



CITY OF CONCORD

REPORT TO THE MAYOR AND CITY COUNCIL

FROM: Ed Roberge, PE, City Engineer

DATE: June 8, 2016

SUBJECT: Report from the City Engineer recommending a modification to the Old Loudon Road/Portsmouth Street intersection improvement.

Recommendation

Accept the report recommending a modification to the recent improvement to the Old Loudon Road/Portsmouth Street intersection.

Background

In 2010, a multi-year capital improvement project (CIP) was introduced (CIP520-Intersection Safety Improvements) identifying intersection locations throughout the community with skewed geometry, multiple side-street approaches, sight distance limitations, and potential high speed turns. Project improvements typically include realigning the side-street intersection approaches to a typical “T” type intersection configuration.

Historically, the Old Loudon Road/Portsmouth Street intersection had been a highly skewed intersection. The former configuration allowed turns to occur at two ‘intersection’ areas, each separated by a small island area. At issue was:

- right-turning traffic can continue through the intersection at high speed between Old Loudon Road westbound and Portsmouth Street as well as two-way traffic continuing along Old Loudon Road;
- the speed of non-stopping traffic coupled with more than one location to turn can create uncertainty for other turning vehicles; and
- Portsmouth Street southbound traffic stopping to turn left onto Old Loudon Road requires a difficult, over-the-shoulder head turn to the right to view traffic approaching from the west on Old Loudon Road.

This intersection is one of several highly-skewed intersections that are included in CIP 520. Similar intersections that have been reconfigured to a simple right-angle intersection include the Manor Road/Sewalls Falls Road intersection (2007), Mountain Road/Shaker Road intersection (2009), North State Street/Fisherville Road/Sewalls Falls Road

intersection (2010), North State Street/Rumford Street intersection (2011), Washington Street/Borough Road /River Road intersection (2015), and the Loudon Road/Old Loudon Road intersection (2016). Other intersections included in CIP 520 for future reconfiguration include the Borough Road/Lilac Street intersection, the Graham Road/Snow Pond Road intersection, and the Carter Hill Road/Lakeview Drive intersection. These types of intersection improvement projects can be constructed most cost-effectively when done concurrently with scheduled street repaving.

Engineering and GSD staff collaborated to include the Old Loudon Road/Portsmouth Street intersection as part of this spring's scheduled repaving of both Portsmouth Street and Old Loudon Road (CIP 78, FY2016). The initial work on this intersection was done earlier this spring.

The new intersection layout was designed to accommodate turns by a large bus and the City's largest fire truck without encroaching over the centerlines. The intersection has been tested by both the Concord School District's Transportation Division and the Concord Fire Department without issue.

As is typical with these projects, staff forwarded design documents to intersection abutters and discussed the proposed intersection changes with several residents. The only property directly affected by the change was #65 Old Loudon Road (northeast corner). Abutters on both Old Loudon Road and Portsmouth Street were supportive of the planned intersection changes, including minor extensions of both of their driveways to meet the new edge of the travel way. All of the intersection work is within the city's right-of-way.

Discussion

Staff understands that communication with Council relative to the initial work on the intersection was regrettably lacking and not in compliance with the stated prerequisites of CIP 520. Since the layout of the initial improvements, several members of Council were contacted by citizens concerned with the new intersection alignment. Based on those concerns, the layout has been re-visited and a modification is being proposed to the final configuration. This change is illustrated in the attached graphic as the "recommended modification."

ELR/elr
attachments