

5.3 Maintenance and Operations

Operational service providers need to be consulted throughout the Context Sensitive Solutions decision making process and long term project lifecycle cost considered.

The lifecycle and maintenance of a road are key concerns for road designers, affecting long-term cost, environmental sustainability and the perceived quality of the place and experience. It is important not to compromise the longevity and quality of materials, planting and furnishings to save on short-term costs.

Maintenance requirements should be considered when determining the placement and design of landscaping, medians, curbs and sidewalks to avoid accidental damages. Snow clearing is particularly important to ensure safe access for users of roads and sidewalks. Priority should be given to the clearing of snow from curb ramps at all intersections. Road design should consider the impacts of climate change on future maintenance requirements.



Winter maintenance activities need to be considered.

Use the below guidelines and the operational considerations found in Figure 1 to inform decision making.

- Design bullnoses of medians to be contoured, to reduce the risk of maintenance vehicles damaging the curb
- Consider the spatial needs of snow maintenance activities when planting shrubs, building planter boxes and designing lane widths, especially if space is limited on the inner boulevard
- Consider providing wider edge zones and/or planting zones in areas where more space is required for snow storage
- Align light poles, utility poles and street furniture to leave space for snow storage and/or sidewalk snow removal, as needed
- Consider planting coniferous trees or high shrubs outside the right-of-way in open, windswept areas to reduce snow drifting. Planting is preferable to snow fencing as a screen in rural areas
- Develop policies and management practices to address conflicts between on-street parking and snow clearing/street cleaning
- Consider a maintenance strip around the perimeter of landscaped medians to eliminate winter kill due to salt exposure
- Consider the maintenance of street trees and plantings to meet Regional urban forestry standards and refer to [York Region Street Tree Preservation and Planting Design Guidelines](#)
- For maintenance of pedestrian and cycling infrastructure, refer to the maintenance strategy contained in the [York Region Pedestrian and Cycling Planning & Design Guidelines](#)

The operational considerations outlined in Figure 1 have been collected from the Region's operational service providers and serves as a key reference during the road design process to ensure that the impacts of design decisions on the long term viability of the road are considered. Follow-up and project specific input from these operational

service providers are encouraged and project lifecycle costing tool and estimates are available to assist. *(Please refer to York Region eDOCS #7860535 "DGS Life Cycle Costs 2018" for operations and maintenance related cost estimates. Alternatively, contact the Manager, Transportation Asset Management.)*



Decisions made during construction can have negative impacts on the long term operations and maintenance of a road.

Figure 1 - Operational Considerations to Inform Decision Making

