CROSS FRASER PARTNERSHIP

Document #
FRTP-TYP-CNT-50-MTM-PLN-00002 – R2

Fraser River Tunnel Project
Preparatory Works

Marine Construction Staging Plan and Marine Communication Plan –Transition Walls

Fraser River Tunnel Project
400 - 411 Dunsmuir Street
Vancouver BC V6B 5A1

DOCUMENT AUTHOR, REVIEWER, AND APPROVER			
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Date	7 August 2026	7 August 2026	7 August 2026
Signature			

TYPE OF SUBMISSION			
☐ For Consent	☒ For Review	☐ For Information	☐ Other

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2	2026-08-07	Multiple	Update project contacts, Section 3.2.10
1	2026-06-29	1,19,22	Updated per TIC comments TIC-RTRANSMIT-001314
0	2026-05-22		Edits by CFP

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1. Summary

The Ministry of Transportation and Transit is replacing the existing George Massey Tunnel with a new, toll-free, eight-lane immersed tube tunnel. The Fraser River Tunnel Project (FRTP) includes replacing the Deas Slough Bridge and decommissioning the existing tunnel once the new tunnel is in operation. Decommissioning involves keeping the existing tunnel in place and filling it with material.

The new immersed tube tunnel will have three vehicle lanes and a dedicated transit lane in each direction, with a separated multi-use path (MUP) for cyclists and pedestrians that connects to active transportation routes on both sides of the Fraser River. An overview map of the project location is shown in Figure 1.

Figure 1 Fraser River Tunnel Project Overview

The Project is being delivered with a collaborative Progressive Design-Build with Target Price model that includes early collaboration with the contractor on project development and design through a Design Early Works Agreement (DEWA) and risk allocation and final target price in the final Design-Build Agreement (DBA). Cross Fraser Partnership (CFP) was awarded the DEWA and Preparatory Works Phases of the Project by the Province of British Columbia.

This Marine Construction Staging Plan and Marine Communication Plan is associated with the Preparatory Works for the Fraser River Tunnel Project (FRTP or project). The Preparatory Works were authorized by an Order in Council from the BC Government (Government of BC, Executive Council 2025).

The proposed Preparatory Works include:

1. Logistics Jetties
2. Transition Walls
3. Demolition of Canfisco Site and Dewatering
4. Deas Slough Temporary Trestle Construction

All Preparatory Works have the potential to "interfere with the Common Law right to navigation", as protected under Canadian Common Law.[1] Canadian Navigable Waters Act (CNWA) mandate is to limit the potential interferences caused by works[2] under the Canadian Navigable Waters Act (CNWA); and applies to all waterways identified under the list of scheduled waterways, Schedule A. The Fraser River is designated on the list of scheduled waterways and therefore potential interferences to navigation must be assessed as part of this review.

This Management Plan provides a Marine Construction Staging Plan and Marine Communication Plan (MCSPMCP) associated with the proposed Transition Walls noted above.

The objective of the plan is to assess the proposed works (e.g., construction of the Transition Walls) in relation to potential interferences to navigation created from the works and mitigate them or order to facilitate the continued safe and efficient navigation throughout the duration of said works.

The navigation mitigation implemented herewith is based on a 130 m north and south navigation channel designed in accordance with Permanent Association Waterborne Transportation Infrastructure (PIANC) Approach Channel Guidelines (PIANC 2014). The Vancouver Fraser Port Authority (VFPA) Applies these design guidelines to navigation channel development in compliance with the Canada Marine Act Letters Patent.

In addition to the north and south navigation channel detours, the Cross Fraser Partnership has implemented modified north and south detours, each 130 m wide, measured from the outer extent of the main 200 m navigation channel detour

The scope of this Management Plan includes:

Section 1 Summary: Outlines the Project background and the purpose of the management plan in relation to satisfying navigation regulations. Outlines the navigation mitigation being implemented to limit interferences to navigation.

Section 2 Scope of Work: Outlines the proposed works assessed in this review in relation to navigation mitigation and the navigation detours that will be implemented.

Section 3 Marine Construction Staging Plans and Marine Communication Plan: Provides sequencing plans illustrating construction staging activities potentially interfering with navigation and marine communication protocols that will be in place to facilitate communication with marine users throughout the works.

Section 4: Next Steps

Cross Fraser Partnership continues to engage with marine stakeholders and regulators, including Indigenous Groups regarding implementation of the various detours utilized to facilitate the construction of the Fraser River Tunnel Project. The channel detours for reference are as follows:

- Continued use of the existing main navigation channel
- Implementation of north navigation detour

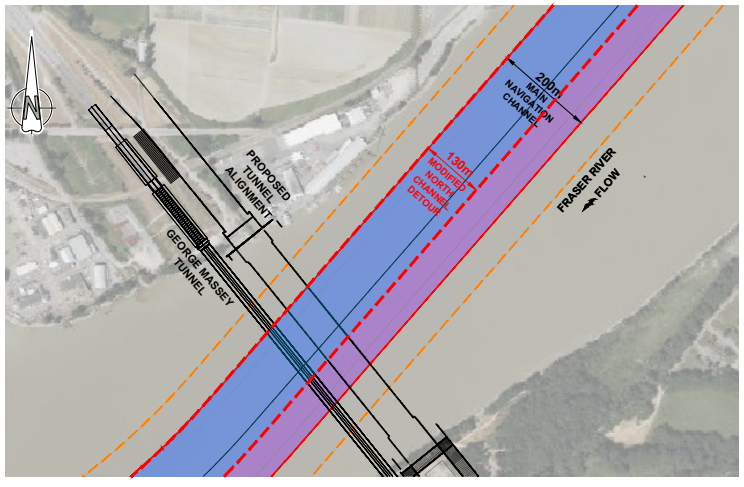
[1] The common law protects the right of navigation by treating things placed in water that interfere with navigation as obstructions that can be removed or abated if they cause damage or become a public nuisance. The right of the public to transit all navigable waters is paramount and therefore protected under Canadian law.

[2] Under the Canadian Navigable Waters Act (CNWA), a "work" is defined as any human-made, temporary or permanent structure, device, or thing—such as bridges, dams, docks, or wharves—located in, on, over, under, though, or across any navigable water in Canada. It also covers dredging, excavating, or dumping fill into these waters.

- Implementation of the south navigation detour
- Implementation of the modified north navigation detour
- Implementation of the modified south navigation detour

For the purposes of the Transition Walls only **the main navigation channel will be utilized.** The navigation detours are outlined in the following exhibit.

It has been noted that both Seaspan Ferries (including Seaspan Energy) and tug and tow operators supporting coastal commerce and trade (as represented by the Council of Marine Carriers) frequently traverse the corners of the main navigation channel and operate within the administrative safety zones (Exhibit 1). These transit zones are also illustrated in the following exhibits for context.



MODIFIED NORTH CHANNEL DETOUR
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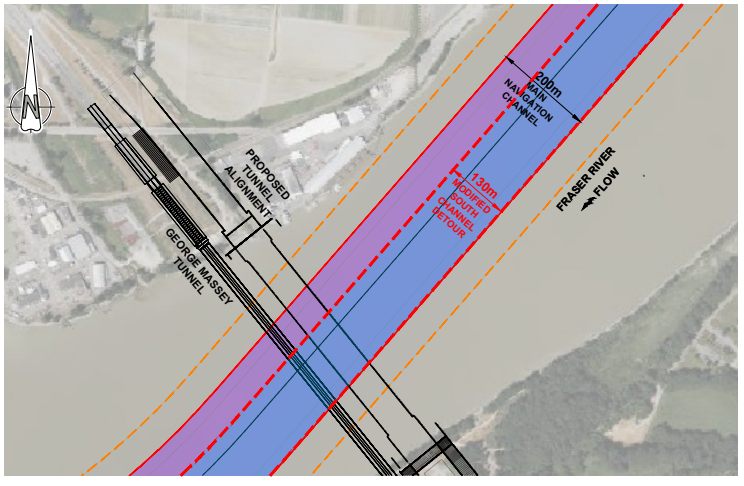

MODIFIED SOUTH CHANNEL DETOUR
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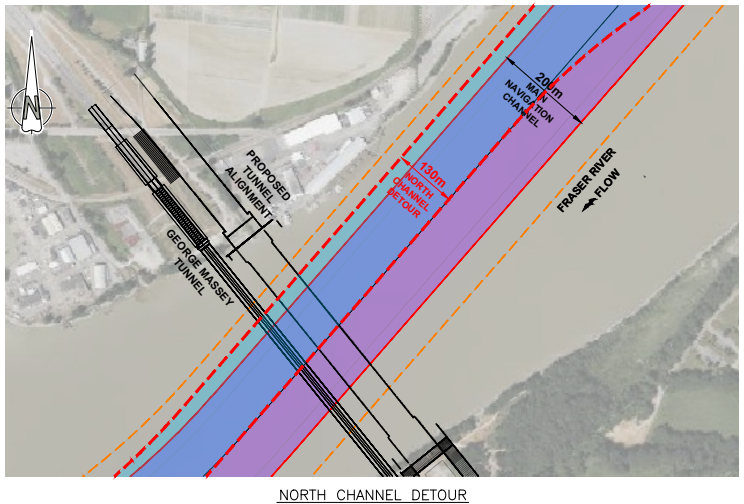

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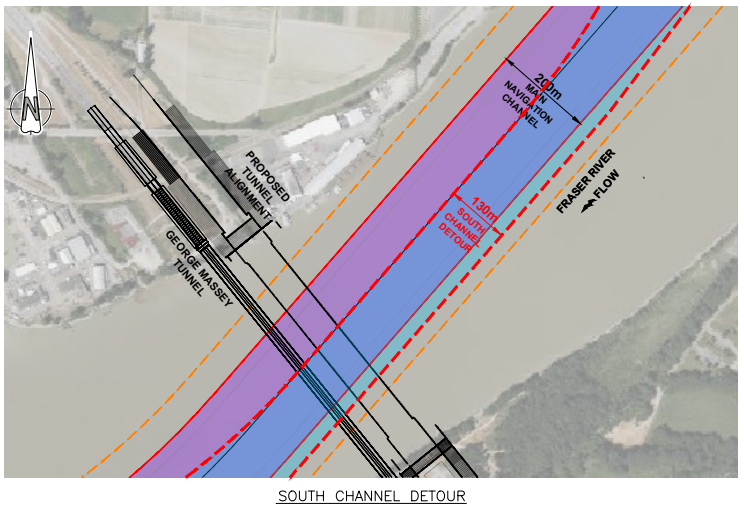

SOUTH CHANNEL DETOUR
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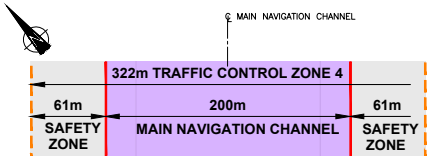
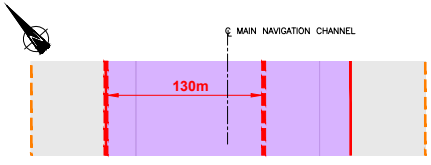


EXISTING TRAFFIC CONTROL ZONE 4
MAIN NAVIGATION CHANNEL



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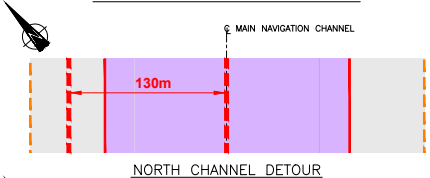

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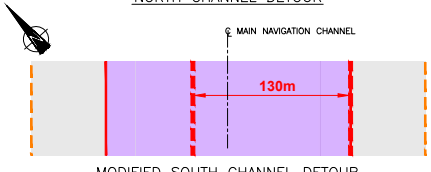

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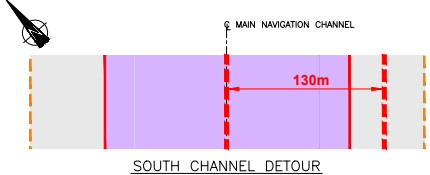

SOUTH CHANNEL DETOUR

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FRASER RIVER TUNNEL PROJECT
DISCIPLINE
MARINE
NAVIGATION CHANNEL DETOURS

HORIZONTAL DATUM: NAD83(CSRS) 4.0.0.BC.1.MVRD
VERTICAL DATUM: CGVD28GVRD2018

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APPROVED		DATE
DRAWN	R. MULLER	DATE

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2. Scope of Work

2.1 Scope of Work

These Preparatory Work Transition Walls are critical to support construction activities during the first two years of construction once Fraser River Tunnel Project (FRTP) construction is initiated.

The Transition Walls provide the following functions: 1) support the lateral soil load reducing the horizontal load transfer on the inner excavation containment walls; 2) contain the new tunnel excavation and dredging; 3) contain the new tunnel fills, and 4) manage impacts from a seismic event. There are different wall types being constructed based on the design requirements, e.g., Type A, Type B, but for the purposes of this management plan the associated activities are treated the same.

The Transition Walls will be constructed from upland positions as much as possible with the crane supporting the works swinging into the Fraser River. During these activities, the cranes radius will predominantly be extended from the shoreline, noting they avoid the marine administrative safety zone.

As transition wall construction continues within the Fraser River, a barge and crane will be utilized to support marine construction activities, but again, will avoid intrusion into the administrative safety zone.

Such activities will not interfere with designated navigation channels and safety zones, as the works will be outside of the administrative safety zones.

The location of the Transition Walls in relation to the administrative safety zones and the shoreline are illustrated in the exhibits below (Exhibit 2 – Exhibit 5), followed by an exhibit that illustrates the extent of construction of each transition into the wetted areas of the Fraser River, specifically noting the location of the administrative safety zone for context.

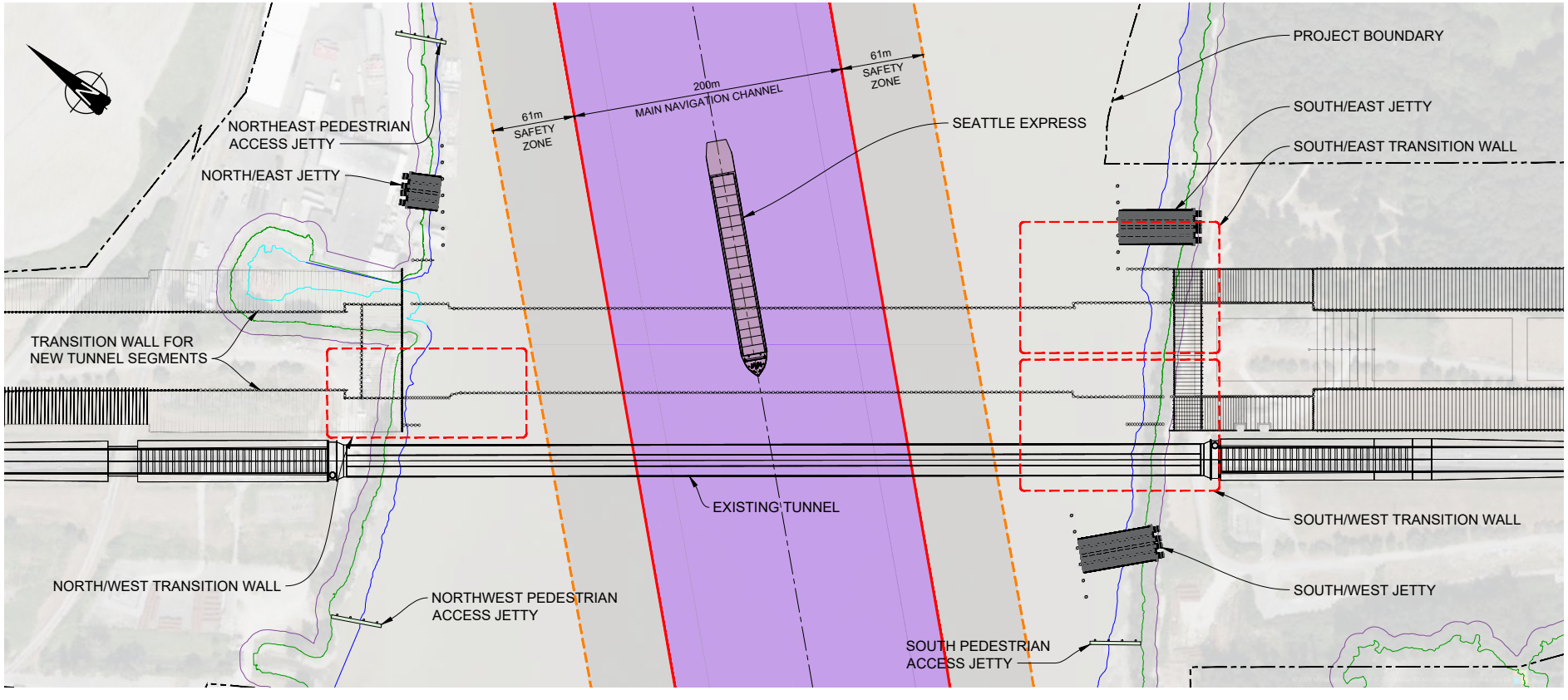
The key concern from a navigation perspective is that the vessel transit distribution patterns of Seaspan Ferries and members of the Council of Marine Carriers show deviations into the administration zone. This is likely done to avoid faster water flow (R. Tyson, pers. comm.). Therefore, marine communications and informing mariners of work activities will be important for navigational safety. To illustrate the potential conflict between works and Seaspan Ferries and Council of Marine Carriers transit patterns the vessel probability distribution curves are presented on each noted transition wall exhibit (Exhibit 3 – Exhibit 5).

The Transition Walls are critical to Project construction (estimated to start in late 2026) for the transportation goods services and materials to and from the site and to aid in the transport of material to the ocean disposal location.

2.2 Scheduling and Duration of Works

The scheduling and construction of the Transition Walls will be ongoing. The in-water construct for the north transition wall will start November 2026 to February 2027, pending regulatory approvals (Table 1).

A portion of the transition wall will be constructed from land and will have limited effects on marine navigation. Later, a barge and crane will be needed in river to complete the works. The specific work area in relation to the navigation channels, are illustrated on the exhibits noted in the marine construction staging plan and marine communication plan section below (Section 3.1).



PLAN – TRANSITION WALL ARRANGEMENT
1:1500

LEGEND:

SEATTLE EXPRESS
LOA :294m
BEAM :32.2m

- MAIN NAVIGATION CHANNEL
- CHANNEL SAFETY ZONE
- MAIN NAVIGATION CHANNEL
- ADMINISTRATIVE SAFETY ZONE
- HHWL BUFFER
- HHWLT
- LLWLT

m 0 10 20 30 40 50 100 m
1:1500

NOTES:

1. BASED ON THE RECOMMENDATIONS OF THE FRASER RIVER PILOTS THE POTENTAL ANGLE OF IMPACT TO THE SHIP GROUNDING BERM IS 60° AND 90° TO THE PROPOSED TUNNEL ALIGNMENT.
2. VESSEL SPEED IS 10 TO 12 KNOTS AT IMPACT.

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DISCIPLINE
TRANSITION WALL ARRANGEMENT

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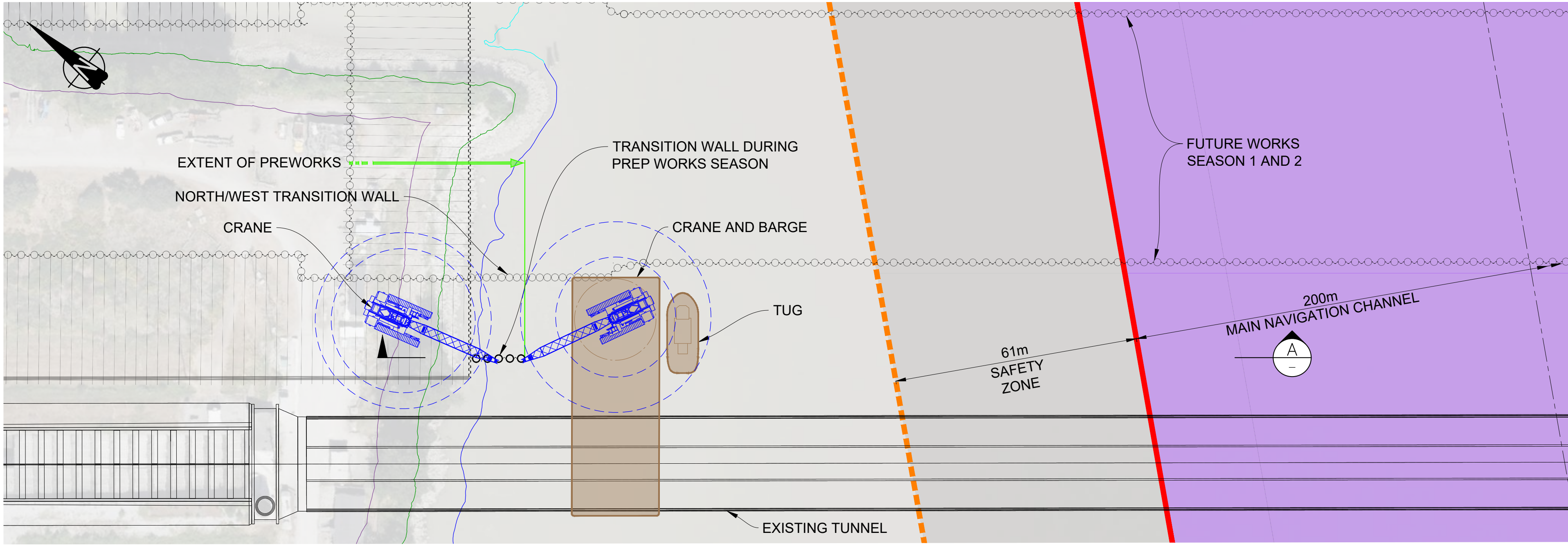
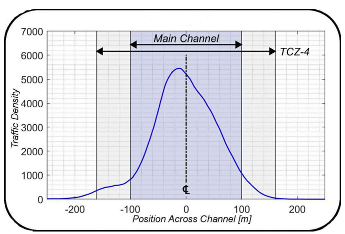


PLAN – NORTH/WEST TRANSITION WALL
1:500



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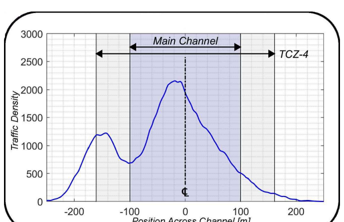
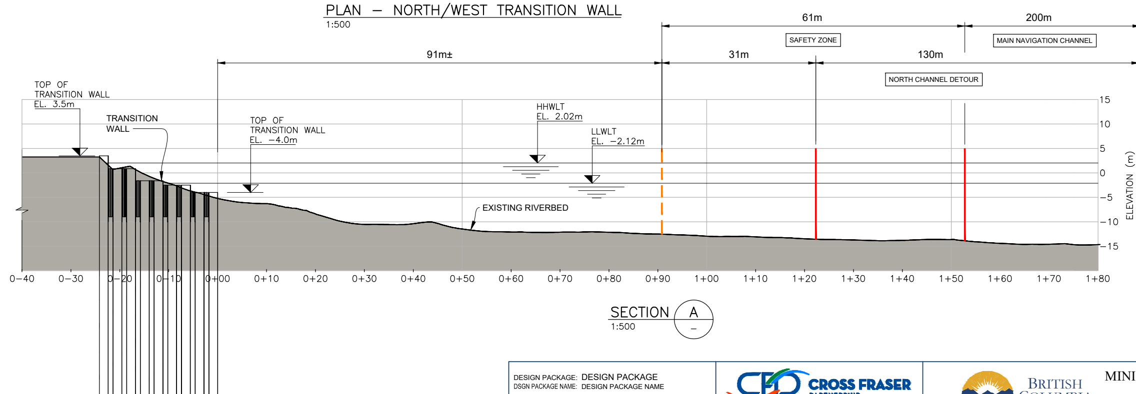


LOCAL TUG AND TOW TRAFFIC DISTRIBUTION CURVE


61m
200m
SAFETY ZONE
MAIN NAVIGATION CHANNEL
91m±
31m
130m
NORTH CHANNEL DETOUR
TOP OF
TRANSITION WALL
EL. 3.5m
TRANSITION
WALL
TOP OF
TRANSITION WALL
EL. –4.0m
HHWLT
EL. 2.02m
LLWLT
EL. –2.12m
EXISTING RIVERBED
15
10
5
0
–5
–10
–15
ELEVATION (m)
0–40
0–30
0–20
0–10
0+00
0+10
0+20
0+30
0+40
0+50
0+60
0+70
0+80
0+90
1+00
1+10
1+20
1+30
1+40
1+50
1+60
1+70
1+80

SECTION A
1:500

LEGEND:

(red line)	MAIN NAVIGATION CHANNEL
(orange dashed line)	CHANNEL SAFETY ZONE
(purple fill)	MAIN NAVIGATION CHANNEL
(grey fill)	ADMINISTRATIVE SAFETY ZONE
(purple line)	HHWL BUFFER
(green line)	HHWLT
(blue line)	LLWLT

m 0 5 10 15 20 25 m
1:500

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FRASER RIVER TUNNEL PROJECT
DISCIPLINE
INRIVER COMBIWALL
PLAN - NORTH/WEST TRANSITION WALL

HORIZONTAL DATUM
NAD83(CSRS) 4.0.0.BC.1.MVRD
VERTICAL DATUM
CGVD28GVRD2018

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REVIEWED DATE
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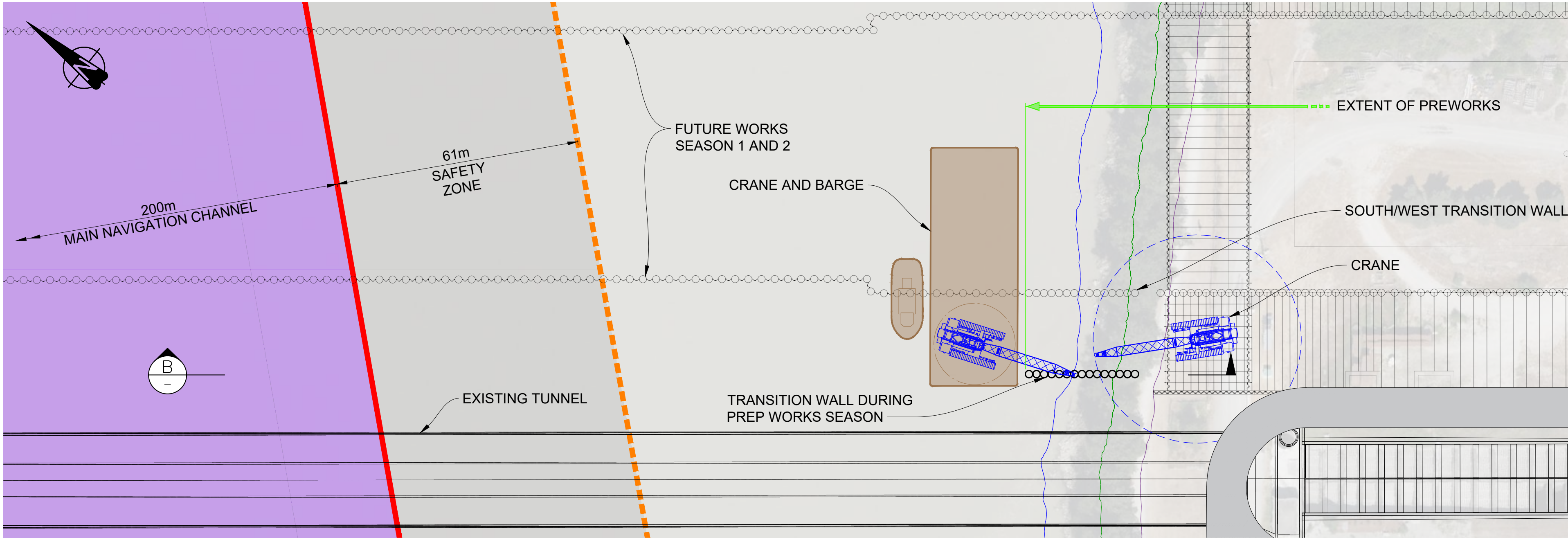

PLAN – SOUTH/WEST TRANSITION WALL
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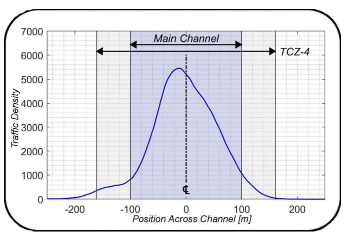

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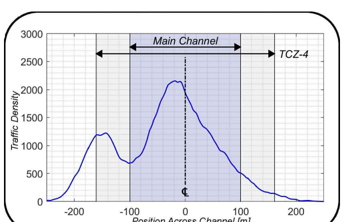

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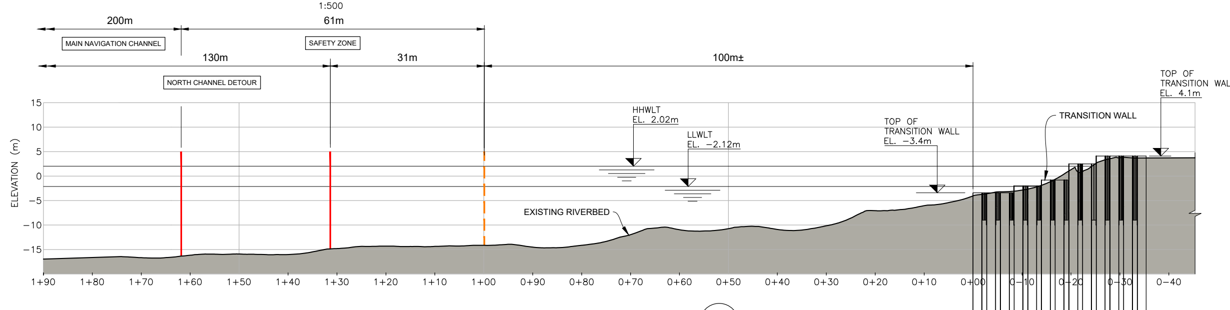

SECTION B
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LEGEND:

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(orange dashed line)	CHANNEL SAFETY ZONE	(green line)	HHWLT
(purple fill)	MAIN NAVIGATION CHANNEL	(blue line)	LLWLT
(grey fill)	ADMINISTRATIVE SAFETY ZONE		

m 0 5 10 15 20 25 m
1:500

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FRASER RIVER TUNNEL PROJECT
DISCIPLINE
INRIVER COMBIWALL
PLAN - SOUTH/WEST TRANSITION WALL

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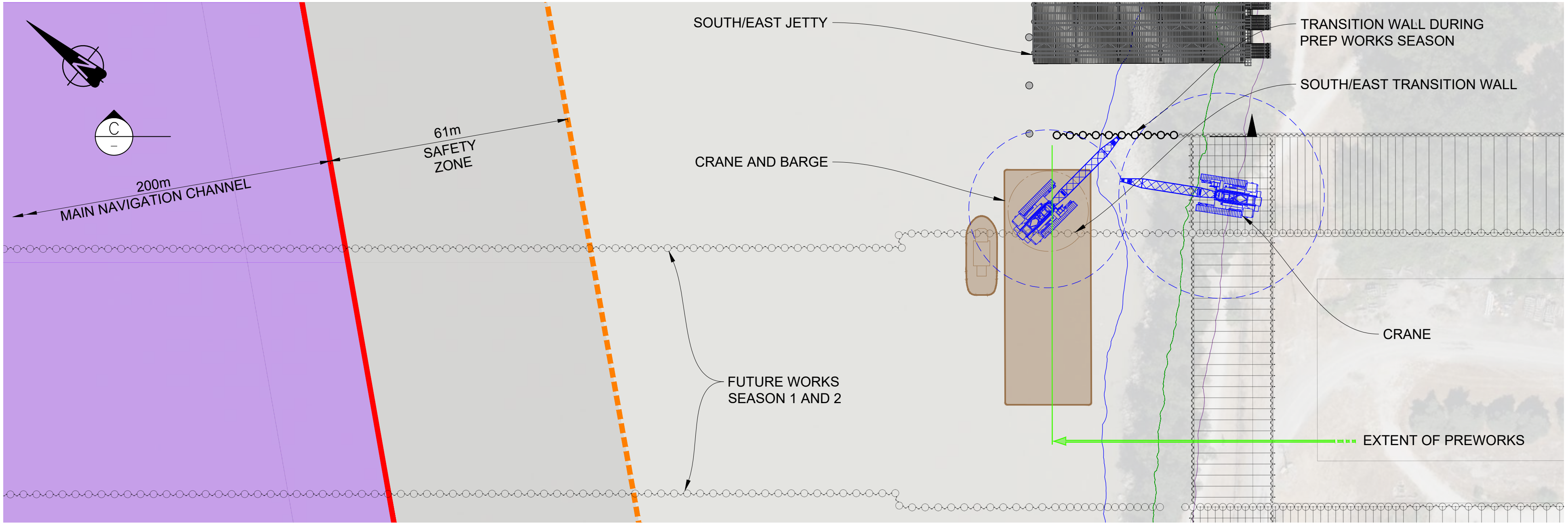

PLAN – SOUTH/EAST TRANSITION WALL
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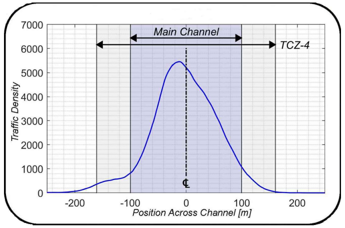

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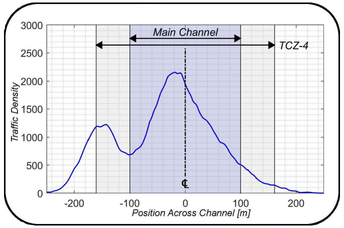
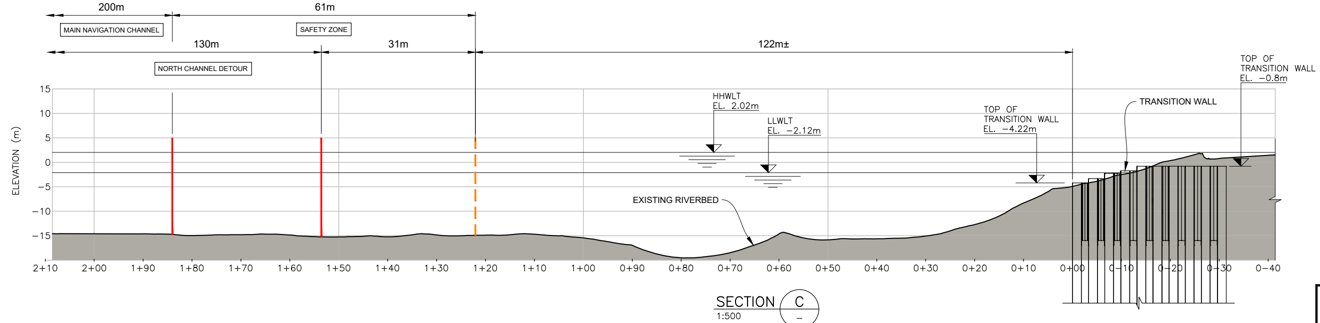


LOCAL TUG AND TOW TRAFFIC DISTRIBUTION CURVE


200m
61m
MAIN NAVIGATION CHANNEL
SAFETY ZONE
130m
31m
122m±
NORTH CHANNEL DETOUR
ELEVATION (m)
HHWLT
EL. 2.02m
LLWLT
EL. −2.12m
TOP OF
TRANSITION WALL
EL. −4.22m
TRANSITION WALL
TOP OF
TRANSITION WALL
EL. −0.8m
EXISTING RIVERBED
15
10
5
0
−5
−10
−15
2+10
2+00
1+90
1+80
1+70
1+60
1+50
1+40
1+30
1+20
1+10
1+00
0+90
0+80
0+70
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0+40
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0+20
0+10
0+00
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0−20
0−30
0−40

SECTION C
1:500

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- CHANNEL SAFETY ZONE (orange dashed line)
- MAIN NAVIGATION CHANNEL (purple area)
- ADMINISTRATIVE SAFETY ZONE (grey area)
- HHWL BUFFER
- HHWLT
- LLWLT

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DESIGN STAGE: DESIGN STAGE 1

SCALE

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A.01	YYYY/MM/DD	ISSUED FOR REPORT	R. MULLER

REVISION IN PROGRESS

BRITISH COLUMBIA
MINISTRY OF TRANSPORTATION AND TRANSIT
SOUTH COAST REGION
HIGHWAY ENGINEERING AND GEOMATICS

EGBC PERMIT TO PRACTICE

ENGINEER OF RECORD
DATE:

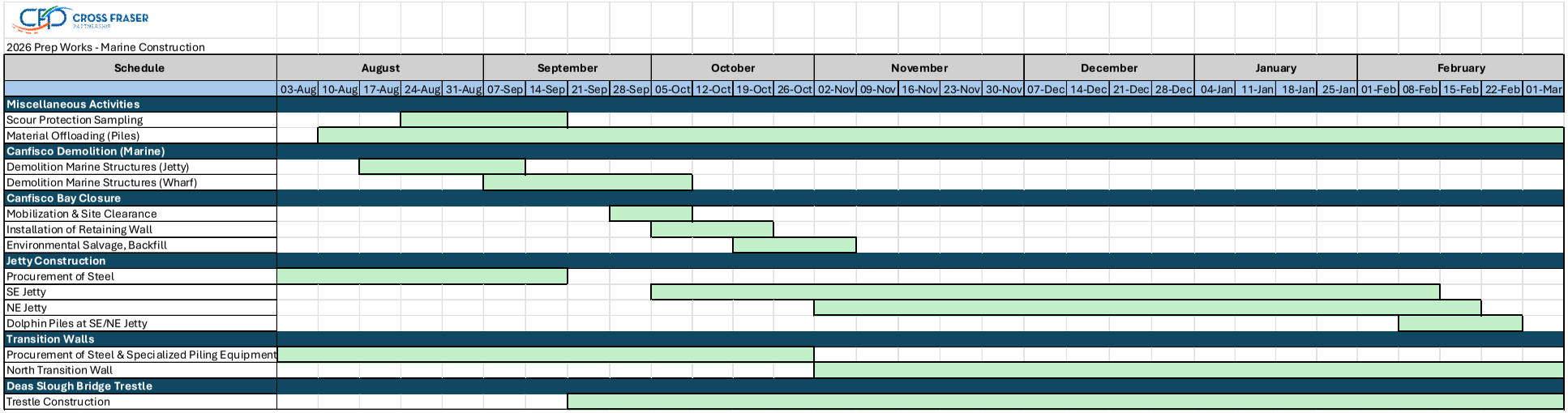
FRASER RIVER TUNNEL PROJECT
DISCIPLINE
INRIVER COMBIWALL
PLAN - SOUTH/EAST TRANSITION WALL

HORIZONTAL DATUM
NAD83(CSRS) 4.0.0.BC.1.MVRD
VERTICAL DATUM
CGVD28GVRD2018

DESIGNED R. TYSON DATE
CHECKED DATE
REVIEWED DATE
APPROVED DATE
DRAWN R. MULLER DATE

PROJECT NUMBER	DRAWING NUMBER	SUITABILITY	REV
08602	FRTP-TYP-CNT-50-MTM-DPK-00006	S1	A.01

Table 1 Preparatory Works Schedule



3. Marine Construction Staging Plan and Marine Communication Plan

3.1 Marine Construction Staging Plan

The Marine Construction Staging Plan (MCSP) outlines proposed construction of the Transition Walls illustrating the extent of land-based construction that limits potential interference to navigation, and those that are water based.

For those activities that require marine construction staging equipment all work equipment will be sited outside of the main navigation channel and the administrative safety zones.

It is noted that a Construction Staging Area (CSA) is identified to ensure separation from any in water construction works and continued marine navigation separating the construction staging areas and marine transit activity.

Construction staging for the Transition Walls is graphically illustrated in the following exhibits Exhibit 6 - Exhibit 12).

3.1.1 Duration of Activities

The estimated duration of the Transition Walls is from November 2026 to February 2027 (Table1). Note the schedule is subject to change. Any changes will be noted in the Monthly Marine User Group meetings.

3.1.2 Hours of Operation

24/7 operations will be required for the proposed Preparatory Works.

3.1.3 Methods of Preferred Communication with Marine Users

See Section 3.2 – Marine Communication Plan.

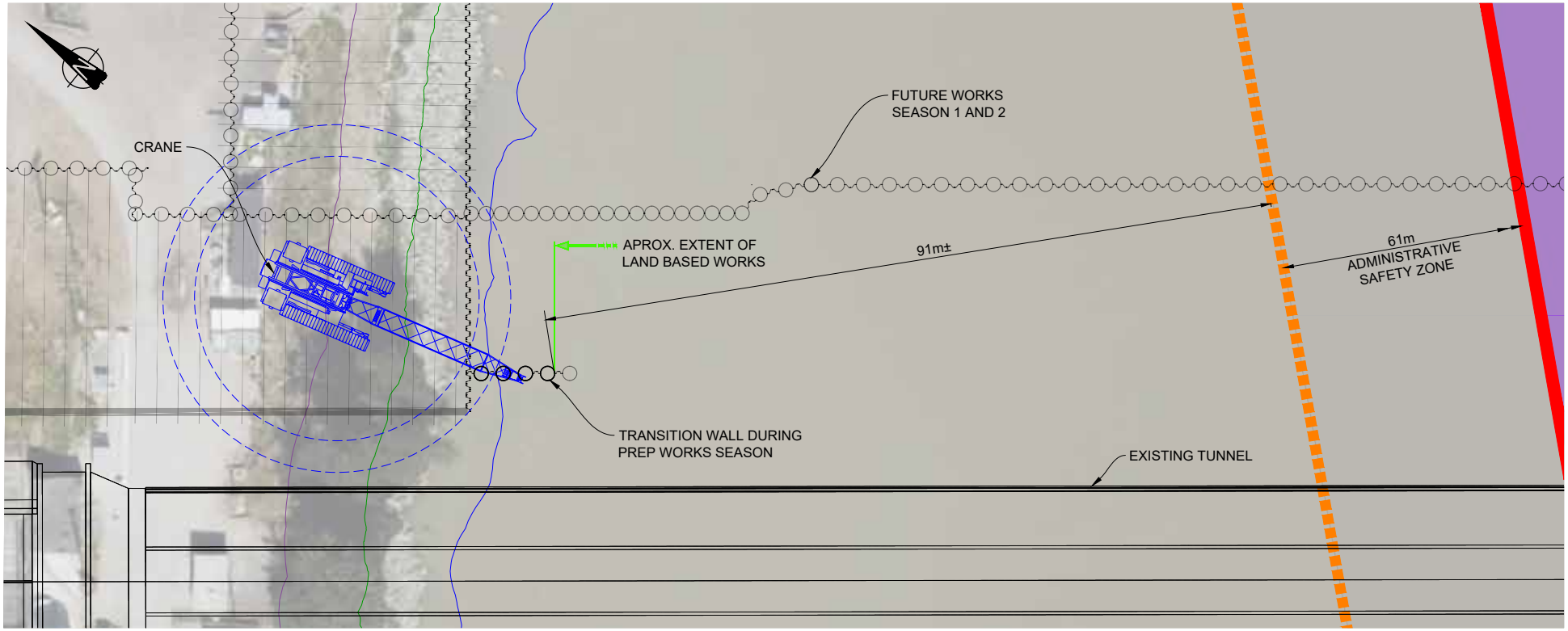
3.2 Draft Marine Communication Plan

3.2.1 Transition Walls Preparatory Works Contact List

Effective and ongoing communications between Cross Fraser Partnership, marine users, and regulators will be the key means to avoid conflicts between the proposed works and to ensure safe and efficient marine navigation. Table 2 below presents an initial list of the key contacts associated with the proposed Transition Walls starting in July 2026.

It is noted that all Preparatory Works will be undertaken by a variety of land-based and marine-based contractors. As the Transition Wall contractor has not been selected those contacts are to be confirmed. During all activities, the contractor informs Cross Fraser Partnership of activities.

Below are the key contacts for Cross Fraser Partnership for all in-water works, the other contacts are regulators, owners, representative's environmental contracts and marine stakeholders and terminal operator contracts.



PLAN – NORTH/WEST TRANSITION WALL
1:250

m 0 5 10 15 m
1:250

LEGEND:

- MAIN NAVIGATION CHANNEL
- CHANNEL SAFETY ZONE
- MAIN NAVIGATION CHANNEL
- ADMINISTRATIVE SAFETY ZONE
- HHWL BUFFER
- HHWLT
- LLWLT

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EGBC PERMIT TO PRACTICE
ENGINEER OF RECORD
DATE:

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NORTH/WEST TRANSITION WALL
CONSTRUCTION STAGING: LAND

HORIZONTAL DATUM: NAD83(CSRS) 4.0.0.BC.1.MVRD
VERTICAL DATUM: CGVD28GVRD2018

DESIGNED R. TYSON DATE
CHECKED DATE
REVIEWED DATE
APPROVED DATE
DRAWN B. SOLES DATE

PROJECT NUMBER: 08602
DRAWING NUMBER: FRTP-TYP-CNT-50-MTM-DPK-00006
SUITABILITY: S1
REV: A.01

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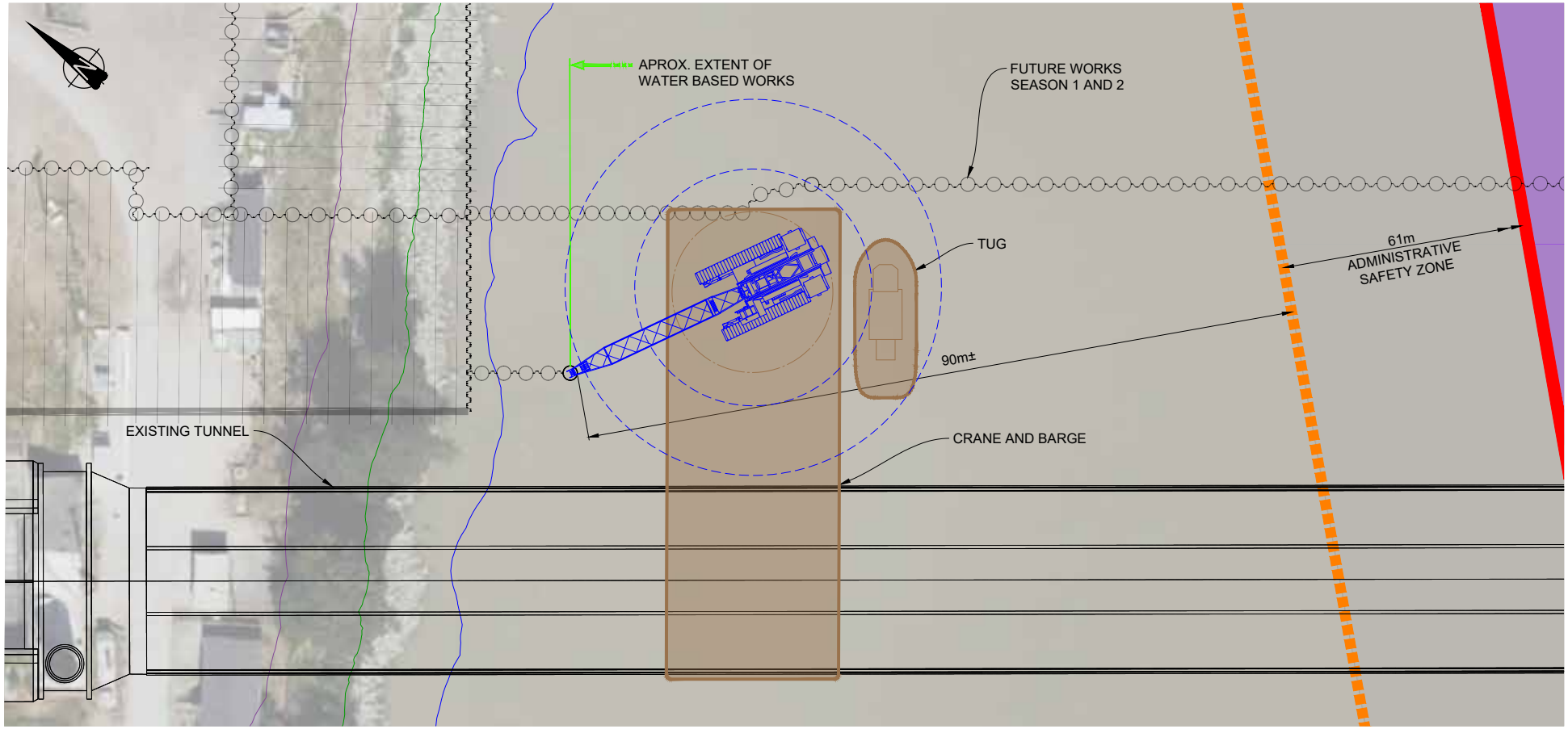

PLAN – NORTH/WEST TRANSITION WALL
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m 0 5 10 15 m
1:250

LEGEND:

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- CHANNEL SAFETY ZONE
- MAIN NAVIGATION CHANNEL
- ADMINISTRATIVE SAFETY ZONE
- HHWL BUFFER
- HHWLT
- LLWLT

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EGBC PERMIT TO PRACTICE
ENGINEER OF RECORD
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FRASER RIVER TUNNEL PROJECT
DISCIPLINE
NORTH/WEST TRANSITION WALL
CONSTRUCTION STAGING: WATER

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VERTICAL DATUM: CGVD28GVRD2018

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CHECKED DATE
REVIEWED DATE
APPROVED DATE
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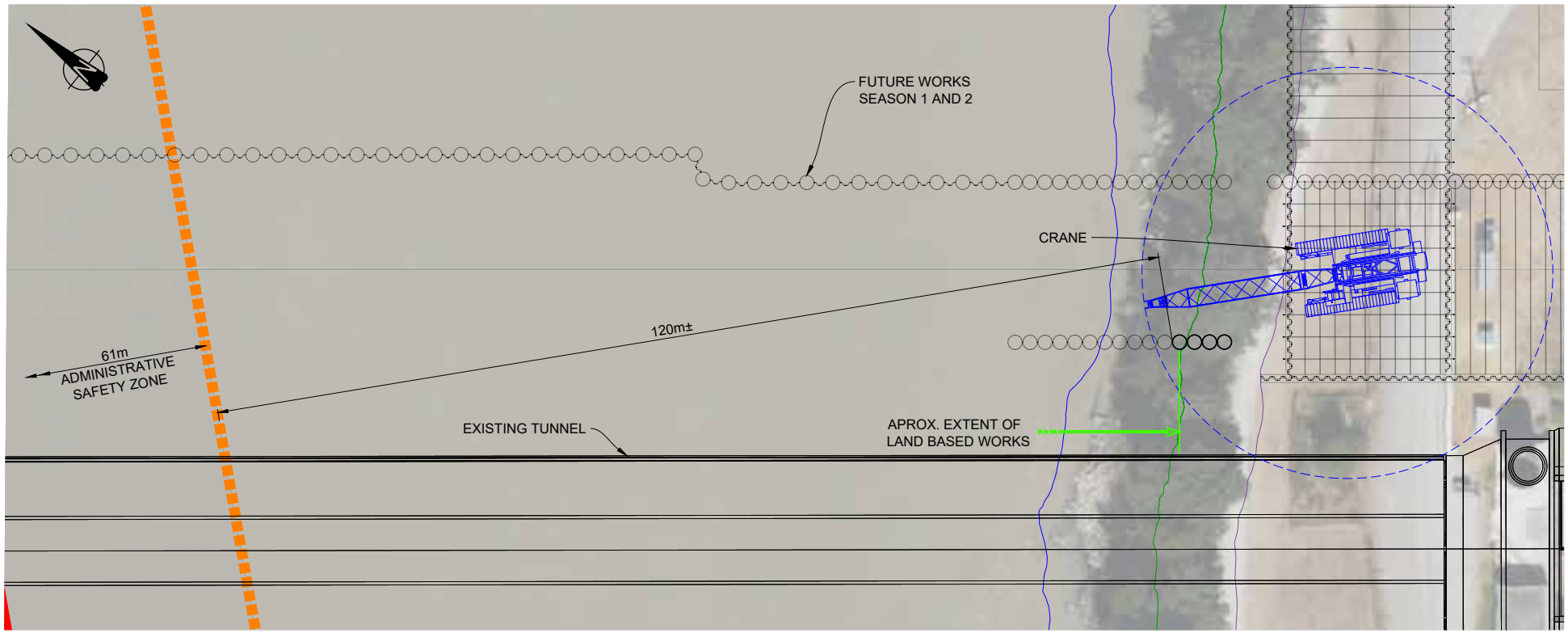

PLAN – SOUTH/WEST TRANSITION WALL
1:250

m 0 5 10 15 m
1:250

LEGEND:

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- CHANNEL SAFETY ZONE
- MAIN NAVIGATION CHANNEL
- ADMINISTRATIVE SAFETY ZONE
- HHWL BUFFER
- HHWLT
- LLWLT

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EGBC PERMIT TO PRACTICE
ENGINEER OF RECORD
DATE:

FRASER RIVER TUNNEL PROJECT DISCIPLINE

SOUTH/WEST TRANSITION WALL
CONSTRUCTION STAGING: LAND

HORIZONTAL DATUM: NAD83(CSRS) 4.0.0.BC.1.MVRD
VERTICAL DATUM: CGVD28GVRD2018

DESIGNED R. TYSON DATE
CHECKED DATE
REVIEWED DATE
APPROVED DATE
DRAWN B. SOLES DATE

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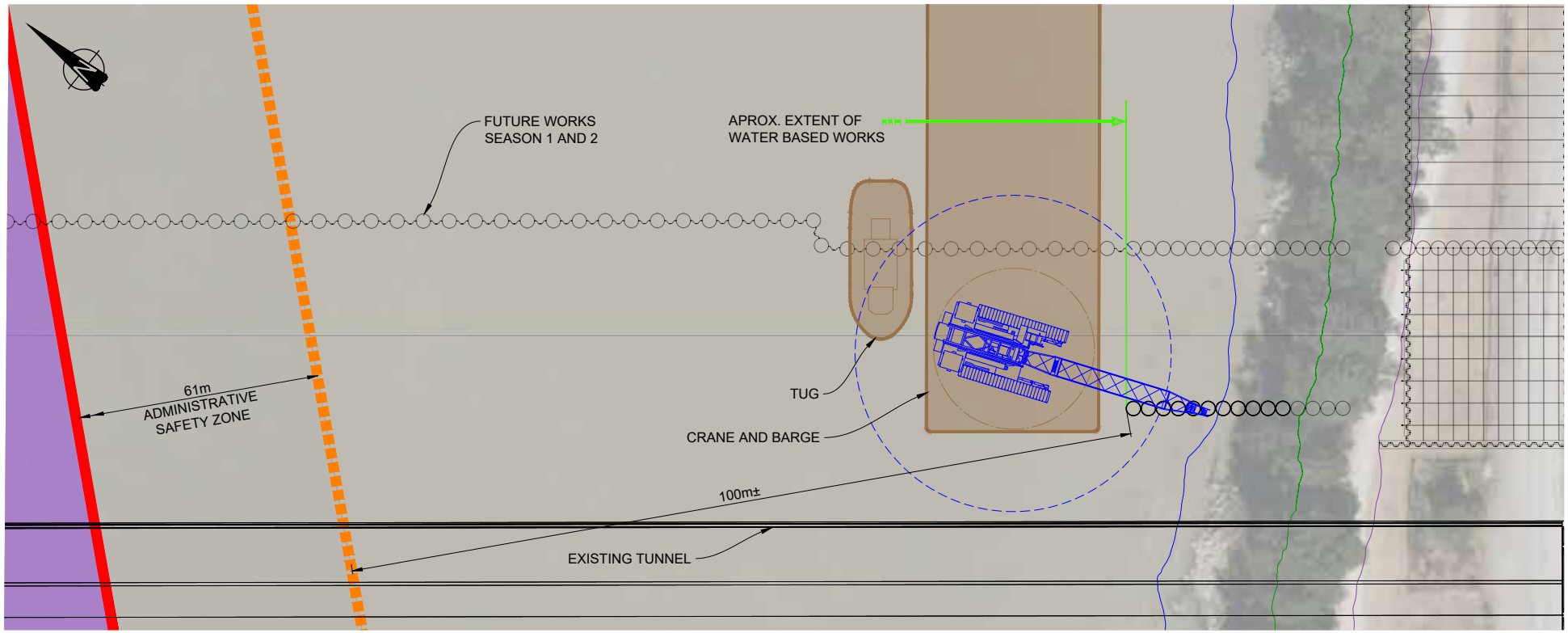

PLAN – SOUTH/WEST TRANSITION WALL
1:250

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1:250

LEGEND:

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- CHANNEL SAFETY ZONE
- MAIN NAVIGATION CHANNEL
- ADMINISTRATIVE SAFETY ZONE
- HHWL BUFFER
- HHWLT
- LLWLT

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HIGHWAY ENGINEERING AND GEOMATICS

EGBC PERMIT TO PRACTICE
ENGINEER OF RECORD
DATE:

FRASER RIVER TUNNEL PROJECT DISCIPLINE

SOUTH/WEST TRANSITION WALL
CONSTRUCTION STAGING: WATER

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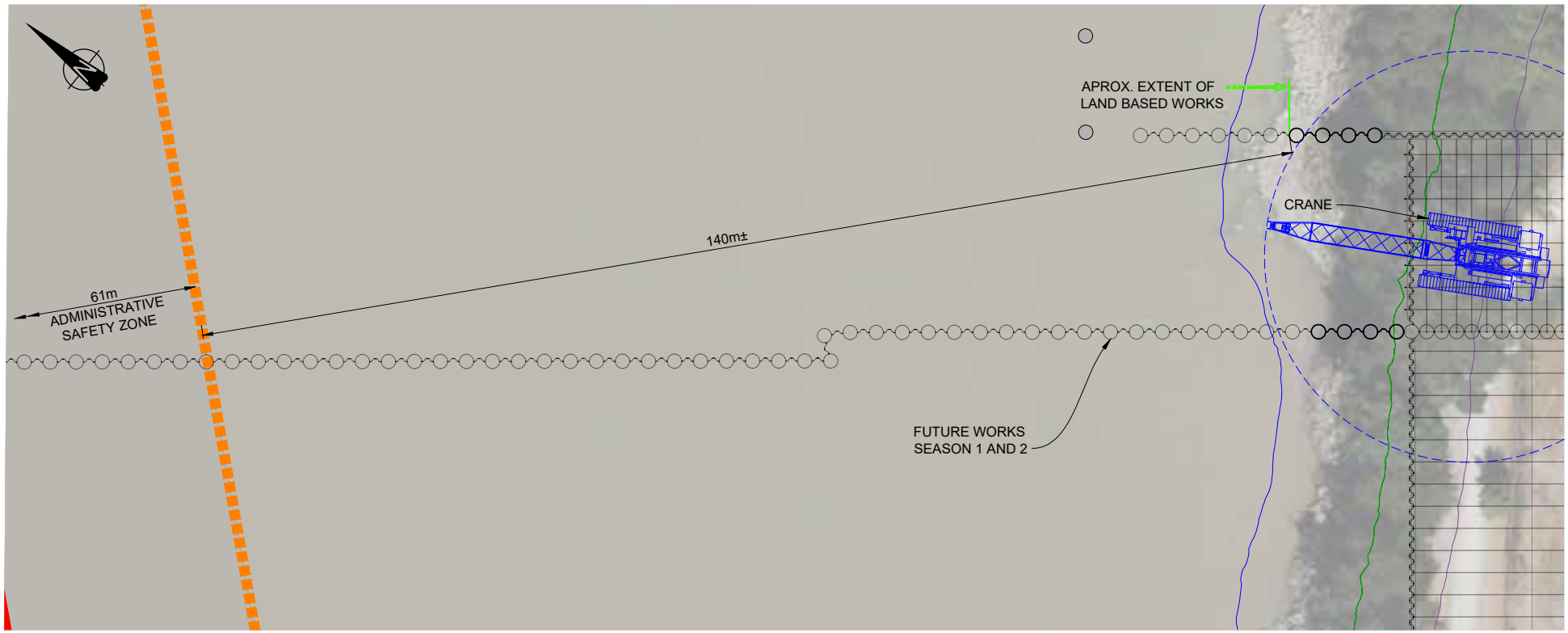

PLAN – SOUTH/EAST TRANSITION WALL
1:250

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1:250

LEGEND:

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- CHANNEL SAFETY ZONE
- MAIN NAVIGATION CHANNEL
- ADMINISTRATIVE SAFETY ZONE
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- LLWLT

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EGBC PERMIT TO PRACTICE
ENGINEER OF RECORD
DATE:

FRASER RIVER TUNNEL PROJECT
DISCIPLINE
SOUTH/EAST TRANSITION WALL
CONSTRUCTION STAGING: LAND

HORIZONTAL DATUM: NAD83(CSRS) 4.0.0.BC.1.MVRD
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REVIEWED DATE
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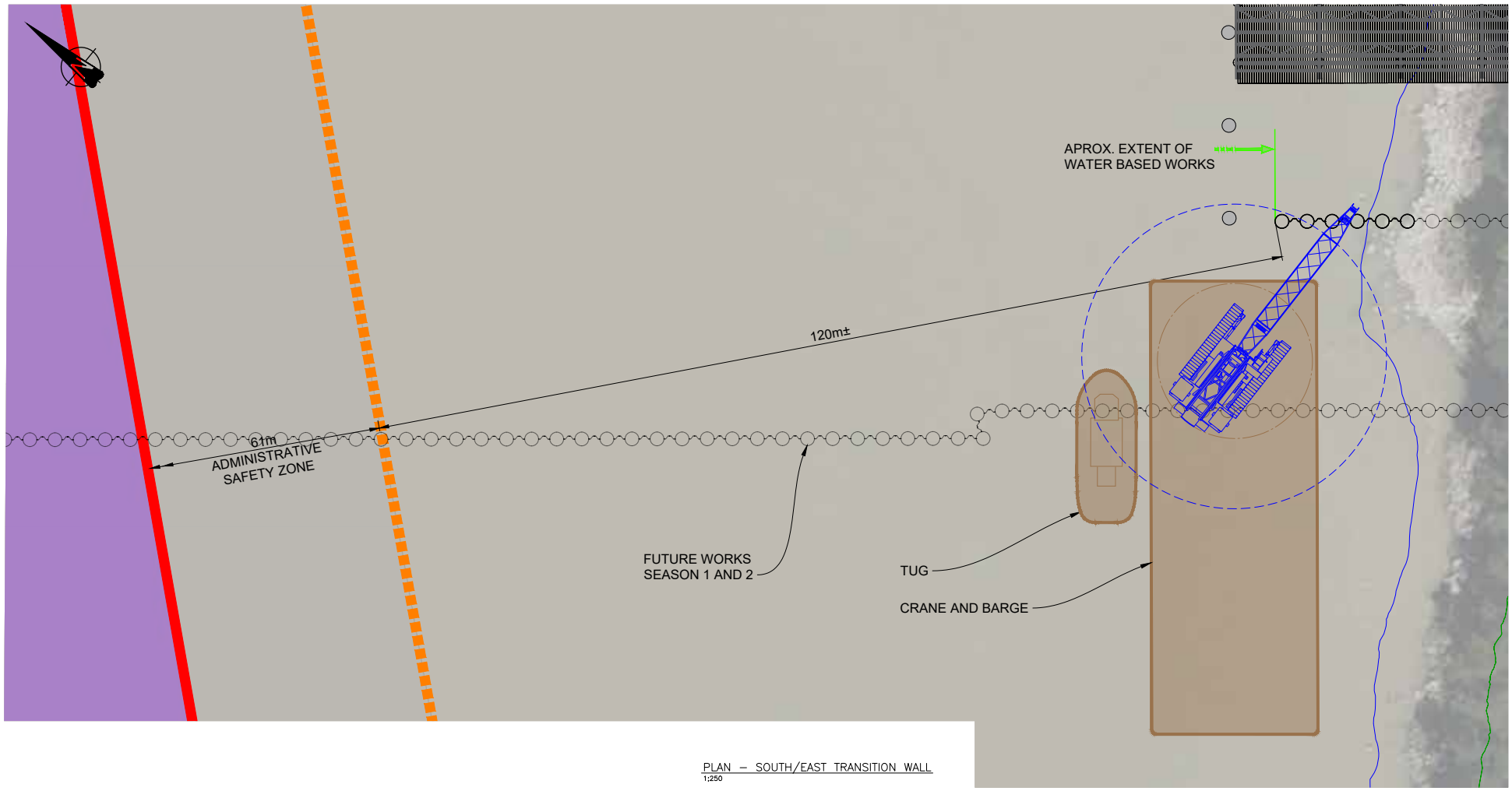

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1:250

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- MAIN NAVIGATION CHANNEL
- ADMINISTRATIVE SAFETY ZONE
- HHWL BUFFER
- HHWLT
- LLWLT

m 0 5 10 15 m
1:250

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EGBC PERMIT TO PRACTICE
ENGINEER OF RECORD
DATE:

FRASER RIVER TUNNEL PROJECT
DISCIPLINE
SOUTH/EAST TRANSITION WALL
CONSTRUCTION STAGING: WATER

HORIZONTAL DATUM NADB3(CSRS) 4.0.0.BC.1.MVRD
VERTICAL DATUM CGVD28GVRD2018

DESIGNED R. TYSON DATE
CHECKED DATE
REVIEWED DATE
APPROVED DATE
DRAWN B. SOLES DATE

PROJECT NUMBER 08602
DRAWING NUMBER FRTP-TYP-CNT-50-MTM-DPK-00006
SUITABILITY S1
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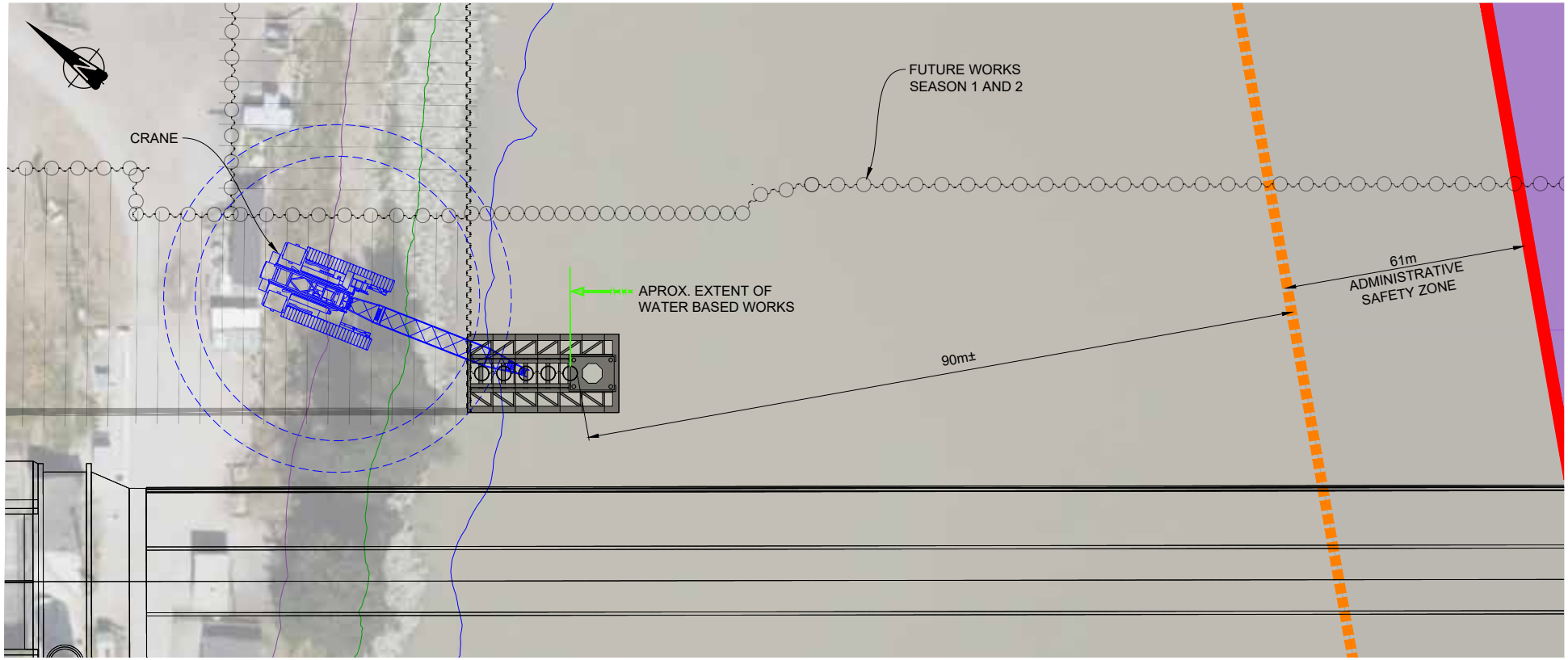

PLAN – NORTH/WEST TRANSITION WALL
1:250

LEGEND:

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- CHANNEL SAFETY ZONE
- MAIN NAVIGATION CHANNEL
- ADMINISTRATIVE SAFETY ZONE
- HHWL BUFFER
- HHWLT
- LLWLT

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HIGHWAY ENGINEERING AND GEOMATICS

EGBC PERMIT TO PRACTICE
ENGINEER OF RECORD
DATE:

FRASER RIVER TUNNEL PROJECT
DISCIPLINE
NORTHWEST TRANSITION WALL
CONSTRUCTION STAGING: WATER
TYPE B - BACK WALL

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CHECKED DATE
REVIEWED DATE
APPROVED DATE
DRAWN B. SOLES DATE

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Table 2 Detailed Contacts List

Stakeholder	Key Contact	Office	Mobile	Email
Vancouver Fraser Port Authority	Dave Hart	604 461 6664	604 219 9421	dave.hart@portvancouver.com
	Nathan Smith	604 665 9246	N/A	nathan.smith@portvancouver.com
Navigation Protection Program	Roberta Dight	604 775 8867	N/A	roberta.dight@tc.gc.ca
Contractor TBC	TBD	TBD	TBD	TBD
Fraser River Pilots	David Marjoribanks	N/A	604 815 3338	RiverPilot36@yahoo.com
	Gordon Cooper	N/A	778 908 5445	
Marine Communications and Traffic Systems	Lee Fraser	250 363 6333	TBD	DFO.CCGWestMCTSVictoria-VictoriaSCTMOuestGCC.MPO@dfo-mpo.gc.ca
Transportation Investment Corporation	Katie Rigter	(236) 468-1118	(236) 468-1118	katie.rigter@ticorp.ca
Transportation Investment Corporation Indigenous Relations	TI Corp Indigenous Relations	N/A	N/A	FRTPReferrals@ticorp.ca
Cross Fraser Partnership Project Contact	Antoine Audoynaud	N/A	514 821 7135	antoine.audoynaud@frtp.ca
Cross Fraser Partnership Marine Operations	Lee Carson	N/A	604 626 9073	lee.carson@frtp.ca
Cross Fraser Partnership	Norma Powell	N/A	604 780 2706	norma.powell@frtp.ca
Cross Fraser Partnership	Ocidio Dominguez	N/A	438 282-1306	ocidio.domingues@frtp.ca
	Stuart Kinsley	N/A	672 727-1127	stuart.kinsley@frtp.ca
Cross Fraser Partnership	Lee Carson (Project Manager)	N/A	604 626 9073	lee.carson@frtp.ca
Fraser River Industrial Association	Jen Davies	N/A	N/A	Jen@hellojdc.ca
Council of Marine Carriers (CMC)	Paul Hilder	604 687 9678	604 315 1603	PHilder@comc.cc
Marine User Groups	Various	N/A	N/A	N/A

3.2.2 Marine Communication Groups Participation Key Stakeholders

Marine communications with marine stakeholders and terminal operators will be undertaken via the Marine User Group (MUG) and the Marine Operations Technical Group.

The MUG will serve as a forum for the Project to provide updates to marine users regarding ongoing construction activities, review 4-week lookaheads describing upcoming works, and to hear interests and concerns from the marine community. The MUG will ensure the efficient implementation of the Marine Construction Staging Plans (MCSP) and Marine Communications Plans (MCP) to enable safe construction and navigation through the Project

area. Marine User Group meetings, held monthly, will present all marine construction staging activities to mariners in relation to whether an interference to navigation is anticipated because of said works.

The Marine Operations Technical Group is a technical group serving as a forum for the Project to engage in collaborative Project planning with marine stakeholders and consult stakeholders on marine issues to ensure feedback is integrated early in the process. The Marine Operations Technical Group will inform detour design, navigation simulations, and the overall development of the Marine Construction Staging Plans (MCSP) and Marine Communications Plans (MCP). Marine Operations Technical Group meetings are less frequent but are intended to provide marine terminal operators and commercial users with information pertaining to helping manage and address supply chain issues. Marine Operations Technical Group does not apply to the Preparatory Works stage.

Exhibit 13 Marine Communication Groups

3.2.3 Monthly Meetings

The selected contractor will conduct monthly Marine User Group meetings to provide an overview of In-river construction activities and provide a four-week look-ahead of proposed activities.

Relevant four-week look-ahead information affecting First Nation fisheries access or cultural marine activities will also be provided to TI Corp for communication through established Project consultation channels.

3.2.4 Issuance of Navigational Warnings

National Warnings (NAVWARNs)and Notices to Mariners to be issued weekly as per normal practice.

Cross Fraser Partnership will issue National Warnings (NAVWARNs) that contain information for boaters about changes to navigational aids and current marine activities or hazards. Marine Communications and Traffic Services of the Canadian Coast Guard broadcast navigational warnings containing urgent information.

These warnings are posted on the navigational warnings website and remain in effect until cancelled or until covered by a Notice to Mariners (NOTMAR). Marine Communications and Traffic Services broadcast the navigational warnings for seven days on their Continuous Marine Broadcast service.

National Warnings (NAVWARNs) will be issued weekly and 96 hours in advance of the works to Marine Communications and Traffic Services and Canadian Coast Guard. National Warnings (NAVWARNs) will be issued

on an ongoing weekly basis to provide Project updates until completion. Submissions will be made by email to NavWarn.MCTSPrinceRupert@innav.gc.ca, or by phone at (250) 627-3070. The NAVWARN will include:

- The location of the works being conducted
- The dates and times of works
- The calendar date(s) during which the North or South channel will be restricted.
- Instructions to boaters for safe passage
- A statement that an assist tug will be available when equipment located in waterway.
- 24-hour emergency contact information on the NAVWARN
- VHF Channel for the Marine Equipment

National Warnings (NAVWARNs) represent a critical piece within communication protocols. A National Warnings (NAVWARNs) will also be issued separately to the Council of Marine Carriers for circulation to its membership, Seaspan Ferries, and Fraser River Pilots.

NAVWARNs and Notices to Mariners do not replace direct communication with designated First Nation contacts as outlined under Appendix A. Direct consultation with Participating Indigenous Nations will be undertaken by TI Crop. Reference to Section 4.2.9.

CFP will provide TI Corp Indigenous Relations with notices identifying active work areas, navigation restrictions, available routes, material schedule changes, VHF channels and the 24-hour Project contact.

3.2.5 Fraser River Pilots Communication Protocol

The main navigation channel supports transits of deep-sea vessels of which the Fraser River Pilots represent the group navigating such vessels on the Fraser River. The following excerpt from Fraser River Pilots outlines the marine communication process.

5. Cross Fraser Partnership to provide an overview of the “daily” planned positioning of marine construction equipment via email to the Fraser River Pilots Committee at 8 a.m. daily. This would include an overview orthophoto and CAD file of the proposed work area for certain time periods throughout the day.
6. Fraser River Pilots would then relay this to all pilots for reference. If any impactful changes were to occur with this schedule, Cross Fraser Partnership must provide an update once change is known.
7. Pilots to provide a daily schedule of ship movements, but changes are always in play, and it is strongly suggested the contractor check for updates via the Pacific Pilotage Authority website periodically.
8. Marine Communications and Traffic Services to provide positional update information via VHS 74 before sailings or entrance to Sand Heads Based on that information the pilot will then confirm via VHS 74 or a pre-determined working channel with the marine equipment positioning, requirement of slow bells and whether the need for clearing the southern detour when working the southern face of the site is required.
9. Phone contacts for the contractor to be provided for pilots during the In-river Test Program.
10. Pilot Committee Member (TBD) will provide a contact number for the duration of Project. This could be a rotating person/s based on availability.

3.2.6 Need for Tug Assist

For the purpose the construction of the Transition Walls a 1000 hp twin screw tug assist will be made available to marine users upon request.

3.2.7 Lighting

All marine construction staging equipment shall provide lighting in compliance with Marine Communications and Traffic Services of the Canadian Coast Guard.

3.2.8 Automatic Identification System

All work vessels being utilized for marine construction staging associated with the proposed work will be equipped with Automatic Identification System.

3.2.9 Recreational Marine Users

Transportation Investment Corporation of British Columbia and Cross Fraser Partnership are aware that there will be an increase in recreational boat users during summer months. Notifications outlining the Scope of Work will be posted at the following locations:

- Deas Island Regional Park
- Wellington Boat Launch Ladner
- Ferry Road Boat Launch (Captain's Cove)
- River House Marina (Deas Slough)
- Captain's Cove Marina
- Steveston Harbour Authority
- Steveston Fisherman's Wharf
- Steveston Chevron Marine
- Shelter Island Marina and Boatyard
- Ladner Yacht Club
- Rivers Reach Marina
- Canoe Pass Village/Marina Wedel
- Bridges Marina

Only a general notification outlining all Preparatory Works. (Section 1 is required)

3.2.10 Indigenous Groups

Transportation Investment Corporation (TI Corp) and Cross Fraser Partnership (CFP) will engage with Participating Indigenous Nations regarding Preparatory Works that may affect marine navigation, fisheries access or cultural marine activities. Engagement will use established Project communication channels and the First Nation Marine Coordination Protocol in Appendix A.

The protocol provides a two-way communication process for fisheries openings and other First Nation marine activities. The protocol supplements NAVWARNs, Notices to Mariners, Daily Construction Notices, and Marine Communications and Traffic Services broadcasts.

CFP will provide TI Corp with Aids to Navigation as outlined in Section 3.2.12. TI Corp will distribute relevant information to designated Participating Indigenous Nation contacts. Notices will identify, as applicable:

- the location, timing and duration of active work;
- marine construction equipment positioning;
- anticipated navigation restrictions or access changes;
- the available navigation channel or detour;
- the designated working VHF channel and 24-hour Project contact; and

In the event of a DFO-authorized fisheries opening, or a planned cultural marine activity that may overlap with Preparatory Works, a Participating Indigenous Nation may notify TI Corp at FRTPReferrals@ticorp.ca and through

the controlled contact pathway in Appendix A. TI Corp will record the notice, confirm receipt and alert the CFP Project Manager.

In response to a notification, CFP will assess whether the work can be coordinated or adjusted while maintaining worker, mariner and public safety. The assessment will consider fishery or activity timing and location, active work, the four-week look-ahead, the master construction schedule, marine equipment positioning, navigation, environmental conditions, safe-shutdown requirements, regulatory requirements and feasible alternatives.

If determined that work can be coordinated or adjusted while maintaining safety, CFP will identify and implement feasible schedule or operational adjustments and provide the outcome to TI Corp. For requests that cannot be accommodated, TI Corp and CFP will engage the applicable Participating Indigenous Nation(s) to identify a safe and practicable solution. Safety remains the overriding consideration.

TI Corp will communicate the decision, rationale, and agreed measures or alternatives to the Participating Indigenous Nation(s). TI Corp and CFP will document the notice, decision, rationale, communications and measures implemented.

3.2.11 Radio Communications

VFPA Harbour Masters uses Channel 74 VHF to provide information on marine traffic using TCZ-4. Marine users should monitor this channel when transiting the works.

Radio communications will be listed in the MCP, which reflects the requirement of the port information guide, specifically TCZ-4, which includes Channel 16.

3.2.12 Aids to Navigation

No changes to existing Aids to Navigation are proposed for the Transition Walls.

For the duration of the proposed Transition Walls and Preparatory Works, Transportation Investment Corporation and Cross Fraser Partnership will continue engagement with communication groups including:

- Weekly issuance of National Warnings (NAVWARNs)
- Daily issuance of construction notices
- Monthly meetings with communication groups
- Notices to Participating Indigenous Nations

4. Next Steps

4.1 Finalizing Marine Construction Staging Plan and Marine Communication Plan

The draft Marine Construction Staging Plan and Marine Communication Plan in this document will be distributed to the following groups for comment and review:

- Transport Canada, Navigation Protection Program
- Vancouver Fraser Port Authority
- Canada Coast Guard Aids to Navigation
- Fraser River Pilots
- Pacific Pilotage Authority
- Council of Marine Carriers (CMC)
- Seaspan Ferries
- Steveston Harbour Authority
- Participating Indigenous Nations

Comments are required within one week of distribution. Based on the comments provided, the plans will be updated, finalized, and submitted to Navigation Protection Program.

5. References

Government of BC, Executive Council. 2025. “Fraser River Tunnel Project Order, Order in Council.” July. https://projects.eao.gov.bc.ca/api/public/document/687fb2545fd2cb00228cb6e3/download/383-2025.pdf.

PIANC. 2014. *Harbour Approach Channels – Design Guidelines*. No. 121-2014. PIANC.

Appendix A: First Nation Marine Coordination Protocol

1. Purpose and application

This protocol establishes communication, assessment, decision and documentation procedures for DFO-authorized fisheries openings, First Nation cultural marine activities and unexpected marine access issues that may interact with Preparatory Works. It applies to the work described in this Plan and must be read with the applicable staging plan, staging exhibits, four-week look-ahead, NAVWARNs and Daily Construction Notices.

The protocol follows these principles:

- safety is the first consideration;
- communication is timely, direct and two-way;
- short notice does not, by itself, prevent assessment;
- requests are assessed consistently using documented factors;
- TI Corp, the First Nation and CFP collaborate where accommodation is impractical; and
- decisions, rationale, and measures are documented.

2. Fisheries opening and cultural marine activity process

The process begins when a First Nation provides TI Corp with notice of an upcoming fisheries opening or cultural marine activity. The same pathway may be used for an unexpected marine access issue. The amount of detail available may vary, particularly for short-notice fisheries openings.

Exhibit 1 First Nation fisheries and marine activity coordination flow chart

1. FIRST NATION NOTICE
The designated Nation representative alerts TI Corp at FRTPReferrals@ticorp.ca and through the controlled contact pathway. The notice should include timing, duration, location, access needs and follow-up contact information.

▼

2. TI CORP RECEIPT AND REFERRAL
TI Corp records the notice, confirms receipt and alerts the CFP Project Manager. TI Corp identifies whether the matter is time-sensitive and remains the primary liaison with the alerting First Nation.

▼

3. CFP OPERATIONAL ASSESSMENT
CFP reviews fishery or activity timing and location, active construction or demolition activities, the four-week look-ahead, the master construction schedule, equipment positioning, navigation, environmental conditions, regulatory requirements and safety or operational constraints.

▼

4. ACCOMMODATION PATHWAY DECISION
CFP determines whether the request is easy or straightforward to accommodate or impractical to accommodate. Safety remains the overriding consideration.

▼

5A. EASY OR STRAIGHTFORWARD TO ACCOMMODATE
CFP identifies feasible schedule or operational adjustments, confirms implementation responsibilities

5B. IMPRACTICABLE TO ACCOMMODATE
CFP explains the constraint. TI Corp coordinates discussion with the First Nation and CFP to collaboratively identify a safe and practicable solution, time permitting. CFP documents constraints

and communicates the proposed measures to TI Corp.

and escalates the matter to the approval authority as required.

▼ ▼

6. MITIGATION OR COORDINATION MEASURES CONFIRMED
Measures may include schedule or sequencing changes, temporary marine operational adjustments, a safe work pause, , , enhanced VHF coordination or an alternative route or time. A request requiring a material schedule change, work pause or Project commitment is referred to the designated approval authority.

▼

7. OUTCOME COMMUNICATED AND IMPLEMENTED
CFP implements approved measures and provides operational details to TI Corp. TI Corp communicates the decision, rationale, measures or alternatives, and conditions to the First Nation.

▼

8. DAILY NOTICE AND ON-WATER COORDINATION
CFP issues or updates the Daily Construction Notice and applicable NAVWARN information identifying active work areas, available navigation routes, VHF channels and contacts. Participants coordinate directly as needed.

▼

9. CLOSE-OUT AND CONTINUOUS IMPROVEMENT
TI Corp and CFP document the notice, rationale, decision, communications, and implemented measures. TI Corp and CFP confirm whether the measures were effective.

3. Assessment factors

CFP will consider the following factors and document those relevant to the decision:

- timing, duration and location of the fisheries opening or cultural marine activity;
- nature, location, duration and interruptibility of the active work;
- worker, mariner and public safety;
- marine equipment positioning, access limits and safe-shutdown requirements;
- navigation channel or detour availability and expected vessel traffic;
- four-week look-ahead and master construction schedule;
- weather, tide, current, visibility and other environmental conditions;
- regulatory, permit and environmental requirements;
- lead time, technical feasibility, cost and effort; and
- practicable alternatives that reduce interference with First Nation marine use.

4. Potential measures

Potential measures to accommodate may include:

- adjust work sequencing or timing, where practicable;
- temporarily adjust marine operations or access arrangements;
- pause an activity that can be safely interrupted;
- passage through an existing available navigation channel or detour;
- enhance direct communication between the First Nation marine user and CFP marine operations; and
- identify an alternative route, time or access arrangement.

No measure will be implemented if it creates unacceptable safety, regulatory, environmental or operational risk. Work-specific limitations and tug-assist requirements remain governed by the applicable MCSPMCP.

5. Four-week look-ahead, Daily Construction Notices and radio communications

CFP will provide TI Corp with relevant four-week look-ahead schedules and material updates affecting marine access. Schedule information is provided for planning and may change because of weather, safety, permitting, vessel traffic or construction requirements.

CFP will provide TI Corp with Daily Construction Notices. Notices will identify active work locations and hours, equipment positioning, anticipated restrictions, available navigation routes, the working VHF channel, the 24-hour Project contact and material changes.

The Daily Construction Notice will identify the active work area, and the status of the main navigation channel through the worksite

6. Roles and responsibilities

Role	Responsibility
First Nation designated representative	Provides notices and available access information; receives Project notices and decisions; maintains primary, alternate and after-hours contacts.
TI Corp Indigenous Relations lead	Acts as primary liaison; records notices; activates the urgent-contact pathway; distributes notices; communicates decisions and rationale; maintains the controlled contact list.
CFP Project Manager	Leads the operational assessment; confirms constraints, measures, escalation needs and the implementation lead.
CFP marine operations contact	Confirms field conditions, equipment positioning, available navigation route, working VHF channel and marine traffic instructions.
Project escalation contact	Decides matters requiring a material schedule change, work pause or other Project commitment.

7. Records and controlled contacts

TI Corp will keep and maintain a controlled contact list for each Participating Indigenous Nation. The contact list will identify primary, alternate and after-hours contacts for Participating Indigenous Nations, TI Corp and CFP, including the Project escalation authority. Contact information will be verified before in-water work begins and updated following any notified change.

TI Corp and CFP will record and maintain the date and time of notice, Participating Indigenous Nation representative, activity or opening, location and duration, requested measure, assessment factors, decision, rationale, approval or escalation, communications, agreed measures, contacts, VHF channel and close-out actions.

END OF DOCUMENT