Overview of Public Works CIP

The Public Works FY 18 – 23 CIP includes two separate sections: Roads and Bridges.

Approximately \$88.2 million is included in the FY 18-23 CIP to maintain roads throughout the County. Approximately thirty-five percent of the County's road network is considered mainline or arterial roads. These roads carry a higher traffic volume. Sixty-five percent are lower volume roadways, including neighborhood roads. Typical repair strategies include patching, overlay, mill and overlay, full depth reclamation, and reconstruction.

Funding is provided to update the 1994 Design Manual for Roads and Storm Drains to meet current industry standards.

Included in FY 18 - 22 is \$1.6 million to support State road projects. Contributing to State projects may expedite the planning process for State roads in Carroll County.

Market Street Extended, a new road construction project, will create a more direct connection to MD 140 from Old Westminster Pike.

Funding is included for the replacement or rehabilitation of nine bridge structures.

For additional information on these or other Public Works projects, please refer to the individual project pages.

COMMUNITY INVESTMENT PLAN FOR FISCAL YEARS 2018 TO 2023

| | | | | | | | Prior | Balance to | Total |
|---|-----------------------|--------------|--------------|--------------|-----------------|--------------|-------------------|------------|-----------------------|
| | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | Allocation | Complete | Project Cost |
| ROADS: | | | | | | | | | |
| Design Manual Update | \$250,000 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$250,000 |
| Highway Safety Improvements | 30,000 | 31,000 | 32,000 | 33,000 | 34,000 | 35,000 | 0 | 0 | 195,000 |
| Market Street Extended | 0 | 720,000 | 0 | 0 | 0 | 0 | 1,271,005 | 0 | 1,991,005 |
| Pavement Management Program | 11,685,000 | 12,210,000 | 12,660,000 | 13,120,000 | 13,770,000 | 14,375,000 | 0 | 0 | 77,820,000 |
| Pavement Preservation | 1,050,000 | 1,082,000 | 1,114,000 | 1,147,000 | 1,181,000 | 1,216,000 | 0 | 0 | 6,790,000 |
| Ramp and Sidewalk Upgrades | 75,000 | 75,000 | 75,000 | 75,000 | 75,000 | 75,000 | 0 | 0 | 450,000 |
| Small Drainage Structures | 365,000 | 121,000 | 127,000 | 133,000 | 140,000 | 147,000 | 0 | 0 | 1,033,000 |
| Storm Drain Rehabilitation | 592,805 | 298,000 | 347,000 | 396,000 | 445,000 | 494,000 | 0 | 0 | 2,572,805 |
| Transportation/State Projects | 1,000,000 | 0 | 200,000 | 200,000 | 200,000 | 0 | 100,000 | 0 | 1,700,000 |
| ROADS TOTAL | \$15,047,805 | \$14,537,000 | \$14,555,000 | \$15,104,000 | \$15,845,000 | \$16,342,000 | \$1,371,005 | \$0 | \$92,801,810 |
| | | | | | | | | | |
| SOURCES OF FUNDING: | | | | | | | | | |
| Transfer from General Fund | \$1,935,000 | \$967,000 | \$1,199,000 | \$1,232,000 | \$1,181,000 | \$1,016,000 | \$100,000 | \$0 | \$7,630,000 |
| Property Tax | 0 | 0 | 0 | 0 | 0 | 0 | 758,005 | 0 | 758,005 |
| Bonds | | | | | | | | | |
| Bolius | 10,999,000 | 12,250,000 | 12,036,000 | 12,552,000 | 13,344,000 | 14,006,000 | 513,000 | 0 | 75,700,000 |
| Reallocated GF Transfer | 10,999,000 250,000 | 12,250,000 | 12,036,000 | 12,552,000 | 13,344,000 0 | 14,006,000 | , | | 75,700,000 250,000 |
| | | | | | | | 513,000 | 0 | |
| Reallocated GF Transfer | 250,000 | 0 | 0 | 0 | 0 | 0 | 513,000 0 | 0 | 250,000 |
| Reallocated GF Transfer Highway Administration | 250,000 176,000 | 0 176,000 | 0 176,000 | 0 176,000 | 0 176,000 | 0 176,000 | 513,000 0 0 | 0 0 0 | 250,000 1,056,000 |

This project provides funding for consultant services to review the 1994 Design Manual for Roads and Storm Drains and update the Manual to meet the current guidelines of the American Association of State Highway and Transportation Officials (AASHTO), the Federal Highway Administration (FHWA), the MD State Highway Administration (SHA), and any other technical guidelines. Updating the document will assist local engineers and surveyors in meeting design standards when preparing development documents.

| | FY 18 | FY 19 | FY 20 | FY 21 | FY 22 | FY 23 | Prior Allocation | Balance to Complete | Total Project Cost |
|-----------------------------|---------|-------|-------|-------|-------|-------|---------------------|------------------------|-----------------------|
| | | | | | | | | | - |
| Engineering/Design | 250,000 | | | | | | | | 250,000 |
| Land Acquisition | | | | | | | | | 0 |
| Site Work | | | | | | | | | 0 |
| Construction | | | | | | | | | 0 |
| Equipment/Furnishings | | | | | | | | | 0 |
| Other | | | | | | | | | 0 |
| EXPENDITURES | • | | | | | | | | |
| | • | | | | | | | | |
| TOTAL | 250,000 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 250,000 |
| COLUMN CEC OF EXPENS | | | | | | | | | |
| SOURCES OF FUNDS | | | | | | | | | |
| Transfer from General Fund | | | | | | | | | 0 |
| Local Income Tax | | | | | | | | | 0 |
| Property Tax | | | | | | | | | 0 |
| Reallocated GF Transfer | 250,000 | | | | | | | | 250,000 |
| | | | | | | | | | |
| PROJECTED OPERATING IMPACTS | 0 | 0 | 0 | 0 | 0 | 0 | | | |

This project provides ongoing funding to address roads and road intersections with a history of frequent or severe accidents, and those with a significant potential for accidents. Among the possible improvements are minor changes in intersection geometry, turn lanes, signing additions or upgrades, traffic calming measures, and pavement marking upgrades.

Recent safety improvements:

Nicodemus Road Woodbine Road Hoods Mill Road Wine Road Marvin Avenue

| | FY 18 | FY 19 | FY 20 | FY 21 | FY 22 | FY 23 | Prior Allocation | Balance to Complete | Total Project Cost |
|-----------------------------|--------|--------|--------|--------|--------|--------|---------------------|------------------------|-----------------------|
| Engineering/Design | | | | | | | | | 0 |
| Land Acquisition | | | | | | | | | 0 |
| Site Work | | | | | | | | | 0 |
| Construction | 30,000 | 31,000 | 32,000 | 33,000 | 34,000 | 35,000 | | | 195,000 |
| Equipment/Furnishings | | | | | | | | | 0 |
| Other | | | | | | | | | 0 |
| EXPENDITURES | | | | | | | | | |
| | | | | | | | | | |
| TOTAL | 30,000 | 31,000 | 32,000 | 33,000 | 34,000 | 35,000 | 0 | 0 | 195,000 |
| | 1 | | | | | | | | |
| SOURCES OF FUNDS | | 1 | 1 | | 1 | | | | |
| Transfer from General Fund | | | | | | | | | 0 |
| Local Income Tax | | | | | | | | | 0 |
| Property Tax | | | | | | | | | 0 |
| Highway User Revenue | 30,000 | 31,000 | 32,000 | 33,000 | 34,000 | 35,000 | | | 195,000 |
| | | | | | | | | | |
| PROJECTED OPERATING IMPACTS | 0 | 0 | 0 | 0 | 0 | 0 | | | |

Functional Classification: Collector Average Daily Traffic: TBD Length: Approximately 1,400 feet Limits: MD 140 to Old Westminster Pike

This project provides planned funding for the construction of a more direct connection to MD 140 from Old Westminster Pike. This connector will reduce traffic on Old Baltimore Road and the local streets that extend from Old Westminster Pike to Old Baltimore Road, and will provide redundancy in the road network. The connection to MD 140 will be located at the existing traffic signal at Market Street/Old Baltimore Road.

The prior allocation of \$1.3 million was for land acquisition.

| | FY 18 | FY 19 | FY 20 | FY 21 | FY 22 | FY 23 | Prior Allocation | Balance to Complete | Total Project Cost |
|--|-------|--------------------|-------|-------|-------|----------|----------------------|------------------------|-----------------------|
| | | | | | | <u> </u> | | | |
| Engineering/Design | | | | | | | | | 0 |
| Land Acquisition | | | | | | | 1,271,005 | | 1,271,005 |
| Site Work | | 51,000 | | | | | | | 51,000 |
| Construction | | 516,000 | | | | | | | 516,000 |
| Equipment/Furnishings | | | | | | | | | 0 |
| Other | | 153,000 | | | | | | | 153,000 |
| EXPENDITURES | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| TOTAL | 0 | 720,000 | 0 | 0 | 0 | 0 | 1,271,005 | 0 | 1,991,005 |
| | 0 | 720,000 | 0 | 0 | 0 | 0 | 1,271,005 | 0 | 1,991,005 |
| | 0 | 720,000 | 0 | 0 | 0 | 0 | 1,271,005 | 0 | 1,991,005 |
| | 0 | 720,000 | 0 | 0 | 0 | 0 | 1,271,005 | 0 | 1,991,005 |
| SOURCES OF FUNDS | 0 | 720,000 | 0 | 0 | 0 | 0 | 1,271,005 | 0 | |
| SOURCES OF FUNDS Transfer from General Fund | 0 | 720,000 | 0 | 0 | 0 | 0 | 1,271,005 758,005 | 0 | 0 |
| SOURCES OF FUNDS Transfer from General Fund Local Income Tax | 0 | 720,000 720,000 | 0 | 0 | 0 | 0 | | 0 | 0 |
| SOURCES OF FUNDS Transfer from General Fund Local Income Tax Property Tax | 0 | | 0 | 0 | 0 | 0 | 758,005 | 0 | 0 0 758,005 |

IMPACTS

Heidi K. Pepin, Management and Budget Project Coordinator (410) 386-2082

This project provides ongoing funding for the maintenance, repair or rehabilitation of the County's 900 miles of paved roads. A pavement management software program is used to collect road condition information and to recommend the most cost-effective repair. Repair strategies include: patching, overlay, mill and overlay, full depth reclamation, and reconstruction. Drainage structures and guardrails will be replaced or added where necessary.

Approximately thirty-five percent of the County's road network is considered mainline or collector and arterial roads. These roads typically carry a higher traffic volume. Sixty-five percent are lower volume roads, including neighborhood roads.

| | FY 18 | FY 19 | FY 20 | FY 21 | FY 22 | FY 23 | Prior Allocation | Balance to Complete | Total Project Cost |
|----------------------------|------------|------------|------------|------------|------------|------------|---------------------|------------------------|-----------------------|
| | | • | | | | - | | | ., |
| Engineering/Design | 105,000 | 110,000 | 115,000 | 120,000 | 125,000 | 125,000 | | | 700,000 |
| Land Acquisition | | | | | | | | | 0 |
| Site Work | | | | | | | | | 0 |
| Construction | 11,050,000 | 11,550,000 | 11,970,000 | 12,400,000 | 13,020,000 | 13,600,000 | | | 73,590,000 |
| Equipment/Furnishings | | | | | | | | | 0 |
| Other | 530,000 | 550,000 | 575,000 | 600,000 | 625,000 | 650,000 | | | 3,530,000 |
| EXPENDITURES | | | | | | | | | |
| | • | | | | | | | | |
| TOTAL | 11,685,000 | 12,210,000 | 12,660,000 | 13,120,000 | 13,770,000 | 14,375,000 | 0 | 0 | 77,820,000 |
| | _ | | | | | | | | |
| SOURCES OF FUNDS | | | | | | | | | |
| Transfer from General Fund | 800,000 | 800,000 | 800,000 | 800,000 | 800,000 | 800,000 | | | 4,800,000 |
| Bonds | 10,709,000 | 11,234,000 | 11,684,000 | 12,144,000 | 12,794,000 | 13,399,000 | | | 71,964,000 |
| Reallocated Bonds | | | | | | | | | 0 |
| Highway Administration | 176,000 | 176,000 | 176,000 | 176,000 | 176,000 | 176,000 | | | 1,056,000 |
| | | • | | • | • | | | • | |
| PROJECTED OPERATING | | | | | | | Ī | | |

This project provides ongoing funding to place a maintenance seal coat, such as microsurface, on various roads. Pavement preservation is applied to roads while they are still in good condition and before the onset of serious damage. Annual funding addresses approximately 30-40 miles.

The upcoming project list is generated in the spring in preparation for the summer construction season.

| | FY 18 | FY 19 | FY 20 | FY 21 | FY 22 | FY 23 | Prior Allocation | Balance to Complete | Total Project Cost |
|---|------------|-------------------------|-------------------------|----------------------------|--------------------------|------------------|---------------------|------------------------|-----------------------|
| | | | | | | | | | |
| Engineering/Design | | | | | | | | | 0 |
| Land Acquisition | | | | | | | | | 0 |
| Site Work | | | | | | | | | 0 |
| Construction | 1,050,000 | 1,082,000 | 1,114,000 | 1,147,000 | 1,181,000 | 1,216,000 | | | 6,790,000 |
| Equipment/Furnishings | | | | | | | | | 0 |
| Other | | | | | | | | | 0 |
| EXPENDITURES | | | | | | | | | |
| | <u>_</u> ! | | | | | | | | |
| | | | | | | | | | |
| TOTAL | 1,050,000 | 1,082,000 | 1,114,000 | 1,147,000 | 1,181,000 | 1,216,000 | 0 | 0 | 6,790,000 |
| TOTAL | 1,050,000 | 1,082,000 | 1,114,000 | 1,147,000 | 1,181,000 | 1,216,000 | 0 | 0 | 6,790,000 |
| TOTAL SOURCES OF FUNDS | 1,050,000 | 1,082,000 | 1,114,000 | 1,147,000 | 1,181,000 | 1,216,000 | 0 | 0 | 6,790,000 |
| | 1,050,000 | 1,082,000 32,000 | 1,114,000 64,000 | 1,147,000 97,000 | 1,181,000 131,000 | 1,216,000 | 0 | 0 | 6,790,000 490,000 |
| SOURCES OF FUNDS | 1,050,000 | | , , | | | | 0 | 0 | |
| SOURCES OF FUNDS Transfer from General Fund | 1,050,000 | | , , | | | | 0 | 0 | 490,000 |
| SOURCES OF FUNDS Transfer from General Fund Local Income Tax | 1,050,000 | | , , | | | | 0 | 0 | 490,000 |
| SOURCES OF FUNDS Transfer from General Fund Local Income Tax Property Tax | | 32,000 | 64,000 | 97,000 | 131,000 | 166,000 | 0 | 0 | 490,000 |

This project provides ongoing funding to upgrade or replace non-compliant sidewalk ramps for ADA accessibility. Non-compliant ramps and sidewalks are also addressed through the Pavement Management Program. As part of this process, a self-evaluation of pedestrian facilities within county rights-of-way has been completed and will be used to develop a prioritized plan to address deficiencies. Funding in this project will address approximately 850 curb ramps at various intersections and is planned to continue through FY 25.

| _ | FY 18 | FY 19 | FY 20 | FY 21 | FY 22 | FY 23 | Prior Allocation | Balance to Complete | Total Project Cost |
|----------------------------|--------|--------|--------|--------|--------|--------|---------------------|------------------------|-----------------------|
| • | | | | | | | | | |
| Engineering/Design | | | | | | | | | 0 |
| Land Acquisition | | | | | | | | | 0 |
| Site Work | 7,500 | 7,500 | 7,500 | 7,500 | 7,500 | 7,500 | | | 45,000 |
| Construction | 60,000 | 60,000 | 60,000 | 60,000 | 60,000 | 60,000 | | | 360,000 |
| Equipment/Furnishings | | | | | | | | | 0 |
| Other | 7,500 | 7,500 | 7,500 | 7,500 | 7,500 | 7,500 | | | 45,000 |
| EXPENDITURES | | | | | | | | | |
| <u>-</u> | | | | | | | | | |
| TOTAL | 75,000 | 75,000 | 75,000 | 75,000 | 75,000 | 75,000 | 0 | 0 | 450,000 |
| | | | | | | | | | |
| SOURCES OF FUNDS | | | | | | | | | |
| Transfer from General Fund | | | | | | | | | 0 |
| Local Income Tax | | | | | | | | | 0 |
| Property Tax | | | | | | | | | _ |
| | | | | | | | | | 0 |
| Bonds | 75,000 | 75,000 | 75,000 | 75,000 | 75,000 | 75,000 | | | 450,000 |
| Bonds PROJECTED OPERATING | 75,000 | 75,000 | 75,000 | 75,000 | 75,000 | 75,000 | | | |

9847

This project provides ongoing funding to repair or replace deteriorated drainage structures including culvert pipes, headwalls, and ancillary drainage features. Recently completed project sites include Kridlers Schoolhouse Road, Lineboro Road, Grave Run Road, and Dr. Stitely Road pipe culvert replacements, Deep Run Road pipe slip-lining rehabilitation, and Wildorlyn Drive storm drainage system.

The Department of Public Works continues to incorporate all pipe culverts and drainage structures into the Geographic Information System (GIS). Once the locations are identified and mapped, field condition assessments can be made to help determine the most cost-effective approach to replacing and repairing these drainage structures.

| | FY 18 | FY 19 | FY 20 | FY 21 | FY 22 | FY 23 | Prior Allocation | Balance to Complete | Total Project Cost |
|---|---------|---------|---------|---------|---------|---------|---------------------|------------------------|-----------------------|
| · | | | | | | | | | |
| Engineering/Design | | | | | | | | | 0 |
| Land Acquisition | | | | | | | | | 0 |
| Site Work | | | | | | | | | 0 |
| Construction | 365,000 | 121,000 | 127,000 | 133,000 | 140,000 | 147,000 | | | 1,033,000 |
| Equipment/Furnishings | | | | | | | | | 0 |
| Other | | | | | | | | | 0 |
| EXPENDITURES | | | | | | | | | |
| _ | • | | | | | | | | |
| TOTAL | 365,000 | 121,000 | 127,000 | 133,000 | 140,000 | 147,000 | 0 | 0 | 1,033,000 |
| | • | | | | | | | | |
| SOURCES OF FUNDS | | | | | | | | | |
| Transfer from General Fund | | | | | | | | | 0 |
| Property Tax | | | | | | | | | 0 |
| Bonds | 115,000 | 121,000 | 127,000 | 133,000 | 140,000 | 147,000 | | | |
| | | | | | | | | | 783,000 |
| Highway User Revenue | 250,000 | | | | - | | | | 783,000 250,000 |
| Highway User Revenue PROJECTED OPERATING | 250,000 | | | | · | | | | · |

This project provides ongoing funding to gather video camera data of existing storm drain pipes and to maintain the storm drain system through repairs and replacement. Video inspections will assess condition to determine if repairs or replacements are needed and funding is provided for infrastructure rehabilitation.

The County maintains about 180 miles (or 950,000 feet) of storm drain infrastructure, mostly located in neighborhoods where curbing, inlets, and manholes exist. Many of the storm drain systems were constructed in the late 1960s and 1970s and may be reaching the end of their useful life.

Photograph of a deteriorated metal pipe.

| | FY 18 | FY 19 | FY 20 | FY 21 | FY 22 | FY 23 | Prior Allocation | Balance to Complete | Total Project Cost |
|----------------------------|---------|---------|---------|---------|---------|---------|---------------------|------------------------|-----------------------|
| • | 1110 | 111/ | 1120 | 1121 | 1122 | 1123 | Tinocation | Complete | Troject Cost |
| Engineering/Design | 135,000 | 135,000 | 135,000 | 135,000 | 50,000 | 50,000 | | | 640,000 |
| Land Acquisition | | | | | | | | | 0 |
| Site Work | | | | | | | | | 0 |
| Construction | 457,805 | 163,000 | 212,000 | 261,000 | 395,000 | 444,000 | | | 1,932,805 |
| Equipment/Furnishings | | | | | | | | | 0 |
| Other | | | | | | | | | 0 |
| EXPENDITURES | | | | | | | | | |
| _ | | | | | | | | | |
| TOTAL | 592,805 | 298,000 | 347,000 | 396,000 | 445,000 | 494,000 | 0 | 0 | 2,572,805 |
| | | | | | | | | | |
| SOURCES OF FUNDS | | | | | | | | | |
| Transfer from General Fund | 135,000 | 135,000 | 135,000 | 135,000 | 50,000 | 50,000 | | | 640,000 |
| Bonds | 100,000 | 100,000 | 150,000 | 200,000 | 335,000 | 385,000 | | | 1,270,000 |
| Reallocated Highway User | 22,409 | | | | | | | | 22,409 |
| Highway User Revenue | 335,396 | 63,000 | 62,000 | 61,000 | 60,000 | 59,000 | | | 640,396 |
| | | | | | | | | | |
| PROJECTED OPERATING | | | | | | | | | |

Sheree Lima, Management and Budget Project Coordinator (410) 386-2082

This project provides funding to support State road projects in Carroll County. Contributing County funding to State projects may encourage the planning process and the construction of State roads in Carroll County.

| | FY 18 | FY 19 | FY 20 | FY 21 | FY 22 | FY 23 | Prior Allocation | Balance to Complete | Total Project Cost |
|--|-----------|-------|---------|---------|---------|-------|---------------------|------------------------|-----------------------|
| • | | | | | | | | | |
| Engineering/Design | 1,000,000 | | 200,000 | 200,000 | 200,000 | | 100,000 | | 1,700,000 |
| Land Acquisition | | | | | | | | | 0 |
| Site Work | | | | | | | | | 0 |
| Construction | | | | | | | | | 0 |
| Equipment/Furnishings | | | | | | | | | 0 |
| Other | | | | | | | | | 0 |
| EXPENDITURES | | | | | | | | | |
| | | | | | | | | | |
| _ | | | | | | | | | |
| TOTAL | 1,000,000 | 0 | 200,000 | 200,000 | 200,000 | 0 | 100,000 | 0 | 1,700,000 |
| TOTAL | 1,000,000 | 0 | 200,000 | 200,000 | 200,000 | 0 | 100,000 | 0 | 1,700,000 |
| TOTAL SOURCES OF FUNDS | 1,000,000 | 0 | 200,000 | 200,000 | 200,000 | 0 | 100,000 | 0 | 1,700,000 |
| | 1,000,000 | 0 | 200,000 | 200,000 | 200,000 | 0 | 100,000 | 0 | 1,700,000 |
| SOURCES OF FUNDS | | 0 | | | | 0 | Ź | 0 | |
| SOURCES OF FUNDS Transfer from General Fund | | 0 | | | | 0 | Ź | 0 | 1,700,000 |
| SOURCES OF FUNDS Transfer from General Fund Local Income Tax | | 0 | | | | 0 | Ź | 0 | 1,700,000 |
| SOURCES OF FUNDS Transfer from General Fund Local Income Tax Property Tax | | 0 | | | | 0 | , | 0 | 1,700,000 0 |