



## Engineering Services Division

# Traffic Operations Committee

Meeting minutes - June 21, 2011

Attendees: Rob Mack, PE, PTOE, Engineering Services Division  
Ed Roberge, PE, Engineering Services Division  
Steve Henninger, Planning Division  
Jim Major, General Services  
Greg Taylor, Concord Police Department  
Bill Dexter, Concord Police Department  
Dave Florence, Concord Police Department  
Dick Lemieux, TPAC Chair  
Jennifer Kretovic, Concord 20/20

### Regular Discussion Items

- 1) **Overview of city-wide accident data, including prior-month accident summary and discussion of select accident locations, circumstances and potential action.**

DISCUSSION / ACTIONS: Traffic accident data for May 2011 was reviewed. There were 82 reportable accidents in May 2011. This compares with 91 and 89 reportable accidents in May 2010 and 2009, respectively. 14 accidents resulted in total of 18 people injured, with 2 of those injuries occurring on Loudon Road. There were no fatalities. A total of 8 accidents were reported on Loudon Road, the lowest monthly accident total on this road since CPD's current record-management system began in January 2004.

There was one accident involving a pedestrian: a pedestrian crossing Sheep Davis Road from east to west at the signal at Pembroke Road and being struck by a vehicle turn left from Pembroke Road to NH 106 northbound (minor injuries, driver at fault).

There were no accidents involving bicyclists.

- 2) **City Council meeting update.**

DISCUSSION / ACTIONS: No TOC items requiring Council action.

- 3) **Transportation Policy Advisory Committee (TPAC) update.**

DISCUSSION / ACTIONS: No TPAC meeting in May.

### B. On-going Discussion and Action Items.

- 1) **Referral from Council regarding a request from Alex de Nesnera to remove the STOP signs on the School Street approaches to the School Street/N. Fruit Street intersection. (Council: 3/14/11).**

DISCUSSION / ACTIONS: Staff plans to seek feedback from the family of the blind student originally requesting the multi-way stop.

2) **Discussion of potential STOP sign policy.**

DISCUSSION / ACTIONS: Discussion centered on an option to post STOP signs on all side-street approaches to the City's arterial/collector street network, even though such installations could be considered optional. Rob Mack noted that there are about 100 such locations along the arterial/collector street network that do not currently have STOP signs posted. General Services noted that new signs cost about \$120 each plus labor, thus the fiscal impact of adding substantial new signs (that also need to be regularly replaced every 10 years or so due to new federal reflectivity requirements) should be a consideration. TOC members concurred that the policy should reflect a priority to using STOP signs on approaches to the City's busier streets rather than within local residential street areas, but that signs should be installed based on engineering judgment.

The draft policy was initially presented to TPAC in April and was favorably reviewed. Additional discussion and comment would be sought at the next TPAC meeting (currently scheduled for July 28, 2011).

C. **New Discussion and Action Items**

1) **Discussion of the McKee Square Intersection Improvements project.**

DISCUSSION / ACTIONS: Rob Mack presented the findings of Engineering Services' conceptual design study of CIP31 McKee Square Intersection Improvements. The FY2010 study is in preparation for a currently-programmed FY2013 design and FY2014 construction. The study area generally includes South Street from Avon Street to Downing Street, Broadway from Humphrey Street to South Street, and Clinton Street from South Street to S. Spring Street. The McKee Square intersection area is a major travel hub in the South End with a number of traffic-operational issues including: peak-hour volumes at the traffic signal of about 2,000 vehicles per hour during peaks, peak period intersection operation near or at capacity with long traffic queues, frequent pedestrian crossings; increased walk-to-school use particularly following the school consolidations; high accident history at the Broadway/West intersection (averaging about 7 crashes per year for the last five years with most occurring during peak period traffic queuing); difficult driveway access to abutting businesses; and location of McKee Square within a high-density residential area.

Improvement options include: a Do Nothing alternative which essentially replaces currently aging and outdated signal equipment and keeps existing operation; an enlarged intersection with addition of a second westbound through lane on Broadway and new signal operation; and a full intersection reconstruction to provide a multi-lane roundabout. The two improvement options also include street and sidewalk reconstruction throughout the study area to shorten crosswalks, revised intersection geometry at the Broadway/West intersection, better control of vehicle movement at intersections as well as at driveways, and better provision for bicycle travel. The lane-widening option extends the raised medians on Broadway and Clinton Streets to prohibit street crossings from West Street and from side streets and driveways in the area of S. Spring Street. Simulations of peak-period traffic operation indicate superior operation with the

roundabout alternative which was able to more efficiently process heavy vehicle flows with shorter traffic queues and lower speeds. Notable disadvantages of the lane-widening signal option include increased cut-through traffic on nearby residential streets, higher speed operation particularly in the area of the proposed westbound two-lane merge on Clinton Street, and more complex driveway access for a number of businesses. Conceptual costs for the alternates were: about \$250,000 for the Do Nothing alternative (replace/update signal equipment and resurface area streets when needed); about \$600,000 for the Lane Widening/Revised Signalization alternative; and about \$800,000 for the Roundabout alternative.

TOC members indicated a strong preference for the roundabout alternative. Engineering staff recommended the Roundabout alternative with the Do Nothing as a second choice if project funding is delayed. General Services did not indicate any maintenance issues related to the Roundabout alternative. Planning Staff felt the roundabout alternative provided excellent streetscape opportunities. Police staff did not feel that there were enforcement issues with any of the three alternates presented.

Study findings were initially presented to the Ward Councilors in May 2011. Findings were also presented to TPAC Pedestrian Committee on June 16, 2011 and the Parking Committee on June 20, 2011. All groups indicated a preference for the roundabout option. The Parking Committee further suggested that city-owned land on the corner by Citizen's Bank (used for public parking and maintained by the Parking Fund) be considered for potential sale to abutting land owner. The study will be presented to TPAC and TPAC-Bike in July. Additional feedback will also be sought from Concord Fire Department and Concord School District staff that were unable to participate in the TOC discussion. Engineering staff also plans to reach out to abutting businesses in the coming weeks to discuss the alternatives and potential implications to driveway access.

2) **Discussion of use of YIELD signs at the intersections of Auburn/Forest and Auburn/Penacook.**

DISCUSSION / ACTIONS: Rob Mack noted that the Federal Highway Administration's 2010 *Manual on Uniform Traffic Control Devices* now states that STOP signs and YIELD signs shall not be installed on different approaches to the same intersection if those approaches conflict with or oppose each other (Section 2B.04). There are two intersections in the City where such a condition exists. The Forest Street westbound approach to Auburn Street is posted with YIELD sign while the opposite approach has a STOP sign. Also, the Penacook Street approach to the intersection of Little Pond Road and Auburn Street is controlled by a YIELD sign while the opposing approach from Little Pond Road is controlled by a STOP sign (the Auburn Street approach is a free movement).

While TOC members were not aware of any significant operational or safety issues at either of these intersections, all concurred that it was important to comply with the mandatory 'shall not' condition in the MUTCD. TOC members did not feel that replacing the two YIELD signs with STOP signs would create a significant operational change at these intersections. Further, the conversion to STOP signs would make traffic-control signage at these intersections consistent with the vast majority of STOP-controlled intersections in the City.

- 3) **Request from Mary Costello of 12 Harvard Street to install a STOP sign on the Cornell Street approach to Cypress Street. (Engineering: 5/26/11).**

DISCUSSION / ACTIONS: At issue is a resident request to install a STOP sign on the Cornell Street approach to Cypress Street. Rob Mack noted that the 'intersection' is essentially a 90 degree bend in the street located at the entrance driveway to the Rundlett Middle School parking area. Traffic flow is one-way in a southbound direction only, thus southbound vehicles approaching the intersection either turn left to continue on Cypress Street or go straight to enter the school parking area. A STOP sign does not appear necessary to assign right-of-way as rules -of-the-road appear obvious and the likelihood of driver disregard of a potential STOP condition at this location is also a concern. CPD accident records indicate no reported accidents at this intersection since the database was started in 2005. Sidewalk is located along the west side of Cornell Street and provides access into the school parking area, thus students do not have to walk in the street to access the school grounds.

TOC concurred that a STOP sign was not necessary at the subject location.

- 4) **Request from Marie Morgan of the Hugh Gallen State Office Park to restrict on-street parking in the vicinity of the S. Fruit/Memorial Field/Industrial Drive intersection. (Engineering: 5/27/11).**

DISCUSSION / ACTIONS: At issue is potentially reduced sight lines for drivers exiting the state office access road (Industrial Drive) at occasional times when vehicles are parked along both sides of S. Fruit Street due to an event at Memorial Field. The issue was discussed with the Parking Committee on June 20, 2011 and the committee was strongly opposed to a substantial prohibition of on-street parking in this location for occasional afternoon events. It was noted that there are alternate driveways to/from the office park that could be used if drivers were uncomfortable with the Industrial Drive driveway during events at Memorial Field.

TOC felt it could be helpful to post No-Parking Here to Corner signs at the driveways to the office park as well as Memorial Field to keep vehicles from parking within 30 feet of driveways/side streets or the crosswalk area. This would be a non-ordinance sign posting that would not significantly reduce existing on-street parking, but would keep cars from parking right next to the subject driveways or crosswalk. Dave Florence will look into sign changes as may be appropriate.

- 5) **Request from Ellen Sheridan of 9 Fisk Hill Farm to relocate an existing CURVE sign on Fisk Road near Fisk Hill Farm. (Engineering: 6/7/11).**

DISCUSSION / ACTIONS: At issue is a resident request to relocate the CURVE sign on Fisk Hill Road from its current location south of Fisk Hill Farm to just north of Fisk Hill Farm. Rob Mack met with Ms. Sheridan on June 9, 2011 to discuss her request. Her concern is that the curve sign blocks the view of the small green Fisk Farm Road sign (private road and sign) for vehicles approaching from the south and drivers cannot see the driveway because the street sign is not visible in the distance ahead.

Rob Mack noted that the curve sign appeared to be reasonably located by the NHDOT's federally-funded safety project in late 2008. It appears that visibility from the driveway to the south on Fisk Road is limited by growing vegetation along the area of a stone wall on the Fisk

Hill Farm frontage; the subject curve sign is mounted well above the vehicle-to-vehicle sight line. Clearing the vegetation would enhance the sight line issue.

TOC members felt that the subject curve sign was appropriately located by the NHDOT project, and that clearing brush in the vicinity of the stone wall south of the driveway would be an appropriate enhancement to improve driveway visibility should the homeowners choose to do so. If advance visibility of the private street sign is a concern, the homeowners have the option of relocating the street sign.

6) **Discussion of potential sight-line restriction at the Washington/Rumford intersection due to on-street parking.**

DISCUSSION / ACTIONS: At issue is an observation by some staff that the new on-street parking installed on Washington Street along the front of UNH Law Center can reduce sight lines for vehicles turning from Rumford Street southbound onto Washington Street. This parking is set back the requisite 30 ft from Rumford Street and a vehicle generally needs to pull over the crosswalk in order to get a view of Washington Street traffic before turning onto Washington Street. TOC felt this condition is typical of cross streets in the urban core. As this is a new parking condition at this location, TOC felt it would be appropriate for drivers to get used to it for a while. Staff will monitor traffic operations there over the coming year when classes at the law center resume.

7) **Discussion of vehicles stopping/standing at the west stairwell of the Firehouse Block Garage for daycare pickups.**

DISCUSSION / ACTIONS: Rob Mack reported a concern about an apparently increasing tendency for vehicles to stand/stop next to the stairwell tower at the Green Street entrance to the garage for purpose of dropping off or picking up children from the daycare facility. Vehicles were observed parked for up to 5 minutes. Such a stopped vehicle limits the garage entrance to about one lane for two-way traffic, causes pedestrians going to/from Green Street to walk around the vehicle in the narrowed lane in order to access the stairwell, and exacerbates the limited sight lines between entering/exiting traffic and pedestrians potentially coming out from the daycare, the kiosk or the stairwell. Dave Florence noted that parking staff discussed the situation with the daycare center and staff has also been monitoring the area during drop-off/pickup peaks. Since then the occurrence of parked vehicles here has reduced substantially. The issue was also discussed at the June 20, 2011 Parking Committee meeting with the committee concurring that parking or standing there is illegal as it blocks a travel way and that a sign indicating such could be added if necessary. Parking staff will look into potential sign and marking enhancements and will continue to monitor.

8) **Discussion of NHDOT plans to coordinate signals along NH 106 in the vicinity of the I-393 interchange and to revise lane use and signal phasing at the Loudon/NH 106 intersection.**

DISCUSSION / ACTIONS: The New Hampshire Department of Transportation is advertising a project to improve existing signal operation on NH 106 at the two I-393 intersections as well as at the NH 106/Loudon Road intersection. The improvements will feature implementation of time-based signal coordination at the three intersections. Also, lane use on the Loudon Road eastbound approach to NH 106 will be revised to allow left turns from either of the two left lanes; signal phasing will be revised to separate the eastbound and westbound Loudon Road approach

phases. The NHDOT indicates the signal changes will improve capacity and reduce delay at the three intersections. TOC members concurred with the improvements discussed. Construction may begin this fall with completion possibly in late fall or by spring of 2012.

D. [REDACTED]

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

DISCUSSION / ACTIONS: CPD noted that funding for the Traffic Enforcement Unit was being reconsidered in the current FY2012 budget talks. TOC members noted their continuing deep support for the TEU. Traffic referrals or complaints received by TOC are frequently passed on to the TEU for immediate initial action, be it investigation, problem identification, enforcement activity or taking the time to meet with individual residents to hear their concerns. Since its inception in 2008, the TEU has been an integral part of TOC's response to traffic issues city-wide, a response that relies on the three E's: Engineering, Enforcement and Education.

Respectfully submitted,

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Robert J. Mack, PE, PTOE, Traffic Engineer  
Chair, Traffic Operations Committee

***The next Traffic Operations Committee meeting will be held on  
TUESDAY, July 19, 2011 @ 1:00 PM in the 2<sup>ND</sup> Floor Conference Room.***