

10-02-2019 Town Council Meeting

Responses to Council Questions

ITEM #11: Amend Chapter 21 of the Code of Ordinances on Turn Regulations to Prohibit Right Turns on a Red Signal at Several Intersections. (Reissued from September 11, 2019)

Council Question: Why were these intersections chosen?

Staff Response: In response to the petition, Town and NCDOT Staff reviewed many signalized intersections with high pedestrian volumes. The recommended 16 intersections were chosen because of:

- Geometric or operational characteristics of the intersection that might result in unexpected conflicts
- High number of conflicts between pedestrians and vehicles
- Many of the recommended intersections do not have exclusive right–turning lane (existing combination of through and right turn lane configuration itself acts as no right turn on red during majority of the times)
- Input received from the Transportation and Connectivity Advisory Board

We make a note that the following intersections currently signed for “no turn on red” at least for one approach and we are recommending “no turn on red” for more than one approach as noted in the ordinance.

- From Caswell Road (both approaches) to Estes Drive
- Rosemary Street and Hillsborough Street
- Columbia Street and Cameron Avenue

Council Question: What criteria were used?

Staff Response: Following criteria from the Manual on Uniform Traffic Control Devices (MUTCD):

- An exclusive pedestrian phase
- High number of pedestrian conflicts with right-on-red vehicles
- Geometric or operational characteristics of the intersection that might result in unexpected conflicts

Council Question: What will be the traffic impacts? Could this create nasty traffic situations, while our community survey shows that traffic is the #1 concern?

Staff Response: We make a note that many of the recommended intersections do not have exclusive right–turning lane (existing combination of through and right turn lane configuration itself acts as no right turn on red during majority of the times). However, Town staff conducted traffic capacity analysis with no right turn on red at those locations with exclusive right turning lane. Level of Service (LOS) was changed from B to C at two intersections and C to D at three intersections during peak hours.

Council Question: What is the big picture on this? Is this for ped/bike safety? If so, that’s a laudable goal, but what other ways do we have to achieve that goal?

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Staff Response: The goal of the Ordinance for “no right turn on red” is to increase pedestrian safety and decrease crashes at intersections. A permissible "Right Turn on Red" (RTOR) was introduced in the 1970s as a fuel savings measure and has sometimes had detrimental effects on pedestrians. While the law requires motorists to come to a full stop and yield to cross street traffic and pedestrians prior to turning right on red, many motorists do not fully comply with the regulations. Motorists are so intent on looking for traffic approaching on their left that they may not be alert to pedestrians on their right. In addition motorists usually pull up into the crosswalk to wait for a gap in traffic, blocking pedestrian crossing movements. In some instances, motorists simply do not come to a full stop. We think that the recommended ordinance requires motorists to fully comply with the law and thus can increase the safety of pedestrians.

Council Question: What other options do we have and how do we evaluate what is the best option?

Staff Responses: Town staff have implemented the following measures for improving safety of pedestrians at signalized intersections:

- Leading Pedestrian Interval (LPI) at the majority of the downtown signalized intersections. LPI gives pedestrians the opportunity to enter an intersection 3-7 seconds before vehicles are given a green indication. With this head start, pedestrians can better establish their presence in the crosswalk before vehicles have priority to turn left
- Installed “yield to pedestrians” signs at many signalized intersections
- Exclusive pedestrian phase (Cameron Ave and Columbia St)

We are recommending “no right turn on red” at the recommended intersections to supplement the above measures which we think it will increase the pedestrian safety. Evaluation of the measures can be studied by conducting before and after analysis of crash data, traffic capacity analysis, and surveys.

Council Question: Do we or NCDOT have data on number of collisions involving pedestrians or bikes with vehicles turning right on red?

Staff Response: Accidents numbers from 8/2009 to 8/2019 (10-year period) from NCDOT database are provided below:

Total Bike/Ped Accidents	191
Bike/Ped Accidents with vehicles turning right on red signal	12 (5-Bike and 7-Ped)