

PROJECT/DESCRIPTION: McKnight Community Trail - SPRINGFIELD
25%TRAFFIC ENGINEERING REVIEW CHECKLIST

Project No. 608157
Date: 07/16/21

PURPOSE

The 25% Traffic Engineering Review is intended to provide MassDOT the opportunity to evaluate the proposed design and Functional Design Report relative to current design standards, operation impacts, safety impacts and other potential community concerns associated with the proposed design.

GENERAL

This checklist represents the minimum amount of issues that should be considered when reviewing a 25% traffic submittal. The information below is not intended to address all aspects of report or plan preparation. To the extent practical, any comments relative to plan preparation made at the 25% stage will certainly improve the quality of the 75% submittal.

Any question listed below with a No or N/A answer requires a written comment.

I. Functional Design Report

- | | Yes | No | N/A | |
|----|-------------------------------------|--------------------------|-------------------------------------|--|
| 1 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | A. Existing Conditions
Is a description of the project study area included?
Comment: _____ |
| 2 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Is the project location (locus) map included?
Comment: _____ |
| 3 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Is a discussion of existing deficiencies and an evaluation of the existing signs, signals and markings
Comment: _____ |
| 4 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | B. Traffic Volumes
Is the traffic count data less than 2 years old from the date of FDR submission?
Comment: _____ |
| 5 | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Are the Automatic Traffic Recorder (ATR) Counts included for the minor street approach for signalized intersections?
Comment: <u>Traffic Signal Alterations are not proposed.</u> |
| 6 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are Manual Turn Movement Counts (TMC): Peak hour data for all study intersections included?
Comment: _____ |
| 7 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are Peak Hour Factors (PHF) identified?
Comment: _____ |
| 8 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are heavy vehicle, bicycle, and pedestrian count data included in the TMC?
Comment: _____ |
| 9 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Do the base year volumes represent an average month during the year the FDR is submitted or no more than 2 years for MEPA permitted projects?
Comment: _____ |
| 10 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Have seasonal factors been reviewed and applied as necessary?
Comment: _____ |
| 11 | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Do the future year volumes represent a minimum of 7 years from the base year?
Comment: <u>No significant changes to traffic operations. Future year not evaluated.</u> |
| 12 | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Do the future year volumes include background growth and site development as necessary?
Comment: <u>See 11</u> |
| 13 | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | Are trip generation/distribution data for private development trips schematically displayed on the network?
Comment: <u>See 11</u> |
| 14 | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | Are base year and future year traffic volume networks provided?
Comment: <u>Existing network provided. Future year not applicable.</u> |

- C. Safety Analysis**
- 15 Yes No N/A Are three years of Crash Data analyzed for project locations? (5 years is preferred)
 Comment: _____
- 16 Yes No N/A Are crash rate calculations included for all study area intersections and segments?
 Comment: _____
- 17 Yes No N/A Are collision diagrams provided for all study area intersections with more than 3 crashes per year?
 Comment: _____
- 18 Yes No N/A Is a collision map provided for all study area segments?
 Comment: _____
- 19 Yes No N/A Was the Safety Review Prompt List utilized during a site visit?
 Comment: _____
- 20 Yes No N/A Is discussion regarding the Safety Review Prompt List included?
 Comment: _____

- D. MUTCD Signal Warrants**
- 21 Yes No N/A Is traffic count data provided for a minimum of the 8 highest hours for the major streets and minor street?
 Comment: _____
- 22 Yes No N/A Was the minor street count data collected by a manual turning movement count method?
 Comment: _____
- 23 Yes No N/A Does the signal warrant analysis follow procedures from MUTCD?
 Comment: _____
- 24 Yes No N/A Do proposed signal installations meet an 8-hour volume warrant?
 Comment: Existing signal to be retained and is outside the scope of the Project.

- E. Operational Analysis**
- 25 Yes No N/A Are the intersection approaches evaluated using observed/appropriate peak hour factors?
 Comment: Operational analysis not required. No changes to MV traffic operations.
- 26 Yes No N/A Are heavy vehicle percentages used in the analyses?
 Comment: _____
- 27 Yes No N/A Are pedestrian volumes and phasing incorporated into the analyses?
 Comment: _____
- 28 Yes No N/A Are capacity analyses completed for all the required analysis scenarios?
 Comment: _____
- 29 Yes No N/A Do capacity analyses reflect the existing and proposed geometry conditions?
 Comment: _____
- 30 Yes No N/A Are coordinated signals/closely spaced intersections evaluated under a systems analysis?
 Comment: _____
- 31 Yes No N/A Are the 50th and 95th percentile vehicle queues documented?
 Comment: _____

- F. Proposed Design**
- 32 Yes No N/A Is a description of the proposed geometric changes and/or alternative designs included?
 Comment: _____
- 33 Yes No N/A Is a narrative describing the pedestrian and bicycle accomodation improvments included?
 Comment: _____
- 34 Yes No N/A Is discussion included of how the proposed design will alter the traffic control conditions?
 Comment: _____
- 35 Yes No N/A Was a roundabout design an alternative considered?
 Comment: _____
- 36 Yes No N/A Are the Section 61 Findings attached for the Private Development projects?
 Comment: _____
- 37 Yes No N/A Do all traffic calming design treatments (where allowed) follow the Traffic Calming Guidelines?
 Comment: _____
- 38 Yes No N/A Do all study area intersections include corrective design measures?
 Comment: _____

39 Has "work to be done by others" been factored into schedule/design?
Comment: _____

Yes No N/A G. Traffic Management
40 Is a Construction Management Outline included?
Comment: _____

41 Are the appropriate traffic counts and capacity analyses included?
Comment: _____

II. 25% Design Plans

Yes No N/A A. Basic Design Plan Set
42 Does the plan set follow the preparation guidelines specified in the current Project Development and Design Guidebook?

Comment: _____
43 Do the plans provide linework and details of the existing conditions for use in reference to the proposed design?

Comment: _____
44 Do the proposed roadway cross-sections conform to current standards?
Comment: _____

45 Are provisions made for bicycle accommodation where applicable?
Comment: _____

46 Do pedestrian facilities meet the Massachusetts Architectural Access Board (MAAB) standards?
Comment: _____

Yes No N/A B. Traffic Signal Plans
47 Do the plans indicate the proper placement of the signal heads?
Comment: Proposed Pedestrian Hybrid Beacon

48 Are the signal head configurations in conformance with the MUTCD standards?
Comment: _____

49 Do the signal layout plans show the proposed lane assignments and stop lines?
Comment: _____

50 Is the Sequence and Timing Chart provided on the plans?
Comment: _____

51 Is the Preferential Phasing Diagram, including pedestrian phases, shown on the signal plan?
Comment: _____

52 Is a Time-Space Diagram for the interconnected signals included?
Comment: _____

53 Is signal detector type and location included on the signal plans?
Comment: _____

Yes No N/A C. Traffic Management Plans (TMP)
54 Are preliminary Temporary Traffic Control Plans provided?
Comment: _____

55 Do the typical layouts follow MassDOT's Standard Details and Drawings for the Development of TMP's?
Comment: _____

56 If required, have the detour routes been clearly defined?
Comment: _____

57 Is pedestrian and bicycle accommodation maintained during construction?
Comment: _____