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# MEETING SYNOPSIS

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| **ATTENDEES:** | TEC, Inc.<br>Town of Boxford<br>MassDOT – Boston HQ<br>MassDOT – District 4 | **DATE:** | April 29, 2022<br>1:00pm – 2:15pm |
| **LOCATION:** | Microsoft Teams | **PROJECT NO.:** | T1204.01 |
| | | **NOTES BY:** | SWG |
| **PROJECT NAME:** | MassDOT Project File No. 606721 - Reconstruction of Route 133 from North Andover Town Line to Main Street | | |
| **RE:** | Washington Street at Main Street Intersection Traffic Control Discussion | | |

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On Friday, April 29, 2022, representatives from the Town of Boxford and TEC organized a MS Team virtual meeting with representatives from both the Massachusetts Department of Transportation (MassDOT) - Boston HQ and the MassDOT – District 4 office in Arlington. The discussion focused specifically on the intersection traffic control measures that are currently being evaluated at the intersection of Washington Street (Route 133) at Main Street in Boxford, MA as part of MassDOT Project File No. 606721 – 'Reconstruction of Route 133 from North Andover Town Line to Main Street'. TEC and the Town led the discussion to discuss for (4) specific topics. The following is a synopsis of these discussions:

***Implementation of an All-Way Stop Controlled Intersection***

- TEC noted that an all-way stop controlled intersection was evaluated at the subject intersection based upon MassDOT's Intersection Control Evaluation (ICE) – Stage 1. TEC noted the operational deficiencies that would result from an all-way stop condition along Washington Street (Route 133), which were evaluated to change from the current LOS A to operate under LOS F with volume-to-capacity (v/c) ratios in excess of 1.00 (approach over capacity) in both the weekday morning and weekday evening peak period.
- MassDOT's general consensus was that an all-way stop controlled intersection at this location is not a viable intersection control because:
    - Traffic operations along the arterial mainline would result in both LOS F and V/C ratios in excess of 1.00,
    - Stop control is not traditionally installed on arterial mainline roadways.
    - No other stop-control is provided along Route 133 on its current mainline tangent between Route 125 in North Andover and Route 1A in Rowley/Ipswich. A stop-sign along the arterial mainline could violate driver expectancy.

***Design Vehicle WB-62 vs. WB-67***

- TEC invited input from MassDOT on the design vehicle for both through and turning movements at the intersection. TEC noted that new Automatic Traffic Recorder (ATR) Counts were completed along each intersection approach on Wednesday, April 6, 2022 through Thursday, April 7, 2022 during a continuous 48-hour midweek period. The ATRs deciphered vehicle classification by standard Federal Highway Administration (FHWA) class.
- TEC noted that the ATRs showed the following 'Class 9' truck movements (single trailer, 5 axles – a.k.a. WB-62 or WB-67) represented per day:
    - Main Street north of intersection (0 vehicles / 2 vehicles)
    - Main Street south of intersection (5 vehicles / 4 vehicles)
    - Washington Street east of intersection (30 vehicle / 24 vehicles)
    - Washington Street west of intersection (24 vehicles / 26 vehicles)

  Although Class 9 does not specifically separate WB-62 vs. WB-67, TEC acknowledged that both observations and anecdotal information from residents suggests that WB-67 are present.
- TEC noted several additional Class 10 or larger vehicles (≥6 axles) turning or travelling through the intersection.
- MassDOT's general consensus was that a WB-62 truck could be utilized as the design vehicle for turning movements to/from Main Street to the north of the intersection. A WB-67 truck could be utilized as the design vehicle for turning movements to/from Main Street to the south of the intersection and for through movements along Washington Street.

***Intersection Control: Roundabout vs. Traffic Signal***

- TEC invited input from MassDOT on their initial thoughts for modifications to the intersection to provide intersection control in the form of a roundabout or a traffic signal. TEC noted the information and turning movement graphics provided in the presentation made to the Boxford Select Board on March 21, 2021:
    - A roundabout under both WB-62 and WB-67 turning movements to/from Main Street may result in impacts to Soldier's Monument and Lincoln Hall areas. Modifications could be made to the center island and splitter islands to allow for improved turning capabilities under WB-62. Splitter island must remain 6-feet in width at crosswalk locations. WB-67 turning movements would be expected to result in more off-site impacts than shown in the graphics which may preclude the roundabout alternative.
    - Traffic signal would generally provide for current intersection edge-to-edge alignment and turning movements for trucks would be similar to existing condition. This includes WB-62 only slightly encroaching on centerlines and WB-67 staying within curb lines.

- MassDOT's general consensus was that the impacts afforded by either a WB-62 or WB-67 at the intersection if converted to a roundabout, both with and without added pedestrian and bicycle infrastructure at the intersection location, could result in MassDOT's refusal of a roundabout construction under the ICE evaluation. MassDOT suggested that during the future pre-design process that the smallest roundabout possible to accommodate all necessary users (including trucks) be evaluated to rule out this as an intersection control alternative. MassDOT noted that this could be done as part of the full ICE evaluation and be determined prior to the onset of the full project design.
- MassDOT's general consensus was that the minimal impacts to the area with the construction of a traffic signal would suggest that a signal is a valid intersection control alternative. MassDOT did not provide push back on a WB-67 encroachment over the centerline as they would be expected to stay within the curb line.

***Traffic Control Changes During Design Process***

- TEC invited input from MassDOT on their process regarding direction to change the traffic control of the intersection following a new 25% Design. For instance, if a traffic signal was designed or the two-way stop control was maintained, could or would MassDOT direct the construction of a roundabout following the next design stage.
- MassDOT specifically noted that the full ICE evaluation would be reviewed prior to the onset of the next design stage and the determination for traffic control would be locked based on the results of the ICE evaluation. MassDOT requires that the Town consider alternatives to the intersection, including a roundabout, as part of the ICE evaluation to assess feasibility. MassDOT would not change its decision for intersection traffic control further into the process.