

Monthly Status Report

Reporting Period
June 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.

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 being prepared for construction and is expected to be substantially complete in winter 2023-24. This section will also feature four lanes of divided highway, along with improved avalanche and rock fall protection, fencing and passage for wildlife, and wider shoulders to accommodate cyclists.

1.3 Project Goals

Based on the Ministry's mandate and results of consultation to date, seven 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 June 2021 was \$26.7 million and total project spending to date is \$178.5 million. Total Federal Recoveries to date are \$78.9 million. The Project remains on budget
	Safety	●	• The Project is defining Health and Safety requirements within Project Management Plan (PMP) • Workplace OHS committee in place and active. Monitoring of COVID-19 situation is ongoing • No lost time this month
	Quality	●	• Conducted monthly site visit for audit purposes, with no major issues identified

	Environmental	Ensure our work is performed in an environmentally responsible manner.	●	<ul style="list-style-type: none"> • Submission reviews for management plan and permits • Completed 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"> • Completed 30 days of fieldwork • Archaeological monitoring was conducted in the Dart Creek Forest Service Road (FSR) area
	Operations	Implement improvements to the Alternate Route along H93/95	●	<ul style="list-style-type: none"> • Commuter day passes distributed • Relocated two Changeable Message Signs (CMS) in support of wildlife signage along Hwy 95
	Design and Construction	Development of a reference concept, technical requirements/specifications, and related technical studies for the Project	●	<ul style="list-style-type: none"> • Bighorn – excavation, pile installation, geotech investigation • Grizzly Walls – site preparation ongoing, rock fencing installed • Lynx Viaduct – 7 piles installed (ongoing), access roads construction • Sheep's Bridge – 8 piles installed, geotech investigation, excavations • Marmot / Blackwall – anchor installation, tree recovery • Caribou – excavation and access road construction • Hedgehog – anchor installation and snow fencing • Dart Creek FSR – Archaeology work, road maintenance, clearing & grubbing
	Community Benefits	Work collaboratively with BCIB and successfully implement the Community Benefits Agreement.	●	<ul style="list-style-type: none"> • Project Team is actively working with BCIB • BCIB labour working onsite; permits have been issued
Partners/Stakeholders	Indigenous Groups	Continue to build and maintain a positive collaborative working relationship.	●	<ul style="list-style-type: none"> • Finalized Shuswap Indian Band (SIB) accommodation agreement • KHCC Continuing to work with Indigenous Groups on contract 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"> • Work with Indigenous Groups on key Environmental concerns (Sheep) • Ongoing meetings with CP Rail • Temporary and permanent design proceeding with BC Hydro
	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 • Created fresh video content (virtual flyover of project with structural plan overlay) for project website

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"> • Preliminary Design Report (2008) • Options Evaluation (2014) • Delivery Options Report (2016) • Budget Disclosure Statement (2017) • Business Case (2016) • Business Case Supplemental Memo (2019) • Cost Report (2019) • Risk Report (2019)
	Procurement	<ul style="list-style-type: none"> • Relationship Review Process Description (2019) • Relationship Review Consultant Protocol (2019) • Design-Build RFQ Closed November 2019 • Archaeology RFP Closed January 2019 • Design-Build RFP Issued December 2019 • Preferred proponent chosen (September 2020) • Limited Notice to Proceed Agreement (LNTP) signed and implemented (September 2020)
	Environmental	<ul style="list-style-type: none"> • Environmental Synopsis Report (2016) • Various Environmental Reports (2005 – 2016)
	Archaeology	<ul style="list-style-type: none"> • Archaeological and Heritage Resource Management Plan (AHRMP) (July 2020)
	Operations	<ul style="list-style-type: none"> • Planning for Traffic Management and Closures during construction
	Technical	<ul style="list-style-type: none"> • Reference concept design developed (2016) • Reference concept design updated (2019) • Various geotechnical reports (2005-2019)
	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)
Partners / Stakeholders	Indigenous Relations	<ul style="list-style-type: none"> • Ongoing engagement and consultation
	Third Parties	<ul style="list-style-type: none"> • Contribution Agreement – Government of Canada (2017)
	Public and Stakeholder Engagement Third parties	<ul style="list-style-type: none"> • Community Liaison Committee established (2018) • Held Public Information Sessions in Golden and Radium (2019) • Held public presentations to various stakeholders (2019-2020)

4. June Highlights and Three Month Lookahead

4.1 Project Management

Scope:	<ul style="list-style-type: none">• Effectively manage Project's contracts, scope, schedule, and cost• Implement and efficient document control and records management system• Ensure Project controls are governed by provincial policies such as the Ministry of Finance Capital Asset Management Framework (CAMF) and the Core Policy and Procedures Manual (CPPM)
Accomplished in Month:	<ul style="list-style-type: none">• Overseeing completion of the Construction Oversight Management Plan, and Quality Management Plan; both approved for use• Revisions to remaining project plans ongoing
Three Month Lookahead:	<ul style="list-style-type: none">• Continued refinements to Project Management Plans• Implements to Project Management Plans• Qualitative risk reviews continually updated through risk workshops

4.2 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• Monitor relevant OH&S performance metrics• Ensure the Project complies with relevant WorkSafeBC regulations and government requirements• Identify specific health and safety roles and responsibilities• Outline relevant health and safety management processes and activities
Accomplished in Month:	<ul style="list-style-type: none">• Update Province's Site-Specific Safety Management Plan and Orientations (ongoing)• Regular site reviews and WorkSafe BC site visits continue
Three Month Lookahead:	<ul style="list-style-type: none">• Maintain Province's Safety Management Plan for implementation under 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

4.3 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.• Identify specific quality management roles and responsibilities
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Accomplished in Month:	<ul style="list-style-type: none"> • Reviewed and commented on KHCC Quality Management Plans (ongoing) • Conducted surveillance audits of KHCC Project Work (ongoing) • Reviewed KHCC monthly quality records and test results for compliance to the DBA • Site visited by Quality Manager for audit of construction monitoring activities by OE field surveillance team
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

4.4 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
Accomplished in Month:	<ul style="list-style-type: none"> • Reviewed and commented on contractor submissions for 14 Construction Environmental Management Plan (CEMP) subcomponent plans, 4 environmental procedures, permit submissions, environmental audit and contractors weekly environmental monitoring reports and monthly report • Performed weekly site environmental surveillance; three (3) non-conformity reports (NCR's) issued and resolved. • Coordinated with Rod and Gun Club on collar data for sheep • LED warning signs for sheep installed at site
Key Activities for Next 3 Months:	<ul style="list-style-type: none"> • Support at stakeholder and Indigenous Group meetings; responding to follow-up comments and questions, as requested by the Province • Review and comment on Design Builder's environmental submissions • Provide environmental support to Project as and when needed • Site environmental surveillance and reporting

4.5 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
Accomplished in Month:	<ul style="list-style-type: none"> • Completed 30 days of fieldwork • Completed SDR and initiated archaeological monitoring and sampling in Dart Creek area

	<ul style="list-style-type: none"> Submitted Systematic Data Recovery (SDR) and Archaeology Impact Assessment (AIA) summaries and technical memos for prioritized areas Submitted an alteration permit amendment request to Archaeology Branch
Key Activities for Next 3 Months	<ul style="list-style-type: none"> Additional AIA and SDR as needed along Dart Creek Forest Service Road (FSR) Monitoring sediment removal at remaining permitted areas Artifact analysis ongoing in the laboratory 2020 & 2021 SDR reporting 2021 AIA reporting Submission of remaining 2020 site forms updates Alteration permit amendment requests Ongoing shift summary reporting

4.6 Operations

Scope:	<ul style="list-style-type: none"> Develop plans for managing traffic along the Alternate Route H93/95 during full project closures Develop an implement 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
Accomplished in Month:	<ul style="list-style-type: none"> Completed final design of construction camera final cabinet, order was placed Traffic volume and wildlife collision analysis completed during Alternate Route operations
Key Activities for Next 3 Months:	<ul style="list-style-type: none"> Construction camera installation Monitor Alternate Route performance during extended closures Monitor traffic management during evening and overnight closures Commuter pass review and plan for fall/winter extended closure period Complete analysis of traffic volumes and wildlife collision during Alternate Route operations

4.7 Design and Construction

Scope:	<ul style="list-style-type: none"> Development of a reference concept, technical requirements/specifications, and related technical studies for the Project 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 Technical input to the procurement processes Provide technical support to the Project Team during the review of contractor submittals Compliance reviews during construction
Accomplished in Month:	<ul style="list-style-type: none"> Technical input provided for the resolution of claims including geotechnical baseline bedrock elevation

	<ul style="list-style-type: none"> • Reviewed KHCC generated Non-Conformity Reports (NCR) • Reviewed weekly and monthly slope survey monitoring program deliverables • Three site visits by Lead Engineer completed, to support the site team • Site work was shut down on June 15th due to severe rain event • Bighorn – excavation, pile installation, geotech investigation (ongoing) • Grizzly Walls – site preparation (ongoing), rock fencing installed • Lynx Viaduct – 7 piles installed (ongoing), access roads construction (ongoing) • Sheep’s Bridge – 8 piles installed (ongoing), geotech investigation, excavations (ongoing) • Marmot / Blackwall – anchor installation and tree recovery (ongoing) • Caribou – excavation and access road construction (ongoing) • Hedgehog – anchor installation and snow fencing (ongoing) • Dart Creek FSTR – archaeology work, road maintenance, clearing & grubbing (ongoing)
Key Activities for Next 3 Months:	<ul style="list-style-type: none"> • Prepare, review, and implement implementation plans, processes, and flow diagrams for Project Team. Includes safety and operational processes • Oversee KHCC work onsite; manage Field Surveillance Technicians • Review and evaluation of KHCC management plans, designs, and other deliverables • Update and refine software solution for daily site observations (Builterra) • Support resolution of key issues, including permit timelines, and submission reviews • Manage slope survey monitoring consultant • Site visits by Lead Engineer (currently bi-weekly, will be monthly going forward) • Conduct quality and safety audits (minimum of one per month for each) for remainder of construction season

4.8 Community Benefits

Scope:	<ul style="list-style-type: none"> • Work collaboratively with BC Infrastructure Benefits Inc. (BCIB) to successfully implement the Community Benefits Agreement (CBA)
Accomplished in Month	<ul style="list-style-type: none"> • 129 BCIB workers registered on site in June, including 45 priority hires (numbers will change dependent on available work) • 93 permitted workers have been utilized by the Design Builder to date through multiple permits issued, including clearing, drilling, traffic control high angle rope access, scaling and rockwork. This number is dynamic and predicated by the availability of work • Safety manager met with BCIB regarding workforce and safety on site
Key Activities for Next 3 Months	<ul style="list-style-type: none"> • Continue to grow workforce onsite through BCIB labour and permitted work • Workforce analysis and forecasting for BCIB • Continued regular meetings with BCIB and KHCC to discuss implementation of CBA on KHCP4

	<ul style="list-style-type: none"> • Closely align oversight of Worker Safety between the Province's construction management team and BCIB to avoid duplication and to ensure audits/oversight is timely and appropriate
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4.9 Indigenous Groups

Scope:	<ul style="list-style-type: none"> • Fulfill Province's duty to consult with identified Indigenous communities • Reach accommodation agreements with Indigenous communities through negotiation • Facilitate Indigenous community engagement in environment and socio-economic review • Develop indigenous requirements for inclusion in DBA • Reach accommodation agreements with Indigenous Groups
Accomplished in Month:	<ul style="list-style-type: none"> • Provide Indigenous Groups with Systematic Data Recover Reports for Dart Creek area • Met with Ktunaxa Nation Council (KNC) to discuss project participation, work plan budget, traffic, environmental plans and Big Horn Sheep management • Collaborate with KHCC Indigenous Contracting and Employment Coordinator on employment opportunities for the Indigenous
Key Activities for Next 3 Months:	<ul style="list-style-type: none"> • Regular meetings continued to be held with all identified Indigenous Groups, including the Pespesellkwe, Ktunaxa, and Shuswap Indian Band • Continued collaboration with KHCC ICEC to ensure Schedule 22 DBA requirements are met • Continued support with Ktunaxa as per Strategic Engagement Agreement • Continued collaboration with KHCP4 environment team to ensure Indigenous groups Construction Environmental Management Plan (CEMP) and appendices comments are included in KHCP4 response to KHCC

4.10 Third Parties

Scope:	<ul style="list-style-type: none"> • Develop utilities and rail agreements as required • Secure local and regional government approvals as required
Accomplished in Month:	<ul style="list-style-type: none"> • Paving of Bulk Water Station • Site visited by consultant for CP bridge monitoring
Key Activities for Next 3 Months:	<ul style="list-style-type: none"> • Continued implementation of Protocol Agreement, including regular meetings with CP Rail • Review of KHCC utilities designs (BC Hydro and Telus)

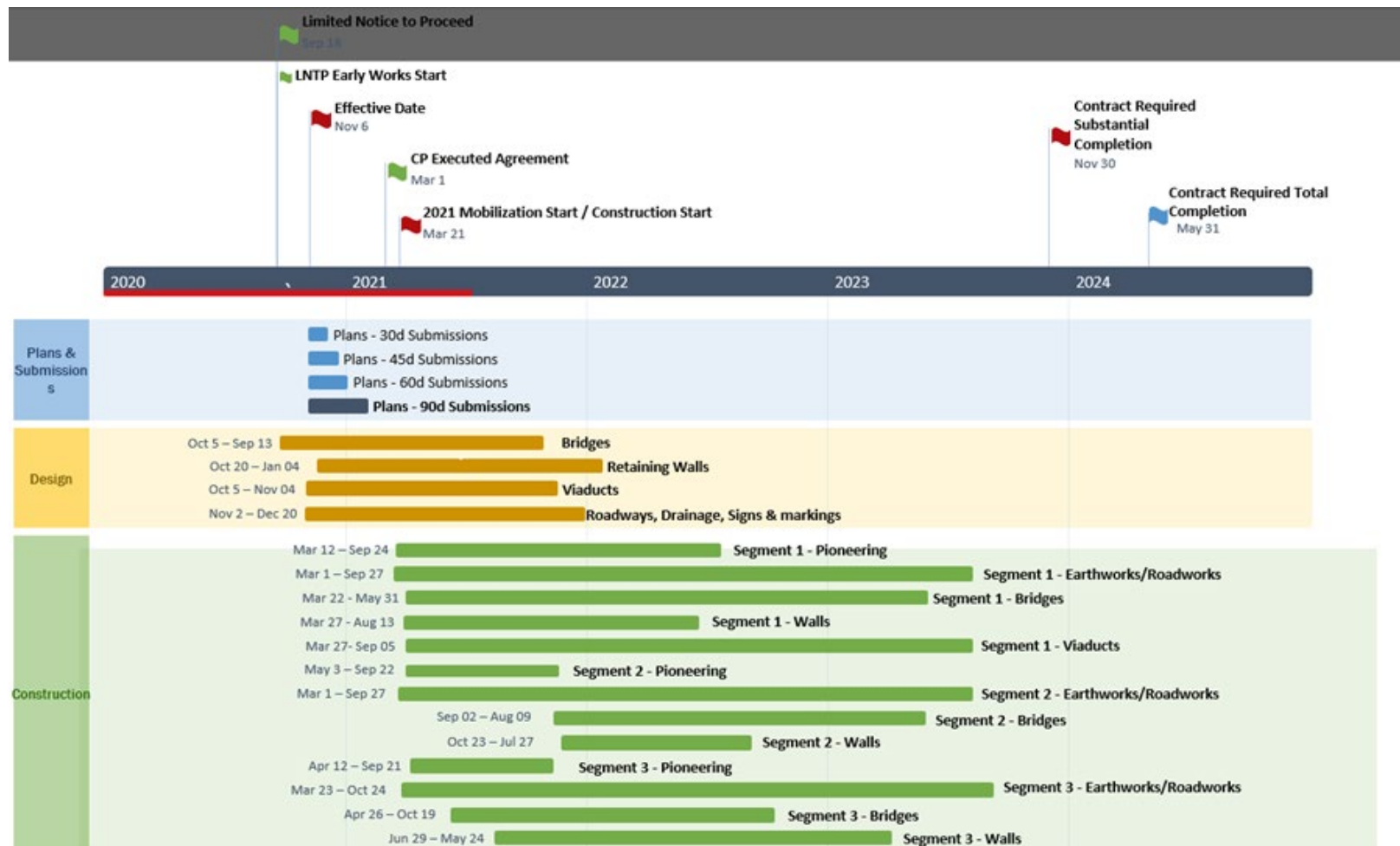
4.11 Public and Stakeholder Engagement

Scope:	<ul style="list-style-type: none"> • Manage ongoing public and stakeholder communications and engagement • Communications strategy and activities • Determine communications and community relations for inclusion in the contract
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Accomplished in Month:	<ul style="list-style-type: none"> • Completed 2021-22 update to annual Communications and Engagement Plan • Issued monthly project newsletter • Collaborated with other TIC project teams in preparing corporation wide stakeholder management system for launch • Continued to work with KHCC to improve traffic notification; further refined highway status calendar on website • Successful meeting with Community Liaison Committee
Key Activities for Next 3 Months:	<ul style="list-style-type: none"> • Oversee Design Builder's Communication and Public Engagement (C/PE) obligations and activities • Ongoing build awareness of construction and traffic management activities with media info bulletins/interviews, website updates, newsletters and advisories, and social media • Preparation for virtual public information session to be held this summer • Ongoing direct dialogue with key stakeholders and Community Liaison Committee • Complete development and installation of display content for project office in Golden • Complete planning and execution of public information session on KHCC design and activities • Review and refine canyon commuter pass system for the re-implementation for Fall 2021 extended closure

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 - CARPENTERS BUILDING DRILL RIG PLATFORM AT THE CENTRE PIER PILLARS LOCATION JUNE 2, 2021

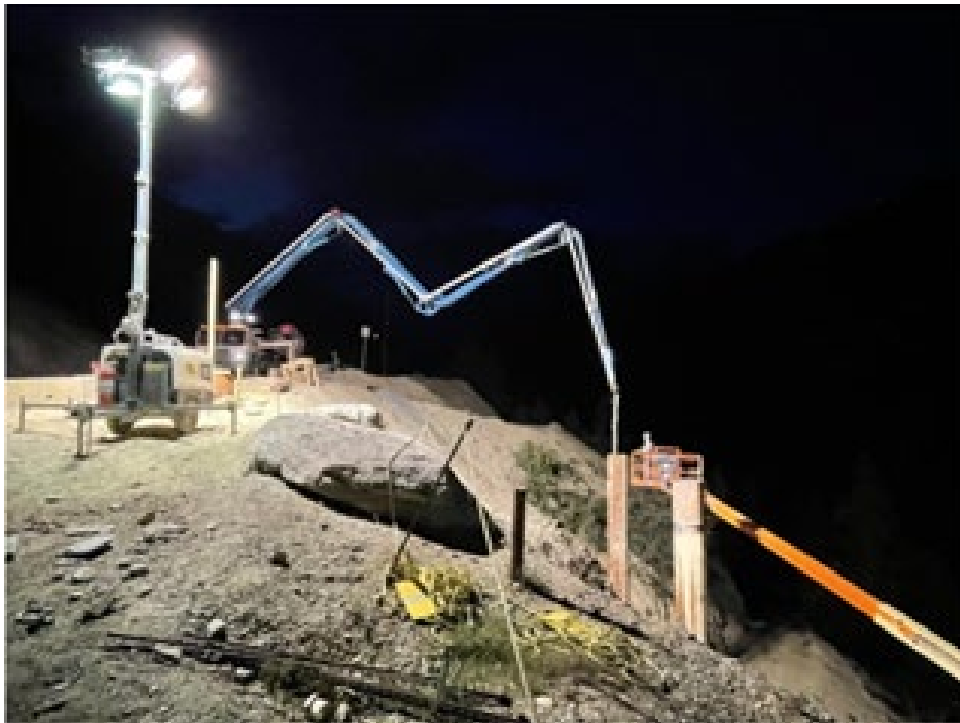


FIGURE 2 – BIGHORN – CONCRETE POUR TEMPORARY TRESTLE PILE – JUNE 4, 2021



FIGURE 3: SHEEP'S BRIDGE –VIEW LOOKING EAST JUNE 23, 2021



FIGURE 4: BIGHORN BRIDGE – GRA COMPLETED GROUND STABILIZATION ANCHORS WITH MICRO-PILES IN THE BACKGROUND - JUNE 23, 2021



FIGURE 5: BLACKWALL/MARMOT – ANCHOR INSTALLATION ONGOING – JUNE 28, 2021



FIGURE 6: SHEEP'S BRIDGE – FORMWORK ERECTION WEST ABUTMENT JUNE 30, 2021