Traffic Engineering Checklist

Location
Hwy 25 @ Cross Street, District of North Peace
(Highway @ Cross Street, Municipality)

Instructions:
• This checklist must be completed for all new or modifications to existing traffic signals.
• Attach supplementary pages if the space provided is not adequate.
• The Traffic Design Scope section must be signed and sealed by the Engineer of Record.
• The MoTI Traffic Operations Engineering Approval section must be signed for completion.

Scope (Describe the scope of work in the box below)

• Modify existing traffic signal – Add NB left turn arrow
• Modify traffic islands – Add right turn lanes in all four directions
• Installation of NB deceleration and acceleration lane

Civil Design Scope
Comments based on: ☒ Civil design drawings # R1-456-402 (May 26, 2003)
and/or: ☐ Existing electrical drawings TE #

Crosswalk revisions
☐ No ☒ Yes All channelized right-turns to be “zebra markings”
(Description or attached drawing)

Stop line revisions
☐ No ☒ Yes See attached dwg R1-456-402 (May 26, 2003)
(Description or attached drawing)

Lane marking revisions
☐ No ☒ Yes Continuity lines at NB deceleration and acceleration lanes
(Description or attached drawing)

Turning path revisions
☐ No ☒ Yes All movements designed to accommodate design vehicle WB-15
(Description or attached drawing)

Civil Design prepared by:
Sample Engineer P.Eng. Senior Engineer July 15, 2019
(Print Name) (Title) (Date)
Traffic Engineering Checklist

Traffic Design Scope

Major Road Classification | Urban Arterial
---|---
Major Road AADT | ☐ > 200 | ☐ 200 – 749 | ☐ 750 – 1500 | ☐ 1501 - 6000 | ☒ 6000 +
Minor Road AADT | ☐ > 200 | ☐ 200 – 749 | ☒ 750 – 1500 | ☐ 1501 - 6000 | ☐ 6000 +
Pedestrian Classification | ☐ Low (0-10) | ☐ Medium (11-99) | ☐ High (100+)

Signing modifications *(If yes below, describe in detail or attach drawing)*

Guide Signs
☐ No ☒ Yes Relocate existing post mounted G-1 (destination dirn) sign 50m south *(Size and Location)*

Lane Use Signs
☐ No ☒ Yes Install shoulder mounted R-82R (this lane right) on EB & WB Cross St *(Locations)*

Turn Restriction Signs
☐ No ☒ Yes Install R-15L (no left) and R-15T (time restriction tab) on EB Cross St *(Type and Location)*

Other Signs
☐ No ☒ Yes Remove W-7 (side road) warning sign in NB dirn, as access is being close *(Description and Location)*

Special Features *(Describe below in detail)*

Advance Warning Flasher signs *(Complete table below even if no AWF required)*
☐ No ☒ Yes Relocate existing NB advance warning flashing (AWF) sign *(List Approaches)*

<table>
<thead>
<tr>
<th>Major Route: Highway 25</th>
<th>Minor Route: Cross Street</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Direction</strong></td>
<td><strong>Speed (km/h)</strong></td>
</tr>
<tr>
<td>Eastbound</td>
<td>60</td>
</tr>
<tr>
<td>Westbound</td>
<td>60</td>
</tr>
</tbody>
</table>

Island flashers
☒ No ☐ Yes Install high intensity sheeting for W-54’s- Intersection illuminated *(Note those which exceed standards)*

Emergency Pre-emption *(Fire, Police, Ambulance, All)*
☐ No ☒ Yes City supplied “Sonic” pre-emption *(Type – Hardwire, Audible, Radio, Strobe)*

Indication Lights
☐ No ☒ Yes Blue/white indicators on signal arms on N/S approaches *(Type and Approach)*

Transit Pre-emption
☒ No ☐ Yes *(Type – Radio, GPS)*
Traffic Engineering Checklist

Railway Pre-emption
☐ No ☒ Yes East approach

Blank Out Display
☐ No ☒ Yes Fibre optic “no right turn” NB right

Audible signals
☐ No ☒ Yes N/S movement along Hwy 25 (audible cuckoo) – west side only (PA2)

Countdown Timers
☐ Install New ☒ Existing in Place ☐ Other

Cyclist Accommodation
☐ No ☒ Yes Stencil markings on Cross St as per City’s request

Transit/HOV Accommodation
☐ No ☒ Yes Relocate bus bay to the downstream of the intersection in the NB direction

Special detector requirements
☐ No ☒ Yes NB/SB advance loops at AWF sign locations to extend A1 & A2 phases

Future requirements
☐ No ☒ Yes Pre-wire for future WB left turn arrow

Cabinet and Controller
Cabinet Installation
☐ Install New ☒ Use existing (see below)

Cabinet Type (enter type whether using new or existing as indicated above)
☐ M Cabinet ☐ S Cabinet ☒ P6 Cabinet ☐ Other

Controller Installation
☐ Install New ☒ Use existing

Controller Type (enter type whether using new or existing as indicated above)
☒ Cobalt ☐ Naztec ☐ LMD ☐ Other

UPS Installation
☐ Install New ☒ Existing in Place ☐ Other
Other items or comments: (Add comments below. Attach supplementary pages if not adequate.)

- Signed and sealed civil drawings included

Attach a preliminary timing sheet showing the following:

- Phase Assignments
- Resting/Recall Phases
- Advance Warning Times
Traffic Design Scope (Continued)

Signal Phasing Layout (show all movements and North arrow)

Example

Signal Phasing Compatibility Diagram (relative to site diagram above)

Example

Show all combinations of vehicle and pedestrian movements in sequence.

Show emergency, railway, bus and other pre-emption sequences.

Identify clearance and pre-emption phases.

Traffic Engineering Prepared By:

(Printed Engineer’s Name) ___________________________ (Date) ____________

(Position) ___________________________

(Reviewed By) ____________ (Reviewer’s Signature) ___________________________

MoTI Traffic Operations Engineering Approval (Section must be completed)

☐ Internal Project (Sign off not required)

☐ Recommend to proceed.

☐ Changes required (Consultant must resubmit. See Comments below):

•

(MoTI Traffic Operations Engineer Signature) ___________________________ (Title) ___________________________ (Date) ____________