



2022 Fall Conference at OC Fontainebleau Resort

Transportation Funding and Financing

Chris Conklin, PE

Montgomery County Department of Transportation

September 30, 2022

9:00 to 10:00 AM

Biography

- MCDOT Director
2019 – Present
- MCDOT Deputy Director
2016-2019
- VHB, Inc
1993 – 2016
- Georgia Tech '97, MIT '99
- Hometown Norfolk, MA
Current Rockville, MD



MCDOT

Objectives

Transportation Funding and Financing

Learning Objectives

- What is the difference between funding and financing?
- What are the major sources of funding for transportation infrastructure?
- What are common financing tools?
- How is this related to project delivery?



Funding vs. Financing - Oversimplified

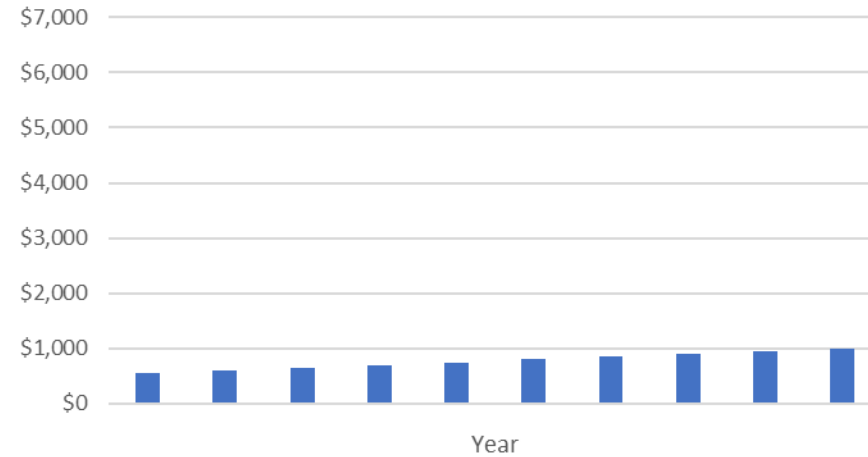
Funding

- Money used to pay for infrastructure
- Actual revenues available to the agency
- Example: \$8,250 revenue generated

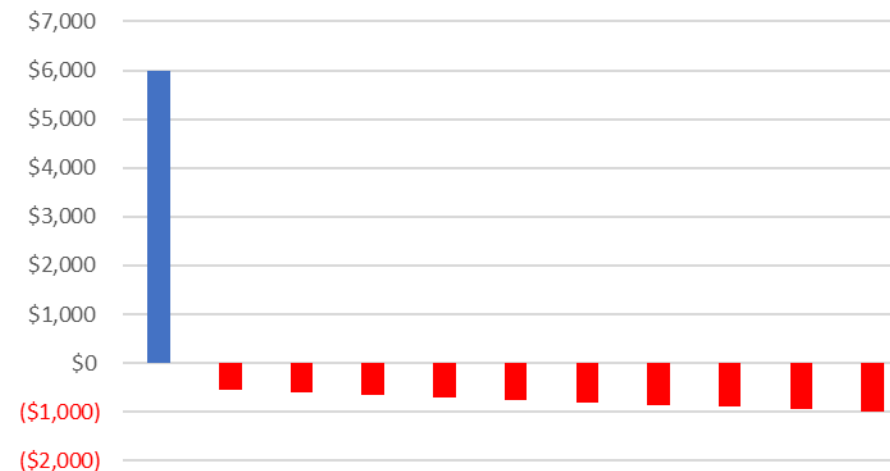
Financing

- Using budgeting and financial tools to make money available when you need it
- Comes at a substantial cost
- Worth \$6,000 now @ 4%
- 27% of revenue raised needed to cover the financing cost
- Cash flow needs and cost escalation are important considerations

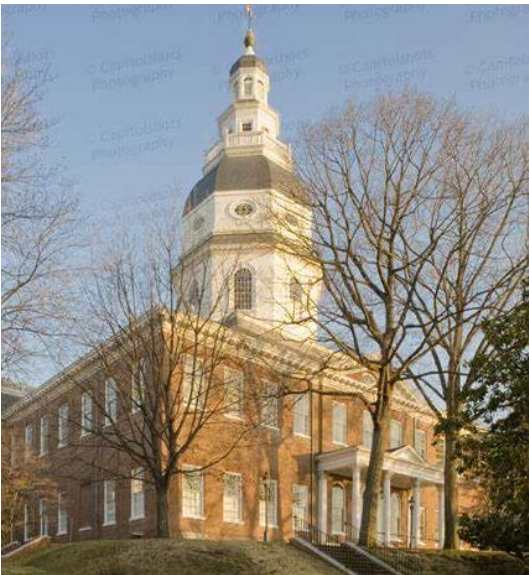
Funding



Financing



Funding Sources



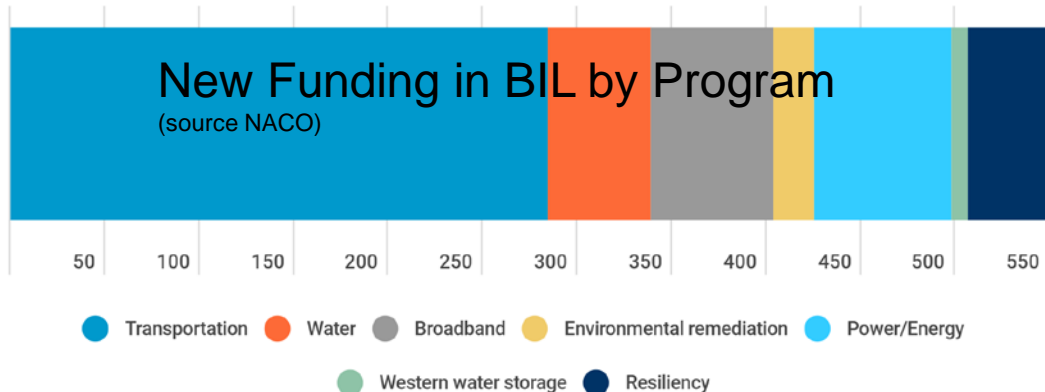
Four Main Categories

- Federal
- State
- Local
- Private sources

New Federal Funding (\$973b total/\$550b new)

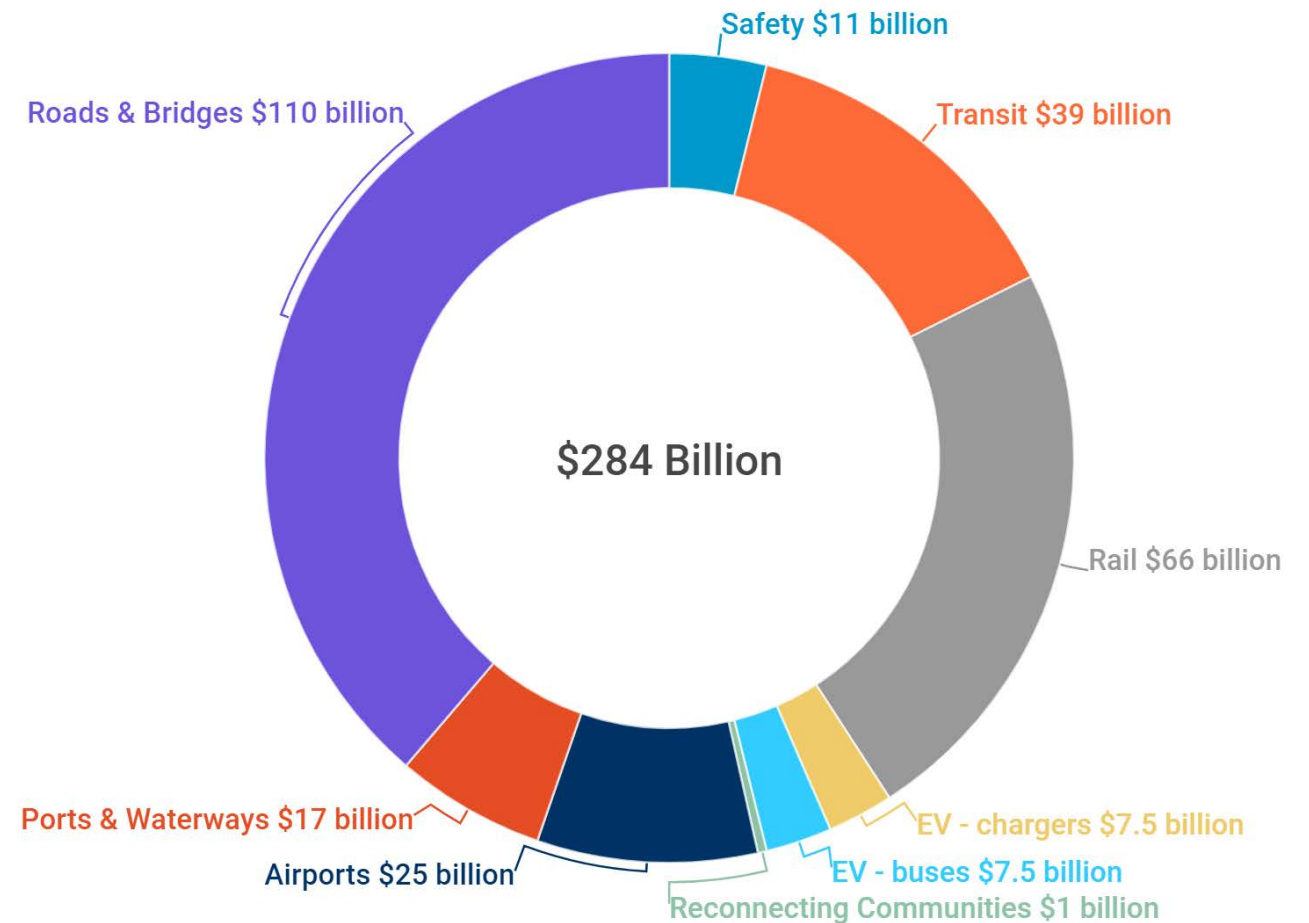


www.naco.org is a good resource



New BIL Transportation Funding

(source NACO)

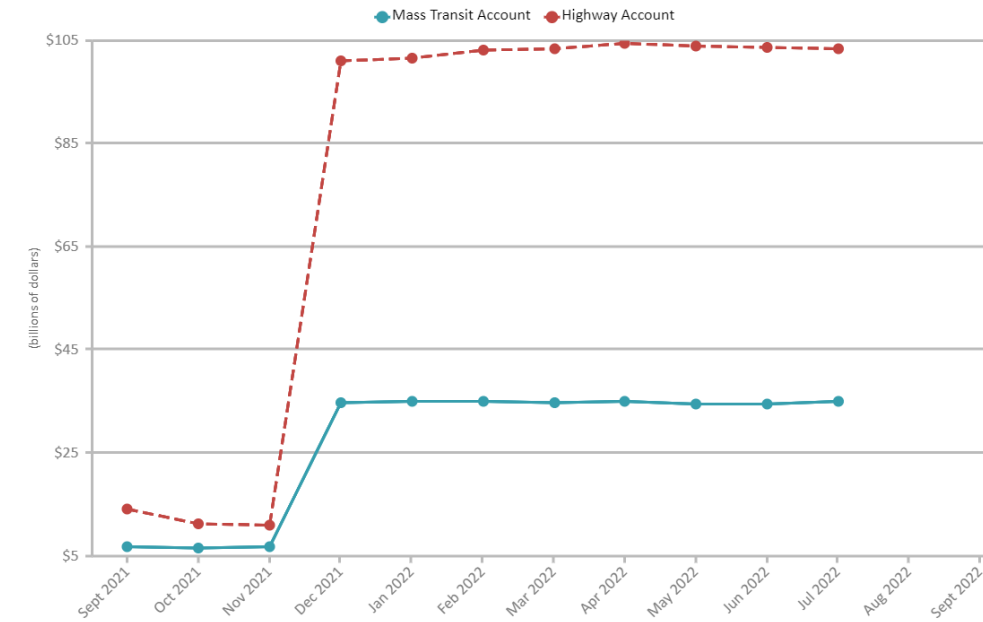


Transportation Trust Fund

Highway Trust Fund Outlook
(billions of dollars)

Fiscal Year	2016	2017	2018	2019	2020	2021	2022
Start of Year Balance	\$11.9	\$69.2	\$56.3	\$43.6	\$29.9	\$15.5	\$1.0
User fee revenues	\$41.8	\$41.9	\$42.8	\$43.1	\$43.7	\$44.0	\$44.2
General fund transfers	\$70.0						
Outlays:	\$54.5	\$54.8	\$55.5	\$56.8	\$58.0	\$58.5	\$45.2
<i>Highways</i>	\$43.6	\$43.9	\$44.2	\$45.2			
<i>Transit</i>	\$9.5	\$9.5	\$9.8	\$10.0			
<i>NHTSA, FMCSA & other</i>	\$1.4	\$1.4	\$1.5	\$1.6			
End of Year Balance	\$69.2	\$56.3	\$43.6	\$29.9	\$15.5	\$1.0	\$0.0

Highway Trust Fund Balance - FY 2022



Status of the Highway Trust Fund - Fiscal Year 2022

- Funded by motor vehicle fuels tax. Set in 1993 at \$0.18 per gallon.
- @ 3.5 % per year inflation, it should be \$0.51 today
- Does not reflect impact of improved fuel efficiency and alternative fuels

Accessing BIL Funding

Open Notices of Funding

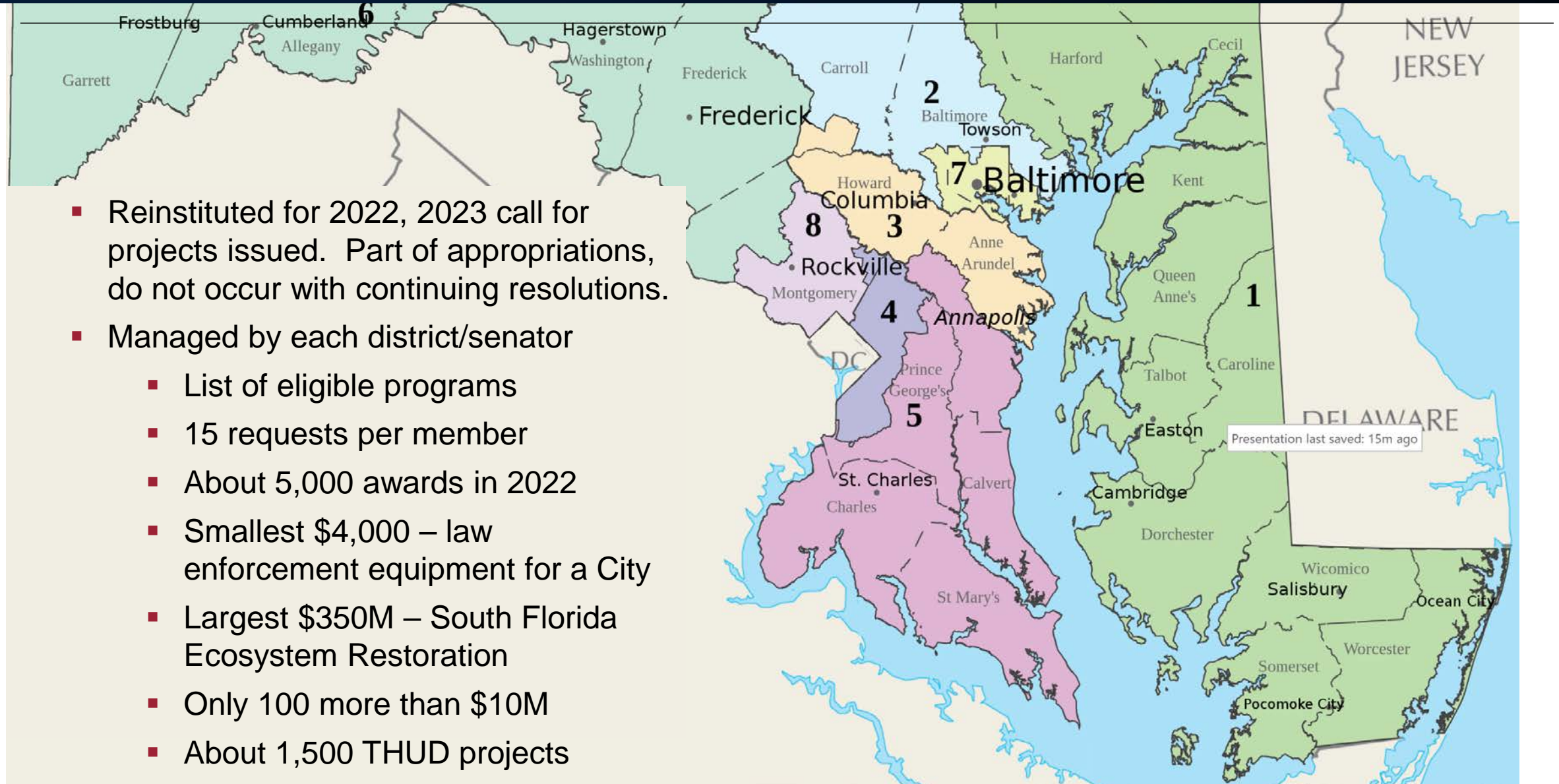
Customize cards Filter Sort ...

<p>Safe Streets for All Grant Prog...</p> <p>FY 2022 AVAILABLE AMOUNT</p> <p>\$1 billion</p> <p>AGENCY</p> <p>U.S. Department of Transportation</p> <p>SUB-AGENCY</p> <p>Office of the Secretary</p> <p>DESCRIPTION</p> <p>Supports the implementation of local safety initiatives to prevent death and serious injury on roads and streets</p> <p>SPECIAL ELIGIBILITY REQUIREMENTS</p> <p>NOTICE OF FUNDING OPPORTUNITY</p> <p>Notice of Funding Opportunity</p> <p>DEADLINE TO APPLY</p> <p>9/15/2022</p>	<p>Enabling Middle Mile Broadb...</p> <p>FY 2022 AVAILABLE AMOUNT</p> <p>\$980 million</p> <p>AGENCY</p> <p>U.S. Department of Commerce</p> <p>SUB-AGENCY</p> <p>National Telecommunications and I...</p> <p>DESCRIPTION</p> <p>Supports expanding and extending middle mile infrastructure to reduce the cost of connecting unserved and underserved areas to the internet ...</p> <p>SPECIAL ELIGIBILITY REQUIREMENTS</p> <p>NOTICE OF FUNDING OPPORTUNITY</p> <p>Notice of Funding Opportunity</p> <p>DEADLINE TO APPLY</p> <p>9/30/2022</p>	<p>Marine Debris Program</p> <p>FY 2022 AVAILABLE AMOUNT</p> <p>\$30 million</p> <p>AGENCY</p> <p>U.S. Department of Commerce</p> <p>SUB-AGENCY</p> <p>National Oceanic and Atmospheric ...</p> <p>DESCRIPTION</p> <p>Supports actions to reduce debris in our ocean, including clean up and response needed as a result of severe marine debris events</p> <p>SPECIAL ELIGIBILITY REQUIREMENTS</p> <p>NOTICE OF FUNDING OPPORTUNITY</p> <p>Notice of Funding Opportunity</p> <p>DEADLINE TO APPLY</p> <p>9/30/2022</p>
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- Formula Flowdown – increased funding for State -> County benefits
 - More capacity for the State to invest e.g. Off System (NHS) “local” Bridges
 - Restored local transit funding
 - Funding of priority projects
- Competitive Grant Programs
 - NACo Funding Opportunities for Counties
 - Increased funding for previous programs (INFRA, RAISE, CIG, Lo/No, etc)
 - New Programs – SS4A, Reconnecting Communities
- Be aware of Grant Requirements
 - Cost-Benefit Analysis, Reporting, Matching Funds

Community Funded Projects (earmarks)

- Reinststituted for 2022, 2023 call for projects issued. Part of appropriations, do not occur with continuing resolutions.
- Managed by each district/senator
 - List of eligible programs
 - 15 requests per member
 - About 5,000 awards in 2022
 - Smallest \$4,000 – law enforcement equipment for a City
 - Largest \$350M – South Florida Ecosystem Restoration
 - Only 100 more than \$10M
 - About 1,500 THUD projects



Accessing BIL Funding

Montgomery County Wins Nearly \$15 Million 'Low or No-Emissions' Award for the First Hydrogen Electric Bus Project on the East Coast

By FuelCellBuses · August 17, 2022 · 4 min read (529 words)



CHRIS VAN HOLLEN
U.S. SENATOR FOR MARYLAND

ABOUT CONSTITUENT SERVICES ISSUES NEWS CONTACT INVESTING IN MD

Search icons: magnifying glass, Facebook, Twitter, Instagram, YouTube

dedicated bus lanes, new pick up and drop off zones, bike lanes and storage, public plazas and green spaces, and kiosks to provide transit riders with information about community and multimodal connections.

Project Name: Bethesda Metro South Entrance

Project location: Bethesda, MD

Applicant: Montgomery County Department of Transportation

Amount requested: \$2,000,000

Description: Funds will be used for a new Bethesda South Metro Access that will provide access from Elm Street west of Wisconsin Avenue to the southern end of the Bethesda Metrorail Station. The station will provide connection to the Purple Line via the Bethesda Light Rail Transition station platforms just west of Wisconsin Avenue, helping to integrate the Purple Line with the WMATA Metrorail system.

Project Name: Cecil County Belvidere Road Expansion

Project location: Cecil County, MD

Applicant: Cecil County Government

Amount requested: \$500,000

Description: Funds will be used for planning and engineering of the expansion of Belvidere Road as part of the approved new Interstate 95 interchange, improving local traffic and commuting.

Project Name: Charles-PG Southern Maryland Rapid Transit (SMRT)

Project location: White Plains, MD

Applicant: Charles County

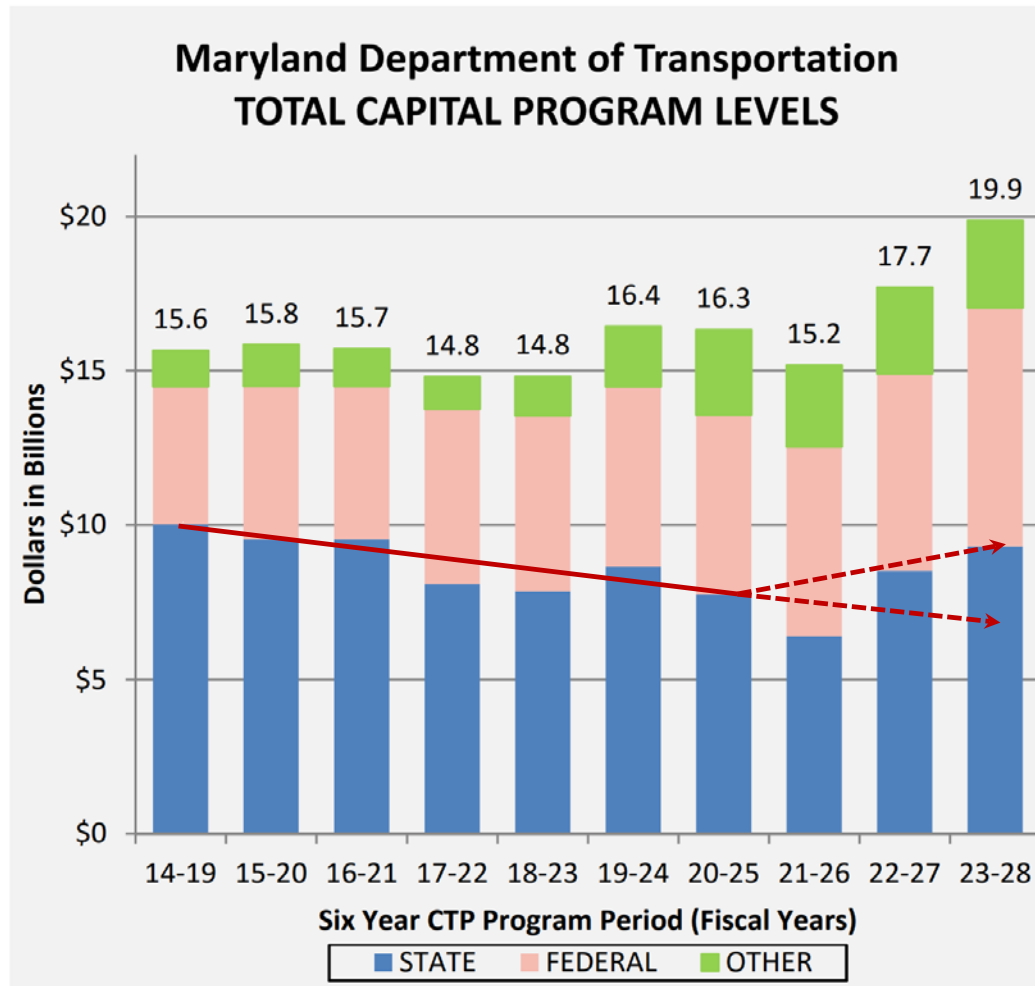
Amount requested: \$5,000,000

Description: Funds will be used for the planning, design, engineering, and environmental review process for the development of a 19-mile fixed-route, high-capacity transit service from the Branch Avenue Metrorail Station in Camp Springs to Waldorf/White Plains. The transit corridor would help alleviate traffic between Washington D.C. and Charles County and serve as a catalyst for economic and job growth. It is a top priority for Charles County.

■ Recommendations

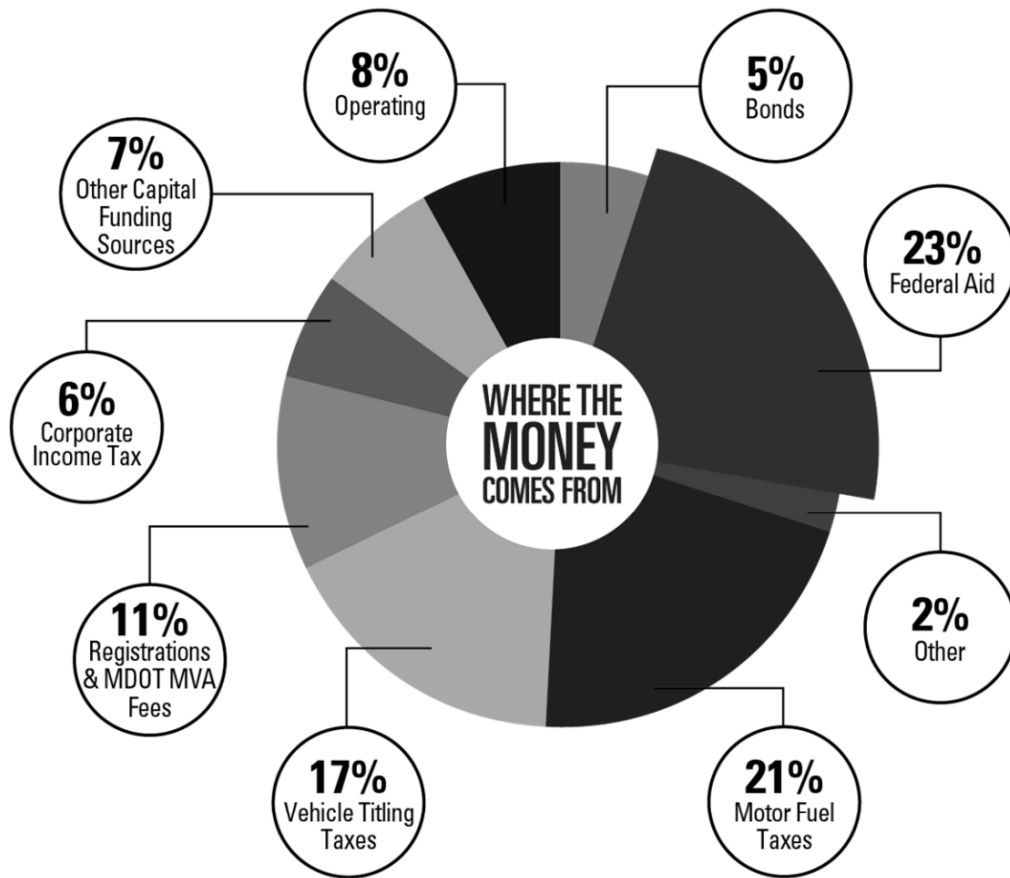
- Identify your matching contributions
- Be prepared – well in advance
- You may need consultants to help with specialized analysis or with documentation
- Align political support
- Try and try again

State Funding – Maryland CTP



- Total Six Year Capital Budgets typically around \$15 to \$16B
 - \$1B drop in FY21, travel restrictions impact to revenue
 - Basic revenue recovery in FY22
 - FY23, BIL impact, continued revenue recovery

State Funding – Maryland CTP

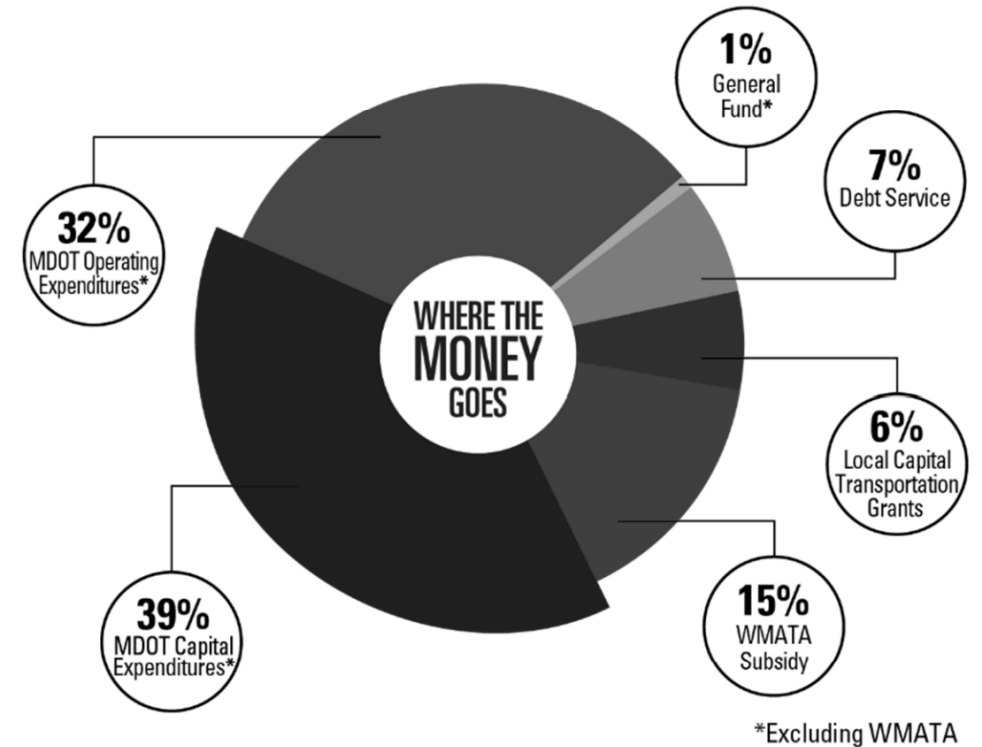


■ \$38B Six Year Revenues

- Fuel tax – \$8B, fixed tax (24 cents/gallon), plus inflationary adjustment, plus 5% sales tax – yields about 43 cents/gal (downward trend)
- Titling Tax - \$6.3B, 6% FMV for vehicle transfers (upward trend)
- MVA Fees - \$4.3B (flat)
- Corporate Income Tax \$2.4B 17% of 8.25% tax rate, increasing to 22% to accommodate HUR restoration
- Federal aid \$9.6B (including WMATA)
- Operating Revenue - \$2.85B
\$752M MTA, \$316 Port, \$1.78 Aviation
- MDOT Bonds \$1.96B
- Other - \$910M, rental/investment/misc income.

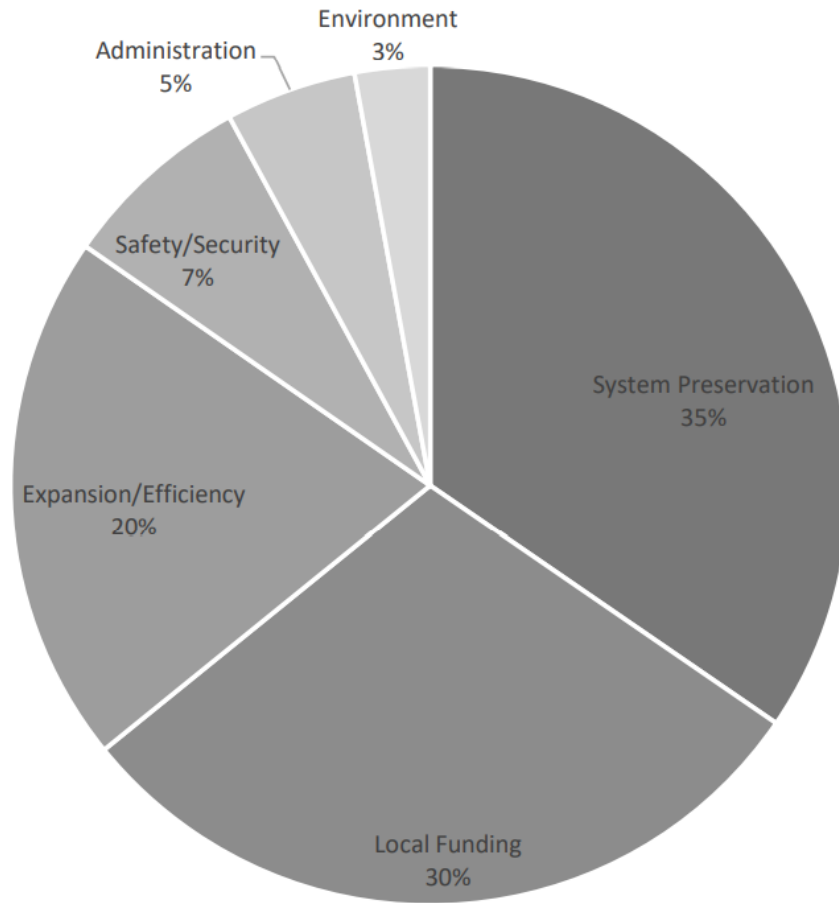
State Funding – Maryland CTP

FY 2023-2028 FINAL CTP SUMMARY (\$ MILLIONS)						
TRANSPORTATION BUSINESS UNITS		STATE FUNDS	FEDERAL AID	OTHER*	TOTAL	PERCENT OF TOTAL
Service Modes	MDOT TSO	159.5	7.1	1.8	168.4	0.8
	MDOT MVA	111.5			111.5	0.6
	Sub-Total	271.0	7.1	1.8	279.9	1.4
Aviation	MDOT MAA **	332.8	263.7	470.2	1,066.7	5.4
Maritime	MDOT MPA	863.1	202.1	289.6	1,354.8	6.8
Transit	MDOT MTA	2,337.6	1,754.8	158.2	4,250.6	21.4
	WMATA	1,054.6		1,819.8	2,874.4	14.5
	Sub-Total	3,392.2	1,754.8	1,978.0	7,125.0	35.9
Roads and Bridges	MDOT SHA	2,194.1	5,515.7	90.0	7,799.8	39.2
	HUR	2,246.0			2,246.0	11.3
	Sub-Total	4,440.1	5,515.7	90.0	10,045.8	50.6
TOTAL		9,299.2	7,743.4	2,829.6	19,872.2	100.0



State Funding – Types of Projects

Percentage of MDOT Capital Program by Investment Area



System Preservation
6.9B



Local Funding
5.9B



Expansion/Efficiency
4.1B



Safety/Security
1.5B



Administration
1.0B



Environment
575.2M

State Funding – Maryland CTP

Maryland Priority Letter Map

Priority Letters

Annually, each county should submit their letter of transportation priorities to MDOT by April 1st.

To view the county's latest priority letters, please select a county from the drop down menu or by selecting the county from the map below.

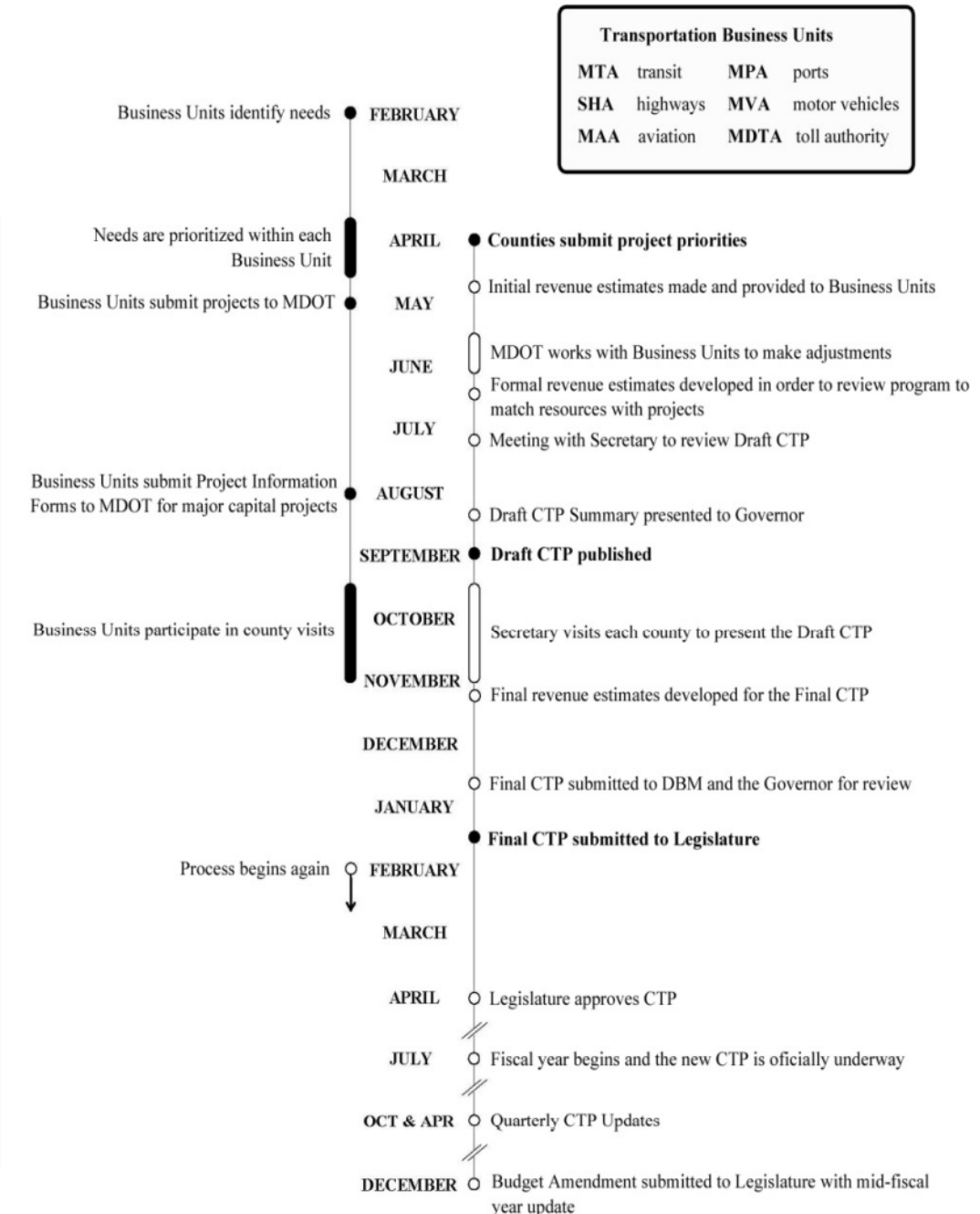
- Select A County -



FY23

About \$1.3b in projects added with BIL funding

CTP Development Process



State Funding – MDOT Administered Grant Programs

- Recurring Grant Programs \$ from 2021 awards
 - Transportation Alternatives Program (TAP): +/- \$12m
 - Recreational Trails Program (RTP): +/- \$1m
 - Locally Operated Transit Support (LOTS) Capital: +/- \$25m
 - Statewide Transit Innovation Grant Program (STIG)
 - Kim Lamphier Bikeways Network Program: +/- \$4m
 - Regional Aviation Program: +/- \$2m

State Funding – Other Funding

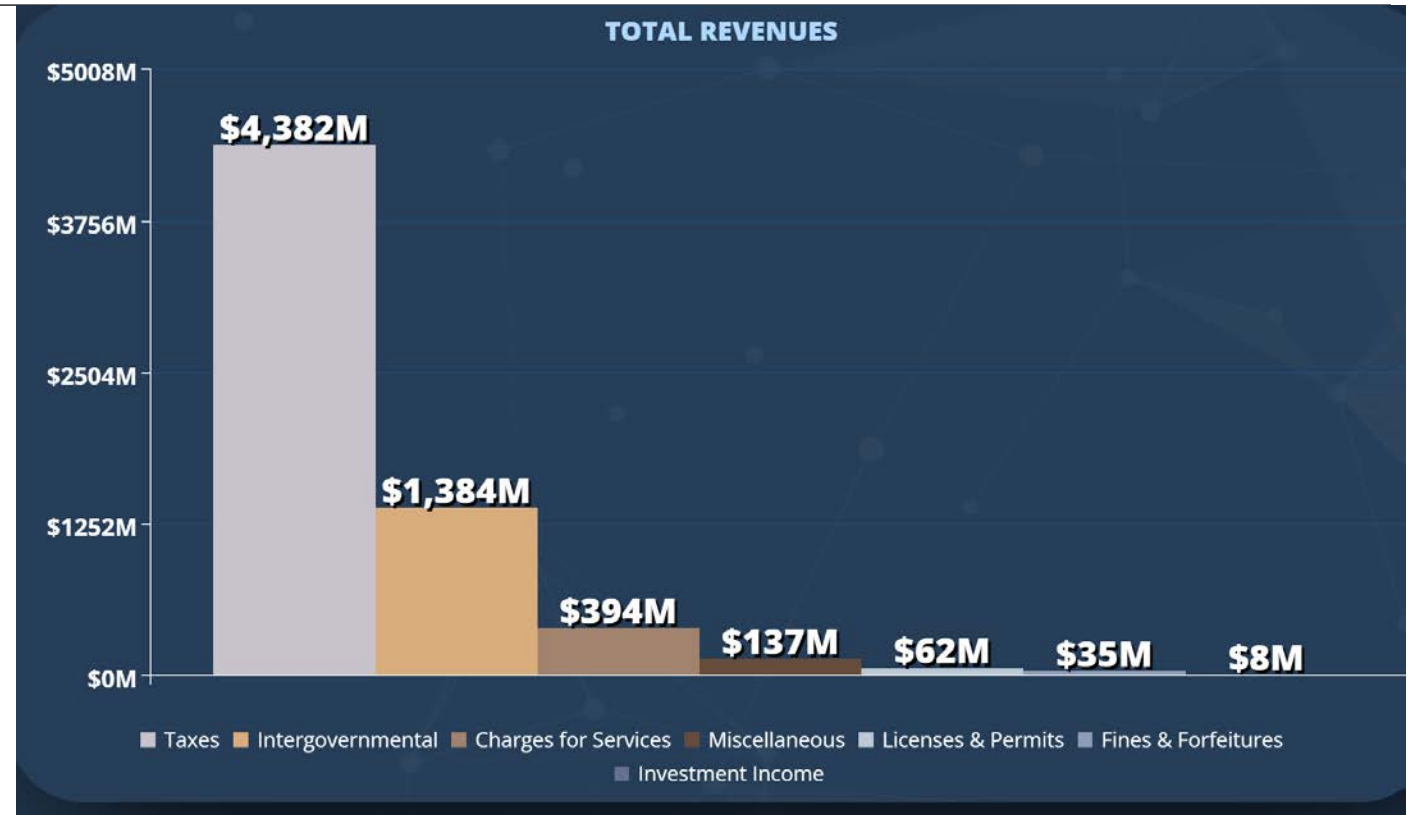
- Recurring Grant Programs

- grants.maryland.gov - 65 grant programs listed, a few are infrastructure related
- Capital Grants Programs
 - Legislative Bond Initiative – Introduced by General Assembly members
 - Maryland Consolidated Capital Bond Loan (MCCBL) – introduced by the Administration
 - Governor's Budget
- State Capital Grants were very significant in the 2022 budget. \$1.5 billion toward local capital projects. dgs.maryland.gov provides a list of all the awarded grants.

Local Funding

- Primary Sources

- Taxes
 - Ad-valorem property taxes
 - County Income tax
- Charges for Service
- Licenses & Permits
- Fines & Forfeitures



Example: FY23 Montgomery County Revenues

Locally Generated Sources



Example: Selected FY23 Montgomery County Revenue Sources

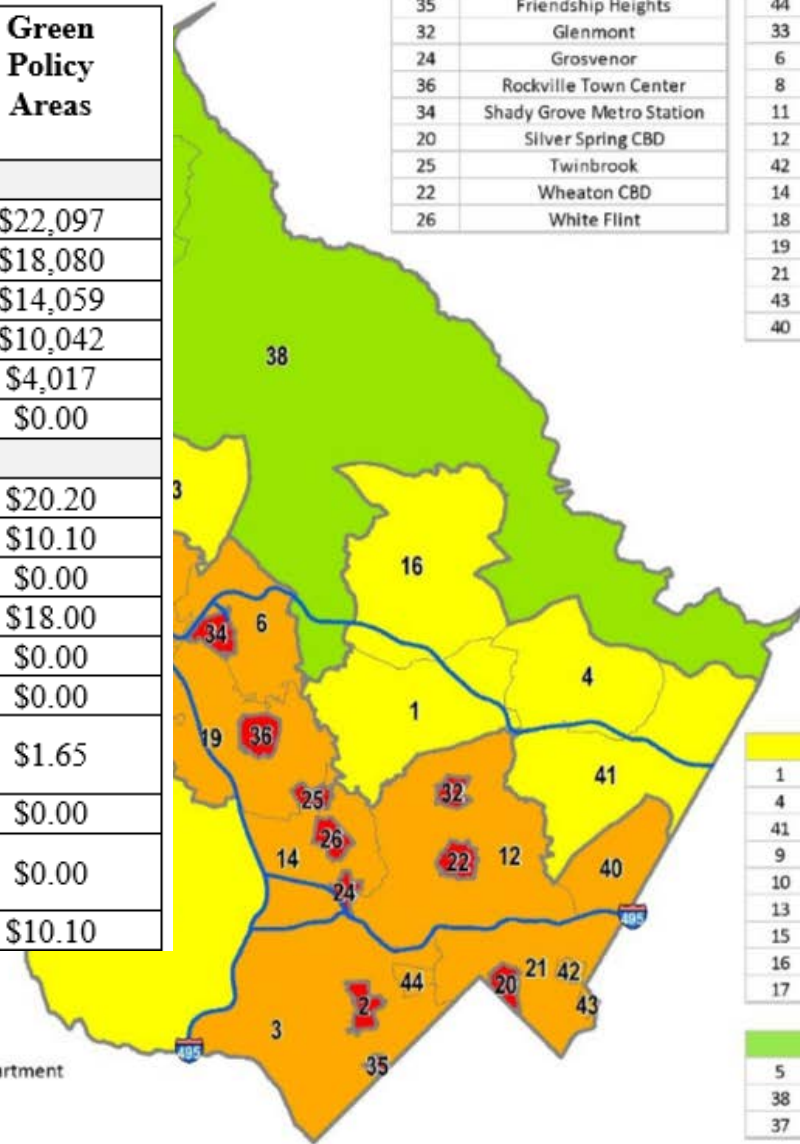
Less Common Sources: Impact Taxes

Montgomery County

Building Type	Red Policy Areas (Metro Stations)	Orange Policy Areas	Yellow Policy Areas	Green Policy Areas
Residential Uses				
Single-Family detached (per unit)	\$7,072	\$17,677	\$22,097	\$22,097
Single-Family attached (per unit)	\$5,786	\$14,464	\$18,080	\$18,080
Multifamily Low Rise (per unit)	\$4,499	\$11,247	\$14,059	\$14,059
Multifamily High Rise (per unit)	\$3,213	\$8,034	\$10,042	\$10,042
Senior Residential (per unit)	\$1,285	\$3,214	\$4,017	\$4,017
Student-Built Houses (per unit)	\$0.00	\$0.00	\$0.00	\$0.00
Commercial Uses				
Office (per sq. ft. GFA)	\$6.45	\$16.15	\$20.20	\$20.20
Industrial (per sq. ft. GFA)	\$3.25	\$8.05	\$10.10	\$10.10
Bioscience facility (per sq. ft. GFA)	\$0.00	\$0.00	\$0.00	\$0.00
Retail (per sq. ft. GFA)	\$5.75	\$14.45	\$18.00	\$18.00
Place of worship (per sq. ft. GFA)	\$0.00	\$0.00	\$0.00	\$0.00
Clergy House (per unit)	\$0.00	\$0.00	\$0.00	\$0.00
Private elementary and secondary school (per sq. ft. GFA)	\$0.50	\$1.30	\$1.65	\$1.65
Hospital (per sq. ft. GFA)	\$0.00	\$0.00	\$0.00	\$0.00
Charitable, Philanthropic Institution (per sq. ft. GFA)	\$0.00	\$0.00	\$0.00	\$0.00
Other nonresidential (per sq. ft. GFA)	\$3.25	\$8.05	\$10.10	\$10.10

2	Bethesda CBD
35	Friendship Heights
32	Glenmont
24	Grosvenor
36	Rockville Town Center
34	Shady Grove Metro Station
20	Silver Spring CBD
25	Twinbrook
22	Wheaton CBD
26	White Flint

3	Bethesda/Chevy Chase
44	Chevy Chase Lake
33	Clarksburg
6	Derwood
8	Gaithersburg City
11	Germantown Town Center
12	Kensington/Wheaton
42	Long Branch
14	North Bethesda
18	R&D Village
19	Rockville City
21	Silver Spring/Takoma Park
43	Takoma/Langley
40	White Oak

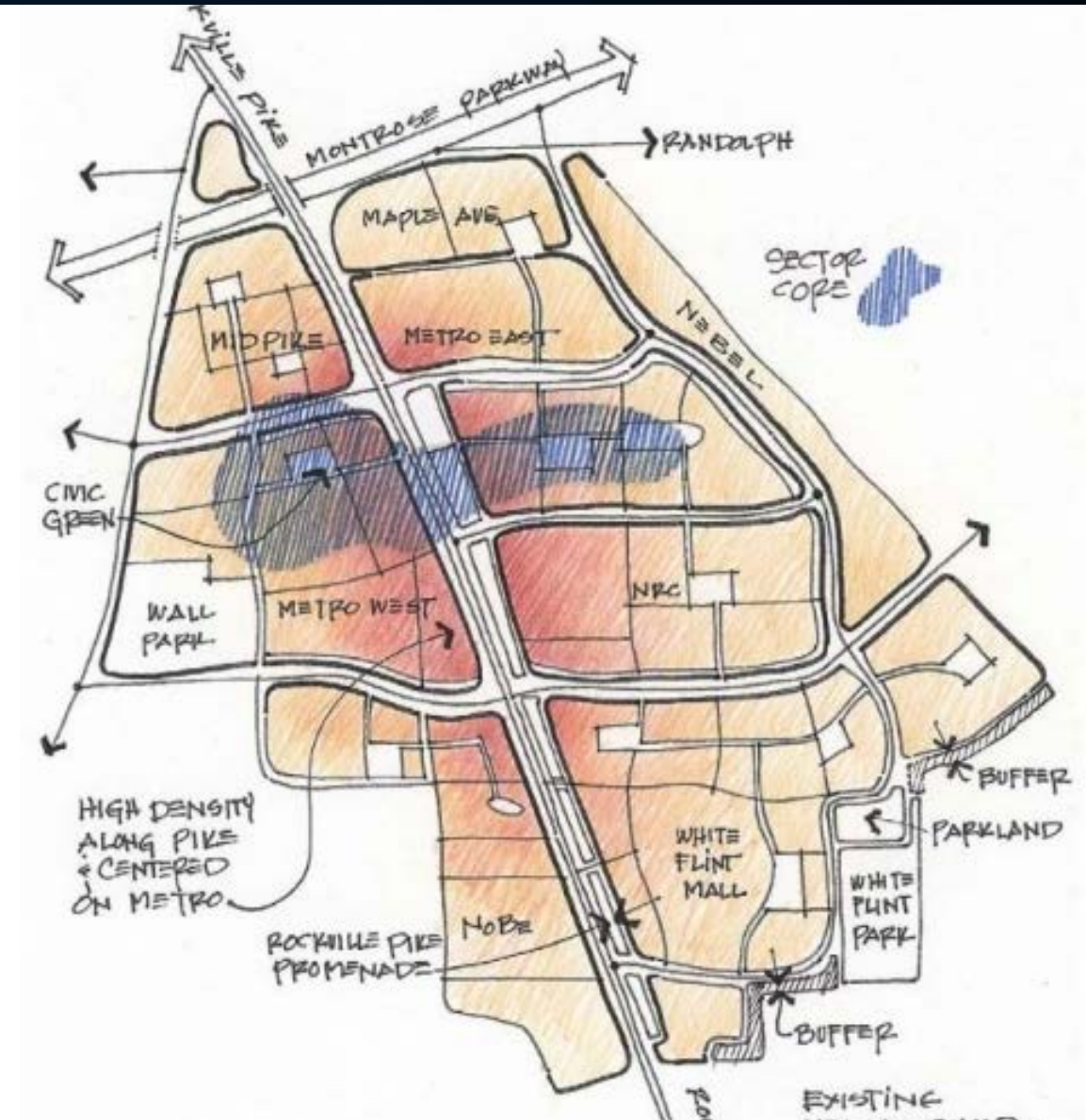


Yellow	
1	Aspen Hill
4	Cloverly
41	Fairland/Colesville
9	Germantown East
10	Germantown West
13	Montgomery Village/Airpark
15	North Potomac
16	Olney
17	Potomac

Green	
5	Damascus
38	Rural East
37	Rural West

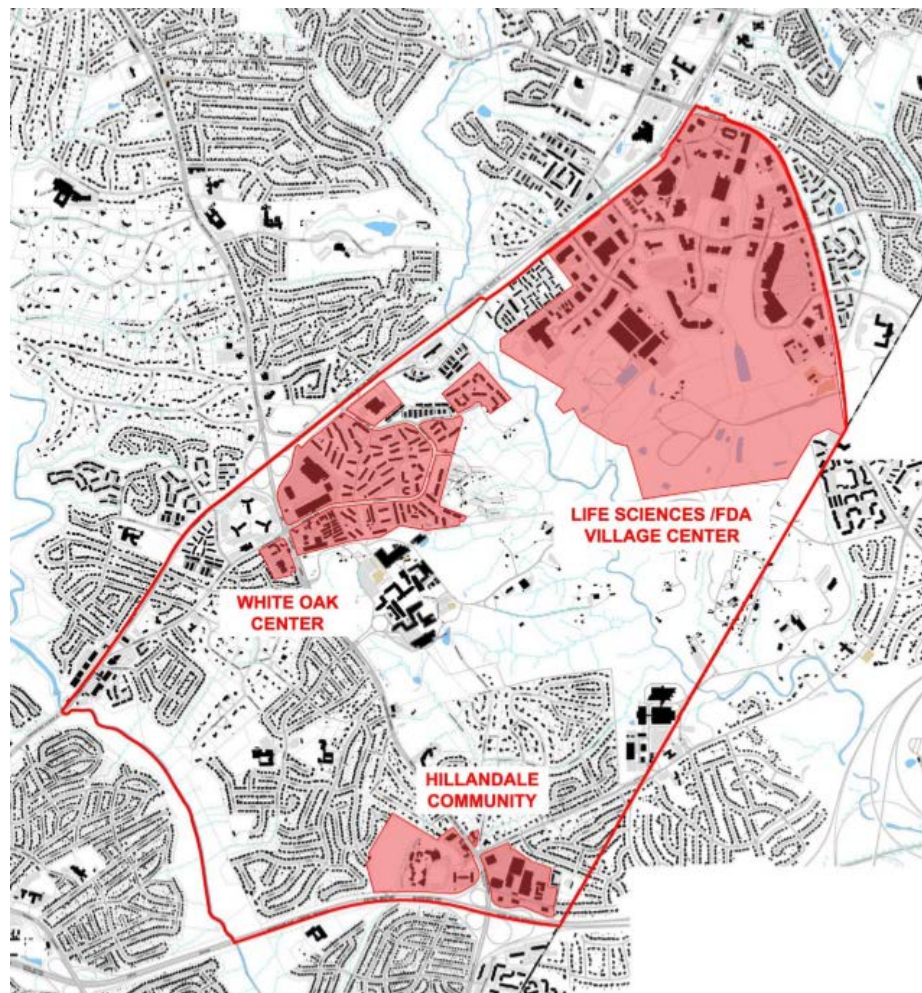
Less Common Sources: Benefit Districts

Incremental annual tax assessment applied to new development in a particular area to pay for needed infrastructure. About 10 percent more than the base rate.



Less Common Sources: Fee in Lieu Districts

Assessment of a per-trip fee to provide needed infrastructure in a geographic area ~ \$5,000 per trip



INTERSECTIONS (purple)

• US 29 at Stewart Lane ¹⁸	\$3,300,000
• US 29 at Industrial Pkwy ¹⁸	\$4,400,000
• US 29 at Tech Road ¹⁸	\$3,300,000
• US 29 at Randolph Rd / Cherry Hill Rd	\$2,000,000
• Tech Rd at Prosperity Dr / Old Columbia Pike ¹⁸	\$2,300,000
• Tech Rd at Industrial Pkwy	\$4,400,000
• Broadbirch Dr at Tech Rd	\$1,700,000
• Broadbirch Dr at Cherry Hill Rd & Plum Orchard Dr	\$3,600,000
• MD 650 at Powder Mill Rd	\$5,000,000
• MD 650 at Lockwood Dr	\$1,400,000

Subtotal **\$31,400,000**

TRANSIT (blue)¹⁹

• White Oak Circulator	\$2,400,000
• New Ride-On Service	\$8,400,000
• Increased Ride-On Service	\$3,800,000
• Hillandale Transit Center	\$500,000
• Bus Stop Improvements	\$100,000
• Bikeshare	\$4,600,000

Subtotal **\$19,800,000**

BIKEWAYS (green)¹⁹

• M-10 US 29 (Columbia Pike)	\$2,800,000
• M-12 MD 650 (New Hampshire Ave)	\$6,600,000
• A-94 Powder Mill Rd	\$3,400,000
• A-105 Old Columbia Pike	\$5,000,000
• A-106 Industrial Pkwy	\$8,400,000
• A-107 Tech Rd	\$2,700,000
• A-108 Prosperity Dr	\$3,600,000
• A-286 Lockwood Dr	\$5,700,000

Subtotal **\$38,200,000**

Old Columbia Pike Bridge Reconstruction	\$12,000,000
LATR Analyses every 6 yrs, from 2017 to 2040	\$400,000

Total Amount \$101,800,000

Private Sources

Donations and Dedications



Direct Development Mitigation



Foundations and Non-Profits



For Profit

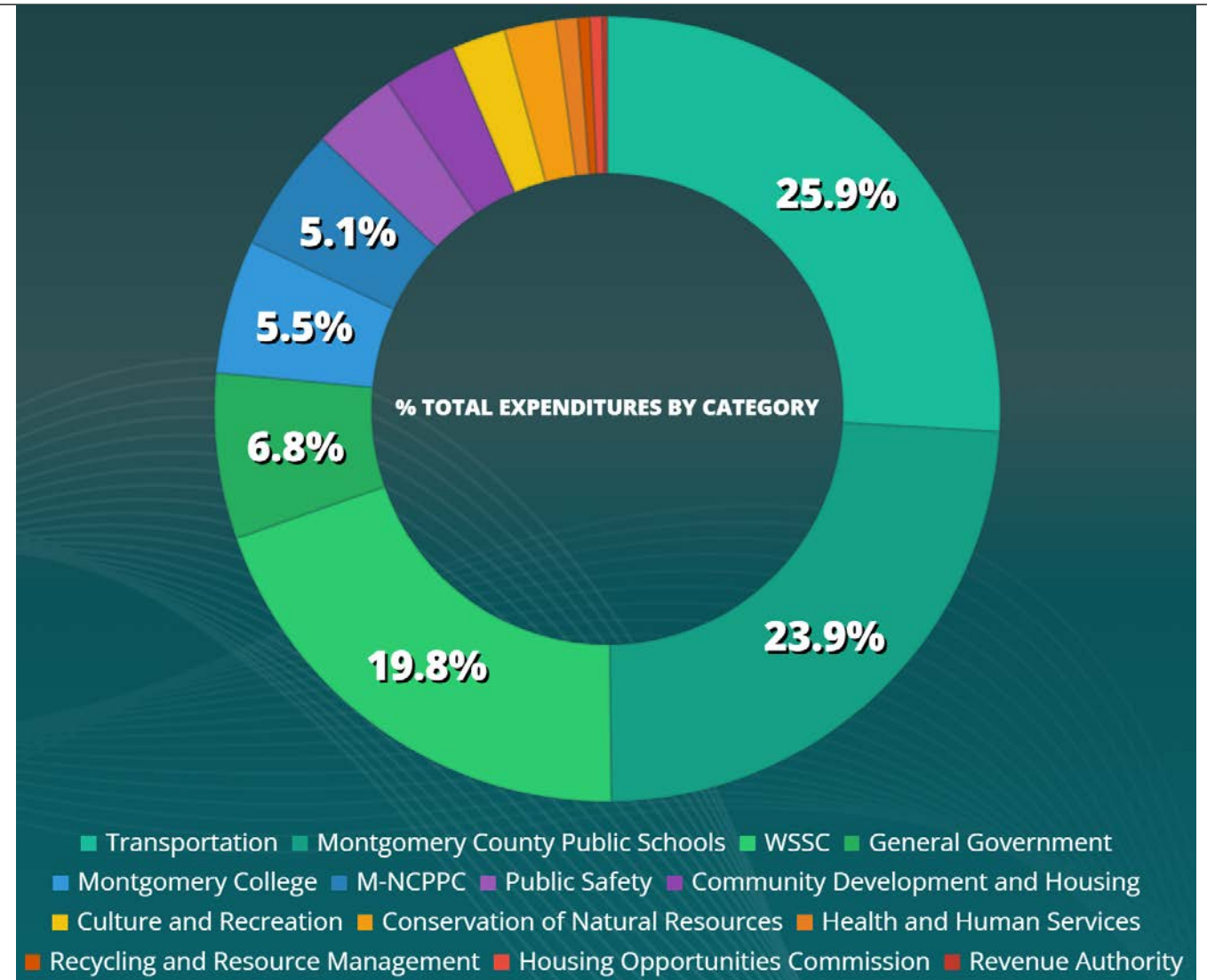


Capital Program Uses:

Example Montgomery County Capital Expenditures FY23-28

- \$17B total over six years
 - \$4.4B Transportation
 - 130 projects
- Funding Mix

Bonds	48%
Federal	11%
Cash	10%
State Aid	10%
Other	21%



Overall Funding Challenges

Underfunded infrastructure maintenance gaps

Declining productivity of current dedicated sources

More competition for shared funding resources

Growing need for matching funds to fully leverage BIL opportunities

Increasing project costs and complexity

Financing

General Obligation Bonds

Revenue Bonds

Transportation Infrastructure Finance and Innovation Act (TIFIA)

Private Finance/P3

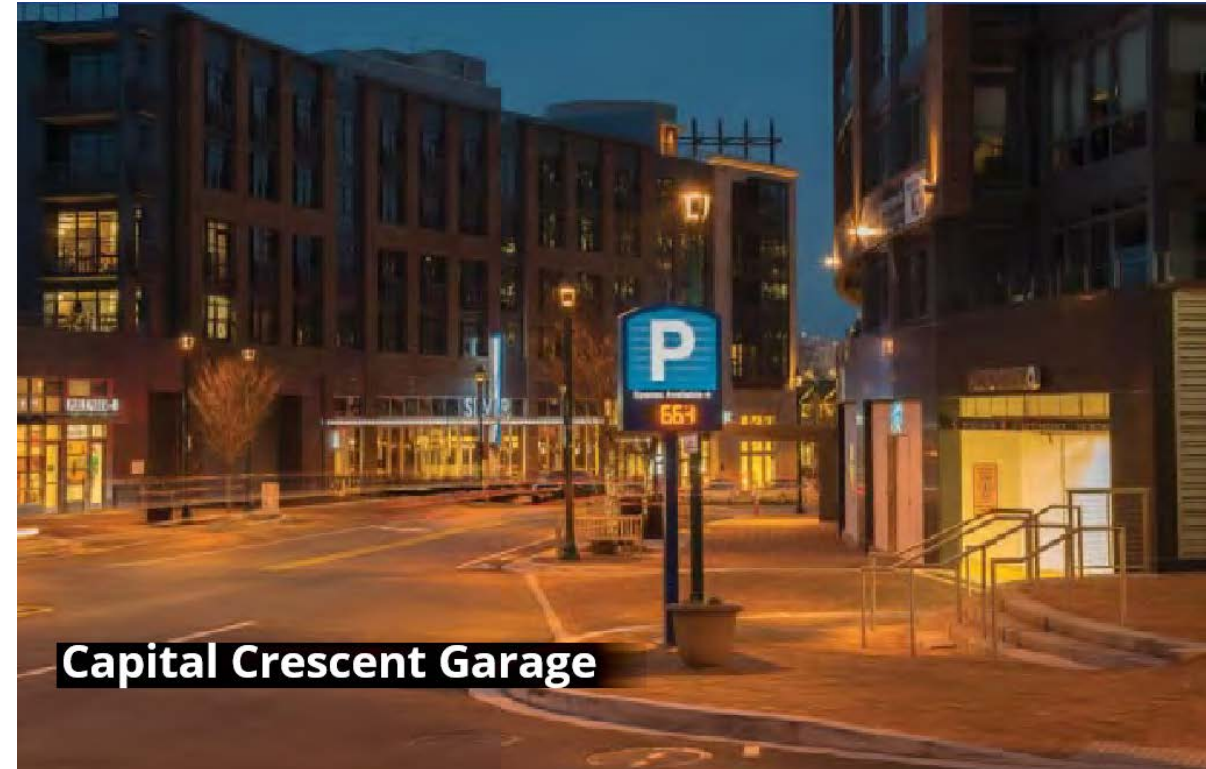
General Obligation Bonds

- In order to fund a project or portfolio of projects, bonds are issued. A set amount is raised when the bonds are issued. The bondholders are then repaid their principal, plus interest, over time. Typically, 20 or more years.
- General Obligation Bonds pledge government funds, with minimal limitations, to repay the bond holders.
- There may be reserve and other requirements required to ensure the bondholders are protected from unexpected changes in the ability of the payor to cover its obligations
- The interest rate is highly influenced by the credit rating of the issuing government.
- The amount of bonds that can be issued is constrained by a number of factors including the debt-to-income ratio of the government.
- Generally, the asset needs to last longer than the bond payments



Revenue Bonds

- Similar to General Obligation Bonds in many ways
- A specific revenue source is pledged to repay the bonds
- Borrowing costs are influenced by the stability of the revenue source and are typically higher than General Obligation Bonds
- There may be more onerous restrictions in required to protect the revenue source and ensure repayment of the bondholders



Capital Crescent Garage

TIFIA

- Transportation Infrastructure Finance and Innovation Act – Low cost, long term loans
- Federal loan program administered by the Build America Bureau of USDOT
- Up to 49 % of project costs can be financed this way
- The rate is the US Treasury rate at loan closing
- The term is up to 35 years with payments not required until up to 5 years after project completion



Tax Increment Financing (TIF)

- Pledges future tax receipts to finance a project
- Without the project, the tax generation for an area is X
- With the project, the tax generation is $X + A$
- All or part of the increment “ A ” is pledged as the funding source for the project



PILOTs and Abatements

- Payment in lieu of taxes (PILOT) or Tax abatement
 - In exchange for a tax discount, an entity contributes to public infrastructure
 - Abatements can also be used as economic or housing development incentives



Public Private Partnership

- Investors provide private capital for public infrastructure development
- Often coupled with private delivery of the infrastructure
 - Design-Build,
 - Design-Build Operate Maintain,
 - Design-Build Operate Maintain,
 - Design-Build Operate Maintain Finance
- Suited to revenue-generating projects
- Availability payments also used when the project cost cannot be supported by project-generated revenues
- Cost of capital often higher than publicly financed sources
- Private sector may also bring speed and expertise to a project



Programming

- Matching “Sources and Uses” as a financial plan for a project or bundle of projects
 - Capital Improvement Program
 - Consolidated Transportation Program
 - Capital Budget

Howard County, MD
FY 2023 Council Approved Capital Budget (\$000)
BRIDGE PROJECTS

	Revenue Source	Prior Total	Current FY	Appropriation Total
B	BONDS	16,307	1,590	17,897
D	DEVELOPER CONTRIBUTION	42	0	42
G	GRANTS	11,270	960	12,230
O	OTHER SOURCES	30	0	30
P	PAY AS YOU GO	3,255	0	3,255
Total		30,904	2,550	33,454

Howard County Maryland

Approved Capital Budget • Fiscal Year 2023



Talbott Springs Elementary School



Laura's Place – A Playground for All



Harriet Tubman Cultural Center



East Columbia 50+ Center



HCC Mathematics and Athletics Complex

Programming



Bus Rapid Transit: MD 355 Central (P502005)

Category	Transportation	Date Last Modified	05/03/22
SubCategory	Mass Transit (MCG)	Administering Agency	Transportation
Planning Area	Countywide	Status	Preliminary Design Stage

EXPENDITURE SCHEDULE (\$000s)

Cost Elements	Total	Thru FY21	Est FY22	Total 6 Years	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	Beyond 6 Years
Planning, Design and Supervision	61,370	2,111	9,389	49,870	15,700	13,200	6,130	7,190	5,140	2,510	-
Land	93,528	-	-	93,528	10,728	5,000	17,500	42,800	17,500	-	-
Site Improvements and Utilities	35,572	-	-	35,572	-	8,472	8,100	17,000	2,000	-	-
Construction	147,100	-	-	147,100	-	10,000	18,500	50,100	50,000	18,500	-
Other	21,000	-	-	21,000	-	-	-	-	10,000	11,000	-
TOTAL EXPENDITURES	358,570	2,111	9,389	347,070	26,428	36,672	50,230	117,090	84,640	32,010	-

FUNDING SCHEDULE (\$000s)

Funding Source	Total	Thru FY21	Est FY22	Total 6 Years	FY 23	FY 24	FY 25	FY 26	FY 27	FY 28	Beyond 6 Years
Current Revenue: Mass Transit	2,550	-	750	1,800	-	-	-	-	-	1,800	-
Federal Aid	158,863	-	-	158,863	-	-	28,129	65,570	47,398	17,766	-
Impact Tax	3,064	925	2,139	-	-	-	-	-	-	-	-
Op Lanes Maryland Transit Funding	159,979	-	-	159,979	-	36,672	22,101	51,520	37,242	12,444	-
Recordation Tax Premium (MCG)	4,186	1,186	3,000	-	-	-	-	-	-	-	-
State Aid	29,928	-	3,500	26,428	26,428	-	-	-	-	-	-
TOTAL FUNDING SOURCES	358,570	2,111	9,389	347,070	26,428	36,672	50,230	117,090	84,640	32,010	-

Howard County Example

Fiscal 2023 Capital Budget

Project: B3853-FY2000 EMERGENCY STRUCTURE RECONSTRUCTION

(In Thousands)				Five Year Capital Program					
Appropriation Object Class	Prior Appr.	FY2023 Budget	Appr. Total	Fiscal 2024	Fiscal 2025	Fiscal 2026	Fiscal 2027	Fiscal 2028	Sub Total
PLANS & ENGINEERING	695	0	695	100	100	100	100	200	600
LAND ACQUISITION	165	0	165	0	0	0	0	0	0
CONSTRUCTION	6,899	500	7,399	400	400	400	400	550	2,150
ADMINISTRATION	20	0	20	0	0	0	0	0	0
Total Expenditures	7,779	500	8,279	500	500	500	500	750	2,750
BONDS	6,155	500	6,655	500	500	500	500	750	2,750
GRANTS	1,550	0	1,550	0	0	0	0	0	0
OTHER SOURCES	30	0	30	0	0	0	0	0	0
PAY AS YOU GO	44	0	44	0	0	0	0	0	0
Total Funding	7,779	500	8,279	500	500	500	500	750	2,750

Questions?

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