

Monthly Status Report

Reporting Period
September 2021

1. Introduction

1.1 Project Overview

The Kicking Horse Canyon Project – Phase 4 (KHCP4) is located on the Trans-Canada Highway approximately 4 km east of the Highway 95 junction at Golden BC. It is the final phase of the 26 km-long Kicking Horse Canyon Project which has been incrementally improving the highway to a modern four lane standard at a 100 km/h design speed, including bridge replacements and natural hazard reduction features to improve safety and reliability. The scope of work includes:

- Widening 4 km of two lane and 0.8 km of three lane highway to four lanes
- Highway realignment to a 100 km/h design speed
- Installation of median barrier, wildlife exclusion fencing and passages
- Provision of snow avalanche and rock fall hazard reduction measures; and
- Shoulder widening for cyclists

Construction of the fourth and final phase to complete the remaining – and most difficult – 4.8 kilometres is expected to be substantially complete in winter 2023-24.

Additional information and updates about the Project can be found on the Project’s website <https://www.kickinghorsecanyon.ca/>

1.2 Project Delivery

Transportation Investment Corporation, a provincial Crown corporation, is delivering and overseeing this \$601 million Project. The Project will be delivered under B.C.'s Community Benefits Agreement and the Project workforce will be provided by B.C. Infrastructure Benefits Inc. (BCIB)

The project is cost-shared, with the Government of Canada contributing \$215 million.

Kicking Horse Canyon Constructors (KHCC) has been selected to design and construct the fourth and final phase of the Kicking Horse Canyon Project near Golden.

The Project is a multi-phase project to improve safety and mobility over approximately 26 kilometres of two-lane highway. Three phases of work have been completed. The fourth and final phase to transform the remaining section of about 4.8 kilometres is under construction.

1.3 Project Goals

Based on the Ministry’s mandate and results of consultation to date, six primary goals have been identified for the Project:

Transportation: Improve highway safety, capacity, and reliability of the highway corridor.

Financial: Plan and deliver the project, that meets the approved scope, schedule and budget targets cost effectively.

Environment: Reduce wildlife collision rates and minimize impacts on future wildlife movements.

Economic Development: Support the growth of the local and regional economy by improving highway safety and reliability and assist the efficient movement of people and goods along the project corridor.

Social and Communities: Engage with Indigenous Communities, local communities, and key stakeholders to identify opportunities, issues and information pathways that will inform the delivery of the project.

Deliverability: Constructible and operable.



2. Project Update

2.1 Project Dashboard

Objectives		Project Status	Comments
Project Delivery	Scope	●	– The project includes the widening of 4.8km of Highway 1 to a 4-lane 100km/hr. standard.
	Schedule	●	– The Project is on schedule to be completed by Winter 2023/2024.
	Budget	●	– The project spending for the month of September 2021 was \$10.7 million and total project spending to date is \$215.2 million. Total Federal Recoveries to date are \$101.0 million. The Project is forecast to be delivered within budget.
	Safety	●	<ul style="list-style-type: none"> – The Project’s Health and Safety requirements are defined within the Project Management Plan (PMP). – Workplace Occupational Health and Safety (OHS) committee in place and active. – The Health and Safety Plan for Project work is in place which includes specific COVID-19 protocols. – Lost Time Injury Frequency Rate (LTIFR) for the Project remains at 0.

	Quality	Implement an effective Quality Management System.	●	<ul style="list-style-type: none"> – Daily quality monitoring ongoing with no major issues observed.
	Environmental	Ensure our work is performed in an environmentally responsible manner.	●	<ul style="list-style-type: none"> – Ongoing submission reviews for management plans. – Ongoing weekly site surveillance visits.
	Archaeology	Ensure the work is performed in a manner that meets the standards of the Heritage Conservation Act.	●	<ul style="list-style-type: none"> – Conducted archaeological investigation in the Dart Creek Forest Service Road (FSR) area. – Submitted investigation permit application to the Archaeology Branch to undertake Systematic Data Recovery (SDR) along the Dart Creek FSR.
	Operations	Implement improvements to the Alternate Route along H93/95	●	<ul style="list-style-type: none"> – Monitored Traffic Management strategies, including the start of the fall extended closure. – Scheduled winter preparation meeting with KHCC, Rocky Mountain District and Concessionaire. – Pavement marking has been completed on the Alternate Route.
	Design and Construction	Provide design and technical oversight, coordinate and manage activities on site, and conduct compliance reviews.	●	<ul style="list-style-type: none"> – Dart Creek Forest Service Road realignment completed. – Sheep Bridge – girders installed and deck panels on the way. – Bighorn Bridge – substructure construction ongoing. – Grizzly & Lynx Walls / Viaducts – pile installation ongoing. – Cuts 2 and 3 – ongoing excavation and progressive blasting. – Cut 4 – mechanical excavation for access road construction.
	Community Benefits	Work collaboratively with BCIB and successfully implement the Community Benefits Agreement.	●	<ul style="list-style-type: none"> – Project Team is working with BCIB to meet labour requirements. – BCIB labour working onsite; permits have been issued. – KHCC working with BCIB to support increasing the number of traffic and controls persons and scalers.
Partners/Stakeholders	Indigenous Groups	Continue to build and maintain a positive collaborative working relationship.	●	<ul style="list-style-type: none"> – Continued collaboration and engagement with Indigenous Groups on key environmental values. – Continued engagement with Indigenous Groups on contract and employment opportunities.
	Third Parties	Continue to build and maintain positive relationships and secure agreements with Project partners and other third parties.	●	<ul style="list-style-type: none"> – Regular meetings with CP Rail. – Upslope rockfall attenuator fencing is complete.
	Public and Stakeholder Engagement	Continue to build and maintain positive relationships with the community and other stakeholders.	●	<ul style="list-style-type: none"> – Worked with KHCC to improve quality and reliability of traffic notifications. – Met with BC Trucking Association and Community Liaison Committee.

Status	Description
●	Managing critical issues, negotiating resolution; action required immediately

	Managing some issues, negotiating resolution; action required in the near term
	Stay the Course – no action required

3. Project Documents and Achievements to Date

Project Delivery	Project Planning and Development	<ul style="list-style-type: none"> – Business Case Supplemental Memo (2019) – Cost Report (2019) – Risk Report (2019) – Executed Design-Build-Finance Agreement (November 2020)
	Environmental	<ul style="list-style-type: none"> – Environmental Synopsis Report (2016) – Various Environmental Reports (2005 – 2016)
	Archaeology	<ul style="list-style-type: none"> – Heritage Investigation Permit 2019-0208 (2019) – Archaeological and Heritage Resource Management Plan (AHRMP) (August 2020) – Site Alteration Permit 2020-0297 (October 2020)
	Community Benefits	<ul style="list-style-type: none"> – Community Benefits Agreement (July 2018) – BCIB Health and Safety Program (March 2020) – BCIB Apprenticeship and Training Targets (March 2020) – BCIB Sub-Appendix with the Kicking Horse Project Information (March 2020) – BCIB – AIRCC Enabling Agreement Executed (May 2020)
	Third Parties	<ul style="list-style-type: none"> – Contribution Agreement – Government of Canada (2017)

4. September Highlights and Three Month Lookahead

4.1 Safety

Scope:	<ul style="list-style-type: none"> – Establish Occupational Health and Safety (OH&S) Project delivery objectives and performance measures. – Manage Project OH&S activities and monitor performance metrics. – Ensure the Project complies with relevant WorkSafeBC regulations and government requirements. – Outline relevant health and safety management processes and activities.
Monthly Highlights:	<ul style="list-style-type: none"> – Received health and safety updates and reports from BCIB and KHCC; no incidents reported. – Site safety inspection conducted on September 9, with no significant concerns identified. – Lost Time Injury Frequency Rate (LTIFR) for the Project remains at 0.

Three Month Lookahead:	<ul style="list-style-type: none"> – Maintain Province’s Safety Management Plan for implementation as part of the Design Build Agreement (DBA) to align with KHCC, Transportation Investment Corporation (TIC), WSP and Ministry of Transportation and Infrastructure (MoTI) requirements. – Orientation and safety training for onsite personnel as required. – Conduct surveillance audits of KHCC’s safety management performance.
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4.2 Quality

Scope:	<ul style="list-style-type: none"> – Establish quality management project objectives and performance measures. – Monitor relevant quality management performance metrics. – Manage project quality management activities.
Monthly Highlights:	<ul style="list-style-type: none"> – Reviewed three Non-Compliance Reports (NCR) from KHCC; no NCRs issued to KHCC by the Province.
Three Month Lookahead:	<ul style="list-style-type: none"> – Review KHCC quality specific management plans and provide comments. – Oversee quality of KHCC work onsite. – Record daily observation reports of work on site. – Review KHCC quality records for compliance to the DBA. – Bringing on board an additional Quality Surveillance Technician to focus on structures in September 2021.

4.3 Environmental

Scope:	<ul style="list-style-type: none"> – Complete environmental reviews of KHCC’s submissions. – Support communications team with stakeholder engagement. – Provide environmental support to Project as and when needed.
Monthly highlights:	<ul style="list-style-type: none"> – Reviewed and commented on Design-Builder submissions, permits and designs. – Performed site environmental surveillance and reporting. – Coordinated with Golden Rod and Gun Club on bighorn sheep data.
Three month lookahead:	<ul style="list-style-type: none"> – Review and comment on Design Builder’s environmental submissions. – Site environmental surveillance. – Environmental audit scheduled on October 28, 2021.

4.4 Archaeology

Scope:	<ul style="list-style-type: none"> – Managing, directing, and undertaking all archaeological work, including Archaeology Impact Assessment (AIA), Systematic Data Recovery (SDR), and archaeological monitoring. – Providing the Province and KHCC with information for the management of archaeological and heritage resources. – Responding to chance archaeological or heritage finds.
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Monthly Highlights:	<ul style="list-style-type: none"> – Submitted a revised version of Interim Report - 2021 AIA, along Dart Creek Forest Service Road (FSR). – Submitted investigation permit application to the Archaeology Branch to undertake SDR along the Dart Creek FSR.
Three Month Lookahead:	<ul style="list-style-type: none"> – Additional SDR investigation permit along Dart Creek FSR. – Artifact analysis ongoing in the laboratory. – 2020, 2021 SDR and AIA reporting. – Submit remaining 2020 site form updates and 2021 site form updates. – Submit alteration permit amendment requests, as needed.

4.5 Operations

Scope:	<ul style="list-style-type: none"> – Develop plans for managing traffic along the Alternate Route H93/95 during full project closures. – Developed and implemented plans for enhancements along Arterial Route in Golden to support Alternate Route. – Establish agreements with other jurisdictions for provision of services along the Alternate Route.
Monthly Highlights:	<ul style="list-style-type: none"> – Monthly performance monitoring on traffic management completed, including Alternate Route. – Completed pavement marking on the Alternate Route. – Held pre-winter operations meeting with KHCC, Rocky Mountain District and Concessionaire. – Supported Alternate Route traffic control at Hwy. 95-TCH junction. – Coordinated additional RCMP and CVSE enforcement.
Three Month Lookahead:	<ul style="list-style-type: none"> – Develop and monitor traffic chain up procedures. – Oversee commuter and day pass distribution. – Monitor alternate route performance until extended closure ends on November 30th.

4.6 Design and Construction

Scope:	<ul style="list-style-type: none"> – Travel demand forecasting, traffic operations modelling, traffic data collection, and other related engineering services in support of the traffic management regime proposed for the Project. – Provide technical support to the Project Team during the review of contractor submittals. – Oversight of design build project work. – Compliance reviews during construction.
Monthly Highlights:	<ul style="list-style-type: none"> – Review of KHCC design and management plans. – Site surveillance and inspections by project team. – Sheep’s Bridge – Girders installed and deck panels on the way. Completed Geotech investigation. – Bighorn Bridge – Substructure construction ongoing. – Frenchman’s Bridge – Fence installation and access road pioneering is ongoing. – Cut 2 – Access road pioneering continues. – Cut 3 – Overburden and rock excavation ongoing. Progressive blasting program ongoing. – Cut 4 – Mechanical rock excavation is being conducted to facilitate access road construction. – Dart Creek Forest Service Road – Road completed except for the last 150m approaching Hwy 1. – Grizzly Walls / Viaduct – Site preparation and temporary access road construction mostly completed; pile installation ongoing. – Lynx Viaduct – Pile installation (ongoing), with eastbound bents first to facilitate traffic phasing, temporary access road construction, soil anchor installation for access road ongoing. – Blackwall Bridge – Access road construction to east and west abutments and piers ongoing to allow for additional Geotech investigation and foundation pile installation. – Marmot Bridge – Access road construction ongoing with soil anchor stabilization installation almost complete. – Caribou Fill/Wall – Access excavation and L-30 access road construction halted while final design is in the process of completion. – Hedgehog Wall – Soil anchor and snow fencing installation for rockfall protection completed
Three Month Lookahead:	<ul style="list-style-type: none"> – Continue participation in weekly meetings with KHCC and CP. – Province review of designs and management plans as design is finalized. – Manage slope survey monitoring consultant. – Undertake site surveillance, inspections and audits by project team, including OE Lead Engineer, OE Quality Manager, and OE Safety Advisor.

4.7 Indigenous Groups

Scope:	<ul style="list-style-type: none">– Fulfill Province’s duty to consult and accommodate identified Indigenous communities and facilitate engagement and collaboration with communities on environmental and socio-economic interests.
Monthly Highlights:	<ul style="list-style-type: none">– Met with Ktunaxa Nation Council (KNC) to discuss Bighorn Sheep monitoring.– Held Project Team meetings with Indigenous communities.– Collaborated with KHCC Indigenous Contracting and Employment Coordinator (ICEC) on employment opportunities for the Indigenous Groups.– Submission of KHCC’s new Indigenous Coordinator key individual.
Three Month Lookahead:	<ul style="list-style-type: none">– Continue regular meetings with all identified Indigenous groups, including the Pespesellkwe, Ktunaxa, and Shuswap Indian Band.– Continue to work with KHCC ICEC to ensure DBA requirements are met.– Continue to collaborate with KHCCP4 environment team to ensure Indigenous groups’ input is considered in Construction Environmental Management Plan (CEMP) review.

4.8 Third Parties

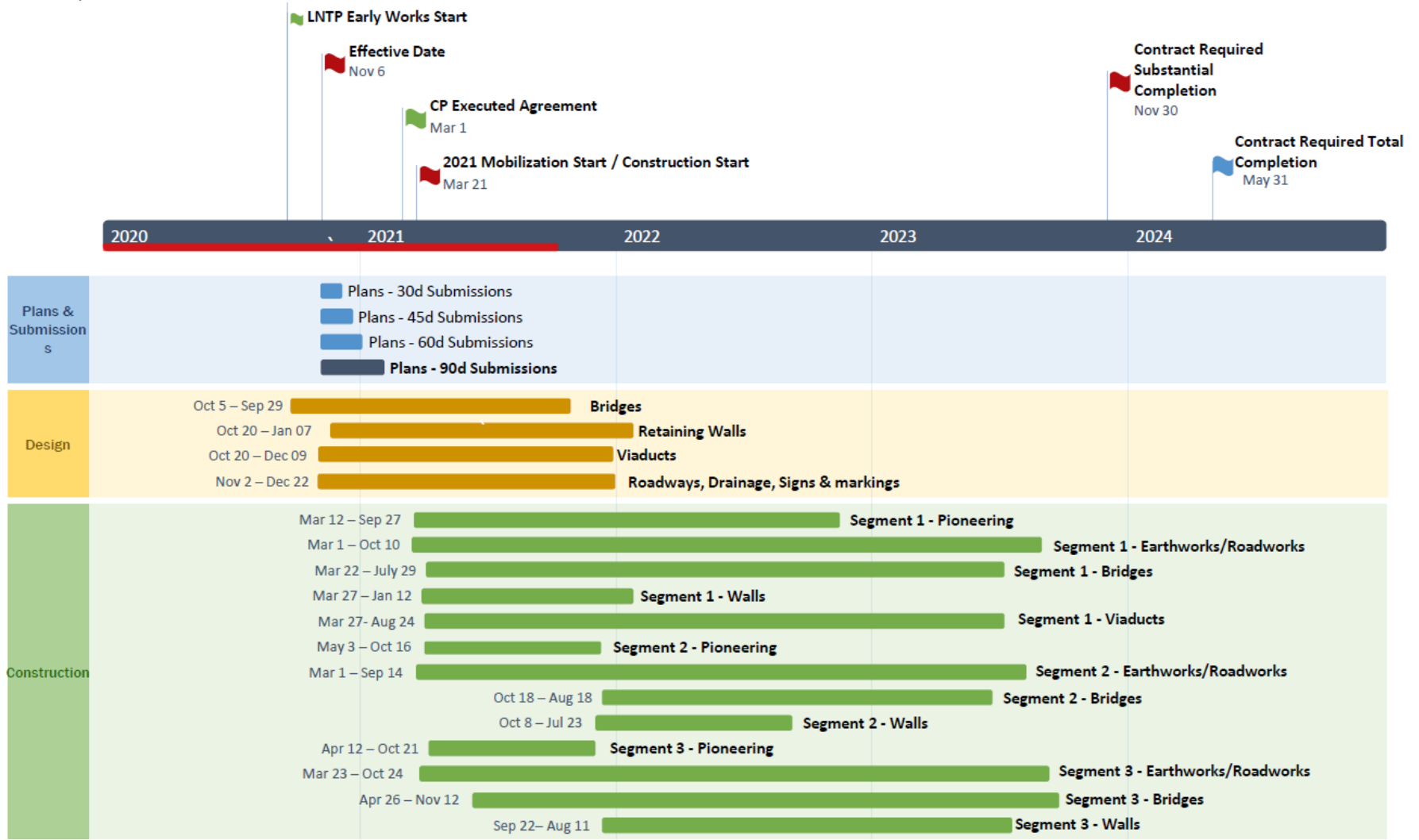
Scope:	<ul style="list-style-type: none">– Develop utilities and rail agreements as required.– Secure local and regional government approvals as required.
Monthly Highlights:	<ul style="list-style-type: none">– Ongoing meetings with CP.– Upslope rockfall attenuator fencing is complete.
Three Month Lookahead:	<ul style="list-style-type: none">– Continue implementation of Protocol Agreement with CP.– Coordinate blasting with CP; blasting ongoing Cut 2 and Cut 3. First blast above CP (Cut 1) expected in April 2022.– Review of KHCC utilities designs ongoing.

4.9 Public and Stakeholder Engagement

Scope:	<ul style="list-style-type: none">– Manage ongoing public and stakeholder communications and engagement.
Monthly Highlights:	<ul style="list-style-type: none">– Released monthly project newsletter.– Responded to public/stakeholder inquiries.– Updated website and social media sites, including highway status calendar and stakeholder notices.– Held webinar-format public information session and follow-up Q&A session on September 15th.
Three Month Lookahead:	<ul style="list-style-type: none">– Oversee KHCC's Communication and Public Engagement (C/PE) obligations and activities.– Continue to build awareness of construction and traffic management activities with media info bulletins/interviews, website updates, newsletters and advisories, and social media.– Continue direct dialogue with key stakeholders and Community Liaison Committee.– Reinstate canyon commuter pass system for fall 2021 extended closure.– Prepare for public information webinar on project progress in the winter.– Update local government on project progress.

5. Schedule

The following schedule depicts deliverables, milestones and associated dates and timelines for the implementation phase of the Project, as well as anticipated construction timelines.



6. Project Photos



FIGURE 1: SHEEP'S BRIDGE – POURING COLUMNS AT PIER 2 SOUTH AND NORTH – SEPT 1, 2021



FIGURE 2: GRIZZLY 4 – CDI CREWS INSTALLING TRESTLE PILES – SEPT 10, 2021



FIGURE 3: BIGHORN WALL – KHCC CREWS CONSTRUCTING SAFETY RAILINGS – SEPT 11, 2021



FIGURE 4: SHEEP'S BRIDGE- CONCRETE PIER CAP CONSTRUCTION AT PIER 2 – SEPT 15, 2021



FIGURE 5: SHEEP BRIDGE, UNLOADING NEW GIRDER; LOOKING EAST FROM WEST LIMIT OF PROJECT SEPT 29, 2021



FIGURE 6: SHEEP'S BRIDGE – KHCC CREW STARTING TO REMOVE DOKA FORMS FROM PIER CAP – SEPT 30, 2021