

SITE C CLEAN ENERGY PROJECT

Component Application Package – Farrell Creek Temporary Access Bridges

Notice of Work

For Canadian Navigable Waters Act

April 27, 2020

Submitted to:

Transport Canada
Navigation Protection Program
Suite 1100 - 1166 W Pender Street
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Submitted by:

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Site C Clean Energy Project – Farrell Creek Temporary Access Bridges

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1 INTRODUCTION

The Canadian Navigable Waters Act (CNWA) came into force on August 28, 2019. The CNWA includes a Schedule of navigable waters requiring regulatory approval for works that risk a substantial interference with navigation. Farrell Creek is a tributary to the Peace River and is not a CNWA Schedule watercourse. This application for approval under the CNWA is submitted for a temporary bridge crossing over Farrell Creek. The downstream access bridge is planned for a location ~100m downstream of the existing Highway 29 bridge, and the upstream would be ~460m upstream of the existing highway bridge (See map figure in Appendix A).

Each bridge would be approximately 25-50m-long depending on chosen alignment over the future Farrell Creek diversion channel, a constructed riprap channel where flows will be re-routed during construction of highway replacement bridge (CNWA approval # 2019- 501394). The construction access bridges are designed to pass the 1 in 10 year flow and would pose a restriction to navigation once installed. This construction access bridges will be removed after the highway bridge is constructed and prior to the Site C reservoir filling. A conceptual drawing showing the bridge outline and the diversion channel is included in the Appendix B.

Location and Land Description

The proposed access bridge location coordinates are 56.121081 -121.734918 (downstream bridge) and 56.123852 -121.733365 (upstream bridge). The locations could move within the areas shown in Appendix A map figure. The works would be located on Crown land with the following description:

- Legal Subdivision 8 Section 19 Township 82 Range 24 West of the 6th Meridian Peace River District Except Plan 21821 (BC Hydro land); and
- Crown Foreshore covered by water between and within the high water boundary being part of the bed of Farrell Creek and Farrell Creek lying within Those Portions of Section 19 Township 82 Range 24 West of the 6th Meridian Peace River District
- Crown Foreshore covered by water at the confluence of Farrell Creek and the Peace River between and within the high water boundary being part of the bed of Farrell Creek and the Peace River lying within Section 19 Township 82 Range 24 West of the 6th Meridian Peace River District
- Theoretical unsurveyed Crown lands, Part of Highway 29 and MOTI ROW within Section 19 Township 82 Range 24 West of the 6th Meridian Peace River District

2 HIGHWAY 29 REALIGNMENT BRIDGE REPLACEMENTS – PRELIMINARY CONSTRUCTION SCHEDULE

The access bridges would enable machine access across the Farrell Creek diversion channel to facilitate construction of the highway bridge. The following information on the preliminary construction schedule for

Site C Clean Energy Project – Farrell Creek Temporary Access Bridges

each of the Highway 29 bridge replacements is provided for context to support this application that is specific to Farrell Creek.

As described in Section 4 of the Site C Environmental Impact Statement (EIS), Highway 29 connects Hudson's Hope to Fort St. John and runs along the north side of the Peace River. It is a two lane rural arterial undivided highway under the jurisdiction of the BC Ministry of Transportation and Infrastructure (BCMoTI). Creation of the reservoir will require realignment of approximately 30km of existing highway at Lynx Creek, Dry Creek, Farrell Creek, Halfway River and Cache Creek. Bridges sited at these locations will have to be replaced. In anticipation of the potential future navigation use, the vertical and horizontal clearance requirements to support navigation, as mandated by the CNWA, have been taken into account in the bridge design.

The preliminary construction schedule for the Highway 29 realignment and bridge replacement is outlined below.

Table 1: Preliminary Construction Schedule - Highway 29 Bridge Replacements

Bridge	Commencement	Completion
Halfway River	Late Summer / Fall 2019	Fall of 2022
Cache Creek	Late Fall / Winter 2019	Fall of 2022
Farrell Creek	Summer 2020	Fall of 2022
Lynx Creek	Summer 2020	Fall of 2022

The construction schedule is indicative only and subject to change. The Purpose of the schedule is to illustrate the general sequence of construction activities, but the dates and schedule may change.

The construction of the access bridges at Farrell Creek is planned to begin in August / September 2020.

3 PUBLIC BOATER ACCESS

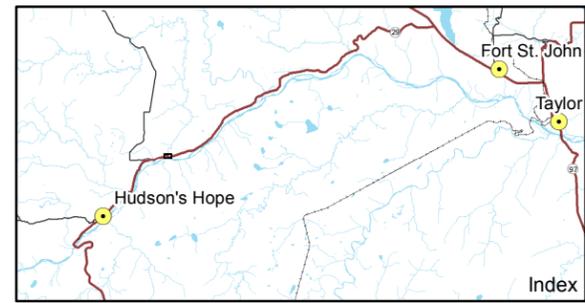
Construction of the nearby highway bridge and associated overhead works will require temporary closures to boater traffic in the Farrell Creek section near to the construction access bridges. These closures would be in place for construction tasks that pose substantive hazards to the public in the immediate area.

Communication to boaters ahead of river closures would be done in accordance with conditions in any issued CNWA permit, including use of local newspaper advertisements. All closures and communications would be done by implementing the Site C Public Safety Management Plan.

Signs will be posted on the north bank of the Peace River to alert approaching boaters that there is a bridge ahead.

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Appendix A. Overview Figure of Farrell Creek Temporary Access Bridges



Map Notes:
 1. Datum: NAD83
 2. Projection: UTM Zone 10N
 3. Base Data: Province of B.C.
 4. Imagery: September 2019 Lidar orthophotos.

- Legend**
- Construction Access Bridge
 - Potential Area for Temporary Bridge Crossings
 - Creek Diversion Channel

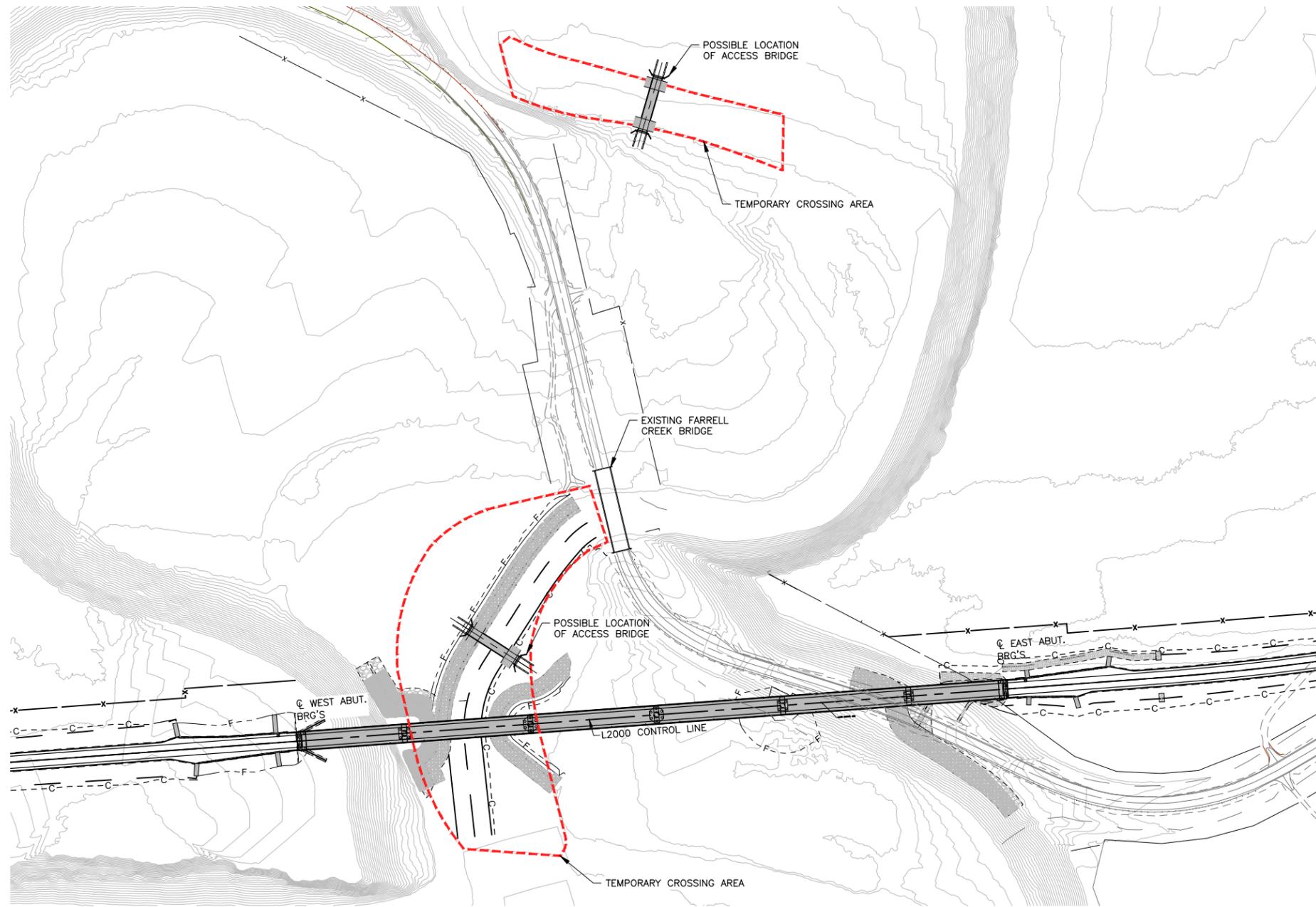
1:3,000 0 100 m

CNWA Notice of Work Farrell Creek Construction Access Bridge Locations			
Date	Apr. 22, 2020	DWG NO	1016-N11-00822
			R 0

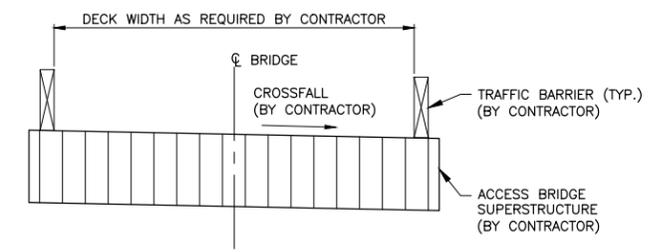
Construction of the Site C Clean Energy Project is subject to required regulatory and permitting approvals.

Site C Clean Energy Project – Farrell Creek Temporary Access Bridges

Appendix B Farrell Creek Diversion Channel and Temporary Access Bridge Design Drawing



LOCATION PLAN
SCALE 1:1500



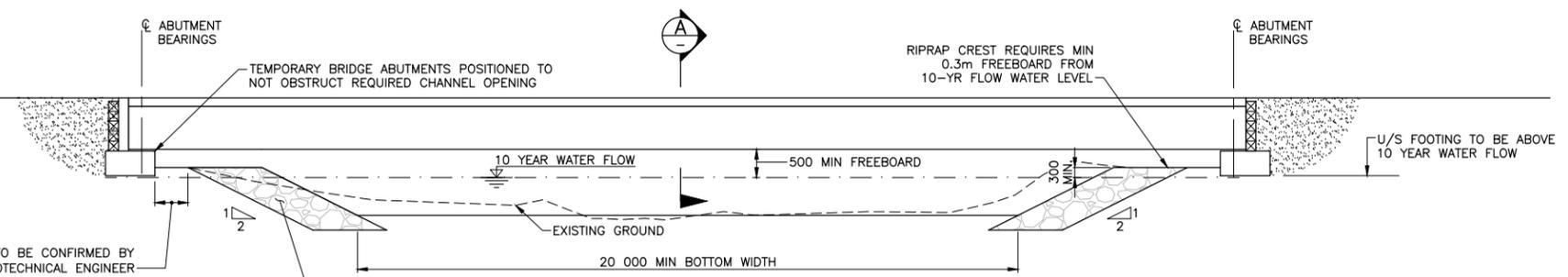
SECTION A
SCALE 1:50

REFERENCE NOTES:

1. BASE MAPPING CREATED FROM LIDAR INFORMATION PROVIDED BY BC HYDRO IN AUGUST 2015 AND FIELD SURVEY PERFORMED BY BINNIE FROM 2011, 2017 AND 2018.
2. THE CADASTRAL AS SHOWN WAS PROVIDED BY BC HYDRO ON AUGUST 8, 2019.
3. THERE IS NO ROAD ALIGNMENT AND PROFILE DEVELOPED FOR FARRELL CREEK TEMPORARY BRIDGES. IT IS CONTRACTOR'S RESPONSIBILITY TO DEVELOP ITS OWN TEMPORARY ROAD ALIGNMENT AND PROFILE TO SUIT THE CONSTRUCTION REQUIREMENTS. THE TEMPORARY BRIDGE SHOWN ON THIS DRAWING IS CONCEPTUAL ONLY. IT SHOWS ALL CRITICAL INFORMATION TO MEET HYDRO-TECHNICAL AND STRUCTURAL REQUIREMENTS.
4. TEMPORARY BRIDGE AND SCOUR PROTECTION SHOWN ON THE DRAWING ARE WITHIN NO DISTURBANCE AREAS. ROAD CROSSING IN NO DISTURBANCE AREAS WILL BE PERMITTED PROVIDED THEY COMPLY WITH ALL ENVIRONMENTAL REQUIREMENTS AND ARE APPROVED BY THE MINISTRY REPRESENTATIVE.
5. HYDROLOGY DATA REFERENCED FROM NHC.

NOTES:

1. DESIGN - CSA S6:14 CHBDC
2. LOADING - BCL 625



ELEVATION
SCALE 1:100

BANK AND SCOUR RIPRAP PROTECTION TO BE DESIGNED BY CONTRACTOR'S HYDROTECHNICAL ENGINEER AND APPROVED BY MINISTRY REPRESENTATIVE. AT MINIMUM DESIGN SHALL PROVIDE PROTECTION FOR A 10-YR FARRELL CREEK FLOW. RIPRAP SPECIFICATIONS AND INSTALLATION SHOULD CONFORM TO THE MINISTRY STANDARD SPECIFICATION FOR HIGHWAY CONSTRUCTION SS 205.

PRELIMINARY
NOT ISSUED FOR CONSTRUCTION

Rev	Date	Description	Init
A	20/02/28	ISSUED FOR REVIEW	HL

REVISIONS

	BRITISH COLUMBIA	Ministry of Transportation & Infrastructure Northern Region
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NORTHERN REGION
HIGHWAY NO. 29
FARRELL CREEK BRIDGE NO. 02184
CONTRACTOR ACCESS BRIDGE GENERAL ARRANGEMENT

PREPARED UNDER THE DIRECTION OF		DESIGNED	SO	DATE	20/02/28
ENGINEER OF RECORD		CHECKED	SO	DATE	20/02/28
DATE		DRAWN	PL	DATE	20/02/28
FILE No.		SCALE	NEGATIVE No.		
PROJECT No.		REG.	DRAWING No.		
37501-0000		3	SK0001		

DATE: 2020-02-28 2:32pm (ownsp) H:\Projects\2020\02-28-2020\Drawings\02 - Bridges\2184-SK0001.dwg LAYOUT: 01

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