

*City of Alexandria, Virginia*

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MEMORANDUM

DATE: NOVEMBER 19, 2003  
TO: THE HONORABLE MAYOR AND MEMBERS OF CITY COUNCIL  
FROM: PHILIP SUNDERLAND, CITY MANAGER *PS*  
SUBJECT: REPORT ON PROPOSED TRAFFIC SIGNAL AT THE DIAGONAL ROAD AND KING STREET METRO STATION CROSSWALK

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**ISSUE:** City Council consideration of recommendations regarding installation of a traffic signal at Diagonal Road and King Street Metro Station crosswalk.

**RECOMMENDATION:** That City Council authorize installation of a traffic signal located at Diagonal Road and the King Street Metro Station crosswalk.

**BACKGROUND:** On September 8, 2003, a citizen contacted Mayor Euille and suggested that a traffic signal be installed at Diagonal Road and the King Street Metro Station crosswalk. There are currently STOP signs for vehicular traffic on Diagonal Road at this location. The citizen indicated that because of the high volume of pedestrians and vehicles, a traffic signal could improve the overall operation. Staff was already evaluating this crossing for possible traffic signal control when this suggestion was received. Staff's evaluation concluded that this location meets the criteria contained in the Manual on Uniform Traffic Control Devices (MUTCD) for installation of traffic signal control.

This matter was considered by the Traffic and Parking Board at its October 27, 2003, meeting. No one spoke at the public hearing; however, the Board did receive a letter supporting the traffic signal from Ms. Elizabeth Wright. The Board voted unanimously to recommend approval of the request to install this signal.

**DISCUSSION:** The warrant evaluation conducted by staff showed that Warrant Four, Pedestrian Volume, in the Manual on Uniform Traffic Control Devices (MUTCD) for traffic signal installation was met. Only one warrant condition needs to be met to justify consideration of traffic signal control. The engineering study completed by staff further concluded that this signal would improve the operation and safety of this crossing location. The MUTCD is approved by the Federal Highway Administrator as the national standard for traffic control devices.

Installing a traffic signal at Diagonal Road and the King Street Metro Station crosswalk will better organize use of this intersection and improve pedestrian, transit and vehicular traffic movements.

Pedestrians will benefit by the increased safety that this signal will provide. This is a high-volume pedestrian crossing that field observations reveal experiences frequent conflicts between pedestrians and vehicular traffic, resulting in numerous “near misses” between pedestrians and vehicles. One problem is that many times motorists cannot see approaching pedestrians in time to take appropriate action or expect pedestrian crossings at this mid-block location. Additionally, pedestrians conditioned to expect vehicular traffic to yield the right-of-way often approach the crossing rapidly and enter the roadway without regard for possible conflicts. These two factors create real potential for an accident. The proposed traffic signal will organize use of this crossing area better for conflicting users. Staff proposes to install this traffic signal with countdown pedestrian displays and equip the crossing with ADA compliant audible pedestrian signals for visually impaired pedestrians, thus improving safety for all potential users and the accessibility of the King Street Metro Station.

The proposed traffic signal will also benefit traffic flow on Diagonal Road by providing more frequent and usable gaps in the pedestrian traffic flow that will reduce congestion and delay. During peak travel periods, there is considerable congestion on Diagonal Road, due largely to the irregular and infrequent occurrence of gaps in the pedestrian flow that allow any vehicular movement. By better organizing these gaps, the proposed traffic signal will create more usable gaps, thereby, relieving much of the congestion. This reduced congestion will facilitate transit operations because Diagonal Road is a main access and departure route for buses serving the King Street Metrorail station.

We do not expect this proposed traffic signal to cause any significant backups on Duke Street when eastbound cars are unable to turn left on to Diagonal due to cars stopped for the new signal. Even if these backups do occur, they can be ameliorated by adjusting the timing on the new signal.

**FISCAL IMPACT:** The construction cost of the traffic signal is estimated to be \$60,000. Although not planned for, funding for the traffic signal will come from the T&ES Capital Improvements Program. The annual operating cost for this signal is expected to be \$2,500.

**ATTACHMENTS:** None

**STAFF:**

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

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



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Subject: Support of Docket Item 31 The Installation of a Traffic Signal at Diagonal Road

Dear Mayor and Members of Council,

This is to recommend that you approve Docket Item 31, the installation of a traffic signal at Diagonal Road. At the November 12 Meeting of the Alexandria Commission on Persons with Disabilities, the Commission reviewed the City's plan to install a traffic signal at Diagonal Road adjacent to the King Street Metro Station that is endorsed by the Traffic and Parking Board and recommended that this traffic signal be installed to establish a better balance between the needs of pedestrians and vehicles at this crossing.

The installation of this signal would also improve the access and safety of persons with disabilities at this crossing because the traffic signal would be an accessible signal that blind and other persons with disabilities and other special needs can use.

On a personal note, as a blind cane user who is a member of the King Street Task Force, a King Street Metro user, a customer of Riggs Bank at Station Center and a frequentor of King's Street Gardens, I would benefit personally from the installation of the traffic signal at this site.

I hope that these considerations will prompt you to support the recommendation by T&ES to place a traffic signal at this Diagonal Road crossing.

Chet Avery, Chair  
ACPD

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