



THE MARYLAND-NATIONAL CAPITAL PARK AND PLANNING COMMISSION
8787 Georgia Avenue • Silver Spring, Maryland 20910-3760

MCPB
Item No. 2
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MEMORANDUM

TO: Montgomery County Planning Board

VIA: Jeff Zyontz, Chief *JZ*
Countywide Planning Division

Eric Graye, Supervisor *EG*
Transportation Planning

FROM: Richard I. Roisman, 301-495-4547 for the Park and Planning Department *RIR*

SUBJECT: Annual Development Approval and Congestion (ADAC) Report

RECOMMENDATION: Approval to transmit ADAC report and prioritized project list to the County Council and County Executive.

Staff is pleased to present to the Planning Board the first Annual Development Approval and Congestion (ADAC) report. This new report is a requirement included by the County Council in their October 2003 resolution approving the 2003-2005 Annual Growth Policy (AGP) Policy Element. The Council asked the Board to report annually on development approvals and congestion and provide a prioritized list of **roadway improvements** to be included in both the State and County capital budgets to respond to the issues raised by that report. The Council also imposed higher impact taxes to fund transportation and school improvements, eliminated Policy Area Transportation Review (PATR), and strengthened Local Area Transportation Review (LATR) in several different ways. The Board reviewed and approved the new LATR guidelines on June 3, 2004, and references to some of the changes contained in the new guidelines will be made throughout the report. This is a preliminary draft of the report: staff will be providing updated data and analysis on development approved in the past year, rather than the entire development pipeline.

The ADAC report, which relies primarily on observed, on-the-ground data (as opposed to Policy Area Transportation Review, which relied primarily on the Department's TRAVEL/2 forecasting model), is a new tool for providing decision support to the County for roadway infrastructure investment, and serves as the first step in establishing a countywide congestion monitoring program to serve as a resource for analyzing the impacts of growth in both traffic and land use.

In reality, a countywide congestion monitoring program was started years ago through the creation of several Department initiatives, such as the Data Acquisition Software and Hardware (DASH) system, which archives traffic volume data collected by the County's Advanced Transportation Management System (ATMS), and a digital intersection database for Critical Lane Volumes (CLVs). The Board will be seeing data from these systems for only the first or second time as part of the ADAC report. While staff is excited to be finally realizing the benefits of having these systems in place, we must also acknowledge that the systems are still evolving, and we are still a long way from developing a *comprehensive* picture of congestion for the entire County. Staff reminds the Board of the enormity of such a task.

There are more than 3,200 route-miles of roadway and over 750 signalized intersections in Montgomery County, and building (and maintaining) a set of current data on even a fraction of the network presents a significant ongoing challenge. This is particularly true in a time of limited resources where even the agencies who physically build and maintain the roads have difficulty keeping funding for data collection, much less a travel monitoring program. Staff views this initial ADAC report as a starting point for many future ADAC reports and conversations about how to best address congestion in the County. While the data presented within are limited when viewed from a comprehensive, countywide perspective, they still cover a large geographic portion of the county, and provide new and innovative ways of examining and analyzing congestion. The data form an excellent foundation for further and future analysis of how travel conditions in the county change over time.

In order to provide even more data and another perspective on congestion in the county, staff has contracted with a consultant, Motion Maps LLC of Rockville, to obtain and analyze travel time and speed data for the county freeway and arterial network. Dr. Robert M. Winick, the principal of Motion Maps and a former Chief of Transportation Planning for the Division, has collected data on most of the major routes in the county by driving the streets in his car equipped with a Global Positioning System (GPS) unit and directly experiencing the county's traffic congestion while collecting the data. Dr. Winick has supplemented his data with existing GPS data collected by the Metropolitan Washington Council of Governments (MWCOCG), who survey selected arterial routes in the county on a three-year cycle. Data for the freeway network was taken from the Skycomp datasets collected for COG, and from the data archive for the Maryland State Highway Administration CHART ATMS, which is maintained by the University of Maryland. The resulting analysis has been integrated into the rest of the ADAC report, and staff plans to build on the travel time and speed database for use in future ADAC reports.

Data must be “mined” to yield coherent information that can be used to support decision-making. Every piece of congestion datum in our systems needs to be validated either by an automated process or through staff spot-checking. Some data are thrown out due to errors. Other data may exhibit significant variability, fluctuating widely. Because congestion in the county can be volatile, with conditions varying widely over both time (what is a “typical” travel day) and geographic space (congestion in Clarksburg exhibits different characteristics than congestion in Bethesda), the more available data, the better the ability to analyze congestion.

The State Highway Administration has realized this need and now routinely requires their traffic counting contractors to collect 13-hour turning movement counts (6:00 am to 7:00 pm) for use in project planning and congestion monitoring and makes those counts available over the Internet. Recent discussions with SHA staff on improving interagency data sharing indicate that the State may soon recommend that local jurisdictions also move to collecting 13-hour turning movement counts to ensure compatibility between count databases and to improve congestion monitoring efforts. SHA has also indicated that resources may be available to assist agencies in making this transition. The data collection policies currently in place at state, county, and municipal transportation agencies are shown in the table below:

Agency	Typical Duration and Resolution of Turning Movement Count	Primary Source / Format of Count Data
Maryland State Highway Administration	<ul style="list-style-type: none"> • Current counts: 13 hours (6:00 am to 7:00 pm); totals every 15 mins • Older counts: 12 hours (7:00 am to 7:00 pm); • Totals every 15 mins or every hour 	Consultants under contract to SHA; digital file submission required; counts stored in GIS-linked database and made available on Internet
Montgomery County Department of Public Works and Transportation	<ul style="list-style-type: none"> • 6 hours (7:00 am to 9:00 am, 11:00 am to 1:00 pm, 4:00 pm to 6:00 pm) • 4 hours (7:00 am to 9:00 am, 4:00 pm to 6:00 pm) • 12 hours (for special studies, 7:00 am to 7:00 pm); • Totals every 15 mins 	Consultants under contract to DPWT; paper files
City of Gaithersburg	<ul style="list-style-type: none"> • 4 hours (7:00 am to 9:00 am); • Totals every 15 mins 	Uses DPWT contractor; paper files
City of Rockville	<ul style="list-style-type: none"> • 6 hours (6:00 to 9:00 am, 4:00 pm to 7:00 pm); • Totals every 15 mins 	Count technician on staff; in the process of converting counts to digital format for GIS linkage
Montgomery County Department of Park and Planning	<ul style="list-style-type: none"> • Since 2002, 6 hours (6:30 to 9:30 am, 4:00 pm to 7:00 pm); • Totals every 15 mins (specified in LATR guidelines) 	Consultants under contract to applicants seeking development approval; LATR guidelines have required digital count submission since 2003; counts stored in GIS-linked database and made available on Intranet

*Local agencies also supplement their count data by accessing the SHA counts on the Internet

Staff is not advocating changes to LATR to begin collecting 13-hour traffic counts. Recent analysis of data performed for the update of the LATR guidelines (and contained in the ADAC report) indicates that the current guidelines for data collection

are still appropriate for development review regulation. However, staff reminds the Board that a congestion monitoring program and this ADAC report are only as good as the data and the systems that support it, and that a commitment to comprehensive, countywide congestion monitoring requires additional resources to support enhanced data collection and to maintain and upgrade the systems already in place, such as the DASH data archive and the digital intersection database.

Priority Transportation Projects

Staff's prioritized list of projects can be found in Attachment 1 to this memo, and on page 37 of the report, attached. Staff analysis of each project and the rationale for how they are prioritized begins on page 40 of the report. This ADAC report and its recommendations fall in between the Board's regular schedule for making recommendations during the budget cycle for the Maryland Consolidated Transportation Program (CTP) and the County Capital Improvements Program (CIP). The Board identified priority projects for the FY05-FY10 CIP last summer, and then provided comments on the Executive's recommended CIP in February of this year. The CIP was adopted with the rest of the county budget in May, and the transportation element does not differ significantly from what was contained within the Executive's original recommendations. Because the CIP is now updated on a two-year cycle, the ADAC report recommendations for priority county projects will not be considered officially until fall 2005, when preparations begin for the FY07-FY12 CIP. For the CTP, the Board traditionally submits its priorities to the Council in the early fall, well in advance of the local tour undertaken annually by Maryland Department of Transportation officials and the delegation (a.k.a., the "road show"). So for the CTP, the ADAC report recommendations will stimulate discussion a few months earlier than usual.

The ADAC priority projects may differ from previous priority lists in that these roadway projects are recommended and prioritized primarily by their ability to relieve congestion. The project priorities are broken into the following categories:

- Projects of Regional and Statewide Significance
- State Project Priority List
- County Project Priority List

The projects of regional and statewide significance are not ranked. The remaining projects not funded for construction in existing capital programs are ranked based on the following methodology:

- Retain the previous year's rankings unless there are *new and significant* observed data on current congestion patterns, current development approvals, or forecast congestion patterns that cause projects to be ranked differently.

- Review and analyze available current observed data on congestion
 - CLVs, Average Annual Daily Traffic (AADT) volumes, DASH data, other link volumes, travel time / speed GPS data
- Review and analyze available current data on development approvals
 - Pipeline report, Hansen queries
- Review and analyze recent travel forecasting data
 - Link V/C Ratios, Average Speeds
- Review project progress reports
 - Projects that are further along in facility planning will be ranked higher compared with similar projects, all else held equal
- Based on review of data, recommend changes to project rankings, if applicable
- Based on review of data, recommend new projects for consideration

As the report will detail, there are numerous types of congestion and different ways of analyzing congestion, but congestion relief both present and future is the root of the recommended projects contained herein.

Ordinarily, staff recommendations on transportation priorities take into consideration other factors and goals, such as cost, safety, environmental stewardship, multimodalism, system management, maintenance, and preservation, and redevelopment / revitalization. The language in the Council resolution requiring the ADAC report asks for “...a prioritized list of road and intersection improvements based on current and projected congestion patterns and additional anticipated development.” Those words form the basis for determining whether or not a project is included in the list of ADAC recommendations; therefore, transit, sidewalk, and bikeway projects do not appear in the list of priorities, except where those facilities are included as part of a larger road project.

The vast bulk of unbuilt roadway projects recommended in master plans are located north of Rockville. That bias toward growth areas will ultimately need to be addressed. Certainly a comprehensive prioritization of transportation projects will include transit, bike, and pedestrian improvements. The needs and desires of the County to promote existing central business districts and area around metro stations should also affect the County’s transportation priorities. The recommendations herein explicitly follow the Council’s charge to the Board.

State funding for transportation improvements has not changed since the Board last prepared a set of priority projects; for that reason and the preference toward previous rankings contained in the prioritization methodology, the list of

recommendations for the CTP differs little from last year. There are some new projects to the list and some small changes in project rankings, since there are now more congestion data to be weighed when comparing the projects against each other. The County is anticipating new transportation funding from the impact taxes put in place last fall when Council updated the AGP, and that is why Council is now asking for project rankings. Previously, recommendations for the CIP were not ranked, but starting with the ADAC report the CIP projects listed in Attachment 1 are prioritized using the same methodology shown above.

Road, Interchange, and Intersection Project Priorities

Projects of regional and statewide significance (not ranked)

- Intercounty Connector
- I-270 improvements (extension of HOV lanes, managed lanes concept)*
- I-495 improvements (managed lanes concept)*

*The County's 12/5/2003 letter to the State ranked HOV on I-270 and I-495 as priorities # 7 and 8 for road improvements, respectively. Given the emergence of the managed lanes/HOT lanes concept, staff believes it is best to consider them again as major regional unranked projects.

State Project Priority List (last year's ranking in parentheses)

Construction Program

1. Rockville Pike (MD 355)/Montrose Parkway (Phase 1): build grade-separated interchange (1)
2. Georgia Avenue (MD 97)/Randolph Road: build grade-separated interchange (2)
3. Woodfield Road (MD 124): widen to 6 lanes from Midcounty Highway to Fieldcrest Road (3)
4. Clopper Road (MD 117): improve intersections from I-270 to Seneca Creek State Park (4)
5. Georgia Avenue (MD 97)/Norbeck Road (MD 28): build grade-separated interchange (5)
6. Georgia Avenue (MD 97): build 2-lane bypass around Brookeville (6)
7. MD 198: widen to 4 lanes from Old Columbia Pike to US 29 (7)
8. Rockville Pike (MD 355)/Montrose Parkway (Phase 2): build bridge over CSX Railroad (8)
9. I-270/Watkins Mill Road Extended (Phase 1): build grade-separated interchange (9)
10. US 29/Fairland Road/Musgrove Road: build grade-separated interchange (10)
11. Woodfield Road (MD 124): widen from Fieldcrest Road to Warfield Road (13)
12. MD 28/198: widen to 4 lanes from MD 97 to Old Columbia Pike (14)
13. Veirs Mill Road (MD 586)/First Street (MD 28): build grade-separated interchange (15)

Development and Evaluation Program (Project Planning)

1. US 29 / Stewart Lane / Milestone Drive: complete facility planning for grade-separated interchange and fund for construction (**)
2. Georgia Ave (MD 97) reconstruction in Montgomery Hills: add to Development and Evaluation Program (1)
3. Veirs Mill Road (MD 586) widening from Twinbrook Pkwy to Randolph Rd: add to Development and Evaluation Program (2a)***
4. Rockville Pike (MD 355)/Cedar Lane grade-separated interchange: add to Development and Evaluation Program (6)
5. Frederick Rd (MD 355)/Gude Drive grade separated interchange: add to Development and Evaluation Program (4)
6. Great Seneca Hwy (MD 119) flyover at Sam Eig Hwy: add to Development and Evaluation Program (2)
7. Rockville Pike (MD 355)/Nicholson Ln grade-separated interchange: add to Development and Evaluation Program (5)

8. River Rd (MD 190) widening from I-495 to DC Line: add to Development and Evaluation Program (**)
9. Ridge Rd (MD 27) from Midcounty Hwy to Damascus Main St (MD 108): add to Development and Evaluation Program (**)
10. Veirs Mill Rd (MD 586)/Randolph Rd grade-separated interchange: add to Development and Evaluation Program (**)
11. I-270/Newcut Rd Extended grade-separated interchange: add to Development and Evaluation Program (**)
12. Frederick Rd (MD 355) widening from 2000 feet south of Brink Rd to future Old Frederick Rd / Clarksburg Bypass: add to Development and Evaluation Program (**)
13. Rockville Pike (MD 355) at Jones Bridge Rd / Center Dr intersection improvements: add to Development and Evaluation Program(**)
14. Frederick Rd (MD 355) reconstruction in Olde Towne Gaithersburg: add to Development and Evaluation Program (3)

**Project did not appear on previous list.

***The road widening was requested as part of a Bus Rapid Transit study in the same corridor.

County Project Priority List (not previously ranked)

1. Montrose Parkway East: new road from Parklawn Dr to Veirs Mill Rd (MD 586): complete facility planning and fund for construction
2. Chapman Ave, extend road between Randolph Rd and Maple Ave: complete facility planning and fund for construction
3. Midcounty Hwy / Middlebrook Rd, from Montgomery Village Ave to Ridge Rd (MD 27) and from east of Frederick Rd (MD 355) to Midcounty Hwy: complete facility planning and fund for construction
4. Observation Dr, extend road from 800 feet north of Dorsey Mill Rd to Frederick Rd (MD 355): complete facility planning and fund for construction
5. Watkins Mill Rd, extend road from 1400 feet north of Clopper Rd (MD 117) to Frederick Rd (MD 355): complete facility planning and fund for construction
6. Longdraft Rd, widen from 2 to 4 lanes between Quince Orchard Rd (MD 124) and Clopper Rd (MD 117): complete facility planning and fund for construction
7. Goshen Rd South – widen road from Oden’hal Ave to Warfield Rd: complete facility planning and fund for construction
8. Deer Park Dr – replace bridge over CSX and construct master-planned realignment of Oakmont Ave: complete facility planning and fund for construction
9. Ripley District Improvements, build new circulation streets in Silver Spring CBD: complete facility planning and fund for construction
10. Randolph Rd, improvements between Parklawn Dr and Veirs Mill Rd (MD 586): complete facility planning and fund for construction
11. Stringtown Rd East (Section II), build new road 400 feet east of MD 355 to Midcounty Hwy (A-305): add to facility planning candidate list
12. Midcounty Hwy (M-83), study options between Shady Grove Rd and ICC, including grade-separation of Midcounty Hwy / Shady Grove Rd intersection: add to facility planning candidate list
13. Snouffer School Rd from Centerway Rd to Flower Hill Dr – widen to 4 lanes: add to facility planning candidate list
14. Seminary Rd / Seminary Pl / Second Ave / Brookville Rd / Linden Ln intersection safety improvements: add to facility planning candidate list