

Canada's Core Public Infrastructure Survey: Roads, bridges and tunnels, 2020

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Canada's road networks remained relatively unchanged

The stock and condition of Canada's roads and bridges remained consistent from 2018 to 2020, according to new results from Canada's Core Public Infrastructure Survey for 2020.

Road construction continued at an accelerated pace in 2019 and 2020

Construction was completed for 43,316 kilometres (two-lane equivalent) of roads in 2019 and 2020, representing 4% of the road network. This compares with 48,969 kilometres reported for 2017 and 2018, in the previous iteration of Canada's Core Public Infrastructure Survey. Almost half (49%) of the roads built in 2019 and 2020 were reported by rural municipalities in Quebec and Saskatchewan with less than 5,000 residents.

Road conditions were mostly unchanged compared with 2018, with over half the length of roads in Canada reported to be in good or very good condition in 2020 (54%) and a little over one-tenth in poor or very poor condition (13%).

Bridges in larger urban municipalities in best condition

Similarly, there was little change in the conditions of Canada's bridges in 2020 compared with 2018. Over half (57%) were in good or very good condition and 11% were rated as poor or very poor. The condition of bridges located in larger urban municipalities, those with at least 30,000 residents, were found to be in better condition than those in other types of municipalities (65% of bridges in larger urban municipalities were in good or very good condition).

During 2019 and 2020, construction was completed for 1,606 bridges. More than three-quarters were reported by rural municipalities (1,242), with Quebec building the most bridges in that period (681), followed by Ontario (346) and the Prairie provinces (482).

Table 1
Length of publicly owned road assets, by type of road asset, Canada, 2020

	length (kilometres) 2020
Total roads	1,042,718
Highways	52,722
Rural highways	115,121
Arterial roads	115,575
Collector roads	140,112
Local roads	597,701
Lanes and alleys	21,487
Other	
Sidewalks	141,438

Source(s): Table 34-10-0176-01.

Table 2
Number of publicly owned bridge and tunnel assets, by type of bridge and tunnel asset, Canada, 2020

	number 2020
Total bridges	53,321
Highway bridges	8,520



Table 2
Number of publicly owned bridge and tunnel assets, by type of bridge and tunnel asset, Canada, 2020

	number 2020
Rural highway bridges	4,044
Arterial bridges	8,942
Collector bridges	6,135
Local bridges	21,744
Footbridges	3,936
Other	
Culverts (diameter greater than or equal to 3 metres)	31,571
Tunnels	475

Source(s): Table [34-10-0078-01](#).

Note to readers

According to new results from Canada's Core Public Infrastructure Survey for 2020, the stock and condition of Canada's roads and bridges are largely consistent with the [results from the 2018 cycle](#).

Canada's Core Public Infrastructure Survey 2020 was conducted in partnership with Infrastructure Canada. The data cover topics such as the stock, condition, performance and asset management strategies.

The survey results cover nine asset types (public transit; roads; bridges and tunnels; potable water; storm water; wastewater; solid waste; culture, recreation and sports facilities; public social and affordable housing).

Data are based on responses from approximately 2,260 government organizations. The following organizations are included in the survey:

- provincial and territorial departments and ministries
- regional governments
- urban and rural municipalities
- selected provincial Crown corporations and public transit authorities.

Road lengths have been reported in terms of two-lane equivalent kilometres, where one kilometre of a four-lane highway is counted as two kilometres.

Respondents were provided the following definitions for road and bridge assets:

Highways are roads that move high volumes of traffic and have controlled entrances and exits. They have a dividing strip between traffic travelling in opposite directions, and typically they have two or more lanes in each direction. Highways do not provide access to property, and generally do not accommodate cyclists or pedestrians.

Rural highways move varied traffic volumes depending on location, are medium to high speed, and usually have one, but sometimes two, lanes in each direction. As opposed to Highways above, rural highways usually have no dividing strip and may allow for direct access from adjacent developments. Traffic movement is the primary consideration and these roads are designed for higher speeds than Arterial roads as defined below.

Arterial roads move moderate to high traffic volumes over moderate distances between principal areas of traffic generation. They gather traffic from collector roads and local roads, and move it to the highway system. Arterial roads are generally designed for medium speed, have capacity for two to six lanes, and may be divided—with limited or controlled direct access from adjacent developments—and with on-street parking discouraged.

Collector roads move low to moderate traffic volumes within specific areas of a municipality, and collect local traffic for distribution to the arterial or highway system. Collector roads are generally designed for medium speed, have capacity for two to four lanes, are usually undivided—with direct access from adjacent development permitted, but usually controlled—and have controlled on-street parking usually permitted.

Local roads provide for low volumes of traffic and access to private properties. Local roads are designed for low speeds and have capacity for two undivided lanes of traffic. Through traffic is discouraged, and parking is usually permitted, though often controlled.

Respondents were provided the following condition rating scale when asked to rate the overall physical condition of their assets:

Very poor: Immediate need to replace most or all of the asset. Health and safety hazards exist which present a possible risk to public safety or asset cannot be serviced/operated without risk to personnel. Major work or replacement required urgently.

Poor: Failure likely and substantial work required in the short term. Asset barely serviceable. No immediate risk to health or safety.

Fair: Significant deterioration is evident; minor components or isolated sections of the asset need replacement or repair now but asset is still serviceable and functions safely at adequate level of service.

Good: Acceptable physical condition; minimal short-term failure risk but potential for deterioration in the long term. Only minor work required.

Very good: Sound physical condition. No short-term failure risk and no work required.

Available tables: [34-10-0068-01](#) to [34-10-0078-01](#) , [34-10-0120-01](#), [34-10-0144-01](#), [34-10-0165-01](#), [34-10-0167-01](#) to [34-10-0174-01](#) , [34-10-0176-01](#) and [34-10-0177-01](#).

Definitions, data sources and methods: survey number [5173](#).

For more information, or to enquire about the concepts, methods or data quality of this release, contact us (toll-free 1-800-263-1136; 514-283-8300; infostats@statcan.gc.ca) or Media Relations (statcan.mediahotline-ligneinfomedias.statcan@statcan.gc.ca).

For more information about why the survey was conducted and how it will inform infrastructure policy and program development and investment decisions, please contact Infrastructure Canada (toll-free: 1-877-250-7154 or 613-948-1148 or by email at info@inf.gc.ca) or Infrastructure Canada Media Relations (toll-free: 1-877-250-7154 or 613-960-9251 or by email at media-medias@inf.gc.ca).