

City of Alexandria, Virginia

MEMORANDUM

DATE: SEPTEMBER 3, 2003

TO: THE HONORABLE MAYOR AND MEMBERS OF CITY COUNCIL

FROM: PHILIP SUNDERLAND, CITY MANAGER

SUBJECT: CONSIDERATION OF RESOLUTION REQUESTING STATE FUNDS FOR THE OLD TOWN CONGESTION MITIGATION PROJECT AND AUTHORIZING CITY MATCHING FUNDS

**ISSUE:** Approval of resolution requesting State funds and authorizing \$40,000 in local matching funds for the Old Town Alexandria Congestion Mitigation Project. This allocation is required to utilize federal Congestion Mitigation and Air Quality (CMAQ) project funding in the amount of \$160,000.

**RECOMMENDATION:** That City Council adopt the attached resolution authorizing local matching funding of \$40,000 (Attachment 1) and authorize the City Manager to:

- (1) Submit an agreement for the use of \$160,000 of federal CMAQ funding to the Virginia Department of Transportation for Old Town Congestion Relief Project; and
- (2) Execute all necessary documents that may be required under this program.

**DISCUSSION:** The goal of the Old Town Congestion Mitigation project is to identify transportation system management strategies that will reduce traffic congestion and vehicle emissions, while improving the efficiency of the Old Town street network. The primary boundaries of this process (in part defined by available funding) will include Montgomery Street to the north, Church Street to the south, West Street to the west, and Fairfax Street to the east. However, the boundaries may be expanded to include areas such as King Street (West Street to the King Street Metrorail station). The areas adjacent to the U.S. Patent and Trade Office (PTO) will be addressed with funding required to be provided by the PTO developer. This project will focus on strategies that balance the historical integrity of Old Town Alexandria with state-of-the-practice initiatives to improve the efficiency of all modes of transportation. The results of this study will define the nature and scope of potential future system management initiatives and projects.

One primary area of focus of this project will be to identify corridors and intersections for the implementation of operational improvements. Due to the limited right of way in Old Town

Alexandria, there is a decreased likelihood for additional capacity to improve operations; which may ultimately undermine the desired character of the area. However, operational improvements can still be accomplished by making modifications within the existing right-of-ways. This is anticipated to include the time-of-day adjustment to lane assignments based on demand, the installation of lane markings and signs, and the implementation of additional traffic signal heads and dynamic messages.

In many cases, the adjustment of traffic signal phasing and timing can have dramatic impacts on congestion. Being that traffic signals are the primary method of traffic control in Old Town Alexandria, the review and optimization of traffic signal operations will also be encompassed within this study. This will result in optimization and creation of additional timing patterns that address weekend, emergency, and holiday (July 4<sup>th</sup>) patterns.

Another focus of this project will be a traffic data analysis to prioritize the list locations where the implementation of vehicle detection will have the greatest impact on improving traffic signal operations. Most modern intersections have some form of vehicle detection installed in the form of inductive loops imbedded in the pavement or optical detection installed on poles. The ability to detect vehicles will provide the opportunity for the real-time automated adjustment of traffic signal timing and phasing. In Old Town Alexandria there is virtually no vehicle detection, which requires signals to operate with the same timing and phasing from cycle-to-cycle, regardless of fluctuations in demand.

The intersection inventory stage of the data collection process will be used to compile the parking availability and time limits, among other intersection characteristics. This will reveal areas where limits and zones can be modified to accommodate more travelers, and thus pull more drivers in search of parking out of circulation.

With the improvement and expansion of parking, the need to improve pedestrian transit accommodations will also be examined as a result of the data collection effort. The intersection inventory process also involves the documentation of bus stop locations and pedestrian signals. Accompanied with volume and geometric information an analysis will be conducted in cooperation with the Transit Services Division, which will yield the options for the expansion of transit services, including routing, bus stop placement, and shuttle services.

The upgrade of pedestrian accommodations will include an analysis of the existing timing to confirm that they are appropriately set for the volume of pedestrians and the distance to cross. At locations where the traffic volume data reveals a combination of both heavy volumes and pedestrian movements, locations will be recommended for the installation of "count-down" pedestrian signals. When pedestrians are aware of the remaining time to cross, they are less likely to enter the intersection late in the pedestrian phase. Not only does this improve safety, but also capacity by limiting the impedance caused by random pedestrian traffic.

In conclusion the proposed study will focus on the following objectives:

1. Identification and implementation of operational improvements;
2. Review and optimization of traffic signal patterns;
3. Development of additional timing plans;
4. Prioritization of locations for vehicle detection;
5. Development of plans and recommendations for parking zone durations and expansion;
6. Recommendations for improved transit services; and
7. Identification of locations for pedestrian enhancements

**FISCAL IMPACT:** The total budget for the Old Town Congestion Mitigation project is \$200,000. Federal CMAQ funding in the amount of \$160,000 is available from the State. The CMAQ funding requires a 20 percent local match in the amount of \$40,000. The local match will be provided from T&ES FY 2004 operating funds budgeted for transportation studies. The amount budgeted for transportation studies in the T&ES FY 2004 approved budget is \$177,900.

**ATTACHMENT:** Resolution

**STAFF:**

Richard J. Baier, P.E., Director, T&ES

Thomas H. Culpepper, P.E., Deputy Director, T&ES

Robert Garbacz, P.E., Division Chief, Transportation, T&ES

William Haynes, P.E., City Traffic Signal Engineer, T&ES

Morgan Routt, Budget/Management, OMB

RESOLUTION NO.

WHEREAS, in accordance with Virginia Department of Transportation allocation procedures, it is necessary that a request by City Council resolution be made in order that the Virginia Department of Transportation fund a congestion mitigation air quality project in the City of Alexandria;

NOW, THEREFORE, BE IT RESOLVED by the City Council that the City Manager is authorized, for and on behalf of the City of Alexandria, hereafter referred to as the PUBLIC BODY, to execute and file an agreement with the Department of Transportation, Commonwealth of Virginia, hereafter referred to as the DEPARTMENT, for a grant of financial assistance in the amount of \$200,000.00 to defray the costs borne by the PUBLIC BODY for the development of the Old Town Congestion Mitigation Project and to accept from the DEPARTMENT grants in such amounts as may be awarded, and to authorize the City Manager to furnish to the DEPARTMENT such documents and other information as may be required for processing the agreement request. The City Council certifies that the funds shall be used in accordance with the requirements of Section 58.1-638.A.4 of the Code of Virginia.

BE IT FURTHER RESOLVED, that the PUBLIC BODY will provide funds in the amount of \$40,000.00, which will be used as a 20 percent match to the federal funds in the ratio as required in such Act, that the records of receipts of expenditures of funds granted the PUBLIC BODY may be subject to audit by the DEPARTMENT and by the State Auditor of Public Accounts, and that funds granted to the PUBLIC BODY for defraying the expenses of the PUBLIC BODY shall be used only for such purposes as authorized in the Code of Virginia. The undersigned duly qualified and acting as City Clerk of the PUBLIC BODY certifies that the foregoing is a true and correct copy of a Resolution, adopted at a legally convened meeting of the City Council held on the 9<sup>th</sup> day of September 2003.

ADOPTED: \_\_\_\_\_  
DATE

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WILLIAM D. EUILLE MAYOR

ATTEST:

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JACQUELINE M. HENDERSON, CMC CITY CLERK

**RESOLUTION NO. 2077**

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ADOPTED: September 9, 2003



**WILLIAM D. EUILLE**

**MAYOR**

ATTEST:



Jacqueline M. Henderson, CMC City Clerk