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Tactile Walking Surface Indicator (TWSI) Fact Sheet

Note: This Fact Sheet supersedes the previous Fact Sheets dated August 25, 2014; January 9, 2015; and, February 2, 2016.

Implementation

- TWSI's are to be installed at both **controlled** and **uncontrolled** pedestrian crossings.
- Under the Accessibility for Ontarians with Disabilities Act, TWSI's are required to be installed only at pedestrian crossings that are new or are being reconstructed. The legislation does not require the retrofitting of TWSI's at sidewalks / walkways that are not being rehabilitated; at an intersection, it is acceptable to install TWSI's only at corners that are being redeveloped.
- The above-noted bullet point is the legislated minimum requirement; municipalities may have operational guidelines that exceed this minimum requirement. Transportation Services has the following guidelines for capital road rehabilitation (resurfacing and reconstruction) projects:
 - Within the limits of a project, TWSI's should be installed at all controlled and uncontrolled pedestrian crossings. (Dropped curbs, concrete landing pads, and / or sidewalk leads may be required in some cases to facilitate barrier-free crossings.)
 - In some cases, a portion of an intersection (typically one-half) may be within the limits of a project, while the other portion of an intersection is not; this scenario typically applies at one or both ends of a project. For these cases, TWSI's are to be installed at all controlled and uncontrolled pedestrian crossings for the entire intersection.
- Practitioners may also want to consider exceeding the legislated minimum requirement and consider retrofitting TWSI's at pedestrian crossings if the crossings are in the vicinity of facilities such as hospitals, schools, community centres, etc.
- In designs where crosswalks and crossrides are mixed, combined or directly adjacent to each other, TWSI's must be installed across the entire dropped curb section. Refer to the City's On-street Bikeway Design Guide and Multi-use Trail Design Guidelines for additional details.

Construction

- The Integrated Accessibility Standards Regulation (IASR) states that TWSI's are to be set back between 150 mm and 200 mm from the curb edge. The Accessibility Directorate of Ontario has confirmed "curb edge" to mean face of curb. As such, the City's existing standards show the TWSI's installed in the correct position, i.e., directly behind the curb.
- TWSI plates must be assembled prior to installation, as per manufacturers' installation specifications. Videos showing proper installation procedures can be found at:
 - www.youtube.com/watch?v=g8Rk5Zt0RpA (Neenah Foundry); and,
 - www.youtube.com/watch?v=NQjXlkQSy8 (Duralast).
- It is acknowledged that, due to the radii at intersection corners, it is not always possible to have the assembled TWSI's positioned directly behind the curb. TWSI's must be positioned as close to the back of curb as possible; however, Transportation Services will accept a **maximum** gap of 100 mm between the back of curb and the TWSI's, in order to accommodate corner radii.
- TWSI's should be cut to fit around maintenance hole covers, handwells, etc., that may occasionally be found at pedestrian crossing locations. Examples of TWSI's cut to fit around MH covers can be seen at the NW corner of Market Street and The Esplanade, and at the NW corner of Bay Street and Front Street.

Standard Specification

- Material and construction specifications for TWSI's are included in TS 3.70 - Construction Specification for Concrete Sidewalk and Raised Median.
- Transportation Services does not have a pre-approved list of manufactures / suppliers of TWSI's. Any TWSI that meets the requirements stated in TS 3.70 is approved for use.

Standard Drawings

- T-310.030-7 Signalized Intersection Configurations of Pedestrian Crossings
- T-310.030-8 Controlled Non Signalized Intersection Configurations of Pedestrian Crossings
- T-310.030-9 Location of Dropped Curbs at Controlled Intersections
- T-310.030-10 Tactile Walking Surface Indicator and Curb Ramp Detail
- T-310.030-11 Tactile Walking Surface Indicator and Depressed Curb Detail