

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>

	Yes	No	N/A	
C. Safety Analysis				
15	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are three years of Crash Data analyzed for project locations? (5 years is preferred)
	Comment: _____			
16	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Are crash rate calculations included for all study area intersections and segments?
	Comment: _____			
17	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Are collision diagrams provided for all study area intersections with more than 3 crashes per year?
	Comment: _____			
18	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Is a collision map provided for all study area segments?
	Comment: _____			
19	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Was the Safety Review Prompt List utilized during a site visit?
	Comment: _____			
20	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is discussion regarding the Safety Review Prompt List included?
	Comment: _____			
D. MUTCD Signal Warrants				
21	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is traffic count data provided for a minimum of the 8 highest hours for the major streets and minor street?
	Comment: _____			
22	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Was the minor street count data collected by a manual turning movement count method?
	Comment: _____			
23	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Does the signal warrant analysis follow procedures from MUTCD?
	Comment: _____			
24	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	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	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Are the intersection approaches evaluated using observed/appropriate peak hour factors?
	Comment: Operational analysis not required. No changes to MV traffic operations.			
26	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Are heavy vehicle percentages used in the analyses?
	Comment: _____			
27	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Are pedestrian volumes and phasing incorporated into the analyses?
	Comment: _____			
28	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Are capacity analyses completed for all the required analysis scenarios?
	Comment: _____			
29	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Do capacity analyses reflect the existing and proposed geometry conditions?
	Comment: _____			
30	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Are coordinated signals/closely spaced intersections evaluated under a systems analysis?
	Comment: _____			
31	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Are the 50th and 95th percentile vehicle queues documented?
	Comment: _____			
F. Proposed Design				
32	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is a description of the proposed geometric changes and/or alternative designs included?
	Comment: _____			
33	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is a narrative describing the pedestrian and bicycle accomodation improvments included?
	Comment: _____			
34	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Is discussion included of how the proposed design will alter the traffic control conditions?
	Comment: _____			
35	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Was a roundabout design an alternative considered?
	Comment: _____			
36	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Are the Section 61 Findings attached for the Private Development projects?
	Comment: _____			
37	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	Do all traffic calming design treatments (where allowed) follow the Traffic Calming Guidelines?
	Comment: _____			
38	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	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
 40 ☐ ☐ ☒ G. Traffic Management
 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
 42 ☒ ☐ ☐ A. Basic Design Plan Set
 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
 47 ☒ ☐ ☐ B. Traffic Signal Plans
 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
 54 ☒ ☐ ☐ C. Traffic Management Plans (TMP)
 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: _____