



CITY OF CONCORD

REPORT TO THE MAYOR AND CITY COUNCIL

FROM: Robert J. Mack, PE, PTOE
Traffic Engineer

DATE: October 21, 2016

SUBJECT: Report from the Traffic Engineer on behalf of the Traffic Operations Committee and the Transportation Policy Advisory Committee in response to a referral from City Council regarding a request from third grade students at Christa McAuliffe Elementary School for the installation of four-way stop sign control at the intersection of Warren and Rumford Streets.

Recommendation

Accept this report and set a public hearing to amend the Code of Ordinances to install four-way stop sign control at the intersection of Warren and Rumford Streets.

Background

On June 13, 2016, City Council referred a request from third-grade students at Christa McAuliffe Elementary School for the installation of four-way stop sign control at the intersection of Warren and Rumford Streets (see map). Pursuant to initial discussions with Concord School District, further consideration of the request was deferred to the resumption of school activity in September. The request was considered by the Traffic Operations Committee (TOC) on September 20, 2016 and the Transportation Policy Advisory Committee (TPAC) on September 22, 2016.

Discussion

At issue is a request from Christa McAuliffe Elementary school to install a four-way stop at the intersection of Warren and Rumford Streets. The school principal and a representative from Concord School District presented the request to the TOC at its September 20, 2016 meeting. They noted that the Warren Street intersections at N. Spring Street and at Rumford Street are on adjacent corners of the school block and are on the walk-to-school routes. Crossing guards are located at both intersections. While the Warren/N. Spring intersection is a four-way stop, the Warren/Rumford intersection is a two-way stop with Warren Street being the non-stopping street. They noted that some felt that traffic on Warren Street did not stop for the crossing guard at Rumford Street and that stop signs should be added on the Warren Street approaches making it a four-way stop intersection.

TOC considered the merits of the request. Regarding safety, the Warren/Rumford intersection had no reported crashes in the last three years. That compares with the Warren/N. Spring intersection that had four reported crashes in the same period. The city's stop sign policy allows for consideration of stop signs at intersections near school areas where there is a significant volume of pedestrian activity. As traffic volumes and speeds along Warren Street are fairly low, and there are already multiple stop locations on the blocks just east and west of the school location, TOC felt that the addition of another full-stop location would not have a significant impact on through-traffic flow along the street. The disparity in traffic control and pavement markings between adjacent intersections along Warren Street was also discussed: the Warren/N. Spring intersection has a four-way stop and four painted crosswalks; while the Warren/Rumford intersection has a two-way stop and four painted crosswalks. TOC felt that, given the unique characteristics of this and adjacent intersections and within the context of the school zone, addition of a four-way (or multi-way) stop at the Warren/Rumford intersection would give both intersections the same look and operation, a consistency that could enhance expectations by both drivers and pedestrians in the immediate vicinity of the school.

TOC reviewed the current application of multi-way stop control at the intersections in the nearby neighborhood west to Liberty Street. It was felt that current multi-way stop locations were located somewhat arbitrarily throughout the neighborhood and that members still felt some uncertainty when driving through the area on whether the 'next intersection' would be a stop or not. Regarding an option to remove one other multi-way stop in the neighborhood in conjunction with adding the subject multi-way stop at the Warren/Rumford intersection, it was felt that less change in area traffic control at any one time would be potentially less confusing to drivers; only the change at the Rumford/Warren intersection was suggested at this time.

TOC concurred that, given the unique characteristics of this and adjacent intersections and within the context of the school zone, that conversion of the subject intersection to a multi-way stop would be an appropriate recommendation. TOC also recommended the relocation of the existing school zone signing approaching from the west on Warren Street from its current location just west of N. Spring Street to just west of Rumford Street. At its September 22, 2016 meeting, TPAC reviewed TOC's findings and indicated its unanimous consent in endorsing a recommendation to install a four-way stop at the Warren/Rumford intersection. The cost of two additional STOP signs and posts and four 'all-way' plaques is about \$360, not including staff time for installation. Additionally, the sign faces will need to be replaced about every 10 years to maintain minimum reflectivity requirements.

Attachment: Location Map

Cc: Traffic Operations Committee
Transportation Policy Advisory Committee
C. Gallo, Christa-McAuliffe Elementary School