King County

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M E M O R A N D U M

DATE: February 12, 2008

TO: Metropolitan King County Councilmembers

FROM: Cheryle A. Broom, County Auditor

SUBJECT: Performance Audit of Facilities Management Division Capital Programming and Planning

The attached performance audit responds to a 2007 council budget proviso to evaluate FMD's adherence to best practices in capital programming and planning. The audit also reviewed the county's broader policymaking framework and oversight practices for capital programming and planning.

We found that FMD follows some best practices for programming and planning. For example, FMD has effectively implemented the Operational Master Plan (OMP) and Facility Master Plan (FMP) processes which we found to be consistent with the county code and best practices for assessing operational and capital needs. In addition, FMD has established an inventory of facilities that drives a comprehensive major maintenance program and was responsive to council requests for project planning information on two of the Major Capital projects we reviewed.

We also found several areas where FMD could improve its management of programming and planning. For example, FMD's Capital Improvement Program (CIP) is not comprehensive, which limits the ability of the county to conduct long-term planning and to ensure that FMD's capital projects further the county's and agencies' goals. In addition, FMD lacks standard frameworks for major components of project planning, including alternatives analysis, cost planning, risk assessment, and development of project management plans. Such frameworks, when in place, help ensure comprehensive analysis and promote transparency and more effective communication with decision-makers. The report makes recommendations to address these issues and provide for more consistency and accountability for capital programming and planning.

In reviewing the county's overall policy framework, we found that it did not always offer clear guidance or promote the widest application of best programming and planning practices. The report makes recommendations to clarify code and institute requirements, such as predesign reports, that would improve the information council has available when making capital funding decisions.

Our recommendations parallel and complement recommendations made in our Capital Projects Oversight report entitled "Design of a Model for the Auditor's Office Capital Project Oversight Reporting" presented to council in 2007.

The County Executive's response to the study concurred or partially concurred with the audit recommendations. In the response, FMD indicated that they are committed to working with our office to implement a number of recommendations, and provided comments on other recommendations that indicate why they partially concurred. We have responded to FMD's comments with more detail on the basis for our recommendations. The Executive Response and the Auditor's Comments to the Executive Response are included as appendices in this report.

CB:RM:jl

PERFORMANCE AUDIT

Facilities Management Division Capital Programming and Planning

King County

Presented to
the Metropolitan King County Council
General Government and Labor Relations Committee
by the
County Auditor's Office

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Report No. 2007-05
February 12, 2008

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EXECUTIVE SUMMARY

Introduction

Through a proviso in the 2007 budget, the County Council requested a performance audit to determine whether the Facilities Management Division (FMD) follows effective management practices for capital programming and planning. This audit focused on the preliminary planning and predesign phases of capital improvement projects. The management practices we reviewed include operational and capital needs analysis and project prioritization, evaluation of capital project alternatives and their relative risks and costs, and the facilitation of effective legislative oversight[1] and approval through project management and communication practices. The audit also reviewed the county's broader policy-making framework and oversight practices for capital programming and planning, including the county code and countywide policies and procedures.

The audit was conducted by an external consultant and audit staff through case studies, research into leading management practices for effective capital programming and planning, analysis of the county code as well as countywide and FMD policies and procedures, and stakeholder interviews.

Capital programming is an integrated process of assessing operational and capital needs and developing a plan to address those needs. Capital programming involves prioritizing potential capital projects based on operational needs, the agency's existing portfolio of capital assets, and other resources and alternatives available to address unmet capital needs. It includes a framework for decision-making, established criteria for ranking

[1] This audit uses the term *oversight* to refer to the processes that council uses to monitor, review, and approve the performance of capital programming and project planning. These processes inform capital funding decisions.

and selecting projects, developing priorities and processes that are explicit and transparent to stakeholders; and conducting an initial risk assessment. These steps help ensure that capital resources are invested for the greatest benefit over the long-term and culminate in the development of a long-term capital plan.

Capital project planning (also called predesign) begins once a project has been approved and included in the capital plan, and leads to a decision on whether to proceed with the design development. It includes the processes of developing the project scope, objectives, and key deliverables; assessing the project's benefits, costs, and risks; and establishing a sound baseline cost, schedule, and performance goals. These front-end planning steps are crucial to ensuring that decision-makers receive information early in the life of a project before committing substantial resources for the more costly design development and construction phases.

Conclusions and Recommendations

Our audit is organized into three sections: capital programming, management of capital project planning, and facilitation of capital programming and planning oversight. The following sections describe our conclusions and recommendations on those subjects.

Capital Programming

We assessed FMD's and the county's implementation of management practices that are important elements of effective capital programming, including the development of a long-term comprehensive capital program that is well integrated with an organization's long-term strategic goals, the completion of comprehensive operational and capital assessments, and the establishment of clear criteria and processes for evaluating and selecting capital projects. Following these practices helps ensure

that capital projects support countywide and agency-specific strategic goals, and fill unmet facility requirements based on operational needs.

The county code and countywide executive policies and procedures identify some agency-level requirements for an effective planning framework, including requirements to develop operational master plans (OMP) and facility master plans (FMP). However, neither the code nor the countywide policies offer an integrated framework for FMD to follow in developing comprehensive capital programs. We recommend that the County Council strengthen the language in the King County Code to clarify which types of FMD projects are subject to code-mandated programming and planning requirements, and more clearly define the processes required for capital programming, project planning, and funding approval.

Our case study analysis found that FMD's practices were strong in the area of *operational* needs assessment. In addition, FMD has applied many elements of effective capital needs assessment. The department's Major Maintenance system was also determined to be comprehensive with an appropriate planning horizon. However, we found that FMD has not updated its facility condition information since 2002. We recommend that FMD improve the frequency of its facility condition inspections to ensure the accuracy of its inventory and appropriate timing for future system replacement and repair needs.

FMD has developed clear systems and criteria for evaluating and selecting its Major Maintenance and General Government projects but not for Special Projects. We recommend that FMD develop similarly clear selection criteria and processes for its Special Projects to ensure that the prioritization of all capital projects is based on comprehensive needs assessments and

evaluations. Adherence to this recommendation would provide greater transparency and accountability in the development of large-scale capital facilities projects.

Management of Capital Project Planning

Countywide policy and industry standards identify key practices to be undertaken during this phase to ensure the successful execution of capital projects. These practices include conducting comprehensive analysis of alternatives and developing a cost plan for the preferred alternative; developing a risk management plan and a risk-adjusted cost plan for the preferred alternative; and providing a complete project management plan for the council-approved capital project.

We found that most of FMD's current capital planning guidelines and practices are consistent with industry practices and were successfully applied to some of the projects reviewed. For example, we determined that FMD's alternatives analyses, cost plans, and project management plans for the New County Office Building (NCOB) and restructured Courthouse Seismic projects were consistent with industry practices. We also determined that FMD appropriately analyzed alternatives, including non-capital alternatives and service delivery modifications, during the development of the Superior Court FMP. However, FMD did not uniformly apply the same standards and practices to all its capital projects and had not yet developed standard practices for some planning steps.

FMD's Major Capital Projects unit was established during an internal reorganization, marking the shift from traditional project management and delivery methods to greater outsourcing of project management responsibilities and use of alternative delivery methods. The unit has been successful in developing large-scale, complex public facilities projects on time and within

budget. However, FMD has not formalized its practices or developed a standard framework that would ensure that its own project management staff or contractors perform comprehensive alternatives analysis, and develop risk management plans, risk-adjusted cost plans, and project management plans for future capital projects. FMD has not developed a standard framework or format for project management plans or protocols for communicating the status of its capital projects in a manner that supports informed decision-making. We recommend that FMD develop and use a transparent framework for alternatives analysis that requires consideration of non-capital alternatives, existing assets, and alternative project delivery and financing methods.

We also recommend that FMD develop a risk management plan for projects that includes a risk-weighted cost plan with mitigation strategies and identifies an adequate project contingency based on the project phase and level of risk. In addition, FMD should ensure that its project management plans are complete and updated as better project information becomes available, and communication protocols for reporting project status are in a summarized, easy-to-understand manner. Again, adherence to these recommendations sets the stage for accountable performance, effective oversight, and informed decision-making throughout the life of a capital facility project.

Facilitation of Capital Programming and Planning Oversight

Executive agencies facilitate effective oversight of capital programming and project planning by providing decision-makers with well-developed project justifications, predesign reports, communication plans, and performance measures that report on the status of capital project management performance. Without such a framework, the information provided to decision-makers

may not be effective for the review and approval of capital projects.

Overall, we determined that FMD was responsive to the council's mandates and requests for information, but the transparency of FMD's project justifications and communication protocols could be improved to promote informed decision-making. In addition, FMD's Major Capital Projects Unit did not have a standard framework for capital project justifications, project management plans, or communication protocols. Without such a framework, the quality, quantity, and timing of information provided to the County Council was not consistent and was sometimes ineffective for decision-makers responsible for the substantive review and approval of capital projects. We recommend that FMD develop a standard project justification framework by project category when recommending a preferred alternative to the County Council or when requesting funding for the preferred alternative.

We also found that the county does not require a separate predesign phase or predesign reports, which would offer the council an opportunity to review projects when more complete information is available but before irreversible design decisions are made. Given the County Council's strong commitment to effective capital project oversight, we recommend that the council consider requiring a discrete predesign phase along with a predesign report for FMD's major capital projects.[2] We also recommend that FMD, in collaboration with the council, develop a communication plan that includes standard reporting formats for reporting capital project information in a summarized, easy-to-understand manner consistent with the Capital Project Oversight Program model and implementation plan.

[2] This recommendation is not only consistent with industry standards, but also consistent with the plan for implementing the Capital Project Oversight Program for large-scale county capital development projects.

FMD does not currently use the most effective performance measures for tracking and reporting the status of capital project management and preservation goals. We recommend ways for FMD to improve its performance measures to better track and communicate its progress.

Summary of Executive Response

See the appendices section for the complete text of the Executive Response.

Summary of Auditor's Comments

See the appendices section for the complete text of the Auditor's Comments.

Acknowledgement

The King County Auditor's Office sincerely appreciates the cooperation received from management and staff of the Facilities Management Division.

1 INTRODUCTION

This chapter discusses the importance of capital programming, capital planning, and oversight. It also provides an overview of FMD project types and reviews the methodology we used to perform the audit.

This Audit Focuses on Capital Programming and Capital Project Planning

Capital Programming, Planning, and Oversight

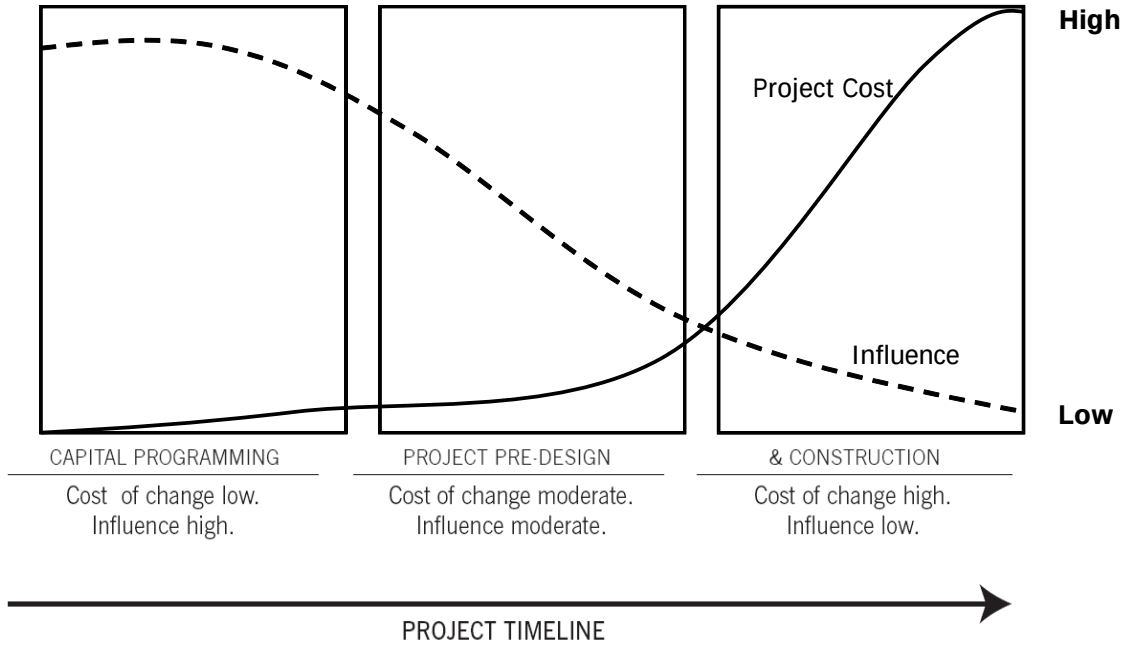
Capital programming and capital project planning represent two distinct phases:

- **Capital programming** is an integrated process of assessing operational and capital needs and developing a plan to address those needs. Capital programming involves prioritizing capital projects based on operational needs, the agency's existing portfolio of capital assets, and other resources and alternatives available to address unmet capital needs. It includes a framework for decision-making, established criteria for ranking and selecting potential projects, developing priorities and processes that are explicit and transparent to stakeholders; and conducting an initial risk assessment. These steps help ensure that capital resources are invested for the greatest benefit over the long-term and culminate in the development of a long-term capital plan.
- **Capital project planning** (also called "predesign") begins once a project has been approved and included in the capital plan, and leads to a decision on whether to proceed with the design development. It includes the processes of developing the project scope, objectives, and key deliverables; assessing the project's benefits, costs, and risks; and establishing a sound baseline cost, schedule, and performance goals.

Effective Capital Programming and Planning Allows Management to Have the Most Influence Over Outcomes for the Least Cost

In short, capital *programming* encompasses all of an agency's capital assets, while project *planning* focuses on individual capital projects. Effective management of these processes in the early stages of capital project development is crucial because this is when decision-makers have the most influence on projects' outcomes for the least cost. As illustrated in Exhibit A, the cost of changing the direction, scope, or plans for a capital project increases as the project progresses.[3]

EXHIBIT A*
Influence and Cost of Change by Project Stage



SOURCE: Adapted from Construction Industry Institute, Pre-Project Planning: Beginning a Project the Right Way, Publication 39-1 (December 1994), p. 2.
* Note: This chart is not to scale, and is for illustrative purposes only.

[3] Construction Industry Institute, *Pre-Project Planning,* p. 2.

Effective management of capital programming and project planning (predesign) is a wise investment. "The goal is to spend a little for predesign (usually less than 1 percent of total project costs), before spending more for design (typically 6 to 10 percent of project costs), before spending a considerable sum for the balance of all other construction and non-construction costs (usually greater than 89 percent of total project costs). With investment in the front-end planning of a project, decision-makers receive substantial information early in the life of a project before committing substantial resources."[4]

Effective Communication Facilitates Council Oversight and Supports Informed Decision-Making

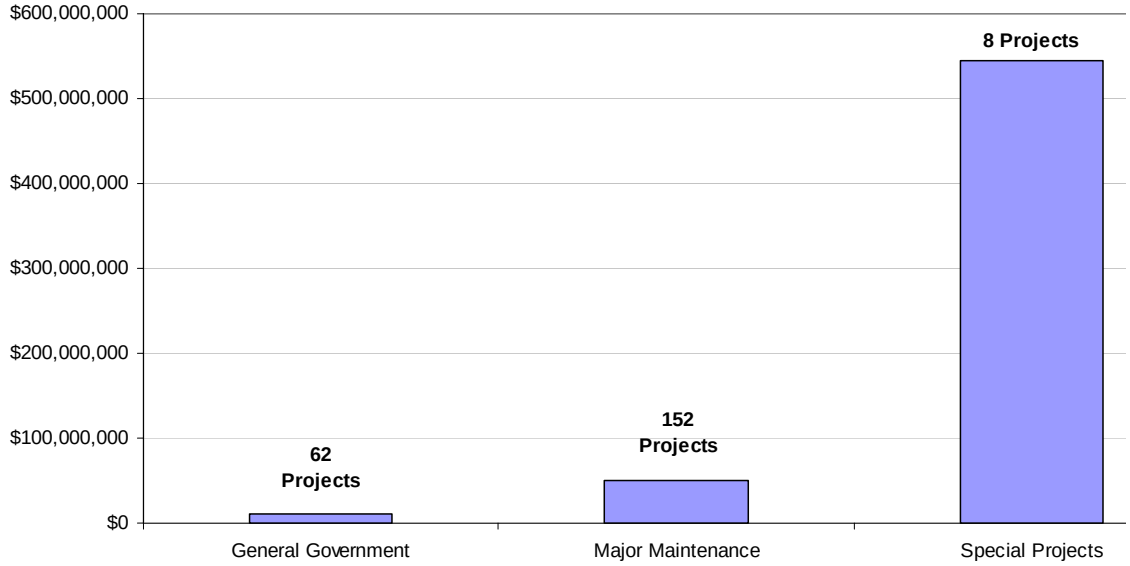
- **Oversight** refers to the processes that council uses to monitor, review, and approve the performance of capital programming and planning. These processes inform capital funding decisions. Oversight is facilitated by the tools and reports developed by implementing agencies in support of informed decision-making.

Overview of FMD Capital Projects

FMD separates its capital projects into three types: General Government, Major Maintenance, and Special Projects. FMD's programming and planning for capital projects varies greatly depending on the project type. Exhibit B shows the number of projects and budgets managed under the three project types over the past five years.

[4] State of Minnesota, *2008 Capital Budget Instructions*, p. 5.

EXHIBIT B
Number of Projects and Budgets by Project Type, 2003-2007



SOURCE: FMD and KCAO analysis

The following is an overview of the three main types of capital projects managed by FMD.

General Government Capital Improvement Program (CIP)

FMD's General Government CIP includes both county agency-requested capital projects and FMD-requested capital projects. These projects encompass maintenance, remodeling, and other systems projects to: improve the working environment; sustain the integrity of facilities and meet current code requirements; and ensure the accessibility of county facilities. Examples of recent General Government CIP projects include security improvements for the Domestic Violence Court, and Americans with Disabilities Act accessibility projects. The General Government Capital Improvement Program's adopted budget generally ranges between $600,000 and $3 million annually, and was $2.4 million in 2007.

Major Maintenance Program

The Major Maintenance Program provides for the periodic replacement and repair of obsolete or deficient major building systems and components on the 34 buildings maintained by FMD. These projects are selected based on the age and life expectancy of the system, the critical nature of the facility, and the condition of the system. Examples of recent major maintenance projects include electrical, mechanical, and plumbing projects in county facilities. In 2007, the Major Maintenance Program was approximately $11.3 million.

Major Capital (Special) Projects Program

Major Capital Projects Unit Formed to Manage Projects Using Alternative Project Delivery Methods With Outsourced Project Management Functions

In response to Metropolitan King County Council 2003 budget provisos and subsequent Properties Expert Review Task (PERT) Force recommendations to reduce the county's reliance on leased office space, the Department of Executive Services established the Major Capital Projects Unit during a reorganization of the Facilities Management Division. The Major Capital Projects Unit provided the structure to transition from the traditional, staff-intensive design-bid-build delivery system, following substantial reductions in FMD's capital project management staff, to alternate project delivery systems without an appreciable increase in project management costs. FMD's transition to the use of alternate project delivery methods was also consistent with emerging trends to outsource project oversight and management functions, particularly for the delivery of significant capital projects.

Reporting directly to the FMD Division Director, the Major Capital Projects Unit's position in the management structure recognized the significance of major capital projects to FMD's success in developing and maintaining cost conscious, sustainable, and quality facilities. The unit assumed responsibility for "special" FMD capital facilities projects, generally with an overall project

cost in excess of $10 million and frequently delivered using alternative project delivery methods. Other factors considered by the unit in undertaking special capital facilities projects are:

- High Profile—Projects usually are high profile publicly and have significant policy considerations, as determined by either the council or executive, requiring the highest level of management attention.
- Highly Complex—Projects exhibit a greater than average physical complexity and frequently include multiple departmental or agency involvement.
- High Capital Investments—Projects require significant county capital investments and merit commensurate levels of management investment.
- High Risk—Projects involve greater than average risks inherent with all substantial construction projects, or exhibit major unanticipated changes affecting scope, schedule, or budget, as determined by either the council or executive, requiring the highest level of management oversight to manage the risks.

Examples of Special Projects recently implemented by the Major Capital Projects Unit include the Courthouse Seismic Project, the Integrated Security Project at the King County Correctional Facility, and the New County Office Building.

Audit Scope and Methodology

2007 Budget Proviso Requested Audit of FMD's Adherence to Best Practices

A 2007 budget proviso[5] requested that the King County Auditor's Office conduct a performance audit of FMD's capital planning and budgeting. The proviso stated: "The audit shall examine best practices in the areas of project development and planning, project management, budgeting and accounting, and asset management. The audit shall also review and evaluate county

[5] Sec 8, Ord 15652; 2006-0473.3

policies, procedures and practices in relation to those recognized best practices."

In consultation with council staff and FMD staff, the auditor's office determined that the proviso's scope, which included capital planning, construction, and preservation was too broad to be completed in one year. In addition, the Capital Projects Oversight project was initiated and another auditor's office project focusing on FMD project delivery was already underway. Therefore, the office decided that this audit's scope would focus on whether FMD follows effective management practices for capital programming and capital project planning. The audit also reviews the laws, procedures, and processes in place to ensure effective oversight of capital project programming and planning. The audit objectives were to:

1. Identify the strengths and issues in the processes FMD uses to plan and budget for capital facilities projects.
2. Determine whether FMD's management of capital facilities projects is consistent with industry best practices and county policies, and whether changes can be made to better adhere to best practices.
3. Identify best practices for legislative oversight in the capital facility planning process.

To meet these objectives, the King County Auditor's Office:

- conducted interviews with officials from FMD, the Office of Management and Budget, Council Capital Budget staff, and stakeholders, including client agency management;
- reviewed documents, including relevant policies and procedures, construction files, and legislative records of capital projects; and
- hired a consultant, Cedar River Group, LLC, to perform an expert review of industry standards and principles for

effective capital programming and planning practices, and to analyze four case study capital projects.

We conducted this audit in accordance with applicable Government Auditing Standards.

Effective Capital Programming and Planning Practices Have Been Recognized by Peers and Implemented at Various Levels of Government

Effective Capital Programming and Planning Practices

Cedar River Group, LLC developed a list of effective capital programming and planning practices through research and their expert knowledge and experience. These practices have been recognized by peers and implemented at various levels of government to improve capital program and project performance. The federal Government Accountability Office's *Leading Practices in Capital Decision Making* is a primary source for these best practices, many of which have since been codified and implemented at the federal level by the federal Office of Management and Budget. In addition, the Government Accountability Office recognized the states of Minnesota and Washington for their effective capital programming and planning, and some of the more detailed practices found below are derived from progressive programs implemented at the state level.

The following are the effective capital programming and planning best practices identified by Cedar River Group, LLC and used in our evaluation of FMD's management practices:

- Develop a long-term comprehensive capital program that is well integrated with an organization's long-term strategic goals.
- Conduct a comprehensive assessment of both capital and operational needs.
- Develop clear criteria and processes for evaluating and selecting capital projects.
- Conduct a rigorous, comprehensive analysis of alternatives and develop a cost plan for the preferred alternative.

- Develop a risk management plan and a risk-adjusted cost plan for the preferred alternative.
- Provide a complete project management plan for the council-approved capital project.
- Provide well-developed project justifications.
- Require and fund a predesign phase and predesign report before funding design and construction.
- Develop a communications plan to support informed decision-making.
- Use performance measures to determine and report on the status of capital project management and capital preservation.

These practices and their relevance to effective management and oversight of capital project programming and planning are explained in more detail at the beginning of each of the following chapters. The audit team provided FMD management the list of practices at the start of fieldwork in August 2007. In addition, prior to each case study interview, the consultant provided FMD with a list of best practices and indicated how they applied to that case study project.

Case Study Analysis

Case Study Approach Permitted In-Depth Review of Specific Projects

In order to evaluate whether FMD followed these leading management practices, we employed a case study approach on this audit. This approach allowed us to perform an in-depth review of specific projects to assess whether county and FMD processes incorporate the effective programming and planning practices identified by our consultant and in industry literature.

The purpose of the case study approach was not to determine whether particular projects were ultimately successful. Capital projects are complex and the reasons for the relative success or failure of projects vary. Rather, the purpose was to gain a better

understanding of FMD (and, in some cases, county) policies and practices by examining, in detail, the management of individual projects.

Case Studies Revealed Some Countywide Issues in Addition to Areas Where FMD Could Improve

Through our review, we identified management practices that led to or could have led to scope creep, schedule delays, and cost overruns. Moreover, our case studies helped us to identify some countywide problems, such as a lack of countywide long-term strategic planning, and weaknesses in reporting formats and expectations.

Our case studies are drawn from each of the three FMD capital improvement categories—General Government CIP, Major Maintenance, and Special Projects.[6]

- Yesler Building Boxes. This $1.9 million Major Maintenance project consisted of replacing ducts and electrical structures in the Yesler Building. It was completed in 2007.
- Superior Court Facility Master Plan. This ongoing General Government CIP project involves analyzing the current capital needs of Superior Court based on the operational needs identified by the court's operational master plan. Project costs in 2007 were $168,000 but more costs will be incurred as the project moves forward in 2008.
- New County Office Building. This $90 million Special Project consisted of building a new, 12-story county office building. The building was completed in 2007.
- Courthouse Seismic Project. This $106 million Special Project involved retrofitting the county courthouse with seismic stabilization structures, along with other life-safety improvements. Initially, the project was designed and bid as a traditional design-bid-build project. After receiving bids that

[6] The Auditor's Office participates in an oversight group for the Integrated Security Project at the King County Correctional Facility. In addition, four other county capital projects are being monitored as part of the Capital Project Oversight project managed by the Auditor's Office. These projects were excluded from consideration as case studies for this audit.

were significantly higher than the budget, the project was transferred to the newly created Major Capital Projects Unit and restructured with an outside project manager and a General Contractor/Construction Manager (GC/CM) delivery method.

Appendix 2 provides a summary of each case study and the planning processes that were followed over the course of each project. As this report will explain, the capital programming and planning processes documented in the case studies do not conform to the model identified in this audit, nor are they consistent with one another.

Scope of Work Related to Internal Controls: Analysis of Capital Planning Policies and Procedures

To supplement and provide context for the case study analyses, the audit team evaluated FMD and broader county policies and procedures related to capital programming and project planning. These policies are embodied in a variety of sources, including county code, executive policies and procedures for capital planning, the county space plan, and FMD's project management procedures manual.

We evaluated these policies to assess whether they provide appropriate measures to ensure that capital programming and planning efforts were made within the context of agency-specific and broader county operational needs, and that a framework exists to ensure such actions and decisions are made consistently and transparently from project to project. We also assessed whether FMD followed these policies in the course of implementing the selected case study projects.

FMD Capital Programming and Planning Review Complements Legislative Capital Project Oversight Program

As noted earlier, this audit was conducted concurrently with the development of the legislative Capital Project Oversight Program. At the request of the council, our office worked with a consultant, PMA Consultants, to develop and present a report and implementation plan for legislative oversight of major county capital projects. The King County Capital Project Oversight Phase 1 Report: A Design of a Model for the Auditor's Office Capital Project Oversight Reporting, August 2007, includes several recommendations that are reinforced in this audit (please see Appendix 1 for additional information about the capital project oversight program model and implementation plan). Although this report focuses predominantly on FMD and its policies and practices during the early programming and planning stage of project development, we also identified facilities-related capital programming and planning issues with broader, countywide implications. When appropriate, the audit findings and recommendations with broader, countywide implications include references to the Capital Project Oversight Program initiated by the council to address long-standing accountability and oversight issues.

2 FMD CAPITAL PROGRAMMING PRACTICES

Introduction

This chapter reviews key elements of effective capital *programming*, the process by which capital needs, and options for meeting those needs, are identified. It assesses FMD's implementation of three management practices that are important elements of effective capital programming:

- Develop a long-term comprehensive capital program that is well integrated with an organization's long-term strategic goals.
- Conduct a comprehensive assessment of both capital and operational needs.
- Develop clear criteria and processes for evaluating and selecting capital projects.

Following these practices helps ensure that capital projects support countywide and agency-specific strategic goals, and fill unmet facility requirements based on operational needs.

Summary of Findings and Recommendations

Comprehensive Capital Program Not in Place

The county code and countywide executive policies and procedures identify some agency-level requirements for an effective planning framework, including requirements to develop operational master plans (OMP) and facility master plans (FMP). However, nothing in the code, countywide policies, and FMD's programming practices offers an integrated framework for FMD to follow in developing comprehensive capital programs that meet agency and county strategic goals. We recommend that FMD take steps to develop a comprehensive capital program that provides a long-term plan and demonstrates how FMD's capital

projects are integrated with countywide and agency-specific goals. We also recommend that the County Council strengthen the language in the King County Code to clarify which types of FMD projects are subject to code-mandated programming and planning requirements, and more clearly define the processes required for capital programming, project planning, and funding approval for FMD and other county agencies implementing capital projects.

FMD's Operational Needs Assessment Practices Are Strong, but Could Be Improved

Our case study analysis found that FMD's practices were strong in the area of *operational* needs assessment. In addition, FMD has applied many elements of effective capital needs assessment. The department's Major Maintenance system is comprehensive and has an appropriate planning horizon, but facility condition information is not updated frequently enough. We recommend that FMD contract to update its facility condition inspections every two to four years to ensure the accuracy of inventory and appropriate timing for future system replacement and repair needs.

FMD has developed clear systems and criteria for evaluating and selecting its Major Maintenance and General Government projects. We recommend that FMD develop similarly clear selection criteria and processes for its Major Capital Projects to ensure that the prioritization of all capital projects is based on comprehensive needs assessments and evaluations.

Application of Effective Capital Programming Practices

The following sections describe the important elements of effective capital programming, our assessment of FMD's management of capital programming and planning efforts, and our review of the countywide capital programming framework as embodied in the county code and executive policies and procedures.

EFFECTIVE CAPITAL PROGRAMMING PRACTICE: DEVELOP A LONG-TERM COMPREHENSIVE CAPITAL PROGRAM THAT IS INTEGRATED WITH AN ORGANIZATION'S LONG-TERM STRATEGIC GOALS.

Capital Planning Should Be Integrated With Strategic Planning

Best practice agencies have an integrated capital planning process to ensure that capital assets contribute to the achievement of agency strategic goals. Strategic planning guides the decision-making process for all capital spending. The expected outcomes of capital projects should be directly linked to the goals established in the strategic plan. Integrated strategic planning and capital planning is cited as a best practice by the U.S. Government Accountability Office, the U.S. Office of Management and Budget, and the Construction Industry Institute. "In successful organizations, strategic planning guides the decision-making process for all spending. Leading organizations use their strategic planning process to link the expected outcomes of projects, including capital projects, to the organization's overall strategic goals and objectives."[7]

Strategic goals, objectives, and needs are typically embodied in executive-developed and legislatively adopted documents such as strategic plans and business plans. The capital program, and ultimately the projects selected, should be linked to the approved strategic policy framework reflected in these documents. This link helps ensure that selected capital programs will support and further achieve agency business needs and objectives, and helps prevent the selection of projects that are incompatible with the agency's long-term strategies and prevent costly changes in the future. For example, without a link between operational needs and capital programs, an organization could choose to build a long-term facility for a workgroup that eventually plans to downsize its operations. This link is typically developed through

[7] U.S. Government Accountability Office, *Executive Guide,* p. 16.

long-term business planning by agencies and development of a comprehensive, long-term capital improvement program by the capital facilities management organization.

Long-Term Capital Plans Should Include All Projects

The long-term capital plan should be comprehensive to ensure that all long-term obligations and costs are considered in the context of the entire capital plan. As the capital budget instructions promulgated for the State of Washington note: "Projects funded by alternative financing mechanisms are identified in the Ten-Year Capital Plan because they represent long-term occupancy proposals and result in long-term costs."

Evaluation of King County's Capital Programming Efforts

Integration of strategic and capital planning

FMD, in collaboration with the county executive, is required by county code to develop a "space plan" that is intended to be the master plan for county facility development.[8] The space plan, which is required as a sub-element of the public facilities element of the county's comprehensive plan[9], requires council approval. FMD is required to update the space plan and submit it to the council by March 1.

Space Plan Provides Long-Term Guidance for Efficient Use of Space

FMD's space planning efforts are partially consistent with recommended industry practices for capital planning in providing a long-term view of space needs. The space plan identifies the county's current and future space needs using 10-year needs forecasts, and also provides some policy guidance, primarily on office space use and needs. Since the space plan was first developed in the 1990s, additional strategic goals regarding use of space were incorporated into the plan; some goals and policy priorities were revised over time; and other goals and policies remained relatively unchanged. For example, the county's long-

[8] KCC 20.12.100.
[9] RCW 36.70A.070 3(c).

term goals of consolidating county operations downtown, reducing dependence on short-term leased space in favor of owned or lease-to-own space, and retaining the King County Courthouse for central government functions have remained constant since the 1990s.

However, the Space Plan Does Not Include a Long-Term Plan, or Explain How Operational Needs Will Be Met

The 2004 space plan appears to be an effective guide for estimating long-term space needs and ensuring that space is used efficiently. However, the space plan does not, by itself, provide a level of policy direction for county capital programming decisions that is recommended by industry practices. First, while the plan includes 10-year office space needs forecasts, it is a high-level document and does not provide a specific plan for how these needs will be met. Also, the primary focus of the space plan is on the efficient use of space. It does not demonstrate how agency-specific operational and capital needs are related to space planning goals. The space plan may indirectly reflect agencies' long-term operational needs and business or strategic goals in the office space use estimates, but is not a "master" comprehensive plan that explicitly links countywide or agency-level strategic, business, and facilities goals and plans.

Most Recent Space Plan Was 18 Months Late

Additionally, FMD's completion of the space plan has not proceeded smoothly. Originally, the code mandated an annual update of the space plan; however, in 2004 the requirement was reduced to a less frequent biennial schedule, with the next space plan to be transmitted to the council by March 1, 2006. The spring due date was intended to provide sufficient time for legislative review prior to council's review of the executive proposed budget. However, the scheduled 2006 space plan was not transmitted to the council until November 2007 as the legislative budget process was nearing completion, 18 months past the due date. This delivery schedule precluded council from considering the space plan during the 2008 budget process. In

addition, because this audit report had already been drafted and the technical review process had begun before the space plan was transmitted, a review of the new space plan is not included in this audit.

FMD's Courthouse Seismic Project and New County Office Building Helped Achieve Space Plan Goals

Two of the case study projects we reviewed found that FMD effectively followed the policies called for in the 2004 space plan. FMD's Courthouse Seismic Project was consistent with the county policy of maintaining the courthouse as the seat of county government for key government business, particularly for criminal justice and other functions requiring workplace security. FMD's New County Office Building allowed for the consolidation of county operations into a new lease-to-own county office building, consistent with the policy of reducing the county's reliance on leased space. The county was able to exceed the space plan goal of reducing the percentage of downtown leased office space to less than 10 percent through the NCOB development. Only six percent of the county's current downtown office space is now leased.

Development of a comprehensive, long-term capital program

FMD Has Established a Long-Term Capital Program for Major Maintenance Projects

Leading practices call for a comprehensive, long-term capital program that demonstrates how individual facility projects are integrated with countywide, or agency-specific, operational goals. Consistent with these leading practices, FMD has developed a unified, long-term capital program for Major Maintenance projects undertaken to maintain the condition of county buildings. FMD has also established an extensive six-year plan and schedule to fund these projects that are reviewed and approved by the executive, budget office, and council through the annual budget process.

FMD does not have a similar unified capital plan for its General

However, No Comprehensive, Long-Term Plan is in Place for General Government CIP Projects

Government CIP projects. The General Government CIP projects are typically small-scale, low-budget projects (e.g., a new conference room or a special purpose space) identified during the annual budget preparation cycle. The scopes and cost estimates for these projects are also developed in the same year that capital funding is requested. Nevertheless, these projects are justified based on critical or high priority county or agency operational needs, and are reviewed and approved by the executive, budget office, and council through the annual budget process.

Nor Has FMD Developed a Comprehensive, Long-Term Plan for Its Major Capital Projects

FMD has not developed a comprehensive, long-term capital program identifying and adequately justifying the Major Capital projects that are scheduled to advance throughout the full six-year capital planning period. Many of these capital projects are highly complex, high-cost projects that are developed and funded over an extended period of time. Some Major Capital projects, such as the Courthouse Seismic Project, are planned and funded through the CIP process and are therefore incorporated into the county's six-year capital plan, allowing for an effective horizon for long-term planning. However, the county's alternatively financed projects, such as the lease-to-own New County Office Building project, are managed separately from the CIP process. Such projects are therefore not incorporated into the county's CIP. FMD currently lacks a planning framework for these projects.

The absence of a comprehensive, long-term capital improvement program precludes the County Council from having a comprehensive overview of FMD's capital program goals and associated long-term financial commitments. In addition, because FMD lacks a long-term planning and prioritization process for alternatively financed projects, the council cannot effectively evaluate how the projects being proposed for approval compare to other potential projects that may be considered for

approval now or in the future. This is discussed in more detail in Chapter 3.

Evaluation of countywide planning policies

During the audit, we also evaluated the broader capital programming framework embodied in county code and executive's countywide policies and procedures to determine if they provide appropriate guidance for effective capital programming practices for FMD and other county agencies.

Operational and Facility Master Plans are Key Components of Capital Programming

Requiring agency development of long-term operational and capital programming goals prior to council approval of capital project funding requests is a key component of the planning framework laid out in county code.[10] The Operational Master Plan (OMP), which is developed by county agencies in conjunction with the Office of Management and Budget, is a comprehensive plan describing an agency's current and future strategic goals, objectives, and long-term operational needs. Capital improvement plans and project program plans (referred to in county practice as Facility Master Plans or FMPs), are then developed to identify potential capital investments and projects. These plans are developed by the agency in collaboration with FMD, and must be based on the capital needs identified in the OMP and the adopted county space plan. Both the OMP and FMP processes, which should establish a link among any relevant county strategic plans, agency operational and facilities needs and capital plans, require council involvement and final council approval.[11]

[10] KCC 4.04.200C.
[11] There is no code requirement for countywide strategic plans. Similarly, there is no code requirement for agency strategic plans except as reflected in the OMP and FMP processes and agency's annual business plans. High-level county goals are reflected in the executive budget document and priorities for the county have been established by the council in its Priorities for People process. These are not required to be formally related directly to capital planning processes.

Our case study of the Superior Court FMP project indicated that FMD provided effective leadership and guidance to the court in collaboratively developing an FMP that was consistent with industry guidelines. In addition, FMD has continued to provide assistance to the court in collecting and refining the operations data documented in the OMP throughout the FMP process.

However, OMPs and FMPs are Performed on a Limited Basis; Many Large Lease-Own Projects are Currently Excluded

Although the OMP-FMP programming process is consistent with recommended industry practices, many of the county's projects have not been subject to the OMP-FMP mandates. For example, the OMP-FMP process is only required for projects included in the county's six-year CIP. This excludes large, lease-to-own projects managed by FMD such as the New County Office Building. Additionally, although all "above-grade" capital CIP projects are technically subject to the OMP-FMP requirements, smaller-scale projects have not been required to follow them.[12] As a result, only a few, large capital planning endeavors, such as for District Court, Superior Court, the Sheriff's Office and Public Health, have been required to develop OMPs and FMPs.

It should be noted that council deliberations and provisos have demonstrated its interest in an alignment between FMD capital planning and council-adopted plans, and have helped to fill the gap in capital programming guidance that exists. For example, a proviso in the 2005 Budget Ordinance required that the Superior Court OMP include a comprehensive approach for juvenile law, family law, and related therapeutic courts, and review the

[12] The code allows the Executive to exempt smaller scale projects using criteria established and approved by the council; however, the council has not developed such criteria. In practice, the OMP-FMP process is not currently being required by FMD, OMB, or the council for anything but large CIP planning projects.

Criminal Justice Facilities Master Planning Project Represents Effective Capital Programming

potential facility needs for these operations. Additionally, in 2006, FMD convened a work group of all separately elected entities to ensure coordination through the planning efforts. The council subsequently adopted a proviso in the 2007 budget requiring a Criminal Justice Facilities Master Planning Integrated Work Program to further integrate the Superior Court Facility Master Plan with the adopted space plan and other ongoing criminal justice planning efforts.

The Space Plan and OMP-FMP Processes are Separate; the County Does Not Have an Integrated Approach to Capital Programming

In summary, the county's approach to capital program planning includes many of the elements of an effective capital planning framework. However, the county programming framework includes two separate processes, space planning and OMPs-FMPs, that have distinct focuses (e.g., efficient use of space vs. integrated capital plans grounded in countywide and agency strategic goals).

In addition, the high-level, brief policies and procedures the executive has in place for capital programming do not provide substantive guidance to county agencies in the area of capital programming.

Gaps Exist In FMD's and the County's Capital Programming Framework

Some of the important gaps in FMD's and the county's capital programming framework include:

- The space plan provides strategic policies for efficient use of office space and is applied comprehensively to all agencies and capital projects. However, it provides limited policy guidance on how capital programming will help ensure county business needs and goals will be met.
- The OMP-FMP process is an effective practice, but applies only to large county planning endeavors, is not necessarily appropriate for smaller capital projects, and does not include highly complex, large-scale projects that are delivered with alternative financing arrangements.

- Small-scale capital projects are not subject to a capital programming framework or process other than the CIP budget process. Although the projects must conform with the space plan, this plan does not provide the level of policy and planning direction needed for smaller capital projects.
- County policy for capital programming is fragmented and lacks a broader, overarching capital program that would include all of its capital projects, and address both agency-specific operational needs and broader countywide goals for efficient and effective use of space when making capital programming decisions.

Appendix 2 also provides a graphic illustration of some of these gaps on a project specific basis, by presenting a flow chart of FMD's planning processes for each case study project. The illustrations incorporate both the county-mandated programming and planning framework, including the county space plan and OMP-FMP programming policies.

RECOMMENDATION 1 FMD should develop a comprehensive capital program that provides a long-term plan for its capital projects and demonstrates how they support countywide or agency goals.

RECOMMENDATION 2 The County Council should strengthen the language in the King County Code to define the major components of capital program policy, specify the overall process required for capital programming, project planning, and approval, and clarify which types of projects are subject to these requirements.

EFFECTIVE CAPITAL PROGRAMMING PRACTICE: CONDUCT A COMPREHENSIVE ASSESSMENT OF CAPITAL AND OPERATIONAL NEEDS.

Conducting a comprehensive assessment of both capital and operational needs helps identify the gap between the capital

assets currently in place and those needed to fulfill the agency's mission and goals, as defined by its strategic plan. A comprehensive needs assessment includes:

Assessment of *Operational* Needs and Strategic Goals Helps Identify *Capital* Needs

- Inventory of capital facilities, lifecycle analysis, and survey of asset condition.
- Operational needs assessment.
- Gap analysis: identifies operational objectives that cannot be met with existing capital facilities.[13]

This information allows agencies to plan for future needs, determine whether existing facilities can be modified to satisfy capital requests, and make cost-effective decisions about the management and maintenance of assets to extend their useful life. These plans may be modified when emergency projects or projects undertaken to address policy needs arise, but a comprehensive needs assessment enables an agency to make informed decisions about its capital improvement priorities given the state of its capital assets.

Inventories Should Be Updated Every Two to Four Years

An asset inventory should be updated every two to four years[14] in order to "provide managers with timely, current, and useful information with which the managers can determine the status of assets under their control."[15] The U.S. General Services Administration cited the State of Utah in its *Best Practices in Real Property Management in State Governments* as a leading agency in capital facilities assessment. Utah's capital facility assessment included a three-year audit by a team of outside engineers and architects of 30 million of its 38.7 million square

[13] U.S. Government Accountability Office, *Executive Guide,* p. 27.
[14] Once an asset inventory has been established, simple condition updates are not costly. For example, the Washington State Community College System, which is responsible for managing the maintenance funds for 17.5 million square feet of state higher education facilities, performs a system-wide condition assessment every two years. This assessment, which includes an updated, prioritized list of repair needs, costs the system about $350,000. It is likely that the county, which has a smaller, more homogenous, and dispersed group of buildings, would require substantially less money to update its condition assessments.
[15] U.S. Government Accountability Office, *Executive Guide,* pp. 26-27.

feet inventory. The audit assessed the condition of state owned property and buildings, documented the status of all equipment and estimated life expectancies for all properties. The inventory and life expectancies were used to develop a ten-year capital plan. The U.S. General Services Administration notes: "This process has significantly altered the way that Utah decides its maintenance priorities and funding… Under the new system, the state is able to prioritize and plan for upcoming maintenance needs."[16]

Evaluation of FMD's Capital Needs Assessment Practices

Operational needs assessment

FMD Is Conducting Appropriate Operational Needs Assessments

Our review showed that the county is conducting appropriate operational needs assessment processes. In the Superior Court Facility Master Plan project, FMD is using workload forecasting as a key factor in determining future capital needs and has provided funding to the court to develop a more refined forecast of workload. Similarly, for the New County Office Building project, FMD analyzed the County's use of leased space in its 2001 *Alternatives to Reliance on Leased Space* report, which was updated in the 2003 *An Approach to Reducing King County Office Space Costs* report. Operational analysis in the 2003 *Approach* report included: projected size of County workforce over 10 years; growth in health, law, safety and justice, financial and central services; proximity analysis of various functions; and interviews with staff of agencies. These operational considerations are consistent with the industry standard effective practice of performing operational needs assessments.

Capital needs assessment

FMD applies many elements of effective capital needs assessment, as well. FMD has compiled an inventory of the

[16] *Best Practices in Real Property Management in State Governments*, pp. 52-53.

building systems within 34 county-owned buildings. At the direction of the County Council, in 2002 FMD hired a consultant, Carter Burgess, to provide a more detailed breakdown,[17] and projected lifecycles and replacement priorities for the buildings' systems. This work provides the foundation for the lifecycle cost model that FMD uses to manage its Major Maintenance Program.[18]

FMD Does Not Have a Process for Re-Inspecting Its Building Conditions

However, FMD has not instituted a process or schedule for routine re-inspections of all building conditions needed to update the inventory. A comprehensive building survey has not been completed since Carter Burgess performed their 2002 inspection. FMD updates the inventory only to indicate when major maintenance projects are completed or when new buildings are added to the inventory. FMD has indicated that they intend to conduct another survey in 2009; however, a schedule and plan for this effort was not available for this audit. The absence of updated information on the condition of county facilities impedes FMD's ability to project future maintenance needs and to estimate project future costs effectively. FMD has found that many of the replacement and cost estimates are too low and understate the actual needs as these major maintenance projects have been implemented.

Gap analysis

FMD appropriately conducted gap analysis for the applicable case study projects we reviewed. Although not specifically called a gap analysis, the essence of such an analysis is at the core of the OMP/FMP process in the Superior Court Facility Master Plan, which considers the use of existing facilities as one alternative. FMD also conducted gap analysis during the 2004 space

[17] For example, Carter Burgess expanded the number of separately identified building components from seven to up to 79 for some county buildings.
[18] This system was specifically cited by the Government Performance Project in 2002 as justification for awarding King County with a favorable grade for capital management.

planning process that ultimately led to the construction of the New County Office Building to reduce the County's reliance on leased space to no more than 10 percent of total office space.

RECOMMENDATION 3

FMD should develop a regular schedule for facility condition inspections and updates to the inventory.

EFFECTIVE CAPITAL PROGRAMMING PRACTICE: ESTABLISH WELL-DEFINED CAPITAL PROJECT SELECTION CRITERIA AND PROGRAMMING OVERSIGHT PROCESSES FOR ALL CAPITAL PROJECTS.

Establishing explicit and transparent processes for ranking and selecting projects ensures that potential investments are linked to strategic goals. Well-defined selection criteria also build stakeholders' confidence in the processes. Addressing stakeholders' concerns and priorities helps prevent delay from concerns voiced later in the process.

Evaluation of FMD's Project Evaluation and Selection Processes

FMD, in cooperation with the Office of Management and Budget, developed specific criteria to guide the prioritization of selected capital projects for its Major Maintenance and General Government projects.

FMD Has Evaluation and Selection Processes In Place for General Government CIP and Major Maintenance Projects

- General Government Capital Improvement Program: This category of projects is prioritized based on: 1) tenant improvements to improve the working environment, address health and life safety priorities, and make the working environment more efficient; 2) maintenance projects to sustain the structural integrity of facilities and upgrade existing county facilities to current code requirements; and 3) remodeling projects that respond to the ADA to ensure the accessibility of all county facilities.

- Major Maintenance Program: This category of projects is prioritized on the basis of the age and life expectancy of the system, the critical nature of the facility, and the condition of the system. Other factors FMD uses to determine the priority ranking of maintenance projects for any given year include their impact on: 1) improving safety, 2) preserving facility integrity, 3) attaining operational efficiencies or revenues, and 4) enhancing appearance and usability.

FMD Has Not Established Clear Criteria or Processes for Prioritizing and Selecting Its Special Projects

The project selection criteria were adopted by the County Council many years ago and have remained largely unchanged over time. However, these criteria were not clear to some legislative personnel who expressed interest in improving the transparency of the project selection processes during audit interviews. In addition, the criteria for prioritizing Special Projects are not clear and not sufficiently transparent to council. Due to turnover on the County Council and Capital Budget Committee staff, it may be prudent to reorient and obtain input from councilmembers and staff on FMD's capital project selection criteria and processes.

For Special Projects, criteria have been developed to determine what *types* of projects fall under this category. However, FMD has not established formal criteria to determine which of these large projects should be undertaken, and when. The county's space plan, which has been the primary source of guidance in prioritizing these projects, provides only high-level policy guidance related to space use rather than strategic, countywide operational needs. Notable exceptions to this are the current efforts to develop OMPs and FMPs for District and Superior Court as well as an overarching Criminal Justice Facilities Master Plan. These are Major Capital Projects that are subject to the OMP-FMP planning requirements, which, as discussed earlier, are worthy examples of effective capital programming practices.

RECOMMENDATION 4 FMD should develop selection criteria for its Major Capital Projects and provide an overview of its needs assessment evaluation and selection criteria to the council when it submits funding requests for its General Government Capital Improvement Program, Major Maintenance Program, and Special Projects.

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3 FMD'S MANAGEMENT OF CAPITAL PROJECT PLANNING

Introduction

This chapter reviews FMD's management of capital projects during the *project planning* stage. Countywide policy[19] and industry standards identify key practices to be undertaken during this phase to ensure the successful execution of capital projects, including:

Key Capital Project Planning Practices Help Ensure Successful Project Execution

- Conduct a rigorous, comprehensive analysis of alternatives and develop a cost plan for the preferred alternative.
- Develop a risk management plan and make risk adjustments to the cost plan for the preferred alternative.
- Provide a complete project management plan for the council-approved capital project.

Adherence to these practices sets the stage for accountable performance, effective oversight, and informed decision-making throughout the life of a capital facility project.

Summary of Findings and Recommendations

We found that most of FMD's current capital planning guidelines and practices are consistent with industry practices, and were successfully applied to some of the projects reviewed. For example, we determined that FMD's alternatives analyses, cost plans, and project management plans for the NCOB and restructured Courthouse Seismic projects were consistent with industry practices. We also determined that FMD appropriately analyzed alternatives, including non-capital and services delivery modifications, during the development of the Superior Court

[19] King County Administrative Policies Con 7-9-1(AEP)—Capital Project Planning and Management is one of nine countywide policies developed to improve the management of capital project processes from procurement to closeout, and to improve oversight of estimated project costs, schedules, and budgets during the planning, design, and construction phases.

FMP. However, FMD had not yet developed standard practices for some planning steps, and did not uniformly apply some of its standards and practices to applicable capital projects.

Despite Successes, Major Capital Projects Unit's Practices Have Not Been Formalized

FMD's Major Capital Projects Unit has been successful in developing large-scale, complex public facilities projects on time and within budget. However, FMD has not formalized its practices or developed a standard framework that would ensure that its project management staff or contractors perform comprehensive alternatives analysis, and develop risk management plans, risk-adjusted cost plans, and project management plans for future capital projects. In addition, FMD has not developed a standard framework or format for project management plans or protocols for communicating the status of its capital projects in a manner that supports informed decision-making in the future. We recommend that FMD develop and use a transparent framework for alternatives analysis that requires consideration of non-capital alternatives, existing assets and alternative project delivery and financing methods.

We also recommend that FMD develop risk management plans for each project that include a risk-weighted cost plan with mitigation strategies, and that identifies an adequate project contingency based on the project phase and level of risk. In addition, FMD should ensure that its project management plans are complete, and updated as better project information becomes available, and communication protocols for reporting project status are in a summarized, easy-to-understand manner.

Depth of Analysis and Risk Assessment Will Vary According to Project Budget and Complexity

In making these recommendations, we note that the thoroughness of alternatives analysis and risk assessment prescribed in this chapter should vary according to the complexity of the project type and project budget, as recognized in the Capital Projects Oversight report. For example, minor

repairs completed through the Major Maintenance program require less analysis and risk assessment than projects managed by the Major Capital Projects Unit. FMD's procedures should explicitly identify thresholds where additional analysis is required.

Application of Effective Capital Project Planning Practices

The following sections describe FMD's application of effective capital project planning practices.

EFFECTIVE CAPITAL PROJECT PLANNING PRACTICE: CONDUCT A RIGOROUS, COMPREHENSIVE ANALYSIS OF ALTERNATIVES AND DEVELOP A COST PLAN FOR THE PREFERRED ALTERNATIVE.

Thorough Analysis May Eliminate a Project, Reduce Project Costs, or Maximize Use of Existing Assets

To make an informed decision regarding an agency's operating needs and its existing assets, effective management practices call for a thorough analysis of the proposed alternatives for meeting these needs. Such analysis may eliminate a project altogether, reduce the cost of a project, and/or maximize the use of existing assets. Effective project alternatives analysis considers:

- Non-capital alternatives, such as contracting out for services or ceasing an activity;
- Alternative financing or delivery arrangements, including options to reduce the risk to the agency and the estimated amount of its capital investments;
- Use of existing capital assets, such as by co-location, renovation, or rearrangement of uses;[20] and
- The full costs of the project alternatives over their entire lifecycles.

[20] U.S. Government Accountability Office, *Executive Guide,* p. 29; and Office of Management and Budget, *Capital Programming Guide,* p. 12.

Cost Plan Establishes A Range or Allowances Based on Projected Construction and Related Expenses

For the preferred project alternative, standard industry practices also recommend that cost plans, rather than a single project cost estimate, be developed for individual capital projects. This should be done during the planning phase based on the preliminary scope and schedule for the preferred alternative. Since a project design is not yet available for cost estimating purposes, the cost plan establishes an appropriate cost range or allowances based on projected construction and allied expenses.[21] An effective cost plan:

- Uses standardized cost formats, such as the State of Washington's use of the "uniformat" coding structure, to apply standard costs for each element of the project thereby ensuring the comparability of predesign reports;
- Is risk-weighted based on the results of the risk identification and risk management planning (see section below);
- Includes cost-benefit analysis and lifecycle cost analysis for materials and systems considered for the project;
- Establishes an adequate contingency allowance (as high as 30 percent of the total project cost) since the design is not advanced far enough yet for a full-cost estimate; and
- Identifies the assumptions used in developing the cost plan.

[21] State of Minnesota, *Capital Budget Instructions,* p. 9*;* State of Washington, *Predesign Manual,* pp. 24-26, D2-4; and U.S. Office of Management and Budget, *Capital Programming Guide,* pp. 85, 93-94.

Evaluation of FMD Practices

Alternatives analysis

FMD Has Not Established a Framework for Alternatives Analysis, but Has Been Responsive to Provisos Requiring Such Analysis

As discussed in Chapter 2, the King County Code requires a thorough analysis of capital project alternatives during the development of council-approved operational master plans and facility master plans.[22] Although FMD conducts alternatives analysis for its facilities projects, a standard framework for this analysis has not been established. The council has addressed this gap on an ad hoc basis, particularly for new major capital projects such as the New Capital Office Building, by adopting provisos that require structured in-depth alternatives analysis.

FMD was responsive to code provisions and the council's ad hoc provisos requiring alternative analysis in the New County Office Building and Courthouse Seismic projects. In evaluating options for the New County Office Building, FMD evaluated an array of alternatives, including acquiring one of several existing buildings, constructing a new building on one of several county-owned parcels, and locating parking in several different sites. In response to the code requirements, FMD is appropriately analyzing alternatives as part of its role in the development of the Superior Court facility master planning processes, including non-capital alternatives and service delivery modifications.

Establishing a Framework Helps Ensure Transparency and Consistency in Analysis and Reporting

While provisos enabled the council to provide oversight on FMD projects, the *proviso-proviso response* process can result in a reactive response when a standard framework has not been established and followed by FMD and other county agencies. For example, in the case of the New County Office Building project, FMD did not include a cost comparison of alternative financing and delivery arrangements versus traditional financing and delivery options in its report to council. The adoption of a

[22] KCC 4.04.020.

standard framework for alternative analysis by executive agencies would improve the consistency and transparency of capital project information transmitted to the council for decision-making purposes.

In addition, FMD did not always provide clear analytic reports. Although FMD thoroughly evaluated alternatives, the council staff and two project management consultants have identified concerns about the density of certain FMD reports on the New County Office Building precluding effective reviews. For example, FMD submitted staff work papers to council for review instead of a well-organized, separate workbook that included all relevant files but minimized unnecessary or duplicative information. (Chapter 4 discusses in more detail our findings and recommendations in regard to presenting analysis for legislative oversight and decision-making purposes.)

Cost plans

Original Courthouse Seismic Project Lacked a Cost Plan; More Recent Projects Have Included One

FMD established some cost estimates or cost plans for capital facilities projects using standardized cost formats. The New County Office Building Project Plan showed a range of costs and comparable costs using standard cost estimate methods. FMD did not, on the other hand, establish a range of costs, a clear inflation factor, or a design contingency for the design-bid-build Courthouse Seismic project, which resulted in bids that were substantially higher than the project budget. When restructured as GC/CM Courthouse Seismic Project, FMD established a range of costs, included a clear inflation factor and provided for contingencies. The restructured Courthouse Seismic Project was delivered within the appropriated capital budget.

Economic analysis

Though Experienced in Economic Analysis, FMD Does Not Have Formal Procedures to Ensure Consistency

In 2006, the King County Auditor's Office issued a management letter that identified the necessary components of economic analysis when considering capital project alternatives, and identified guidelines and a set of principles that provide more rigorous, consistent and transparent results. FMD staff, who are experienced and knowledgeable in the area of economic analysis, provided input during the development of the management letter. However, FMD has not yet established formal guidelines to ensure that its internal processes for analyzing and documenting capital project alternatives are consistent from project to project. As noted above, the adoption of a standard framework for alternative analysis by FMD and other executive agencies would improve the consistency and transparency of capital project information transmitted to the council.

RECOMMENDATION 5

FMD should develop and use a standard framework for alternatives analysis, cost plans, and economic analysis.

EFFECTIVE PROJECT PLANNING PRACTICE: DEVELOP A RISK MANAGEMENT PLAN, INCLUDING A RISK-ADJUSTED COST PLAN, FOR THE PREFERRED ALTERNATIVE.

Effective management practices require the development of a risk management plan based on thorough risk identification and analysis processes. Project elements that should be considered in developing risk management plans include: schedule, technical feasibility, dependency between the project and other projects, procurement and contracting, and resource risks.

Generally, risk management plans include:

- Establishing the purpose, objectives, and goals of the capital project;

- Assigning responsibility for specific risk areas;
- Defining the risk rating approach;
- Describing how risks will be assessed; and
- Defining how risks will be monitored throughout the project lifecycle, and what monitoring metrics will be used.

Risk Weighted Cost Plans Provide a Way to Quantify Risk

Industry practices also suggest that project cost plans should be risk-weighted during the planning phase based on the results of the risk analysis. This step provides a direct connection between the risk analysis and the project cost plan, by quantifying the potential cost impacts of various risk factors. The absence of effective analysis and management of risks during the planning process may contribute to cost overruns, schedule shortfalls, and projects that fail to perform as expected.[23]

Evaluation of FMD Practice

Case Study Projects Did Not Include Risk-Weighted Cost Plans

FMD did not systematically identify and assess risks, or develop comprehensive risk management plans during its capital planning processes. The absence of risk management plans and risk-adjusted cost plans was noted in the case studies for the Yesler Building Boxes and the design-bid-build Courthouse Seismic Project. One notable exception was a 2003 report entitled *An Approach to Reducing King County Office Space Costs*, which addressed project risks associated with new construction versus acquisition of existing facilities, workforce reduction, and incurring additional lease costs for the New County Office Building.

The absence of effective risk analysis and management planning became an issue for the design-bid-build Courthouse Seismic Project. The constructability review team, assembled by FMD after receiving construction bids that were $17 million (23 percent) more than the established construction budget,

[23] Capital Programming Guide developed by GAO—v. 2, page 85.

attributed the higher bids primarily to the transfer of risks to the contractor for hidden costs (a typical problem in construction in historic buildings are costs from areas not viewable and for which no architectural or as built plans exist) and the complex construction phasing requirements. An effective risk management plan could have helped FMD anticipate the higher project costs that became evident when the bids were received.

Risk-adjusted cost plans

The case studies did not find evidence that FMD routinely adjusted project cost plans for risk factors, such as inflation. For example, FMD did not clearly identify the escalation factor in the initial cost estimates for the design-bid-build Courthouse Seismic project. FMD also used an inflation factor in the predesign estimate for the Yesler Building Boxes that was approximately 10 percent lower than actual inflation in 2006 and approximately 20 percent lower than actual inflation in 2007. This low inflation factor contributed to costs exceeding estimates for this project.

Contingency

Project Contingencies Were Not Always Adequate

The amount of the project contingency in FMD's cost estimates was not always adequate. For the design-bid-build Courthouse Seismic Project, the predesign report included a 15 percent construction contingency that was considered by our consultant to be too low for a renovation in an historic building that was to remain occupied and open to the public throughout construction. The Major Maintenance lifecycle cost model used for the development of the 2008 CIP showed an across-the-board reduction in the design contingency being carried on projects from the original 20 percent to 10 percent, which is inadequate for work in older county buildings such as the Yesler Building.

Alternative financing risk

The 2003 *An Approach to Reducing King County Space Costs* report recommended a 63-20[24] financing approach for the New County Office Building project. The report did not compare the proposed 63-20 financing option with traditional financing nor with other alternative financing mechanisms, and it did not explain the risks associated with such financing. FMD has a successful track record to date in managing alternatively financed projects on time, on budget, and within scope. However, the county is not without risk in the event of unfavorable outcomes or disaster situations. Decision-makers should also be aware of the somewhat higher financing costs associated with 63-20 financing.

The absence of risk management plans and risk-adjusted cost plans is a concern because project managers and ultimately decision-makers do not have a solid foundation for establishing project expectations and evaluating performance (e.g., whether the project performs as expected). The absence of risk management plans contributed to budget overruns and project delays, such as occurred with the design-bid-build Courthouse Seismic Project.

RECOMMENDATION 6

FMD should develop a risk management plan and a well-documented, risk-weighted cost plan for the preferred alternative. In addition, FMD should ensure that the project contingency is adequate based on the project phase and level of risk.

[24] 63-20 financing refers to an Internal Revenue Service provision in the federal code that governs a form of capital financing in which a single purpose nonprofit corporation is created in order to issue bonds. The nonprofit uses bond proceeds to fund the project and contract with the developer for construction. The county leases the building from the nonprofit, with lease payments covering debt service on the bonds and other costs. At the end of the lease, coinciding with bond maturity, the county owns the building.

EFFECTIVE PROJECT PLANNING PRACTICE: PROVIDE COMPLETE PROJECT MANAGEMENT PLANS.

Project Management Plans Facilitate Communication With Decision-Makers

An effective project management plan provides an implementation plan for the duration of the capital project. The project management plan is a useful tool for keeping the project on course. The plan also enables better communications and understanding of the project development and management approach by legislative decision-makers and other stakeholders by detailing the project's:

- Purpose, objectives, and scope;
- Primary users and operational needs;
- General description and scope of work;
- Budget using historically based estimates and industry construction cost manual, and schedule with key milestones provided in GANTT chart or other standard format;
- Management team along with the roles and responsibilities of project management, client agencies, and others (e.g., consultants and contractors) involved in managing the project; and
- Project delivery and financing methods for the design and construction.

The project management plan is typically updated regularly to reflect changes and decisions made and as more complete project information becomes available.

Evaluation of FMD's Provision of Project Management Plans

The King County Code does not require county agencies to develop and transmit a project management plan to the executive and council. (Section 4.04.200 of the King County Code does require a project program plan, which is defined in the code an as overall development concept and scope.)

Even though the code does not require project management plans for all capital projects, countywide planning policies do require and define the elements of such a plan for all capital projects.

Some Project Management Plans Were Adequate; Quality, Consistency, and Timeliness Could Be Improved

Based on the results of the audit review and the four in-depth case studies, we determined that FMD developed adequate project management plans on some projects, including: the project justification; scope, schedule, and estimated budget; project team and assigned roles and responsibilities; and proposed project delivery and financing methods. The consistency of plan updates as well as the quality and timeliness of the information included in the plans, however, could have been improved for decision-makers. Examples of inconsistent or incomplete content in project management plans during our review of the case study projects included the following:

- Develop and Update the Project Schedule with Key Milestones—The schedule for the complex design-bid-build Courthouse Seismic Project was only four lines long and did not identify the key milestones. As a result, it was difficult for decision-makers to measure schedule performance between various project milestones or phases.
- Identify Project Team and Assigned Roles and Responsibilities—Initially, neither FMD nor its consultant developed a project plan, a project team, or an implementation plan for the design-bid-build Courthouse Seismic Project. As a result, critical tasks as well as the assigned roles and responsibilities were not identified. (Other risks associated with undefined roles and responsibilities are that the county could pay higher costs for duplicate services, or that assignments could be made to parties that do have a contractual obligation to fulfill them.)

- Proposed Project Delivery Method and Alternatives—Initially, FMD did not examine alternative delivery methods for the Courthouse Seismic Project. The original project "hard bid" was $17 million (23 percent) higher than the estimated project cost and budget. One of the reasons for the high bid result was the additional costs associated with placing un-quantifiable risk on the contractor through a "hard bid" public sector project delivery process. The traditional approach proved to be very costly due to hidden risks (such as undefined mechanical and electrical systems) and complex phasing requirements associated with renovating an occupied building. Schedule delays and additional project costs ensued as more cost-effective delivery methods were considered. Ultimately, FMD adjusted the project budget and re-bid the Courthouse Seismic Project using the GC/CM approach. The reconstituted Courthouse Seismic Project was delivered on time and within the adjusted budget figure.

It should be noted that the 2007 New County Office Building and the restructured 2004 Courthouse Seismic Project are two of many recent FMD major projects that were completed on time and within budget. In the case of the Courthouse Seismic Project, the unexpectedly high bids received for the initial project required FMD to find creative solutions to advance a project that did not adhere to industry practices during the initial planning stages. After concluding that the complexity of a seismic retrofit in an occupied 80-year-old building required an alternative approach to the traditional design-bid-build contracting approach, FMD retained a development management firm to assist the county with its analysis and implementation of alternative delivery methods.

Bringing a contractor on board before bidding to participate in the preconstruction process was critical to the success of the project.

This approach included an extensive value engineering process to reduce the project cost and preconstruction scheduling and resulted in reducing the original project construction schedule from 27 months to 22 months. The 22-month construction schedule duration was maintained throughout the project, and the project was delivered on time in August 2004.

The restructured project was not only considered a successful county facilities project, but also received multiple awards such as the Northwest Construction Consumer Council's "Best Public Project Over $10 Million Dollars" for meeting project challenges, goals and objectives, project uniqueness for the seismic aspect of the project, achieving the project schedule and completing the project within cost. The project also received the Lineas Safety Award for the excellent safety record during the course of construction, and Seismic Project Team received the *NW Construction Magazine* "Best of 2004 for a Renovation Project" award.

RECOMMENDATION 7

FMD should ensure that its project management plans are complete and updated during the life of the project, consistent with the Capital Project Oversight Program model and implementation plan. In addition, the council should consider adding a provision to the King County Code requiring county agencies to develop comprehensive project management plans for all major capital facilities projects.

4 FACILITATION OF CAPITAL PROGRAMMING AND PROJECT PLANNING OVERSIGHT

Introduction

This chapter focuses on FMD's facilitation of effective oversight of capital programming and planning projects. It reviews current oversight practices and explores opportunities to strengthen the County Council's oversight of FMD's capital planning projects.

Key Practices Facilitate Effective Oversight

Effective oversight is made possible by adhering to the following four key practices:

- Provide well-developed project justifications.
- Require and fund a predesign phase and predesign report before funding design and construction.
- Develop a communications plan to support informed decision-making.
- Use performance measures to determine and report on the status of capital project management and capital preservation.

These practices provide an essential framework for legislative officials who are responsible for ensuring accountable performance in reviewing capital projects and making appropriation decisions.

Summary of Findings and Recommendations

Transparency Could Be Improved to Promote Informed Decision-Making

Overall, we determined that FMD's project justifications and communication protocols could be improved. Specifically, the level of detail and transparency could be improved to promote informed decision-making. FMD did not have a standard framework by project category for capital project justifications, project management plans, or communication protocols. Without such a framework, the quality, quantity, and timing of information

provided to the County Council is not consistent, and as illustrated below, it was sometimes ineffective for decision-makers responsible for the substantive review and approval of capital projects. We recommend that FMD develop a standard project justification framework by project category when recommending a preferred alternative to the County Council or when requesting funding for the preferred alternative.

Predesign Reports Provide Opportunity to Review Projects Before Irreversible Decisions Are Made

We also found that the county does not require a separate predesign phase or predesign reports, which would offer the council an opportunity to review projects when better information is available but before irreversible design decisions are made. We recommend that the council require a discrete predesign phase along with a predesign report for FMD's major capital projects. We also recommend that FMD develop a council communication plan that includes standard reporting formats for reporting capital project information in a summarized, easy-to-understand manner, as recommended by the Capital Project Oversight report.

FMD does not currently use the most effective performance measures for tracking and reporting the status of capital project management and preservation goals. We recommend ways for FMD to improve its performance measures to better track and communicate its progress.

Effective Oversight of Capital Programming and Project Planning

The following sections describe the county's application of practices that promote effective oversight of capital programming and project planning.

EFFECTIVE OVERSIGHT PRACTICE: PROVIDE WELL-DEVELOPED PROJECT JUSTIFICATIONS.

Project Justifications Provide Information Critical for Funding Decisions

Well-developed project justifications provide critical information to decision-makers about the preferred alternative prior to taking action or making funding decisions. These project justifications:

- Explain the basis for the choice of a preferred alternative in a thorough manner.
- Establish the project scope and parameters of the recommended project so subsequent site acquisition and design tasks can proceed.
- Identify all project elements and estimated operating costs to avoid future scope creep and unexpected costs.

Evaluation of FMD Project Justifications

The absence of clear county policies based on current industry practices contributed to inconsistent explanations of the preferred alternative. The King County Code identifies the required elements of an OMP, which includes consideration of alternatives (e.g., analysis of alternatives and their lifecycle costs to accomplish defined goals and objectives).[25] The code further requires an initial and lifecycle cost analysis of alternative facilities and locations, including lease and lease/purchase approaches in developing capital improvement plans for implementing OMPs.

Despite the code's requirements, the countywide policies and procedures do not address alternatives and lifecycle cost analyses, nor do they require such analysis when recommending a preferred alternative to the council or executive. In addition, neither the code nor countywide policies require FMD to provide reports on how projects, once built, conform to the pre-construction lifecycle analysis. The result is that the council does

[25] KCC 4.04.020

not have adequate information to determine whether FMD's capital facilities projects accomplished the operational or economic objectives that formed the basis for selecting the preferred alternative. For example, on the Yesler Building Boxes project FMD is not able to track energy costs for the building before and after the project to ensure that projected efficiencies have been realized.

For Special Projects with alternative financing, such as the New County Office Building project, no formal evaluation and approval process is required in either county code or countywide policy. Despite the absence of policies, the County Council has mandated FMD's consideration of alternatives analyses and lifecycle cost analyses for Special Projects through provisos adopted in appropriations ordinances. For example, the council required a site evaluation that considered multiple location alternatives for the New County Office Building. FMD responded appropriately to these legislative mandates.

RECOMMENDATION 8

FMD should develop and use a standard framework by project category (General Government, Major Maintenance, and Special Projects) for capital project justifications when recommending a preferred alternative to the County Council or when requesting funding for the preferred alternative.

EFFECTIVE OVERSIGHT PRACTICE: REQUIRE AND FUND A PREDESIGN PHASE AND PREDESIGN REPORT BEFORE FUNDING DESIGN AND CONSTRUCTION.

Predesign is the stage of project planning during which the purpose, scope, cost, and schedule of the complete project are defined and instructions to design professionals are produced.

Funding Predesign Reports Promotes Rigorous Planning and Quality Information

Funding capital projects and providing effective oversight in discrete stages ensures that planning tasks are rigorously executed and that quality information is prepared, including more refined cost and schedule estimates to justify funding the complete capital project design and construction. A study by the Construction Industry Institute found that when a project planning (predesign) phase was funded before funding the total project development, capital projects "performed over ten percent better in terms of cost, seven percent better in terms of schedule, and five percent better in terms of change orders."[26] Funding capital projects in discrete stages requires implementing agencies to ensure that planning tasks are rigorously executed and that quality information is prepared to justify funding the detailed design and construction. Detailed design and construction cannot be initiated in advance of formal council reviews and approvals if funding is provided in discrete elements.

A predesign report is a decision-making tool that the council can use to decide whether to fund design and construction.[27] An effective predesign report includes the following:

- The project's purpose and a comprehensive scope of work.
- The results of the operational analysis, analysis of alternatives, and risk assessments conducted during the planning stage.
- A defined project schedule with milestones and refined, risk-adjusted cost plan.
- A formal project implementation plan for completion of the project scope of work.

[26] Construction Industry Institute, *Front-End Planning,* p. 10.
[27] Construction Industry Institute, *Front End Planning,* pp. 1-2, and *Pre-Project Planning,* p. 2; State of Minnesota, *Predesign Manual,* p. 26; and State of Washington, *Predesign Manual,* pp. 3-4.

Evaluation of County Predesign Funding and Reports

King County Code does not now define a discrete, clearly defined capital project planning and predesign phase, nor does code require FMD and other county agencies to develop predesign reports. The result is that cost estimates and schedules are developed, and funding decisions are made without adequate information. For example, the Yesler Building Boxes Project was 23 percent over the original estimated project budget and 17 months behind schedule[28] due to factors that could have been identified in a more thorough scoping process during a discrete project planning and predesign phase.

Furthermore, the code does not require county agencies to routinely include the results of important planning elements such as alternatives analysis in predesign reports. Yet, alternatives analyses can be essential to legislative reviews and to facilitate decisions on capital projects. For example, Superior Court plans to identify and seek funding for three projects during the 2008 budget process, so the results of the alternatives analysis that FMD is now conducting could become a deciding factor if sufficient funds are available to fund only one or two of the three proposed capital projects.

Financial Analyses Did Not Always Reflect Full Costs

We found that the recommended alternative in some case study projects was based on financial analysis that did not reflect the full cost, current market conditions, or established county economic guidelines. (For example, our consultant found the escalation factor for the Major Maintenance Program to be inadequate.) In addition, the underlying financial assumptions were not clear and sufficiently transparent. By requiring and

[28] These figures were reported by FMD in its 2007 CIP Budget Submittal. As noted later in this chapter, FMD is participating in the OMB Capital Projects Working Group, which may establish a practice of measuring adherence to budget using final appropriated budgets and schedules compared to actual budgets and schedules. However, the Capital Projects Oversight report has recommended that the *original* council-adopted budget also be reported, in addition to approved changes to budgets.

reviewing predesign reports prior to making funding decisions, the council can return any financial analyses that are not thorough and precise for further development.

During the review of the New County Office Building, we found that FMD began schematic design and initiated the master use permit application process before the preferred alternative was submitted to the council for approval. This situation can be avoided if the council does not appropriate money for design or construction until the predesign report is approved.

RECOMMENDATION 9

The council should consider requiring a discrete planning/predesign phase along with a predesign report for FMD's major projects.

EFFECTIVE OVERSIGHT PRACTICE: DEVELOP A COMMUNICATION PLAN TO SUPPORT INFORMED DECISION-MAKING.

Communication Protocols Ensure Decision-Makers Receive Timely and Appropriate Information

Effective communication protocols ensure that important and timely capital project information is made available to decision-makers in an appropriate format. Effective protocols:

- Identify a communication matrix displaying the reports and other information required for each stakeholder based on identified roles and responsibilities and preferences of the stakeholder for receiving information;
- Define the intent of the oversight communication and differentiate levels of importance;
- Determine the methods and frequency of communication to be used;
- Develop standard formats for use in communicating capital project information; and

- Identify scheduled hearings, meetings, and briefings for presenting project status reports and information to elected officials and other stakeholders.

Evaluation of FMD's Communication Plans

FMD has been responsive to formal reporting requirements established in the King County Code, provisos, and ad-hoc requests for project information. For example, in response to council requests, FMD and its Development Management Team, Seneca Real Estate Group, submitted comprehensive project status reports to the council for the Courthouse Seismic Project on a monthly basis, between 2002 and 2004.

Stakeholders in the Superior Court FMP praised the communication structures set up by FMD for the projects. According to these stakeholders, FMD's project manager on the project has provided excellent information through these structures, and the plans to provide a project Website are also exceptional.

FMD Reports Were Not Well Designed For Decision-Makers

While recognizing FMD's success in *delivering* the two case study Special Projects on schedule and within budget, two consultants from different project management firms found that the information provided by FMD in project status reports was too technical and lengthy for decision-makers. Similarly, one of the firms noted that the code-required FMD Annual Major Maintenance Reallocation Reports and annual reconciliation reports from other capital project agencies were consistent with code requirements, but not effective for the council, its staff, or consultants in monitoring project performance. This is because the consultants were unable to match capital budgets and expenditures for a particular project from year to year. Both firms concluded that the County Council did not always have the information needed to develop a good understanding of the

overall status of FMD's projects based on current reporting requirements and formats.

The absence of a consistent structure or format for systematically communicating project information has been an ongoing concern for FMD, other county implementing agencies, and the County Council. Standard, summarized report formats are needed to communicate results for in-depth project management reviews as well as project status information that can be easily used by elected officials who have limited time to review and digest longer reports. The council's Capital Project Oversight consultant recently developed a "snapshot" report for the council's and other county decision-makers' consideration that appears to facilitate communication and understanding of capital project status.

Short Timelines For Review Make Well-Designed Reporting More Important

Another communication concern is the sequencing or timing of capital project information provided by FMD for County Council review and approval. Multiple reports on capital projects requiring council action often arrive simultaneously or in rapid succession. In addition, the King County Charter provides approximately six weeks for council review before adoption of the County CIP, which covers more than 1,500 capital projects. The short timelines underscore the importance of providing capital project information that is transparent and easily understood by councilmembers and council staff.

The council has also taken other steps to enhance its communication and oversight with FMD on capital projects to improve project performance and accountability. Examples of enhanced legislative oversight identified during our review of the four FMD case study projects include the council:

- Restricting the use of funds for the New County Office Building Project on two occasions to ensure the adequacy of project information for decision-making purposes:

1) $1 million of an initial $1.2 million appropriation was restricted until nine different project issues ranging from securing additional property rights to creating a parking plan for the new parking garage were analyzed; and 2) $200,000 of a second $1.2 million appropriation was restricted until FMD complied with legislative briefing requirements.

- Requiring FMD to report back to the council for approvals or funding at critical junctures in projects in all four case study projects. FMD returned to the council to change the schedule and budget of the Yesler Building Boxes Project during the Major Maintenance Reallocation Report process, to obtain funding for the Superior Court Facility Master Plan following council approval of the Superior Court Operational Master Plan, and to respond to council requests for specific reports on scope, schedule, and budget to release funding for the New County Office Building and Courthouse Seismic projects.
- Serving on project committees or special work groups to improve capital project oversight and provide legislative input. For example, a councilmember serves on the Steering Committee for the Superior Court Facilities Master Plan.
- Funding an independent, expert oversight function in the King County Auditor's Office for major county capital projects to provide better information and accountable performance in implementing these projects. (See Appendix 1 for a list of capital project oversight areas reviewed, and related recommendations for improvements).

Previous Mechanisms Designed to Promote Accountability and Oversight Have Not Achieved Desired Results

The Council's proactive efforts to achieve better accountability and improved oversight of major capital project planning have not been restricted to FMD. For example, the Council's establishment of the of the Properties Expert Review Task Force (PERT) and Major Capital Projects Review Joint Advisory Group (JAG) were intended to provide a countywide-policy level framework and forum, respectively, to explore and discuss emergent and long-standing capital project issues. These mechanisms did not achieve the desired results, which led in part to the establishment of the Major Capital Project Oversight Program in the auditor's office.

The proposed implementation plan for the Capital Project Oversight Program anticipates that the new Capital Project Oversight Manager will work collaboratively with all capital project agencies, including FMD, to develop effective communication protocols to facilitate legislative oversight. In turn, we understand that FMD has committed to working collaboratively with the other executive agencies and the oversight manager to better define and meet capital project reporting and oversight objectives.

RECOMMENDATION 10

FMD, in collaboration with other executive agencies and the council's new Capital Project Oversight Program, should develop a communication plan and standard reporting formats for reporting capital project information in a summarized, easy-to-understand manner, as recommended by the Capital Project Oversight Phase I Report A submitted to the council in August 2007. In developing the new reporting formats, consideration should be given to displaying project budget and cost information that can readily be tracked throughout the duration of the project.

EFFECTIVE OVERSIGHT PRACTICE: USE PERFORMANCE MEASURES TO DETERMINE AND REPORT ON THE STATUS OF CAPITAL PROJECT MANAGEMENT AND CAPITAL PRESERVATION.

Performance measures provide an oversight tool to hold an agency accountable for achieving its goals and to identify areas of operation that may need more managerial attention. For capital project management, measures of scope, schedule, and budget adherence provide important information about the success of projects. The following table summarizes each and provides an example of how the measure could be used to track and report accomplishments on individual projects and the capital program as a whole.

EXHIBIT C
Capital Project Management Performance Measures

Category	Measure – Individual Projects	Measures – Capital Program
Schedule	Completed within planned quarter by phase of project	Percent of projects operationally complete within planned quarter
Budget	Within 5 percent of planned budget by phase of project	Percent of projects operationally complete within 5 percent of planned budget
Scope	Within acceptable percentage of change orders that were avoidable and did not add value	Percent of projects completed within scope as defined by percent of value of change orders that were avoidable and did not add value to the project

SOURCE: Cedar River Group, LLC. Adapted from Washington State Department of Transportation.

Major Maintenance's Success Should Be Measured by How Well the County's Assets Are Preserved

The above performance measures track success in management of capital projects. However, they do not provide an outcome measure for the Major Maintenance Program. The success of a major maintenance program is reflected by how well it is preserving capital assets, and specifically measured by the

overall condition of its assets. Condition-based performance measures are built on the inventory and lifecycle analysis of assets. A condition rating (i.e., poor, fair, good, excellent condition) is assigned to each building in the inventory. Program-wide facility condition ratings are summarized to provide the percentage of buildings in excellent, good, fair, or poor condition. If, for example, a goal is to maintain 75 percent or more of an agency's facilities in good condition, the condition rating will show achievement toward that goal. The Washington State Community College System provides a biennial report on the condition of its facilities system-wide.

Evaluation of FMD's Performance Measures

Currently, FMD reports only on schedule performance measures, and only for the Major Maintenance Program. The Major Maintenance Reallocation Report includes the actual dates versus planned dates for completion of four phases of Major Maintenance projects. However, the report does not clearly indicate whether particular projects (such as the Yesler Building Boxes project) are on-time; the reader has to surmise the on-time status by reading the scheduled project start and completion dates for four phases of each project. The report also does not provide a program-level roll-up of schedule adherence. FMD does not use scope, schedule, or budget performance measures for its General Government CIP and Special Projects.

OMB Capital Project Working Group Developing Performance Measures for County Capital Projects

FMD has participated in the OMB Capital Projects Working Group to develop performance measures for county capital projects. The workgroup committed to developing and tracking CIP projects' scope, schedule, and budget. Implementation of the measures is scheduled in two phases over 2007 and 2008. In 2007, the workgroup focused on *schedule:* reporting progress on achieving major milestones (e.g., design, bid, construction). In 2008, the workgroup will create additional metrics to provide

integrated reporting on the progress of capital project scope, schedule, and budget.

As noted in Chapter 2, FMD does not have up-to-date condition ratings for county facilities. Without a condition rating system, FMD is not able to monitor or report on the overall condition of any of its buildings, which is ultimately the most critical measure of its success in managing the Major Maintenance Program.

RECOMMENDATION 11

FMD should improve its performance measures by:

- Expanding FMD's Major Maintenance Project schedule and budget performance measures to General Government and Special Projects.
- Providing a program-level roll-up for Major Maintenance program performance measures.
- Continuing to participate in the OMB Capital Projects Working Group to develop effective performance measures for capital project scope and budget.
- Developing and tracking a facilities condition index on county buildings to monitor success in maintaining the capital infrastructure.

APPENDICES

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APPENDIX 1

CAPITAL PROJECTS OVERSIGHT RECOMMENDATIONS

In an effort to resolve longstanding issues related to project overruns, and the adequacy and timing of capital project information, the council established a legislative oversight program in the auditor's office. At the request of the council, a consulting firm was retained to develop a proposed capital project oversight model to enhance executive reporting and legislative decision-making. The oversight model is intended to:

- Provide effective independent oversight
- Focus the oversight on high risk projects
- Increase the likelihood of continued project success
- Identify problems in a more timely manner
- Provide clear, succinct reports
- Facilitate decision-making by the Council

The development of the oversight model occurred concurrently with this audit, so efforts were made to ensure that this report's findings and recommendations were cross-referenced when complementary. The King County Capital Project Oversight Phase 1 Report: A Design of a Model for the Auditor's Office Capital Project Oversight Reporting, August 2007, includes several recommendations that are reinforced in this audit.

The following table summarizes some of the recommendations from the Capital Projects Oversight report using the framework for this audit.

Category	Capital Project Oversight Recommendations
Programming and Planning	• Clarify terminology used in planning capital projects. • Perform risk assessments on high-risk projects before releasing funding for final design. • Establish standards for budget estimates and base estimates on completed conceptual design. • Display the original council-adopted budget and baseline schedule in all reports. • Develop a communication plan to support informed decision-making.

Oversight	• Appropriate capital project funding in phases tied to completion of design milestones, and require a Project Execution Plan on high-risk projects that defines roles and responsibilities of team members. • Develop a standard one-page project report; sort and summarize to the level needed for non-technical, busy councilmembers. • Establish standard forecasting and trending practices and requirements for timing of reporting overruns and delays to council.

Implementation Plan for the Capital Project Oversight Model

An implementation plan was also developed for the Capital Program Oversight Program model with a comprehensive discussion of the organization; staffing; roles and responsibilities; processes; and systems necessary to ensure effective and independent oversight. Key elements of the implementation plan include:

- The role of the County Auditor in providing a vision, strategy, direction, and support to the Oversight Manager in carrying out effective independent oversight of selected capital projects for the County Council.
- Proposed staffing for the Capital Project Oversight Group, which would consist of an Oversight Manager, two to three Oversight Specialists and a System Administrator. The Oversight Manager (detailed job descriptions, staffing qualifications and estimated salary ranges for the Capital Project Oversight Group are included in report).
- A Draft Scope of Work Outline/Template for Outside Consultant Services to ensure that oversight tasks are clearly defined, deliverables delineated, and county contracting standards and procedures are followed.
- Additional detail on the recommended "*staged appropriation requests*" based on the four stages of a typical capital project life cycle: planning, design, construction (implementation for IT projects), and closeout. The report also identifies the minimum project information that should be submitted to the Council along with a standard *Proposed Capital Project Appropriation Request Form.*
- A discussion of oversight report design assumptions, definitions and objectives, and identification of project budget, cost, schedule and change management data to be gathered by the Capital Project Oversight Group for those capital projects selected for oversight. (An immediate goal of the oversight reporting effort is to summarize and standardize the project report submitted to the Council, and emphasize changes, negative and positive trends, and impacts.)
- An extended oversight rollout plan from the inception to the completion of the capital project oversight implementation. The oversight rollout plan offers more comprehensive descriptions of the Council's, Executive's, and Auditor's Office responsibilities for developing or refining the county capital project processes and systems, including the proposed capital project risk ranking scoring module; general

and project-specific Council, Executive, and Auditor's Office project management plans and communications; oversight training and orientation plans; and capital project cost estimating guidelines.

For more detailed information about the Capital Project Oversight model and implementation plan, please see: http://www.metrokc.gov/auditor/2007/CPOPartAB.pdf

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APPENDIX 2

SUMMARY OF CASE STUDIES

Yesler Building Boxes

Project Description

- This $1.9 million major maintenance project replaced electrical structures and ducts in the Yesler Building.
- The project was first identified in the 2002 Carter Burgess Survey of 34 King County buildings as a low priority project with an estimated cost of $449,925.
- FMD's Major Maintenance Division reprioritized the project in 2004 after the Yesler Building began having brownouts.
- FMD upgraded the electrical system of the building as planned, but also discovered the need to enlarge/replace the ducts to comply with the current building code. The code-required change increased the overall project cost.

What Happened

- The Carter Burgess Survey was issued in 2003 as a buildings/systems condition report based on visual inspections, and was not expected to provide detailed project scopes of work with exact cost estimates.
- FMD completed in-house predesign work on the Yesler Project in February 2005.
- FMD's submitted an initial funding request for the project in 2005. The May 2005 Major Maintenance Project Status Report identifies the project cost estimate at $818,908 when the design was 25 percent complete.
- FMD did not conduct a formal risk analysis to identify risks areas that could potentially drive up project costs, despite the risks associated with a dated electrical system in a historical building.
- FMD did not prepare a formal predesign report for the Yesler Project when funding was requested in 2005.
- FMD reported on the Yesler Project cost and scope changes through the Major Maintenance Reallocation Report. However, the Major Maintenance Reallocation Report is difficult to follow, and report different cost estimates and schedules for the Yesler Project in different reports.
- FMD completed the Yesler Project in August 2007 with a final total project cost of $1.88 million. According to FMD's 2007 CIP submittal, the final project cost was 23 percent higher than the initial cost estimates, and the project completion date of was approximately 17 months behind schedule.
- FMD reports that the condition of the Yesler Building is improving, but does not have a system in place to regularly monitor and report on the overall condition of its 34 buildings.

APPENDIX 2 (Continued)

New County Office Building

Project Description

- This $90 million project involved planning, designing, and constructing a new 12-story county office building.
- FMD initiated the project to address a council-adopted 2002 Space Plan goal of reducing county reliance on leased office space to less than ten percent of total office space.
- FMD's Major Projects Unit financed the project through an alternative 63-20 arrangement.

What Happened

- In 2002 the council adopted Ordinance 14420 appropriating $475,000[29] to explore purchasing an existing building or constructing a new office building.
- In 2003 the executive's response to Ordinance 14420 with a report on "*An Approach to Reducing King County Office Space Costs,"* that provided an extensive examination of different alternatives for county office space including acquiring existing space and building a new building.
- In 2004 council adopted Motions 2004-0073, 2004-0103, 2004-0126 and 2004-0186, establishing critical review points consistent with other 63-20 projects, including the project plan, project site selection, and development and lease agreements.
- FMD commenced quarterly reporting to the council in 2004. Some project status reports and analyses were considered too lengthy and technical for legislative decision-making purposes.
- FMD responded to council provisos and motions requiring preconstruction activities including work on site evaluation, site selection, preliminary design, engineering, and Master Use Permit.
- FMD commenced work on the schematic design and Master Use Permit in 2004 prior to council approval of the Project Plan, Proposed Project Schedule, and submittal of the executive's Site Selection Recommendation Report in 2005.
- The executive recommended constructing a new office building on county-owned land, along with analysis identifying seven- to ten-year breakeven point for ownership vs. leased space. However, other economic analyses and cost estimates were incomplete, such as the identification of inflation factors and other financial assumptions.
- FMD recommended the 63-20 alternative financing structure to the council as a means of minimizing county risk and capital investment.
- FMD conducted a series of "design reviews" to acquaint the council with the design/project status prior to the approval of the financing arrangement.
- Council approved the 63-20 development agreement and lease-lease back. FMD did not identify the risks of alternative financing methods or provide cost comparison to other financing and delivery methods in requesting council approval of 63-20 arrangement. This was the final opportunity for formal legislative review of the project.
- In 2005, the council approved funding for the design of the New County Office Building.
- In 2006, FMD submitted and council approved final tenant list for the New County Office Building.
- FMD and its consultant involved county tenant stakeholders, including councilmembers and staff, in the planning process through bi-weekly meetings.
- FMD began providing monthly reports to council in 2006.
- In 2007 FMD successfully completed the project within the established budget and schedule, and county tenant agencies began occupying the building.

[29]This figure included $100,000 to explore central steam plant/co-generation opportunities.

APPENDIX 2 (Continued)

Superior Court Facility Master Plan (FMP)

Project Description

- This capital planning project addresses county code requirements for county agencies to develop Facility Master Plans prior to requesting funds for new capital projects.
- The project involves analyzing the capital needs of Superior Court based on the operational needs identified in the recently completed Superior Court operational master plan.
- The project is part of the Criminal Justice Facilities Master Planning Integrated Work Program that considers all the county's criminal justice assets together.

Project Status to Date

- FMD provided technical assistance to the Court and Office of Management and Budget in developing the Targeted Superior Court Operational Master Plan (OMP). The OMP was supplemented by additional operations research funded through the capital budget.
- Phase I of the Facility Master Plan represents the capital improvement plan referred to in KCC 4.04.200(C), scheduled for completion at the end of 2007 and transmittal to the council in the first quarter of 2008.
- The FMD Project Manager allows six to nine week for council review in submitting information and/or capital funding requests, however, the council is not always able to review and process multiple requests in a six to nine week window.
- FMD does not have a formal briefing process specifically for the council, but council members are invited to the Project Steering Committee meetings. Several council members attended the Committee meetings.
- The Facility Master Plan process involves the Project Steering Committee and a work group charged with developing criteria for prioritizing alternatives under consideration.
- Alternatives analysis workshops were planned to narrow down the possible project options from twelve to three prior to submitting capital funding request to the council. The existing facilities were also examined as a baseline for the needs analysis and to determine the minimum amount of maintenance required to maintain the facilities and court operations.
- No risk analysis was performed on the project alternatives.
- Superior Court management praised FMD staff's excellent management of the Facility Master Plan process. Stakeholder noted that the project manager was organized, efficient, and provided information in an easily understandable manner with attachments.
- Project costs were budgeted at $168,000 in 2007, but additional costs will be incurred as the project advances in 2007 and 2008.
- The planned completion date for the initial Facilities Master Plan was the last quarter of 2007. The Court also planned to submit an initial funding request expected for the 2008.

Courthouse Seismic Project

Project Information

- The 1999 Space Plan first identified the goal of restoring the courthouse as the seat of county government, and the 1997 Space Plan identified the goal of minimizing the county's reliance on leased office space in the downtown area.
- FMD recommended seismically retrofitting the courthouse by buttressing it with an addition of 110,000 square feet of office space. The buttressing option was later dropped due to high project cost.
- FMD later identified and recommended a less costly seismic stabilization/damping technology approach to the council, and requested funding for the seismic work and "core" improvements for the courthouse fire and life/safety systems.

APPENDIX 2 (Continued)

What Happened

- The County Council provided significant oversight of the Courthouse Seismic Project, and adopted numerous motions and provisos directing FMD to provide adequate project status information at critical project phases/key project milestones.
- FMD used the April 1999 DLR Group H3 Report as a predesign report to the council and assumptions from the report were incorporated into the design contract.
- The H3 report did not examine alternative delivery methods and did not include an adequate project schedule (the project schedule was four lines).
- Initially, FMD intended to develop the project using the traditional design-bid-build approach. In October 2001 the county received lump sum bids from two pre-qualified contractors. The low bid came in at a total cost of $91.3 million, $17 million over the county budget.
- After receiving bids that were higher than the budget, the project was restructured by the newly created FMD Major Projects Unit. FMD retained an outside project manager and pursued council approval of the alternative General Contractor/Construction Manager (GC/CM) delivery method.
- A 2002 constructability review identified risks that were passed on to the contractor that resulted in the high bids. These risks were not thoroughly analyzed prior to bidding the project.
- In April 2002 the county reached an agreement with the Seneca Real Estate Group and Baugh Construction under an emergency waiver and a preconstruction study was conducted. The study resulted in FMD's decision to use the GC/CM alternative deliver method and a project budget of $83.2 million.
- The project scope increased to include lobby improvements and major maintenance projects were added to the overall scope of work while the contractor was mobilized and on-site.
- Seismic portion of the restructured project was completed within the revised budget and on-schedule. The restructured Courthouse Seismic Project was well managed by FMD, and included extensive stakeholder involvement.
- The council required and received monthly project reports starting in 2000.
- Selected by the Northwest Consumer Council as the 2004 "Best Public Project Over $10 Million Dollars."

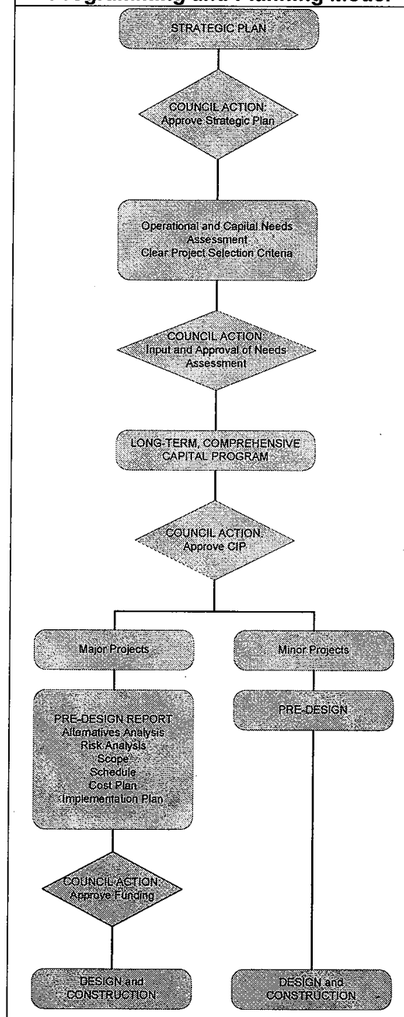
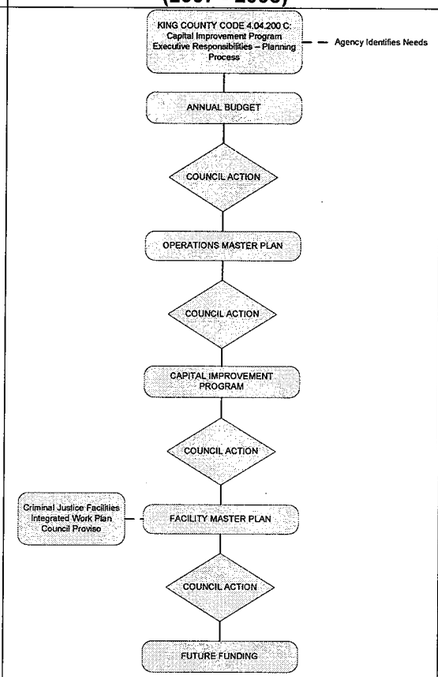
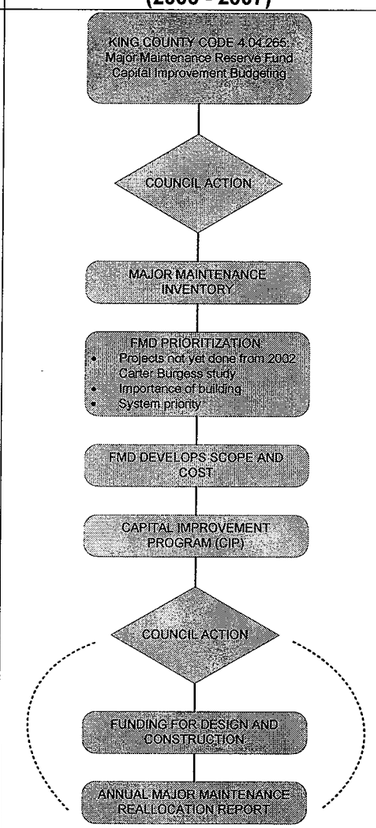
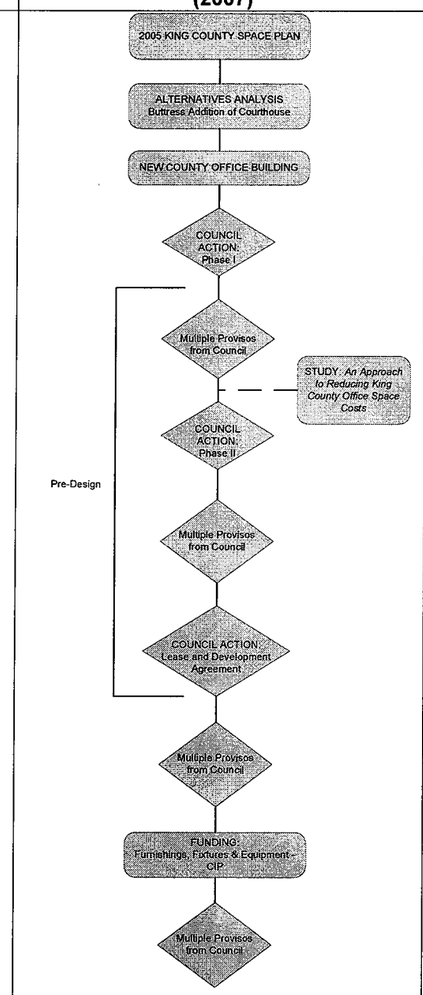
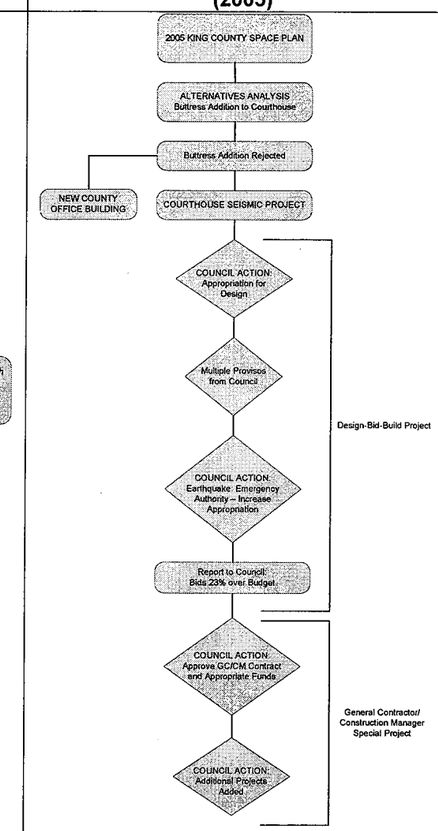
CAPITAL PROGRAMMING FRAMEWORK: RECOMMENDED MODEL COMPARED TO CASE STUDY PROJECTS

Strategic Planning
- Long term policy goals and identification of business future needs
- Objectives for meeting goals

Capital Programming
- Assessment of capital improvements needed to meet policy goals
- Development of clear criteria and consistent evaluation process
- Evaluation of alternatives
- Assessment of costs, benefits, and risks of alternative projects

Capital Project Planning
- Risk analysis
- Comprehensive, risk-adjusted cost plan
- Project management and communication plans

Design & Construction

Industry Recommended Capital Programming and Planning Model	Superior Court Facilities Master Plan (2007 - 2008)	Yesler Building Boxes (2006 - 2007)	New County Office Building (2007)	Courthouse Seismic Project (2005)
				
Countywide and agency strategic plans provide the policy framework for identifying operational and capital needs, under a model capital programming and project planning process. The capital program is comprehensive and long-term. Programming and planning include operational and capital needs assessments, transparent project selection criteria, and robust alternatives analyses. Smaller projects warrant no further approval after adopting the capital plan. Larger projects require council review and approval of a predesign report before project funding is appropriated. Predesign reports include: project purpose and scope, alternative and risk analyses, schedule and risk-adjusted cost estimate, and implementation plan.	The county does not have a countywide strategic plan to provide a policy framework for long-term capital programming. However, executive and council approval of the Superior Court OMP and FMP, and the Criminal Justice Facilities Integrated Work Plan (initiated by council proviso) serve similar purposes of a strategic plan. The development of business goals and related capital programming needs through the OMP-FMP process is consistent with recommended practices. This will help ensure that capital projects are aligned with Superior Court's long-term business needs. Incorporation of FMP capital projects into the county's CIP will provide an established framework and process for project funding and council review.	Consistent with recommended practices, this project arose from a 2002 facilities needs assessment, and was prioritized and scheduled as part of the council-adopted Major Maintenance Program. FMD completed cost and alternatives analyses. However, the 2002 cost estimates were underestimated; actual project costs were much higher than initially estimated. While the major maintenance program provides for clear selection criteria, this project deviated from them due to an emergent need. FMD completed in-house predesign work, but did not prepare a predesign report as recommended for projects of this size/cost. FMD completed an alternatives analysis; however, did not complete a risk assessment or a risk-adjusted cost plan.	NCOB capital programming was consistent with the council-approved county space plan, which provides strategic direction for meeting the county's office space needs. NCOB helped the county meet a key strategic goal to reduce reliance on leased space. However, the space plan is not intended to ensure capital projects are consistent with agencies' business goals. FMD and the executive do not have formal processes for evaluating and planning major capital projects. As a lease-to-own "63-20" project, NCOB was not part of the CIP process, or subject to the OMP-FMP requirements. Multiple council provisos were used to ensure pre-design planning requirements, such as needs assessments and alternatives analyses, were carried out. The contracted project manager developed appropriate risk analyses and cost plans.	The space plan and the 2001 earthquake provided the rationale to retrofit the courthouse and maintain it for county business, particularly for criminal justice agencies and those needing high security. Initial program planning included needs assessments and alternatives analyses recommended by industry practices. However, adequate risk analyses were not performed, which resulted in initial bids being significantly over budget. FMD subsequently reorganized its approach to project management and restarted the project, and the project was reconstructed and successfully completed under a GC/CM approach. Appropriate risk analyses, cost plans, and project management plans were developed for the final project.

LIST OF RECOMMENDATIONS & IMPLEMENTATION SCHEDULE

The implementation schedule is pending. The auditor's office will follow up to confirm that our recommendations are implemented.

Recommendation 1: FMD should develop a comprehensive capital program that provides a long-term plan for its capital projects and demonstrates how they support countywide or agency goals.

> **Estimate of Impact:** Development of a comprehensive capital program will help ensure that *all* major capital funding decisions are informed by strategic planning, and that capital investments contribute to the achievement of countywide and agency-specific strategic goals.

Recommendation 2: The County Council should strengthen the language in the King County Code to define the major components of capital program policy, specify the overall process required for capital programming, project planning, and approval, and clarify which types of projects are subject to these requirements.

> **Estimate of Impact:** Strengthening the language in the code will clarify the County Council's capital planning needs and requirements and provide for a more cohesive planning framework.

Recommendation 3: FMD should develop a regular schedule for facility condition inspections and updates to the inventory.

> **Estimate of Impact:** An updated inventory ensures that managers have accurate information about required facilities improvements and cost estimates when planning and scheduling major maintenance projects.

Recommendation 4: FMD should develop selection criteria for its Major Capital Projects and provide an overview of its needs assessment evaluation and selection criteria to the council when it submits funding requests for its General Government Capital Improvement Program, Major Maintenance Program, and Special Projects.

> **Estimate of Impact:** Developing selection criteria for Major Capital Projects and providing the criteria for all major capital facilities projects submitted to the Council for review and approval will not only improve the consistency and transparency of the project selection processes, but also enable county policy makers to make more informed capital project funding decisions.

LIST OF RECOMMENDATIONS & IMPLEMENTATION SCHEDULE (Continued)

Recommendation 5: FMD should develop and use a standard framework for alternatives analysis, cost plans, and economic analysis.

> **Estimate of Impact:** The adoption of a standard framework for alternative analysis by FMD would improve the consistency and transparency of capital project information transmitted to the council, and would facilitate the capital project funding process.

Recommendation 6: FMD should develop a risk management plan and a well-documented, risk-weighted cost plan for the preferred alternative. In addition, FMD should ensure that the project contingency is adequate based on the project phase and level of risk.

> **Estimate of Impact:** Risk management plans and risk-weighted cost plans provide explicit identification and quantification of risks, as well as mitigation strategies. Both plans provide valuable information to decision makers for determining the amount required for budgeting project contingencies. Formally incorporating risk factors into capital project plans will also help ensure that projects remain close to planned scopes, schedules, and budgets.

Recommendation 7: FMD should ensure that its project management plans are complete and updated during the life of the project, consistent with the Capital Project Oversight Program model and implementation plan. In addition, the council should consider adding a provision to the King County Code requiring county agencies to develop comprehensive project management plans for all major capital facilities projects.

> **Estimate of Impact:** Project management plans provide implementation guidance and enable better communications and understanding of the project development and management approach by legislative decision-makers and other stakeholders.

Recommendation 8: FMD should develop and use a standard framework by project category (General Government, Major Maintenance, and Special Projects) for capital project justifications when recommending a preferred alternative to the County Council or when requesting funding for the preferred alternative.

> **Estimate of Impact:** Standard frameworks for capital project justifications improve the consistency of the communication of critical information on preferred alternatives provided to the council prior to making funding decisions. For example, standard frameworks facilitate communication of technical information, which is particularly important given the short timelines for council review of capital project justifications.

Recommendation 9: The council should consider requiring a discrete planning/predesign phase along with a predesign report for FMD's major projects.

> **Estimate of Impact:** Funding capital projects in discrete stages and providing effective oversight at the end of predesign helps ensure that planning tasks are rigorously executed and that quality information is prepared, including more refined cost and schedule estimates to justify funding the complete capital design and construction.

Requiring a predesign phase also allows the council and other decision makers an opportunity to make changes prior to investing in the most costly design and construction phases of capital projects.

Recommendation 10: FMD, in collaboration with other executive agencies and the council's new Capital Project Oversight Program, should develop a communication plan and standard reporting formats for reporting capital project information in a summarized, easy-to-understand manner, as recommended by the Capital Project Oversight Phase I Report A submitted to the council in August 2007. In developing the new reporting formats, consideration should be given to displaying project budget and cost information that can readily be tracked throughout the duration of the project.

Estimate of Impact: Implementing this recommendation, which echoes the Capital Project Oversight Phase 1 Report, will help ensure that important and timely capital project information is provided to decision-makers in an appropriate format. As with Recommendation 8, providing key information in a well-designed format is especially important given the short timelines Council often faces for reviewing critical funding decisions.

Recommendation 11: FMD should improve its performance measures by:

- Expanding FMD's Major Maintenance Project schedule and budget performance measures to General Government and Special Projects.
- Providing a program-level roll-up for Major Maintenance program performance measures.
- Continuing to participate in the OMB Capital Projects Working Group to develop effective performance measures for capital project scope and budget.
- Developing and tracking a facilities condition index on county buildings to monitor success in maintaining the capital infrastructure.

Estimate of Impact: Establishing appropriate performance measures will help ensure that decision makers receive important information about FMD's progress in achieving its capital planning goals, as well as its progress in preserving the county's capital assets.

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EXECUTIVE RESPONSE

King County

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KING COUNTY AUDITOR
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February 7, 2008

Cheryle Broom, Auditor
King County Council
Room 1033
COURTHOUSE

Dear Ms. Broom:

Thank you for the opportunity to review the proposed final report of the Performance Audit of FMD Capital Programming and Planning. I want to convey my general concurrence with the majority of the report's recommendations. Please find attached the response matrix you requested which includes my comments regarding areas of disagreement or concern with respect to the report.

As the proposed report has found, FMD has been very successful in delivering major projects on time and within budget. You have also correctly recognized that FMD is also already carrying out many of the practices recommended in the report. Nonetheless, the report provides some very valuable suggestions for ways that FMD, and other divisions and departments, can continue to improve capital programming and planning.

Dating back to 2002, FMD has undertaken a concerted effort to improve project planning, programming and delivery. FMD developed its Major Projects Unit at that time in response to the need to repackage and better manage the Courthouse Seismic Project. Since that time, the unit has been very successful in completing major, complex projects on time and within budget, often leveraging innovative approaches to project delivery. In addition to the Major Projects Unit, FMD recently established a Strategic Initiatives Unit. That unit oversees and coordinates county space and facility planning and carries out important real estate initiatives. Much of the work of this newer unit is in line with the recommendations made in the report.

With the work of these units and other sections of FMD, FMD already utilizes many of the best practices identified by the report. As recognized by the report, the primary area where FMD can improve is in better formalizing and standardizing these practices and clearly communicating with council. FMD is undertaking an action plan to do just that and to implement the report's recommendations. Among other things, FMD is considering hiring the Auditor's consultant that produced the report to assist in this effort.

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Cheryle Broom
February 7, 2008
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As we work together to review and implement the report's recommendations, it is important to keep several factors in mind. First, the cost versus benefit of fully implementing each recommendation must be carefully considered. Newly mandated procedures will increase the time and cost of projects. We should work closely together and with the council to identify the circumstances and types of projects where new protocols are advantageous and those where they are not, such as lower cost and smaller scale projects.

Second, the county's flexibility to respond to changing conditions or reacting quickly when needed should be preserved. Finally, please recognize that fully implementing the recommendations, and those of the other capital oversight reports, will likely require additional staff and resources. As appropriate, we may be seeking appropriations from council in the future to provide those resources.

In closing, my staff and I would like to express appreciation to you and your staff for the professional and positive way you proceeded with this audit. We look forward to working with you and the King County Council as we move forward in the process of evaluating and implementing the recommendations.

Sincerely,

Kurt Triplett

Ron Sims
King County Executive

Enclosure

cc: Sheryl Whitney, Assistant County Executive, Office of the King County Executive (OKCE)
Kurt Triplett, Chief of Staff, OKCE
Bob Cowan, Director, Office of Management and Budget (OMB)
Jim Buck, County Administrative Officer, Department of Executive Services (DES)
Ken Guy, Finance Director, Finance and Business Operations Division, DES
Kathy Brown, Director, Facilities Management Division, DES
Dave Lawson, Internal Audit Manager, OMB

EXECUTIVE RESPONSE (Continued)

Recommendation	Agency Position	Comments
Recommendation #	State whether you **concur**, **partially concur**, or **do not concur** with the recommendation.	Briefly summarize your reasons for partial or non-concurrence. Concurrence does not require comment.
Recommendation 1: FMD should develop a comprehensive capital program that provides a long term plan for its capital projects and demonstrates how they support countywide or agency goals.	Concur	FMD agrees with the recommendation for a unified capital program long-term plan for project evaluation and a tracking mechanism for council. Prior to such a plan: 1. A comprehensive, countywide CIP process needs to be developed to provide guidance on an overall countywide prioritization of capital goals. The process should identify how competing agency priorities should be addressed, e.g., safety/infrastructure preservation, vs. historical preservation vs future space needs, vs. economically advantages business decision etc.; 2. For the new process to be effectively implemented, budget appropriations need to include sufficient funding for FMD to ramp-up management and reporting for the plan; 3. FMD strongly recommends that any or prioritization or planning process adopt a periodic review process to avoid ongoing neglect of purportedly low-priority agencies and needs.
Recommendation 2: The County Council should strengthen the language in the King County Code to define the major components of capital program policy, specify the overall process	Concur	Not an internal FMD task.

Recommendation	Agency Position	Comments
required for capital programming, project planning, and approval, and clarify which types of projects are subject to these requirements.		
Recommendation 3: FMD should develop a regular schedule for facility condition inspections and updates to the inventory.	Concur	FMD fully concurs with the recommendation, including adding a comprehensive periodic update from and outside consultant, similar to the original Carter-Burgess study, to our current process. The report does not fully recognize that FMD has an existing (if informal) process for re-inspecting its building conditions. As part of the annual budgeting process, each building manager is asked to inspect and update the building conditions inventory. • The inventory is updated annually. • Although the existing process is less formal than a full consultant report, it is unclear how the annual update to the building survey does not equate to "a regular schedule for facility condition inspections and updates to the inventory." • Hiring a consultant to do a comprehensive, assessment on a regular cycle, in addition to the annual, in-house assessments, would likely add value to the current process. Moving forward with this would require additional appropriation authority.
Recommendation 4: FMD should develop selection criteria for its Major Capital Projects and provide an overview of its needs assessment evaluation and selection criteria to the council when it submits funding requests for its General Government Capital Improvement Program, Major Maintenance Program, and Special Projects.	Partially concur	See comments to Recommendation 1; Development of selection criteria requires a ranking of hierarchical needs between County agencies for Major Capital Projects. The report cites OMP/FMP planning as effective capital programming; however, developing a selection criteria prioritizing between differing county functions is problematic. FMD can develop

Recommendation	Agency Position	Comments
		such criteria, but remains concerned that weighing such criteria are more appropriate for high-level policy leaders, at which point FMD can evaluate its proposed Major Capital Projects according to the agreed criteria and weight.
Recommendation 5: FMD should develop and use a standard framework for alternatives analysis, cost plans, and economic analysis.	Concur	The report doesn't clearly acknowledge that the flaws in the Design-Bid-Build approach to the CSP were fully addressed in 2002 by creation of the Major Projects Unit, re-assigning the CSP to the Major Projects Unit, and changing the delivery method to a GC/CM. Under the re-structured approach, this extremely complex and challenging project was ultimately delivered on time and within budget. FMD already uses a generalized approach for alternatives analysis, including economic analysis and cost planning. FMD, in partnership with the Auditor, can develop a standard framework for transmittal of economic planning information to council staff. FMD notes that development of a separate workbook for council summarizing project information requires working with council staff to determine what information is necessary, as well as additional time and effort, and potentially staffing resources, in preparing such information specific to Legislative Branch need.
Recommendation 6: FMD should develop a risk management plan and a well-documented, risk-weighted cost plan for the preferred alternative. In addition, FMD should ensure that the project contingency is adequate based on the project phase and level of risk.	Partially concur	See comments to Recommendation 5 regarding Courthouse Seismic project. FMD can prepare a risk-adjusted cost plan and risk management plan framework that explains the risks and benefits of different financing mechanisms and reflects consistent risk-cost assumptions throughout

Recommendation	Agency Position	Comments
		project contingencies. The level of analysis (or need for analysis) should not be standard for all projects. Simple life-cycle replacement projects in the MMRF clearly do not require the same level of risk analysis as a new building. FMD is committed to working with KCAO in the context of this audit and the new Oversight Office to establish a reasonable approach to implementing this recommendation. FMD does not currently have staff resources to perform this level of risk analysis. With regard to the Yesler Building boxes, there appears to be a misunderstanding. The report cites FMD uses low inflation rates, and that this low inflation factor contributed to costs exceeding estimates for this project. It appears to FMD that confusion arose surrounding the planning and budgeting for the Yesler project. FMD estimated this phased 3-year project costs at $1.83 million and the final actual cost 2007 was $1.87 million, less than 2% difference over 3 years. Perhaps it was the phased estimate, with projected costs in 3 different years, that created the confusion. It is also important to note that the engineer's estimates in the six-year plan are not the appropriated budget amounts; rather, they are intended to be placeholders for planning purposes in the out-years. Ultimately, the Yesler project was delivered for less than the final appropriation. FMD believes that some of the standardized reporting recommendations in this report will help to eliminate this type of confusion in future project reviews.

Recommendation	Agency Position	Comments
Recommendation 7: FMD should ensure that its project management plans are complete and updated during the life of the project, consistent with the Capital Project Oversight Program model and implementation plan. In addition, the council should consider adding a provision to the King County Code requiring county agencies to develop comprehensive project management plans for all major capital facilities projects.	Concur	The report cites to one project, the Courthouse Seismic project, in support of this recommendation. The recommendation is based on the findings of one project, the initial design-bid-build version of the CSP, which did not move forward past 2001. As noted above, the Major Projects Unit was created in response to these problems, with an ultimately successful project. The report does not identify any problems with project management plans since the inception of the Major Projects Unit. FMD supports the implementation of Code-based requirements for project management plans consistent with the Design Model for Capital Project Oversight Reporting.
Recommendation 8: FMD should develop and use a standard framework by project category (General Government, Major Maintenance, and Special Projects) for capital project justifications when recommending a preferred alternative to the County Council or when requesting funding for the preferred alternative.	Partially concur	Developing a standardized framework should be straightforward as FMD already uses a generalized framework for project evaluation. Formalizing that framework into a standardized format for presentation to County Council should include coordination with Auditor's Office and council staff to ensure the content of FMD recommendations is acceptable for council review purposes.
Recommendation 9: The council should consider requiring a discrete planning/predesign phase along with a predesign report for FMD's major projects.	Partially concur	FMD agrees that council should implement requirement of a discrete pre-design phase for funding review, including a pre-design report. However, the report comment that council should "not appropriate money for design… until the pre-design report is approved" is not practical, given capital project requirements and timelines. Development of meaningful project alternatives,

Recommendation	Agency Position	Comments
		costs and assumptions requires enough design development to determine project cost. It would be very difficult indeed to determine project cost to the level of rigor cited in the report without any design development allowing for building takeoffs, sizing, etc. FMD respectfully suggests that the intent of this recommendation should be to ensure that presentation of a comprehensive pre-design report occurs at the end of a separate pre-design phase following initial design development for major capital projects.
Recommendation 10: FMD, in collaboration with other executive agencies and the council's new Capital Project Oversight Program, should develop a communication plan and standard reporting formats for reporting capital project information in a summarized, easy-to-understand manner, as recommended by the Capital Project Oversight Phase I Report A- submitted to the council in August 2007. In developing the new reporting formats, consideration should be given to displaying project budget and cost information that can readily be tracked throughout the duration of the project.	Concur	Participation, guidance and approval as to council's capital project informational needs from Auditor Office and council staff is critical to this recommendation. FMD can develop a schedule for implementation in conjunction with Auditor and council staff.
Recommendation 11: FMD should improve its performance measures by:	Partially concur	As the report notes, FMD is developing and implementing performance measures consistent with the recommendation. (See also comments under Recommendation 3.)
• Expanding FMD's Major Maintenance Project schedule and budget performance measures to General Government and Special Projects.		

Recommendation	Agency Position	Comments
• Providing a program-level roll-up for Major Maintenance program performance measures. • Continuing participating in the OMB Capital Projects Working Group to develop effective performance measures for capital project scope and budget. • Developing and tracking a facilities condition index on county buildings to monitor success in maintaining the capital infrastructure.		

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AUDITOR'S COMMENTS TO EXECUTIVE RESPONSE

We are pleased that the executive has concurred or partially concurred with all of our audit's recommendations. Implementation of our programming recommendations should help ensure that the capital projects undertaken by the Facilities Management Division (FMD) advance the county's and individual county agencies' strategic goals.

FMD's implementation of our *planning* recommendations should provide needed consistency and transparency in FMD's risk assessment, alternatives analysis, and project management plans. Implementation of our *oversight* recommendations should result in more effective information exchange between FMD and the County Council, and ultimately increased public accountability in capital facility project delivery.

In response to Recommendations 5, 6, 8, and 10, FMD has noted that the division intends to work with the auditor's office new Capital Oversight Program to implement standard frameworks for analysis, risk assessment, and communication protocols. We welcome this collaboration, and we will follow up with FMD in the second quarter of 2008 to establish an action plan for the development of these critical frameworks.

FMD concurred with Recommendation 3 to develop a regular schedule for facility condition inspections, and recognizes that our recommendation would add value to the process. However, also FMD noted in its response that it already conducts informal inspections during the annual budget cycle. This informal process would not be an adequate replacement to a regular update of the inventory, using the condition rating system discussed in Chapter 4. Condition ratings (excellent, good, fair, poor) are a performance measure that helps to communicate to decision-makers and the council whether FMD's Major Maintenance Program is achieving its goal of preserving the county's facilities.

In response to Recommendation 6, FMD's description of the Yesler Building Boxes project does not comport with the information conveyed in three successive Major Maintenance Reports prepared by FMD in cooperation with the county Office of Management and Budget and submitted to the County Council. The budget and schedule overruns cited in these reports are sourced directly to *FMD's own* capital budget requests. The auditor's office does agree, however, with FMD's observation that implementation of the standardized reporting recommended in the audit should provide better consistency and transparency when monitoring and reporting crucial project information within FMD and to council.

In response to Recommendation 9, FMD contends that the intent of a predesign process is not to withhold funding for design and construction of future projects. On the contrary, per industry best practices, an important purpose of a thorough predesign phase is to ensure that council has adequate information to assess whether a project meets stated criteria for operational objectives, cost-effectiveness, risk, and other goals, before incurring design and construction costs. If the project fails to meet these criteria, the council could decide either to request additional information or to eliminate the project. This recommendation parallels the recommendation of the Phase One Capital Projects Oversight Report.[30]

Finally, FMD has expressed reservations about implementing Recommendations 1 and 6, citing staffing constraints. We did not perform an audit of FMD's staffing efficiency, and therefore, we are unable to verify FMD's need for additional staffing to implement the audit's recommendations.

[30] King County Capital Projects Oversight Phase 1, Report A: Design of a Model for the Auditor's Office Capital Project Oversight Reporting, pp 19-21.

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