SITE C CLEAN ENERGY PROJECT

Component Application Package – Dry Creek Temporary Access Bridges

Notice of Work

For Canadian Navigable Waters Act

June 2, 2020

Submitted to:

Transport Canada
Navigation Protection Program
Suite 1100 - 1166 W Pender Street
Vancouver, BC V6E 2R9

Submitted by:

BC Hydro and Power Authority
Site C Clean Energy Project
9th Floor – 1111 West Georgia Street.
Vancouver BC V6E 4M3

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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. Dry 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 two temporary bridge crossings over Dry Creek. The two access bridges are planned for a location ~100 m and ~50 m upstream of the existing Highway 29 perched culvert crossing (to be replaced), and 140 m and 85 m respectively, upstream of the Dry Creek confluence with the Peace River (See figure in Appendix A).

The two access bridges would be approximately 10 m long and would likely be supported by concrete lock-block foundations at the abutments. A conceptual drawing is provided in Appendix B which shows the plan view of the two proposed structures as well as the general arrangement of the structures to be installed. The exact configuration of the bridges will be subject to the Contractor's design and availability of bridge components. A boundary for installation has been identified on the drawings to allow the Contractor flexibility in the placement and arrangement of the construction access. These bridges are designed to pass the 1 in 10 year flow with 0.5 metres of freeboard and would pose a restriction to navigation once installed. These construction access bridges will be removed after the highway bridge is constructed and prior to the Site C reservoir filling.

Location and Land Description

Appendix A shows the location of the temporary access bridge crossings over Dry Creek. The approximate coordinates for the location of the two proposed access bridges are as follows:

56.117329, -121.771187

56.116891, -121.770828

The works would be located on BC Hydro-owned and Crown/MOTI-owned land with the following descriptions:

BC Hydro-owned:

The South East 1/4 of Section 24 Township 82 Range 25 West of the 6th Meridian Peace River District Except Plans 21821

The South West 1/4 of Section 24 Township 82 Range 25 West of the 6th Meridian Peace River District Except Plan 30367 and 21821

Crown/MOTI owned:

Portions of Highway 29 and highway Right of Way located within Section 24 Township 82 Range 25 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 Dry Creek channel to facilitate construction of the highway bridge. The following information on the preliminary construction schedule for each of the Highway 29 bridge replacements is provided for context to support this application that is specific to Dry 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 (BC MoTI). Creation of the reservoir will require realignment of approximately 30 km of existing highway at Lnyx Creek, Dry Creek, Farrell Creek, Halfway River and Cache Creek. Bridges sited at these locations will have to be replaced due to inundation. 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 designs.

The preliminary construction schedule for the Highway 29 realignment and bridge replacements 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
Dry Creek	Fall 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.

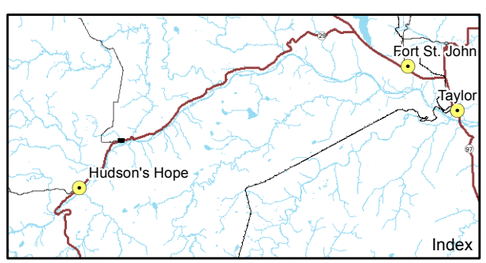
Construction of the two access bridges at Dry Creek is planned to begin in October 2020 and be removed by the end of October 2022.

3 PUBLIC BOATER ACCESS

Construction of the nearby highway bridge and associated overhead works will require temporary closures to boater traffic in the Dry 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.

Appendix A – Figure of Temporary Access Bridge Crossings over Dry Creek



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

Legend

- Temporary Construction Access Bridge
- Temporary Construction Access Roads
- High Water Mark
- Existing Highway

1:1,500 0 50 m

BC Hydro

Transport Canada Notice of Work
Dry Creek Temporary Construction Access Bridge

Date	May. 27, 2020	DWG NO	1016-N11-00866	R 0

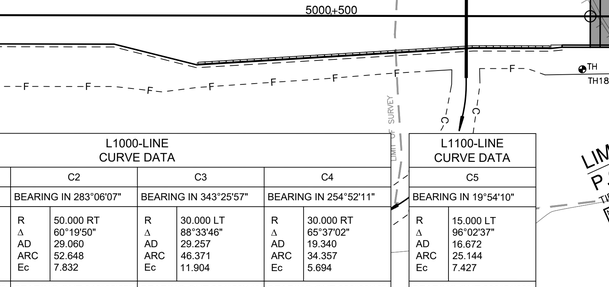
Construction of the Site C Clean Energy Project is subject to required regulatory and permitting approvals.

Path: X:\ArcGIS\Projects\Permitting\Federal_Permits\Nav\ProtAct\DryCk_TempAccessBridge_1016_N11_00866.mxd

Appendix B - Design Drawings of Temporary Access Bridge Crossings over Dry Creek

L1000-LINE CURVE DATA							
C1		C2		C3		C4	
BEARING IN 324°42'25"		BEARING IN 283°06'07"		BEARING IN 343°25'57"		BEARING IN 254°52'11"	
R	25.000 LT	R	50.000 RT	R	30.000 LT	R	30.000 RT
Δ	41°36'18"	Δ	60°19'50"	Δ	88°33'46"	Δ	65°37'02"
AD	9.498	AD	29.060	AD	29.257	AD	19.340
ARC	18.154	ARC	52.648	ARC	46.371	ARC	34.357
Ec	1.743	Ec	7.832	Ec	11.904	Ec	5.694
BEARING OUT 283°06'07"		BEARING OUT 343°25'57"		BEARING OUT 254°52'11"		BEARING OUT 320°29'13"	
PI	1000+028.754	PI	1000+075.217	PI	1000+161.229	PI	1000+209.461
N.	219728.082	N.	219738.806	N.	219826.491	N.	219810.733
E.	576516.650	E.	576470.576	E.	576444.490	E.	576386.209
BC	1000+019.256	BC	1000+046.157	BC	1000+131.972	BC	1000+190.121
EC	1000+037.409	EC	1000+098.805	EC	1000+178.343	EC	1000+224.478

L1100-LINE CURVE DATA	
C5	
BEARING IN 19°54'10"	
R	15.000 LT
Δ	96°02'37"
AD	16.672
ARC	25.144
Ec	7.427
BEARING OUT 283°51'33"	
PI	1100+035.685
N.	219851.656
E.	576446.439
BC	1100+019.013
EC	1100+044.157



TYPCIAL SECTION
L1000-LINE AND L1100-LINE
0 1 1:100 5m

L1000-LINE PLAN

NOTES:

1. PROPOSED PILOT CHANNEL DESIGNED TO ACCOMMODATE 1:10 YEAR INSTANTANEOUS FLOW.

DRAFT

NOT FOR CONSTRUCTION

ISSUED FOR DISCUSSION - MAY 26, 2020

BINNIE
The people behind your infrastructure.

R.F. BINNIE & ASSOCIATES LTD.
300 - 4940 Canada Way,
Burnaby, BC V5G 4K6
TEL 604 420 1721
BINNIE.com

BRITISH COLUMBIA
MINISTRY OF TRANSPORTATION AND INFRASTRUCTURE
HIGHWAY ENGINEERING
NORTHERN REGION

SCALE 0 5 1:500 25m

CAD FILENAME 1000CON_17-0472.DWG

DATE 2020-05-25

REV	DATE	REVISIONS	SIGNATURE

DRY CREEK BRIDGE CONSTRUCTION ACCESS

HIGHWAY No. 29
DRY CREEK

SENIOR DESIGNER

DATE

DESIGNED M.C. DATE MAY. 2020
QUALITY CONTROL M.C. DATE MAY. 2020
QUALITY ASSURANCE A.B. DATE MAY. 2020
DRAWN B.O. / V.L. DATE MAY. 2020

FILE NUMBER	PROJECT NUMBER	REG	DRAWING NUMBER	REV
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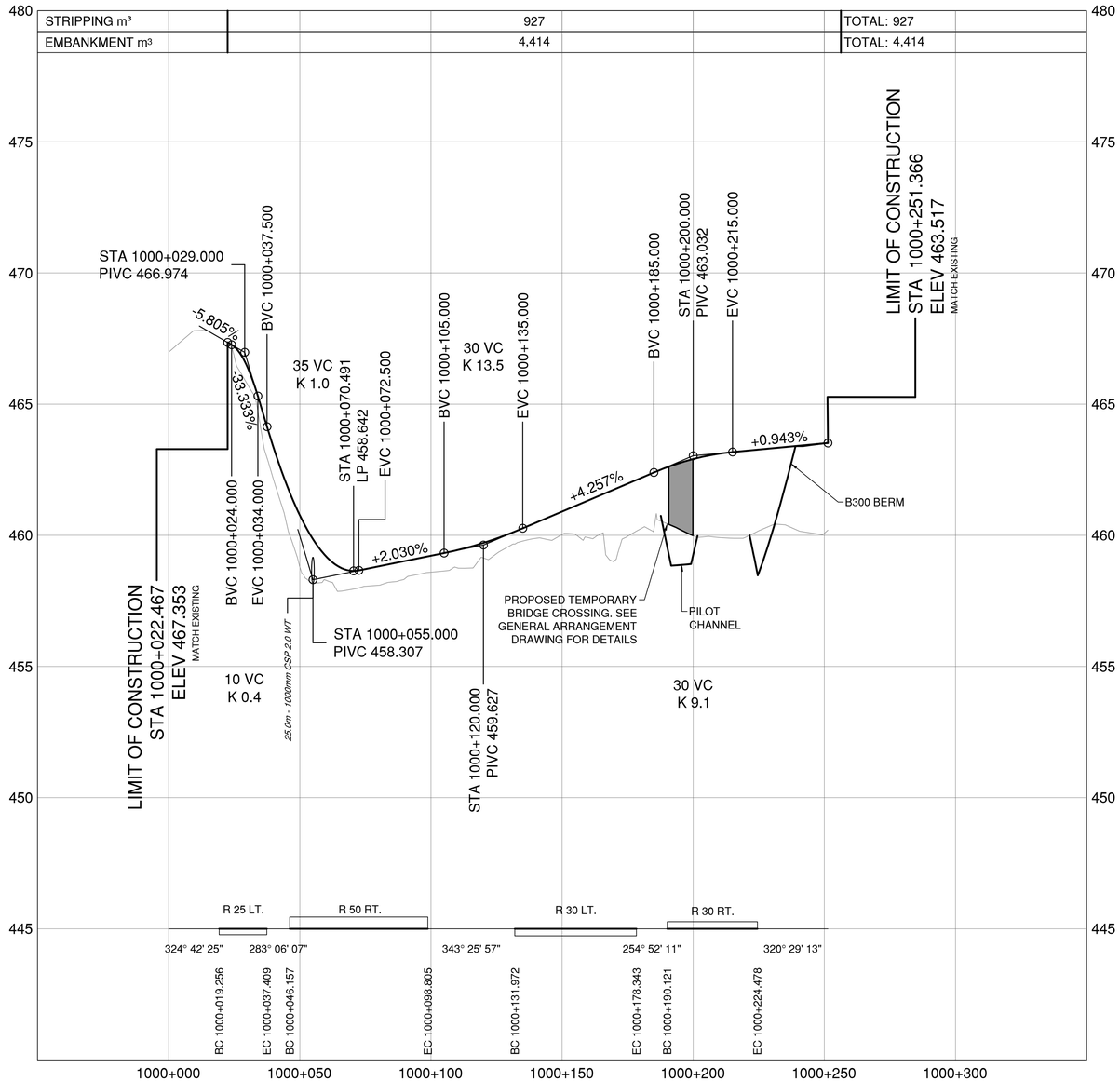
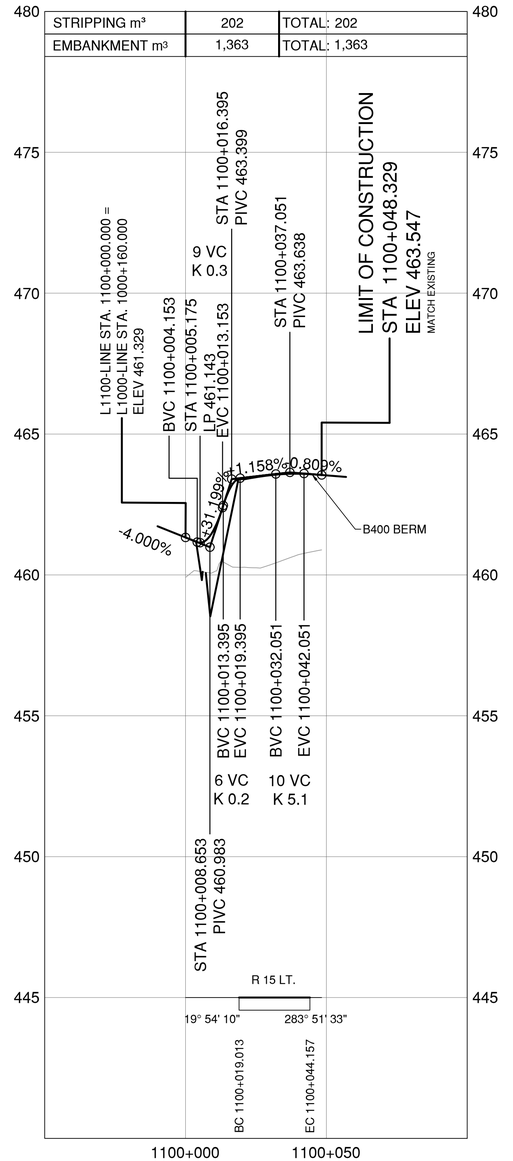


L1000-LINE PROFILE



L1100-LINE PROFILE

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MINISTRY OF TRANSPORTATION AND INFRASTRUCTURE
HIGHWAY ENGINEERING
NORTHERN REGION

SCALE 0 10 H 1:1000 50m
0 1 V 1:100 5m

CAD FILENAME 1000CON_17-0472.DWG
DATE 2020-05-25

REV	DATE	REVISIONS	SIGNATURE

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HIGHWAY No. 29
DRY CREEK

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DATE

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QUALITY CONTROL M.C. DATE MAY. 2020
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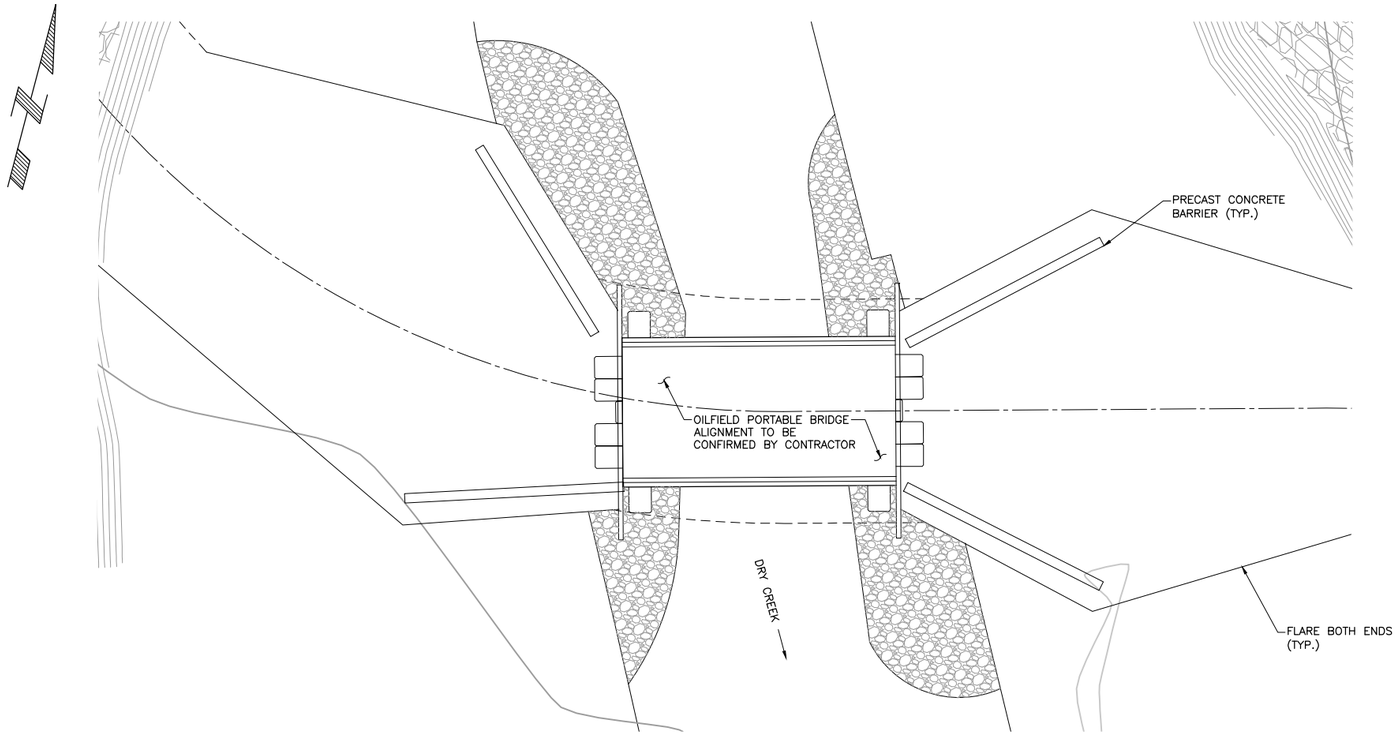
DRAWN B.O. / V.L. DATE MAY. 2020

FILE NUMBER	PROJECT NUMBER	REG	DRAWING NUMBER	REV
17-0472	37503-0000	NR	R3-337-1002	



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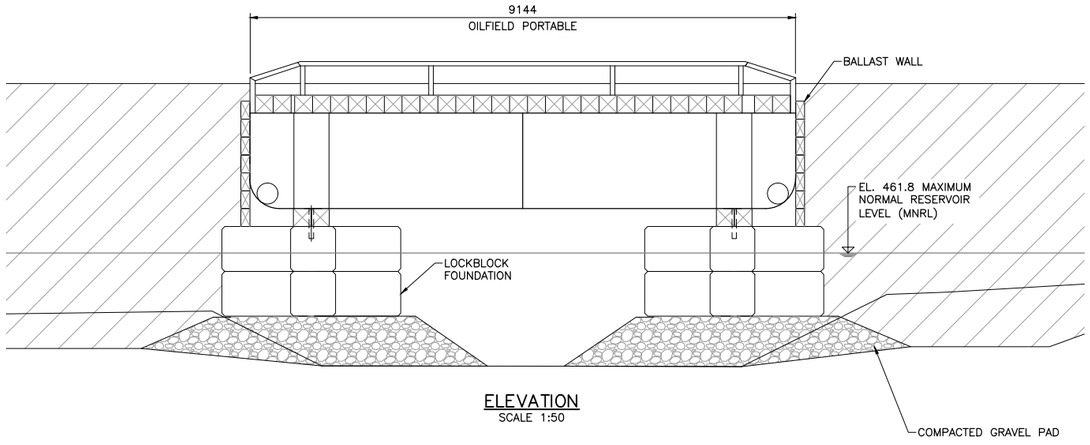
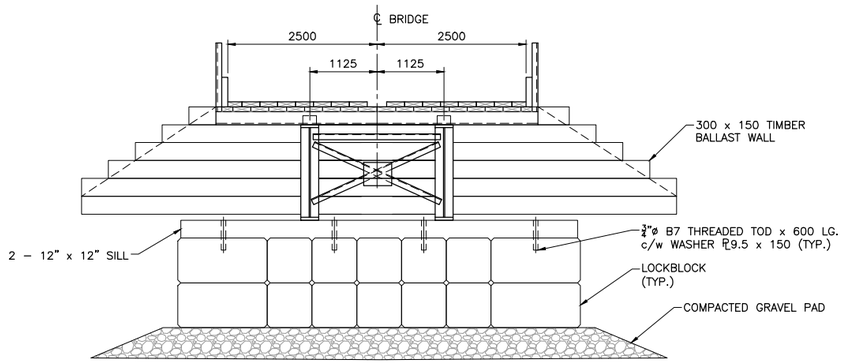


ELEVATION
SCALE 1:50



ABUTMENT SECTION
SCALE 1:50

NOTES:

1. FOR GENERAL NOTES SEE DRAWING 08660–01.
2. DESIGN – CHDBC
3. LOADING BCL–625

DRAFT

NOT FOR CONSTRUCTION

Klohn Crippen Berger

Rev	Date	Description	Init

REVISIONS

BRITISH COLUMBIA | Ministry of Transportation & Infrastructure
Northern Region

PEACE DISTRICT
HIGHWAY No. 29

DRY CREEK BRIDGE No. 08660
CONSTRUCTION ACCESS BRIDGE

PREPARED UNDER THE DIRECTION OF

ENGINEER OF RECORD

DATE

DESIGNED K.G. DATE MAR 2020
CHECKED N.K. DATE MAR 2020
DRAWN M.B. DATE MAR 2020
SCALE AS NOTED
NEGATIVE No.

FILE No.

PROJECT No. 37503–0000

REG.

DRAWING No. 08660–101

H-308-13-1-(07-08)

CANCEL PRINTS BEARING PREVIOUS LETTER