



Agricultural considerations when designing municipal roadways

Road design is controlled by the Ontario Ministry of Transportation (MTO). The provincial government recognizes municipal authority for the administration and disposition of municipal road allowances. Ontario policy provides direction, but municipal roads are guided by their own by-laws and road design. This means municipal road designs are not standardized across the province, although they are similar.

Considerations for agricultural equipment

Agricultural expertise is an asset for local municipalities considering transportation works. It is important that municipally designed roadways follow some provincial standards and exemptions for farm equipment operating on the road, such as:

- The Ontario public road maximum vehicle width is 2.6m. This restriction does not apply to loads of loose fodder, hay, or straw. *Highway Traffic Act 109(2)*.
- Farm equipment is exempt from the maximum width, length and weight rules when operated on a road singularly or in combination (with certain highway restrictions).
- The exemption also covers implements when towed with trucks. However, farm equipment owners are potentially liable if equipment causes damage to a road, highway or bridge.

Wide farm equipment operating on the roads must:

- keep right of the centreline, giving other vehicles one-half of the road.
- keep right when being overtaken on the left.
- keep right of the centreline when approaching the crest of a grade or hill or at a curve in the road or within 30m of a bridge or tunnel when the driver's view is obstructed.
- keep right of the centreline, within 30m of a level railway crossing.

Municipal roadway design

Because local design standards can vary, OFA's recommendations for municipalities to consider in projects are generalizations. For example, the minimum municipal road lane width is 3.0m, but depending on speed limits, municipalities should **target** for larger widths (e.g. above 40km/h = 3.3m, above 50km/h = 3.5m).



Grading, clearances and accesses

Municipal roadway allowances are typically 20m, but they vary. For example, Niagara Region allowances range from 20.1m to 35m, with a couple of allowances at 42m. This means there may be variations on the ability to design shallow slope grades. However, when designing or upgrading roads, it is important that the municipal works department and design staff understand that farm vehicle drivers need to avoid driving equipment near ditches, embankments, holes and on steep slopes. A slope of more than 30 degrees can change a tractor's centre of gravity. When designing or upgrading roads, OFA recommends that municipalities ensure:

- Shoulders are wide enough and graded to avoid steep declines
- Hydro line vertical clearances are maintained, especially entrances into fields

Roundabouts / traffic circles

Highway infrastructure plays a role in vehicle safety. Roundabouts force all traffic to intersect in one direction, so it is important to consider agricultural equipment by:

- Designing a traffic circle with time for traffic to safely reduce speed before entering
- Ensuring the radius is sufficient for long and wide loads to negotiate the traffic circle
- Ensuring curbs are flattened to allow equipment to negotiate the traffic circle

Rail crossings and shoulder obstructions

- Adopt mitigation measures when upgrading rail corridor crossings, so that farm equipment access to fields and farm operations is not impeded.
- Ask residents to keep garbage and recycling containers, fixed objects, or other encroachments off the shoulder of the road.

Agricultural expertise and Agricultural Impact Assessments (AIAs)

Municipalities considering roadway designs would benefit by engaging local agriculture expertise about the movement and safety risks associated with large, slow-moving farm equipment and transportation of agricultural products. This includes road shoulder, curb and traffic circle design, speed limits and signage, and maintenance standards. One way to ensure the safety and continuation of normal farm activities is to engage local experts such as your local Federation of Agriculture and Agricultural Advisory Committee (if your municipality has one) at the onset of all infrastructure projects. Municipalities should also undertake Agricultural Impact Assessments (AIAs) as a routine step during municipal projects.

Municipal resources

We all have a role to play in the continued prosperity of Ontario's agriculture and food sector. For nearly 50,000 farmers across our province, agriculture is a part of their livelihood, their home, and their community. For additional municipal resources to support agriculture, visit ofa.on.ca/GrowAg. To learn about safe design during all road project planning stages, visit Good Roads goodroads.ca and search Road Safety Audits.