

**MEMORANDUM**

January 17, 2003

TO: County Council

FROM: Jennifer Kimball, Legislative Analyst *JK*  
Scott Brown, Legislative Analyst *SB*  
Office of Legislative Oversight

**SUBJECT: Office of Legislative Oversight (OLO) Report 2003-1:  
An Analysis of the Facility Planning Process for Road Construction**

The Council agenda for Tuesday, January 21, 2003 includes the Council receipt and public release of the Office of Legislative Oversight (OLO) Report 2003-1: An Analysis of the Facility Planning Process for Road Construction. Councilmembers received copies of the report under separate cover.

**Members of the public can obtain copies of the OLO report in the Legislative Information Services office (5<sup>th</sup> floor, Council Office Building) after the Council votes to release the report on Tuesday, January 21.**

The OLO report examines the facility planning process for road construction, and provides recommendations to improve the process and its implementation. The report begins with a definition of facility planning and a description of the steps in the process. The report describes how DPWT manages the facility planning process, and the factors that impact the length of time required to complete the process. The report concludes with findings and recommendations. An executive summary begins at page i.

A Transportation and Environment Committee worksession to discuss the report is tentatively scheduled for February 6, 2003. Please contact Jennifer Kimball (7-7991) or Scott Brown (7-7998) if you have any questions.

# **An Analysis of the Facility Planning Process for Road Construction**



Office of Legislative Oversight  
Report Number 2003-1  
January 21, 2003

Jennifer Kimball, Legislative Analyst  
Scott Brown, Legislative Analyst

## EXECUTIVE SUMMARY

**Overview.** This report examines Montgomery County's facility planning process for road construction, and offers recommendations to improve the process and its implementation. Facility planning is the first 35% of the design of a road project. The County's Department of Public Works and Transportation (DPWT) generally completes facility planning before a road project appears as a stand-alone item in the County Executive's Recommended Capital Improvements Program (CIP). The goal of facility planning is to provide decision-makers with:

- An understanding of the purpose & need for the road project;
- A clear definition of the scope of the project and its impacts; and
- A reliable cost estimate.

Based on the information collected during facility planning, the County Executive recommends and the County Council approves funding for stand-alone road projects in the CIP. DPWT then completes the remaining 65% of the design of the road project, acquires the necessary land, and constructs the road.

In FY 03, the County Council appropriated \$1.6 million to DPWT for facility planning for road construction projects. The FY 03-08 CIP's Facility Planning – Transportation Project Description Form (PDF) includes 11 road construction projects for which DPWT plans to start facility planning in FY 03 and FY 04. The CIP lists an additional five facility planning projects that DPWT will start as time permits.

**The Facility Planning Process.** The Department of Public Works and Transportation manages facility planning in two phases. Phase I involves identifying the need and purpose of the project, collecting background data, developing concept plans of alternative alignments, and developing a project prospectus that recommends an alignment. Phase II involves preliminary engineering, preliminary regulatory agency review, and developing preliminary engineering plans, project schedule, and cost estimate. For less complicated projects, DPWT employs a "Fast Track" process that condenses phase I and moves immediately into phase II.

DPWT contracts out 90% of facility planning projects. DPWT staff prepare and manage each contract, facilitate public input, and lead a project team. The project team includes representatives from DPWT, the Maryland-National Capital Park and Planning Commission, and the State Highway Administration. Representatives from the different departments and agencies review and comment on the facility planning work at different times in the process.

**Analysis of the Process.** Comprehensive data about the facility planning process is not currently compiled. For example, DPWT does not compile data to assess the overall accuracy of cost estimates or the length of time required to complete the process. As a result, much of the information reported about the process is anecdotal or based on general impressions of individuals involved in the process.

Individuals involved in facility planning report that the process produces more reliable cost estimates for inclusion in the CIP. Staff interviewed by OLO recalled that before facility planning was implemented in the early 1990's, actual project costs were frequently higher than estimated, which forced DPWT to request additional funds.

At OLO's request, DPWT compiled data on the length of time to complete facility planning for nine projects. The length of the process ranged from one year and one month to six years and seven months. While this information reflects only a sample, the data show that the length of time it takes to complete facility planning can vary significantly.

Individuals involved in the process consistently reported that the following factors can impact the length of the process:

- Location and size of the road, including the number of properties affected;
- Concerns raised by community members, interest groups, and elected officials;
- Environmental sensitivity of the area and involvement of regulatory agencies;
- Delays between phase I and phase II of the facility planning process; and
- Project management issues related to staffing and workload.

OLO found that obtaining regulatory agency, community member, and elected official input and support of road projects early and periodically during facility planning may increase the efficiency of the process.

OLO also found that fiscal constraints and the County's two-year CIP process can negatively impact the usefulness of facility planning products. These variables can create a delay between when DPWT finishes facility planning and when funds are available to complete design and construction. This delay is problematic because facility planning products have a limited shelf life of approximately 12 months. A delay longer than 12 months may force DPWT to do some or most of the facility planning tasks again.

**Recommendations.** In an effort to further improve the facility planning process, OLO recommends that:

- DPWT eliminate delays between the completion of phase I and the start of phase II of the facility planning process;
- DPWT request that the Interagency Wetlands Committee and the Council's Transportation and Environment Committee (T&E) review selected projects at the end of both phase I & II of facility planning;
- DPWT compile and report comprehensive data on the facility planning process as a whole to the Council annually, e.g., the length of time to complete facility planning, accuracy of cost estimates; and
- The Council's Management and Fiscal Policy (MFP) and Transportation and Environment (T&E) Committees schedule a joint worksession to discuss the Executive Branch's current and future approaches to funding road projects that have completed facility planning.

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- Attachment 1: Glossary of Terms – © 1
- Attachment 2: General Information about the Capital Improvements Program (CIP) – © 4
- Attachment 3: Facility Planning Project Description Form – FY 03-08 CIP – © 11
- Attachment 4: Go Montgomery! – Transportation Plan for Our Future – © 13
- Attachment 5: Detailed Description of Phase I and II Tasks – © 28
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# **I. Introduction**

## **A. Authority**

Council Resolution 14-1395, FY 2003 Work Program of the Office of Legislative Oversight, adopted July 30, 2002.

## **B. Scope & Organization**

This report analyzes the Department of Public Works and Transportation's (DPWT) facility planning process for road construction.<sup>1</sup> It begins with a definition of facility planning, and an explanation of the process in the context of funding and building a road. Next, it describes the steps in the facility planning process and how DPWT manages the process. The report also analyzes the factors that impact the length of time required to complete the process. The report concludes with findings and recommendations. Attachment 1 (© 1) includes a glossary of terms and Attachment 2 (© 4) provides general information about the County's Capital Improvements Program (CIP).

The report is organized as follows:

**II. Background** – Defines facility planning and places the process in the context of funding and building a road. This chapter also presents information on current facility planning projects and the Go Montgomery! initiative.

**III. The Facility Planning Process** – Describes the steps in phase I and phase II of the facility planning process, explains how DPWT staffs and manages the process, and reviews how DPWT seeks community input. This chapter also presents the roles of the other agencies involved in the facility planning process.

**IV. Analysis of the Facility Planning Process** – Part 1 summarizes previous analyses of facility planning, conducted by OMB and the County Council's Management and Fiscal Policy Committee. Part 2 describes factors that impact the length of time required to complete the process. It includes DPWT data on the length of the facility planning process and observations of individuals involved in the process, including insights from six other jurisdictions. Part 3 examines budget related issues that come into play after the completion of facility planning. These issues impact the usefulness of facility planning work, and how long it takes to construct a road.

**V. & VI. Findings and Recommendations** – Presents OLO's findings and recommendations.

**VII. County Government & Maryland-National Capital Park and Planning Commission Comments** – Contains the written comments received from the County

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<sup>1</sup> The scope of this report is limited to facility planning for road construction, and does not address facility planning for other types of capital projects, such as facilities, bridges, transit projects, and bikeways.

Government and Maryland-National Capital Park and Planning Commission (M-NCPPC) on a final draft of the report.

### **C. Methodology**

Jennifer Kimball and Scott Brown, Legislative Analysts from the Office of Legislative Oversight (OLO) conducted this study. OLO gathered information through document and data reviews, and individual and group interviews. OLO interviewed staff and collected information from Montgomery County's Department of Public Works and Transportation (DPWT), Department of Permitting Services (DPS), and Office of Management and Budget (OMB). OLO consulted with County Council staff about multiple aspects of the facility planning process.

OLO also worked with the Maryland-National Capital Park and Planning Commission (M-NCPPC), the Maryland State Highway Administration, Department of the Environment, and Department of Natural Resources, and the U.S. Army Corps of Engineers. OLO interviewed staff from the following counties for comparative information about planning for road construction projects: Maricopa and Pima County, Arizona; King County, Washington; Hennepin County, Minnesota; Baltimore and Howard County, Maryland. OLO also consulted with staff from the University of Maryland's Civil & Environmental Engineering Department.

### **D. Acknowledgements**

OLO appreciates the cooperation and insights provided by all who participated in this study. In particular, OLO thanks Albert Genetti, Edgar Gonzalez, Bruce Johnston, Holger Serrano, Sogand Seirafi, and Jeri Cauthorn in the Department of Public Works and Transportation. OLO appreciates the assistance from staff in the County's Office of Management and Budget, Department of Permitting Services, the M-NCPPC, and the County Council. OLO also acknowledges the cooperation of staff at the state and federal agencies.



## II. Background

### Highlights:

1. Montgomery County's FY 03-08 Capital Improvements Program (CIP) allocates approximately \$131 million (or 6%) to road construction projects. The Go Montgomery! initiative makes transportation projects, including road construction projects, a greater portion of the County's capital spending.
2. The Department of Public Works and Transportation (DPWT) plans and implements the transportation capital program for Montgomery County. This includes managing facility planning for road construction projects.
3. *Facility planning is the first 35% of the design of a road construction project, and is conducted before including a road construction project as a stand alone item in the Capital Improvements Program (CIP). It is one step in the process of designing, funding, and constructing roads in Montgomery County.*
4. The information collected through facility planning provides decision-makers with a clear need, scope, and cost estimate for each road construction project before fully funding the project in the CIP.
5. The Facility Planning-Transportation Project Description Form (PDF) in Montgomery County's FY 03-08 CIP indicates that 11 road construction projects will begin facility planning by the end of FY 04. In addition, DPWT will continue to work on 12 facility planning projects already underway.

Meeting the public's transportation needs is a high priority in Montgomery County. While mass transit, pedestrian, and bicycle transportation options remain important, cars are the most common form of transportation in the County. This has made addressing congestion and constructing roads a County priority.

Planning and building roads in Montgomery County is a complicated and time consuming exercise. The County's decision-makers face the challenge of meeting transportation needs, in a timely manner, while minimizing the impact on the environment and the community.

**The County's Capital Investment in Transportation.** Funding for transportation projects (road and bridge construction, highway services, mass transit, parking facilities, pedestrian facilities, bikeways, and traffic improvements) peaked in the late 1980s and early 1990s, representing 30%-35% of the Capital Improvements Program (CIP).<sup>2</sup> Since that period, 18% (on average) of capital dollars fund transportation projects; a reduction of approximately 15% over the peak years.

Exhibits 1 and 2 on page 5 illustrate the County's current capital investment in transportation. Transportation projects account for approximately 18% or \$397 million of the County's FY 03-08 CIP. Road construction and improvement projects account for approximately \$131 million or 6% of the County's total FY 03-08 CIP.

The County Executive's Go Montgomery! initiative has made transportation a higher portion of the County's capital spending. The Go Montgomery! initiative calls for an additional \$4 million in appropriation authority for FY 03 and another \$46 million over the next six years.<sup>3</sup> The Executive plans to allocate approximately 43% of the Go Montgomery! initiative funds to road construction and other congestion relief infrastructure (e.g., intersection and sidewalk improvements) projects.

#### **A. Defining Facility Planning**

Montgomery County defines facility planning as an "analytical tool and decision-making process that generates a clear need, scope, and cost estimate for capital projects."<sup>4</sup> Facility planning is the first 35% of the design of a road project, and is conducted before including a road construction project as a stand-alone item in the Capital Improvements Program (CIP). (See attachment 2 at © 4 for an overview of the County's CIP process).

The goal of facility planning is to provide decision-makers with better information for deciding whether to fund a road construction project in the CIP, such as:

- An understanding of the purpose and need for the road;
- A clear definition of the scope of the project and its impacts, and
- A more reliable cost estimate for inclusion in the CIP.

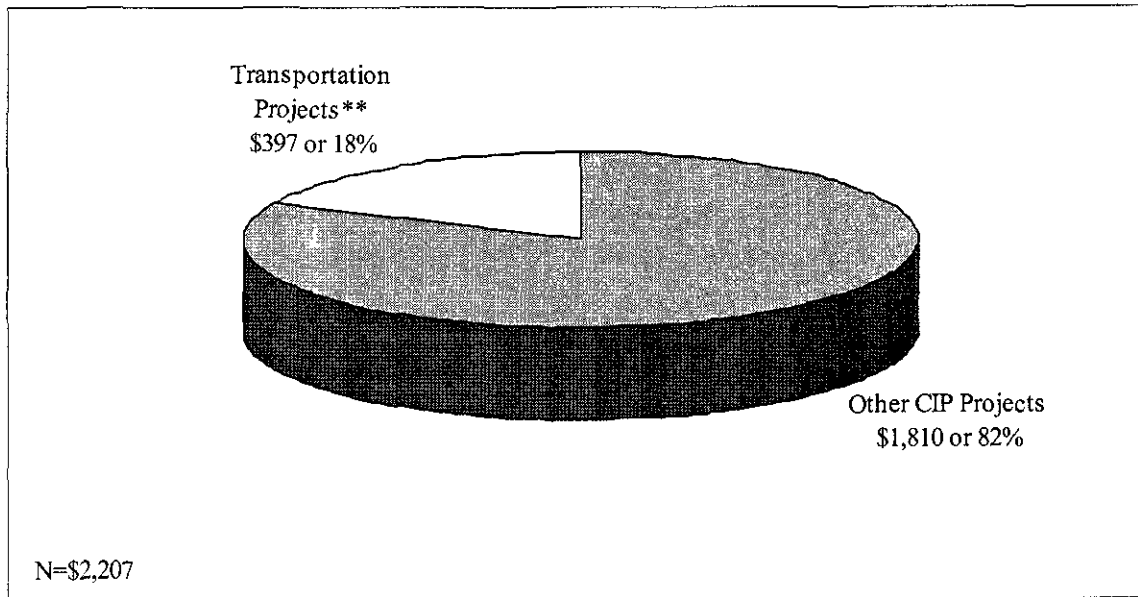
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<sup>2</sup> Source: County Council Packet (February 26, 2002).

<sup>3</sup> Source: County Council's Transportation and Environment Committee packet (October 28, 2002).

<sup>4</sup> Montgomery County also conducts facility planning for other capital projects, such as bridges, parking garages, pedestrian/bikeways, mass transit projects, and County Government facilities (e.g., recreation centers, libraries). This OLO study only addresses facility planning for road construction projects.

**EXHIBIT 1: APPROVED FY 03-08 CAPITAL IMPROVEMENTS PROGRAM APPROPRIATION FOR TRANSPORTATION PROJECTS (\$ IN MILLIONS) \***

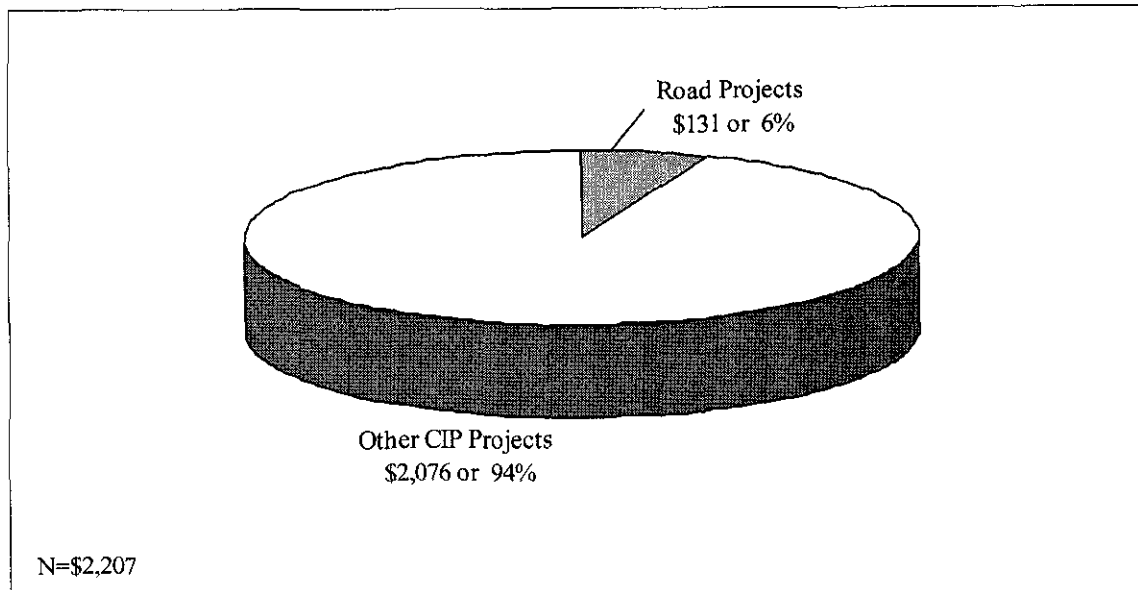


Source: Approved FY 03-08 CIP

\* Excludes Go Montgomery!

\*\* Transportation Projects include: roads, bridges, highway services, mass transit, parking facilities, pedestrian facilities and bikeways, and traffic improvements.

**EXHIBIT 2: APPROVED FY 03-08 CAPITAL IMPROVEMENTS PROGRAM APPROPRIATION FOR ROAD CONSTRUCTION PROJECTS (\$ IN MILLIONS) \***



Source: Approved FY 03-08 CIP

\* Excludes Go Montgomery!

Interviews with DPWT staff, County Council staff, and other engineering professionals indicate that a reliable estimate of the cost of a road construction project is available with 35% of the design of the project complete. DPWT staff also noted that some costs cannot be fully assessed at the 35% design stage, such as, the cost of land acquisition, the actual construction bids (in part determined by market conditions), and unanticipated regulatory agency requirements.

Before instituting facility planning in FY 93, Montgomery County included funding for stand-alone road construction projects in the CIP before conducting any design of the road. As a result, the dollars in the CIP were based on limited information about the scope of a project and its impacts, such as the length and width of the roadway, amount of right-of-way, number of lanes, pedestrian and bicycle features, special features to address environmental concerns, and the impact on neighboring communities and the environment.

After road design began, more information became available about the project that often changed the scope of the project and increased its costs. Interviews with individuals involved in the process indicate that project costs often increased during the course of road design and construction, resulting in requests for supplemental appropriations.

## **B. The Role of DPWT**

The Department of Public Works and Transportation (DPWT) plans and implements the transportation capital program for Montgomery County. Engineers and transportation planners in the Division of Engineering Services staff facility planning projects.

DPWT initially assigned responsibility for phase I of facility planning to DPWT's Office of Project Development in the Planning Division (now abolished) and phase II to the Design Section in the Division of Engineering Services. According to DPWT, this organizational structure created a disconnect between the two phases and contributed to delays. In an effort to improve the facility planning process in FY 99, the newly appointed Director of DPWT consolidated the two phases in the Division of Engineering Services. The Department's Office of Project Development was abolished in July 2000.

## **C. Facility Planning in Context**

Facility planning for road construction represents one step in the process of designing, funding, and constructing a road. To place facility planning in context, Exhibit 3 (page 7) illustrates the steps, from identifying a potential project through construction.

- Step 1:** Identify a potential road construction project;
- Step 2:** Obtain appropriation of funds to complete facility planning;
- Step 3:** Complete facility planning (35% of the design of the road project);
- Step 4:** Obtain appropriation of CIP funds for the remaining 65% of the design of the road, acquisition of the necessary land, road construction;
- Step 5:** Complete the remaining 65% of the design (referred to as final design) of the road project and acquire the land; and
- Step 6:** Construct the road.

### **Step 1: Identify a potential road construction project.**

The Department of Public Works and Transportation (DPWT), the Maryland-National Capital Park and Planning Commission (M-NCPPC), County Councilmembers, individual residents, and Citizen Advisory Boards identify potential road construction projects to undergo facility planning. Ideas for projects come from multiple sources, including the County's Master Plan, Annual Growth Policy, travel and accident data, planned development, and community needs.

### **Step 2: Obtain appropriation of funds to complete facility planning.**

The CIP's Facility Planning – Transportation Project Description Form (PDF) includes funds to pay for facility planning. The PDF includes a list of projects that will proceed through facility planning, and an expenditure and funding schedule.

For each CIP, DPWT prioritizes the potential road construction projects to include in the Facility Planning – Transportation PDF. OMB reviews the PDF for inclusion in the County Executive's Recommended CIP. After the Executive submits the recommended CIP, the Council's Transportation & Environment Committee and the full Council review and approve the PDF. The Council appropriates current general revenue for the Facility Planning - Transportation PDF. Therefore, the number of facility planning projects included in each CIP is partially determined by the amount of current revenue available.

### Exhibit 3: Steps Involved in Funding and Building Roads

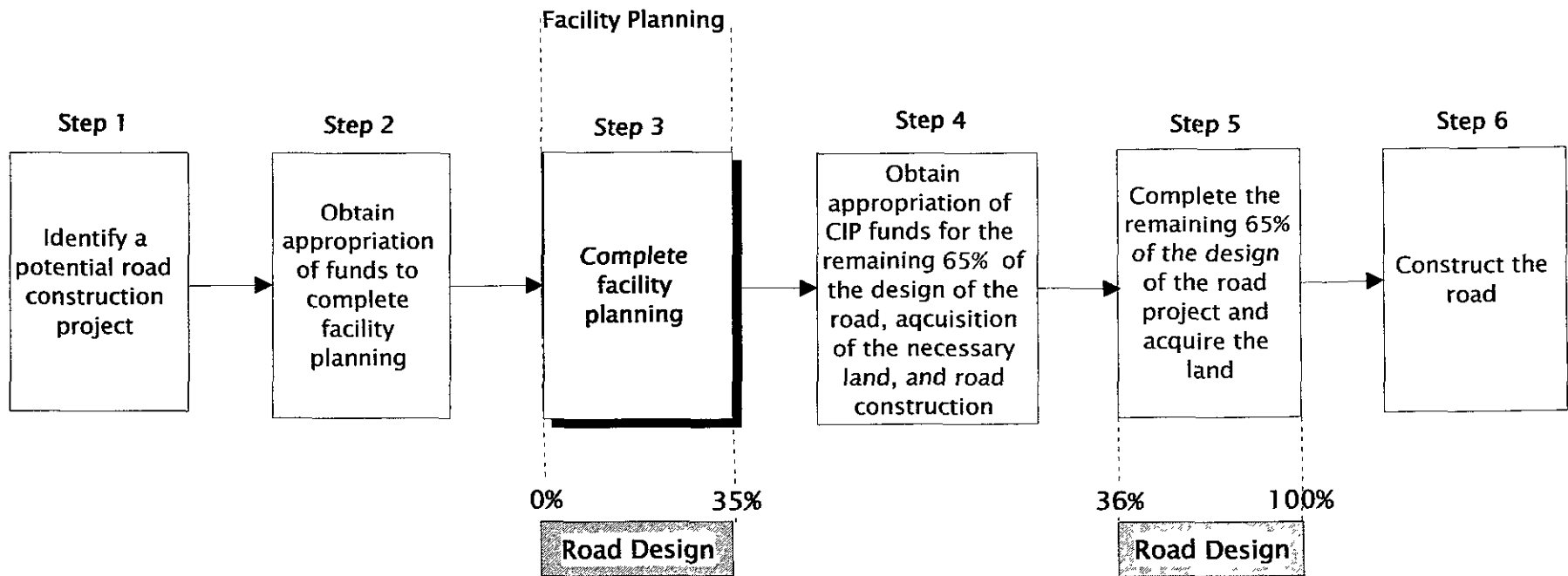


Table 1 provides estimates from DPWT on the cost of facility planning for seven individual road projects. DPWT estimates the cost based on staff time and consultant fees. The cost ranged for this sample of projects from \$89,000 to \$2.1 million. In general, facility planning is more expensive for projects that cover more geographic area, and impact more properties, and impact more environmentally sensitive areas.

**TABLE 1: ESTIMATED COST OF FACILITY PLANNING**

<b>Facility Planning Project</b>	<b>Size of Project</b>	<b>Cost of Facility Planning (\$ in 000's)</b>
Shady Grove Noise Study	Small	\$ 89
Citadel Ave. Extended	Small	\$ 150
Stringtown West	Medium	\$ 360
Fairland Rd.	Medium	\$ 472
Travilah Rd.	Large	\$ 608
Woodfield Rd.	Large	\$ 654
Montrose Parkway West	Large	\$2,145

Source: DPWT, October, 2002.

**Step 3: Complete facility planning (35% of the design of the road project).**

The Department of Public Works and Transportation conducts facility planning, or the first 35% of the design of a road project, in two phases. Phase I focuses on collecting background data, developing preliminary concept plans of various alternatives (alignments and cross sections), and defining the purpose and need of the project. At the end of phase I, approximately 10% of the design of the road project is completed and a project prospectus is developed that recommends one of the proposed alternative alignments. Phase I of facility planning is described in detail beginning on page 14.

Following approval by the DPWT Director, projects proceed to phase II of facility planning. DPWT bases phase II work on the information collected during phase I. Phase II focuses on preliminary engineering of the recommended alternative, incorporating environmental regulations, and developing a preliminary engineering plans, schedule, and cost estimate. At the end of phase II, approximately 35% of the design of the project is complete. Phase II is described in detail beginning on page 15.

For large and/or controversial road construction projects, the Council's Transportation & Environment Committee holds a worksession at the completion of facility planning to review the project. This informal review helps the Committee understand the scope of the project and gives the Committee members an opportunity to provide feedback on the project to Executive Branch staff. According to Council staff, the T&E Committee reviews approximately three to four completed facility planning projects a year.

**Step 4: Obtain appropriation of CIP funds for the remaining 65% of the design of the road, acquisition of the necessary land, and road construction.**

At the completion of facility planning, DPWT selects road construction projects to fund in the Executive's next Recommended CIP. DPWT staff develop a stand-alone PDF for each project that includes funds for:

- the remaining 65% of the design of the road project,
- acquisition of the necessary land, and
- road construction.

DPWT submits the PDFs for OMB review. The Executive may not include all of the projects submitted by DPWT in the recommended CIP. In addition, some projects may be included but not funded in the next few fiscal years. The Transportation & Environment Committee and the full Council review and approve the individual road construction projects submitted in the Executive's Recommended CIP.

**Step 5: Complete the remaining 65% of the design (referred to as final design) of the road project and acquire the land.**

If the Council approves the PDF, DPWT finishes the remaining 65% of the design of the road. At the end of final design, DPWT also acquires land needed for construction.

**Step 6: Construct the road.**

Construction begins after completing the design, acquiring the necessary land, and conducting a formal public bidding process.

**D. Current Facility Planning Projects**

The Facility Planning – Transportation PDF from the FY 03-08 CIP is attached at © 11.<sup>5</sup> The PDF includes an expenditure and funding schedule, a list of projects to begin facility planning in the next two fiscal years, and a brief description of the facility planning process. *The PDF does not include projected completion dates for facility planning projects.*

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<sup>5</sup> The PDF also includes facility planning dollars for mass transit projects. This OLO study does not address facility planning for mass transit projects.



In FY 03, the Council appropriated approximately \$1.6 million of general revenue to fund facility planning for road construction projects. Table 2 lists the current and planned facility planning projects in the FY 03-08 CIP. The table shows 11 facility planning studies that DPWT will begin during FY 03 and 04. DPWT will begin facility planning for the five "Other Candidate Projects" as time permits.

**TABLE 2: FACILITY PLANNING FOR ROAD CONSTRUCTION PROJECTS  
IN THE FY 03-08 CAPITAL IMPROVEMENTS PROGRAM**

Studies to Begin in FY 03-04	Other Candidate Projects
<ul style="list-style-type: none"> <li>• Burtonsville Local Access Road</li> <li>• Father Hurley Boulevard*</li> <li>• Greentree Road (sidewalk and storm drain)</li> <li>• Goshen Road South*</li> <li>• McArthur Blvd (bikepath)</li> <li>• Mid-County Highway – phase 1*</li> <li>• Montrose Parkway East*</li> <li>• Quince Orchard Road*</li> <li>• Redland Road North (sidewalk)*</li> <li>• Ripley District Improvements</li> <li>• West Deer Park Drive</li> </ul>	<ul style="list-style-type: none"> <li>• Goshen Road North*</li> <li>• Chapman Avenue*</li> <li>• Randolph Road Widening – phase II*</li> <li>• Stringtown Road East*</li> <li>• Thompson Road*</li> </ul>

Source: CIP FY 03-08

\* This project is part of the Go Montgomery! initiative

**E. Facility Planning and the Go Montgomery! Initiative**

In June 2002, the County Executive introduced the Go Montgomery! initiative to significantly reduce traffic congestion. The goals of Go Montgomery! include:

- Significantly increase the provision of mass transit services (represents 47% of the funds);
- Build the roads and other congestion relief infrastructure (e.g., intersection improvements) called for in the County’s Master Plan (represents 43% of the funds);
- Make better use of technology to relieve traffic congestion and improve pedestrian safety (represents 10% of the funds); and
- Improve the Washington metropolitan region’s air quality and develop projects to minimize environmental impacts of the transportation system;
- Lobby the State to fund and build planned State projects located within Montgomery County.

The Executive's Go Montgomery! initiative calls for approximately \$4 million in appropriation authority for FY 03, and another \$46 million in the next six years.<sup>6</sup> The Executive plans to devote approximately 43% of the Go Montgomery! initiative funds to road and other congestion relief infrastructure projects. An outline of the Executive's Go Montgomery initiative is attached at © 13.

The Executive included 12 of the 16 facility planning projects listed in the FY03-08 CIP in the Go Montgomery! initiative. DPWT staff report that those projects will be the department's priority facility planning projects this year.

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<sup>6</sup> Source: County Council's Transportation and Environment Committee packet (October 28, 2002).

### III. The Facility Planning Process

#### Highlights:

1. Facility planning consists of two phases. Phase I involves identifying the purpose and need of the project, collecting background data, developing concept plans of various alternative alignments, and developing a project prospectus that recommends an alignment. Phase II involves preliminary engineering, preliminary regulatory agency review, and development of engineering plans, schedule, and cost estimate.
2. DPWT staff estimate that phase I of facility planning takes 12 – 18 months to complete, and Phase II takes 12 – 24 months. For less complicated projects, DPWT uses a Fast Track process that condenses phase I and moves immediately into phase II. DPWT staff estimate that the Fast Track process takes approximately 12 to 18 months to complete.
3. DPWT staff conducts 10% of the facility planning projects. Consultants complete the other 90%, with DPWT staff managing the contracts and coordinating the process.
4. Communicating with the public is an important aspect of the process. DPWT staff hold three public meetings, produce newsletters, and respond to community members' questions.
5. DPWT obtains regulatory agency comments of the environmental impacts of projects during phase II. The independent Interagency Wetlands Committee facilitates coordination and communication among County, bi-County, State, and Federal environmental regulatory agencies.

## A. Phase I

DPWT divides the facility planning process for road construction into two phases. Phase I includes:

- Collecting background data (including accident data, traffic counts and travel forecasts, property boundary identification, flood plain delineation; and identification of significant environmental, archeological, or historic sites);
- Developing preliminary concept plans of various alternatives (alignments and cross sections); and
- Clearly defining the purpose and need for the project.

At the end of phase I, approximately 10% of the road design is completed and DPWT recommends one of the proposed alternative alignments. Based on the information collected in phase I, the Department decides whether to proceed with the project or change the project to better address a transportation need.

Table 3 (below) summarizes the tasks completed during phase I and the estimated time to complete each task. Attachment 5 (© 28) describes each of the tasks in detail.

**TABLE 3: SUMMARY OF PHASE I TASKS**

<b>Phase I Tasks</b>	<b>DPWT's Estimate of the Time to Complete Task</b>
Background Data Collection	1 – 2 weeks
Travel Demand Forecasting	2 – 3 months
Purpose and Need	2 – 3 months
Conceptual Alignments & Typical Sections	2 – 4 weeks
Preliminary Concept Plan	1 – 2 months
Preliminary Impacts	1 – 2 months
Project Prospectus	2 – 4 months
Approval of DPWT Director	2 – 4 months
Community Participation	Ongoing
<b>Total Time Estimated</b>	<b>12 - 18 months</b>

Source: DPWT November, 2002

## **B. Phase II**

Phase II of facility planning focuses on obtaining detailed survey data, conducting preliminary engineering and developing preliminary engineering plans, schedule, and cost estimate. Between phase I and II, the focus shifts from determining whether the road should be built (and if so, where and what size) to identifying important issues/impacts and how much the selected alignment will cost. At the end of phase II, 35% of the design of the project is complete.

At the completion of phase II, DPWT develops detailed engineering plans of the road. This involves identifying the conditions of the site (e.g., soil types, topography, etc), surveying the area, calculating the horizontal and vertical alignments, and identifying land required to construct the road. Facility planning also involves identifying the impact that the road may have on the environment and designing mitigation measures (e.g., stormwater management facilities).

Preliminary engineering also involves submitting reports on the environmental impact of the road project, and how the project design mitigates impacts and complies with Federal, State and County environmental regulations. Table 5 (page 17) lists the reports and plans prepared by the consultants for contracted projects and DPWT staff for in-house projects. Some of the reports and plans relate to specific permits that the County must obtain to begin construction of a road. DPWT acquires permits after facility planning, but requests regulatory agency review during phase II to assure that the road designs meet regulatory and permitting requirements. This practice reduces the likelihood of design changes, disagreements, and delays when DPWT applies for the permits after facility planning.

**TABLE 4: REPORTS REQUIRED FOR ROAD CONSTRUCTION PROJECTS**

<b>Reports Required:</b>	<b>Reviewing Agency:</b>
1. Historic and Archaeological Assessment	Maryland Historic Trust County Historic Preservation Commission
2. Wetlands/Waterways Report	M-NCPPC
3. Hydrologic and Hydraulic Report	U.S. Army Corps of Engineers
4. Scour Analysis	Maryland Department of Environment
5. Geotechnical Investigation	County Department of Permitting Services
6. Natural Resource Inventory/Forest Stand Delineation Narrative	County Department of Environmental Protection
7. Final Wetland Identification/Delineation Report	M-NCPPC
6. Sediment Control Concept	U.S. Army Corps of Engineers
7. Stormwater Management Report and Plan Sheets	Maryland Department of Environment
8. Noise Report	County Department of Permitting Services
9. Traffic Report	M-NCPPC
10. Storm Drain Computations	State Highway Administration
11. Tree Report	County Department of Public Works and Transportation

Source: DPWT/OLO, November, 2002

At the end to phase II, DPWT staff (or a firm under contract to DPWT) calculate the cost of the:

- Planning, design, and contract management;
- Land (e.g., right-of-way and easements);
- Site improvements and utilities;
- Construction (e.g., X tons of asphalt at \$X/ton); and
- Other costs.

Table 4 summarizes the tasks completed during phase II of the facility planning process and the estimated time to complete each task. Attachment 5 (see © 28) describes each of the tasks in detail.

**TABLE 5: SUMMARY OF PHASE II TASKS**

Phase II Tasks	DPWT Estimate of the Time to Complete Task
Preliminary Engineering, includes: <ul style="list-style-type: none"> <li>• Planimetric surveys</li> <li>• Horizontal (curves) and vertical (grades) alignments</li> <li>• Soil Identification</li> <li>• Stormwater and sediment control structures</li> <li>• Determining the amount of land needed</li> <li>• Intersection geometrics</li> <li>• Final concepts</li> <li>• Noise mitigation structures</li> <li>• Determine environmental impacts</li> <li>• Develop a construction sequence</li> <li>• Quantity takeoff</li> </ul>	10 – 20 months
Develop Required Reports & Analyze Permit Requirements	1 – 2 months
Detailed Scope, Schedule & Cost Estimate	1 – 2 months
Coordination with environmental regulatory agencies, including M-NCPPC	Ongoing
Community participation	Ongoing
<b>Total Time Estimated</b>	<b>12 - 24 months</b>

Source: DPWT, November 2002

**Fast Track Facility Planning.** The Fast Track facility planning process condenses phase I and moves immediately to phase II. Facility planning projects that do not require significant conceptual planning (because the location and design are straightforward) are candidates for the Fast Track process. For example, DPWT would typically use Fast Track for a project that connects two roads over a short distance, with the right of way in place, and no significant environmental impacts. Germantown Road Extended, Schaeffer Road, and Bordly Drive are three recent examples of projects that DPWT put through the Fast Track process. According to DPWT, the Fast Track process takes approximately 12 to 18 months to complete.

## C. Managing Facility Planning

### 1. The Project Manager

A project manager leads and manages the facility planning process. One of the two transportation planners in the Division of Engineering Services serves as the project manager for each phase I facility planning project. For phase II, a transportation engineer in the Division acts as the project manager.<sup>7</sup> To ensure continuity between phase I and phase II, DPWT attempts to have the phase I and phase II project managers involved throughout both phases of the process as project team members (described below).

For projects on contract, the project managers:

- Prepare Requests for Proposals (RFPs),<sup>8</sup> select consultants, prepare and manage the contracts, and review the consultants' work to ensure timeliness and quality.
- Monitor and direct the facility planning process, including develop and maintain a project completion schedule, monitor progress and delays, coordinate with regulatory and other agencies, and produce monthly Facility Planning Status Reports (sample project status reports are attached at ©33);
- Facilitate public input on facility planning projects, including maintain a database of individuals impacted by the project, coordinate public meetings, respond to inquiries from the public, and prepare written updates on the project; and
- Lead the project team.

For 10% of projects handled in-house, the project manager completes all of the facility planning tasks.

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<sup>7</sup> There are 20 transportation engineers in the Division of Engineering Services. DPWT assigns phase II project management to one of approximately five engineers with experience in facility planning.

<sup>8</sup> Every five years, DPWT produces a Request for Proposal (RFP) and selects a panel of approximately seven consultants to be available upon DPWT's request to complete facility planning projects & other engineering services.



## **2. The Project Team**

DPWT assigns a team to phase I and phase II of every road construction facility planning project. The project manager leads the team, which includes representatives from the following organizations:

- DPWT, Engineering Division, Design Section
- DPWT, Engineering Division, Property Acquisition Section
- DPWT, Engineering Division, Construction Section
- DPWT, Traffic and Parking Services Division
- DPWT, Transit Services Division
- M-NCPPC, Transportation Planning
- M-NCPPC, Environmental Planning
- M-NCPPC, Community Based Planning
- State Highway Administration, District Office (engineers)
- State Highway Administration, Baltimore Office (planners)
- State Highway Administration, Bikeway Coordinator

The Team meets periodically for updates on the status of projects. Representing their respective departments and agencies, the team members provide input on the project and review work completed by the DPWT staff and consultants. DPWT staff estimate that team members spend between five to ten hours per month on each facility planning project.

## **3. Consultants**

DPWT contracts out approximately 90% of facility planning projects. Every five years, DPWT produces a Request for Proposal (RFP) and selects a panel of approximately seven consultants to be available upon DPWT's request to complete facility planning projects and other engineering services. Under this approach, a consultant can begin work within three months of DPWT's request. This is substantially faster than the time required to submit separate RFPs for every facility planning project.

DPWT's contract with each consultant describes specifically the phase I & II tasks to be completed with time frames for completion. Ideally, the same consultant that completes phase I will complete phase II to assure continuity and increase efficiency.

## **D. Community Input**

Public information and input begins with an initial public meeting at the beginning of phase I. DPWT uses this initial meeting to explain the facility planning process, present background information about the project, and solicit comments from the public. DPWT holds a second public meeting during phase I after the preliminary concept plan is completed. DPWT explains the preliminary concept plan, alternative road alignments, and potential environmental and socio-economic impacts of the road construction project.

Public outreach and input continues into phase II of facility planning. DPWT holds a public meeting after the phase II engineering plans and impacts are completed. This is the public's chance to provide additional input before DPWT produces the final cost estimates for the project.

DPWT designs the public meetings like workshops with multiple displays that describe different aspects of the project (e.g., environmental impacts, traffic, purpose and need, stormwater management). A staff person assigned to each display reviews the information with individuals and responds to questions.

Other efforts to garner public input and address the public's concerns include:

- Newsletters that describe the nature and status of the project, including staff names and phone numbers for additional information. An example of a newsletter is attached at © 31;
- Comment cards that are used to share concerns and/or questions with DPWT;
- DPWT informational meetings with smaller groups of community members (e.g., homeowners associations, neighborhood committees);
- Informal communication between the project manager and community members, including phone calls to answer questions, and collecting and mailing information; and
- Discussions with individual Councilmembers and/or their staff.

#### **E. Inter-agency Coordination**

DPWT must coordinate with multiple regulatory agencies/department(s) to ensure that road construction plans that impact aquatic resources comply with environmental regulations and permitting requirements.<sup>9</sup> The agencies and departments involved include the Maryland-National Capital Park and Planning Commission, County Department of Permitting Services, U.S. Army Corps of Engineers, Maryland Department of the Environment, Maryland Department of Natural Resources, and Maryland Historic Trust.

DPWT applies for necessary permits from the regulatory agencies after completing facility planning<sup>10</sup>. However, DPWT includes regulatory agency review during facility planning in order to ensure that the road design developed meets regulatory and permitting requirements. This preliminary review saves time and dollars because it is easier to adjust project designs to meet regulatory requirements as early in the process as possible.

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<sup>9</sup> According to DPWT staff, all of the County's projects impact an aquatic resource. Regulatory requirements are most significant for projects that impact wetlands specifically.

<sup>10</sup> According to DPWT staff, right-of-way acquisition plans can only be finalized upon issuance of permits by all the approving regulatory agencies.

## **1. Interagency Wetlands Committee**

DPWT invests significant time in brokering agreement among the regulatory agencies because the agencies' design standards and requirements are not always consistent, and at times conflict with one another. To facilitate communication and reduce delays caused by inconsistencies, DPWT initiated the process that led to the establishment of an Interagency Wetlands Committee. The Committee includes representatives from:

- County Department of Permitting Services;
- County Department of Environmental Protection;
- Maryland-National Capital Park and Planning Commission;
- Maryland Department of the Environment;
- Maryland Department of Natural Resources;
- U.S. Army Corps of Engineers;
- Washington Suburban Sanitary Commission;
- City of Gaithersburg; and
- City of Rockville.

Developed in 1995 and modeled after the County's Development Review Committee, the Interagency Wetlands Committee provides "one stop" access to information and guidance from regulatory agencies. Any type of capital project that affects aquatic resources is discussed, including roads, bridges, park structures, and subdivisions. The Committee meets approximately every six weeks. Its goals include:

- Sharing information among the represented agencies about projects,
- Providing regulatory input early in the planning and design process so project managers have time to amend plans to meet requirements,
- Resolving conflicts among the environmental reviewing agencies,
- Enhancing wetland protection efforts, and
- Developing innovative strategies to address the impacts of the road.

## **2. Montgomery County Department of Permitting Services**

The Department of Permitting Services (DPS) is the County's regulatory agency for stormwater management and sediment control systems on all active development sites, including road construction projects. DPS reviews road concept and design plans to ensure that a proposed road meets the County's stormwater management and sediment control laws. DPS may also seek advice from the County's Department of Environmental Protection for road construction projects that affect streams. Road construction projects cannot begin without stormwater management and sediment control permits issued by DPS.

DPWT staff or consultants prepare stormwater management and sediment control plans and reports during facility planning for DPS review and comment. DPWT obtains final plans and permits during the final design phase of the project.<sup>11</sup>

DPS also reviews road design plans to ensure that a project meets the County's floodplain requirements. DPS issues floodplain district permits to mitigate the impacts of road construction on floodplains.

### **3. Maryland-National Capital Park and Planning Commission**

M-NCPPC's goal in the facility planning process is to ensure that road construction projects adhere to the Council-approved Master Plan. To that end, staff from the Transportation Planning section of the County-wide Planning Division serve on the facility planning project team. In addition, one of the M-NCPPC representatives presents each project prospectus to the Planning Board at the end of phase I and explains any concerns or problems with the project. This gives the Planning Board an opportunity to provide input into a project early in the process so that DPWT has time to consider implementing the Planning Board's recommendations.

During phase II of facility planning, M-NCPPC staff review the Natural Resource Inventory/Forest Stand Delineation (NRI/FSD) report to ensure that road projects meet M-NCPPC's NRI/FSD permitting requirements. The parks section of M-NCPPC also reviews road projects that impact parkland and issue parks permits. M-NCPPC staff report that early coordination with Parks Division staff is essential to ensure that the permit will be issued without major changes during the final design process.

At the end of phase II, another M-NCPPC staff member presents the road construction project to the Planning Board under mandatory referral. DPWT considers the comments from the Board, but is not required to implement the Planning Board's recommendations. DPWT provide reasons if they do not implement the Board's recommendations. According to Executive Branch staff, DPWT normally implements the Board's recommendations.

**Montgomery County Historic Preservation Commission.** Located within M-NCPPC, the County's Historic Preservation Commission designates and protects County-designated historic properties. Early coordination with the Commission via Historic Preservation staff at M-NCPPC is needed to identify issues and mitigation actions while changes to road design can be made to the project.

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<sup>11</sup> It is also at this stage of the project that stream crossing design is finalized.

#### **4. Maryland Department of the Environment (MDE)**

MDE regulates and issues permits for activities that impact the State's waterways, wetlands, and flood plains. To obtain a permit from MDE, the County must complete a joint federal/state application to alter any floodplain, waterway, tidal or nontidal wetland. MDE forwards the County's application to its relevant divisions and to the U.S. Army Corps of Engineers. The Department advertises the project for comment and if necessary, holds informational hearings. Upon receipt of final construction plans, MDE issues a permit. In most cases, MDE's review results in an approval subject to conditions.

#### **5. U.S. Army Corps of Engineers (Corps)**

The Corps of Engineers predominately issues two types of permits for road projects that impact the aquatic environment: (1) Maryland Programmatic General Permit, and (2) Individual Permit. The majority of County road projects require a General permit. The County files joint state/federal permit applications with MDE, which are forwarded to the Corps. The Corp may also seek advice from U.S Fish and Wildlife Service and the U.S. Environmental Protection Agency. The Corps assesses the proposed impact, notifies other applicable agencies, collates comments, assigns conditions of approval, and forwards the application to MDE. Concurrent with the Corps' review, MDE reviews the application for compliance with state regulations.

#### **6. Maryland Historic Trust (MHT)**

Located within the Maryland Department of Housing and Community Development, the Maryland Historical Trust (MHT) identifies and protects the State's significant historic and cultural assets. Under historic preservation laws, MHT must review (1) projects funded by federal or state government, or (2) projects that require a federal or state permit. Upon receiving an application, MHT advises the County whether the proposed road affects any historic assets, and provides comments on ways to limit the impact of the project.

#### **7. Maryland Department of Natural Resources (DNR)**

The Maryland Department of Natural Resources (DNR) requires permits for road construction projects that affect State parks. DNR's Environmental Review Unit staff also serve as consultants on natural resources issues for the Counties, the Maryland Department of the Environment, and the U.S. Army Corps of Engineers. DNR participates in inter-agency reviews of road construction and other projects and provides input and advice about wildlife, waterways, and other natural resources.

## **8. Maryland State Highway Administration (SHA)**

The State Highway Administration (SHA) is responsible for more than 16,000 miles of interstate, primary and secondary roads, and more than 2,500 bridges in Maryland. DPWT staff coordinates with and seeks concurrence from SHA on County road projects that intersect state roads, or impact traffic signals on state roads. SHA staff review those road projects and offer input and advice as appropriate.

## **9. Utility Organizations**

DPWT must also coordinate with the utility organizations such as Verizon, Pepco, Washington Suburban Sanitary Commission, Washington Gas, and various telecommunication companies.

## IV. Analysis of the Facility Planning Process

### Highlights:

1. Interviews with staff in Montgomery County and other jurisdictions indicate that completing facility planning, or 35% of the design of a road project, before including the project in the CIP results in more reliable dollars programmed in the CIP. OLO's analysis shows that final costs for ten road projects constructed pre-facility planning were, on average, 94% higher than the initial CIP cost estimates. Only two road projects that have completed facility planning are now built. The final cost of these two projects was 31% and 24% higher than the estimate produced in facility planning.
2. At OLO's request, DPWT researched and compiled data for a sample of nine projects. The length of time to complete facility planning for the nine projects ranged from one year and one month to six years and seven months.
3. Factors that impact the length of time required to complete facility planning include:
  - The size and location of the road, including the number of properties affected;
  - Addressing concerns raised by community members, interest groups, and elected officials;
  - Addressing the requirements of multiple regulatory agencies, particularly for projects in environmentally sensitive areas;
  - Project management issues related to staffing and workload; and
  - Delays between the completion of phase I and the start of phase II.
4. Addressing community member and elected official concerns, and environmental regulations early in the facility planning process helps reduce significant road design changes and cost increases later in the process of designing and constructing a road.
5. Facility planning products have a shelf life of approximately 12 months. Fiscal constraints and the County's two year CIP can create delays between when DPWT finishes facility planning and starts final design and construction. If these budget factors delay the start of final design and construction more than 12 months, DPWT may need to complete some or most of the facility planning tasks again.

This chapter presents a three part analysis of the facility planning process:

- **Part 1** reviews previous analyses of Montgomery County's approach to facility planning, conducted by the County's Office of Management and Budget and the County Council's Management and Fiscal Policy Committee. It also includes OLO's analysis of scope and cost changes of road construction projects completed pre and post-facility planning. Part 1 also presents observations from other jurisdictions that take a different approach to funding road projects.
- **Part 2** presents OLO's analysis of the length of time to complete facility planning. It includes data provided by DPWT, and information collected through interviews with staff in DPWT, the County Council, other County departments and agencies, and other jurisdictions.
- **Part 3** describes post-facility planning issues that impact the value of facility planning products and the time it takes to complete a road construction project.

## Part 1. INTRODUCTION

The Office of Management and Budget (OMB) and the Council's Management and Fiscal Policy Committee (MFP) have studied facility planning across the County Government departments and agencies. OMB completed the first two parts of a three part study of facility planning in June 1999 and January 2001.<sup>12</sup> OMB's reports describe all types of facility planning across agencies (e.g., roads, bridges, bikeways, and facilities) and the strengths and weaknesses of the County's process to plan and budget for all capital facility needs.

OMB's study concluded that: "It is in the public interest to complete facility planning prior to programming projects in the CIP, in order to minimize cost and scope volatility, and other adverse impacts on CIP fiscal planning."<sup>13</sup> OMB recommended that the County promote the use of facility planning for all capital projects before including the projects as a stand-alone item in the CIP. The Management and Fiscal Policy (MFP) Committee concurred and recommended that funding for final design and construction of capital projects should be based on the completion of facility planning.

OLO's interviews with County staff support the OMB and the MFP Committee conclusions. Staff indicate that, before implementing facility planning, the dollars in the CIP for road construction projects changed significantly between the first year the project was funded in the CIP and the completion of construction. Staff report that prior to facility planning, actual project costs were frequently higher than estimated, forcing DPWT to request additional funds.

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<sup>12</sup> OMB does not know when the third part of the study will begin.

<sup>13</sup> Source: OMB's Facility Planning Process Study (Part II), December 15, 2000.



OLO selected and analyzed the scope and cost changes of 22 road construction projects. Ten projects were designed and constructed before DPWT implemented facility planning (listed in Table 6, page 28). The remaining 12 road projects have been through the facility planning process, and are constructed, partially constructed, or under final design (listed in Table 7, page 29).

Table 6 shows that the final costs for the ten road projects constructed pre-facility planning increased, on average, 94% above the initial estimates included in the CIP. In addition, the projects listed in Table 6 received, on average, two scope changes throughout a project's life.

Table 7 shows that only two road projects that have completed facility planning are now built. These are Robey Rd and Schaeffer Rd. The final cost of these two projects was 31% and 24% higher than the estimate produced in facility planning, and both projects experienced minimal scope changes.

The remaining ten road projects listed in Table 7 are in various stages of final design and/or construction. The current cost increases range from 3% to 91% above initial estimates produced at the end of facility planning. The costs of these ten projects may continue to change as DPWT completes design and construction.

The data listed in Tables 6 and 7 suggest that road projects that have completed facility planning experience less scope and cost volatility. However, data on the final cost of more projects is necessary to draw more substantive conclusions about the accuracy of the cost estimates developed through facility planning.

**TABLE 6: ROAD CONSTRUCTION PROJECTS: SCOPE & COST CHANGES PRE FACILITY PLANNING**

Road Construction Completed	# of Scope Changes	Initial Cost Estimate (\$ in 000's)	Final Cost Estimate (\$ in 000's)	% Cost Change
<b>Large Projects (&gt; \$10 Million)</b>				
East Randolph Widening – Phase II	3	\$5,721	\$11,991	110%
MD 118 Relocated	3	\$18,691	\$36,385	95%
Father Hurley Blvd. Extended	1	\$21,118	\$23,759	13%
Norbeck Rd. Extended	2	\$18,684	\$28,158	51%
<b>Medium Size Projects (\$5 Million to \$10 Million)</b>				
East Randolph – Phase I	2	\$1,523	\$5,314	249%
Middlebrook Rd – Great Seneca to MD 355	4	\$3,591	\$9,004	151%
Fairland Rd	1	\$2,689	\$6,046	125%
<b>Small Projects (&lt; \$5 Million)</b>				
Democracy Blvd - Extension	1	\$1,922	\$4,151	116%
Fairland Rd, East	1	\$3,482	\$4,395	26%
Glenallan Ave	1	\$1,424	\$1,535	8%
<b>Average</b>	<b>2</b>			<b>94%</b>

Source: OLO December, 2002

**TABLE 7: ROAD CONSTRUCTION PROJECTS: SCOPE & COST CHANGES POST FACILITY PLANNING**

	# of Scope Changes	Initial Cost Estimate (\$ in 000's)	Current Cost Estimate (\$ in 000's)	% Cost Change
<b>Road Construction Completed</b>				
<b>Medium Size Projects (\$5 Million to \$10 Million)</b>				
Robey Rd	0	\$6,915	\$9,050	31%
<b>Small Projects (&lt; \$5 Million)</b>				
Schaeffer Rd.	1	\$2,660	\$3,290	24%
<b>Road Construction Not Completed*</b>				
<b>Large Projects (&gt; \$10 Million)</b>				
Montrose Parkway West	0	\$57,600	\$61,856	7%
<b>Medium Size Projects (\$5 Million to \$10 Million)</b>				
Travilah Rd.	0	\$8,260	\$9,000	9%
Woodfield Rd. Extended	1	\$8,200	\$8,770	7%
Briggs Chaney Rd. Widening	0	\$6,608	\$6,800	3%
Germantown Rd. Extended**	1	\$4,628	\$6,302	36%
<b>Small Projects (&lt; \$5 Million)</b>				
Shady Grove – Six Lanes**	1	\$4,250	\$4,822	13%
Muncaster Rd. Extended	1	\$1,510	\$2,880	91%
Old Columbia Pike I & II	1	\$2,253	\$2,810	25%
Bordly Dr. Extended	0	\$1,671	\$2,555	53%
Valley Park Drive	1	\$1,745	\$3,000	72%
<b>Average</b>	<b>&lt;1</b>			<b>32%</b>

Source: Source OLO December, 2002

\* The percentage cost change reported may not represent the final percentage cost change of the project as these projects are not yet completed.

\*\* Project completed through the Fast Track facility planning process (see page 17 for details).

**Observations from Other Jurisdictions.** OLO's comparative research indicates that there are three general approaches to funding a road construction project in the capital budget. The approaches differ in terms of when the jurisdictions include funds for the project in the capital budget.

In the first approach, jurisdictions include funds in the capital budget before completing any design of the project. The jurisdictions include a cursory estimate of the project cost in the budget based on historical information, experience, and a standard cost per mile of road. Baltimore County, Maryland and King County, Washington use this approach to fund road projects. They invest approximately three months in developing initial cost estimates to enter into the CIP.

In the second approach, jurisdictions complete approximately 20% of the design of the project before developing a cost estimate and including funds in the capital budget. Pima County,<sup>14</sup> Arizona and Howard County, Maryland use this approach, and take 6-18 months to develop initial cost estimates.

The third approach bases cost estimates on the completion of 35% of the design of the project. Discussions with industry professionals indicate that a reliable cost estimate is available with 35% of the design completed. Montgomery, Maricopa, and Hennepin Counties use this approach. These counties invest, on average, 2-3 years to complete 35% of the design, before including funds in the capital budget for the project.

While the first two approaches allow counties to include dollars in the budget faster, they report that their initial cost estimates are usually unreliable. This forces these jurisdictions to adjust estimates at various stages of design and construction. Representatives from these counties believe that basing cost estimates on 35% road design is more effective at establishing a reliable cost estimate for inclusion in the budget.

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<sup>14</sup> OLO learned that Pima County used to complete 35% of project design before including projects in the budget. A significant increase in funding for road construction led Pima County to reduce road design to 20% design before including the project in the capital budget. The goal of this change was to get projects into the budget faster.

## **Part 2. The Length of the Facility Planning Process**

### **A. Introduction**

The length of time required to complete facility planning varies from one road project to the next. In general, longer roads with more lanes, and roads in high density areas take longer to design. OLO's research identified additional factors that tend to lengthen the time required to complete facility planning, including:

- Community member, interest group, and elected official involvement,
- Regulatory agency review and approval (particularly projects in environmentally sensitive areas), and
- Staffing and workload issues.

This part of the report describes these factors and presents data that DPWT provided on the length of time to complete nine facility planning projects.

### **B. Factors that Impact the Length of the Process**

#### **1. Community Member, Interest Group, and Elected Official Involvement**

DPWT designed the facility planning process to ensure that community members impacted by road construction projects have the opportunity to provide input. The phase I and phase II project managers estimate that they spend 20% to 50% of their time on a facility planning project managing community member involvement. Project managers receive and respond to many requests for information from community members. For example, when questions and concerns arise at a public meeting about a facility planning project, DPWT staff prepare a report that responds to every item. Project managers also receive and respond to phone and e-mail requests for information.

Community members may also get involved in the facility planning process by seeking elected officials' assistance with questions and concerns about a project. This may lead an elected official to request additional information, research, or other work on a project. DPWT staff report that in some cases the request can involve direct opposition by the elected official to the project. Individuals involved in the facility planning process report that community member and elected official involvement can also lead to changes in project scope that create additional work and delays. Staff indicated that these inquiries are taken very seriously, and require time to research and respond. They also noted that it is more efficient to address community member and elected official concerns as early as possible in the process of designing and constructing a road.

**Other Jurisdictions' Observations.** Staff from the jurisdictions interviewed agreed that community members are interested in activities that impact their community, especially road construction. All the counties consulted formally seek community input on four to five occasions throughout the design of the project in public meetings, open houses, and site visits. In addition, King County and Hennepin County establish citizen advisory committees for each road project that meet on a regular basis to provide input into the road project. King and Hennepin Counties share the preliminary road design with the advisory committee to get initial feedback before sharing it with the whole community. Montgomery County used this approach the Travilah Rd, MD 118, Norbeck Rd Extended, and Montrose Parkway (West) projects.

The Maryland State Highway Administration (SHA) staff report that the agency holds a public workshop approximately one third of the way through project planning (comparable to Montgomery County's phase I) and a public hearing at the end of planning (comparable to phase II). SHA staff report that the involvement in the public hearing at the end of project planning is high and contributes to delays because it is the public's last opportunity to provide input. SHA staff indicated that it is more efficient to hold public meeting and deal with delays early in the process of planning and designing roads.

Most of the interviewees agreed that no matter how many times you seek community input, community members become more vocal and anxious the closer you get to final design and construction. OLO also heard that community members opposed to the project are more likely to approach elected officials with their concerns or request formal opposition as projects get closer to construction.

## **2. Regulatory Agency Review and Approval**

County road construction projects impact the environment and must conform to environmental regulatory requirements from the County Department of Permitting Services, M-NCPPC, the Maryland Department of the Environment, Maryland Historic Trust, and the U.S. Army Corps of Engineers. DPWT shares information about road construction projects with these regulatory agencies during phase II of facility planning.

Individuals interviewed by OLO consistently reported that this task is very time consuming and can cause delays. Regulatory agency involvement takes time because:

- **DPWT must coordinate agreement among multiple County, State and Federal regulatory agencies** - Interviews with individuals involved in the facility planning process revealed that the regulatory agencies often have differing standards and requirements for road design and construction. Consequently, DPWT invests time brokering agreements and compromises among the regulatory bodies.
- **Obtaining regulatory agency approval of documents and plans often requires multiple reviews and edits** - DPWT reports that it can take multiple staff and consultant revisions, and regulatory agency reviews before the regulatory agency signs off on the preliminary design of a road construction project. This process is even more time consuming when the parties disagree on the planning or engineering concepts behind the project.

DPWT acquires formal regulatory agency approval and permits during final design. However, the Department believes that involvement of the regulatory agencies during facility planning reduces problems and saves time later in the process of road design and construction. Conducting preliminary agency review during facility planning gives DPWT time to come to consensus with agencies early in the design process when it is easier to adjust plans to accommodate regulations.

**Regulatory Agency Observations.** OLO interviewed staff from the regulatory agencies involved in Montgomery County’s facility planning process. All of the agency staff interviewed agreed that regulatory review and approval takes time, and requires significant coordination on the part of DPWT project managers. Regulatory agency staff also see value in DPWT obtaining regulatory input early in the road design process.

M-NCPPC staff explained that it consistently takes significant time for M-NCPPC and DPWT to come to agreement on issues associated with pedestrian access, bikeways, and landscaping. However, M-NCPPC staff find value in taking time to discuss these issues and come to agreement. They also report that failing to do so could sacrifice quality and lead to bigger problems during final design. They believe that the current process results in a balanced, well thought out project.

All of the staff interviewed agreed that the Interagency Wetlands Committee (see page 21) effectively facilitates understanding of environmental regulatory requirements and resolution of conflicting issues between the agencies. It has also improved communication among the regulatory agencies.

Regulatory agency staff provided the following suggestions for improving the facility planning process:

<b>Agency/Department</b>	<b>Suggestion(s)</b>
U.S Army Corp of Engineers	<ul style="list-style-type: none"> <li>● Involve regulatory agencies during phase I of the process;</li> <li>● Hire consultants that are experienced in delineating wetland areas;</li> <li>● Ensure permit applications submitted to regulatory agencies are complete; and</li> <li>● Have the County serve as the primary applicant for all road projects, even if developers are responsible for building sections of the proposed road.<sup>15</sup></li> </ul>
Montgomery County’s Department of Permitting Services M-NCPPC	<ul style="list-style-type: none"> <li>● Reduce the need for multiple reviews by ensuring that consultants make all of the regulatory agencies’ suggested changes.</li> <li>● Update the County’s Design Standards to reflect current County practices and objectives.</li> </ul>

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<sup>15</sup> DPWT do not agree with this suggestion because DPWT and the developer’s project schedule may not coincide.

**Other Jurisdictions' Observations.** Representatives from the various jurisdictions interviewed agreed that regulatory involvement can cause significant delays, especially when a road impacts environmentally sensitive areas. They also agreed that early intervention by regulatory agencies can eliminate the need for costly and time consuming changes during final design.

The State Highways Administration (SHA) uses a very collaborative process in planning road construction projects. The SHA process includes periodic concurrence points at which SHA establishes buy-in into the project from the regulatory agencies, public, and local governments' elected officials. While periodic concurrence takes time and can delay the process, it saves time in the long run by maintaining agreement on project scope and clarifying regulatory requirements.

### **3. Staffing and Workload Issues**

The total facility planning workload impacts the time it takes to complete any individual facility planning project. DPWT reports that two planners will each manage 8 projects through phase I of facility planning during FY 04. According to DPWT, a ratio of four projects per planner is a reasonable workload.

The facility planning process relies on the involvement of staff throughout DPWT and other agencies. The workloads and competing priorities of all these players impact the timeliness of the process. For example, the facility planning project team includes a representative from DPWT's Traffic Division and Transit Division, M-NCPPC, and the State Highway Administration. DPWT is also dependent on input from state and County regulatory agencies. The Division of Engineering Services overall workload impacts timing as well, because facility planning projects compete with DPWT's other engineering design commitments.

High workloads stress the need to establish priorities and focus the attention of everyone involved on completing priority projects. DPWT staff report that a facility planning project that everyone recognizes as a priority of the Executive and Council gets done in a more timely manner than a project that is not recognized as a priority. According to DPWT staff, the Department is placing this priority on the Go Montgomery! facility planning projects.

**Other Jurisdictions' Observations.** OLO's interviews found that too many projects in design at once can cause delays. Pima and King Counties try to manage their workload by allocating the "right" number of projects to each project manager. However, all the interviewees agreed that determining the most efficient ratio of projects to project managers is difficult because every project involves a different amount of work.

To help manage workload, Maricopa County uses an automated system to track the hours spent, percentage of tasks completed, and the status of each project. In addition, Maricopa's project managers' performance rating is directly linked to the number of



projects designed. When fiscally possible, Maricopa provides monetary incentives for its highest performing staff. Similar to Montgomery County, Maricopa County also expedites the design process by pre-selecting a panel of four to five consultants that are available when the County needs them.

## **C. Data on the Length of the Process**

### **1. Introduction**

OLO used data provided by DPWT to begin to analyze the length of the facility planning process. The information is useful but the small sample (nine projects) provides a very limited picture of the length of time it takes to complete facility planning. It does not reflect DPWT's experience with all facility planning projects.

### **2. Data Analysis**

The data provided by DPWT on the length of time to complete facility planning is summarized in Table 8 (page 36). The first four projects in the table were completed through a Fast Track process that condenses phase I and moves immediately into phase II. (The Fast Track process is described beginning on page 17.) The next three projects went through both phases of facility planning. The last two projects in the table completed phase I and are currently in phase II.

**Phase I.** For the five projects that completed phase I, the length of time ranged from one year to five years and five months. DPWT reports that the five years and five months required to complete phase I of Montrose Parkway West was due to the high number of road design alternatives to research and develop, involvement of multiple consultants, community member and elected official involvement, and coordination with the City of Rockville.

The last two projects listed completed phase I of facility planning faster than previous projects, in one year and one year and four months. Phase I for those two projects took place after DPWT moved the responsibility for phase I from the Office of Project Development to the Division of Engineering Services.<sup>16</sup> DPWT staff report that the new organizational structure improves the facility planning process by consolidating accountability under one Division and improving communication and coordination among phase I and phase II staff. DPWT expects projects to continue to proceed more quickly through facility planning under the new organization.

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<sup>16</sup> Before FY 99, DPWT assigned the responsibility for phase I of facility planning to the Office of Project Development (OPD). In FY 99, DPWT abolished the OPD and assigned the responsibility of both phases I & II of the facility planning process to the Division of Engineering Services.

**TABLE 8: LENGTH OF TIME TO COMPLETE FACILITY PLANNING FOR SELECTED PROJECTS**

<b>Facility Planning Projects</b>	<b>Time Taken to Complete Phase 1</b>	<b>Time Elapsed Between Phase 1 &amp; 2</b>	<b>Time Taken to Complete Phase 2</b>	<b>Total Time to Complete Facility Planning</b>
<b>Fast Track Projects*</b>				
Shady Grove Noise Study	NA	NA	1 year, 1 month	1 year, 1 month
Stringtown West	NA	NA	1 year, 1 month	1 year, 1 month
Citadel Ave. Extended	NA	NA	1 year, 5 months	1 year, 5 months
Travilah Rd.	NA	NA	3 years, 1 month	3 years, 1 month
<b>Facility Planning Completed</b>				
Fairland Rd.	2 years	1 month	5 months	2 years, 6 months
Woodfield Rd.	1 year, 10 months	6 months	3 years, 3 months	5 years, 7 months
Montrose Parkway West	5 years, 5 months	4 months	10 months	6 years, 7 months
<b>Facility Planning Incomplete**</b>				
Burtonsville Access Rd.	1 year	NA	Not Yet Completed	
Father Hurley Blvd.	1 year, 4 months	NA	Not Yet Completed	

Source: DPWT, October, 2002.

\* The Fast Track facility planning process condenses phase 1 and moves directly to phase 2. Typical candidates for the Fast Track process require minimal conceptual planning because the location and design are straight forward (see page 17 for further details).

\*\*Phase 1 of facility planning for these projects was completed after the DPWT Director shifted the responsibility from the Office of Planning & Development to the Division of Engineering Services.

**Phase II.** For the seven projects that completed phase II, the length of time ranged from five months to three years and three months. DPWT reports that the two projects that took over three years to complete phase II were delayed by the transition between the contractor hired for phase I and the contractor hired for phase II.

**Delays Between Phases.** Table 8 also shows a gap between the completion of phase I and the start of phase II for the three projects. The delays were one month, four months, and six months. According to DPWT staff, in all three cases, this delay was primarily due to a change in contractors between phase I and phase II. Department staff report that it takes time to negotiate agreements with a new firm and for the new firm to familiarize itself with the project. The previous organization of the process that split the responsibility for phase I and II between the Office of Project Development (now abolished) and the Division of Engineering Services could have also contributed to delays.

When facility planning began there was a desire to have different consultants involved in the two phases of the process. The Department now tries to use the same contractors for phases I & II to provide continuity and avoid delays between the phases. DPWT staff report currently using the same contractor for phase I & II for 70-80% of facility planning projects. DPWT also facilitates continuity between phase I & II by assigning the phase II project manager to serve on the phase I project team, and the phase I project manager to serve on the phase II project team.

### **Part 3. Post Facility Planning Issues**

According to DPWT, facility planning products have a shelf life of approximately 12 months. Fiscal constraints and the County's two year CIP can create delays between when DPWT finishes facility planning and starts final design and construction. If these budget factors delay the start of final design and construction more than 12 months, DPWT may need to complete some or most of the facility planning tasks again. This can significantly impact the length of time required to complete a road construction project.

#### **A. Fiscal Constraints**

Due to fiscal constraints, the County cannot always afford to include dollars for a new road construction project in the first year it appears in the CIP. As a result, the County Executive and the County Council may not include dollars in the CIP for final design and construction until the out years of the CIP or a few years after facility planning is completed. This is problematic because facility planning products have a limited shelf life. Also, the same DPWT staff and contractors that completed facility planning may not still be available to complete final design.

The Management and Fiscal Policy Committee addressed this issue in its previous analysis of facility planning. The Committee discussed and agreed that the ideal timing for a project's final design is immediately after facility planning is completed. The Committee recognized, however, that initiating final design immediately after facility planning is virtually impossible because of the limited funding capacity in the first three years of the six year CIP.

**Other Jurisdictions' Observations.** All interviewees stated that design plans have a shelf life of approximately 12 months, and that counties should budget road projects with this restriction in mind. Interviewees recognized that fiscal constraints force jurisdictions to prioritize road construction projects. King County for example, utilizes a sophisticated road project prioritization process, in which staff assess candidate road projects on an extensive number of criteria. Only the highest ranked candidates move forward for possible funding.

### **B. Two-Year Capital Improvements Program**

As required by the County's Charter, the Executive submits a recommended CIP every two years for Council review and approval. DPWT tries to schedule facility planning projects to be completed just before the County Executive prepares the next recommended CIP. However, if DPWT completes facility planning before or after the Executive submits the CIP to the Council, the project cannot compete for funding for final design and construction until the Executive's next CIP submission.

*If the delay between completion of facility planning and the receipt of funding to start final design and construction exceeds 12 months, the work completed in facility planning may be outdated. The delay may also sacrifice efficiency by forcing DPWT to assign different DPWT staff and contractors to complete final design, bid documentation, and construction.*

In FY 03, the Go Montgomery! initiative avoided the delay associated with the two year CIP. Under Go Montgomery!, the Executive submitted projects that had completed facility planning to the Council as a supplemental appropriation in the fall of 2002. The Council was able to approve funding for final design and construction of the projects immediately, instead of waiting for the Executive's FY 05-10 Recommended CIP.

## V. FINDINGS

### Summary of Findings

#### BACKGROUND

**Finding #1:** Transportation projects account for approximately 18% or \$397 million of the FY 03–08 Capital Improvements Program (CIP). Road construction and improvement projects account for 6% or \$131 million of the County’s total FY 03-08 CIP. The Go Montgomery! initiative proposes an additional \$46 million in capital funds for transportation over the next six years.

**Finding #2:** Staff in the Department of Public Works and Transportation (DPWT) conduct facility planning for each road construction project, before including the project as a stand-alone item in the CIP. Facility planning represents the first 35% of the design of a road project and provides decision-makers with:

- An understanding of the purpose & need for the road project;
- A clear definition of the scope of the project and its impacts; and
- A reliable cost estimate.

**Finding #3:** Facility planning for road construction projects represents one step in the process of designing, funding, and constructing a road in Montgomery County.

**Finding #4:** In FY 03, the Council appropriated \$1.6 million of current general revenue for facility planning for road construction projects. The Facility Planning-Transportation Project Description Form (PDF) lists 11 road projects that will begin facility planning by the end of FY 04.

#### THE FACILITY PLANNING PROCESS

**Finding #5:** Phase I involves identifying the purpose and need of the project, collecting background data, developing concept plans of various alternative alignments, and developing a project prospectus that recommends an alignment. Phase II involves preliminary engineering, preliminary regulatory agency review, and the development of preliminary engineering plans, project schedule, and cost estimate. For less complicated projects, DPWT uses a Fast Track process that condenses phase I and moves immediately into phase II.

**Finding #6:** DPWT staff currently conducts facility planning in-house for approximately 10% of the projects. The Department contracts out the other 90% of facility planning projects, with DPWT staff managing the contracts.

(Summary of Findings continued...)

## **ANALYSIS OF THE FACILITY PLANNING PROCESS**

**Finding #7:** Analysis of ten road projects constructed pre-facility planning showed that final costs were, on average, 94% higher than the initial CIP estimates. Only two road projects that have completed facility planning are now built. The final cost of these two projects was 31% and 24% higher than the estimate produced in facility planning. Data compiled by DPWT showed that the length of time to complete facility planning for a sample of nine projects ranged from one year and one month to six years and seven months.

**Finding #8:** Factors that impact the length of time required to complete facility planning include:

- The size and location of the road, including the number of properties affected;
- Addressing concerns raised by community members, interest groups, and elected officials;
- Addressing the requirements of multiple regulatory agencies, particularly in environmentally sensitive areas;
- Project management issues related to staffing and workload; and
- Delays between the completion of phase I and the start of phase II.

**Finding #9:** Obtaining input and support of elected officials, community members, and regulatory agencies early in the facility planning process helps to reduce significant changes to the project scope and avoids cost increases later in the process of designing and constructing the road.

## **POST FACILITY PLANNING ISSUES**

**Finding #10:** Facility planning products have a shelf life of approximately 12 months. Fiscal constraints and the County's two year CIP can create delays between when DPWT finishes facility planning and starts final design and construction. If the delay is longer than 12 months, DPWT may need to complete some or most of the facility planning tasks again.

## BACKGROUND

**Finding #1: Transportation projects account for approximately 18% or \$397 million of the FY 03–08 Capital Improvements Program (CIP). Road construction and improvement projects account for 6% or \$131 million of the County’s total FY 03-08 CIP. The Go Montgomery! initiative proposes an additional \$46 million in capital funds for transportation over the next six years.**

While mass transit, pedestrian, and bicycle transportation options remain important, cars are the most common form of transport in the County. This has made constructing and improving roads a County priority.

Funding for transportation projects (e.g., road and bridge construction, mass transit, parking facilities) peaked in the late 1980s and early 1990s, representing 30%-35% of the CIP.<sup>17</sup> Transportation projects account for approximately 18% or \$397 million of the County’s FY 03-08 CIP. Approximately \$131 million of the FY 03-08 CIP dollars fund road construction and improvement projects.

The County Executive’s Go Montgomery! initiative has made transportation an even higher portion of the County’s capital spending. The Go Montgomery! initiative proposes approximately \$4 million in appropriation authority for FY 03, and another \$46 million over the next six years.<sup>18</sup> The Executive’s proposal allocates approximately 43% of the Go Montgomery! funds to road and other congestion relief infrastructure projects (e.g., intersection improvements).

**Finding #2: Staff in the Department of Public Works and Transportation (DPWT) conduct facility planning for each road construction project, before including the project as a stand-alone item in the CIP. Facility planning represents the first 35% of the design of a road project and provides decision-makers with:**

- **An understanding of the purpose & need for the road project;**
- **A clear definition of the scope of the project and its impacts; and**
- **A reliable cost estimate.**

The Department of Public Works and Transportation (DPWT) plans and implements the transportation capital program for Montgomery County. DPWT’s Division of Engineering Services manages facility planning for road construction projects.<sup>19</sup>

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<sup>17</sup> Source: County Council Packet (February 26, 2002).

<sup>18</sup> Source: County Council’s Transportation and Environment Committee packet (October 28, 2002).

<sup>19</sup> Montgomery County also conducts facility planning for other capital projects, such as bridges, parking garages, pedestrian/bikeways, mass transit projects, and County Government facilities (e.g., recreation centers, libraries). This OLO study only addresses facility planning for road construction projects.

Facility planning represents the first 35% of the design of a road construction project, and is conducted before including the project as a stand-alone item in the Capital Improvements Program (CIP). The goal of facility planning is to provide decision-makers with better information for deciding whether to fund a project in the CIP, and to provide more reliable project cost estimates to include in the CIP.

Prior to instituting facility planning in FY 93, Montgomery County included funding for road construction projects in the CIP before conducting any design of the road. As a result, the dollars in the CIP were based on limited information about the scope of a project, its impacts, and its cost. After road design began, more information became available about the project that often changed the scope of the project and increased its cost. Interviews with individuals involved in the process indicate that project costs often increased significantly during the course of road design and construction, prompting DPWT to request supplemental appropriations.

**Finding #3: Facility planning for road construction projects represents one step in the process of designing, funding, and constructing a road in Montgomery County.**

Facility planning represents one of six steps in the process of designing, funding and building a road:

- Step 1: Identify a potential road construction project;
- Step 2: Obtain appropriation of funds to complete facility planning;
- Step 3: Complete facility planning (35% of the design of the road project);**
- Step 4: Obtain appropriation of CIP funds for the remaining 65% of the design of the project, land acquisition, and road construction;
- Step 5: Complete the remaining 65% of the design of the road project and acquire the land; and
- Step 6: Construct the road.

DPWT, M-NCPPC, Councilmembers, and Citizen Advisory Boards identify potential road projects. Road project ideas come from the County's Master Plan, the Annual Growth Policy, travel and accident data, planned development, and community needs. The County Government prioritizes the potential road projects and produces a Facility Planning – Transportation Project Description Form (PDF) that lists the projects that will begin facility planning during the next two years. The number of facility planning projects included in the PDF is partially determined by the amount of current revenue available. The PDF includes an expenditure and funding schedule based on estimates of the cost to complete facility planning for each individual project.



After completing facility planning, or the first 35% of the design of the road project, DPWT selects projects to include as stand-alone road construction projects in the Executive's Recommended CIP. DPWT staff develops a PDF for each project that includes cost estimates for the remaining 65% of the design of the road (referred to as final design), acquisition of necessary land, and road construction. After the Council reviews and approves the CIP, DPWT finishes designing the road, acquires the necessary land, and constructs the road.

**Finding #4: In FY 03, the Council appropriated approximately \$1.6 million of current general revenue for facility planning for road projects. The Facility Planning-Transportation Project Description Form (PDF) lists 11 road construction projects that will begin facility planning by the end of FY 04.**

The Council appropriated \$1.6 million of general revenue in FY 03 for facility planning. The Facility Planning – Transportation PDF from the Approved FY 03-08 CIP lists 11 facility planning studies that DPWT will begin during FY 03 and 04. The approved PDF states that DPWT will begin facility planning for five “other candidate projects” as time permits. A copy of the PDF is attached at © 11.

Eleven of the 16 projects listed in the current Facility Planning – Transportation PDF are included in the Executive's Go Montgomery! initiative. DPWT reports that the Go Montgomery! projects will be the Department's priority projects over the next several years.

## THE FACILITY PLANNING PROCESS

**Finding #5: Phase I involves identifying the purpose and need of the project, collecting background data, developing concept plans of various alternative alignments, and developing a project prospectus that recommends an alignment. Phase II involves preliminary engineering, preliminary regulatory agency review, and the development of preliminary engineering plans, a project schedule, and a cost estimate. For less complicated projects, DPWT uses a Fast Track process that condenses phase I and moves immediately into phase II.**

Facility planning consists of two phases. At the end of phase I, approximately 10% of the project's design is complete. At the end of phase II, 35% of the design is complete. Straight forward projects of limited scope and community or environmental impact go through a Fast Track process that condenses phase I and moves immediately into phase II.

DPWT staff estimate that phase I of facility planning takes 12 to 18 months to complete and Phase II takes 12 to 24 months. DPWT staff estimate that the Fast Track process takes approximately 12 to 18 months to complete.

DPWT seeks public input for every facility planning project. DPWT staff holds two public meetings during phase I and another during phase II. DPWT staff also holds information meetings with small public groups (e.g., homeowners association officers), distributes newsletters about projects, and responds to individuals' and elected officials' questions.

DPWT invests significant time during the facility planning process coordinating with County, State, and Federal regulatory departments and agencies regarding the impacts of road projects on the environment. DPWT shares information about road projects with the departments and agencies during phase II of facility planning for guidance on designing projects to meet regulatory requirements (e.g., the need for stormwater management). This includes preparing reports for regulatory agency review (e.g., Hydrologic and Hydraulic Report, Stormwater Management Report). The departments and agencies involved include:

- Montgomery County Department of Permitting Services;
- Maryland-National Capital Park and Planning Commission;
- Maryland Department of the Environment;
- Maryland Department of Natural Resources;
- Maryland State Highway Administration;
- Maryland Historic Trust; and
- U.S. Army Corps of Engineers.

DPWT must also coordinate with the utilities, such as Verizon, Pepco, Washington Suburban Sanitary Commission, Washington Gas, and telecommunication companies.

**Finding #6: DPWT staff currently conducts facility planning in-house for approximately 10% of the projects. The Department contracts out the other 90% of facility planning projects, with DPWT staff managing the contracts.**

DPWT currently contracts out approximately 90% of the facility planning projects. DPWT transportation planners and engineers serve as project managers. They manage the consultant contracts, facilitate public input, and lead the project team. The project team includes DPWT (Engineering Services Division, Traffic Division, and Transit Division), M-NCPPC, and State Highway Administration representatives. Representing their respective department or agency, the team members provide input on the project and review work completed by the consultants. DPWT estimates that team members devote approximately five to ten hours per month to each facility planning project.

## ANALYSIS OF THE FACILITY PLANNING PROCESS

**Finding #7. Analysis of ten road projects constructed pre-facility planning showed that final costs were, on average, 94% higher than the initial CIP estimates. Only two road projects that have completed facility planning are now built. The final cost of these two projects was 31% and 24% higher than the estimate produced in facility planning. Data compiled by DPWT showed that the length of time to complete facility planning for a sample of nine projects ranged from one year and one month to six years and seven months.**

Comprehensive data about the facility planning process is not currently compiled. As a result, most of the information reported about the process is anecdotal and/or based on general impressions of individuals involved in the process. In addition, data are not consistently available to use as a baseline against which to compare future performance.

Individuals involved in the facility planning process report that the process produces more reliable cost estimates for inclusion in the CIP. OLO's analysis of ten road projects constructed pre-facility planning showed that final costs were, on average, 94% higher than the initial CIP estimates. Only two road projects that have completed facility planning are now built. The final cost of these two projects was 31% and 24% higher than the estimate produced in facility planning. Data on the final cost of more projects that have completed facility planning is necessary to draw more substantive conclusions about the accuracy of the cost estimates developed through facility planning.

OLO used data compiled by DPWT staff to begin to analyze the length of the process. The length of the facility planning process for a sample of nine projects ranged from one year and one month to six years and seven months. In sum:

- The length of phase I of the process ranged from one year to five years and five months.<sup>20</sup>
- The length of phase II of the process ranged from five months to three years and three months.

The information provides a limited picture of the length of time it takes DPWT to complete facility planning, and do not reflect DPWT's experience with all facility planning projects.

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<sup>20</sup> DPWT finished Phase I faster for the two projects completed after DPWT moved the responsibility from the Office Planning to the Engineering Services Division. DPWT staff report that the new organizational structure improves the facility planning process by consolidating accountability under one Division and improving communication and coordination among phase I and phase II staff. DPWT expects projects to continue to proceed more quickly through phase I under the new organization.

**Finding #8: Factors that impact the length of time required to complete facility planning include:**

- **The size and location of the road, including the number of properties affected;**
- **Addressing concerns raised by community members, interest groups, and elected officials;**
- **Addressing the requirements of multiple regulatory agencies, particularly in environmentally sensitive areas;**
- **Project management issues related to staffing and workload; and**
- **Delays between the completion of phase I and the start of phase II.**

The length of time required to complete facility planning varies from one road project to the next. In general, longer roads with more lanes, and roads in high density areas take longer to plan and design. Additional factors that typically lengthen the time required to complete facility planning are described below.

**Community member, interest group, and elected official involvement.** Involving community members in the facility planning process takes a lot of time. Project managers respond to many requests for information and schedule at least three public meetings for each project. Project managers estimate that they spend 20%-50% of their time facilitating public input and addressing community member concerns.

Community members and interest groups may also get involved in the facility planning process by seeking Councilmember assistance with questions and concerns about a project. This may lead a Councilmember to request additional information, research, or other work on a project. Individuals involved in the facility planning process report that community member and elected official involvement can also lead to changes in project scope that create the need for additional research and design. Staff indicated that these inquiries are taken very seriously, and require time to research and respond.

**Regulatory agency review and approval.** County road construction projects impact the environment and must conform with environmental regulatory requirements from the County Department of Permitting Services, M-NCPPC, the Maryland Department of the Environment, Maryland Historic Trust, and the U.S. Army Corps of Engineers.

Regulatory agency involvement takes time because:

- DPWT must coordinate agreement among multiple County, State and Federal regulatory agencies; and
- Obtaining regulatory agency approval of documents and plans often requires multiple reviews and edits.

In 1995, DPWT initiated the process that led to the establishment of the Interagency Wetlands Committee. The Committee brings together representatives from the regulatory agencies, and facilitates coordination and communication among the agencies.

M-NCPPC coordinates with DPWT throughout the facility planning process on environmental and other issues. M-NCPPC staff stress the value of taking time to discuss issues (e.g., pedestrian access, bikeways, landscaping) and come to agreement. They noted that investing this time during facility planning contributes to the quality of projects and avoids problems later.

**Staffing and workload issues.** The number of projects in facility planning and the total workload of DPWT's Engineering Services Division impact the timing of the facility planning process. Each facility planning project competes with the other facility planning projects, as well as the other Engineering Services tasks. The workloads and competing priorities of other actors involved in the process (e.g., staff from regulatory departments and agencies) also impact timeliness.

**Delays between phases.** Data on the length of the facility planning process showed some delays between the completion of phase I and the start of phase II. According to DPWT staff, the delays primarily result from changing contractors and/or DPWT staff assigned to the project between phases I & II. The Department has begun to address this issue.

**Finding #9. Obtaining input and support of elected officials, community members, and regulatory agencies early in the facility planning process helps to reduce significant changes to the project scope and avoids cost increases later in the process of designing and constructing the road.**

Individuals involved in the facility planning process consistently reported the importance of securing input and preliminary support of elected officials, community members, and regulatory agencies as early as possible in the facility planning process. If DPWT understands community members' and elected officials' needs and regulatory requirements early in the process, the Department can incorporate that information into the early stages of the design of a road project. As DPWT completes more of the design of a project it becomes more difficult, time consuming, and expensive to make changes that incorporate feedback from regulatory agencies, community members and elected officials. To facilitate this type of early input, M-NCPPC staff currently present each facility planning project to the Planning Board at the end of phase I for review and comment.

## POST FACILITY PLANNING ISSUES

**Finding #10: Facility planning products have a shelf life of approximately 12 months. Fiscal constraints and the County's two year CIP can create delays between when DPWT finishes facility planning and starts final design and construction. If the delay is longer than 12 months, DPWT may need to complete some or most of the facility planning tasks again.**

Due to fiscal constraints, the County cannot always afford to include funding for a new road construction project in the CIP immediately after completing facility planning. Funds may not be included in the CIP for final design and construction until three or four years into the current CIP.

The two-year CIP creates a similar delay because a project that completes facility planning in the off year of the CIP cannot compete for funds for final design and construction until the Executive submits the next recommended CIP. To avoid this problem, DPWT tries to schedule facility planning projects to be completed just before the County Executive submits the next CIP. However, this scheduling could delay the start of facility planning projects.

The delay created by these two budget issues is problematic because facility planning products have a shelf life of approximately 12 months. If the delay between the completion of facility planning and the start of final design and construction is more than 12 months, DPWT may need to complete some or most of the facility planning tasks again.

The Management and Fiscal Policy Committee addressed this issue in its previous analysis of facility planning. The Committee discussed and agreed that the ideal timing for a project's final design is immediately after facility planning is completed. The Committee recognized, however, that limited funding capacity in the first three years of the six year CIP makes it difficult to fund final design and construction immediately after facility planning.

In FY 03, the Go Montgomery! initiative avoided the delay associated with the two year CIP. Under Go Montgomery!, the Executive submitted projects that had completed facility planning to the Council as a supplemental appropriation in the fall of 2002. The Council was able to approve funding for final design and construction of the projects immediately, instead of waiting for the Executive's FY 05-10 Recommended CIP.

## VI. RECOMMENDATIONS

### Summary of Recommendations

**Recommendation #1:** To improve the efficiency of the facility planning process, DPWT should eliminate the delays between the completion of phase I and the start of phase II of facility planning.

**Recommendation #2:** To facilitate early input and support of decision-makers, DPWT should consistently request reviews of selected facility planning projects at the completion of phase I by:

- The Interagency Wetlands Committee, and
- The Council's Transportation and Environment Committee.

**Recommendation #3.** To support comprehensive analysis of the facility planning process, the County Council should request that DPWT compile and report data on:

- The length of time to complete the facility planning process and adherence to project schedules;
- The accuracy of the cost estimate produced at the end of the facility planning process; and
- Changes in project scope.

OLO recommends that the Council request that DPWT report this information to the Council annually beginning in the fall of 2005.

**Recommendation #4.** The Council's Management and Fiscal Policy (MFP) Committee and Transportation and Environment (T&E) Committee should schedule a joint worksession to discuss the Executive Branch's current and future approaches to funding road construction projects that have completed facility planning.

This report examines the Department of Public Works and Transportation's (DPWT) facility planning process for road construction. OLO identified the following opportunities to improve the process.

**Recommendation #1: To improve the efficiency of the facility planning process, DPWT should eliminate the delays between the completion of phase I and the start of phase II of facility planning.**

Delays between the completion of phase I and the beginning of phase II extend the length of the facility planning process. Data provided by DPWT for nine recently completed facility planning projects show one to six month delays between phase I and II for three projects. According to DPWT, the time required to change contractors primarily causes the delays between the phases.

OLO recommends that DPWT continue recent efforts to reduce this delay by attempting to keep the same contractor through phases I and II. If that is not possible, OLO supports the Department's plans to secure a new phase II consultant before completing phase I, and to facilitate a smooth transition between consultants. OLO also recommends that DPWT continue to involve the project manager that will lead phase II in the first phase of the process.

**Recommendation #2: To facilitate early input and support of decision-makers, DPWT should consistently request reviews of selected facility planning projects at the completion of phase I by:**

- **The Interagency Wetlands Committee, and**
- **The Council's Transportation and Environment Committee.**

An important part of the facility planning process is obtaining early input and support of decision-makers, including regulatory agency staff and elected officials. To this end, M-NCPPC staff currently present projects to the Planning Board at the end of Phase I for review and comment. DPWT also shares information at the end of phase I with the community through a public meeting.

DPWT currently presents all road projects to the Interagency Wetlands Committee during phase II of facility planning, and presents selected projects to the T&E Committee at the end of phase II. OLO recommends that DPWT consistently present projects to the Interagency Wetlands Committee and the T&E Committee during both phase I and phase II of facility planning.<sup>21</sup> This earlier involvement will help DPWT produce road project designs that meet regulatory requirements and elected officials' needs. It should also increase the efficiency of the facility planning process by reducing the number of changes to projects later in the process of designing and constructing the road.

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<sup>21</sup> DPWT staff should consult with the chair of the Interagency Wetlands Committee and County Council staff if they believe a facility planning project is so straight forward that it does not require a review by either the Wetlands Committee or the T&E Committee during phase I.



Since the review provides informal feedback and input, rather than formal approval, DPWT can continue the facility planning work throughout the phase I review by the Interagency Wetlands and T&E Committees. OLO recommends that DPWT coordinate with the Interagency Wetlands Committee and the Council staff to schedule phase I reviews at appropriate and convenient times for the DPWT project managers.

**Recommendation #3. To support comprehensive analysis of the facility planning process, the County Council should request that DPWT compile and report data on:**

- **The length of time to complete the facility planning process and adherence to project schedules;**
- **The accuracy of the cost estimate produced at end of the facility planning process; and**
- **Changes in project scope.**

**OLO recommends that the Council request that DPWT report this information to the Council annually beginning in the fall of 2005.**

While DPWT shares information about individual facility planning projects with the Council through monthly updates and the CIP approval process, comprehensive data is not available on the facility planning process as a whole. As a result:

- Most of the information reported about the process is anecdotal;
- Impressions of the process tend to be based on experience with individual projects; and
- Data are not consistently available to evaluate the process, and to use as a baseline against which to compare future performance.

Tracking data on the process will provide the Council and the Department with more comprehensive information and will support future analysis of the process. OLO recommends that DPWT track and report the following information:

- The length of time it took to complete facility planning projects,
- The difference between initial target completion dates and actual project completion dates. (DPWT staff may amend a project's schedule periodically; however, the initial target date for completing a project should be used as the baseline for assessing adherence to project schedule.)
- The difference between the cost estimate produced at the end of facility planning and the actual cost of the project at the completion of construction.
- The nature, extent, and source of scope changes between the end of facility planning and the completion of construction.

OLO recommends that DPWT begin reporting data to the Council in the fall of 2005.

**Recommendation #4. The Council's Management and Fiscal Policy (MFP) Committee and Transportation and Environment (T&E) Committee should schedule a joint worksession to discuss the Executive Branch's current and future approaches to funding road construction projects that have completed facility planning.**

Due to fiscal constraints, the County cannot always afford to include funding for a new road construction project in the CIP immediately after completing facility planning. The two-year CIP creates a similar delay because a project that finishes facility planning in an off year of the CIP cannot compete for funds for final design and construction until the County Executive submits the next recommended CIP.

Facility planning products have a shelf life of approximately 12 months. If fiscal constraints and the two-year CIP delay the start of final design and construction more than 12 months, DPWT may need to complete some or most of the facility planning tasks again.

In FY 03, the Go Montgomery! initiative avoided the delay associated with the two-year CIP. Under Go Montgomery!, the Executive submitted projects that had completed facility planning to the Council as a supplemental appropriation in the summer of 2002. The Council was able to approve funding for final design and construction of the projects immediately, instead of waiting for the Executive's FY 05-10 Recommended CIP.

OLO recommends that the MFP and T&E Committees schedule a joint worksession to discuss with Executive Branch staff the current and future approach to funding road construction projects. The discussion should include:

- A review of the County's experience with the funding approach used for Go Montgomery!;
- The Executive Branch's plans for future funding of projects that have completed facility planning; and
- The Committee members' thoughts on approaches to funding road construction projects in the future.

## **VII. County Government & Other Agency Comments**

OLO circulated a draft of this report in December 2002 to the Chief Administrative Officer (CAO), the Department of Public Works and Transportation (DPWT), Department of Permitting Services (DPS), Office of Management and Budget (OMB), and the Maryland-National Capital Park and Planning Commission (M-NCPPC). The written comments received on the draft report from the CAO and M-NCPPC are included in their entirety, beginning on the following page.

OLO appreciates the time taken by Executive Branch and M-NCPPC staff to review and comment on the draft report. OLO looks forward to a continuing discussion of the issues raised as the Council reviews the report in the coming months.



OFFICES OF THE COUNTY EXECUTIVE

Douglas M. Duncan  
County Executive

MEMORANDUM

Bruce Romer  
Chief Administrative Officer

January 10, 2003

TO: Jennifer Kimball, Legislative Analyst  
Scott Brown, Legislative Analyst  
Office of Legislative Oversight

FROM: Bruce Romer  
Chief Administrative Officer

SUBJECT: Review of DRAFT Office of Legislative Oversight Report 2003-1:  
An Analysis of the Facility Planning Process for Road Construction

Thank you for the opportunity to comment on draft report 2003-1.

The purpose of the Facility Planning process is to provide decision-makers necessary fiscal and physical information on proposed projects upon which to make programmatic decisions. While the estimated cost of a proposed project may provide an indication of its complexity, the reverse is also possible (a small, relatively inexpensive project may be more complex than a large, expensive project). Project complexity has a direct impact on the time and cost of the facility planning process. It is important to emphasize, while proposed road projects may have similarities, each is very different and the planning process reflects those differences.

I will address my comments to the report's draft recommendations:

**Recommendation #1:** To improve the efficiency of the facility planning process, DPWT should eliminate the delays between the completion of phase I and the start of phase II.

**Comment #1:** Concur. However, the report should acknowledge that this has already been accomplished. Prior to February 2001, the Office of Project Development was responsible for Phase I of the Facility Planning process while the Division of Engineering Services was responsible for Phase II. The Director of Public Works and Transportation reorganized the Facility Planning process and moved all Facility Planning to the operating Divisions responsible for those functions in February 2001. There is no longer a delay between Phase I and Phase II Facility Planning and the coordination within the responsible Divisions has improved.



**Recommendation #2:** To facilitate early input and support of decision-makers, DPWT should consistently request reviews of facility planning projects at the completion of phase I by:

- The Interagency Wetlands Committee; and
- The Council's Transportation and Environment Committee.

**Comment #2:** Partially concur. This recommendation appears to directly contradict Recommendation #1. "Formally", stopping to request reviews will certainly elongate the process. The Department of Public Works and Transportation has two facility planners who are in constant consultation and coordination with all interested agencies and parties during Phase I of the process to include the Interagency Wetlands Committee, the Council Staff, interested Councilmembers and the Council's Transportation and Environment Committee and we agree this is appropriate. We will continue the coordination and briefings during Phase I, but not necessarily at the end of Phase I, so as to avoid possible additional delays in the process.

**Recommendation #3:** To support analysis of the facility planning process, the County Council should request that DPWT track and report data on:

- The length of time to complete the facility planning process and adherence to project schedules;
- The accuracy of the cost estimate produced at the end of the facility planning process; and
- Changes in project scope.

OLO recommends that the Council request that DPWT report this information to the Council annually beginning in the fall of 2005.

**Comment #3:** Nonconcur. The County Executive and Council already consider this data and information throughout the budgeting process and execution process. Progress on individual projects is reviewed continuously throughout the execution period by the Executive, Council and public. Occasionally, individual Councilmembers are updated on a recurring basis on particular projects as are Council Committees. Our schedules and progress are routinely updated once a month for each Facility Planning project, as well as for all Transportation CIP projects. This information is already transmitted to the County Council.

The Phase II cost estimate is the basis for the Executive's budget request and the Council's approval and appropriation. Cost deviations beyond contingency funds programmed for each project must be requested by the Executive and approved by the Council. This includes changes in project scope, should these occur. Given all these existing mechanisms, it seems unnecessary to divert the efforts of our two planners to provide the same information in different formats to the Council.

**Recommendation #4:** The Council's Management and Fiscal Policy (MFP) Committee and Transportation and Environment (T&E) Committee should schedule a joint worksession to discuss the Executive Branch's current and future approaches to funding road construction projects that complete facility planning in the off year of the two year CIP.

**Comment #4:** No comment. The Executive intends to abide by the intent of the Biennial Capital Improvement Program.

The Department of Public Works and Transportation, as part of the County Executive's charge to streamline projects within the **Go Montgomery!** program, has arranged with the Chair of the Montgomery County Park and Planning Commission to submit these projects to the Board in advance of normal mandatory referral to obtain a "sensing of the Board" during the Facility Planning process. By doing so, it is hoped that formal mandatory referral will be facilitated.

The Department would be glad to participate in any joint Committee meetings if called upon.

BR/jmc



January 13, 2003

Ms. Jennifer Kimball, Legislative Analyst  
Office of Legislative Oversight  
100 Maryland Avenue  
Rockville, MD 20850

Dear Ms. Kimball, *Jenny*

Thanks for sending us a draft copy of the Office of Legislative Oversight Report 2003-1, an Analysis of the Facility Planning Process for Road Construction. The Facility Planning Process is an essential step in implementing master plan recommendations, and we want to do all we can to assure this process is both efficient and effective. We have reviewed the draft report, and have both substantive comments and a number of editorial ones. Under a separate cover, we have transmitted the editorial recommendations, and look forward to discussing the more substantive issues with your office, the Council, and DPWT. We would request that you accept this letter as our staff comment, and include it in the report.

Overall, we recommend that the Council T & E Committee forward the final OLO report to the Planning Board for their review before the Council takes the report up in detail. In keeping with your request regarding the review process, this letter reflects staff comments only. However, allowing the Planning Board to review the final report and provide comments will provide them an opportunity to identify any concerns they have with the current Facility Planning process, and give this guidance to the Council.

In our review, we found several topics that would potentially be of concern to the Board and Council. These include:

- The implementation of Recommendation #1 (eliminating delays between the completion of Phase I and the start of Phase II) is somewhat inconsistent with recommendation #2 (reviews by the Interagency Wetlands Committee and the Council's Transportation and Environment Committee). Those reviews will take some time and that should be recognized in the initial scheduling of the facility plan.
- We are concerned that tracking the time needed to complete the Facility Planning Process will lead to the expectation that faster is better which is not always the case. Strict adherence to the initial schedule would tend to

Ms. Jennifer Kimball, Legislative Analyst  
January 13, 2003  
Page 2

cause the DPWT project managers to push ahead rather than taking time to fully resolve issues that arise. Our design concerns often involve non-pavement issues such as pedestrian and bikeway accommodation, park impacts and streetscaping. These concerns take time to resolve and often get pushed aside when schedule adherence is foremost. Our staff concurs that tracking delays may be useful, but we feel the record shows that the additional time required to truly resolve issues is generally time well spent. These types of delays should be allowed for and not seen as negative when the schedule is reported and reviewed.

- How to define the end of Phase I is often a problem. Some projects have well defined cross sections by then, others are much more conceptual. A better definition of Phase I objectives and items requiring concurrence would be valuable.
- One approach to bridging the funding gap for projects that are out of the normal two-year cycle would be a PDF that is specifically intended for beginning detailed design for projects that complete Facility Planning off-cycle. The feasibility of this would be of interest to M-NCPPC.

We hope this identifies some of the concerns we have that we think the Board, and the Council would like to discuss further with DPWT and others. We appreciate the opportunity to review the draft and we look forward to continuing to refine the valuable Facility Planning process.

Sincerely,



Charles R. Loehr, Director



## GLOSSARY OF TERMS

**Capital Improvements Program (CIP):** Capital improvements are County projects that, because of long term usefulness, size, and cost, require large expenditures of capital funds. Capital Improvement Projects are usually programmed over more than one year and result in a durable capital asset. The CIP includes projects such as public buildings, roads, bridges, parking garages, and other facilities planned by County departments and agencies (see Montgomery County Government below) over a six year period. The County Executive recommends and the County Council approves a CIP every other year (For further details on the CIP see © 4-10).

**Department of Permitting Services (DPS):** The Montgomery County Department of Permitting Services is responsible for a variety of regulatory and enforcement activities for building construction, zoning code enforcement, historic preservation, electrical permits and licenses, stormwater, sediment control, and floodplain for Montgomery County, Maryland.

**Department of Public Works and Transportation (DPWT):** The Montgomery County Department of Public Works and Transportation develops transportation programs and policies for Montgomery County. DPWT is comprised of the following seven divisions Traffic and Parking Services, Engineering Services, Transit Services, Highway Services, Facility and Services, Solid Waste Services, and Fleet Management Services.

**Facility Planning:** Facility planning is an analytical tool and decision-making process that generates a clear need, scope, and cost estimate for capital projects. Facility planning is conducted before including a capital project as a fully funded item in the Capital Improvements Program (CIP).

**Fast Track:** The Fast Track facility planning process is used by DPWT for relatively straight-forward road construction projects. Fast Track condenses phase I of the facility planning process (identification of purpose and need of the project) and moves directly to phase II (preliminary engineering design of the project). Facility planning projects that do not require significant conceptual planning (because the location and design are straight forward) are candidates for the Fast Track process.

**Fiscal Year (FY):** The 12-month period to which the annual operating and capital budget and their appropriations apply. The Montgomery County fiscal year starts on July 1 and ends on June 30.

**Go Montgomery!:** Go Montgomery! is an initiative to significantly reduce traffic congestion within Montgomery County. Go Montgomery! proposes to invest a total of one billion dollars over the next ten years in the County's transportation system.

**Interagency Wetlands Committee:** Established by DPWT in 1995, the Interagency Wetlands Committee provides “one stop” access to information and guidance from environmental regulatory agencies on capital projects that affect wetlands (e.g., roads, bridges, park structures, and subdivisions).

The Committee includes representatives from: County Department of Permitting Services, County Department of Environmental Protection, Maryland-National Capital Park and Planning Commission, Maryland Department of the Environment, Maryland Department of Natural Resources, U.S. Army Corps of Engineers, City of Gaithersburg, and City of Rockville.

**Mobility Action Program (MAP):** Located within the County’s Department of Public Works and Transportation, MAP develops strategic programs to relieve congestion in Montgomery County by: guiding investment in the County’s transportation system; developing transportation solutions for the future, including strategies to relieve congestion; and identifying and prioritizing projects and programs.

**Montgomery County Government (MCG):** The MCG includes: 13 Executive Branch departments and nine offices; the County Council’s Legislative Branch offices and boards; the Circuit Court; State’s Attorney; Sheriff; and judicial offices.

**Other Agencies:** Other agencies within the County (but not considered part of the Montgomery County Government) are: Montgomery County Public Schools, Housing Opportunities Commission, Montgomery College, Maryland-National Capital Park & Planning Commission, Revenue Authority, Washington Suburban Sanitary Commission, and Washington Suburban Transit Commission.

**Maryland Department of the Environment (MDE):** MDE protects and restores the quality of Maryland’s air, water, and land resources. The Department’s primary services include permitting/licensing and inspections for 89 functions and different regulatory facilities, financial assistance, environmental clean-up oversight, technical assistance for compliance and pollution prevention, public education and outreach, and environmental emergency response.

**Maryland Historic Trust:** Located within the Maryland Department of Housing and Community Development, the Maryland Historical Trust identifies and protects the State’s significant historic and cultural assets. Under historic preservation laws, MHT must review (1) projects funded by federal or state government or (2) projects that require a federal or state permit.

**Maryland-National Capital Park and Planning Commission (M-NCPPC):** M-NCPPC is a bi-County agency that manages public parkland and provides land use planning, with administration shared with Prince George’s County. The Commission prepares and administers a Master Plan for the physical development of most of the bi-county area.

The Commission is comprised of ten commissioners -- five appointed by each County as the Montgomery County Planning Board and the Prince George's Planning Board. The Planning Boards meet at least once a week to decide planning, zoning, subdivision and park matters in each County.

**Maryland Department of Natural Resources (DNR):** DNR assesses and restores the water quality, habitat, and health of the Chesapeake Bay watershed.

**Maryland State Highway Administration (SHA):** The SHA is responsible for more than 16,000 miles of interstate, primary and secondary roads, and more than 2,500 bridges in Maryland.

**Project Description Form (PDF):** For each individual capital project, the CIP contains a Project Description Form (PDF) that provides the following information about the project:

- Project number & title;
- Estimated expenditure and funding schedules;
- Annual operating budget impact;
- Description, justification, & status;
- Coordination and planning information required with and by other agencies; and
- Relevant site maps and diagrams.

In addition, each of the 14 facility planning project categories (e.g., Police, Fire & Rescue, Transportation, Bridges) has a designated PDF that lists the projects undergoing facility planning. For example, the Transportation-Facility Planning PDF lists 21 road construction projects that will undergo facility planning.

**Project Prospectus:** A Project Prospectus is a document produced at the end of phase I of the facility planning process for road projects. The document contains the findings from the studies conducted throughout phase I. The findings in the Project Prospectus include a recommendation on whether to continue into phase II of the project.

**Request for Proposal (RFP):** A RFP is a document that solicits offers to provide the County with certain materials and/or services. Responses are analyzed and ranked in accordance with a set of selection criteria. A RFP forms the basis of a contractual arrangement with the County.

**U.S. Army Corps of Engineers:** The Corp of Engineers regulates activities that impact the waters of the U.S. The Corps plan, designs, builds, and operates water resources and other civil works projects. The Corps also designs and manages the construction of military facilities for the Army and Air Force.

**Workyear (WY):** A unit of measurement equivalent to 2,080 hrs (40 hrs x 52 weeks), or one full time employee over the course of one year.

## INTRODUCTION

Planning for the six-year Capital Improvements Program (CIP) includes several significant factors:

Identification of Needs - Demand for capital investment is based on community needs as identified directly from citizens through Citizens' Advisory Board public forums or other public meetings, or by program departments working with citizens' advisory boards or individual citizens on a regular basis. Demands are also driven by demographic trends and land use plans in the growth and development of the County.

Readiness for Programming - Effective capital investments require careful thought and adequate public participation. Past CIP practices of programming "notional" projects, or "placeholder" costs, with details to be worked out later, are now discouraged. Instead, "facility planning," generally that phase of work between strategic planning and budgeting, is strongly encouraged. Projects judged "Under Review" require further enhancements before they can compete for scarce resources.

Affordability - The government's ability to afford capital facilities is based to a great extent on economic factors that affect the wealth of the community, measured in resident income and property value. Affordability is also influenced by variations in outside revenue sources such as Federal and State funding. In addition, the Charter requires the Council to set *specific spending affordability guidelines (SAG) for both long-term debt issuance and annual operating budget spending*. In setting these guidelines, the Council weighs taxpayer sentiment on taxes versus services and strikes its policy balance between operating programs and capital investment. These factors, in turn, determine the fiscal capacity of government to provide facilities to meet the demand for new or additional services according to adopted fiscal plans and fiscal policy.

The County Executive and County Council take these factors into consideration in making decisions regarding the actual content of the Capital Improvements Program. The scarcity of capital resources and heightened competition for available debt capacity has forced the CIP to become more focused and defined as a fiscal plan and capital budget, containing only projects which have been subjected to strong tests of demand, readiness, and affordability.

The following sections briefly describe these components of CIP planning, as well as other related activities or concepts which contribute to CIP planning. These descriptions are followed by a more thorough discussion of the demographic

trends and economic factors which play an integral role in the identification of needs.

## EVOLUTION OF PROJECTS

### Identification of Needs

Needs Identified by Agencies and Departments - Capital facility planning efforts are ongoing in numerous agencies and departments, frequently based on functional plans, master plans, or agency standards. Following is an illustrative list of capital facility planning efforts:

- Ten-Year Water and Sewer Plan
- Water Quality Plan
- Countywide Stream Protection Strategy
- Community Policing Strategy
- Master Plan for Fire, Rescue, and Emergency Medical Services
- Ten-Year Solid Waste Management Plan
- Consolidated Transportation Program (State)
- Comprehensive Master Plan for Educational Facilities
- College Facilities Master Plan
- Recreation Facility Development Plan
- Facilities for Public Libraries Plan
- Parks, Recreation, and Open Space Plan
- Strategic Highway Plan

Community Needs Identification - In the spring of 2001, the County Executive sponsored five capital facility needs forums held in conjunction with the five regional Citizens' Advisory Boards. Citizen priorities for capital projects identified at these forums were conveyed to the County Executive and departments and were considered in the development of departmental project recommendations. A synopsis of identified community needs and a discussion of projects identified as priorities are included in the Community Focus section of the CIP.

Park and Planning Commission Needs Identification - In addition to direct community input, the Maryland-National Capital Park and Planning Commission (M-NCPPC) submits a list of projects it proposes for inclusion in the CIP. These priorities are conveyed to the relevant departments and agencies of the government and are considered in the development of Executive recommendations.

Public Hearings on the CIP - Following transmittal of the Executive's Recommended CIP, and after the public has had time to study the programs, the County Council holds public hearings. Individuals may express their views on specific capital projects to elected officials at these public hearings or in writing. These public hearings are usually scheduled in

February. To find out more about the Council public hearings on the CIP, and to register to testify, interested persons may call the Council Office at 240.777.7931. The public may also find information about Council sessions at [www.co.mo.md.us](http://www.co.mo.md.us), view hearings on television or on the web via video streaming, or attend Council worksessions on the CIP.

## Countywide Planning Policies

Annual Growth Policy - Overall planning policies involve an interdependence between the CIP as a budgeting document which allocates available public resources according to County priorities, and the Annual Growth Policy (AGP), the main purpose of which is to manage the location and pace of private development. The AGP is designed to affect the staging of development, matching the timing of private development with the availability of public facilities. It identifies the need for public facilities to support private development and constrains the number of private subdivision approvals to those that can be accommodated by existing and programmed public facilities.

In order to guide subdivision approvals under the Adequate Public Facilities Ordinance (APFO), the AGP tests the adequacy of four types of public facilities:

- Transportation
- Schools
- Water and Sewerage facilities, and
- Police, Fire, and Health services.

General Plan and Master Plans and Sector Plans - The General Plan Refinement of FY94 recognizes the importance of establishing priorities for the provision of public facilities. One objective is to give high priority to areas of the greatest employment and residential density when allocating public investment. Some County master plans, such as Bethesda and Germantown, have included phasing elements which provide guidance about the timing and sequence of capital facilities in order to develop a CIP that serves long-range needs. Recommendations of the Planning and Fiscal Analysis section of the County Executive's Office, based on approved master/sector plans, help determine the sequencing of CIP projects.

## Maryland Economic Growth, Resource Protection and Planning Act

The Maryland Economic Growth, Resource Protection and Planning Act requires local governments to review all construction projects that involve the use of State funds, grants, loans, loan guarantees, or insurance for consistency with existing local plans.

A list of projects involving direct State participation is contained in the Budget Summary Schedules section of the CIP under Funding Sources ISTEAs, POS-Stateside (M-NCPPC only), Program Open Space, State Aid, State Bonds (M-NCPPC only), State DNR Bonds (M-NCPPC only), and

State Revitalization Bonds (M-NCPPC only). A review of these projects for consistency with adopted County plans has been conducted during the FY03-08 CIP preparation process.

For the FY03-08 CIP, the County Executive or the requesting agency affirms that all projects which are expected to receive State financial participation conform to relevant plans. This language appears in the "Coordination and Other Information" block on the relevant project description forms.

During the Council review process, the Planning Board comments to the Council, and a final determination as to consistency of projects with adopted County plans is made by the County Council. The Council adopts the CIP and approves a list of applicable State participation projects.

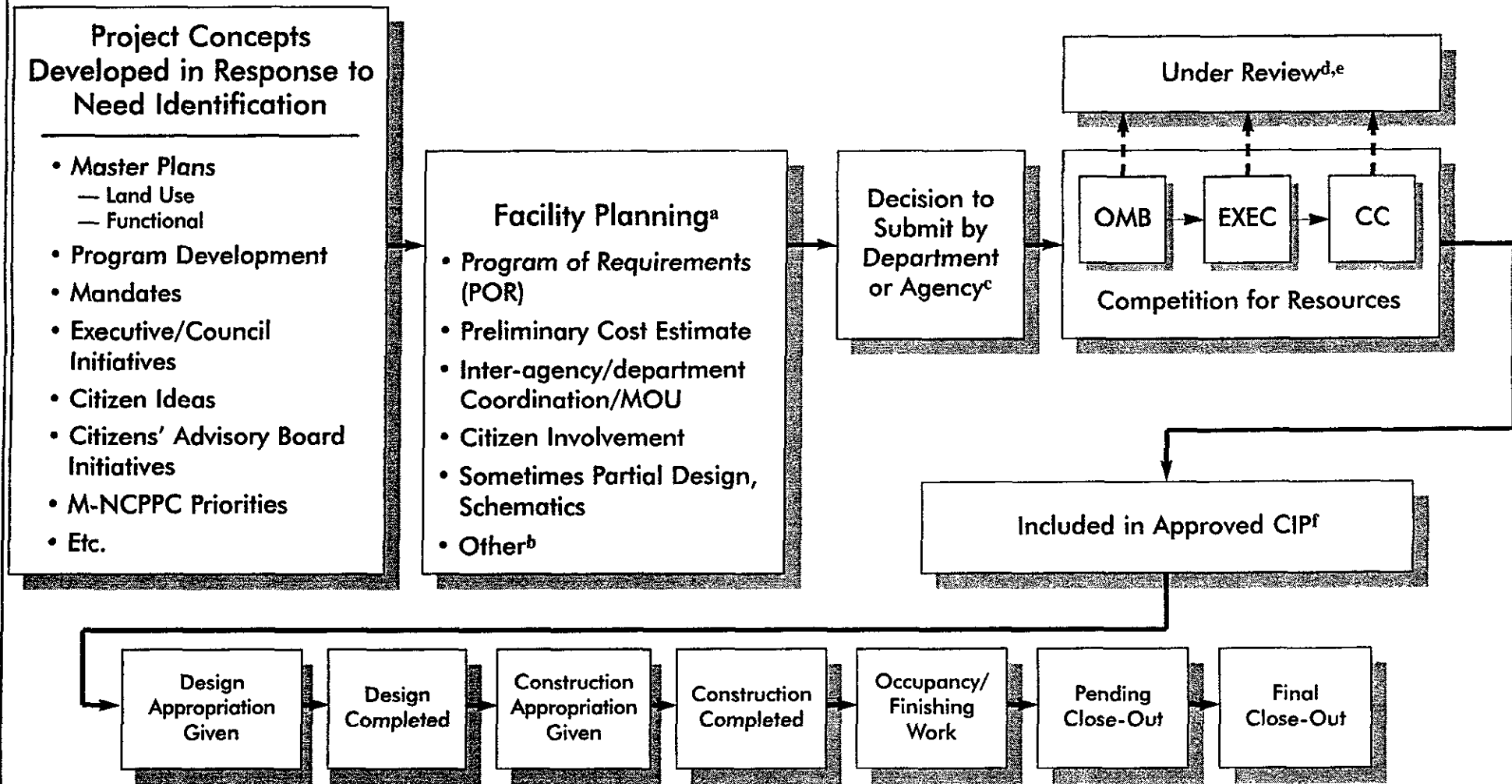
## Facility Planning

In many instances throughout the programs of the CIP, the Executive has not supported the inclusion of a project on a stand-alone basis, but has instead recommended its inclusion in a Facility Planning project. Generally, Facility Planning serves as a transition stage between strategic planning (overall needs assessment, review of major options, and choice of best method of programming to meet the need) and the inclusion of a stand-alone project in the CIP.

Facility Planning for capital projects is an analytical tool and a decision-making process which generates a clear definition of need and scope, utilizing a documented Program of Requirements (POR), and develops a defined cost estimate that is subject to minimal change. In the ideal, the strategic planning/programming phase will occur in the development and periodic update of master plans, out of which may flow more specific requirements for facilities. Facility Planning sometimes includes funds for preliminary design, though generally design as well as construction take place only when a stand-alone project is developed. Future stand-alone CIP projects which result from Facility Planning will, therefore, reflect planning (and sometimes design) costs lower than would be displayed on these projects in the absence of the Facility Planning process.

Following this process, projects are in a more effective position to compete for available resources. Completion of Facility Planning is essential for a project to be considered ready to compete for programming within the six-year period. Conversely, however, completion of Facility Planning does not guarantee project funding, especially immediately, given the wide array of projects competing for scarce resources. Projects that do not compete successfully may be judged competitive in a future budgeting cycle and programmed at that time for a place in a subsequent six-year period. The chart on the following page displays in more detail the process by which a capital project evolves.

# Capital Improvements Program Evolution of Projects



## Notes

- a) Systematic "facility planning" is a fairly recent addition to the CIP process. It is not, therefore, part of the history of every current project. The Executive & Council both support this stage of work, however, and OMB is increasingly insistent on completion of facility planning before a proposal is judged ready to compete for scarce resources.
- b) Site selection, inter-governmental funding, etc., can be happening along the way.
- c) E.g., Board of Education, College Trustees, Fire/Rescue Commission, or Director, Recreation
- d) Evaluation criteria/methods vary.
- e) Projects judged not competitive for available funds may still be meritorious and may be resubmitted later.
- f) Projects in the Approved CIP are reviewed in each biennial cycle by OMB, the Executive and the Council.

The text in all Facility Planning projects is standardized to the extent possible, and most Facility Planning projects include a list of candidate projects.

Projects of a Facility Planning nature are now recommended for all major tax supported agencies and are listed below:

<u>Project Name</u>	<u>Department/Agency</u>
Facility Planning: MCG	DPWT/DFS
Facility Planning: Police	Police and DFS
Facility Planning: Fire and Rescue	Fire and Rescue Services and DFS
Facility Planning: Transportation	DPWT
Facility Planning: Bridges	DPWT
Facility Planning: Pedestrian/Bikeways	DPWT
Facility Planning: Parking	DPWT
Facility Planning: Storm Drains	DPWT
Facility Planning: Stormwater Mgmt.	DEP
Facility Planning: Housing & Comm. Development	DHCA
Facility Planning: College	Montgomery College
Facility Planning: MCPS	MCPS
Facility Planning: Non-Local Parks	M-NCPPC - Parks
Facility Planning: Local Parks	M-NCPPC - Parks

Work is underway between Executive Branch staff and the WSSC regarding Facility Planning in that agency.

More information on these projects and their programmed expenditure levels may be found in the Multi-Agency section of the CIP, as well as on their respective project description forms.

The Executive continues to recommend greater use of the facility planning process by all agencies of government. Specific project recommendations pursuant to this policy are included in the various department and agency program sections of the CIP.

### **Programming Beyond the Six-Year Period**

In addition to historical expenditure data and expenditures programmed for the six-year period, the project description forms include a column for the display of expenditures which are planned to occur after the sixth year of the program.

Expenditures are programmed in the "Beyond 6 Years" column only when they are a direct carryover of expenditures which appear within the six-year period. Expenditures for additional project phases which are logically separable from previous project phases are programmed as new, separate projects (following or in conjunction with closeout of the previous project) when they can be afforded within a future six-year period. The "Beyond 6 Years" column is not used as

a holding place for project expenditures which cannot be afforded in the foreseeable future. Such projects are, instead, considered for facility planning.

Exceptions exist for projects related to others already programmed in the six-year period and projects continuing beyond six years in order to complete long-term acquisition or mandated programs. These policy recommendations remain as goals to be achieved over time and, in particular, as a guide for the programming of new project initiatives.

## **RESOURCE ALLOCATION PROCESS**

### **Fiscal Planning**

Executive and Council decisions regarding the affordability of proposals to meet community needs are generally made in the context of established fiscal plans and fiscal policies.

The CIP is a major tool for multi-year fiscal planning, covering capital expenditures and their funding for all County agencies. In addition, the Office of Management and Budget produces fiscal projections, covering both the CIP and the Public Services Program (PSP), which apply to the operating budgets of the agencies. This fiscal planning process is intended to:

- provide a multi-year fiscal framework, to complement the annual operating and capital budget processes;
- increase the opportunity for elected officials to influence the character and content of fiscal policies on a "top-down" basis;
- improve communication with the public regarding fiscal options and plans; and
- improve the integration of the PSP/Operating Budget and the CIP/Capital Budget with respect to fiscal and workforce level planning, fiscal and program policy planning, fiscal and collective bargaining planning, and fiscal actions by the County and at the State level.

Components of the fiscal projections are used to advise the County Council in its consideration of Spending Affordability Guidelines for both the CIP/Capital Budget and PSP/Operating Budget. They are used by the Executive as well, in macro-level fiscal decision-making related to the CIP and PSP.

The chart on the following page describes the process currently used by OMB and the County Executive to allocate scarce resources among competing proposals.

and capital budgets which can only be exceeded prior to setting appropriations by a vote of seven of the nine Councilmembers.

Other sections of the Charter provide for Executive veto or reduction of items in the budget approved by the Council, supplemental appropriations to the budget as approved, special appropriations, executive transfer of unencumbered appropriation balances, and the accumulation of surplus revenues. The Charter further prohibits expenditure of County funds in excess of available unencumbered appropriations and authorizes long-term debt for other than current operating expenses.

## **THE BUDGET PROCESS**

### **Fiscal Year**

The 12-month period used to account for revenues and expenditures in Montgomery County commences on July 1 of each year and ends on June 30 of the following year. A timeline appears at the end of this section.

### **Operating and Capital Budgets**

The complete County Executive's Recommended Budget includes: the Capital Improvements Program (CIP), published by January 15 in even-numbered calendar years; the Capital Budget, published annually by January 15; and the Public Services Program (PSP)/Operating Budget, published annually by March 15. For further information about the PSP/Operating Budget process, please refer to the General Information section of the most recent County Executive's Recommended Public Services Program.

### **Spending Affordability Process**

The Spending Affordability process for the Capital Improvements Program is required by Section 305 of the County Charter and Chapter 20 of the Montgomery County Code and begins by September of each odd-numbered calendar year.

By the first Tuesday in October and after a public hearing, the County Council must set Spending Affordability Guidelines (SAG) for the bonds planned for issue (both general obligation and Park and Planning bonds) for years one and two of the six-year program and for the total six-year program. In adopting SAG, the Council considers, among other relevant factors:

- growth in the assessable base and estimated revenues from the property tax;
- other estimated revenues;
- Countywide debt capacity;
- relative tax burden on County taxpayers;
- the level of inflation and inflation trends;

- demographic trends, including population and education enrollment;
- commercial construction, housing, and other building activity; and
- employment levels.

By the first Tuesday in February, the Council may increase, by up to ten percent, or decrease the guidelines to reflect a significant change in conditions by a simple majority vote.

If the final Capital Improvements Program budget exceeds the guidelines then in effect, seven affirmative votes are required.

### **Capital Budget/CIP Preparation and Executive Review**

Departments and agencies prepare budget requests within guidelines established by the Executive (for the departments) and by law (for other agencies of government). These are submitted on scheduled dates for analysis by the Office of Management and Budget (OMB) and are reviewed by the Executive during the period September - December. The review process culminates in final decisions and Executive recommendations in the budget document submitted to the Council by January 15.

### **Public Hearings**

Citizen participation is essential to a fair and effective budget process. Many citizens and advisory groups work with specific departments to ensure that their concerns are addressed in departmental requests. The County Charter requires the Council to hold a public hearing not earlier than 21 days after receipt of the budget from the Executive. For further information and dates of the Council's public hearings on the County Executive's Recommended Capital Budget/CIP, contact the Legislative Information Office at 240.777.7900. Hearings are held in the Council Hearing Room of the Stella B. Werner Council Office Building, unless otherwise specified.

Public hearings are advertised in County newspapers. Speakers must register with the Council Office to testify at the public hearings. Persons wishing to testify should call the Council Office to register at 240.777.7931. If it is not possible to testify in person at the hearings, written testimony is acceptable and encouraged.

### **Council Budget Review**

After receiving input from the public, the Council begins its review of the Executive's Recommended Capital Budget/CIP. Each category area and agency program is reviewed by a designated Council committee. Agency and OMB representatives meet with these committees to provide information and clarification concerning the recommended budget and six-year plan for each project. In April and May, the full Council meets in regular session, reviews the



recommendations of its Committees, and takes final action on each project.

### **Operating and Capital Budget Approval**

The Charter requires that the Council approve and make appropriations annually for the operating and capital budgets by June 1. In even-numbered calendar years, the Council also approves a six-year Capital Improvements Program. Prior to June 30, the Council must set the property tax levies necessary to finance the budgets.

### **Amending the Approved Operating and Capital Budgets**

The operating and capital budgets may be amended at any time after adoption by the Council. The following terms are included in the glossary contained elsewhere in this document:

**Supplemental appropriations** are recommended by the County Executive, specify the source of funds to finance the additional expenditures, and generally occur after January 1 of the fiscal year. Supplemental appropriations approved before January 1 are made only to comply with, avail the County of, or put into effect the provisions of Federal, State, or local legislation or regulations. Supplemental appropriations must be approved by five of the nine members of the Council.

**Special appropriations** are recommended by either the County Executive or County Council and are used when it is necessary to meet an unforeseen emergency or disaster or act without delay in the public interest. The Council may approve a special appropriation after a public notice by news release, and each special appropriation must be approved by six of the nine members of the Council.

**Transfers of appropriation**, which do not exceed ten percent of the original appropriation, may be accomplished by either: the County Executive, where transfers are within or between divisions of the same department; or by the County Council, where transfers are between departments or to new accounts.

**Amending the Approved CIP** may be done by the County Council at any time for either new projects or changes to existing projects which require appropriation and meet one or more of the following criteria:

- Project leverages significant non-County sources of funds (e.g., Bridges [Federal aid], State aid for schools);
- Project is needed to comply with effects of a new law;
- Project is needed to address an *urgent* health or safety concern;
- Project is needed to address an *urgent* school capacity need (e.g., adjustment to assure current project meets scheduled September opening or a new project for a newly identified need);
- Project offers the opportunity to achieve *significant* savings or cost avoidance or to generate *significant* additional revenue (e.g., the bid has come in lower than

- budget, allowing funds to be redirected; operating budget savings are documented; fees collected will increase);
- Project is needed to keep transportation or school projects on approved Annual Growth Policy (AGP) schedule;
- Project supports *significant* economic development initiatives, which in turn will strengthen the fiscal capacity of the County government;
- Project offers a *significant* opportunity, which will be lost if not taken at this time;
- Project scope adjustment is needed on inter-jurisdictional projects due to changed conditions;
- Project is delayed for policy reasons;
- Project has validated extraordinary inflation (as seen in bids);
- Project must be amended for technical reasons, (e.g., to implement policy or recognize extraordinary cost increases);
- Project expenditures can be/must be delayed to provide fiscal capacity, given changes in conditions since the Approved CIP was adopted; and
- Project or subproject is proposed to increase: relatively by at least 10 percent and absolutely by at least \$1,000,000 from the last adopted CIP; or absolutely by at least \$2,000,000 from the last adopted CIP.

## **CAPITAL IMPROVEMENTS PROGRAM AND CAPITAL BUDGET**

The CIP covers construction of all public buildings, roads, and other facilities planned by County public agencies over a six-year period. The CIP is an integrated presentation, including capital expenditure estimates, funding requirements, capital budget requests, and program data for all County departments and agencies. The capital budget includes required appropriation expenditures and funding for the forthcoming fiscal year, the first year of the six-year program. An estimate of required appropriations for the second year of the six-year program is also included.

In addition to these documents, the County publishes an Annual Growth Policy to provide guidance to agencies of government and to citizens on matters concerning land use development; growth management; and related environmental, economic, and social issues. The Annual Growth Policy serves as a major tool in managing the County's development, and as such, provides significant guidance in the preparation of the CIP and the commitment of resources in the six-year PSP.

## **WHY CAPITAL PROGRAMMING?**

A coordinated program for the planning, implementation, and financing of public facilities and other physical infrastructure is essential to meet the needs of a County with diverse population and resources. "Capital improvements" are those

which, because of expected long-term usefulness, size, and cost, require large expenditures of capital funds usually programmed over more than one year and result in a durable capital asset. The largest single source of capital project financing is tax-exempt bonds. The bonds are issued as general obligations of the County, by a self-supporting agency, or as an obligation of the revenues supporting a specific project. The debt service on these bonds--the repayment of principal and interest over the life of the bonds--becomes one of the items in the annual operating budget and, thus, a factor in the annual tax rate. Also, the County's fiscal policy sets certain limits on the total amount of debt that can be incurred in order to maintain fiscal stability and the highest available quality rating for County bonds, thereby obtaining the lowest interest rate. It is, therefore, critical that the CIP be both cost-conscious and balanced over the six-year period so that the fiscal impact will not weigh too heavily in any single year.

The objectives of the CIP may be summarized as:

- To build those facilities required to support the County's PSP objectives.
- To support the physical development objectives incorporated in approved County plans, especially land use master plans as controlled by the County's General Plan, Annual Growth Policy, and Adequate Public Facilities Ordinance.
- To assure the availability of public improvements to provide site opportunities to accommodate and attract private development consistent with approved developmental objectives.
- To improve financial planning by comparing needs with resources, estimating future bond issues, plus debt service and other current revenue needs, and, thus, identifying future operating budget, tax rate, and debt capacity implications.
- To establish priorities among projects so that limited resources are used to the best advantage.
- To plan public facility construction to coordinate timing and functional relationships.
- To identify, as accurately as possible, the impacts of public facility decisions on future operating budgets, in terms of energy use, maintenance costs, and staffing requirements.
- To provide a concise, central source of information on all planned public construction for citizens, agencies, and other interest groups.
- To provide a basis for effective public participation in decisions related to public facilities and other physical improvements.

While the County's planning and programming process is established, the CIP is improved and refined from year to year in order to seek the most effective means of providing needed public facilities in a timely and fiscally-responsible manner.

## CIP IMPACTS ON THE OPERATING BUDGET

The CIP impacts the operating budget in several ways:

**Debt Service.** The annual payment of principal and interest on general obligation bonds and other long-term debt used to finance roads, schools, and other major projects is included in the operating budget as a required expenditure.

**Current Revenue Funding.** Selected CIP projects are funded directly with County current revenues in order to avoid costs of borrowing. These amounts are included in the operating budget as specific transfers to individual projects within the capital projects fund.

**Pay-As-You-Go (PAYGO) Financing.** An additional amount may be included in the operating budget as a direct bond offset to reduce the amount of borrowing required for project financing.

**Operating Budget Impacts.** The construction of government buildings and facilities usually results in new annual costs for maintenance, utilities, and additional staffing required for facility management and operation. Whenever a new or expanded facility involves program expansion, as with new school buildings, libraries, or fire stations, the required staffing and equipment (principals, librarians, fire apparatus) represent additional operating budget expenditures. The Executive's Recommended CIP includes analysis of these operating budget impacts to aid in review and decisions relative to the timing of public facilities and to more clearly show what a new building or road will cost in addition to its construction costs and any required debt service.

**Public Facilities Planning.** Planning for capital improvements projects is tied to the County's continuing development and growth in population, numbers of households, and businesses. Land use master plans and sector plans for the County's geographic planning areas anticipate needs for roads, schools, and other facilities required by new or changing population. Functional plans anticipate needs for government functions and services ranging from provision of water and sewerage to solid waste disposal, libraries, and fire and rescue services. Other studies assess future educational, health, and human services needs of the County. These plans are analyzed for likely new facilities or service delivery requirements and their potential operating costs which will eventually add to annual operating budgets. Each year, the County continues its efforts to improve the linkages between the CIP, the PSP, and County planning activities.

## CIP CATEGORIES

One of the features of Montgomery County's capital programming is the classification of County government projects and other agency programs into the categories listed below. These categories classify the activities of local

Facility Planning-Transportation -- No. 509337

Category Transportation  
 Agency Public Works & Transportation  
 Planning Area Countywide  
 Relocation Impact None.

Date Last Modified January 10, 2002  
 Previous PDF Page Number 7-212 (02 App)  
 Required Adequate Public Facility NO

EXPENDITURE SCHEDULE (\$000)

Cost Element	Total	Thru FY01	Estimate FY02	Total 6 Years	FY03	FY04	FY05	FY06	FY07	FY08	Beyond 6 Years
Planning, Design and Supervision	24,063	9,833	4,195	12,257	2,184	2,416	1,481	1,407	2,057	2,712	0
Land	73	73	0	0	0	0	0	0	0	0	0
Site Improvements and Utilities	75	75	0	0	0	0	0	0	0	0	0
Construction	43	43	0	0	0	0	0	0	0	0	0
Other	21	21	0	0	0	0	0	0	0	0	0
<b>Total</b>	<b>24,275</b>	<b>10,045</b>	<b>4,195</b>	<b>12,257</b>	<b>2,184</b>	<b>2,416</b>	<b>1,481</b>	<b>1,407</b>	<b>2,057</b>	<b>2,712</b>	<b>0</b>

FUNDING SCHEDULE (\$000)

Current Revenue	Total	FY01	FY02	Total 6 Years	FY03	FY04	FY05	FY06	FY07	FY08	Beyond 6 Years
General	21,882	9,525	2,749	9,608	1,675	1,925	1,181	1,127	1,520	2,180	0
Impact Tax	264	184	80	0	0	0	0	0	0	0	0
Mass Transit Fund	3,491	233	609	2,649	509	491	300	280	537	532	0
Intergovernmental	785	28	757	0	0	0	0	0	0	0	0
State Aid	75	75	0	0	0	0	0	0	0	0	0

ANNUAL OPERATING BUDGET IMPACT (\$000)

DESCRIPTION

This project provides funds for planning and preliminary engineering design for new and reconstructed highway projects and new mass transit projects under consideration for possible inclusion in the CIP. Facility planning serves as a transition stage for a project between the master plan or conceptual stage and its inclusion as a stand-alone project in the CIP. Prior to the establishment of a CIP stand-alone project, the Department of Public Works and Transportation (DPWT) will perform Phase I of Facility Planning, a rigorous planning level investigation of the following critical project elements: purpose and need; usage forecasts and traffic operational analysis; community, economic, social, environmental, and historic impact analyses; public participation; investigation of non-County sources of funding; and conceptual level cost estimates. At the end of Phase I, DPWT determines if the project has the merits to advance to Phase II of Facility Planning, preliminary (35 percent level of completion) engineering design. In preliminary engineering design, construction plans are developed showing the specific and detailed features of the project, from which its impacts and costs can be accurately assessed. At the completion of preliminary engineering design, the County Executive and County Council hold project specific public hearings and then determine if the candidate project has the merits to advance into the CIP as a fully-funded, stand-alone project. For a full description of the facility planning process, see the CIP Planning Section.

Service Area

Countywide

Capacity

To be determined on a project-by-project basis.

JUSTIFICATION

There is a continuing need to define the scope and determine need, benefits, implementation feasibility, horizontal and vertical alignments, typical sections, impacts, community support/opposition, preliminary costs, and alternatives for master planned transportation recommendations. Facility Planning provides decision makers with reliable information to determine if a master planned transportation recommendation merits inclusion into the CIP as a fully-funded, stand-alone project.

Plans and Studies

General Plan; Master Plans; and Master Plan of Highways; and M-NCPPC Transportation Policy Report.

Specific Data

This project provides funding for the planning and preliminary engineering stages for road and mass transit projects.

Cost Change

Increase due to five new candidate projects for roads, three new candidate projects for mass transit, and addition of FY07 and FY08 to this ongoing project.

STATUS

Studies Underway in FY03-04: Roads

Burtonsville Local Access Road

Century Boulevard/Crystal Rock Drive

Fairland Road

Father Hurley Boulevard (Wisteria Drive to MD118)

Goshen Road South (City of Gaithersburg to Warfield Rd.)

Mid-County Highway (Middlebrook Road to MD27)

Montrose Parkway East

APPROPRIATION AND EXPENDITURE DATA

Date First Appropriation	FY93	(\$000)
Initial Cost Estimate		3,150
First Cost Estimate		
Current Scope	FY03	26,497
Last FY's Cost Estimate		21,788
Present Cost Estimate		24,275
Appropriation Request	FY03	2,470
Appropriation Request Est.	FY04	2,890
Supplemental Appropriation Request	FY02	0
Transfer		0
Cumulative Appropriation		14,783
Expenditures/Encumbrances		12,191
Unencumbered Balance		2,592
Partial Closeout Thru	FY00	0
New Partial Closeout	FY01	0
Total Partial Closeout		0

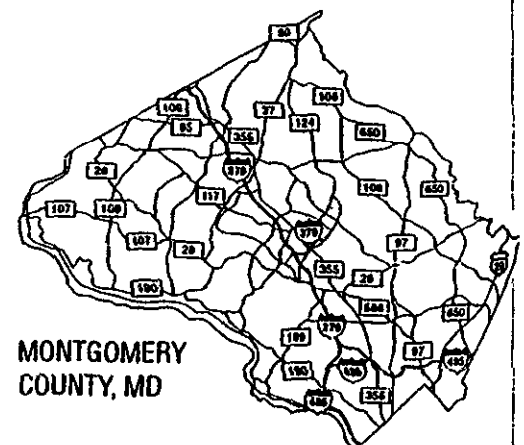
COORDINATION

All project planning is done in close coordination with the:

- County Council
- M-NCPPC
- Planning Board
- Maryland State Highway Administration
- Maryland Department of the Environment
- Maryland Department of Natural Resources
- U.S. Army Corps of Engineers
- Department of Permitting Services
- Utilities
- Municipalities
- Affected communities

The Executive asserts that this project conforms to the requirements of relevant local plans, as required by the Maryland Economic Growth, Resource Protection and Planning Act.

MAP



Nebel Street Extended  
Quince Orchard Road  
Randolph Road Widening (Parklawn Drive to Viers Mill Road)  
Redland Road North  
Ripley District Improvements  
Thompson Road  
West Deer Park Drive  
Woodglen Drive

Other Candidate Projects: Roads  
Dorsey Mill Drive/I-270 Bridge  
Goshen Road North (Warfield Rd. to Fertile Meadows Subdivision)  
Stringtown Road East (Sec. II) 400 feet east of MD355 to A-305

Studies Underway in FY03-04: Mass Transit  
White Oak Transit Center Phase II  
Viers Mill Bus Enhancements  
Clarksburg Transit Center  
Randolph Road Bus Enhancements Phase II  
Norbeck Road Park and Ride Lot  
Shady Grove/Clarksburg Transitway Station Development  
Norbeck Road Bus Enhancements  
Takoma/Langlely Transit Center  
Metropolitan Grove Transit Center

Other Candidate Projects: Mass Transit  
Olney Transit Center  
Four Corners Transit Center  
Kensington Transit Center  
Bus operational enhancements at intersections

**OTHER**

Elements of project study will include the investigation of State, Federal, and/or private funding assistance. This project also includes preliminary project engineering. More specifically, the scope of this project has been expanded to include five new projects in this budget cycle-Century Boulevard/Crystal Rock Drive, Deer Park Drive (including the Bridge), Dorsey Mill Dr./I-270 Bridge, Mid-County Highway (Middlebrook Road to MD27), and Redland Road North.  
\*Expenditures will continue indefinitely.

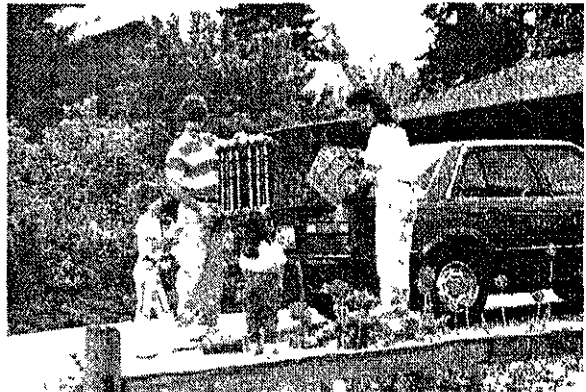
**FISCAL NOTE**

Starting in FY01, Mass Transit Funds are used to fund planning and preliminary engineering design for candidate projects related to mass transit facilities. Impact Tax will continue to be applied to qualifying projects within the Impact Tax areas of Germantown and Eastern Montgomery County.



# ***Go Montgomery!***

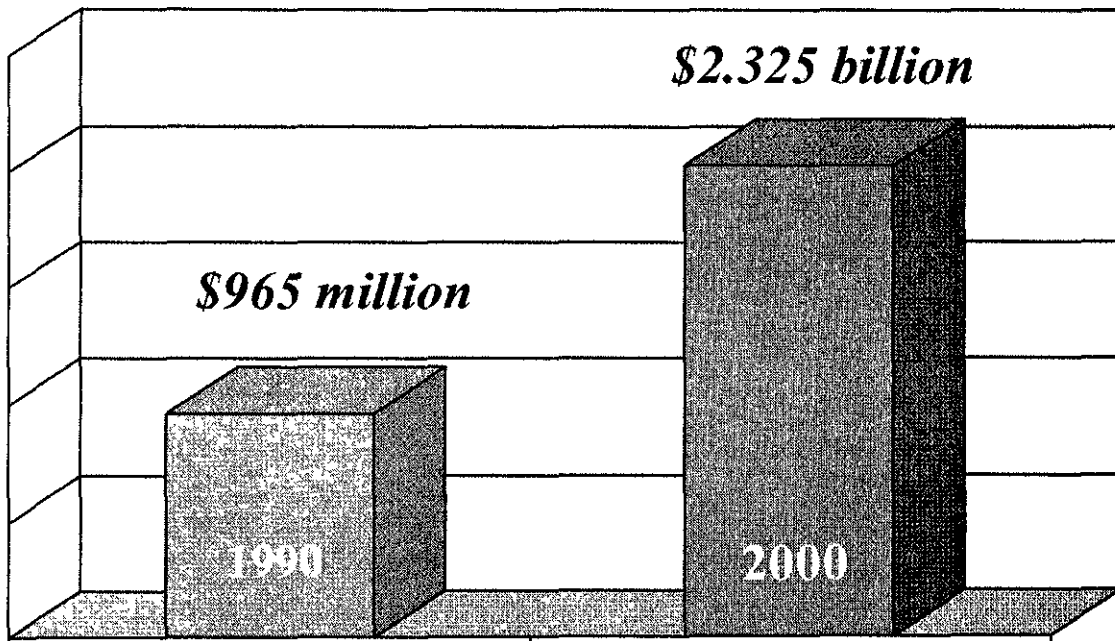
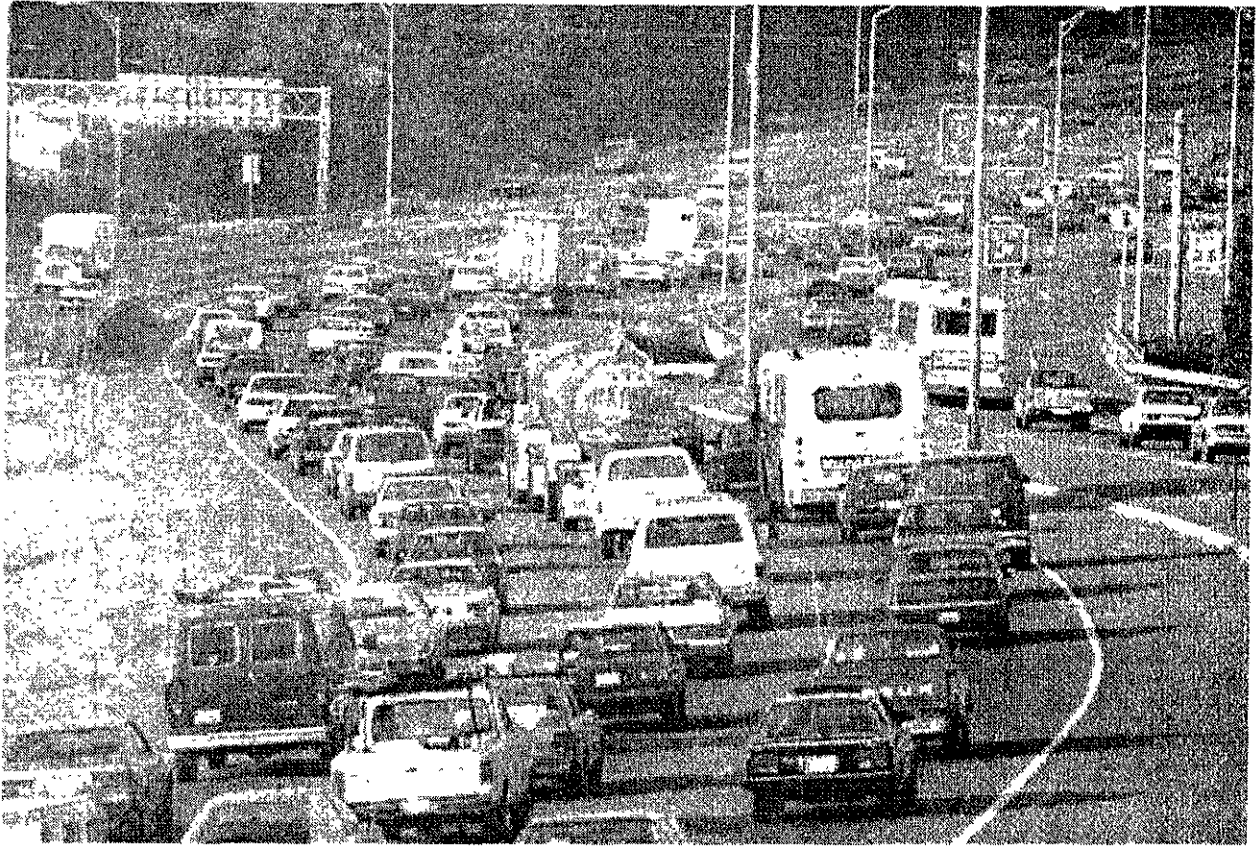
***Transportation Plan for Our Future***



**Douglas M. Duncan**  
**Montgomery County Executive**  
**June 25, 2002**

## ***Go Montgomery! -- Six Goals for the Next Decade***

- Get Montgomery moving and prevent complete gridlock on our roads.
- Build the roads, transit, and other congestion relief infrastructure that are called for in our Master Plans.
- Spend an additional \$1 billion for congestion relief through new, dedicated sources of revenue.
- Improve the Washington metropolitan region's air quality and develop projects to minimize environmental impacts.
- Make better use of technology to relieve traffic congestion.
- Get Maryland to build the state projects Montgomery County needs.



### Congestion Costs in Greater Washington Area

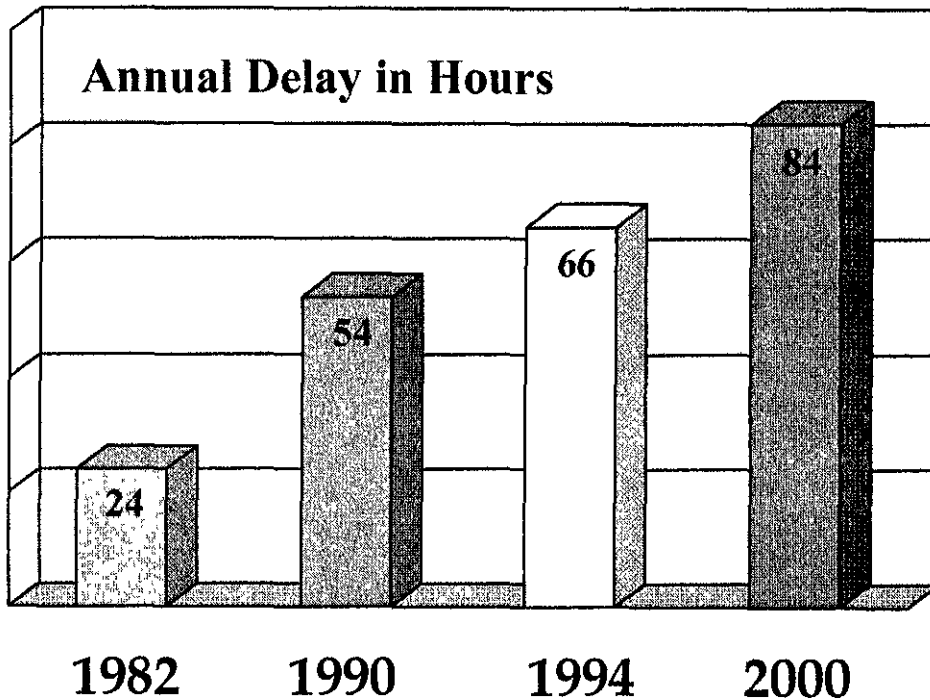
Source: Texas Transportation Institute



## The Problem

**We're drowning in traffic congestion and it's costing the region billions each year.**

- Metropolitan Washington has the third worst traffic congestion in the nation.
- Costs resulting from wasted time and fuel for the region have more than doubled since 1990 – rising from \$965 million to more than \$2.3 billion.
- In the next 10 years, our average drive time to work could more than double.
- People are spending more time in traffic and less time with their families.

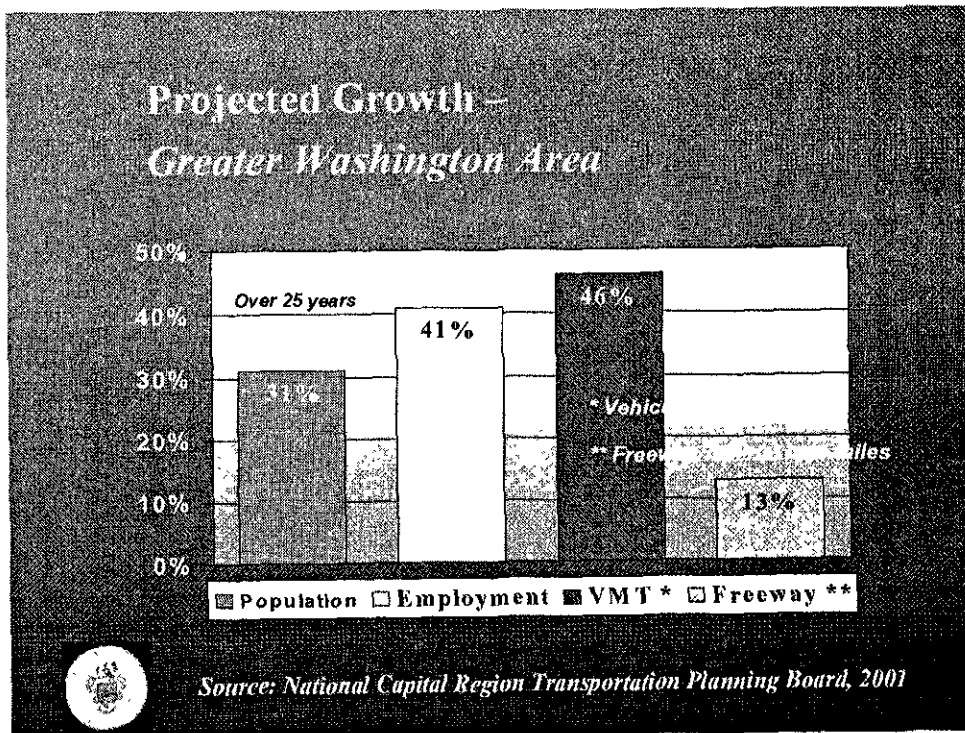


Source: Texas Transportation Institute



## The Problem

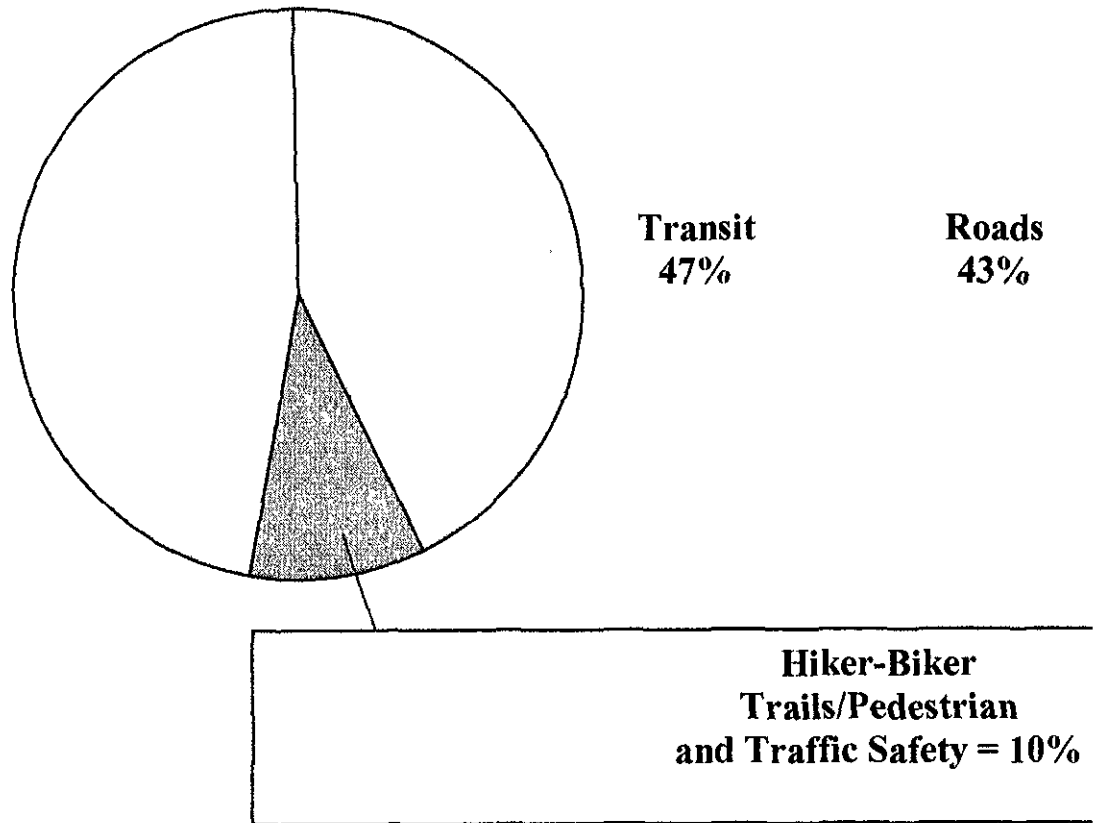
- Businesses are suffering, tempers are flaring, and absolute gridlock is just around the corner.
- Transportation projects planned 10, 20, 30 years ago are still just that – plans. Debates rage about roads to support development that occurred nearly a half century ago.
- Congestion is threatening the environment.
- Not only are we stuck in traffic gridlock, but we are stuck in political gridlock as well. The time for talk is past. . .the time for action is now.



## A Balanced Plan

***Go Montgomery!*** will get our County moving in the right direction with a comprehensive, balanced \$1 billion plan that addresses our major transportation needs – road, transit, and other forms of transportation. Together, we'll work on innovative solutions to move our community forward.

The County will accelerate the projects we control and we will work hand in hand with the State and WMATA to jumpstart projects that fall outside of our direct responsibility.



## The Solutions

**MONTGOMERY COUNTY TAKES THE LEAD.**

**No more stalling! Montgomery will jumpstart these projects.**

<i><u>Regional Initiatives</u></i>	<i><u>Montgomery Gets It Started</u></i>
Build Metro Purple Line	Forward Fund EIS *
Build InterCounty Connector	Forward Fund EIS
Regional Transportation Authority	Contribute Seed Money
Support a Purpose and Need Statement for a new Potomac River crossing	Contribute Funding
HOV on I-495	Forward Fund Design
HOV/bus bypass lanes I-270/I-370 to improve access to Shady Grove Metro	Forward Fund Design
Widen Clopper Road	Forward Fund Design
Build new interchange at I-270 and Watkins Glen Extended	Forward Fund Design

<i><u>We'll also push Maryland and WMATA to:</u></i>
Add capacity to I-270
Extend all Metro Red Line trains
Build the Corridor Cities Transitway
Build Georgia Avenue and Route 29 dedicated busways
Widen Great Seneca Highway from Clopper Road to Key West Avenue
Increase MARC commuter rail service between Silver Spring and Rockville

\* Environmental Impact Statement

For detailed components, see pages 12 and 13.



## The Swimmers

LEAVE YOUR CAR AT HOME.

Arrive at work refreshed, then return home relaxed. Save wear and tear on your car - and, most importantly, on yourself.

<b>Expand bus service by more than 40 percent</b>
<b>Provide bus rapid transit service on dedicated bus lanes</b>
<b>Add more transit centers and express bus service</b>
<b>Add automated bus information at all major Ride On bus stops</b>
<b>Expand reduced bus fare programs</b>
<b>Offer free rides for kids anytime on Ride On and Metrobuses</b>
<b>Expand employer incentives for transit</b>
<b>Improve foot and bike access to transit</b>
<b>Construct new hiker-biker trails:</b> <ul style="list-style-type: none"><li><b>- Metropolitan Branch Trail</b></li><li><b>- Georgetown Branch Trail</b></li><li><b>- Matthew Henson Trail</b></li></ul>

## The Solutions\*

### WEST-EAST CONGESTION

- Accelerate the Montrose Parkway (western and eastern ends).
- Provide express bus service along I-495 HOV lanes.
- Build Watkins Mill Road Extended from MD Route 355 to MD Route 117.
- Widen Shady Grove Road from I-370 to Muncaster Mill Road.
- Construct bus rapid lanes/queue jumpers along:
  - Randolph Road
  - Veirs Mill Road (MD Route 586)
  - University Boulevard (MD Route 193)
  - East-West Highway (MD Route 410)

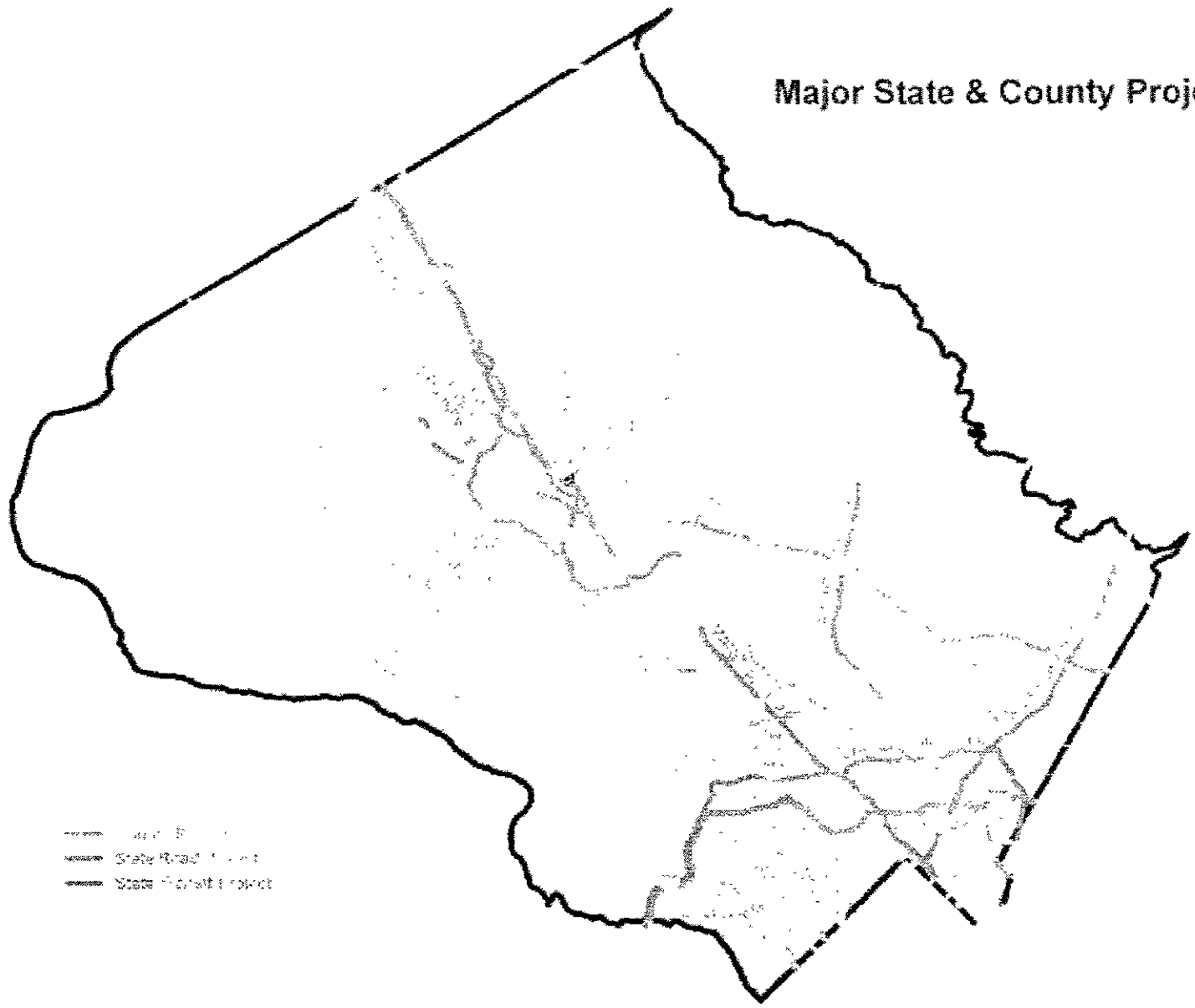
### NORTH-SOUTH CONGESTION

- Widen Wootton Parkway from Glen Mill Road to Falls Road.
- Widen Goshen Road from Warfield Road to the City of Gaithersburg.
- Build Nebel Street from MD Route 355 to Randolph Road.
- Build Citadel Avenue and Woodglen Road from Marinelli Road to Nicholson Lane.
- Build M-83 (Mid-County Highway Extended) from MD Route 27 to Middlebrook Road.

\* Projects paid for with County funds



### Major State & County Projects



- County Road Project
- State Road Project
- State Transit Project



## CHANGING HOW THINGS GET DONE

- \* Appoint a ***Go Montgomery!*** director.
- \* Streamline how transportation projects are planned and constructed.
- \* Use technology to increase the capacity and efficiency of the transportation infrastructure.
- \* Promote living near where you work and shop:
  - Encourage mixed-use developments to reduce the need to drive
  - Help people who work in our County find affordable housing here
  - Encourage pedestrian links to retail
- \* Create an environment conducive to walking and biking; incorporate bike lanes in new road projects.
- \* Ensure pedestrian safety and accessibility are integrated in current and future public projects.
- \* Implement strike teams to quickly remove accident bottlenecks on local roadways and render aid to stranded motorists.
- \* Provide incentives to encourage telecommuting.

## OUR COMMITMENT:

### DIAGONALITICALLY INCREASE TRANSPORTATION SPENDING

**Everybody contributes. Everybody benefits.**

- Dedicate an additional \$1 billion in new local transportation spending for congestion relief efforts over 10 years

## Our Investment

- 3 cent increase in dedicated transportation property tax
- 10 cent increase in State gas tax
- \$25 local vehicle registration fee
- New development pays its fair share through the Development Impact Tax





<b>Transit Components – County</b>	
<b>COMPONENT</b>	<b>EST. \$*</b>
Add 144 new buses 43% Increase	46
Increase bus operations by 40-45% over 10 year period <ul style="list-style-type: none"> <li>▪ Peak hour frequencies improve to 10 minutes on high ridership routes with 15 minute headways</li> <li>▪ Extend bus service on main routes from existing 8 or 10 PM to midnight</li> <li>▪ Add 15-20 new routes over 10 year period</li> </ul>	203
Add 3 new transit centers	4
Add 3 bus rapid transit projects	24
Improve bus operations with technology enhancements Provide real-time bus schedule information	4
Make all bus stops accessible with sidewalks	16
Continue funding for Fare Share and Super Fare Share	10
Provide express bus service on the I-270 and proposed I-495 HOV lanes	6
Support infrastructure maintenance and improvement	60
Build the Glenmont Metro garage	15
Improve existing Ride On infrastructure (garages, training center, etc.)	41
Optimize traffic management systems	20
Improve marketing activities	21
<b>TOTAL</b>	<b>470</b>

<b>Road Components – County</b>	
<b>COMPONENT</b>	<b>EST. \$*</b>
Construct 56 lane miles of additional roadway capacity on County system	287
Upgrade 20 existing bridges and build two new bridges	14
Provide targeted congestion relief by improving failing intersections	7
“Fast track” the planning and design of several crucial State highway segments	24
Fund critical data collection and travel monitoring efforts	3
Advance revitalization of Silver Spring CBD/Ripley District improvements	4
Ensure continued technological improvements for ATMS	8
Support infrastructure maintenance and improvement	62
Optimize traffic management systems	21
<b>TOTAL</b>	<b>430</b>

<b>Hiker-Biker Trails/Pedestrian and Traffic Safety Components – County</b>	
<b>COMPONENT</b>	<b>EST. \$*</b>
Construct/upgrade eight pedestrian facilities	15
Enhance pedestrian and bicycle access to rail stations	25
Construct/upgrade three hiker-biker trails	16
Create teams dedicated to rapid deployment for incident management/events	4
Fund 24-hour operation of the Transportation Management Center	7
Fund other safety initiatives	33
<b>TOTAL</b>	<b>100</b>

\* Estimated amounts are in millions of dollars

COMPONENT	EST. \$*
Build Metro Purple Line**	4,000
Build Georgia Avenue Busway	65
Build Corridor Cities Transitway**	800
Build US 29 Busway – Burtonsville to Silver Spring**	100
Increase MARC service between Rockville and Silver Spring	TBE
<b>TOTAL</b>	<b>4,965</b>

*\*\*These projects are likely to be completed beyond the Ten Year Plan period, but significant environmental and engineering work can be accomplished during that time.*

COMPONENT	EST. \$*
Add 118 lane miles of capacity to State highway system	1,810
Include six new interchanges on State highway system for congestion relief	350
Advance the completion of the InterCounty Connector (ICC) – provide 84 new lane miles of capacity	1,400
<b>TOTAL</b>	<b>3,560</b>

*\* Estimated amounts are in millions of dollars*





***Go Montgomery!***

***Transportation Plan for Our Future***

*Together, let's get moving...to prevent gridlock,  
to reduce congestion, and to preserve the quality  
of life for ourselves, our children and  
for those who follow us.*

**Douglas M. Duncan  
County Executive  
101 Monroe Street  
Second Floor  
Rockville, MD 20850**

**[www.co.mo.md.us](http://www.co.mo.md.us)  
*click on Go Montgomery!***

## DETAILED DESCRIPTION OF PHASE I AND II TASKS

### 1. Phase I Tasks

Phase I of facility planning involves completion of eight sequential steps or tasks described below.

**Task 1: Background Data Collection.** Examines the existing conditions and proposed future developments expected in the study area, such as the topography, environmental features, Master Plan/zoning information, traffic counts, noise sensitive locations, and accident data.

**Task 2: Travel Demand Forecasting.** Examines daily traffic volumes, peak period traffic volumes, and turning movements for the current year, 10 years from the start of the project study, and 20 years from the start of the project study.

**Task 3: Purpose and Need.** Evaluates whether the proposed project is necessary, or whether it will serve a purpose under current and future needs. This step in the process results in a Purpose and Need Report.<sup>1</sup> The Army Corps of Engineers must approve the Purpose and Need Report any time a project impacts wetlands.

**Task 4: Conceptual Alignments and Typical Sections.** Develops conceptual horizontal and vertical alignments and typical sections.

**Task 5: Preliminary Concept Plan.** Details the preliminary design of the project, such as number of lanes and width of side walks. It may present alternative designs to select from. The concept plan helps determine the project's impacts and serves as a guide during Phase II of facility planning.

**Task 6: Preliminary Impacts.** Identifies the impacts of the project on future traffic operations, the environment, the community, noise, and historic structures. A preliminary cost estimate is also developed at this point of Phase I. The preliminary cost estimate is based on the preliminary concept plan and impacts.

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<sup>1</sup> DPWT completes the rest of Phase I even if the background data collection and travel demand forecasting do not establish a purpose and need, in order to provide all of the documentation necessary to support the decision to not continue the project into phase II.

**Task 7: Project Prospectus.** Describes the information collected and the findings of Phase I of facility planning, including:

- A description of the study approach and the public involvement,
- A description of existing conditions (e.g., traffic operations, bus service, accident analysis),
- A preliminary environment inventory (e.g., historic resources, endangered species, wetlands, park and recreation resources),
- The preliminary concept plan, and
- Traffic projections.

The project prospectus recommends whether to proceed to Phase II and which alternative (if more than one was studied) to continue into phase II. If a purpose and need was not established, the prospectus will recommend stopping or changing the project.

**Task 8: Approval of the DPWT Director.** The DPWT Director recommends whether to proceed with development of the project and to move into Phase II of facility planning. If the Director determines that the project does not meet a sufficient purpose and need, DPWT changes or stops the project at this point. DPWT reports that most projects proceed to Phase II.

## **2. Phase II Tasks**

**Task 1: Preliminary Engineering.** Preliminary engineering is based on the work completed during phase I and involves the following tasks:

- Perform a physical investigation of the site and develop detailed plans of the existing conditions;
- Develop horizontal and vertical alignments;
- Examine the soil, hydraulic and structural characteristics, and design stormwater runoff and sediment control plans;
- Determine the amount of right of way necessary;
- Determine the intersection geometrics;
- Develop final concepts for the design of the project. This final concept is a more detailed design than the phase I concept plan;
- Determine if special structures are necessary to mitigate noise impacts;
- Determine environmental impacts and any necessary mitigation;
- Develop a sequence for the elements of the construction activities; and
- Identify the quantity and cost of elements required for construction, e.g., X tons of asphalt at \$X per ton.

The result of preliminary engineering is a set of plans, including:

- Title sheet
- Typical sections
- Superelevation data/geometric data (as needed)
- Plan and profile
- Pipe profiles
- Storm drain-drainage area maps
- Conceptual Stormwater pond plans
- Drainage structure details
- Drainage structure schedules
- Traffic control plans
- Structure plans
- Erosion and sediment control plans.

**Task 2: Detailed scope, schedule and cost estimate.** At this point in the process, 35% of the total design of the project is complete. Based on the work to date, Phase II identifies the specific elements of the project's design, the unit costs, and the specific tasks to be performed during construction. DPWT's Construction Section engineers use that information to develop a schedule for final design and construction. They also develop a cost estimate, based on the consultant's estimate of the quantity and cost of elements required for construction.

**Task 3: DPWT Director Review.** Based on the information collected in phase II, DPWT staff prepare a stand alone project description form (PDF) for the project for the Director's review. *The Director decides whether to recommend the project as a stand alone PDF for the County Executive's Recommended CIP.*




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 DEPARTMENT OF PUBLIC WORKS AND TRANSPORTATION
 

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## Division of Engineering Services

### *Father Hurley Boulevard at Waters Landing Drive*

Project Update 1

Summer 2002

#### PURPOSE

The purpose of this newsletter is to update you on the status of the proposed Father Hurley Boulevard at Waters Landing Drive Intersection Improvement.

#### INTRODUCTION

The intersection of Father Hurley Boulevard and Waters Landing Drive was studied and has been found to warrant new turning lanes and sidewalk/bikeway improvements for this area.

#### PROJECT SCOPE

The intersection improvement consists of constructing a westbound and eastbound twelve-foot-wide left turn lane in the existing median of Father Hurley Boulevard. The new lanes will each be approximately 330' long and will be signalized for the left turn onto Waters Landing Drive. Additionally, a four-foot-wide concrete sidewalk will be constructed on the south side of Father Hurley Boulevard from Wynfield Drive to Crystal Rock Drive. An eight foot asphalt bikeway will be constructed on the north side of Father Hurley Boulevard from Waters Landing Drive to connect with the existing bikeway at the Churchill Senior Housing complex. Impacts to private property will be limited

to a Public Improvement Easement needed from the Episcopal Church of the Diocese of Washington for the bikeway.

#### PROJECT STATUS

Plans are about 50 percent complete. Permits and easements are now being acquired. Construction is expected to start in July 2003 and be completed in September 2003.

#### TRAFFIC CONTROL

No roads will be closed for construction of the turning lanes; however, there may be some temporary lane closures. Bikeway and sidewalk construction will not affect traffic.

#### WHO IS RECEIVING THIS NEWSLETTER?

This newsletter is being sent to all citizens who are on the project mailing list. Please share this information with your neighbors. If they would like to receive future newsletters, please contact the Montgomery County DPWT, Division of Engineering Services, Design Section, at 240-777-7221, to be added to the mailing list.

#### FUTURE UPDATES

We plan to provide you with periodic updates on the construction progress.

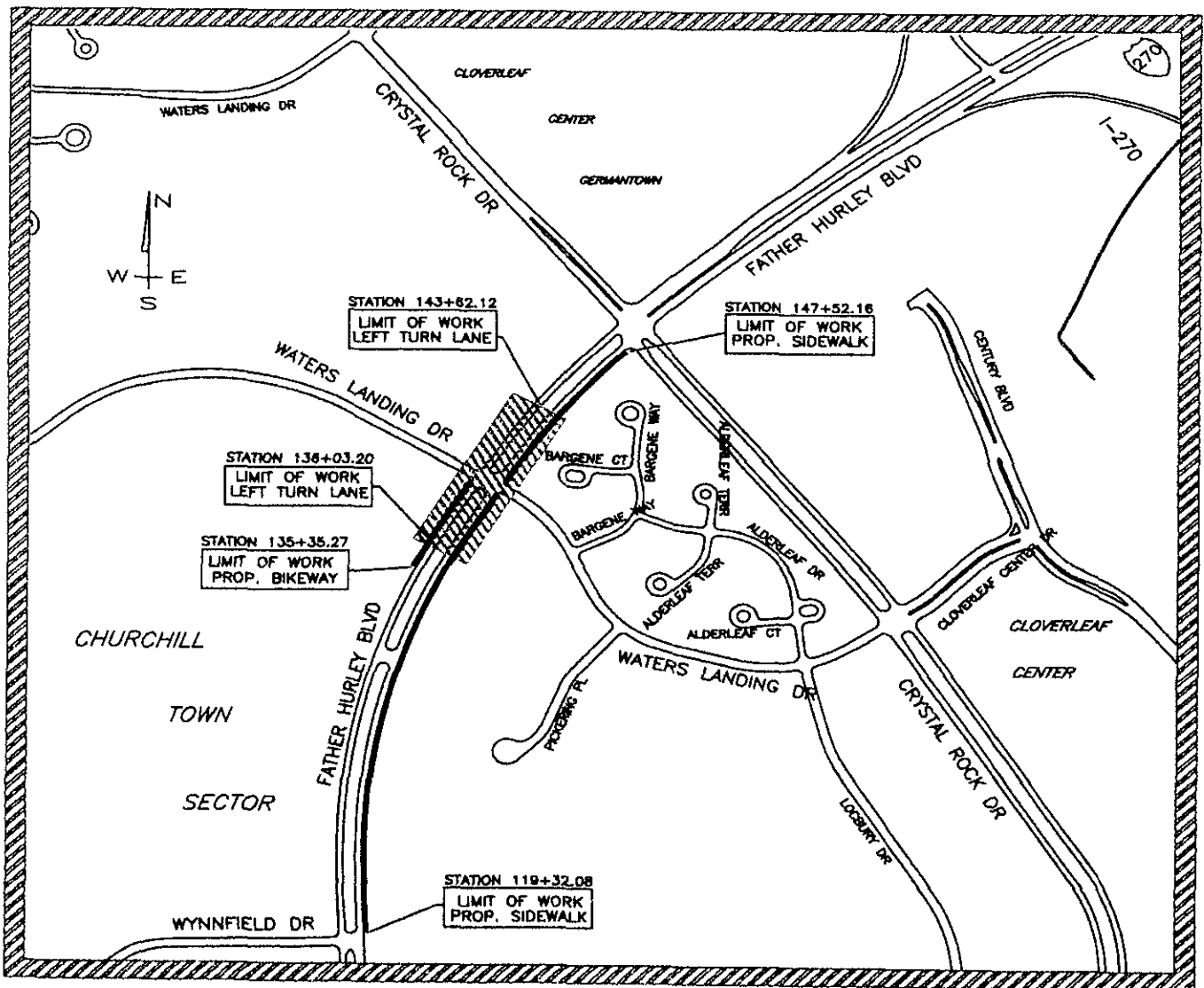
**FOR WEB SITE INFORMATION**  
 For information on this and other transportation projects in the County, please visit our web site at:

[www.dpwt.com/EngSvcDiv](http://www.dpwt.com/EngSvcDiv)

**MONTGOMERY COUNTY DPWT CONTACTS**

Questions	Contact	Telephone Number
Design	Neal Trullson	240-777-7284
Construction	Bob Fry	240-777-7217
Property Acquisition	Tom Reise	240-777-7257
Mailing List	Carolyn Narh	240-777-7237

**PROJECT LOCATION**





**DPWT - DES - DESIGN SECTION CIP PROGRESS REPORT****E. FACILITY PLANNING PHASE II - 35% PLANS***Project Type:*FACILITY PLANNING ROADS PHASE II**PROJECT 509337 FAIRLAND ROAD: US29 TO COUNTY LINE**

PDF: 11-78 Schedule Updated: 7/1/2002

Consultant: URS CORP

Eng Michael Mitchell 7-7262 Cons Tim Cupples 7-7214 PAS Fran Marcus 7-7256

MILESTONE ACTIVITIES	PROJECTED	CURRENT	ACTUAL
Notice to Proceed - Design			09/28/01
Concept Design Submittal			04/05/02
Team Mtg w/Traf/Cons (TCP, Utilities, SOC)			09/03/02
Preliminary Design (30%) Submittal	12/02		
Public Meeting	08/02		09/30/02
Mandatory Referral	12/02		

**Comments:** ~ Mandatory Referral 12/05/02.*Project Type:*FACILITY PLANNING ROADS PHASE II**PROJECT 509337 NEBEL STREET EXT. - CHAPMAN TO RANDOLPH ROAD**

PDF: 11-78 Schedule Updated: 7/1/2002

Consultant: URS

Eng Dan Sheridan 7-7283 Cons Bob Michael 7-7213 PAS Tom Reise 7-7257

MILESTONE ACTIVITIES	PROJECTED	CURRENT	ACTUAL
Notice to Proceed - Design	01/02		01/25/02
Concept Design Submittal	05/02		05/28/02
Preliminary Design (30%) Submittal	04/03		
Mandatory Referral	12/02	01/03	

**Comments:** ~ 10/21/02 Received plans form Target.

# FACILITY PLANNING PHASE I STATUS REPORT

## BURTONSVILLE ACCESS ROAD

*Project Limits: Burtonsville Elementary School Access Road to Burtonsville Shopping Center.*

Description: To construct a new road to provide an alternative access for existing businesses located on the north side of MD 198.

**Project Manager:** Jeri Cauthorn (240) 777-7231

**Consultant:** URS, Alan Straus

**Team Members:** Design: Rod Brown (207) 777-2281  
 PAS: Fran Marcus (240) 777-7256  
 Park and Planning: Dan Hardy (301) 495-4540  
 Piera Weiss (301) 495-4728

Construction: Bob Fry (240) 777-7217  
 Traffic: Carl Starkey (240) 777-8780  
 Transit: Rob Klein (240) 770-5835

<u>MILESTONE ACTIVITIES</u>	<u>PROJECTED</u>	<u>CURRENT</u>	<u>ACTUAL</u>
Notice-to-proceed	06/01		07/17/01
Purpose and Need Report	10/01		11/26/01
Kickoff/Public Meeting	02/01		02/20/01
Public Information Meeting	02/02	04/02	04/17/02
Final Concept Design	03/02	04/02	04/17/02
Draft Prospectus	04/02	05/02	05/16/02
Div Chief & Planning Bd Rec	06/02	11/02	
Director's Signature	08/02	12/02	

**Comments:**

**AUGUST 2002 UPDATE**

- ~ 7/25/02: Final prospectus complete.
- ~ 8/2/02: Meeting with Praisner held to discuss DHCA alternative.
- ~ Project on hold until decision from the director on which alternative to proceed to 35% design.

**SEPTEMBER 2002 UPDATE**

- ~Decision was made not to send the prospectus to the Planning Board for review until we receive direction from Al Genetti. Do we proceed with DPWT concept or DHCA concept presented by Marilyn Praisner on August 2, 2002?
- ~Project has now been on hold for two months.
- ~Received approval of prospectus from DTS on 9/3/02.

**OCTOBER 2002 UPDATE**

- ~ 9/27/02: Received approval of prospectus from DTPS.
- ~ 10/7/02: Met with Praisner to consider new concept.
- ~ 10/17/02: Met with Praisner to finalize new concept.
- ~ Amended prospectus due 11/4/02. Div. Chief, Planning Board & Director approval due by 11/30/02.

**NOVEMBER 2002 UPDATE**

- ~ 11/06/02: Amended prospectus received.
- ~ 12/16/02: Meeting scheduled w/Praisner, MCPS, Al Genetti to discuss parking impacts to school. This may change amendment.

**DECEMBER 2002 UPDATE**

- ~ 11/26/02: Prospectus addendum sent to Traffic, Transit, & Engineering Division Chiefs, & M-NCPPC, for review and signature.
- ~ 12/05/02: Prospectus addendum received from Transit, signed with no comments.
- ~ 12/16/02: Meeting w/Praisner, MCPS, Al Genette - Do not change Prospectus. Ph. II should consider replacing 8 parking spaces for MCPS, and shifting road away from school if possible.
- ~ 1/16/03: Prospectus will be presented to Planning Board by M-NCPPC staff.

Monday, January 06, 2003

