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 Design Scope

Major Road Classification  **Urban Arterial**

<table>
<thead>
<tr>
<th>Major Road AADT</th>
<th>☐ &gt; 200</th>
<th>☐ 200 – 749</th>
<th>☐ 750 – 1500</th>
<th>☐ 1501 - 6000</th>
<th>☒ 6000 +</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minor Road AADT</td>
<td>☐ &gt; 200</td>
<td>☐ 200 – 749</td>
<td>☒ 750 – 1500</td>
<td>☐ 1501 - 6000</td>
<td>☐ 6000 +</td>
</tr>
<tr>
<td>Pedestrian Classification</td>
<td>☐ Low (0-10)</td>
<td>☐ Medium (11-99)</td>
<td>☐ High (100+)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Signings 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>Direction</td>
<td>Speed (km/h)</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  
(Type and approaches)

Blank Out Display
☐ No  ☒ Yes  Fibre optic “no right turn” NB right  
(Approach[s])

Audible signals
☐ No  ☒ Yes  N/S movement along Hwy 25 (audible cuckoo) – west side only (PA2)  
(Sound Type for Each Intersection leg)

Countdown Timers
☐ Install New  ☒ Existing in Place  ☐ Other

Cyclist Accommodation
☐ No  ☒ Yes  Stencil markings on Cross St as per City’s request  
(Describe – Loops, Stencils, Pushbuttons)

Transit/HOV Accommodation
☐ No  ☒ Yes  Relocate bus bay to the downstream of the intersection in the NB direction  
(Describe - HOV laning, additional phasing)

Special detector requirements
☐ No  ☒ Yes  NB/SB advance loops at AWF sign locations to extend A1 & A2 phases  
(Advance loops, Queue loops, etc.)

Future requirements
☐ No  ☒ Yes  Pre-wire for future WB left turn arrow  
(Advance arrows, different phasing, etc.)

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
Traffic Engineering Checklist

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)*

Signal Phasing Compatibility Diagram *(relative to site diagram above)*

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:

<table>
<thead>
<tr>
<th>Printed Engineer’s Name</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reviewed By</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Reviewer’s Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
</tbody>
</table>

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):*

•

<table>
<thead>
<tr>
<th>MoTI Traffic Operations Engineer Signature</th>
<th>Title</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>