



Planning for the future: Whitehorse Corridor – Alaska Highway

The Government of Yukon commissioned a professional engineering firm to draft the Functional Plan for the Whitehorse Corridor - Alaska Highway. The draft plan sets out recommended improvements along the 40 km stretch of the highway from just south of the Klondike Highway turnoff to Carcross, to just north of the turnoff to Dawson.

The draft functional plan provides a long-term solution for highway improvements, setting out in detail the proposed projects to be undertaken in the immediate term (over the next five years), the medium term (to 2031), and the longer term. The proposals are designed to improve safety and travel times for all highway users and to enable more efficient goods movement to support the local and regional economy.

WHY ARE HIGHWAY IMPROVEMENTS REQUIRED?

The Alaska Highway provides an essential link in the daily commute of many Whitehorse residents and serves a growing population who travel into Whitehorse from surrounding subdivisions and communities. It plays a critical role in transporting goods and supplies needed by Yukon's population, provides an important transportation route for the territory's resource industry, and also supports tourism.

Over the past 10 years the population of Whitehorse has grown by over 24% reaching 28,000 in 2014. Population growth is expected to continue, reaching 35,000 by 2031 and 47,000 in the longer term.

Improvements are required to address existing and anticipated safety and congestion concerns, and to meet recommended transportation engineering guidelines and standards. The draft functional plan also provides the opportunity to accommodate pedestrians and cyclists and to enhance the multi-modal trail system that parallels portions of the highway.

THE PURPOSE OF THIS BROCHURE

The purpose of this brochure is to promote awareness about the project and its core components. The brochure provides a high level overview of the proposed improvements to the Whitehorse corridor. The specific details of the proposed improvements are complex and too numerous to display in the brochure. To obtain a better understanding of how the proposed changes may affect you, please visit the project website (www.placespeak.com/whitehorsecorridor).

Yukon government would like to hear your views on whether the draft functional plan addresses your concerns about safety and traffic flow, as well as your opinion on the schedule and timing of the proposed upgrades. You are encouraged to complete the feedback form enclosed with this brochure, or to provide feedback online via the project website. The feedback you provide will be used to confirm and/or refine the functional plan, prior to the commencement of detailed design later in 2015. Further information about the project will be provided at Open Houses, scheduled for the week of April 20, 2015.

Une version de cette brochure est située au site web (www.placespeak.com/whitehorsecorridor). Aussi, vous pouvez téléphoner le 1-866-692-4484 pour demander la version française de la brochure.

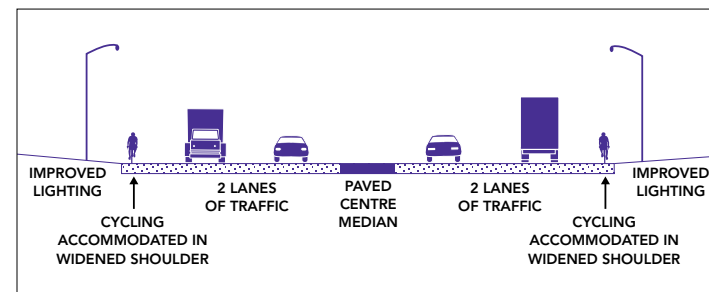
Steps in Plan Development

- ▶ 2011: YG commissions road safety, environmental, and highway capacity studies
- ▶ 2012: YG prepares a concept plan to compare high-level development options
- ▶ 2013-14: YG commissions preparation of a functional plan. Key steps in the development of the functional plan include:

Understanding Plan Components

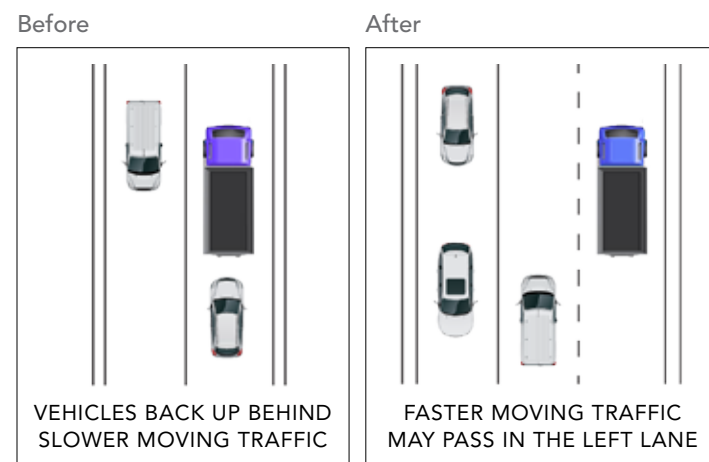
1. HIGHWAY WIDENING

Parts of the highway may be widened to 4 lanes, with an extra lane provided in each direction. Equal widening on both sides with a paved centre median is the preferred solution based on costs, consistency and impacts. Cyclists would be accommodated within the shoulder which would be widened to 2.5m – 3m.



2. PASSING LANES

The provision of an additional lane along certain sections of the highway would enable faster moving traffic to pass in the left lane, adding highway capacity, improving safety and enabling highway speeds to be maintained.

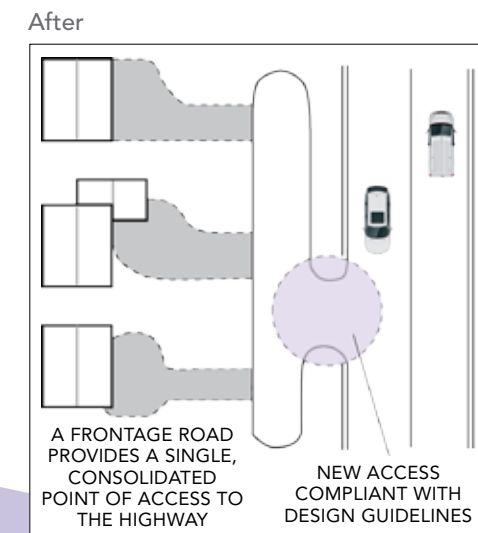
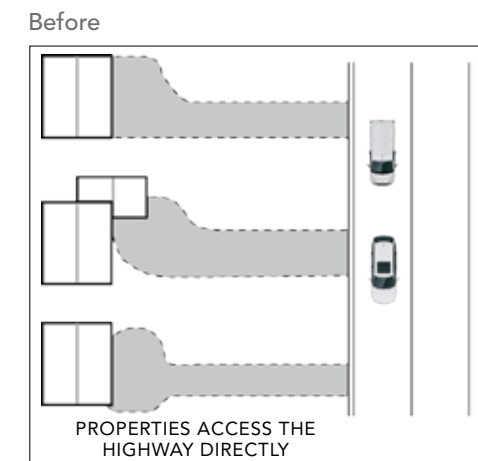


3. ACCESS CONSOLIDATION

Access consolidation involves reducing the number of properties with direct access to the highway by providing a frontage road (typically within the highway right of way) which serves several properties and provides a single point of access to the highway. Access consolidation may also include combining collector roads into new and improved intersections.

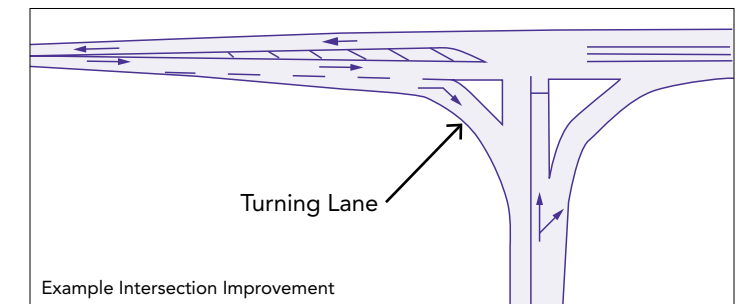
Reducing the number of accesses to the highway would enable highway speeds to be maintained, and improve safety through the provision of fewer access points which comply with highway design guidelines and standards for separation distances and capacity.

Details of access consolidation are not shown in this brochure. If you currently access the highway directly from your property, you are encouraged to visit the project website to find out how your access may be affected.



4. INTERSECTION IMPROVEMENTS

Reducing access points between intersections allows intersection design improvements to be constructed. Improvements at intersections that serve high traffic volumes may include the addition of turning lanes, and signals. These improvements would have safety benefits and reduce delays from turning movements. Safer pedestrian crossing of the highway would be enabled through improved highway lighting and pedestrian-activated signalized crosswalks.



5. SPEEDS

The proposed improvements include posted speed zones intended to reduce speeding, improve safety and simplify signage. A typical posted speed of 80kph is proposed along the length of the corridor, although lower speed zones may apply in the urban sections between Hillcrest Drive and just north of Two Mile Hill Rd, while higher posted speeds would apply at each of the corridor ends.

6. MULTI-USE TRAIL

Improvements are proposed to the multi-use trail network which parallels portions of the highway. The proposed improvements suggest a continuous trail connection along the length of the corridor to facilitate better connectivity with the City of Whitehorse trail network, improve movement across existing barriers (such as creeks), enable safer crossing of the highway, and provide better connectivity between areas of high trail-user demand.

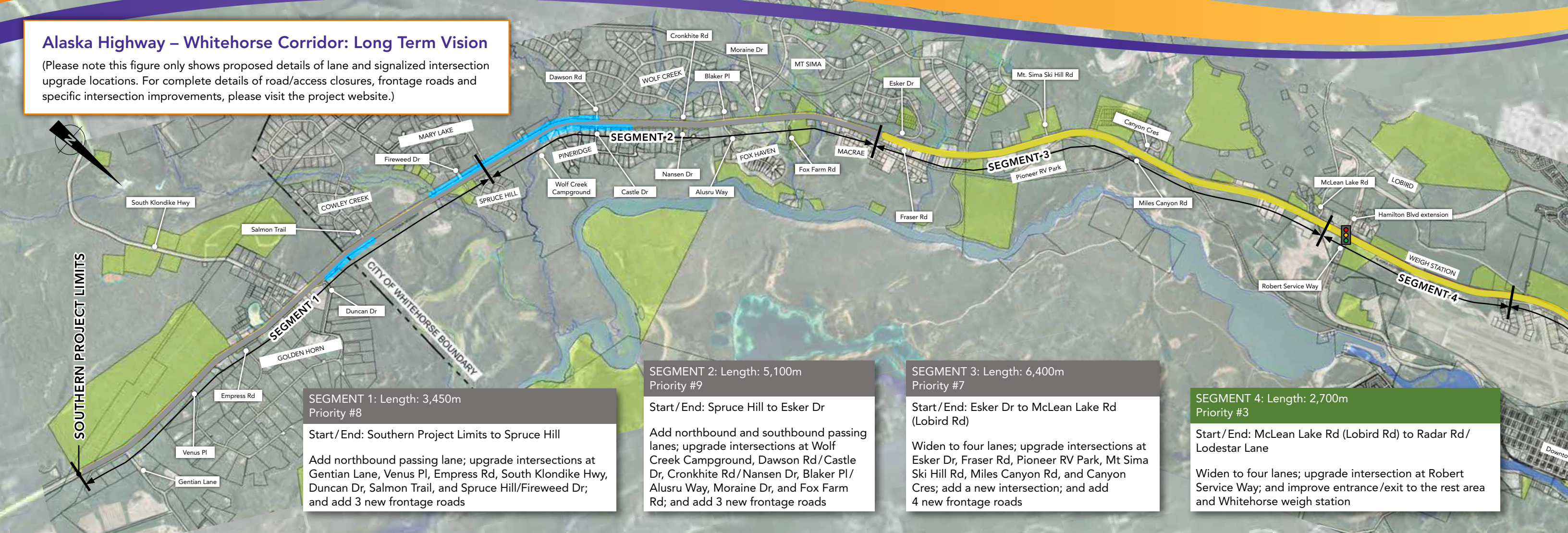
The proposed multi-use trail would be paved from MacRae to Crestview, but would be gravel on either end. In general, a multi-use trail would be supported on both sides of the highway corridor. However, owing to constraints, in some locations the multi-use trail may be provided on one side of the highway only. The type and usage of the trail segments will be considered in future phases of the project, as will the design of cycling and pedestrian facilities.

Review	Reviewed previous work.
Stakeholder Consultation	Engaged key stakeholders (including the City of Whitehorse, Kwanlin Dün First Nation, Ta'an Kwäch'än Council, utilities and Whitehorse Airport) to understand their future plans.
Design Criteria	Developed design criteria for the corridor, based on recognized engineering design guidelines and transportation engineering standards relating to levels of service and safety.
Traffic and Safety Analysis	Analyzed existing and forecast levels of service and traffic, based on modelled traffic volumes.
Required Improvements	Identified required improvements considering safety, operations, environmental impacts and costs.
Conceptual Options Development	Developed and analyzed conceptual options including provision of additional highway lanes, access management/closure, frontage road provision, intersection improvements, provision of a central traffic barrier in the highway median.
Planning Level Cost Estimates	Prepared cost estimates taking into account infrastructure improvement costs and potential property impacts.
Option Evaluation	Evaluated options for 10 individual segments based on construction costs, travel time savings, accident reduction, environmental impacts.
Construction Sequencing	Determined prioritization and staging of construction through systematic assessment and evaluation of construction costs, travel time savings, accident reduction, and environmental impacts.

- We Are Here**
- ▶ Spring 2015: Public engagement to refine the functional plan
 - ▶ Summer 2015: Report back on "what we heard" and resulting changes to the draft plan
 - ▶ Later in 2015: YG finalizes functional plans and undertakes Environmental Assessments (YESAA)
 - ▶ 2016: Commencement of initial construction, upon approval

Alaska Highway – Whitehorse Corridor: Long Term Vision

(Please note this figure only shows proposed details of lane and signalized intersection upgrade locations. For complete details of road/access closures, frontage roads and specific intersection improvements, please visit the project website.)

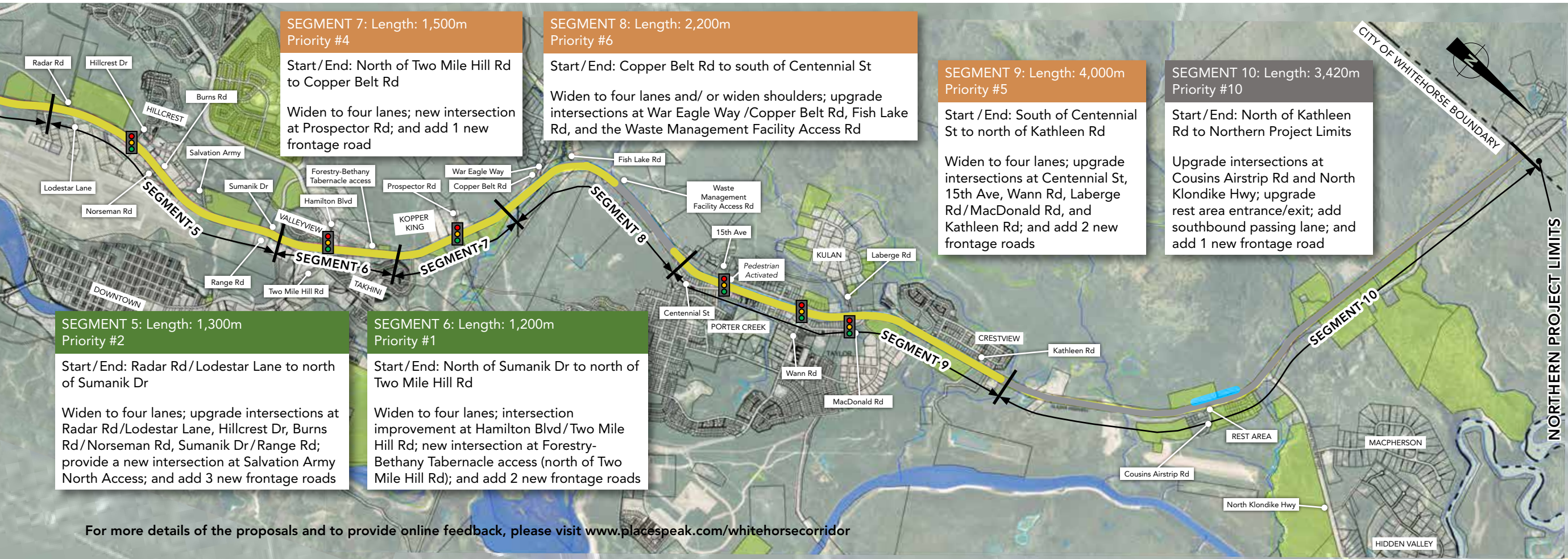


SEGMENT 1: Length: 3,450m
Priority #8
Start/End: Southern Project Limits to Spruce Hill
Add northbound passing lane; upgrade intersections at Gentian Lane, Venus Pl, Empress Rd, South Klondike Hwy, Duncan Dr, Salmon Trail, and Spruce Hill/Fireweed Dr; and add 3 new frontage roads

SEGMENT 2: Length: 5,100m
Priority #9
Start/End: Spruce Hill to Esker Dr
Add northbound and southbound passing lanes; upgrade intersections at Wolf Creek Campground, Dawson Rd/Castle Dr, Cronkhite Rd/Nansen Dr, Blaker Pl/Alusru Way, Moraine Dr, and Fox Farm Rd; and add 3 new frontage roads

SEGMENT 3: Length: 6,400m
Priority #7
Start/End: Esker Dr to McLean Lake Rd (Lobird Rd)
Widen to four lanes; upgrade intersections at Esker Dr, Fraser Rd, Pioneer RV Park, Mt Sima Ski Hill Rd, Miles Canyon Rd, and Canyon Cres; add a new intersection; and add 4 new frontage roads

SEGMENT 4: Length: 2,700m
Priority #3
Start/End: McLean Lake Rd (Lobird Rd) to Radar Rd/Lodestar Lane
Widen to four lanes; upgrade intersection at Robert Service Way; and improve entrance/exit to the rest area and Whitehorse weigh station



SEGMENT 5: Length: 1,300m
Priority #2
Start/End: Radar Rd/Lodestar Lane to north of Sumanik Dr
Widen to four lanes; upgrade intersections at Radar Rd/Lodestar Lane, Hillcrest Dr, Burns Rd/Norseman Rd, Sumanik Dr/Range Rd; provide a new intersection at Salvation Army North Access; and add 3 new frontage roads

SEGMENT 6: Length: 1,200m
Priority #1
Start/End: North of Sumanik Dr to north of Two Mile Hill Rd
Widen to four lanes; intersection improvement at Hamilton Blvd/Two Mile Hill Rd; new intersection at Forestry-Bethany Tabernacle access (north of Two Mile Hill Rd); and add 2 new frontage roads

SEGMENT 7: Length: 1,500m
Priority #4
Start/End: North of Two Mile Hill Rd to Copper Belt Rd
Widen to four lanes; new intersection at Prospector Rd; and add 1 new frontage road

SEGMENT 8: Length: 2,200m
Priority #6
Start/End: Copper Belt Rd to south of Centennial St
Widen to four lanes and/ or widen shoulders; upgrade intersections at War Eagle Way/Copper Belt Rd, Fish Lake Rd, and the Waste Management Facility Access Rd

SEGMENT 9: Length: 4,000m
Priority #5
Start/End: South of Centennial St to north of Kathleen Rd
Widen to four lanes; upgrade intersections at Centennial St, 15th Ave, Wann Rd, Laberge Rd/MacDonald Rd, and Kathleen Rd; and add 2 new frontage roads

SEGMENT 10: Length: 3,420m
Priority #10
Start/End: North of Kathleen Rd to Northern Project Limits
Upgrade intersections at Cousins Airstrip Rd and North Klondike Hwy; upgrade rest area entrance/exit; add southbound passing lane; and add 1 new frontage road

LEGEND

- Immediate term priorities
- Medium term priorities
- Longer term improvements
- FN Settlement Land
- 2 Lane Existing
- Proposed Passing Lane
- 4 Lane Upgrade
- Signalized Intersection (Vehicle and/or pedestrian activated)
- City of Whitehorse Boundary

(See page 7 for prioritization details)

Determining Improvement Priorities

The Whitehorse corridor - Alaska Highway was divided into 10 defined segments that can be readily analyzed and constructed as complete sections. Improvements to individual segments were prioritized, based on evaluation of:

- Construction Costs
- Travel Time Savings
- Safety and Accident Reduction
- Environmental Impacts

EVALUATION OUTCOMES

Through the evaluation process, segments 4, 5 and 6, were identified as high priorities. These segments correspond with the parts of the corridor that run through the central area of the City of Whitehorse and experience the highest vehicle volumes and turning movements. Improvements to these segments provide the greatest improvements to travel time, and the greatest safety benefits.

Improvements to segments 7, 8 and 9, located north of the central area, are required in the medium term. These segments experience lower vehicle volumes than the central part of the corridor. In the medium term, as the population grows and traffic increases, widening of the highway through this section will result in more reliable travel times and safety benefits.

In the longer term, as the population grows, segments 1, 2, 3 and 10 may be considered for improvement.

EVALUATION SUMMARY TABLE						
Segment	Summary of Proposed Improvements	Construction Costs	Travel Time Savings	Safety and Accident Reduction	Environmental Impacts	Relative Priority
1	Passing lanes, intersection upgrades, access management, frontage roads	●	●	●	●	Low
2	Passing lanes, intersection upgrades, access management, frontage roads	●	●	●	●	Low
3	Four-lanes, intersection upgrades, access management, frontage roads	●	●	●	●	Low
4	Four-lanes, intersection upgrades, access management	●	●	●	●	High
5	Four-lanes, intersection upgrades, access management, frontage roads	●	●	●	●	High
6	Four-lanes, intersection upgrades, access management, frontage roads	●	●	●	●	High
7	Four-lanes, intersection upgrades, access management, frontage roads	●	●	●	●	Medium
8	Intersection upgrades, access management	●	●	●	●	Medium
9	Four-lanes, intersection upgrades, access management, frontage roads	●	●	●	●	Medium
10	Passing lanes, intersection upgrades, access management, frontage roads	●	●	●	●	Low

LEGEND				
○	◐	◑	◒	●
No Impact	Marginal Impact	Some Impact	Significant Impact	Very Significant Impact
where	GREEN = Benefit		RED = Cost	

PHASING OF IMPROVEMENTS

Order of Priority	Highway Segment	Approximate Start	Approximate End	Length (m)	No. of Highway Lanes	Description	
IMMEDIATE PRIORITY (within 5 years)	1	6	North of Sumanik Dr	North of Two Mile Hill Rd	1,200	4	Widen to four lanes; intersection improvement at Hamilton Blvd/Two Mile Hill Rd; new intersection at Forestry-Bethany Tabernacle access (north of Two Mile Hill Rd); and add 2 new frontage roads
	2	5	Radar Rd/Lodestar Lane	North of Sumanik Dr	1,300	4	Widen to four lanes; upgrade intersections at Radar Rd/Lodestar Lane, Hillcrest Dr, Burns Rd/Norseman Rd, Sumanik Dr/Range Rd; provide a new intersection at Salvation Army North Access; and add 3 new frontage roads
	3	4	McLean Lake Rd (Lobird Rd)	Radar Rd/Lodestar Lane	2,700	4	Widen to four lanes; upgrade intersection at Robert Service Way; and improve entrance/exit to the rest area and Whitehorse weigh station
MEDIUM TERM IMPROVEMENTS (by 2031 or when population reaches 35,000)	4	7	North of Two Mile Hill Rd	Copper Belt Rd	1,500	4	Widen to four lanes; new intersection at Prospector Rd; and add 1 new frontage road
	5	9	South of Centennial St	North of Kathleen Rd	4,000	4	Widen to four lanes; upgrade intersections at Centennial St, 15th Ave, Wann Rd, Laberge Rd/MacDonald Rd, and Kathleen Rd; and add 2 new frontage roads
	6	8	Copper Belt Rd	South of Centennial St	2,200	2 - 4	Widen to four lanes and/or widen shoulders; upgrade intersections at War Eagle Way/Copper Belt Rd, Fish Lake Rd, and the Waste Management Facility Access Rd
LONGER TERM IMPROVEMENTS (when the population reaches 47,000)	7	3	Esker Dr	McLean Lake Rd (Lobird Rd)	6,400	4	Widen to four lanes; upgrade intersections at Esker Dr, Fraser Rd, Pioneer RV Park, Mt Sima Ski Hill Rd, Miles Canyon Rd, and Canyon Crescent; add a new intersection; and add 4 new frontage roads
	8	1	Southern Project Limits	Spruce Hill	3,450	2-3	Add northbound passing lane; upgrade intersections at Gentian Lane, Venus Pl, Empress Rd, South Klondike Hwy, Duncan Dr, Salmon Trail, and Spruce Hill/Fireweed Dr; and add 3 new frontage roads
	9	2	Spruce Hill	Esker Dr	5,100	2-3	Add northbound and southbound passing lanes; upgrade intersections at Wolf Creek Campground, Dawson Rd/Castle Dr, Cronkhite Rd/Nansen Dr, Blaker Pl/Alusru Way, Moraine Dr, and Fox Farm Rd; and add 3 new frontage roads
	10	10	North of Kathleen Road	Northern Project Limits	3,420	2-3	Upgrade intersections at Cousins Airstrip Rd and North Klondike Hwy; upgrade rest area entrance/exit; add southbound passing lane; and add 1 new frontage road



Costs and Funding

Various funding scenarios are being considered. The preferred scenario will depend on Yukon government's budgetary limits, public feedback, and future population growth in Whitehorse. The project program could be accelerated, extended or deferred as needs change.

Please note: The costs and timelines identified in this brochure represent the analysis and estimates provided by the consultants commissioned to prepare the draft functional plan. The estimates are a reflection of their comprehensive analysis and projections, and do not represent a fiscal commitment from Yukon government. The costs and timelines are provided to illustrate the scope and scale of the Whitehorse corridor project, and to put into context why the proposed plan recommendations are broken into segments and their associated timelines.

Implementation of immediate term improvements: construction costs (roadway and trail) of required improvements to segments 4, 5, and 6, are estimated at \$52 million, requiring funding of approximately \$10 million per year over a 5 year period.

Implementation of medium term improvements: construction costs (roadway and trail) for improvements to segments 7, 8, and 9 are estimated at \$50 million. These improvements are required by the time the population reaches 35,000 (based on an average annual population growth rate of 2 percent that may occur by 2031).

Implementation of longer term improvements: construction costs (roadway and trail) for improvements to segments 1, 2, 3, and 10 are estimated at \$100 million. These improvements are required by the time the population reaches 47,000. The timing for the longer term improvements will be considered as the population approaches this parameter.

OPPORTUNITIES TO VOICE YOUR OPINION

This is your chance to have a say in the future of the Whitehorse corridor. Please review details of the proposed changes online and complete the enclosed feedback form. You may also provide feedback online at www.placespeak.com/whitehorsecorridor.

More detailed information will be available at Public Open Houses scheduled for the week of April 20 2015, where you will also have opportunity to ask questions and to provide further feedback. The feedback you provide will be used to confirm and/ or refine the functional plan, prior to the finalization of the plan and commencement of detailed design later in 2015.

Should you have questions about the planned improvements to the Whitehorse corridor, please call the toll-free project inquiry line on 1.866.692.4484 or email us at whitehorsecorridorinfo@ch2m.com.