



Traffic Signal System Modernization

(P500704)

| | | | |
|---------------|----------------------|----------------------|----------------|
| Category | Transportation | Date Last Modified | 10/25/24 |
| SubCategory | Traffic Improvements | Administering Agency | Transportation |
| Planning Area | Countywide | Status | Ongoing |

EXPENDITURE SCHEDULE (\$000s)

| Cost Elements | Total | Thru FY24 | Rem FY24 | Total 6 Years | FY 25 | FY 26 | FY 27 | FY 28 | FY 29 | FY 30 | Beyond 6 Years |
|----------------------------------|---------------|---------------|------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|
| Planning, Design and Supervision | 22,057 | 20,857 | - | 1,200 | 200 | 200 | 200 | 200 | 200 | 200 | - |
| Site Improvements and Utilities | 28,824 | 21,482 | 508 | 6,834 | 1,139 | 1,139 | 1,139 | 1,139 | 1,139 | 1,139 | - |
| Construction | 1,347 | 1,347 | - | - | - | - | - | - | - | - | - |
| Other | 1,972 | 1,972 | - | - | - | - | - | - | - | - | - |
| TOTAL EXPENDITURES | 54,200 | 45,658 | 508 | 8,034 | 1,339 | 1,339 | 1,339 | 1,339 | 1,339 | 1,339 | - |

FUNDING SCHEDULE (\$000s)

| Funding Source | Total | Thru FY24 | Rem FY24 | Total 6 Years | FY 25 | FY 26 | FY 27 | FY 28 | FY 29 | FY 30 | Beyond 6 Years |
|-------------------------------|---------------|---------------|------------|---------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|
| Contributions | 295 | 295 | - | - | - | - | - | - | - | - | - |
| Current Revenue: General | 14,658 | 6,116 | 508 | 8,034 | 1,339 | 1,339 | 1,339 | 1,339 | 1,339 | 1,339 | - |
| G.O. Bond Premium | 852 | 852 | - | - | - | - | - | - | - | - | - |
| G.O. Bonds | 15,680 | 15,680 | - | - | - | - | - | - | - | - | - |
| Recordation Tax Premium (MCG) | 10,715 | 10,715 | - | - | - | - | - | - | - | - | - |
| State Aid | 12,000 | 12,000 | - | - | - | - | - | - | - | - | - |
| TOTAL FUNDING SOURCES | 54,200 | 45,658 | 508 | 8,034 | 1,339 | 1,339 | 1,339 | 1,339 | 1,339 | 1,339 | - |

OPERATING BUDGET IMPACT (\$000s)

| Impact Type | Total 6 Years | FY 25 | FY 26 | FY 27 | FY 28 | FY 29 | FY 30 |
|-----------------------------------|---------------|-----------|------------|------------|------------|------------|------------|
| Maintenance | 76 | 6 | 8 | 11 | 14 | 17 | 20 |
| Program-Staff | 1,080 | 90 | 90 | 180 | 180 | 270 | 270 |
| Program-Other | 36 | 3 | 3 | 6 | 6 | 9 | 9 |
| NET IMPACT | 1,192 | 99 | 101 | 197 | 200 | 296 | 299 |
| FULL TIME EQUIVALENT (FTE) | | 1 | 1 | 2 | 2 | 3 | 3 |

APPROPRIATION AND EXPENDITURE DATA (\$000s)

| | | | |
|-----------------------------|--------|--------------------------|--------|
| Appropriation FY 26 Request | 1,339 | Year First Appropriation | FY07 |
| Cumulative Appropriation | 47,505 | Last FY's Cost Estimate | 54,200 |
| Expenditure / Encumbrances | 46,074 | | |
| Unencumbered Balance | 1,431 | | |

PROJECT DESCRIPTION

The Traffic Signal System Modernization (TSSM) program provides on-going, life-cycle replacement and maintenance of critical subsystems and equipment from the network communication paths throughout the County and is relayed to both Transportation Management Center (TMC) and traffic control equipment in the field. The life-cycle replacement plan ensures the transportation network system, communication network, and the hardware in the TMC (servers, workstations) remains up to date with industry and national standards and, new technologies employed by the Traffic Division.

ESTIMATED SCHEDULE

Phase I - completed FY07-08; Phase IIA - completed FY12; Phase IIB - FY13-16; ongoing Life Cycle Upgrades - FY17 and beyond.

COST CHANGE

FY25-30 adjusted for inflation. Funding for FY29 and FY30 was added.

PROJECT JUSTIFICATION

The transportation systems remain highly reliable, but we must keep the system up to date through life cycle replacement. The technologies in the industry have advanced over the years which necessitates the modernization of equipment such as (aggregators, communication cables and modems, software, and servers) to interface with the current transportation control system. The life cycle replacement will provide stability and greater level flexibility to manage the transportation demands as well as take advantage of the newer technology that is being introduced to the industry.

DISCLOSURES

Expenditures will continue indefinitely. The County Executive asserts that this project conforms to the requirement of relevant local plans, as required by the Maryland Economic Growth, Resource Protection and Planning Act.

COORDINATION

Advanced Transportation Management System, Fibernet, State Transportation Participation, Traffic Signals Project, Department of Technology and Enterprise Business Solutions, and Maryland State Highway Administration.