Chapter 13 – Work Zones for MTO Design Supplement 2023 for TAC Geometric Design Guide for Canadian Roads 2017

Comments	Responses
ID: 366; Individual	
1. Particularly with respect to urban freeways, it will entirely be impractical to design lane diversions using standard superelevation rates. There are innumerable obstacles and roadway features along the highway that constrain the choice of a flat (non-superelevated) horizontal curve radius (overhead signs, light poles, bridge gaps, bridge piers, etc.). To minimize the impacts to such features (which, if impacted, would result in significant additional costs), sharper horizontal curves are required. If those sharper curves are superelevated, the staging requirements to pave the superelevation under live traffic conditions will be exceedingly difficult, expensive and impactful to traffic. In my opinion and as has been routinely applied over the years, Exhibit 3-R of the Design Supplement (Maximum Speed at Given Superelevation for Resurfacing Projects) has been used to design the horizontal alignment and superelevation for lane diversions. This practice must be allowed to continue (although this should be permitted only for lane diversions that occur outside of typical winter maintenance periods). If, however, a detour or diversion is to operate over a winter maintenance period, then the use of standard superelevation rates should be considered for implementation. However, given the limited duration of detour operations compared to permanent conditions, a certain tolerance on the standard superelevation rates should be permitted to be applied	Agree More guidance provided including reference of Exhibit 13-R of Appendix 3 for Chapter 3.
ID: 377; Individual	
1. Section 13.4.6 - of significant concern is drainage for median cross-overs, particularly where the existing median is narrow or flush; also, existing median illumination on urban/semi-urban roadways is an issue	Commonly median crossover is used on rural highways where wide median exists and drainage wouldn't be a challenge. However, more guidance is added for the use of this strategy on rural highways including drainage. Also, see Section 13.8.5.5 for Drainage

2. Section 13.4.4 - should explicitly discuss the use of off-peak lane closures; as written, this seems more focussed on long-term lane closures or a "quick closure" for very short-term work, not recurring off-peak closures (e.g. night-time construction)	Off-peak recurring closure added.
3. Section 13.5.2.2 - Should this section also include the guidance contained in HSB-PEM Traffic Office Memo #2014-04?	No, the OTM Book 7 has all the info previously provided in PEM # 2014-04. OTM Book 7 is only referenced in this Section. Also, the Traffic Office will be cancelling the PEM 2014-04.
4. Section 13.5.5 - Reference to object heights should be to Design Supplement, not TAC	Fixed
5. Section 13.5.6 - Regional Geotechnical and Construction representatives should be tasked to agree on requirements for running on binder courses on a project-by-project basis and advise designer	Roles of geotechnical, construction, and contract administrator added.
6. Section 13.7.3.1 - shoulder widths of 0.3 and 0.5 m have been routinely used on urban freeways; this should be acknowledged	It shouldn't be the case.
7. Exhibit 13-J lane widths will not be reasonable to achieve in many urban freeway staging conditions	Left as is.
8. Section 13.8.5 seems to focus on crossovers for wide medians; crossovers for narrow medians have their own challenges and should be discussed as well	Commonly median crossover is used on rural highways where wide median exists and drainage wouldn't be a challenge. However, more guidance is added for the use of this strategy on rural highways including drainage. Also, see Section 13.8.5.5 for Drainage
9. Section 13.8.5.1 and other sections discussing superelevation should have separate discussions about crossovers and diversions that are expected to be used by traffic during construction season only versus being used during typical winter maintenance periods; crossovers and diversions used during winter maintenance periods should have superelevation MORE CLOSELY following permanent highway standards than those operating only during typical construction periods	Fixed More guidance provided including added Ex 13-R of MTO DS.
10. Exhibit 13-O - Why use figures from American MUTCD instead of OTM Book 7?	Nothing is available in the OTM Book 7
11. The situation for which Exhibits 13-Q and 13-R apply is not completely clear: a) these sections are for the crossover itself and this crossover handles traffic in both directions? Such a situation would not often occur; b) 13-Q indicates it is for a narrow median and 13-R indicates it is for a wide median. This does not make sense. 13-Q would be for a superelevated portion of the crossover and 13-R would be for a tangent portion; c) 13-Q would likely not be appropriate for long-term or over-winter use without drainage structures along the median on the high-side; surface drainage during heavy storms will flow through the lift holes under the barrier and result in a series of rivulets of heavy drainage flows for the low-side traffic to drive through.	Agree. More clarity is provided in the text. Also, the centreline of the existing highway in comparison to the work zone is marked in Ex 13-Q and 13-R for better understanding.

12. Exhibits 13-T and 13-V are drawn representing an interchange ramp being accommodated ACROSS THE MEDIAN within a section of freeway that has been converted to two-lane, two-way traffic. These exhibits should be included in Section 13.8.5 and different exhibits used for typical ramp situations (such as from OTM Book 7).	Text added for entrance and exit ramps at a median crossover. Also, reference to OTM Book 7 is provided.
13. The minimum shy distances identified in Exhibit 13-X are often not reasonable to achieve; guidance has previously been provided by MTO Traffic Office permitting the offsets to TCB to be as low as 0.3 m on freeways. Furthermore, the minimum flare rates do not match what is indicated in the RDM and OPSD's; presumably, those will be updated to match?	Traffic office guidance is dated and no longer applicable. Newer guidance provided in the RDM 2023 for permanent installations and superseded any previous guidance. Shy lines and flare rates in the RDM apply to permanent barriers so there is no conflict. Section 13.9.4.2 is modified stating that "flare rates in the vicinity of crash cushion terminations may be steeper as shown in the 900 series of MTODs and OPSDs". MTOD's/OPSD's 911.232, 233, 234 and 235 state flare rates for TCB's of 6:1 for posted speed less than 70 km/h and 10:1 for posted speed 70 km/h or greater.