

Five-Year Provincial Roads Plan - 2017 Edition

Department of Transportation and Works



2017-2022

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Introduction

The Department of Transportation and Works is responsible for the maintenance and upgrade of:

- 9,763 km of roads
- 1,317 bridges and large culverts

In 2016-17, the Department of Transportation and Works invested \$62¹ million in major road and bridge construction and rehabilitation as part of its Provincial Roads Program. This resulted in:

- Rehabilitation/upgrade of more than 270 lane km;
- Rehabilitation and/or replacement of 16 bridges;
- Replacement of more than 200 culverts; and,
- Improvements to high-traffic volume highways.

With almost 10,000 km of road and more than 1,300 bridges and large culverts, the list of potential road projects is large and growing annually. Each year, significant funding is invested in the road network, and such spending not only provides a transportation link but supports communities, stimulates business and tourism, and creates jobs for Newfoundlanders and Labradorians.

¹ Does not include Trans Labrador Highway, Team Gushue Highway, Sir Robert Bond Bridge and Placentia Lift Bridge.

There are Five Classes of Roads:

1	2	3	4	5
National highway system	Trunk roads	Main community access road	Community access road	Local road

This year, government is beginning a new multi-year approach to the Provincial Roads Program. Building upon the evidence-based ranking system introduced in advance of the 2016 construction season, this approach ensures the best value for every dollar invested and the full use of Newfoundland and Labrador’s short construction season. This plan outlines the advantages of a comprehensive approach to road repair, maintenance and construction, the method for identifying and selecting specific road projects, and provides the full list of road projects approved for 2017-18 and projects currently planned for each of the following four years.

The Five-Year Provincial Roads Plan is a living document. Each edition of the plan will provide an update on projects completed and identify further projects for upcoming fiscal years.

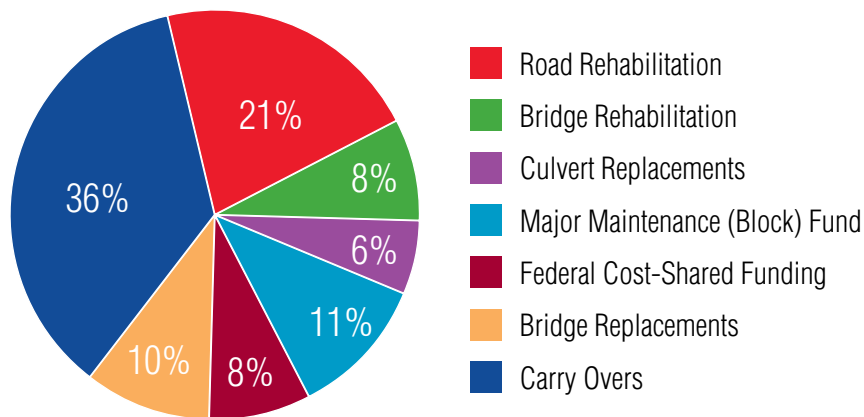
Provincial Roads Program



\$77.2m 2017/18 | **\$62.0m** 2016/17

Funding the Roads Program

In 2016-17, the \$62 million in funding allocated to the Provincial Roads Program was used as follows:



Thirty-six per cent of the 2016-17 budget was allocated to carry overs from the previous year. This occurs when projects are not completed before the end of the construction season, and can result from tendering projects during, rather than in advance of the season. This not only shortens the construction season significantly, but also makes it more likely that projects are not finished before the end of the season.

With the introduction of early tendering last year and the announcement of over half of the Provincial Roads Program projects in advance of the 2016 construction season, carry overs were effectively reduced by nearly 50 per cent.

An Effective Plan

Early planning improves value for money and enhances service delivery by enabling the department to use the full construction season, to secure competitive pricing, and to coordinate projects more efficiently.

A multi-year plan provides the following advantages:

1. Early Tendering

Tendering projects early in the calendar year will lengthen the construction season by as much as four to six weeks.

2. Economies of Scale

Grouping smaller projects in the same area allows contractors to take advantage of economies of scale, which spreads costs across tenders and lowers tender prices.

3. Funding Partnerships

Planning in advance enables early submission of eligible projects for consideration under federal cost-shared funding programs, which secures earlier approvals, allowing for earlier project start dates.

The typical deterioration model of the American National Centre for Pavement Preservation identifies that spending \$1 on pavement preservation can eliminate or delay having to spend \$6 - \$14 on later rehabilitation or reconstruction. By looking at projects as a whole, rather than individually, the Provincial Government is taking a proactive approach to road, culvert and bridge repair, rehabilitation, and replacement.

A Holistic Approach

Moving from a reactive approach to a holistic plan will increase both the overall condition of transportation infrastructure as well as its longevity.

A holistic approach to transportation infrastructure looks at the complete picture:

- Should a road be resurfaced if the culvert below the road will require replacement in the foreseeable future?
- Will a new bridge increase the public's mobility if the road that leads to it is in need of repairs?
- Could a road upgrade facilitate economic growth and diversification in a region?

A holistic approach results in better management, evidence-based decisions and greater value for money.

The five-year plan for road projects is proactive and focuses on improving the reliability of infrastructure rather than simply fixing issues as they arise.

Engineering assessments and thresholds have been developed in consultation with departmental experts, drawing on metrics such as the International Roughness Index, rutting depths, provincial bridge inspections, road classification, Annual Average Daily Traffic volumes and other advanced pavement data collected using the Automatic Road Analyzer unit.

The ranking involves an assessment of measures such as reliability, safety and usage. Each measure is given a weighting, with significant value assigned to the reliability of the infrastructure to address issues before they become significant safety concerns. The engineering assessment process will be reviewed annually and improved to account for changes in such things as technology or user needs.

The Ranking Process

A three-phase approach was used to assess projects:

Phase 1: Preliminary

- Qualitative assessment based on safety, condition, road classification and economic impact.
 - Projects identified by stakeholders, public engagement, regional inspections, and engineering reports.
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Phase 2: Regional

- Quantitative assessment based on reliability, safety, and usage.
 - Quantitative data used:
 - **Reliability** - rut depth, ride comfort, structural condition ratings
 - **Safety** - annual average daily traffic volumes and reliability score
 - **Usage** - service volume
 - Projects were assigned a score.
-

Phase 3: Provincial

- A panel of experts collaboratively selected projects with the preference for the highest ranked projects to be completed in the five-year plan.
 - The panel of experts considered each project's score, readiness, stakeholder importance, regional project loading, cost-share and bundling opportunities.
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To help inform the development of a multi-year provincial roads plan, the general public was invited to identify sections of provincial roads and bridges that should be considered for inclusion. The following is a summary of the consultation process and input received:

Consultations Held November 2016

Input sought on roads, bridges and other transportation infrastructure needs

560+ Submissions received

90%+ Submissions related to roads

65+ Number of specific routes referenced by the general public

The Five-Year Provincial Roads Plan and the method used to identify and select projects is designed to provide flexibility to ensure new priorities in subsequent fiscal years can be added as they arise.

100+ Projects in five year plan

325 Average ranking of approved projects

75% Of projects for 2018-19

50% Of projects for 2019-20

25% Of projects for 2020-22

The Road Ahead

The Department of Transportation and Works will update the five-year roads plan annually. Each year a progress report will be provided on the previous year's projects and an update on future planned projects. With each update, projects will be added and will include a complete list for that specific fiscal year.

Want to learn more about the ranking process? Click here: [Ranking Guide](#)

Projects Approved for 2017-18

Route	Project Description	Safety	Reliability	Usage	Total Score (400)
1	Install new lining in culvert at Little Pond	5	5	5	400
1	Pilot Project (Nighttime Construction) – Mill between St. John's and Witless Bay Line	5	5	5	400
1	Mill and fill various sections from St. John's to Whitbourne	5	5	5	400
1	Mill and fill from Whitbourne to Goobies	5	5	5	400
1	Install new lining in culvert approximately 1.1 km east of the Long Harbour interchange and replace culvert near Pike's Pond approximately 2.6 km east of the Long Harbour Interchange.	5	5	4	390
1	Resurface asphalt from Bald Mountain to North Branch	4	5	4	370
1	Upgrade and pave from Springdale Junction to South Brook Bridge	3	5	5	360
1	Resurface CN Terminal Bridge, Channel Port aux Basque	3	5	5	360
1	Resurface asphalt east of South Brook	3	4	5	310
1	Rehabilitate Manuel's River Spillway culvert	5	4	5	350
2	Mill and fill Peacekeepers Way from Seal Cove to the CN Viaduct	5	5	5	400
2	Mill and fill and recap base pavement layer from St. John's Interchange (TCH Cloverleaf) to the CN Viaduct	5	5	5	400

Route	Project Description	Safety	Reliability	Usage	Total Score (400)
2	Rehabilitate Old Bay Bulls Road Overpass on Pitts Memorial Drive, near St. John's	5	4	5	350
3	Mill and fill Robert E. Howlett Memorial Drive, from TCH to Commonwealth Avenue	5	5	5	400
10	Rehabilitate Shores Cove Bridge on Southern Shore Highway, near Cape Broyle	5	5	3	380
20	Rehabilitate Robinson's River Bridge	5	5	1	360
20	Rehabilitate Pouch Cove Brook Bridge	4	4	2	300
21	Rehabilitate Bauline Brook Bridge No. 1	5	5	1	360
60	Rehabilitate Veitch's Bridge	5	5	4	390
60	Rehabilitate North Arm River Bridge	5	5	4	390
60	Rehabilitate Assumption Cemetary Bridge	5	5	4	390
60	Rehabilitate Penstock Bridge	5	5	4	390
70	Replace Lower Island Cove Bridge	5	5	2	370
70	Replace Spout Cove Bridge	5	5	2	370
75	Mill and fill from TCH to Victoria	5	5	5	400
80	Rehabilitate New Melbourne Bridge	5	5	2	370

Route	Project Description	Safety	Reliability	Usage	Total Score (400)
90	Pulverize and repave with rock cap from St. Joseph's to Riverhead	2	5	2	310
91	Replace Rocky Island Pond Bridge	4	4	1	290
100	Rehabilitate Southeast River Bridge	5	5	2	370
100	Pulverize and repave Ferndale Road, and upgrade storm sewer system on Route 100-20 and Route 100	4	5	3	360
100	Rehabilitate Beach Road, near Placentia	4	5	2	350
102	Pulverize and repave Ship Harbour and Fox Harbour Roads, from Ship Harbour towards Fox Harbour	2	5	1	300
210	Rehabilitate Sandy Harbour Bridge near Terrenceville	5	5	2	370
210	Replace overflow culvert at Paradise River near Monkstown	3	5	4	350
210	Replace culvert near Bay de l'Eau	3	5	4	350
210	Upgrade and repave sections from Townsite Overpass in Marystown to intersection of Route 220, Creston By-pass	3	5	3	340
210	Rehabilitate Famine Brook Bridge	4	4	2	300
230	Upgrade and repave from World Pond Road intersection in Port Rexton to Champney's Arm Intersection and from Morris Pond to Port Union	3	5	3	340

Route	Project Description	Safety	Reliability	Usage	Total Score (400)
233	Place armour stone protection on Clode Sound Road at Port Blandford Causeway	4	5	2	350
320	Upgrade and pave from Indian Bay Bridge towards Templeman	4	4	4	320
340	Upgrade and resurface various sections Road to the Isles, from Michael's Harbour to Boyd's Cove	4	4	3	310
404	Complete engineering review of approaches to Crabbes River Bridge	4	5	1	340
410	Replace Culverts in Flatwater Pond Area and improve vertical curve to accommodate new multi-plate structures	4	5	3	360
420	Replace culverts on White Bay South Highway (Jackson's Arm Road)	4	5	2	350
420	Replace culverts, White Bay South Highway (Jackson's Arm Road), at the following locations: Access to Hampden; Beaches; Rooms; Sop's Arm; Pollards Point; and Jacksons Arm	4	5	2	350
430	Level from Cooks Harbour Access Road to Airport	4	5	3	360
436	Pave from St. Lunaire to Lanse aux Meadows	4	5	1	340
440	Pulverize and Pave from Mclvers to Cox's Cove	3	5	2	330

Route	Project Description	Safety	Reliability	Usage	Total Score (400)
450	Replace culverts at the following locations: Access to Mount Moriah; Humber Arm South; Lark Harbour; and York Harbour	5	5	3	380
450	Replace culverts between Corner Brook and Lark Harbour	4	5	2	350
460	Replace multi-plate pipe near access to Stephenville, Stephenville Crossing and Port au Port Peninsula	5	5	4	390
460	Resurface overpass at intersection between Route 1, TCH, and Route 460, White's Road	3	5	4	350
470	Replace culverts at the following locations: Rose Blanche Road; Harbour Le Cou; Diamond Cove; Ilse aux Morts; Fox Roost, Margaree and Burnt Islands	4	5	2	350
480	Rehabilitate Southwest Brook Bridge	4	4	2	300
480	Rehabilitate Peter Stride's Bridge	4	4	2	300
480	Replace culverts	3	5	2	330
490	Replace culverts from Stephenville Crossing to Stephenville Access Road	4	5	4	370
510	Pulverize and pave sections from Quebec border to Pinware	3	5	4	350

Carry Over Projects from 2016-17

Route	Project Description
1	Mill and repave various sections of the Trans-Canada Highway between Whitbourne and Goobies.
1	Replacement of Thorburn Lake Railway Overpass and improvements to Thorburn Lake intersection.
1	Pulverize and pave 7 km R330 near Barry's Brook RCU80 standard. Intersection improvements at Magee Intersection with the TCH
1	Mill and fill TCH from Sir Robert Bond Bridge to Grand Falls Industrial Access Road.
10	Replacement of Lamanche River Bridge, Route 10, km 55.1, with 30 meter single span pre-stressed girder bridge and associated road work
80	Replacement of South Dildo bridge with an aluminum box structure on Route 80 at km 8.4.
80	Replace Sibley's Cove Bridge with a double aluminum box structure on Route 80 km 58
100	Point Lance Road R100-17 paving
210	Replace culverts on the Burin Peninsula Highway R210
210	Replacement of Clam Brook Bridge with a 6100mm x 3050mm aluminum arch culvert and associated road work on Route 210, Burin Peninsula Highway, km 82.5.
220	Pulverize and pave Route 220, km 78.4 to km 82.0, Lamaline towards Point May.
230	Upgrade and resurface section of Route 230A from George's Brook to Route 230 intersection near Clarenville Airstrip
310	Upgrade and repave. Install concrete end treatments on Penney's Brook culvert
330	Replacement Straight Shore Brook Bridge, Site 3-036
440	Ballam Bridge to McIvers mill and fill to address rutting 15 lane-km
510	Levelling in areas at Forteau and West St. Modeste

Projects Planned for 2018-19

Route	Project Description	Safety	Reliability	Usage	Total Score (400)
1	Replace West Bottom Brook bridge on Route 1, TCH, near South Brook	5	4	4	340
1	Replace culvert along Route 4-1-19, TCH, near Little Rapids	4	5	1	340
2	Rehabilitate CN Viaduct Bridge (multi-year)	3	5	5	360
60	Rehabilitate Quarry Brook Bridge on Route 60, Conception Bay Highway, near Manuels	5	4	4	340
74	Pulverize and repave Route 74, Heart's Content Highway, along Heart's Content Barrens to Victoria	2	5	2	310
80	Pulverize, upgrade, and repave Route 80, Trinity Road, near New Chelsea-New Melbourne and upgrade and improve Pond Road intersection	2	5	1	300
90	Pulverize and repave with rock cap Route 90, Salmonier Line, from St. Joseph's to Riverhead	2	5	2	310
91	Pulverize and repave Route 91, Old Placentia Highway, from St. Catherine's to North Harbour Road (Nine Mile Road)	5	4	2	320
210	Upgrade and Repave two sections of Route 210, Burin Peninsula Highway, from Grand Beach through Grand Bank	3	5	3	340
220	Upgrade and realign, including slope stabilization and guide rail extensions, at various locations along Route 220, Burin Peninsula Highway, between Fortune and Grand Bank	3	5	2	330
230	Upgrade and repave Route 230, Bonavista Peninsula Highway, through Lethbridge from its intersection with Route 233, Clode Sound Highway to its intersection with Route 234, Winterbrook Road	3	5	3	340
233	Resurface section of Route 233, Clode Sound Road, from Musgravetown to Bunyan's Cove	3	5	2	330

Route	Project Description	Safety	Reliability	Usage	Total Score (400)
238	Upgrade and repave Route 238, Elliston Road, from Route 230 intersection through Elliston to Route 230 Intersection in Bonavista	2	5	1	300
320	Upgrade and pave Route 320, Bonavista North Highway, from Indian Bay Bridge towards Templeman	4	4	4	320
352	Upgrade and repave various sections of Route 352, Fortune Harbour Road, near Fortune Harbour	2	5	2	310
370	Resurface Route 370, Buchans Highway, from Buchans Junction towards Buchans	2	5	2	310
420	Replace 195 culverts over multiple years along Route 420, White Bay South Highway (Jackson's Arm Road)	3	5	2	330
420	Pulverize, pave, ditch and replace culverts along Route 420, White Bay South Highway (Jackson's Arm Highway), from Hampden exit to Main River Bridge	4	5	2	350
433	Level and patch various sections of Route 433, Englee Highway, from Roddickton to Englee	3	5	2	330
434	Pilot Project subgrade Conche Road (multi-year)	2	4	1	250
440	Mill and fill Route 440, Admiral Palliser's Trail (North Shore Highway), from Ballam Bridge to Mclvers	4	5	2	350
460	Pulverize, reshape, widen and pave Route 460, Hansen Memorial Highway, from Noels Pond to Brookside	4	5	4	370
470	Replace culverts along Route 470, La Poile Highway, at the following locations: Rose Blanche Road; Harbour Le Cou; Isle aux Morts; Burnt Islands; Fox Roost; Margaree; and Diamond Cove	4	5	2	350
510	Pulverize and Pave Route 510, Labrador South Highway, from Quebec border to Pinware (multi-year)	3	5	4	350

Projects Planned for 2019-20

Route	Project Description	Safety	Reliability	Usage	Total Score (400)
1	Rehabilitate from Gambo River Bridge to the eastern end of Square Pond	5	4	4	340
10	Upgrade and repave from Capahayden towards Chance Cove Park (multi-year)	2	5	1	300
90	Pulverize and repave with rock cap various from St Mary's to Gaskiers and Gaskiers to St. Vincent's	3	5	2	330
220	Pulverize and repave sections through St. Lawrence towards Lawn	3	5	2	330
330	Upgrade and pave from Templeman Interchange towards Musgrave Harbour	4	5	1	340
450	Resurface asphalt Corner Brook Ring Road from Wheelers Road to Curling exit	4	5	4	370
470	Repair water problems and level, patch and ditch various areas near Rose Blanche - Harbour LeCou Town Council Office	2	5	1	300
490	Mill and fill various sections from TCH to Route 460, Hansen Memorial Highway, including truck access to Stephenville, Stephenville Crossing and Port au Port Peninsula	3	5	3	340
510	Pulverize and pave Route 510, Labrador South Highway, from Pinware to Red Bay (multi-year)	3	5	4	350

Projects Planned for 2020-21

Route	Project Description	Safety	Reliability	Usage	Total Score (400)
1	Upgrade and resurface from Shoal Harbour River to Port Blandford	5	5	4	390
1	Resurface and mill and fill from Cape Ray to North Branch	4	4	4	320
80	Replace Brownsdale Brook Bridges on Route 80, Trinity Road	4	4	2	300
360	Pulverize and pave from Conne River to Little River	2	5	3	320
460	Mill and fill Route 460 from TCH to Gull Pond Area	4	4	4	320

Projects Planned for 2021-22

Route	Project Description	Safety	Reliability	Usage	Total Score (400)
231	Upgrade and repave Route 231, Random Island Road, from Britannia to Petley	2	5	1	300
360	Pulverize and pave Route 360, Bay d'Espoir Highway, from Berry Hill Brook towards Milltown	1	5	3	300
440	Rehabilitate Hugh's River Bridge	4	4	2	300
470	Resurface sections of Route 470, La Poile Highway (Isle aux Morts Road), from Route 1, TCH to Rose Blanche	4	5	2	350

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