



CITY OF RICHMOND

Department of Planning & Development Review *Staff Report*

Ord. No. 2023-249: To authorize the Chief Administrative Officer, for and on behalf of the City of Richmond, to accept funds in the total amount of \$1,488,000.00 from the Virginia Department of Transportation, to amend Ord. No. 2023-073, adopted May 8, 2023, which accepted a program of proposed Capital Improvement Projects for Fiscal Year 2023-2024 and the four fiscal years thereafter, adopted a Capital Budget for Fiscal Year 2023-2024, and determined a means of financing the same, by (i) establishing a new project for the Department of Public Works in the Transportation category called the “Automated Traffic Signal Performance Measures” project and (ii) increasing estimated revenues from the funds received from the Virginia Department of Transportation and the amount appropriated to the new Department of Public Works’ Automated Traffic Signal Performance Measures project in the Transportation category by \$1,488,000.00, all for the purpose of funding the implementation of an Automated Traffic Signal Performance Measures project to provide traffic data collection devices at certain signalized intersections.

To: City Planning Commission
From: Land Use Administration
Date: September 18, 2023

PETITIONER

Michael B. Sawyer, PE, City Transportation Engineer

LOCATION

Various Locations, City of Richmond

PURPOSE

To amend Ord. No. 2023-073, adopted May 8, 2023, which adopted the Capital Improvement Plan for FY 2024, and to authorize the Chief Administrative Officer, for and on behalf of the City of Richmond, to accept funds for the total amount of \$1,488,000 from the Virginia Department of Transportation (VDOT) and appropriate the revenues by amending the FY2024-2028 Capital Improvement Program (CIP) Budget for the amount of \$1,488,000 to a New Award Project [“Automated Traffic Signal Performance Measures (ATSPM)”].

SUMMARY & RECOMMENDATION

The Virginia Department of Transportation (VDOT) has allocated funds in their FY24-29 Six-Year Improvement Program (SYIP) for the “Automated Traffic Signal Performance Measures (ATSPM)”, and it will be necessary to amend of FY24 - FY28 CIP Budget to allocate these funds.

The Bipartisan Infrastructure Law (BIL) continues the Congestion Mitigation and Air Quality Improvement Program (CMAQ) to provide a flexible funding source to State and local governments for transportation projects and programs to help meet the requirements of the Clean Air Act. Funding is available to reduce congestion and improve air quality for areas that do not meet the National Ambient Air Quality Standards for ozone, carbon monoxide, or particulate matter (nonattainment areas) and for former nonattainment areas that are now in compliance

(maintenance areas). The City applied for a grant to implement an Automated Traffic Signal Performance Measures (ATSPM) in 145 signalized intersections. The Richmond Regional Transportation Planning Organization (RRTPO) Board approved funding for this project through the CMAQ Funds which has been included in the Six-Year Improvement Program (SYIP) 2024-2029.

This project will provide for the implementation of an Automated Traffic Signal Performance Measures (ATSPM) on at least 17 corridors outside the downtown grid area (i.e. US Routes 1, 33, 60, 250, 360; State Routes 6, 10, 147, 161, 197; Brook Road, Commerce Road, Forest Hill Avenue, Grove Avenue, and Monument Avenue).

ATSPMs consist of a high-resolution data-logging capability added to existing traffic signal infrastructure and data analysis techniques. This provides the Department of Public Works with the information needed to proactively identify and correct deficiencies. The Department can then manage traffic signal maintenance and operations in support of an agency's safety, livability and mobility goals.

The technology is cost effective, as ATSPMs can be applied to a wide range of signalized intersections and use existing infrastructure to the greatest extent possible. ATSPMs will also support the validation of other technologies and operational strategies, such as traffic responsive system and emerging connected vehicle applications.

ATSPM Benefits:

- Targeted Maintenance. ATSPMs provide the actionable information needed to deliver high-quality service to customers, with significant cost savings to agencies.
- Improved Operations. Active monitoring of signalized intersection performance lets agencies address problems before they become complaints.
- Increased Safety. A shift to proactive operations and maintenance practices can improve safety by reducing the traffic congestion that results from poor and outdated signal timing.

This initiative leveraged the traffic signal communication network built as part of the Richmond Signal System (RSS) Phases I through IV.

The total project estimate is \$7,423,920, but this O&R Request to amend the budget is for only \$1,488,000 as allocated in the SYIP FY24. The remaining allocations amount will be submitted as part of the FY25-29 CIP Budget Cycle.

Staff recommends approval of the request.

Staff Contact: Enrique Burgos, Signal Systems Engineer, 646-6337