

T&E COMMITTEE #1
February 10, 2014
(Corrected)

MEMORANDUM

February 6, 2014

TO: Transportation, Infrastructure, Energy and Environment Committee

FROM: Glenn Orlin, ^{Go}Deputy Council Administrator

SUBJECT: FY15-20 Capital Improvements Program—transportation: overview, and bridge, highway maintenance, mass transit, and traffic engineering projects

Please bring the Executive's Recommended FY15-20 CIP to this worksession.

This is the first Committee worksession scheduled to review the transportation portion of the FY15-20 Capital Improvements Program. This worksession will include an overview of the transportation capital program, and a review of bridge, highway maintenance, mass transit, and traffic engineering projects. Worksessions are also scheduled for February 24 (for pedestrian facilities, bikeways, and roads) and, if necessary, March 3.

Council staff's understanding is that the Executive will likely transmit a revised Facility Planning-Transportation PDF with his operating budget recommendations in mid-March (the project is funded primarily with Current Revenue), so the review of this project will be scheduled at an operating budget worksession. As in the past several years, Parking Lot District (PLD) capital projects will be reviewed in April with the PLD operating budgets.

A. OVERVIEW

1. Transportation funding. For the FY15-20 CIP, the Executive is recommending approval of \$1,049.4 million in transportation capital expenditures, a \$37.1 million (3.4%) decrease below the \$1,086.5 million in the FY13-18 CIP as amended in May 2013. However, just as he did two years ago, the Executive is presenting the MCPS & M-NCPPC Maintenance Facilities Relocation project under Transportation—within the Mass Transit program, no less—although it has no relationship to transportation in general or mass transit in particular. As noted two years ago, this project should be placed with the General Government projects.

With this correction, the Executive's proposed spending for transportation projects in the CIP period would be \$982.3 million. Transportation's 23.1% share of programmed funds (excluding WSSC

and the yet-to-be approved \$230.7 million of State aid through School Financing Bonds) is virtually the same as the 23.2% share in the Amended CIP.

Percentage of Programmed Funds by Agency and Program (in \$000)

	Amended FY13-18 CIP	Percent	Executive's Rec. FY15-20 CIP	Percent
Montgomery County Public Schools*	1,365,497	31.1%	1,487,000	34.9%
Montgomery College	354,296	8.1%	348,100	8.2%
M-NCPPC (Parks)	154,575	3.5%	168,603	4.0%
Revenue Authority	26,661	0.6%	24,035	0.6%
Housing Opportunities Commission	12,337	0.3%	7,500	0.2%
County Government	2,475,135	56.4%	2,225,600	52.2%
<i>Housing/Community Development</i>	<i>35,656</i>	<i>0.8%</i>	<i>27,461</i>	<i>0.6%</i>
<i>Natural Resources/Solid Waste</i>	<i>329,373</i>	<i>7.5%</i>	<i>385,840</i>	<i>9.1%</i>
<i>General Government/HHS**</i>	<i>546,757</i>	<i>12.5%</i>	<i>452,227</i>	<i>10.6%</i>
<i>Libraries & Recreation</i>	<i>170,868</i>	<i>3.9%</i>	<i>149,433</i>	<i>3.5%</i>
<i>Public Safety</i>	<i>374,989</i>	<i>8.5%</i>	<i>228,332</i>	<i>5.4%</i>
<i>Transportation**</i>	<i>1,017,492</i>	<i>23.2%</i>	<i>982,307</i>	<i>23.1%</i>
TOTAL	4,388,501	100.0%	4,260,838	100.0%

* Not including \$230.7 million in requested State aid from School Financing Bonds in the Recommended FY15-20 CIP.

** Assuming funding from the MCPS & M-NCPPC Maintenance Facilities Relocation project is in "General Government" and not "Transportation."

The transportation capital program is divided into seven categories. The categories are not perfectly discrete. Two examples: many 'Roads' projects include bikeway and pedestrian improvements as part of them (see the useful new chart on page 21-2); and the Facility Planning—Transportation project, placed in the 'Roads' category, also includes planning funds for potential bikeway, sidewalk, and transit projects.¹ Nevertheless, the categorization provides a quick glimpse as to how the emphasis of the transportation program changes from year to year.

Programmed Transportation Funds by Category in \$000 (% of Total)

	FY13-18	FY13-18 Am	Rec. FY15-20	% of Rec. FY15-20
Bridges	18,159	21,990	26,139	2.7%
Highway Maintenance	207,770	210,451	209,318	21.3%
Mass Transit*	195,674	215,551	177,628	18.1%
Parking Districts	71,176	71,176	22,563	2.3%
Pedestrian Facilities/Bikeways	161,208	161,689	177,899	18.1%
Roads	282,842	254,515	290,328	29.6%
Traffic Improvements	81,728	82,120	78,432	8.0%
TOTAL	1,018,557	1,017,492	982,307	100.0%

* The table assumes that funding from the MCPS & M-NCPPC Maintenance Facilities Relocation project is in "General Government" and not "Transportation—Mass Transit."

¹ This year the Executive has decided to move the Transportation Improvements for Schools project from the Roads category to the Pedestrian Facilities/Bikeways category. In the following table, its cost is shown in the Roads category for a consistent comparison.

The allocation between Mass Transit and Pedestrian Facilities/Bikeways is somewhat skewed by the Executive's placing the entire MD 355 Crossing (BRAC) project within the Pedestrian Facilities/Bikeways category, when the larger part of the cost is associated with the new Medical Center Metro Station East Entrance. If the roughly \$40 million of the \$66.2 million cost in FYs13-18 were reallocated to Mass Transit, then Mass Transit would represent 22.2% of the recommended transportation CIP, and Pedestrian Facilities/Bikeways would represent 14.0%.

2. Other issues. According to the Subdivision Staging Policy, a transportation capacity improvement must be completed within ten years with construction beginning by the sixth year for it to be counted for development capacity under the Transportation Policy Area Review (TPAR), and fully funded within 6 years to be counted under the Local Area Transportation Review (LATR) test. As the projects are reviewed, Councilmembers should keep these points in the forefront.

In reconciling the Executive's recommendations to the annual spending affordability guidelines and targets, the Office of Management and Budget frequently adjusts year-by-year spending in "level-of-effort" projects (e.g., resurfacing, guardrail, traffic signals, etc.) to make the total spending in a year line up with available resources. In this first cut at reviewing the CIP, Council staff will be recommending making spending in these level-of-effort projects more level, as is generally the objective.

The Planning Board's staff has reviewed the Recommended CIP. Its comments on transportation projects are on ©1-8. Recommendations in that review are and will be referenced throughout this and future packets.

B. BRIDGES

1. "Consent" projects. These are continuing projects about which there are no specific changes recommended to the Executive's recommendations by public hearing testimony, the Planning Board, or Council staff. Each project would be recommended for approval unless a Committee member specifically asks for it to be discussed. Two information items are presented for each project:

- **Funding Change:** the percentage difference in cost from the Approved or Amended FY13-18 CIP to the Recommended FY15-20 CIP.
- **Timing Change:** the acceleration or delay of the project's completion, comparing the completion in the Approved or Amended FY13-18 CIP to that in the Recommended FY15-20 CIP.

Consent bridge projects (page)	Funding Change	Timing Change
Bridge Preservation Program (17-4)	+0.7%	not applicable
Bridge Renovation (17-6)	none	not applicable
Elmhirst Parkway Bridge (17-7)	none	delayed a few months
Gold Mine Road Bridge (17-9)	none	delayed 1 year
Whites Ferry Road Bridges (17-14)	none	delayed a few months

Council staff recommendation: Concur with the Executive.

2. **Bridge Design** (17-2). This project funds the design of bridge reconstruction and rehabilitation projects. The specific bridges identified as “candidate projects” nearly always result in construction. When they do not, the work is normally completed under the Bridge Renovation project. Therefore, whether to fund design for a bridge is the Council’s primary decision point for that bridge; once a bridge project has proceeded through design it nearly always is requested (and approved) to be programmed for construction starting in the next CIP.

The County’s bridges are inspected regularly and given a sufficiency rating which takes into account structural and functional adequacy. The ratings are on a 0-to-100 scale, with a ‘0’ score denoting an entirely deficient bridge. DOT recommends a bridge for this program when its problems cannot be addressed through normal maintenance activity.

The project covers the County cost—partly offset by some annual in State aid—to design the replacement or rehabilitation of bridges. Last year there were 12 bridges in the program. This year, two of the bridge designs have been completed, and the design is much closer to being completed on seven others. The Executive is not recommending any additional bridges to be designed. As a result, the 6-year cost of the program is down by about \$1 million (26%) from the Amended FY13-18 CIP. **Council staff recommendation: Concur with the Executive.**

3. **Park Valley Road Bridge** (17-10). This new project would replace this structurally deficient bridge over Sligo Creek in Silver Spring/Takoma Park. The new bridge would widen the roadway across it from 20’ (two 10’-wide lanes) to 26’ (two 13’-wide lanes), and would widen the sidewalk from 5’1” to 5’8”. Furthermore, the Sligo Creek Trail, which is currently routed over the bridge, would be relocated with its own bridge over Sligo Creek. The cost of the project is \$3,950,000, of which \$2,912,000 (73.7%) is Federal aid. The initial plan was to replace the parapets and side walls with faux stone facing on concrete; this would have required the bridge to be closed for only 3 months. However, the community feels strongly that the stone should be replaced with stone, which will require the closing to last for one year. During the closure traffic coming from the west will have to access the Parkway via Piney Branch Road or Maple Avenue.

Council staff recommendation: Concur with the Executive, reluctantly. Park Valley Road leading to the bridge has two 10’-wide travel lanes, which is appropriate for this secondary residential street. The only reason to widen the bridge to allow 13’-wide lanes across it is that that is a requirement for Federal aid eligibility. A new bridge with 10’-wide lanes would be sufficient, especially since the bike traffic on the Sligo Creek Trail would be re-routed off of it and onto a bridge of its own. On the other hand, a narrower bridge would have nearly the same cost, and all of it would have to be paid for with County funds.

If it is built with a 26’-wide roadway, then the lanes should be striped as 10’ wide, with 3’ on either side as bike-able areas even if they are not official bike lanes. This is virtually the same design approach being used on MacArthur Boulevard.

4. **Piney Meetinghouse House Road Bridge** (17-12). This new project would replace this structurally deficient bridge over Watts Branch in Potomac. The new bridge would widen the roadway

across it from 24' (two 11'-wide lanes with 1' offsets to the parapets) to 32' (two 12'-wide lanes with 4' bike-able shoulders). The cost of the project is \$4,025,000, of which \$2,807,000 (69.7%) is Federal aid. The existing bridge would be closed for 2-3 months in the summer of 2016, during which traffic would have to be detoured via River Road and Glen Road.

The *Countywide Bikeways Functional Master Plan* (adopted 2005) calls for an eventual dual bikeway along Piney Meetinghouse Road between River and Darnestown Roads: a shared signed roadway and a shared-use path. The proposed project provides width for the shared signed roadway, but not for the shared-use path. The Planning staff recommends that new bridge be striped for 11'-wide lanes and 5'-wide (official) bike lanes, and that it provide further width—presumably 8'-10' more—to accommodate the eventual master-planned hiker-biker trail.

Council staff recommendation: Concur with the Executive. The additional width for the planned shared-use path should not be provided at this time. The path will require a facility planning study of its own. We do not know, for example, if the path would be on the east or west side of the road and, since it is an off-road path, we do not know how far off the road it may meander. Given the backlog of off-road trails already in the construction or facility planning program, a shared-use path along Piney Meetinghouse Road is at least a decade or two away.

5. ***Valley Road Bridge*** (17-16). This new project would replace the superstructure of this bridge over Booze Creek in west Bethesda. The existing bridge has two 11'-wide lanes with 2'-wide shoulders, plus two 5'-wide sidewalks; the new superstructure would be the same. The cost of the project is \$1,175,000, of which \$812,000 (69.1%) is Federal aid. The existing bridge would be closed for 2-3 months in the summer of 2016, during which traffic would have to be detoured via River Road and Glen Road. (Note: The design of the project is expected to finish in the summer of 2014, not 2013. This will be revised in the final CTP.) **Council staff recommendation: Concur with the Executive.**

C. HIGHWAY MAINTENANCE

1. 'Consent' projects.

Consent highway maintenance projects (page)	Funding Change	Timing Change
Colesville Depot (18-2)	none	none
Resurfacing Park Roads & Bridge Improvements (18-4)	none	not applicable
Street Tree Preservation (18-10)	none	not applicable

Council staff recommendation: Concur with the Executive.

2. ***Road resurfacing and rehabilitation projects and Sidewalk & Infrastructure Revitalization*** (18-3 through 18-9, except 18-4). Some of the few places in the Recommended CIP where the Executive is recommending increasing funding are in infrastructure maintenance projects such as these. Such projects are chronically underfunded, often because there is virtually no public constituency advocating for them. Yet investment in infrastructure maintenance is essential to keeping the County's

assets in working order, and to keep future repair costs from blossoming. To paraphrase the old Fram Oil Filter ad: “You can pay me now, or you can pay me—much, much more—later.”

The Executive recommends adding \$5,698,000 (3.2%) more than the Amended CIP for roadway-related infrastructure maintenance projects. He recommends a large increase in Resurfacing Residential/Rural Roads project, mostly offset by cumulative reductions in the other four projects. The charts below show how much funding has been programmed in the Amended CIP, the Recommended CIP, and the difference from one 6-year period to the next (\$000):

Permanent Patching	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	6-Yr
Amended FY13-18 CIP	6,500	2,000	3,000	3,500	1,500	3,500			20,000
Rec. FY15-20 CIP			3,000	3,500	1,500	3,000	3,400	2,900	17,300
Difference									-2,700

Resurfacing: Prim./Art.	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	6-Yr
Amended FY13-18 CIP	10,000	7,500	6,000	7,000	5,000	7,500			43,000
Rec. FY15-20 CIP			6,000	7,000	5,000	7,500	5,600	5,600	36,700
Difference									-6,300

Resurfacing: Residential	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	6-Yr
Amended FY13-18 CIP	13,614	1,588	4,000	8,500	1,500	5,667			34,869
Rec. FY15-20 CIP			19,500	13,500	6,500	5,667	6,100	6,100	56,867
Difference									+21,998

Residential Road Rehab.	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	6-Yr
Amended FY13-18 CIP	6,600	9,700	7,200	7,200	3,700	8,200			42,600
Rec. FY15-20 CIP			7,200	7,200	3,700	8,200	7,600	5,600	39,500
Difference									-3,100

Sidewalk & Infra. Revit.	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	6-Yr
Amended FY13-18 CIP	8,800	6,800	5,300	6,300	4,300	6,800			38,300
Rec. FY15-20 CIP			6,300	5,300	4,300	5,800	6,700	5,700	34,100
Difference									-4,200

For each infrastructure element the Infrastructure Maintenance Task Force (IMTF) Report indicates an Acceptable Annual Replacement Cost (AARC): how much money should be budgeted annually for replacement or rehabilitation so that, if continued, ultimately the entire inventory of the element will last over its acceptable life span. Rarely is the AARC achieved, but if funds are available, the County should strive to come as close as possible to it.

- For residential road resurfacing, rehabilitation, and permanent patching taken as a whole, the AARC is about \$34 million. The Executive’s recommended FY15 budget for this element (which includes the Permanent Patching: Residential, Residential Road Rehabilitation, and Resurfacing: Residential Roads projects) is \$28.5 million, or 84% of the AARC. The average annual budget during the FY15-20 period would be 55% of the AARC.

- For primary/arterial road resurfacing, the AARC is about \$7.8 million. The Executive's recommended FY15 budget for Resurfacing: Primary/Arterial Roads) is \$6 million, or 77% of the AARC. The average annual budget during the FY15-20 period would be 78% of the AARC.
- For sidewalk, curb and gutter replacement, the AARC is about \$13.0 million. The Executive's recommended FY15 budget for Sidewalk & Infrastructure Revitalization is \$6.3 million, or 49% of the AARC. The average annual budget during the FY15-20 period would be 44% of the AARC.

Even though all the budget levels recommended by the Executive produce AARCs less than 100%, these are still excellent metrics compared to the budgets of the last two full decades.

Council staff recommendation: Concur generally with the Executive's 6-year funding recommendations, but have the expenditures be level across each of the years in these level-of-effort projects, as shown in the table below. The exception is for Resurfacing: Residential/Rural Roads, where Council staff's recommendation is to provide a high level of effort in FYs15-16 and lower in FYs 17-20, close to what is recommended by the Executive:

Permanent Patching (\$000)	FY15	FY16	FY17	FY18	FY19	FY20	6-Yr
Rec. FY15-20 CIP	3,000	3,500	1,500	3,000	3,400	2,900	17,300
Council staff rec.	2,900	2,900	2,900	2,900	2,900	2,900	17,400

Resurfacing: Prim./Art. (\$000)	FY15	FY16	FY17	FY18	FY19	FY20	6-Yr
Rec. FY15-20 CIP	6,000	7,000	5,000	7,500	5,600	5,600	36,700
Council staff rec.	6,100	6,100	6,100	6,100	6,100	6,100	36,600

Resurfacing: Residential (\$000)	FY15	FY16	FY17	FY18	FY19	FY20	6-Yr
Rec. FY15-20 CIP	19,000	13,500	6,500	5,667	6,100	6,100	56,867
Council staff rec.	16,500	16,500	6,000	6,000	6,000	6,000	57,000

Residential Road Rehab. (\$000)	FY15	FY16	FY17	FY18	FY19	FY20	6-Yr
Rec. FY15-20 CIP	7,200	7,200	3,700	8,200	7,600	5,600	39,500
Council staff rec.	6,600	6,600	6,600	6,600	6,600	6,600	39,600

Sidewalk & Infra. Revit. (\$000)	FY15	FY16	FY17	FY18	FY19	FY20	6-Yr
Rec. FY15-20 CIP	6,300	5,300	4,300	5,800	6,700	5,700	34,100
Council staff rec.	5,700	5,700	5,700	5,700	5,700	5,700	34,200

D. MASS TRANSIT

1. 'Consent' projects.

Consent mass transit project (page)	Funding Change	Timing Change
Bus Stop Improvements (19-3)	none	delayed 1 year
Ride On Bus Fleet (19-7)	-6.1%	not applicable

Council staff recommendation: Concur with the Executive.

2. **Bethesda Metro Station South Entrance** (19-2). Since the FY07-12 CIP the Council has programmed the design of a southern portal to the Bethesda Metro Station, and since the FY09-14 CIP it has programmed both its design and construction. The portal, which would be near the southeast corner of Wisconsin Avenue and Elm Street, has been in the County’s master plan since the 1980s, and the original construction of the Metro station allowed for it by including three knock-out panels in the west wall near the south end of the station cavity. The entrance would provide quicker access to Metrorail from the south side of the Bethesda CBD, add entry and exit capacity for the station (especially important when more than one escalator is out of service at the existing portal on the north side) and, not least, would provide a direct connection between Metrorail and the western terminus of the Purple Line.

The FY13-18 CIP included \$80.5 million for the project; the Executive’s proposal assumes the same. Both the existing and recommended CIPs assume that \$8.7 million will have been spent by the end of the current fiscal year. (Neither assumes the razing of the Apex Building, which could result in roughly a \$10 million cost reduction for this project.) However, the Executive’s proposal differs mainly in that it would defer \$19.9 million from FYs17-18 to FYs19-20, which is a significant difference from the Maryland Transit Administration’s (MTA’s) production schedule, which in turn is linked to the Purple’s Line production schedule:

Beth. So. Ent. (\$000)	ThruFY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	6-Yr
FY13-18 CIP	5,500	3,200	1,000	9,900	29,900	28,000	3,000		80,500
Rec. FY15-20 CIP	1,245	7,455	2,000	8,900	20,000	18,000	13,450	9,450	80,500

The County and MTA are working on an MOU to determine when the County’s payments will be made to MTA to construct the Southern Entrance. It might be based on progress payments, or it might result in a partial up-front payment with other payments after completion of major milestones.

Council staff recommendation: Retain the expenditure schedule from the FY13-18 CIP for now. It should be revised when MTA and the County finalize an MOU that stipulates when the County’s payments will be made.

3. **Montgomery Mall Transit Center** (19-5). This project will construct a new transit center in concert with the redevelopment of Westfield Shoppingtown Montgomery (Montgomery Mall). The project has been delayed by another year once again, to FY15. The cost has remained at \$1,342,000.

Westfield’s contact now believes that it will not undertake its expansion until calendar year 2016, at the earliest. Therefore, the County funds should be shown in FY16 instead of FY15. **Council staff recommendation: Defer the \$1,311,000 spending balance from FY15 to FY16.**

4. **Rapid Transit System** (19-6). This project reflects \$10 million the State has budgeted for new studies of bus rapid transit (BRT) in Montgomery County. The schedule for the State funds—\$4.2 million in FY15 and \$5.8 million in FY16—mirrors the funding schedule in the Maryland Department of Transportation’s FY14-19 Consolidated Transportation Program.

The Executive recommends using these funds for conceptual planning of the US 29 BRT corridor between Burtonsville and Silver Spring (Corridor 9 in the Adopted Countywide Transit Corridors Functional Master Plan) and the MD 355 North and South BRT corridors between Bethesda and Clarksburg (Corridors 3 and 4). The \$10 million likely will not be sufficient; recognizing this, both the Executive and the Committee are recommending more funds for these two studies as their top two priorities for MDOT's Development & Evaluation (D&E) Program.

The Executive also has two references to the Randolph Road BRT between White Oak and White Flint (Corridor 7). On the PDF under "Cost Change" the last sentence reads: "It is expected that facility planning for Randolph Road will be recommended for facility planning in FY17." This sentence should be deleted. First of all, as noted above, the soon-to-be-updated priority letter will recommend devoting the next set of planning funds for the US 29 and MD 355 studies. Second, there is no agreement that Randolph Road is the "next" corridor after these two. In fact, the draft priority letter indicates the next BRT planning priority will be the New Hampshire Avenue (Corridor 5).

It is important to note that at this time there is not an agreement between MDOT and the County as to whether the \$10 million will be provided to the County for it to conduct the study (for which the PDF and an appropriation is needed) or if MTA will conduct the studies itself (in which case there would be neither a revised PDF nor an appropriation). Hopefully this matter will be resolved before the Council approves the FY15-20 CIP in May.

The last sentence under "Other" should be corrected to state that FY13-14 studies of transit system priority and service planning and integration are for "the Purple Line, CCT, and *the RTS lines*," not merely for the RTS lines listed. The service planning and integration study is nearly complete; Charles Lattuca of DOT and Dan Goldfarb and Chris Conklin of VHB consultants will brief the Committee on the results of this study as pertains to the Veirs Mill Road and Georgia Avenue North Corridors (in project planning) and for the US 29 and MD 355 North/South Corridors.

Council staff recommendation: Concur with the Executive, except to delete the last sentence under "Cost Change" referring to Randolph Road.

5. Transit Park and Ride Lot Renovations (19-9). This project funds a regular renovation program to for the County's 8 park-and-ride lots served by transit, as well as three transit centers. Most of the lots were built two decades ago. The scope of the project used to include six MARC park-and-ride lots, but responsibility for their renovation has been assumed by MDOT. Furthermore, the renovation of the Montgomery Mall park-and-ride lot has been assumed by Westfield. As a result, the cost of the project has been reduced by \$2,463,000 (-44.8%) to \$3,039,000.

The Department of Environmental Protection is evaluating low impact design retrofits to reduce runoff on some of these lots, resulting in a changed order as to when the lots will be renovated. The Damascus and Traville lots are proposed for renovation in FY15. The Colesville and Greencastle lots are scheduled for FY17. The Kingsview, Burtonsville, Milestone, Lakeforest, and Germantown Transit center lots are scheduled for FY18; however, the latter three lots may ultimately be rehabilitated as a part of stand-alone projects currently in the planning under the Facility Planning-Transportation project. No

funds are proposed to be programmed in FY16, a consequence of the Executive’s reconciliation of his CIP recommendations.

The renovation of the Briggs Chaney lot, which had been scheduled for FY17 in the last CIP, was expedited and has been completed. The continuation of the private lot on Tech Road is uncertain, as its owners are considering removing the lot.

Council staff recommendation: Accelerate the Colesville and Greencastle lot renovations from FY17 to FY16 and the renovations of the Kingsview and Burtonsville lots from FY18 to FY17. Well maintained park-and-ride lots are important in attracting transit users.

E. TRAFFIC ENGINEERING

1. “Consent” projects.

Consent traffic engineering projects (page)	Funding Change	Timing Change
Intersection and Spot Improvements (23-5)	+5.7%	not applicable
Neighborhood Traffic Calming (23-6)	none	not applicable
Pedestrian Safety Program (23-7)	-2.2%	not applicable
Redland Road, Crabbs Branch Way-Baederwood La. (23-9)	none	delayed one year
Streetlight Enhancements—CBD/Town Center (23-11)	+2.7%	not applicable

Council staff recommendation: Concur with the Executive.

2. Advanced Transportation Management System (23-2). The ATMS project is a continuing program of capital investments in information technology to improve traffic flow and transit service. The program generally has been funded by the County at a rate of \$1,508,000 of Current Revenue annually (including \$8,000 annually for indirect charge-backs) and \$500,000 annually (Mass Transit Fund) for the roll out of 12-15 “Signs of the Times” each year: real-time scheduling information at Ride On bus bays at Metro stations, transit centers, and other major stops. The Recommended CIP retains this level of funding in each of the six years. **Council staff recommendation: Concur with the Executive.**

DOT is wrapping up the transit signal priority study that the Council funded last year as part of the Rapid Transit System project last year. Later this year the Committee should review the results of this study and consider funding recommendations that would allow transit signal priority in selected corridors to proceed as soon as possible.

3 Guardrail Projects (23-4). The Executive is recommending the same level of funding for this project year-by-year as in the Approved CIP. However, both versions of the CIP have funding that is lower than average funding in FY15 and higher than average in FY18.

Council staff recommendation: Set the funding at a stable \$315,000/year for this level-of-effort project. Over the 6-year period this would provide virtually the same amount recommended by the Executive (literally, \$5,000 more):

Guardrail (\$000)	FY15	FY16	FY17	FY18	FY19	FY20	6-Yr
Rec. FY15-20 CIP	275	310	310	370	310	310	1,885
Council staff rec.	315	315	315	315	315	315	1,890

4. **Streetlighting** (23-12). This project provides for both new streetlights as well as the replacement of those that are knocked down, damaged, or have reached the end of their useful life. The Executive is recommending the same level of funding for this project year-by-year in FYs15-17 as in the Approved CIP. However, the funding in FYs18-20 has its ups and downs, likely as a result of the Executive’s CIP reconciliation.

Council staff recommendation: Concur with the Executive’s recommendations for FYs15-17; set the funding in FYs18-20 at \$1,370,000 annually. Over the 6-year period this would provide the same amount recommended by the Executive:

Streetlighting (\$000)	FY15	FY16	FY17	FY18	FY19	FY20	6-Yr
Rec. FY15-20 CIP	840	955	980	910	1,850	1,350	6,885
Council staff rec.	840	955	980	1,370	1,370	1,370	6,885

The need for streetlights along Jackson Road noted by Planning staff has been acknowledged by DOT, and it is included in its backlog of in-fills and replacements. Typically the Council does not cherry-pick individual subprojects to accelerate, however. The Council’s role has been to identify a resources and then let the administering agency (DOT in this case) to decide where these resources are most critically deployed.

5. **Traffic Signals** (23-15). This project installs, modifies, and replaces traffic signals on County roads. The Executive is recommending that funding for the project be increased by \$1 million in FY15, but the funding would be reduced by \$2 million over the 6-year period, from \$29,393,000 down to \$27,393,000. As proposed the Executive’s recommended funding schedule has its ups and downs, too.

Council staff recommendation: Concur with the Executive’s recommendation of \$5,225,000 in FY15, but set the annual amount at \$4,835,000 annually in FYs16-20, bringing the 6-year total to \$29,400,000:

Traffic Signals (\$000)	FY15	FY16	FY17	FY18	FY19	FY20	6-Yr
Rec. FY15-20 CIP	5,225	4,725	2,975	5,718	4,375	4,375	27,393
Council staff rec.	5,225	4,835	4,835	4,835	4,835	4,835	29,400

6. **Traffic Signal System Modernization** (23-15). The 10-year effort to design and implement the modernization of the County’s signal system will be completed in FY16, the same schedule and cost as in the Approved CIP. What is new in the Executive’s recommendation is an annual expenditure of \$1,238,000 to fund the future life-cycle replacement of controllers, modems, uninterrupted power

sources (UPSs), and other hardware and software. These funds start in FY17. **Council staff recommendation: Concur with the Executive.**

7. **White Flint Traffic Analysis and Mitigation** (23-17). This project funds three tasks: (A) cut-through traffic monitoring and mitigation; (B) planning for capacity improvements to address congested intersections; and (C) a study of strategies and implementation techniques to achieve the Sector Plan's mode split goals, and annual monitoring of those goals. Tasks (A) and (C) are funded with current revenue; Task (B) with transportation impact taxes. The cost has increased by \$264,000, mainly due to extending the Task (C) annually into FYs17-20.

Council staff recommendation: Concur with the Executive. The Committee's review of the construction-related projects for White Flint will be on February 24.

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Analysis and Comment on the Executive's Recommended FY15-20 CIP

The following section describes where there have been significant changes in the CIP in regard to changes in funding or schedule, the addition of new projects, proximity or impacts to parkland. Five new transportation projects are included in the Executive's Recommended CIP and are noted below as **NEW**. Where specific recommendations are made, they are shown as underlined text.

Transportation Program

General

Whereas the cost changes for the individual projects are fairly well documented, the schedule changes are not.

Recommendation: In the future, each PDF should clearly state any changes in schedule from the previously approved CIP, as is done with the State's CTP.

Elmhirst Parkway Bridge (Bridge No. M-0353) (P501420)

This bridge adjacent to parkland is structurally deficient and would be replaced. While the roadway would be closed during construction, the Elmhirst Parkway bike path that leads into Rock Creek Trail would remain open.

Gold Mine Road Bridge (Bridge No. M-0096) (P501302)

This bridge in Hawlings River Park is structurally deficient and would be replaced with a new bridge that includes an eight-foot-wide bike path. The roadway would be closed for four months during construction.

Park Valley Road Bridge (P501523)

NEW: This bridge in Sligo Creek Park is structurally deficient and would be replaced. The roadway would be closed during construction but Sligo Creek Trail would remain open via a new 12-foot-wide, 55-foot-long bicycle-pedestrian bridge that would be constructed over the creek prior to the road closure.

Piney Meetinghouse Road Bridge (P501522)

NEW: This bridge in Watts Branch Stream Valley Park is structurally deficient and would be replaced. Both a shared use path and bike lanes are recommended in the Potomac Master Plan to be provided on this road. The current design includes two twelve-foot-wide travel lanes and four-foot-wide shoulders. At a minimum, the bridge should be striped to provide five-foot-wide marked bike lanes, narrowing the travel lanes to eleven feet. But the bridge should also include the planned shared use path. Failure to do so as part of this project would mean that the bike path would have to be constructed on a separate bridge, increasing the impacts to Watts Branch as well as costs.

Recommendation: Specify in the PDF that the planned shared use path along Piney Meetinghouse Road should be constructed as part of the roadway bridge.

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Valley Road Bridge (P501521)

NEW: This bridge over Booze Creek is structurally deficient and would be replaced. Although the project is new to the CIP, staff has already administratively approved the Mandatory Referral.

Rapid Transit System (P501318)

This project to begin planning for the County's Bus Rapid Transit network was originally budgeted at \$625K for FY14-15. The funding for FY15-16 would be increased by an additional \$10M in State funding and would be used to study the MD355 and US29 corridors. The PDF states, "It is expected that facility planning for Randolph Road will be recommended for facility planning in FY17." No funds are yet requested for Randolph Road, but we recommend that this sentence be deleted since Randolph Road had one of the lowest forecast transit ridership of the corridors studied for the Countywide Transit Corridors Functional Master Plan and the Planning Board is already on record as recommending that New Hampshire Avenue be the next candidate for facility planning.

Recommendation: Delete the citation of the Randolph Road corridor as a future study candidate and replace with New Hampshire Avenue, which is likely to have higher ridership and will support the new MetroExtra K9 bus service.

Resurfacing: Residential/Rural Roads (P500511)

In addition to adding \$12.2M for FY19-20, \$25M more was added to FY15-17 to maintain core infrastructure to avoid more costly improvements later on. We note that the Maryland State Highway Administration has similarly devoted more money to roadway maintenance in recent years.

Frederick Road Bike Path (P501118)

The cost of this project has increased by \$1.5M, mostly due to SHA's requirement that the width of the path be increased from eight feet to ten feet. The project was to have completed construction by FY16, but this would be delayed until FY17.

Metropolitan Branch Trail (P501110)

The project would be delayed by two years, in part because of negotiations over the alignment of the segment of the trail on the site of the historic B&O railroad station in Silver Spring and how it would affect the planned bridge over Georgia Avenue. Despite the delay, no change in cost is shown however.

Recommendation: Request that the Executive confirm that the budgeted cost reflects the current design.

Bethesda CBD Streetscape (P500102): This project would be fully funded in this CIP, which is a requirement before Stage II development can begin in this area. Construction would be completed in FY20.

Bethesda Bikeway and Pedestrian Facilities (P500119): As with the Bethesda CBD Streetscape project, this project must be fully funded before Stage II development can begin. Construction would be completed in FY17, two years later than previously expected. This delay could mean that the on-road alignment of the Capital Crescent Trail would not be ready by the start of Purple Line construction and the closure of the tunnel under the Apex Building.

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The design of the surface route of the Capital Crescent Trail has also changed since its inception from a standard off-road bikeway to a “gold standard” bikeway that reflects its importance in the bikeway network and its anticipated number of users. The expected higher cost of the current design does not appear to be reflected in the CIP, nor does any expected developer contribution.

Recommendation: Request that the Executive confirm that the budgeted cost reflects the current design of the Capital Crescent Trail on-road alignment, and that its construction will be completed prior to the closure of the tunnel under the Apex Building.

Capital Crescent Trail (P501316)

In November 2011 the Planning Board recommended that the Council program the cost of continuous lighting of the Capital Crescent Trail to the Illuminating Engineering Society of North America (IESNA) standards into the CIP at a cost of \$5.2 million (2018 dollars). In March 2012, the Council programmed only \$1.0 million for spot lighting into the CIP. Council staff stated in their memo that “a convincing case for continuous lighting along the mainline of the trail has not been made...Bike commuters navigate the current trail quite well at night if their bikes have headlights...Lighting at some spots along the trail would be useful, however, especially at junctions with connecting paths and in the few underpasses. Rather than spending up to \$5.2 million for continuous lighting, including \$1 million in the project’s budget instead for spot lighting is more appropriate.”

MTA recently updated the cost of providing continuous lighting on the trail using two standards, IESNA standards and Montgomery County standards:

- Install continuous lighting to IESNA standards: \$5.1 million (2018 dollars)
- Install continuous lighting to Montgomery County standards: \$3.8 million (2018 dollars) (The County standard would provide the same level of illuminance at ground level but would not meet IESNA’s higher standard for vertical illumination that would facilitate facial recognition, for example.)

A new option MTA presented would install conduit for the trail during trail construction, adding the lighting fixtures and wiring at a later point. The cost of design and installing conduit only is about \$600,000 (2018 dollars), and would give the County the ability to provide lighting in the future without major disruption to the trail.

Planning staff believes that the decision to light the trail should be made based on how the trail will function when the Purple Line, Capital Crescent Trail, and Bethesda South Entrance are complete, not how it functions today, which is what Council staff’s previous recommendation was based on. After completion of these projects, the demand for the trail will grow substantially.

Much of the increased demand will be from pedestrians and cyclists traveling to and from the Purple Line and Red Line stations and jobs in Bethesda and Silver Spring. However, this demand will not be realized if the trail is not well lit. Pedestrians don’t typically carry lighting with them and many may be deterred if they feel unsafe on the trail. While it is true that many cyclists are comfortable using

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headlights, headlights do not provide the same level of illumination as to street lights, and therefore many cyclists may also be deterred from using the trail.

Subsequent to the Council's vote to include only spot lighting in this project, the Planning Department contracted with Toole Design Group, a nationally renowned firm located in Silver Spring that focuses on bicycle and pedestrian planning and design, to conduct a comprehensive review of the trail, including trail lighting. Their September 2013 recommendations strongly support continuous trail lighting. Excerpts from their report include the following:

"A primary driver for elevating this issue is how trail usage will change as a result of its improved quality and integration with the Purple Line LRT. The portion of the trail between Bethesda and Silver Spring will shift from being primarily a recreational trail with some transportation usage, to being a transportation trail with a high level of recreational usage. The completed CCT combined with the Metropolitan Branch Trail will serve as a vital link in the region's transportation infrastructure. Accordingly, properly designed and placed lighting will have a major impact on how well the trail and transit line serve the public.

While the Capital Crescent Trail between the DC Line and downtown Bethesda is owned and operated by Montgomery County Parks (M-NCPPC), the future segment of the Capital Crescent Trail between downtown Bethesda and Silver Spring is operated by the Department of Transportation and will be a combined transportation and recreation facility in the fullest sense. It is vital to the success of the Purple Line that the CCT be understood, designed and managed as a part of the multi-modal transportation network. While there is no standard methodology that can be used to predict the volumes of transit patrons that will use the CCT to get to and from Purple Line stations, it is reasonable to expect that it will be used as an access route for up to 15% of Purple Line boardings and alightings at all stations between Bethesda and Silver Spring.

The Purple Line will have a span of service that is similar to Metrorail, open 18-20 hours each day. **Both pedestrians and bicyclists will use the CCT and its many direct neighborhood connections to get to and from the Purple Line stations at Connecticut Avenue, Lyttonsville Road and Woodside. As a result, lighting will be essential for function, safety and security.**

Further, AASHTO states that the provision of lighting should be considered where nighttime usage is expected, especially on paths that provide convenient connections to transit stops and stations, schools, universities, shopping, and employment areas. All of these criteria apply to the Purple Line.

In support of the AASHTO guidelines, public space design standards such as Crime Prevention Through Environmental Design (CPTED) and others accepted widely by police and public safety agencies cite lighting as one of the most effective deterrents to crimes against persons by controlling and reducing the "fear" and opportunity of crime (International CPTED Association, www.cpted.net).

Given all of the above additional information that has become available since the Council's last discussion, we believe that a convincing case for continuous lighting has now been made, and that the Board should reiterate its previous recommendation.

Recommendation: Provide continuous lighting on the Capital Crescent Trail between Bethesda and Silver Spring to the Illuminating Engineering Society of North America (IESNA) standard for vertical illuminance while ensuring maximum protection for undesirable spillover to adjacent homes. If lighting is not included in the initial construction of the trail, the cost of installing conduit for a future lighting project should be included in the Purple Line contract.

Facility Planning Transportation (P509337)

This ongoing program lists candidate studies in three categories:

- Those being done in the first two years of the CIP;
- Those starting in the last four years of the CIP; and
- Those starting beyond the six years of the CIP, essentially acting as a pool of candidates for the next CIP.

As projects move into the design program and as others are started, they migrate into a different category. The following studies were noted as candidates beyond FY18 in the Amended FY13-18 CIP, but are now shown as starting in FY17-20:

- Capitol View Avenue/Metropolitan Avenue (MD192) Sidewalk/Bikeway from Forest Glen Road to Ferndale Street
- Clopper Road (MD117) Dual Bikeway from Festival Way to Slidell Road
- Sandy Spring Bikeway from MD108 to Norwood Road (MD182)
- Clarksburg Transit Center
- Olney Longwood Park-and-Ride

The following additional changes of interest from the Amended FY13-18 CIP are noted:

- Dufief Mill Road Sidewalk from Darnestown Road to Travilah Road: This study has been deleted from the candidate list.
- Falls Road Sidewalk – West Side from River Road to Dunster Road: This study was to begin in FY15-18 but is now shown as starting beyond FY20.
- University Boulevard BRT: This study has been deleted from the candidate list but would be done in the future as part of the Rapid Transit System (P501318) PDF.
- Wisconsin Avenue (MD355) Bike Path from Bradley Lane to Oliver Street: This study has been deleted from the candidate list because SHA is pursuing the design of this project.

Additional Facility Planning Candidate: The Great Seneca Science Corridor (GSSC) Master Plan has staging requirements that have to be met before development capacity is available. Staging capacity in the GSSC Master Plan area is allocated at preliminary plan approval. Stage 1 made available 400,000 square feet of new commercial development and 2,500 new residential units. The last of the new commercial capacity in Stage 1 was allocated by Planning Board approval of a preliminary plan on November 10, 2011. Stage 1 is therefore, closed to approval of new commercial capacity.

The Life Sciences Center Loop Trail is among the projects that must be funded in the County's six-year CIP and/or through developer contributions as part of plan approvals before Stage 2 can begin. The trail must go through the facility planning process, which will determine the estimated construction cost, after which the project may be included in the CIP. Therefore, it is important that the planning process begin as soon as possible.

Recommendation: Include the Life Sciences Center Loop Trail as a Facility Planning candidate project for FY15-16.

Observation Drive Extended (P501507)

NEW: The proposed design funding is for the construction of 2.2 miles of four-lane divided roadway, plus the Corridors Cities Transitway in the median, from existing Observation Drive near Waters Discovery Lane to Little Seneca Parkway. The design would begin in FY19; the construction would be beyond the six years of the CIP.

Platt Ridge Drive Extended (P501200)

On September 16, 2010, the Planning Board discussed the potential extension of Platt Ridge Drive, a non-master plan roadway, through North Chevy Chase Local Park. The project is intended to improve access for Chevy Chase Valley residents based on the expectation that the "interim" traffic signal at Spring Valley Road would prove to be unsafe and not acceptable as a permanent solution. The Board agreed to allow MCDOT's planning of this non-master plan road to proceed, but there was no vote to support the project since none of the environmental or parks impacts were known at that time.

MCDOT has submitted a Mandatory Referral request for this project and we expect to schedule it for the Planning Board's review shortly pending clarification on a coordination issue with SHA's adjacent Connecticut Avenue (MD185)/Jones Bridge Road/Kensington Parkway intersection project. We believe that insufficient evidence of a safety problem with the "interim" traffic signal has been provided to date and that therefore the project's impacts to parkland and forest have not been shown to be minimized. Should the Planning Board vote to deny the Mandatory Referral when it is reviewed in March or April, the Board could also make a recommendation at that time to remove the project from the CIP.

Recommendation: Advise the Council that there is a possibility that the construction of this project may not be needed.

Seven Locks Bikeway (P501303)

This project would construct both on-road and off-road bicycle facilities and enhanced pedestrian facilities between Montrose Road and Bradley Boulevard, a bike path on Montrose Road between Seven Locks Road and the I-270 ramp, and northbound and eastbound auxiliary through lanes with on-road bike lanes at the intersection of Seven Locks Road and Tuckerman Lane. The project was scheduled to begin design in FY18 but is now delayed until FY20.

White Flint West Workaround (P501506)

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NEW: This project includes various roadway and bike improvements for Stage 1 development in White Flint and would cost \$55.3M. The construction would be completed in FY20. The improvements include:

1. Main Street/Market Street (B-10 & LB-1): 1,200 feet of two-lane roadway and bikeway from Old Georgetown Road (MD187) to Woodglen Drive;
2. Executive Boulevard Extended (B-15): 800 feet of relocated four-lane roadway from Marinelli Road to Old Georgetown Road (MD187); and
3. Reconstruction of the intersection of Hoya Street (M4A), Old Georgetown Road (MD187), and Executive Boulevard

Streetlighting (P507055)

This level-of-effort program would be increased by up to 100% in FY19-20. We recommend that the Board support increasing the funding for this important safety-related program.

One project that should be included in this program in the near-term is a replacement of the lighting along Jackson Road from New Hampshire Avenue (MD65) to Willow Wood Drive - a distance of about 3,000 feet - which has reached the end of its service life and is long overdue for replacement. The pedestrian sidewalks along Jackson Road provide connections from the neighborhood to White Oak Middle School, Jackson Road Elementary School, Martin Luther King Aquatic Center and Recreational Park, and the regional Paint Branch Hiker-Biker Trail. These sidewalks need to be adequately lighted to ensure the safety of children and other pedestrians.

In 2009, the Department of Transportation requested that the project be turned over to them for implementation in their capital program rather than to reimburse the Department of Parks to implement the project. The lighting has not yet been replaced however and we request that this project be programmed and completed as soon as possible. Our estimated construction cost in 2009 for the roadway lighting was approximately \$500,000. DOT anticipates the cost to be more due to natural cost increases and new lighting specifications that include LED fixtures. Currently, MCDOT has about 8-10 projects on their list prior to this, so, as prioritized, this is several years out.

Recommendation: Provide lighting along Jackson Road in FY15 or FY16.

Recommended Additions to Executive's Recommended FY15-20 CIP

Revolving fund for planning developer-built projects: Under Transportation Policy Area Review (TPAR), a project should be programmed when 10% of the private sector's share of the project has been collected in TPAR payments. While such roads could presumably be programmed under the **Subdivision Roads Participation, CIP No. 508000** project discussed above, many larger projects become stumbling blocks for small developments who want to build in the near-term in part because there is no plan for the ultimate improvement that needs to take place. Last year, the Board supported creating a Facility Planning process for these projects to ensure that the ultimate project is pursued in an efficient way. Developer contributions used for Facility Planning under this program should be considered as meeting their TPAR requirements.

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Recommendation: Include a project in the Transportation CIP for Facility Planning for developer-built projects and consider establishing a revolving fund to construct these projects and accept developer contributions as they move forward in the development process. This is especially needed for projects that are, or will eventually be, combined with county or state improvements to the same facilities. **Station Access Program:** An annual program is needed to improve access to existing or funded high Metrorail, light rail, and bus rapid transit stations in Pedestrian Bicycle Priority Areas and other station areas as stand-alone projects and as enhancements to existing projects. The highest priorities under this program would be the areas around Metrorail stations, typical improvements for which are recommended in the WMATA Pedestrian and Bicycle Element of 2012-2017 Capital Improvement Program.

Recommendation: Include an annual Station Access Program in the CIP.

Emory Lane Bikeway: The Emory Lane Bikeway from Muncaster Mill Road north to Holly Ridge Road needs to be included in the DOT CIP and constructed in conjunction with the Department of Parks' North Branch Trail project. This will close a critical gap in trail connectivity in order to provide a continuous hard surface trail from Lake Frank north to the ICC and Bowie Mill Local Park in Olney.

Recommendation: Include the Emory Lane Bikeway project in the CIP.

Other CIP Projects

The following discussion is grouped by those projects that are essential to implementing specific adopted plans, followed by a discussion of those projects that are important to the overall goals of the Subdivision Staging Policy and functional plans.

Long Branch Town Center Redevelopment (P150700)

NEW: This project provides for the public improvements necessary to support the redevelopment of the block bounded by Arliss Street, Flower Avenue, and Piney Branch Road. The development of the Purple Line will influence the development potential of the site. Planning will include new streets, utilities, streetscaping, public amenities, and parking necessary for the redevelopment of this area as a higher density mixed-use Town Center with retail at street level and residential above. The infrastructure will be planned in partnership with the Mass Transit Administration, property owners and businesses in this super block with input from the surrounding Long Branch community. M-NCPPC will assist by developing land use regulations that will facilitate this redevelopment effort.

Recommendation – We support this CIP project in coordination with review of future projects, especially those utilizing the Optional Method Density Incentive in the CR Zones.

Glenmont Fire Station #18 Replacement (P450900)

This project provides for a fire station to replace the current fire station located at the intersection of Georgia Avenue and Randolph Road. The project was delayed by selecting a new site for the station once design was nearly complete. An interim station will be operated during construction of the new station to minimize impact to the Maryland State Highway Administration (MSHA) Georgia Avenue/Randolph Road grade separated interchange project. Increased costs reflect delay to the