

Ministry of Transportation

Crossfall / Cross Slope Tolerance

Special Provision 103F56 and CAIS 313-06

Requirements of Special Provision 103F56

- Intended for all hot mix asphalt (HMA) and hot-in-place recycling contracts where at least a portion of the Contract will have a posted speed limit for the in-service pavement greater than 60 km/hour and it includes at least one lift of hot mix asphalt or one lift of hot-in-place recycled asphalt.
- Applies to tangent and superelevated sections of final surface course or binder course of Hot Mix Asphalt that is to be opened to traffic for a period of 1 month or longer.
- Lanes are divided into lots having a maximum length of 1000 m with sublots averaging 100m.
- The cross slope is measured using a 3 m straight edge affixed securely to a minimum 1.22 m long electronic level capable of displaying the measured cross slope to the nearest 0.1 percent slope and to an accuracy of ± 0.2 degrees. Measurements are recorded to the nearest 0.1 percent slope.
- Acceptance of final surface or binder course HMA shall be based on the differences between the design and measured cross slope. The average of the absolute difference of any lot shall be less than or equal to 0.3. The absolute difference of any subplot shall be less than or equal to 0.4. Any lot or subplot outside the tolerance is rejectable and shall be repaired.

Exemptions Areas

Spiral transition, tangent runouts, bridge decks and approach slabs are exempt, as are intersections and any locations of resurfacing where cross slope correction is not intended (such as near fixed constraints).

SP103F56 Contract Examples

On new alignment or full reconstruction on any MTO owned roadway	On multi-lane or freeway sections where resurfacing is being conducted and the 3D milling spec is not included	On “shave and pave” resurfacing for non-freeway King’s Highways type projects
<ul style="list-style-type: none"> • On tangent the typical section in the contract drawings would show a cross slope of 2%. • As per the SP a range of 1.7-2.3% is acceptable during construction. • Any one subplot may have a reading between 1.6% and 2.4% as long as the average for the lot falls within the 1.7-2.3% range. 	<ul style="list-style-type: none"> • On tangent the typical section in the contract drawing would show a cross slope range of 2-2.2% • As per the SP a range of 1.7-2.5% is acceptable during construction. • Any one subplot may have a reading between 1.6% and 2.6% as long as the average for the lot falls in the acceptable range. 	<ul style="list-style-type: none"> • The range is dependent on the design speed according to Table 3.5.1 in the TAC Geometric Design Guide. • For a 100 km/h design speed, which is common on these facilities, the typical section in the contract drawings would show a cross slope range of 1.8-2.7%. • As per the SP a range of 1.5-3.0% is acceptable during construction • Any one subplot may have a reading that is an additional 0.1% outside the acceptable cross slope ranges during construction, as long as the average for the lot falls in the acceptable range.