the software, so any potential budget changes for the agency would not affect implementation of this project.

When the state determined several years ago to overhaul and improve its maintenance delivery system, the state reviewed several programs. Among these were the system at Livermore Laboratories in California and the one in place within the Church of Jesus Christ of Latter Day Saints (LDS). The LDS system, which coordinates churches around the world as well as university campuses, served as the model for the state's new program. According to one official, the LDS Church system identifies all facility needs in an ongoing way and based funding and program decisions on those identified needs. From its maintenance budget, it set aside in a sinking fund a certain amount per square foot; this may need to be used for repairs, but may be put toward savings if maintenance is administered properly.

The state saved money while conducting its conditions assessment by using an external team. According to one official, it would have

been too costly for a state the size of Utah to have on staff a team of engineers and architects dedicated to conducting the facilities assessment. Instead, they hired the ISIS Corporation of Atlanta at a cost of about 10 cents a square foot, assessing tens of millions of feet at once.

One official described the new system as one that reflects "a corporate philosophy in a public setting" and could be implemented in other states.

Utah's "Campus versus Shops" System

Utah has altered the way it delivers maintenance services throughout the state. It now divides facilities by campuses rather than shops, with a facility coordinator assigned to each campus. According to one official, the department is "philosophically moving away from shops," which formerly included a shop of plumbers, electricians, HVAC experts, etc. This leader explained that shops tend to operate individually, with work orders issued by each shop. This creates a system whereby the employees "become loyal to a discipline, not to a facility or a corporate philosophy." While the DFCM continues to have a few electricians and a few plumbers, the agency is now more likely to employ generalists rather than specialists. These staff members have expertise up to a point, an official explained, but if a problem requires assistance beyond that expertise, the state contracts outside assistance.

The department does maintain high-level HVAC staff, according to one official, because the state has so much to save through energy conservation within these systems. Since HVAC systems are such large energy users, the state "can save big dollars" through efficiency. (See below for a further discussion of cost savings through these systems.)

Other Systems

Utah's DFCM follows a corporate philosophy for service delivery identified as TTOMM, described as follows:

- Train people to operate equipment/buildings as they are intended
- Tune equipment to design specifications
- Operate to design specifications

- Maintain to design specifications
- Monitor to determine if any of the above need alteration, engage in constant re-evaluation

The department offers incentives including “aggressive salary increases” to employees to receive training, an official said. The agency has a lower turnover rate than other agencies in Utah and than agencies in other states, according to one official. At most companies or agencies, said this official, operations and maintenance staff are not high in status. Those organizations instill a culture where staff believe, “that’s just the maintenance guy.” Such a culture undermines the pride and productivity of maintenance staff. In Utah, the DFCM emphasizes that its staff members are important to the overall health of the state, and their actions affect, for better or worse, the working conditions of state employees.

Because of its internal philosophy, the agency has a reputation as a workplace that cares about its employees and its service. “I believe an agency is only as healthy as the people who work at it,” one official said.

B. Budgeting & Funding Process

This section includes key budgeting and funding issues emphasized by leaders in Michigan, Missouri, and Utah.

Michigan

Like most states, Michigan is experiencing tightened state finances. Officials in the Department of Management and Budget’s Infrastructure Services Division did not yet know how the budget shortfall might impact the division’s work. They believe the department may need to conduct its mission with fewer staff people and less money, but it has not yet been finalized.

Missouri

In 1996, the Missouri Division of Design and Construction proposed a state constitutional amendment to voters to create a set-aside fund for times of budget shortfalls. Voters passed the measure, which is now law. The state must set aside .05 percent of Missouri’s general revenue each year for the Facilities Maintenance Reserve Fund (FMRF), which is

used to fund maintenance and repair projects of a predictable nature for all facilities statewide. Examples of such projects include HVAC systems that have reached the end of their useful life, roof replacements, exterior and interior repairs, and general physical plant infrastructure repairs and replacements.

However, Missouri, too, is suffering from the effects of the economic downturn. Dramatic budget cuts had just been announced and departments are still determining the impact of such cuts on their missions. In addition, the governor is authorized to transfer the maintenance and repair fund money cited above to the responsible agencies.

Utah

By state statute, the Utah legislature must fund a specific set-aside for capital improvements of state facilities. Two years ago, the state funded these activities at .9 percent, last year at 1 percent, and the current amount is 1.1 percent of the value of existing state-owned buildings. The State’s Division of Risk Management estimates the replacement costs each year for all state buildings, and the DFCM is now funded at 1.1 percent of that value.

Based on this formula, the state legislature this year funded the DFCM at approximately \$50 million. As highlighted above, DFCM determined through its Capital Facility Assessment that the state has \$192 million in immediate needs. The \$140 million difference between funded maintenance and immediate needs is therefore placed on the deferred maintenance list.

While this would seem to lead to an ever-increasing deferred maintenance list, some projects fall off the list as well, an official said. For example, an old building in Salt Lake City may require significant funds for capital improvements and may be on the deferred maintenance list. However, the state may decide at some point to conduct a complete remodel or demolition and rebuild of that building. Its previous operations and maintenance needs would then be removed from the deferred maintenance list. According to one official, the items on the deferred maintenance list reflect a “constant balancing act” for the resources of DFCM.

A DFCM official said that if the set-aside had been in effect since “Day One” – when operations and maintenance of state-owned buildings first began – the current level of 1.1 percent of replacement value might be sufficient to meet the needs. However, the set-aside is new and therefore maintenance has not kept pace with past needs. The DFCM estimates that to catch up to the deferred maintenance needs of the state, the department would need twice the current amount.

However, like many states, Utah is facing tough times in its state budget. Instead of receiving an increase in its budget from the legislature, the DFCM believes it may suffer cuts dropping it back to the previous amount of .9%. This could be especially challenging for Utah because it is a high growth state. The state estimates that it will double its current population (2.2 million) by 2020. Therefore, one DFCM official noted that it is imperative that the state maintain its current properties and build more efficiently in the future. Therefore, state officials said they hope that any budget cut will be temporary rather than permanent.

C. Feedback

Leading states have mechanisms to gather feedback from client agencies to improve their service delivery. This section highlights a few of those mechanisms.

Missouri

In Missouri, the Division of Facilities Management coordinates meetings with tenants at least quarterly and sometimes monthly, and conducts surveys of all the buildings twice a year. Agency Facility

Coordinators meet with key representatives of each department. The agency communicates with its clients and employees through its monthly newsletter and other systems.

A major tenant of the DFM said that Division officials are active leaders in problem solving, in urgent and more commonplace situations. A critical example was the response to the terrorist attacks of September 11. The major state office building did not have a building-wide badge system prior to September 11. The attacks moved the building from one that had virtually no security to one that was very secure. DFM coordinated that system relatively quickly, according to a tenant. On a more common facilities topic, the tenant explained that after some employees complained that smokers on break left a mess of cigarette butts and a blue haze of smoke right outside the office door, DFM convened a committee to create new guidelines. Importantly, the Division leader invited smokers to participate in the process, leading to new policies that were well received.

Utah

In Utah, DFCM conducts quarterly surveys of its employees and customers in state-owned buildings. Additionally, the agency maintains an operations representative group, which is a venue for rank and file employees to communicate their needs and make recommendations regarding equipment, working conditions, and more. One official said this process generates many ideas for improving agency systems, while at the same time it sends a signal to employees that the agency “respects them as a legitimate information source.”

D. Relevant Web Sites

Michigan

Michigan Department of Management and Budget (DMB):

<http://www.michigan.gov/dmb>

DMB Infrastructure Services:

<http://www.michigan.gov/dmb/1,1607,7-150-9152---,00.html>

[web site under construction following agency reorganization]

Vendor: Life Cycle Engineering, Inc.:

<http://www.lce.com/index.htm>

Missouri

Missouri Office of Administration (OA):

<http://www.oa.state.mo.us/>

OA Division of Facilities Management:

<http://www.oa.state.mo.us/fm/index.shtml>

OA DFM State Owned Building Operations:

<http://www.oa.state.mo.us/fm/bldgops.htm>

Utah

Utah Department of Administrative Services (DAS): <http://das.utah.gov/>

Utah Division of Facilities Construction and Management (DFCM) (a division of DAS):

<http://www.dfc.state.ut.us/>

DFCM Facilities Management:

<http://dfcm.utah.gov/about/history.htm#facilities>

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Appendix 4: Web-Enabled Software

A. Planning & Construction

This section will offer further details on web-enabled systems in Washington and Texas that assist in real property planning, design, and construction, including major maintenance projects.

Washington's Public Works Bidding Process

The Engineering and Architectural Services (EAS) section of the Washington State Department of General Administration uses an advanced web-based software system to streamline the process for soliciting public works construction bids.

Created and managed by a private company – the Builders Exchange of Washington – the FastBid™ software allows web access to an entire bid package, with drawings and all details. (See: <http://www.ga.wa.gov/eas/easvend.htm>, click on "Current Projects Advertised for Bidding." First-time users will need to download the free software.)

An official in the EAS section said he spent five years testing other systems, looking for a web-based system that was easy to use and required little or no change in the way that contractors do their business. He thought one

system used by the Army Corps of Engineers was a good start, but because it was on a CD-ROM, it required that users have all software on their system. This made it impossible to use on the Internet with a slow speed modem, which he thinks is critical to a system's ease of use.

"I was seeking a system...in which no one in the industry had to change anything about the way they do things," the official said. The EAS section eventually worked with the Builders Exchange of Washington to ensure that the new FastBid™ software met the needs of both the state agency and private contractors.

For those entities soliciting bids, such as EAS, there are no additional steps and only a nominal cost. The agency simply adds the Builders Exchange to its regular list of plan centers for bid package distribution and the company does the rest, scanning and transferring all materials onto the Internet. For contractors wanting to respond to bids, they need no special computer systems and pay no fee. With this system, contractors also don't need to physically go to the plan center, because they can print all materials on their own computers and order any prints they might need online.

The system has numerous high-performance functions that enhance its ease of use. For

Project No.	Project Description/Bid Location	Bid Date	Est. Cost	View*
02-253	Bldg. "D" HVAC Replacement & Bldg. "T" Electrical Modifications/Olympia	1/23/03	\$11,000.00 -\$120,000.00	View DWG
02-249	Lewis County Jail Expansion/Chelan	1/29/03	\$14,500,000.00 -\$21,500,000.00	View DWG
02-007	Campus-wide DDC Controls & Fire Alarm Upgrades/Port Angeles	1/29/03	\$200,000.00 -\$700,000.00	View DWG
02-001	Welding Lab Remodel & Gym Improvements/Wenatchee	1/29/03	\$400,000.00 -\$400,000.00	View DWG
02-025	Seismic Hazard Mitigation/Vancouver	1/29/03	\$1,940,000.00 \$1,240,000.00	View DWG
02-101	College Service Center Remodel - Phase 1, Elevator Renovation/Olympia	1/29/03	\$200,000.00 -\$700,000.00	View DWG
02-020	2003 Building, Fire Alarm System Upgrades/Olympia	2/5/03	\$700,000.00 -\$400,000.00	View DWG
02-006	Building 15 Tenant Improvements/Olympia	2/25/03	\$400,000.00 -\$400,000.00	View DWG
02-008	Electric Upgrades/Olympia	02/06/03	\$200,000.00 \$200,000.00	View DWG
02-009	Seismic Hazard Mitigation/Vancouver	02/06/03	\$1,940,000.00 \$1,240,000.00	View DWG

example, if a user wanted to see a large blueprint drawing, the system immediately downloads a thumbnail appropriate to the user's request while downloading the full drawing in the background. "There are some really elegant things going on with this system," explained the EAS official.

The EAS created a mock script of what an average contractor might want from a bid pack to test various systems before the creation of FastBid™. In those tests, it took 33 minutes to complete the entire script on the best system. With FastBid™, the same test script took only 11 minutes. In his view, this performance meant that FastBid™ "crossed a threshold from a toy to a real tool."

This official hypothesized that the obstacles to solving problems are approximately "10% technological and 90% political or cultural." While the software is simple to use, its greatest value is in the fact that it requires no changes in the way the industry does business.

FastBid™ is currently primarily a regional system, although anyone in the country could use it. General contractors pay a fee to place their projects online, in a password-protected manner, so that subcontractors may bid on projects.

The cumulative goal of this system is to move away from paper and keep as much as possible online. Contractors can still order specific prints, but the contractor would pay for those rather than the state needing to provide numerous copies. An online system would also save time. When using a paper system, it often takes approximately one month to bid a project after all the materials are available. About one week is allotted for delivery time, after the drawings and advertisements are sent to the plan centers. At least two to three weeks is allotted for a view period, when contractors make time to go to the plan centers to review the bid packs.

When all participants are fully using the online system, the EAS official said the time to put a project out to bid would be cut in half at a minimum. The first week is eliminated, because the bid pack is sent by e-mail to the Builders Exchange, which will post it immediately on the Internet. And because everything is available instantly and

contractors don't need to go to the plan centers, this eliminates another one to one-and-a-half weeks. This will save time and money for the agency, and will likely improve the quality of the bids if contractors have a bit more time to complete their proposals before the deadline.

Capital Assets Planning System in Texas

The Computer Aided Facility Management (CAFM) Office of the Texas Department of Mental Health and Mental Retardation Capital Assets Planning System (CAPS) uses VFA Facility software for strategic planning purposes.

An official with the CAFM office said this system saves numerous hours of work. Under the previous system, producing a capital needs request took approximately 120 weeks of full-time staff work. With the new system, the process uses approximately 9 to 10 weeks of full-time staff work. The savings there alone paid for the entire system in one year, this official said. That reduction was realized not as budget money saved, but instead as money offset to higher-priority work.

This system also contains the Department's deferred maintenance list. Through a combination of physical inspections and computer modeling of a building's life cycle and the life expectancy of its components, CAPS updates the percentage of life remaining in all major building systems, such as heating, cooling, plumbing, and electrical. CAFM officials can then use this system to produce graphs and estimate the costs to maintain facilities "for today, tomorrow, ten years from now." This is a planning tool for large projects, and is not the system used for daily maintenance and work orders. (See below for more on that system, called FacilityCenter™).

Ideally, one official said, it would be best to conduct an independent, outside reassessment of a building and its systems every three years. However, that is a time-consuming and expensive process, so the department streamlined the system. Building and plant managers conduct an internal inspection each year, and the CAFM office has requested that they update any changes apparent in the current conditions compared

to those listed in CAPS. The department prioritizes those buildings in which patient beds and other client needs are located over those buildings that contain support services.

The web-based software is a product of VFA, Inc. CAFM officials described the company as extremely responsive to the Department's needs and it has solicited CAFM Office input when upgrading the software.

Forecasting that the systems needed by the Department would also be useful to other agencies, CAFM officials spent a significant amount of time planning at the beginning of the process. The office wanted to ensure that the standards, conventions, and guidelines used for the system would be appropriate for any agency, not just the Department of Mental Health and Mental Retardation. "That took more time, but it was worth it," said one official. The Department also included a clause in contracts with this and other companies that allows any state agency to piggyback on a CAFM contract. This allows other agencies to implement the CAFM systems in the course of possibly 60 days rather than the six to nine months it originally took CAFM.

The Office of the State Comptroller reviewed the Department's asset management systems, and published a report a year ago recommending the CAFM system to all state agencies. A CAFM official said that at least two other state agencies are interested in implementing the system, but budget shortfalls are currently an obstacle.

B. Maintenance & Management

This section offers further details about web-enabled programs that manage the operations and routine maintenance of real property.

Buildings on a Disk

The Engineering and Architectural Services section of the Washington State Department of General Administration has created a system known as "Buildings on a Disk," which provides a snapshot of all maintenance materials for a building.

EAS staff members go out to facilities, work with facility managers and their staff members to identify all relevant maintenance documents. These include architectural drawings, maintenance manuals and all other documents that maintenance staff members use regularly. One facility had three file cabinets filled with operations and maintenance manuals.

Materials are sorted, duplicates and old manuals are removed. EAS officials then talk with maintenance staff about how the information is used on the job. They ask how the maintenance crew would like to view the manuals and drawings.

"Each facility has its own culture," an EAS official observed. "We want this to work for the way they do business." EAS then scans the materials into a PDF environment, indexing all materials with cross-links.

An official described a possible scenario:

"You might have a project you call up, with an index of drawings. A hotlink from there would bring you to the drawing itself. A link from the drawing would bring you to an electric panel... a link from there, to the panel's schedule... a link from there to the operations and maintenance manual for that specific panel."

EAS places all this material onto a CD-ROM. This material could also be placed on an Intranet with a few modifications. Along with producing the CD-ROMs, EAS also shows agencies how to update and maintain the information. However, an official with EAS said that most agencies tend to ask EAS to update the information about a year after the first disk's creation.

EAS has completed the process for 50 to 60 facilities in the past one and a half years, with the pace recently quickening. The division now has four full- or part-time people working on this project, completing two facilities a week. There is no current plan to create a Building on a Disk for all state facilities. The facility requesting the Building on a Disk must reimburse EAS for its services, so the level of work for EAS is dependent upon other agencies' funds and priorities.

FacilityCenter™ in Texas

In seeking a single software package that could order materials, handle lease management, manage maintenance and operations, and produce work orders, the Computer Aided Facility Management (CAFM) Office of the Texas Department of Mental Health and Mental Retardation had the following three key criteria:

- 1) Out of the box solution. The Department did not want to spend any time customizing it.
- 2) Oracle database solution. The Department wanted an Oracle system that could run on the low-end computer workstations that most staff used. This eliminated a CAD-based solution, which would have required new workstations and monitors and training for 300 to 500 people.
- 3) Integrated enterprise solution. The Department wanted a single system in which data would need to be entered only once, not in multiple locations. It demanded a single menu, without multiple systems cobbled together.

The Department contracted with the only company that had a software package that met

its criteria. The software is called FacilityCenter™.

Recently FacilityCenter™ was purchased by Tririga, Inc. to incorporate it into its Intelligent Business System™, a centralized, web-based system to manage key aspects of an asset's lifecycle. CAFM officials reported that the company has offered excellent support and also solicits CAFM Office input when upgrading the software.)

"It's a good system that is easily supported," one official said. "It includes all the components you could want." The software includes other components that the Department has not yet implemented due to budget shortfalls. The software needs to handle a high volume of work. The Department has identified 70,000 pieces of equipment that it calls "PM-able" (i.e., those on which preventive maintenance should be conducted). Each piece of equipment needs routine maintenance, which must be scheduled in the FacilityCenter™ system. The Department generates 350,000 to 400,000 work orders each year. On average the Department has 100 concurrent online users on the system.

A project manager from Peregrine Systems worked on site for about one year to assist the Department in implementing the system, the



bulk of which was handled by in-house CAFM staff.

The system manages the work order system through Palm Pilots, eliminating printed work orders. Work orders and assigned tasks are downloaded onto the personal digital assistants (PDAs) at the start of the day. The Department is currently using about 300 PDAs, but an official said another 400 more are needed. CAFM staff estimate that through the use of the PDAs, the Department has eliminated 50 to 60 percent of its data entry time.

The CAFM Office trained one to two people in each facility in how to use and synch the PDAs. Officials said the system did not require much training of the end users, because FacilityCenter™ uses direct drop-down menus and lists. An official said that virtually all maintenance staff members embraced the new tool, and very few fought against its introduction. In fact, staff members were “like kids with new Christmas bicycles” after they received their PDAs, according to one official.

Officials said that records are now more accurate and more complete and contain few data transcription errors that previously plagued some reports. There is now more data integrity.

According to agency documents, the most important benefit of the entire CAFM system in the Texas Department of Mental Health and Mental Retardation is the provision of well-maintained, code-compliant facilities for the agency consumers, clinical health providers, patients, clients and families served in the 22 hospitals and schools.

The Texas Department of Mental Health and Mental Retardation CAFM Office has received numerous awards for its program, including the “National Innovations Award” from the National Association of State Facilities Administrators (NASFA) in March 2002.

C. New Ideas

In Washington, the Real Estate Services (RES) section is trying to get formal approval for a new system that will proactively distribute e-mail announcements to those companies with which the agency does business. Rather than

waiting for companies to review the RES web site’s announcement of space needs, the system would distribute the announcement to all who sign up for the list. The system could also be used to announce internally when an agency needs to reduce its space and is seeking another agency to take over its lease.

The Washington RES section also plans to enter all client agencies in GA-owned space into the Lease Inventory System (LIS), creating a formalized internal lease agreement for state-owned space. While the LIS system will be up and running this fiscal year, it will likely take another two years to have all clients entered into a formal lease with the state. The RES section is currently operating on a facility and service charge method, but it wants to shift to a rental system, similar to that on the open market (although the state space is a bit less expensive than the private sector). In that way, the RES can set up reserve accounts as in the private sector. According to one official, Tennessee is the leader on this system, although it charges full market rates. Right now, the Department of General Administration must seek approval and funding from the state legislature for every capital project, which is a lengthy process. This shift would move the Department toward a private sector model, with reserves for capital projects. Additionally, putting all state-owned space on the LIS system will facilitate improved coordination between those who manage state-owned space and those who manage leased space. The various divisions that would be linked include RES (leased space), the Division of Capital Facilities (daily management), and Capital Programs (long-range asset management).

An official with the Washington Engineering and Architectural Services (LEAS) section said he is speaking with fire marshals around the state regarding the possibility of using Buildings on a Disk to assist in emergencies. If EAS completed the process for every school in the state and then put all that information on one master computer file, this could assist fire marshals and other emergency workers in case of an emergency in the schools. It would give clear guidance to the structure and systems of the schools. However, following the terrorist attacks on September 11, some

Appendix 4: Web-Enabled Software

participants expressed concerns about making those details available in a way that might not be fully secure. They are considering ways to make the information secure yet accessible to key emergency personnel. Also, there may be other uses for the Building on a Disk system that have not yet been identified.

The EAS is developing an Internet Contracting System, a package of online registration for contractors, consultants and vendors. It plans to create a system within one year in which any contractor in the state can go online, register for the small works roster, and receive online notification of all government construction projects.

This would send materials proactively to contractors, rather than assuming that they will all go to the EAS web site. For example, for a specific project the state might want to make sure that all contractors in a given county who have more than three years experience in roofing receive notification. With the new system, EAS could search the database to identify those contractors meeting the criteria, put the notification into the system, and distribute to the list. The notification would include a hotlink to the Builders Exchange of Washington site for all the drawings and specs.

D. Relevant Web Sites

Texas

Texas Department of Mental Health and Mental Retardation:

<http://www.mhmr.state.tx.us/>

Vendors:

Graphic Systems (facility management technology company in Cambridge, MA):

<http://www.graphsys.com/>

Tririga Inc. (FacilityCenter™ infrastructure management software):

<http://www.tririga.com>

VFA, Inc. (provides web-based software systems and business consulting solutions for professionals involved with facilities management):

<http://www.vfa.com/>

Case Study on Texas DMHMR:

http://www.vfa.com/clients_texas.htm

Washington State

Department of General Services:

<http://www.ga.wa.gov>

Real Estate Services section:

<http://www.ga.wa.gov/DRES/index.html>

Real Estate Services Current Solicitations:

<http://www.ga.wa.gov/DRES/LeasedSpace.htm>

Engineering & Architectural Services section:

<http://www.ga.wa.gov/eas/eas.htm>

Current Projects Advertised for Bidding:

<http://www.ga.wa.gov/eas/easvend.htm>

(click on "Current Projects Advertised for Bidding") or

<http://www.ga.wa.gov/servlet/EASBidCalSv>

Vendor:

Builders Exchange of Washington:

<http://www.bxwa.com>

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Appendix 5: Public-Private Partnerships

Arizona and Washington State are highlighted in this section.

A. Arizona's PLTO System

The state's Privatized-Lease-to-Own (PLTO, pronounced "Plato") system was designed in response to a number of challenges faced by the General Services Division of the Arizona Department of Administration (ADOA) in its responsibility for housing state agencies in the Arizona capital of Phoenix. General Services had no preventive maintenance program, and the state legislature was unlikely to fund one. Additionally, the state had not constructed a building on the capital mall for seven years and instead had expanded leases for state agencies in private office space at high and increasing rates.

At the same time, the legislature believed in "pay-as-you-go" methods of funding, disapproving the use of bonds for construction of state buildings. The agency had no long-

range plan for facilities at the time, so the General Services Division first conducted an analysis of market rates, reviewed rates for the previous 10 years and then created a 10-year plan that projected building needs and growth into the future.

This plan included the following key findings, according to one report by the agency:

- 12 of the largest state agencies representing 57 percent of its administrative functions occupied 750,000 square feet of private lease space spread over 34 locations in the Phoenix area. This fragmented operations and service to the public, and increased redundant operations and operating costs.
- Lease costs for functions that should be located on the Capitol Mall were \$10.5 million per year and increasing at a rate of \$1 million per year.



Appendix 5: Public-Private Partnerships

- The state had recognized no residual value for the more than \$70 million spent on private lease space over the previous seven years.
- Numerous leases at rates of \$12 to \$13 per square foot would be expiring in the next several years and would have to be renewed at rates ranging from \$16 to \$20.
- Population growth projections indicated that there could be a need for as much as 950,000 square feet of additional office space over the next 10 years.

According to a state official, the legislature agreed that these findings supported the construction of state-owned property, but the state did not want to pay the full cost of the buildings up front or issue bonds for financing.

General Services then considered methods in which a private developer could finance the construction of the building, then design, build and operate it on state-owned property, leasing it back to the state at or below the current state lease appropriation. The building would be constructed to state specifications, and the state would own it at the end of the lease term.

"If the developer's bond payment and operations and maintenance costs are structured to match our current lease payments, it's just a matter of how many years before we own the building," this official explained.

Financing Options

The state called its effort "Privatized Lease-To-Own" or PLTO (pronounced, "Plato"). The master plan called for 11 new buildings over a 10-year period, beginning in the first year with the construction of two buildings totaling 485,000 square feet for the Department of Environmental Quality and the ADOA.

The state needed its payments to be less than or equal to its current lease costs. Projections on bond payments indicated that the state could own the properties within 20 to 25 years, keeping payments below current lease costs.

General Services worked with a nonprofit community group, the Phoenix Community Alliance, which is active in efforts to redevelop Phoenix. The Alliance convened a luncheon with developers to discuss the idea.

Some developers said it was an unattractive plan, and it would not receive financing. Others, however, expressed interest in bidding on the project.

The ADOA needed approval from the legislature to move forward with this new method. Procurement rules at the time required choosing the lowest bid, which would not have been appropriate to meet the needs of the PLTO system. The ADOA needed to develop performance specifications for a Value-Based Selection (VBS) process, and then persuade the legislature to permit it.

Officials with General Services created a presentation for the legislature outlining the current and future costs under its leasing system and the savings and increased assets under the PLTO system. The proposal emphasized the benefits of the "right service, in the right place, at the right cost," noting that "we will spend the money one way or the other. The choice is that at the end of 20 years we can have nothing to show for it, or we can have a \$100 million asset."

The ADOA estimated that the first phase of PLTO would save \$300,000 a year from the amount the state had been spending in the private sector on agency leases. The state would then own the two buildings after year 25. Because the ADOA expects the buildings to have 50-year useful lives, the state would occupy the buildings rent-free for the second 25-year period. In total, this phase of the plan would save the state \$70 million during that time.

In estimating these savings, the agency did not include efficiencies and similar benefits, although they are also numerous, according to officials. State agencies were spread out all over the city, increasing the needs for phone systems, travel, time spent moving between spaces and other inefficiencies.

The agency needed two actions by the state legislature: 1) authorization for the agency to enter into this contract and 2) exemption from the state's low-cost procurement law.

Both houses of the legislature unanimously authorized the plan, and the Governor approved it.

The state issued its RFP in November 1999, defining its selection criteria and method of

scoring, along with the performance specifications and 30-year cash flow projections. Seven major developers responded; three were placed on the short list. One of those bids came from a company that had initially expressed skepticism about the feasibility of the project.

Some experts suspected that the state's required opt-out clause in the state leases would lower the bond ratings and therefore interfere with the RFP process. The clause states that if an agency does not receive the necessary leasing appropriations from the state legislature, it can exit a lease. While the clause did present a challenge, officials argued that the state is not going out of business – even if the state shut down an entire agency, it still holds many private leases and would move agencies from those private properties into the PLTO buildings. Additionally, private demand for the PLTO space would be high given its convenient location. In the end, the clause was not an obstacle to the developer financing the project.

The developer floated the bonds for the building, which are not backed by the state but instead by the buildings themselves and the state leases. The developer is providing a turnkey operation, with all amenities and maintenance included.

In preparing this project, General Services also factored the cost of major maintenance (or building renewal) into the cost of the lease. Generally, the agency must seek approval for building renewal funds each year from the legislature. Although the state has a set formula for this funding, the legislature regularly funds it at only 25 to 50 percent of the formula target. By including these costs into the costs of the lease, the money will be set aside for those purposes and the agency will not need to seek approval each year from the state.

"So when the state becomes the owner in 25 years, it will take formal possession of a property that is in good shape because it has been well-maintained," one official said. It will also avoid adding these costs to the current list of deferred maintenance.

The developer broke ground on the project on February 21, 2001 and two state agencies

began moving in on July 1, 2002.

The state is now starting a third building in a new phase of the project, PLTO II. This building will house the Department of Health Services.

"People said, 'That's a great idea, try it again,'" an official said.

Officials in several states acknowledge that it is difficult to receive funding from their legislatures for new agency office buildings when states are suffering financially and there are many other competing needs. Under the PLTO system, Arizona does not need to choose office buildings over other services.

"This way, look, we're already spending X amount each year on rent, but we'll save \$300,000 a year, plus there are all these other benefits. And after 25 years, we own the buildings. The Treasurer's office asked what was wrong with this deal; it seemed too good to be true, why haven't we done it before? Maybe nobody ever proposed it before," said one Arizona official. In a time of budget shortfalls, this system becomes even more appealing, the official said. "We're really hurting, like everybody else, but it won't cost us anymore to do it this way, so why not continue to do it? In fact, the state saves money and gets good space in the process."

Arizona previously bought construction based on lowest cost. An official said such a system might not provide the lowest costs over the life cycle. Because of the PLTO system, the state now can engage in value-based selection and quicker design/build procurement.

"We built the buildings in 15 months," the official said. "Design/build is so much faster than design/bid/build. This was a real plus."

The official said that the project is really not that difficult, except that it requires a complex contract. While the first phase required six months for ten attorneys to structure the contract, the second phase used that model and now it is a simple step.

"The structure is unique maybe for state governments, but not unusual in the private sector," according to this official.

According to one official, most tenant agencies did not initially want to move to the new space. In the past, there was a perception

that state office space would be substandard. Now, however, employees acknowledge the space is very nice. In PLTO II, the Department of Health Services is extremely enthusiastic to move to a new building.

Many organizations in the field have recognized and given awards to the Arizona PLTO project. ADOA officials have been invited speakers at conferences of the National Association of State Facilities Administrators (NAFSA) and the National Association of State Chief Administrators (NASCA), among others.

The ADOA General Services Division manages construction for the state, including corrections, schools and hospitals – everything except projects for the Department of Transportation. The agency provides maintenance for all buildings on the Capitol Mall and major facilities elsewhere. It also handles all leasing for state agencies.

B. Washington's Land Swap

The Washington State Patrol conducted a land exchange in which it traded property with old buildings for a new property with new built-to-suit facilities, while turning a \$4.8 million asset into one worth at least \$9.5 million.

The old property contained 20 acres of level, rectangular ground surrounded by retail development. The State Patrol used it for light industrial and storage purposes. The agency equipped and serviced vehicles for the entire patrol fleet there, and stored the local fleet of cars. It also housed the property management and engineering divisions, and the supply division in a third building, for uniforms, guns, and more. The facility included four buildings containing 54,000 square feet. Buildings ranged in age from 20 to 45 years.

Officials believe the property was worth more than its appraised value of about \$4.8 million. They wanted to consider methods to recoup its full value. They considered an innovative idea of exchanging that valuable piece of property for other property in a light industrial park with new facilities that matched the State Patrol needs.

The stated goals of the project were the following:

- Replace existing outmoded light industrial facilities
- Relocate facilities to a site with appropriate zoning and growth potential
- Accomplish relocation and construction without requesting capital funding from legislature



The State Patrol approached the private development community to assess interest in its property. Private developers agreed that the land was worth millions more than the valuation. The agency then decided to market the land “not on its appraised value but on its potential value,” one official said.

Initially the state blocked the plan because an exchange of old land for new land and buildings had never before occurred. However, after some persuasion by the State Patrol, key legislators supported the proposal as long as the State Patrol guaranteed that it was “foolproof.”

The State Patrol issued a basic request for qualifications targeting large national developers as well as small local firms. The RFQ stated the desire of the Patrol to exchange its current property for new land and new buildings. The RFQ included some very simple drawings of the new facilities the State Patrol wanted. An official said that private developers estimated it would cost between \$4 and \$5 million to build the new facilities, not including the cost of the land. In total, a new generic site of 20 acres plus those new facilities would likely cost about \$10 million.

In its next step, the state blanketed the development industry with information about the project including the basic building specifications. The state received 20 responses of interest. The state then issued a formal RFP, which generated four final proposals from large developers.

Proposal

One proposal maintained that the state would owe the developer \$1 to \$2 million at the end of the project, and two others estimated other amounts that the state would owe.

However, one proposal maintained that the developer would build as specified in an exact exchange of the new \$10 million project for the currently appraised \$4.8 million piece of land. The developer would secure national retailers to lease space on the old property. By securing those lease obligations, the property is worth significantly more.

An official with the State Patrol said that because the agency had done its homework, it knew the proposal would be appealing to developers interested in land near large

shopping areas who wanted a long-term growth project, not a short-term gain project.

“Be a strategist, do the economic analysis,” the official said. “We were studying the Wall Street Journal, looking at the big box retailers’ plans. We knew (one) had planned expansion for a two-year period, so that was our window to interest them.”

The State Patrol traded their old property for a new, turnkey property worth more than \$9 million. The State Patrol created the design specifications, but the developer did all the other leg work for the new property.

At the outset, the plan was for the developer to buy the land, build the buildings, and then move the State Patrol to the new location. However, before the new facility was completed, the developer needed possession of the old site because the retailers who wanted to be located on the land needed to begin construction immediately.

While the State Patrol needed to use the space, an official said it was important that the agency also understood that the retailers needed access to the site immediately in order for the entire project to succeed.

“We relinquished a little bit of our position – we agreed to let the developer move us to a temporary site, while we left our fleet on a portion of the old space, giving them 90% of the old site. The developer paid for the move and the temporary space. It was inconvenient for us, but worth it,” the official explained. “Anyone considering a project like this must be clear – you are going to compromise. You must partner with the developer. You’re not in the developer’s pocket, and you must protect the interests of the state, but you must make the developer successful, too. It’s a big challenge.”

In the Department of General Administration, the Real Estate Services division handled the land issues and the Engineering and Architecture division led design issues.

Attorneys with the state Attorney General’s office were instrumental in helping to negotiate the complicated contract, including a commitment from the developer that no matter what happened going forward to the developer, the project would be completed as specified.

The state legislature was also involved, in addition to its initial approval for the State Patrol to pursue this unusual land swap. The legislature needed to change some laws in order to allow this to occur, and re-occur in the future. That took time and planning, as well as allies in the legislature, according to one official.

The State Patrol requested several changes during construction, but any time a request added an expense, the Patrol worked with the developer to find cost savings elsewhere. The building process took nine months.

An official said he "didn't see any losses in this project," but he did acknowledge that the state faced some risk. For example, the state and the developer each did numerous property surveys and environmental tests during process. They each approved to trade the sites "as is," so that if an environmental issue or some other problem arose during construction, it would be the responsibility of the new owner. The state minimized its risk by involving an engineer in multiple tests. But, "there is some risk you must accept along the way."

While the state must minimize risk, it's important to make sure the developer has equal risk. "Then both will work toward a solution," the official said. "That's the key."

Recommendations

According to an official with the State Patrol, some of the success of the project is due to the long tenure of many key players in the deal. Having the same team in the real estate and engineering divisions and support from the top of General Administration as well as the State Patrol was very helpful.

"Our previous chief was behind this project 100%. She said if it fails, we'll be okay, we'll just dust you off," the official said. "She was willing to take a chance. You must have support from above...and you must be willing to step outside the comfort zone."

Management support is critical, as is political support. The official recommended that others

considering such projects must do extensive research and assess whether any laws may be obstacles and therefore need to be changed. The agency will need to have a good team of lawyers who understand the risks and want to solve problems.

While the project did require a lot of work, a State Patrol official said it was never any staff person's full-time job to shepherd this through.

One lesson learned, according to the State Patrol, is that it was problematic to ask a developer to obtain new property in the first phase of this project. Instead, the agency recommends securing property first, then soliciting and selecting a developer.

Other agencies or states may have similarly valuable property that might be appropriate for a land swap, according to several officials in Washington. University systems are often given land that they cannot use properly, but may be ripe for private sector development.

"Sometimes the government sector can't do anything with (a property) that will be financially sound," one official said.

"Developers can do revenue-generating projects, and give a property more value."

An official in Washington said state budget shortfalls make this type of project even more appealing. As states are struggling, they are looking for creative ways to fund projects and save money.

The State Patrol official said somewhat jokingly about the project, "I don't find it very innovative, only in as much as the \$5 million in value we generated for the state." The Power Point presentation about the project is titled, "Value Added Property Exchange, or How to Turn \$5 Million into \$10 Million."

"I think you'd find throughout the U.S. that various state governments own property that have the same thing happening around it as the (State Patrol) property," said another Washington official. "I would hazard a guess that there's a lot of similar property out there."

C. Relevant Web Sites

Arizona

Arizona Department of Administration (ADOA):
<http://www.adoa.state.az.us/>

ADOA General Services Division:
(no web site available)

Washington

Washington State Department of General Administration (GA):
<http://www.ga.wa.gov/>

Real Estate Services division of the GA:
<http://www.ga.wa.gov/DRES/index.html>

Washington State Patrol:
<http://www.wa.gov/wsp/wsphome.htm>

Management Services Bureau:
<http://www.wa.gov/wsp/about/msbhome.htm#prop>

Appendix 6: Publication Survey

Best Practices in Real Property Management in State Governments

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Strongly agree _____ Agree _____ Disagree _____ Strongly disagree _____

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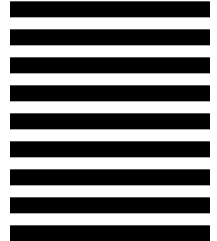
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