



# CITY OF CONCORD

*New Hampshire's Main Street™*

## MINUTES

### Traffic Operations Committee

September 20, 2016, 12:00 PM  
2<sup>nd</sup> floor Conference Room  
City Hall, 41 Green Street, Concord, NH

**Staff Present:**

Rob Mack, Engineering Services (Chair)  
Ed Roberge, Engineering Services  
Jim Major, General Services  
Heather Shank, Planning Division  
Rick Wollert, Fire Alarm  
Matt Cashman, Concord School District

**Guests:**

Chris Gallo (Principal, Christa McAuliffe Sch)

### 1. Regular Discussion Items

#### a. Overview of City-Wide Crash Data

Crash data for August 2016 was reviewed. There were 109 reportable crashes in August 2016. This compares with 97 and 95 reportable crashes in August 2015 and 2014, respectively. 15 crashes resulted in total of 19 people injured. There was one fatality; a construction worker on a crew repaving a private driveway on Sunset Avenue was struck by a piece of construction equipment.

There was one crash involving a pedestrian: a worker on a driveway paving crew at 10 Sunset Avenue was pinned between construction equipment (fatality, under investigation).

There was one crash involving a bicyclist: a bicyclist aged 65 years traveling in the southbound bicycle shoulder along N. State Street near Swenson Granite and being struck on the rear tire by a southbound vehicle (minor injuries, driver fled scene, helmet worn).

#### b. City Council Meeting Update

At City Council's September 12, 2016 meeting, Council voted to discontinue the three-lane conversion plan for CIP 19 Loudon Road and redevelop the project to repave and maintain the current 4-lane configuration but add select sidewalk and access management improvements.

#### c. Transportation Policy Advisory Committee (TPAC) Update

TPAC did not meet in August.

## 2. Ongoing Discussion and Action Items

### a. Request from third grade students at Christa McAuliffe Elementary School for the installation of a 4-way stop at the intersection of Warren and Rumford Streets (*Council: 5/13/16*).

Matt Cashman and Chris Gallo presented the request on behalf of the school. 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 4-way stop, the Warren/Rumford intersection is a 2-way stop with Warren Street being the non-stopping street. They noted that it was felt by some that traffic on Warren Street did not stop for the crossing guard at Rumford Street and that stop signs should be considered on the Warren Street approaches making it a 4-way stop intersection.

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 in this corridor. The disparity in traffic control and pavement markings between adjacent intersections along Warren Street was also discussed: the Warren/N. Spring intersection has a 4-way stop and four painted crosswalks; while the Warren/Rumford intersection has a 2-way stop and four painted crosswalks. It was felt that addition of a 4-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 quite a few of the intersections in the local 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 was 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 also discussed the current school-zone sign which is located on Warren Street facing eastbound traffic approaching the N. Spring Street intersection. TOC concurred that this sign should be relocated to west of the Rumford Street intersection due to the significant school-related activity that occurs on the Rumford Street corner.

TOC members concurred with the addition of a multi-way stop at the Warren/Rumford intersection, given the unique characteristics of this and adjacent intersections and within the context of the school zone. Staff will present TOC's findings and recommendation to TPAC later this week for their consideration. General Services will relocate the school zone sign facing Warren Street eastbound from its present location west of N. Spring Street to west of Rumford Street.

### b. Communication from Councilor Herschlag regarding a constituent request to change the flashing yellow arrow signal at the Route 3/Borough/Manor intersection back to a red/green arrow signal (*Council: 7/11/16*).

Since the intersection was first signalized in 2007, the northbound and southbound left-turn lanes were controlled by exclusive red, yellow and green arrows; left turns had to wait for an exclusive left-turn interval in order to turn. Other intersection traffic in turn had to wait at a red light until the

exclusive left-turn signal phases ended. The flashing yellow arrow (FYA) operation was one of the improvements included in CIP35 Phase 6 and installed in November 2015. The purpose of the change was to reduce unnecessary intersection delays due to the need for the signal to cycle through multiple phases before being able to service a left-turn vehicle call. Furthermore, the conversion to FYA at this intersection establishes a consistent use of this type of traffic control at all signals from this location southward to McGuire Street, controls that have worked well and have been accepted by the traveling public since first initiated in 2010.

In 2014, Councilor Todd referred an inquiry to TPAC concerning complaints by Snow Street residents of vehicle speeds and cut-through traffic choosing to avoid the signals at the subject intersection. Council accepted a September 30, 2014 TOC/TPAC report recommending the change in design to the FYA operation here in part to alleviate signal delays which may have been inducing Fisherville Road southbound traffic to use Snow Street as a cut-through bypass of the red arrow left turn signal at Manor Road.

Regarding the current referral, staff contacted the Borough Road resident on August 5, 2016 to discuss her concerns. She felt that the lack of the former green left turn arrow did not leave enough time for cars to turn left into Borough Road and that risks were being taken by left turn vehicles to beat the light. Another concern was that left-turning traffic had to pull beyond the stop lines in order to safely turn left. Staff explained the reason for the change to FYA (a recent safety concept coming into practice nationwide over the last decade), how it works, and how drivers negotiate the turn. The resident asked that staff check out traffic peaks in September after schools resume classes.

Staff observed traffic operations during both the morning and afternoon traffic peaks in August and September. At these times minimal queues and delays were observed on the Fisherville Road and Village Street approaches, a significant reduction from that observed in prior years with the red/green arrow operation. During commuter peaks, left-turn delays and 'risky' movements were not observed. Northbound and southbound left-turn delays were measured for two 30-minute periods (commuter peaks) on September 14, 2016 and indicated: 18 morning left turns per 30 minutes with average delay of 5.6 seconds; and 52 afternoon left turns per 30 minutes with average delay of 7.6 seconds. The substantial reduction in left-turn delay would effectively eliminate the desire for drivers to circumvent this intersection in order to 'speed up' a left turn movement. In the 9 months since the conversion to FYA there were two reported crashes at the intersection. This compares with four reported crashes in about 10 months of 2015 prior to the change. This is not indicative of a safety issue. Drivers making left turns were observed to do so properly and safely. Occasionally, a very conservative driver was seen waiting in the left turn lane on the green light for an unusually long time until even the most distant opposing vehicle passed by; the signal sensed the waiting turner and held the green light (with FYA) until the driver turned.

TOC concurred that the current FYA operation at the intersection is appropriate, safe and effective and recommended that the operation be continued full time, including during commuter peaks. Intersection performance has been significantly improved, there is no indication of safety issues and queuing and delays have been minimized reducing the potential to cause traffic to avoid the signal and cut through neighborhoods such as Snow Street. The change to FYA at this intersection also maintains a more-consistent use of this type of traffic control with other signals along this corridor. Staff would continue to monitor traffic operations and safety. Staff will present TOC's findings to TPAC later this week for their consideration.

### 3. New Discussion and Action Items

**a. Referral from Councilor Kenison regarding a constituent request to consider reversing the one-way travel direction on Federal Street (Council: 9/12/16).**

TOC received a referral from Councilor Kenison regarding a request from a resident of Federal Street to consider the feasibility of switching the one-way direction on Federal Street from northbound to southbound. At issue is a concern on some traffic cutting through and speeding on Federal Street toward Warren Street in order to avoid traffic signal delays at the Pleasant/Green intersection.

Federal Street is a short and narrow residential street limited to one-way northbound travel from Pleasant Street to Warren Street. The northbound one-way movement allows residents to turn onto Warren Street, a relatively slow and low-volume collector street. If the one-way changed direction, residents would need to pull out onto Pleasant Street, a high volume arterial street with elevated speeds and potential traffic queues from nearby signals. Regarding cut-through traffic, staff visited the street several times and noted hardly any traffic movement at all. Changing the one-way direction would not eliminate the occasional cut-through; it would only change its direction. Such a southbound cut-through movement might also attract a northbound driver from Green Street trying to avoid the long queues that occasionally form approaching the Pleasant/Green intersection. In any event, it was noted that consideration of a change in one-way on Federal Street would require a neighborhood meeting, concurrence of 60 percent of the street's residents, a public hearing and action by City Council to amend the Ordinance; this process is outlined in the city's Traffic Management Policy.

Attendees concurred that switching the one-way on Federal Street would result in safety concerns for Federal Street residents due to egress on busier and higher-speed Pleasant Street versus current egress onto the slower and more-lightly-travelled Warren Street. It was suggested that staff also consider measuring speeds on Federal Street to address the speeding complaint. Discussion of the request will continue at the next meeting.

### 4. Open Discussion Items

**a. Staff response to miscellaneous inquiries (refer to correspondence in agenda packet).**

See below.

**b. Clinton/Langley intersection sign request**

At issue is a resident complaint that a vehicle turning right from Clinton Street onto Langley Parkway did not 'yield' to him while he was crossing in the crosswalk on the walk indication. Requested is the addition of an illuminated No Right Turn sign to the signal installation to indicate to drivers when the pedestrian crossing phase is active.

This signal is one of many in the city that allow vehicles to turn right on red. Pressing the crosswalk push button at this intersection gives a red light for all approaching traffic when the walk signal activates. NH state law requires drivers turning right on red to first stop and then yield to pedestrians who may be in the intersection. The small sign over the pedestrian push button also advises pedestrians to 'Watch for Vehicles' when crossing. TOC members felt that the current intersection design was appropriate and that the need for the supplemental restriction was not necessary.

**c. Tallant Road paving request.**

At issue is an inquiry from Engineering and General Services regarding a request from Ben Stephenson of 32 Tallant Road to pave Tallant Road and reconstruct the Hoit/Tallant intersection

to allow large vehicles to turn left from Hoit Road into Tallant Road. A complaint is that the unpaved surface is poorly maintained. In addition, the tight skew of Tallant Road to Hoit Road makes it difficult for a large vehicle (like a fire truck) to turn left from Hoit Road. He noted that emergency responders to his house had to pass Tallant Road and turn around one-half mile to the east in order to make the easier right turn onto Tallant Road.

Staff noted that Tallant Road is one of the few unpaved Class V roads in the city and that future paving of the road is not programmed. The road services only a few homes in Concord before extending into Canterbury. Staff would contact fire department staff regarding the concern with fire-truck access between Hoit Road and Tallant Road. Because of the steep grades between Hoit Road and Tallant Road, a reconstructed intersection would be costly and would require additional land. It was noted that the city owned the parcel of land on the northeast corner of the intersection which might accommodate a relocated intersection. General Services would field view the intersection regarding potential construction issues. The request would be discussed further at the next meeting.

Next meeting date: October 18, 2016