

# IN-RIVER GROUND IMPROVEMENT AND SUPPLEMENTAL TEST DREDGE

Marine Construction Staging Plan and Marine Communication Plan FRTP-CFP-PWD-00-ENV-PLN-00004

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### DISCLAIMER

The document uses the term marine and maritime to also include the riverine estuarine conditions of the Fraser River.

<sup>&</sup>lt;sup>1</sup> Updated from original report prepared by Typlan (Russ Tyson) for TI Corp, FRTP-TYPLAN-MRN- PLN-00001 Rev A



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**Supplemental Test Dredge** 

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## **Appendix**

Appendix A



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In River Ground Improvement and Supplemental Test Dredge			

## 1. Summary

The Cross Fraser Partnership (CFP) are proposing a In River Ground Improvement and Supplemental Test Dredge (collectively the In River Ground Improvement) to support the construction of the Fraser River Tunnel Project (FRTP, the Project).

The ground improvement component of the In River Ground Improvement is a critical element for the progressive design-build delivery schedule. The ground improvement component is intended to check the constructability and effectiveness of certain ground improvement methods for the densification of the loose sand materials below the mudline. The in-river ground improvement includes two components to evaluate the performance of densification methods in the Fraser River:

- Ground improvement trials.
- Combi-wall prototype installation

The findings and experiences from the In-river Test Program will be incorporated into the design of and construction methods for the FRTP. The program will significantly help reduce risks to the project schedule and cost.

The supplemental test dredge aims to monitor hydrotechnical parameters, assess siltation in the dredge pocket, and evaluate riverbed stability to determine the requirements for scour protection upstream and downstream. The data will help understand dredging's impact on river dynamics and the salt wedge, as well as calibrate models predicting siltation and river hydraulics. This will guide the engineering design, construction, and immersion methods for the immersed tube tunnel and alignment trench.

The In River Ground Improvement is planned within designated fish windows permitted by the Water Sustainability Act (WSA) and Fisheries and Oceans Canada (DFO).

This Marine Construction Staging Plan (MCSP) and Marine Communication Plan (MCP) (MCSPMCP) has been prepared to facilitate the permitting process associated with the Navigation Protection Program (NPP) of Transport Canada (TC) who approve proposed works in a navigable waterway.

Potential navigation interferences associated with the proposed In River Ground Improvement are spatially identified and mitigation strategies (via the implementation of navigation detours to prevent interferences to navigation) are outlined. The In River Ground Improvement is planned to start during the summer of 2025 into the winter of 2026, respecting the fisheries windows.

Throughout In River Ground Improvement timelines the south navigation channel detour and the modified south navigation detour will be implemented as well as the main navigation channel to maintain safe and efficient marine trade eliminate potential interferences to navigation.



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The south navigation channel detour was successfully implemented during the planning of the FRTP, during the initial 2022 Test Dredge Program and Preliminary Geotechnical Investigations. The recent Geotechnical Investigations in 2024 also implemented the modified south navigation detour to further limit interferences to navigation. That program was also successful.

The navigation detours were developed in compliance with the Permanent International Association of Waterborne Transport Infrastructure Approach Channel Guidelines 2014. The detours were supported by the Navigation Protection Program, with technical support from Vancouver Fraser Port Authority (VFPA).

Section 2 of this plan identifies the various navigation channel detour available to CFP, Section 3 provides a brief Scope of Work, Section 4 outlines the Marine Construction Staging Plan and Section 5 the Marine Communication Protocols.

CFP is proposing additional geotechnical investigations in context to the In river Ground Improvement program which also constitute part of this project. Such investigations will be discussed as part of ongoing marine communication group meetings.

As part of the FRTP, delivery of a separate geotechnical investigation program is being undertaken in Ladner Reach, a side channel of the Fraser River. Those proposed "works" form part of the approved by the Navigation Protection Program (NPP) of Transport Canada (TC) under file number 2025-514701 registry number 12725 and the program has been presented to the marine community for comments.

A separate MCSPMCP has been prepared for those geotechnical investigations. Appendix A of this report provides the MCSPMCP for the Ladner Reach Geotechnical Investigations.

## 2. Marine Navigation and Detours

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

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



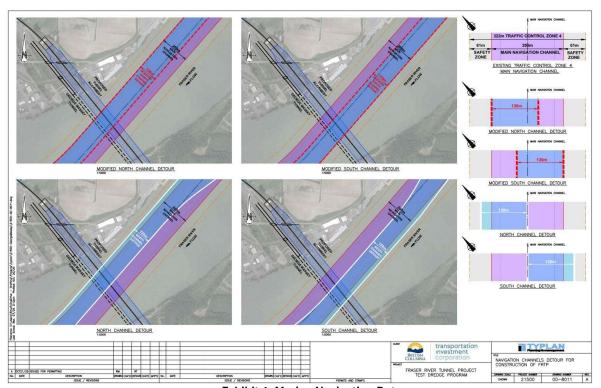
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For the purposes of the In River Ground Improvement only <u>the main navigation channel, the south navigation detour</u> will be implemented as part of the In River Ground Improvement.

The navigation detours are outlined on the following exhibit.



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**Exhibit 1: Marine Navigation Detours** 

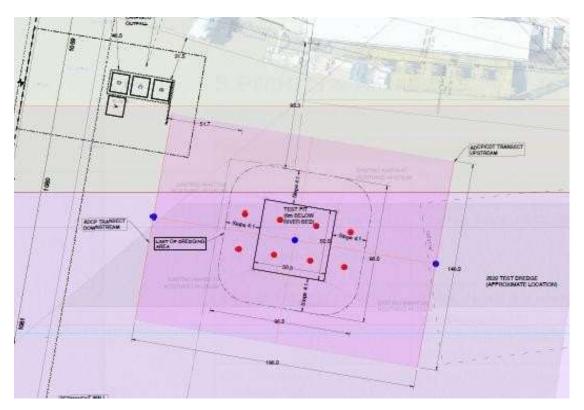
## 3. Scope of Work

### 3.1 Scope of Work

The extents of the In River Ground Improvement are illustrated on Exhibit 2 below. They are immediately north of the existing George Massey Tunnel alignment on the north side of the Fraser River (e.g., Richmond) shoreline.



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**Exhibit 2: In-river Ground Improvement and Supplemental Dredge** 

Source: Cross Fraser Partnership, FRTP-CFP-PWD-01-GSI-DRG-02020

The In River Ground Improvement and Supplemental Dredge has the following components:

- Ground improvement trials. These include vibro-flotation stone column and vibro-compaction methods to densify the sand materials below the mudline.
- Combi-wall prototype installation with placed scour protection
- The supplemental test dredge is illustrated and shaded in pink.

## 3.2 Sequencing and Duration of Works

The sequencing of the In-river Ground Improvement and Supplemental Dredge is based on a three (3) phased approach:

- 1. Supplemental Test Dredge excavation followed by supplemental test dredge monitoring
- 2. In-river Ground Improvements, which may involve removal of existing scour protection, placement of temporary scour protection, and placement of permanent scour protection



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3. Test dredge pocket infill and replacement of scour protection if required

Each phase is illustrated on the exhibits below. The exhibits illustrate the location of the works noting which navigation detour is to be implemented, and the estimated duration of works. A schedule follows the exhibits.

#### Phase 1: Supplemental Test Dredge Excavation

During the test dredge excavation, for most of the time the modified 130m south navigation detour will be implemented to support navigation. The detour facilities continued deep-sea vessel transits with no restrictions to facilitate those transits.

However, the south navigation detour may require implementation during a limited period to complete the construction of the test dredge. During those periods, the contractor will be required to closely observe the marine communication protocols outlined in section 5 with specific reference to contacting Fraser River Pilots (FRP) duty officer, daily and to utilize the FRP vessel bulletin board to ascertain deep-sea vessel transit times, available tidal windows and avoid vessel transit conflicts. The contractor as noted will also determine through the FRP via the RP tidal windows, if vessels have adequate depth to transit.

Phase 2: In River Ground Improvements and Supplemental Test Dredge (Monitoring)

The in-river ground improvement works will occur within the Administrative Safety Zone (ASZ) of Traffic Control Zone-4 (TCZ-4) as outlined in the Port Information Guide, during which time the main navigation channel will be utilized to support all navigation.

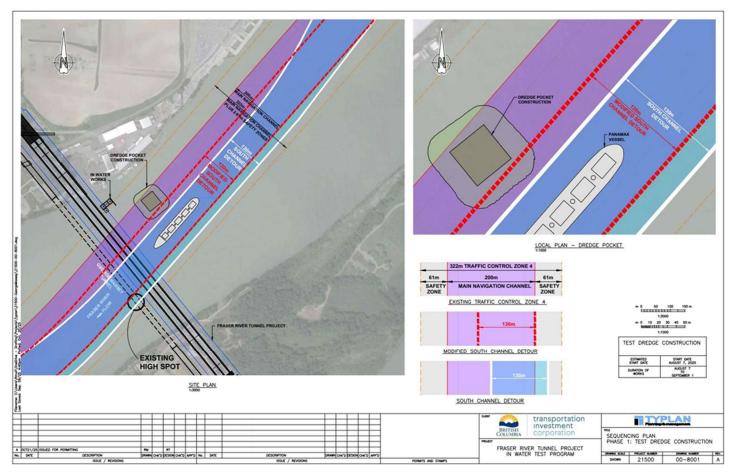
As part of the marine communication requirements TI Corp and CFP will share information and notices to marine users and regulators to avoid conflicts between the proposed activities and marine users. The activities include bathymetry surveys, sedimentation and salinity measurements, and flow velocities measurements.

There are no concerns regarding deep-sea transits however, it noted that if the works require divers being in the water, all divers must be out of the water prior to a deep-sea vessel transit of the site to avoid wake and wave surge effects.



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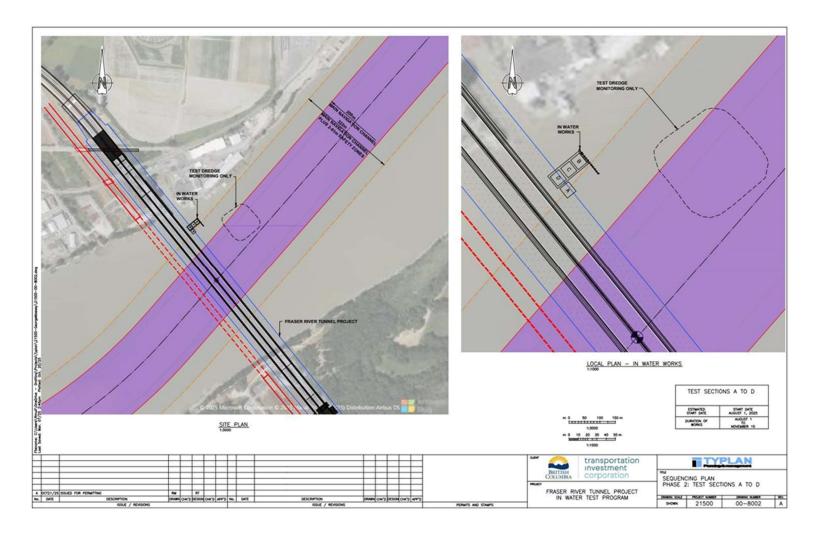
Exhibit 3: In-river Test Ground Improvement Program and Supplemental Dredge Sequencing, Phase 1 Test Dredge Construction





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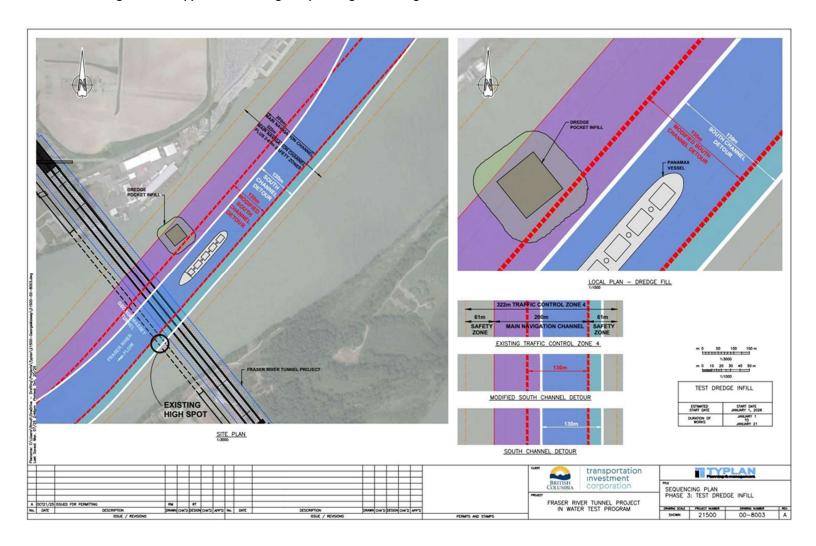
Exhibit 4: In- river Test Ground Improvement Program and Supplemental Dredge Sequencing





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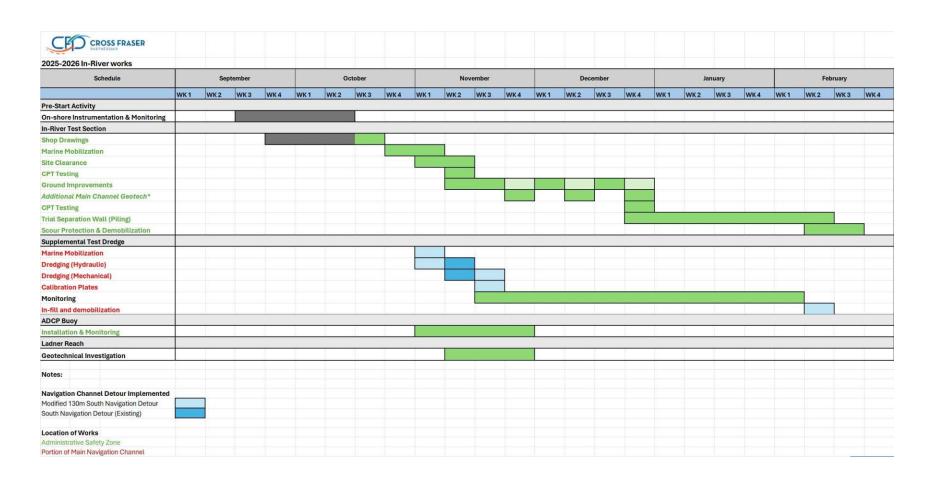
Exhibit 5: In-river Test Program and Supplemental Dredge Sequencing: Test Dredge Infill





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### Exhibit 6: In-river Test and Ground Improvement Program and Supplemental Dredge Schedule





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Phase 3: Supplemental Test Dredge Infill

During infill, the modified south channel detour will be implemented for most of the time. However, to complete the infill there will be limited period in which the south navigation detour is to be implemented to facilitate infill. During those periods contact with the FRP to review vessel transit schedules and available tidal windows will be necessary to facilitate deep sea transits.

All other traffic such as Seaspan Ferries and members of the Council of Marine Carries (CMC) must also adhere to the navigation channel being implemented and communicated via issuance or navigational warnings (NAVWARNs).

## 4. Marine Construction Staging Plan and Marine Communication Plan

### 4.1 Marine Construction Staging Plan

The MCSP outlines proposed In-river marine construction activities, includes the identification of works, the related marine construction staging equipment envisioned to undertake said works, a construction staging area (CSA), in which all marine construction equipment can be sited, and identification of which navigation channel detour will be implemented to facilitate navigation.

### 4.1.1 Construction Staging Areas and Marine Construction Staging Equipment

Construction staging for the In-river Test Program is graphically illustrated in the following exhibits. Staging for the In-river Test Program requires that navigation be maintained.

Exhibits below illustrate the proposed CSAs relative to navigation channel detours. Construction Staging Areas are areas where the In-river Test Program can occur<sup>2</sup>, while navigation is maintained using the navigation channel and detours.

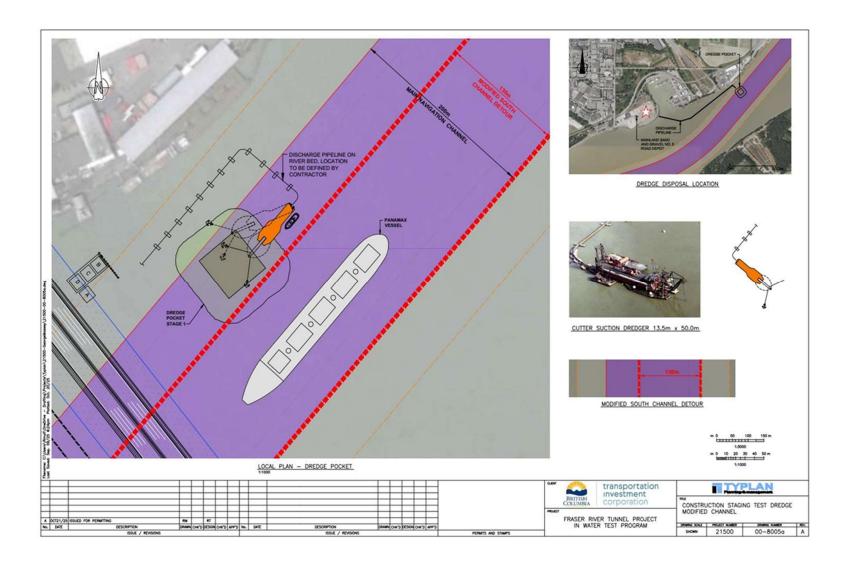
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<sup>&</sup>lt;sup>2</sup> Construction Staging Areas are identified in the Fraser River as those outside of the navigation channel detours being utilized to support continued marine navigation during works (e.g., main navigation channel, south channel detour and the modified south channel detour).



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Exhibit 7: In-river Test Program's Supplemental Test Dredge: Modified South Navigation Channel Detour

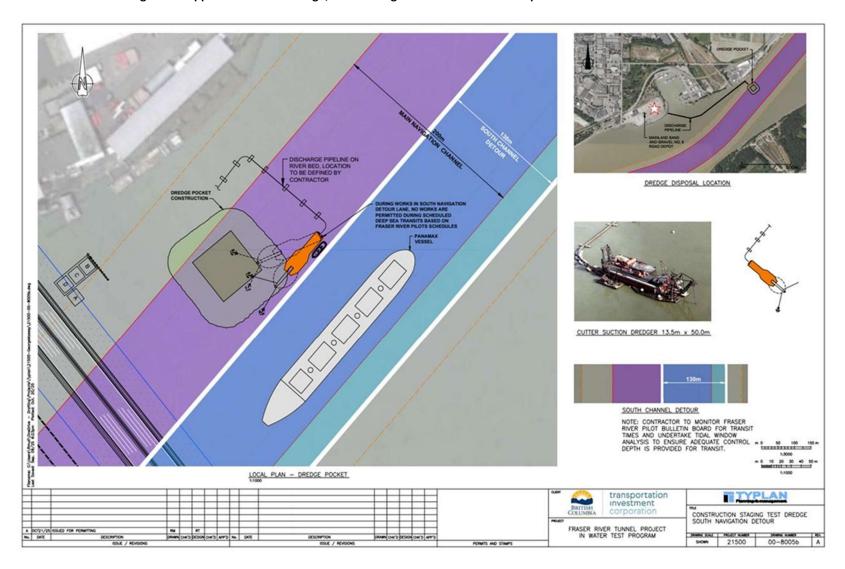




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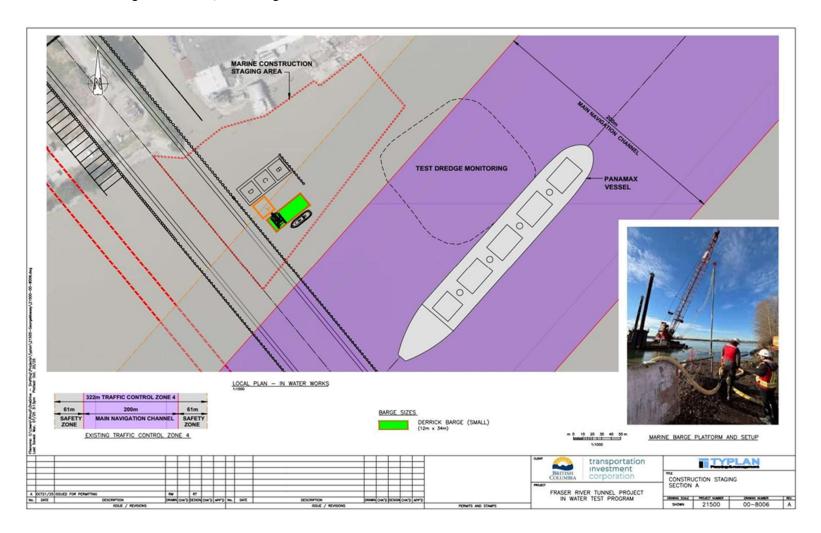
Exhibit 8: In-river Test Program's Supplemental Test Dredge, South Navigation Channel Detour Implementation





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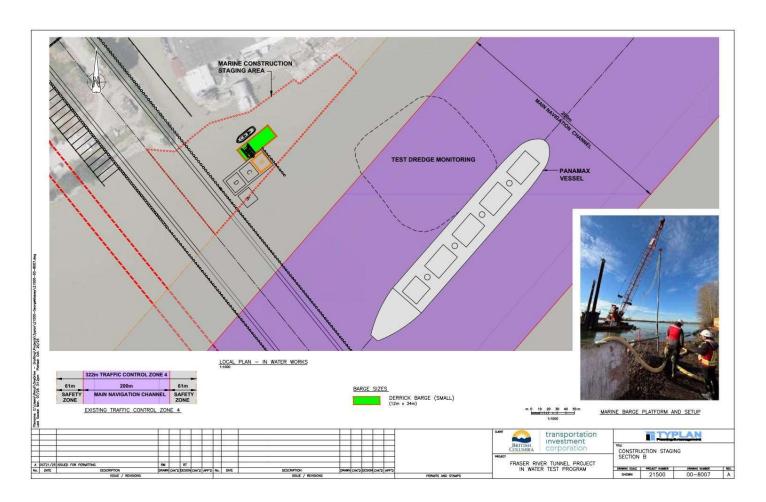
Exhibit 9: In-River Test Program Section A, Main Navigation Channel





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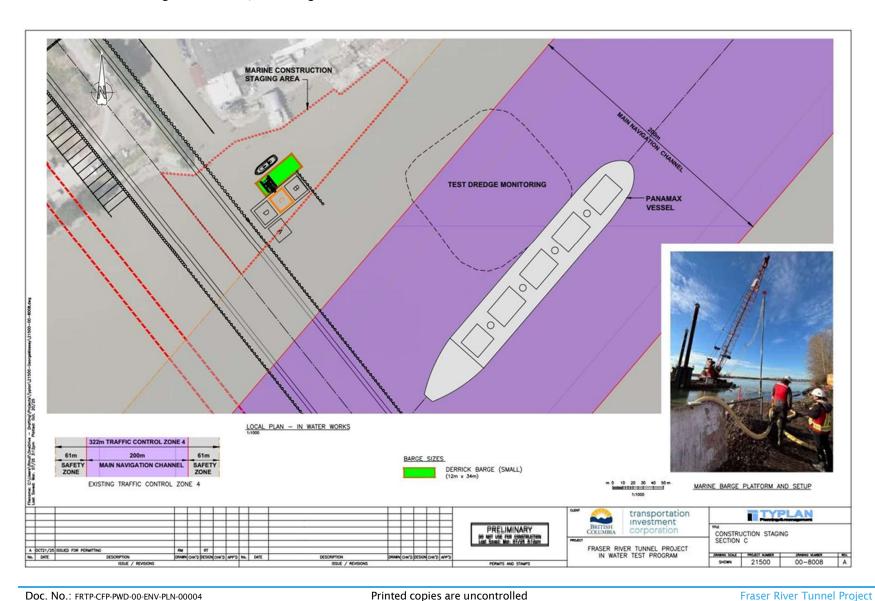
Exhibit 10: In-river Test Program Section B, Main Navigation Channel





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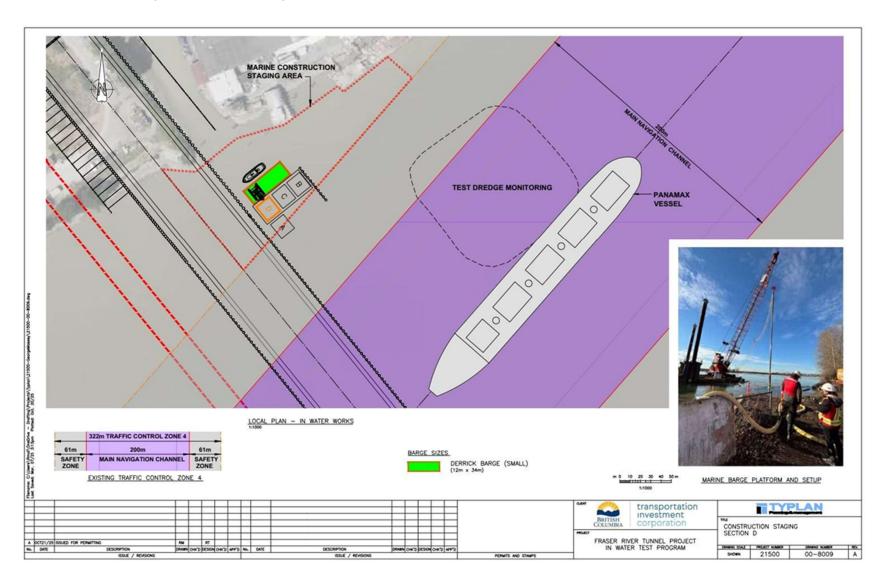
Exhibit 11: In-river Test Program: Section C, Main Navigation Channel





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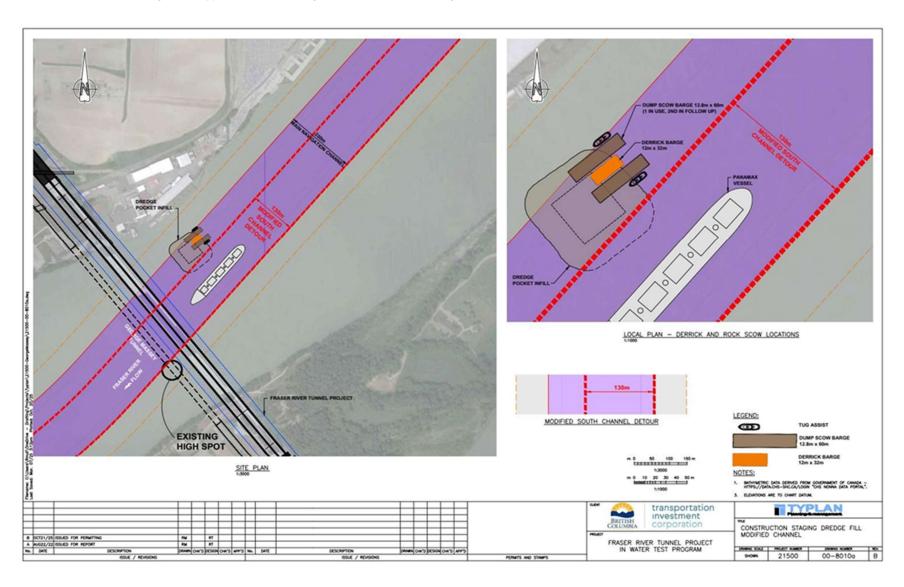
Exhibit 12: In-river Test Program Section D, Main Navigation Channel





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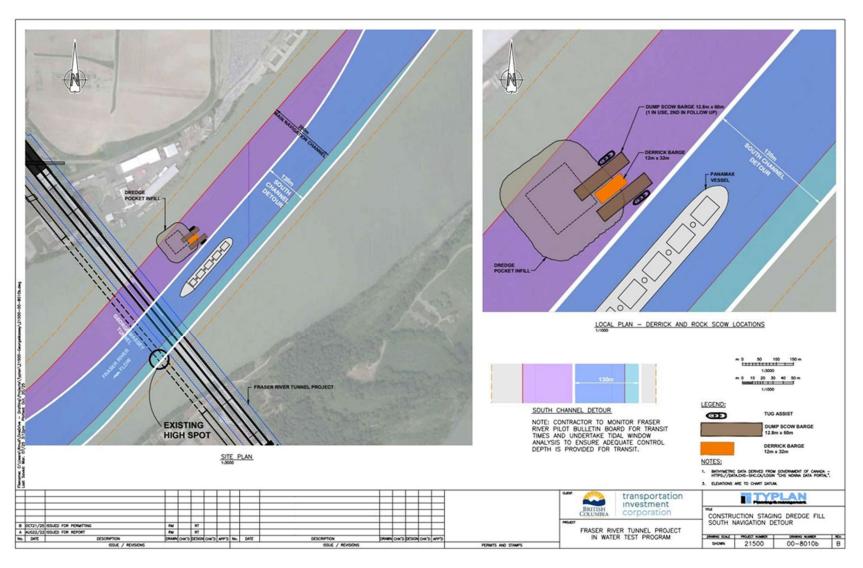
Exhibit 13: In-river Test Program's Supplemental Test Dredge Infill Modified South Navigation Channel Detour





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Exhibit 14: In-river Test Program's Supplemental Dredge Infill, South Navigation Channel Detour





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#### 4.1.2 Duration of Activities

The estimated duration of the In River Ground Improvement and Supplemental Test Dredge is from October 2025 to February 28, 2026

#### 4.1.3 Hours of Operation

24/7 operations will be required for the proposed additional In-river Test Program work.

#### 4.1.4 Methods of Preferred Communication with Marine Users

See Section 4.2 - Marine Communication Plan.

### 4.2 Draft Marine Communication Plan

#### 4.2.1 In-river Test Program Contact List

Effective and ongoing communications between TI Corp, CFP, marine users, and regulators will be the key means to avoid conflicts between the proposed works and ensure safe and efficient marine navigation. Table 1 below presents an initial list of the key contacts associated with the proposed In-River Test Program starting in August 2025.

Table 1: Detailed In-river Test Program Contacts List

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Stakeholder	Key Contact	Phone Number	Mobile	Email
Port Authority	Dave Hart	604 461 6664	604 219 9421	Dave.Hard@portvancouver.com
	Nathan Smith	604 665 9246	N/A	Nathan.Smilth@portvancouver.com
Navigation	Conal Kavanagh	604 775 8867	N/A	Conal.Kavanagh@tc.gc.ca
Protection				
Program				
Fraser River Pile	Sherry Kennedy,	N/A	604 813 5679	skennedy@frpd.com
and Dredge	P.Eng			
Fraser River Pile	Jamie Steele	N/A	604 315 0125	jsteele@frpd.com
and Dredge	Superintendent			
Fraser River Pile and	Jason Ruiz		778 791 9179	jruiz@frpd.com
Dredge	Dredge			
	Superintendent			
Fraser River	David	N/A	604 815 3338	RiverPilot36@yahoo.com
Pilots	Marjoribanks			
	Gordon Cooper		778 908 5445	FRP_Committee@googlegroups.com
Marine	Lee Fraser	250 363 6333	TBD	DFO.CCGWestMCTSVictoria-
Communications				VictoriaSCTMOuestGCC.MPO@df
and Traffic				o- mpo.gc.ca
Systems				



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Stakeholder	Key Contact	Phone Number	Mobile	Email
Transportation Investment	Umar Junaid	236 455 1986	236 455 1986	Umar.Junaid@ticorp.ca
Corporation				
Cross Fraser Partnership	Norma Powell	N/A	604 780 2706	norma.powell@frtp,ca
Cross Fraser	Brian Phillips	N/A	604 819 9808	Brian.phillips@frtp.ca
Partnership	Superintendent			
Cross Fraser	Lee Carson Project	N/A	604 626 9073	Lee.carson@frtp.ca
Partnership	Manager			
Fraser River	Tanya Hayes	604 312 3212	N/A	THayes@pandh.ca
Industrial	Kevin Segal	604 521 6681	N/A	Kevin.Segal@walwil.com
Alliance	Tim Kelburn	778 838 7930	N/A	Tim.Kjellbotn@dpworld.com
	Mike Armstrong	604 928 1237		Riverpilot35@gmail.com
Council of	Paul Hilder	604 687 9678	604 315 1603	PHilder@comc.cc
Marine Carriers				
Marine User	Various			
Groups				

### 4.2.2 Marine Communication Groups Participation Key Stakeholders

Marine communication and technical groups have been formed and will continue to facilitate the exchange of information presentations and NAVWARNS. Exhibit 15 presents proposed communication groups.

Exhibit 15: Communication Groups for the In-river Test Program



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Council of Marine Carriers
Fraser River Pilots
Seaspan Ferries
Navigation Protection Program and VFPA
Recreational Users
Canada Coast Guard: Aids to Navigation/ Marine Communication and Traffic Services

Seaspan Ferries
Fraser River Industrial Alliance
Fraser River Pilots
VFPA and Navigation Protection Program

### 4.2.3 Monthly Meetings

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

#### 4.2.4 Issuance of Navigational Warnings

Navigational warnings (NAVWARNs) and Notices to Mariners to be issued weekly as per normal practice.

CFP will issue NAVWARNs that contain information for boaters about changes to navigational aids and current marine activities or hazards. Marine Communications and Traffic Services (MCTS) of the Canadian Coast Guard (CCG) 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 <u>Notice to Mariners (NOTMAR)</u>. MCTS centres broadcast the navigational warnings for seven days on their Continuous Marine Broadcast service.

NAVWARNs will be issued weekly and 96 hours in advance of the works to MCTS and CCG. NAVWARNs will be issued on an ongoing weekly basis to provide project updates until completion. Submissions will be made by email to <a href="mailto:NavWarn.MCTSPrinceRupert@innav.gc.ca">NavWarn.MCTSPrinceRupert@innav.gc.ca</a>, or by phone at (250) 627-3070. The NAVWARN will include:

- 1. The location of the works being conducted
- 2. The dates and times of works
- 3. The calendar date(s) during which the North or South channel will be restricted.
- 4. Instructions to boaters for safe passage
- 5. A statement that an assist tug will be available when equipment located in waterway.



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### 6. 24-hour emergency contact information on the NAVWARN

Navigational warnings represent a critical piece within communication protocols. A NAVWARN will also be issued separately to the CMC for circulation to its membership, Seaspan Ferries, and Fraser River Pilots (FRP).

#### 4.2.5 Fraser River Pilots Communication Protocols

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

- 1. CFP to provide an overview of the "daily" planned positioning of marine construction equipment via email to the FRP 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.
- 2. FRP would then relay this to all pilots for reference. If any impactful changes were to occur with this schedule, CFP must provide an update once change is known.
- 3. 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.
- 4. MTCS 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.
- 5. Phone contacts for the contractor to be provided for pilots during the In-river Test Program.
- 6. Pilot Committee member (TBD) will provide a contact number for the duration of project. NOTE: This could be a rotating person/s based on availability.

TI Corp and CFP, in accordance with requirements of Fraser River Tunnel Project, will provide marine communication protocols for the In-river Test Program.

#### 4.2.6 Need for Tug Assist

A tug assists of adequate size and power is required to facilitate the safe transiting of commercial marine vessels via the marine CSA, while protecting the In-river construction works. The selected contractor will provide a 1000hp twin screw tug assist vessel.

The vessels' purpose is to support and facilitate transition of marine vessels past the site. If not required to support a transit the tug assist can facilitate activities at the work site.



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At the request of the Fraser River Pilots, a second Azimuth Stern Drive tug or similarly capable assist vessel of adequate size and power (minimum 3000hp) for the de-berthing of vessels from Fraser Wharves at any point when marine construction equipment is sited within the main channel for dredging activities related to the project, within 4.5 hours of said request.

### 4.2.7 Lighting

All marine construction staging equipment shall provide lighting in compliance with MCTS of the CCG.

### 4.2.8 Automatic Identification System

All vessels being utilized for marine construction staging associated with the proposed DGI will be equipped with Automatic Identification System (AIS).

#### 4.2.9 Recreational Marine Users

TI Corp and CFP 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

### 4.2.10 Indigenous Groups

TI Corp and CFP will engage with Indigenous Groups regarding the In-river Test Program.

### 4.2.11 Radio Communications

Port Metro Vancouver 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.



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

#### 4.2.12 Aids to Navigation

No changes to existing Aids to Navigation are proposed for the In-river Test Program.

### 5. Next Steps

### 5.1 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
- Seaspan Ferries
- Steveston Harbour Authority

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

### 5.2 Summary of Communication Schedule

For the duration of the proposed In-river Test Program, TI Corp and CFP will continue engagement with communication groups including:

- Weekly issuance of NAVWARNs
- Daily issuance of construction notices
- Monthly meetings with communication groups
- As-needed meetings with Indigenous Groups



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## 5.3 Appendix

Appendix A - Ladner Reach Geotechnical Investigations



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#### 5.3.1 Background

Crossing Fraser Partnership (CFP) proposes to undertake geotechnical investigations in South Arm of the Fraser River in the Ladner Reach Side Channel, to support the Fraser River Tunnel Project (FRTP) delivery. Specifically, Ladner Reach is being considered as an alternative Immersed Tube Tunnel (ITT) segment storage area. The geotechnical investigations (works") are needed to support the ultimate design if this area is pursued.

The proposed works were presented to marine stakeholders as part of the Marine User Group meeting held on September 15<sup>th</sup>, 2025. The geotechnical investigations will commence November 4<sup>th</sup>, 2025.

This memorandum provides the following:

- an update of the location of the proposed works,
- identification of the types of proposed works,
- · the dates and durations of the proposed works; and,
- the marine construction staging equipment that will be utilized to undertake said works.

Communication protocols are also presented.

#### 5.3.2 Planned Geotechnical Works

The proposed geotechnical investigations will occur in a South Arm of the Fraser River in a Side Channel known as Ladner Reach.

Exhibit 1 below illustrates the relative location of Ladner Reach in relation to the Fraser River and other South Arm Side Channels.

Exhibit 2 that follows illustrates the location of the proposed works within Ladner Reach.1

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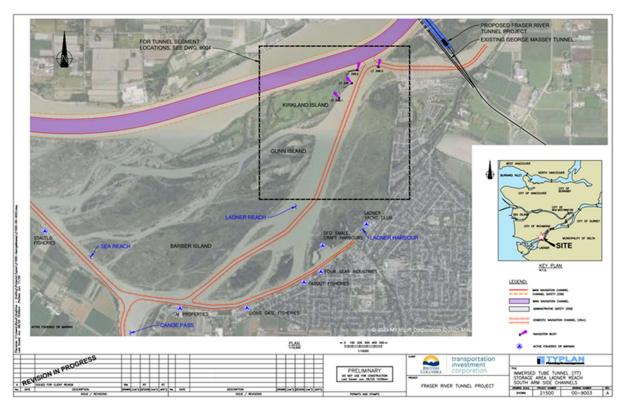
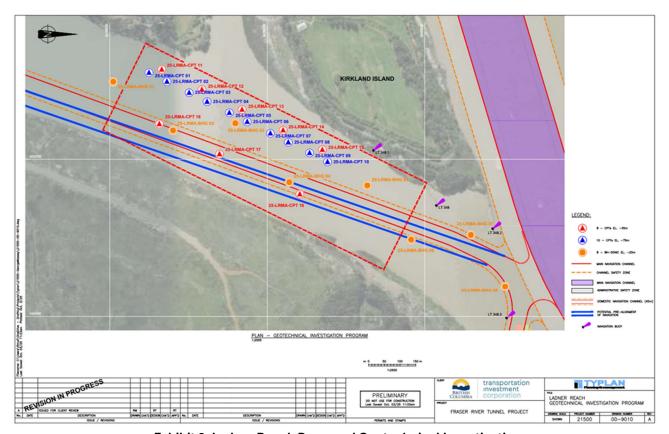


Exhibit 1: Fraser River South Arm Side Channels: Ladner Reach



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**Exhibit 2: Ladner Reach Proposed Geotechnical Investigations** 

### 5.3.3 Geotechnical Investigations in Ladner Reach: Schedule and Duration

The proposed schedule and duration of the geotechnical investigations is presented in the table below. Individual test durations range from 8 hours to 20 hours per location.



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CPT OR BH	DATE	DURATION	ID
25-LRMA-CPT-01	NOV 4, 2025	20 HOURS	
25-LRMA-CPT-02	NOV 5, 2025	20 HOURS	
25-LRMA-CPT-03	NOV 6, 2025	20 HOURS	
25-LRMA-CPT-04	NOV 7, 2025	20 HOURS	
25-LRMA-CPT-05	NOV 7, 2025	20 HOURS	
25-LRMA-CPT-06	NOV 8, 2025	20 HOURS	
25-LRMA-CPT-07	NOV 9, 2025	20 HOURS	
25-LRMA-CPT-08	NOV 10, 2025	20 HOURS	
25-LRMA-CPT-09	NOV 11, 2025	20 HOURS	
25-LRMA-CPT-10	NOV 12, 2025	20 HOURS	
25-LRMA-CPT-11	NOV 12, 2025	8 HOURS	
25-LRMA-CPT-12	NOV 13, 2025	8 HOURS	
25-LRMA-CPT-13	NOV 13, 2025	8 HOURS	
25-LRMA-CPT-14	NOV 13, 2025	8 HOURS	
25-LRMA-CPT-15	NOV 14, 2025	8 HOURS	
25-LRMA-BHG-01	NOV 15, 2025	9 HOURS	
25-LRMA-BHG-03	NOV 16, 2025	9 HOURS	
25-LRMA-BHG-05	NOV 17, 2025	9 HOURS	_

Most geotechnical investigations will not affect navigation, and the domestic navigation channel can be maintained.

Those geotechnical investigations are illustrated on Exhibit 3. Commercial and recreation vessels are to navigate within the existing domestic channel.



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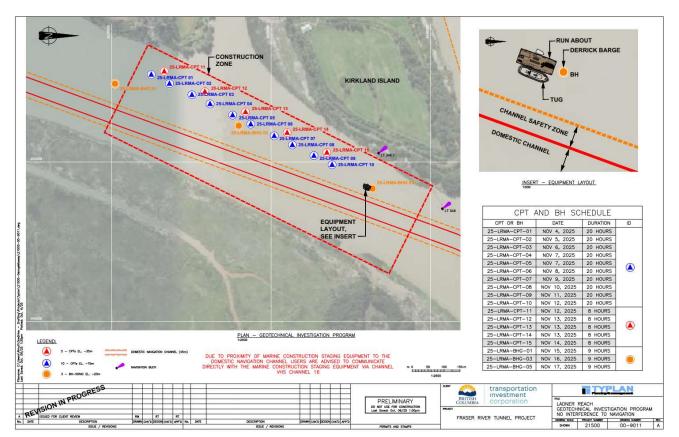


Exhibit 3: Cone Penetration Tests and Bore Holes: Non-Interference to Navigation

Table 2 and Exhibit 4 illustrate those investigations in which proximity effects of the marine works to the domestic navigation channel may require a mariner to adjust course slightly to avoid the marine staging equipment.

Such activities will occur between November 14<sup>th</sup> to November 18<sup>th</sup>, 2025, as noted below.



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CPT OR BH	DATE	DURATION	ID
25-LRMA-CPT-16	NOV 14, 2025	8 HOURS	See
25-LRMA-CPT-17	NOV 14, 2025	8 HOURS	
25-LRMA-CPT-18	NOV 15, 2025	8 HOURS	
25-LRMA-BHG-02	NOV 15, 2025	9 HOURS	
25-LRMA-BHG-04	NOV 16, 2025	9 HOURS	
25-LRMA-BHG-06	NOV 17, 2025	9 HOURS	
25-LRMA-BHG-07	NOV 17, 2025	9 HOURS	121
25-LRMA-BHG-08	NOV 18, 2025	9 HOURS	

Table 2: Schedule and Duration of Geotechnical Investigations Nov 14th -18th 2025

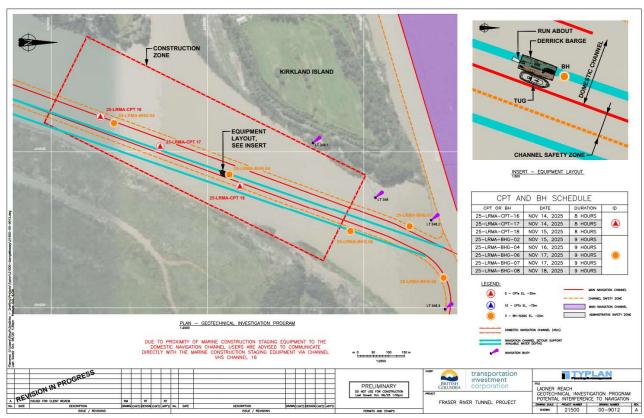


Exhibit 4: Cone Penetration Tests and Bore Hole Proximity to Navigation Channel



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### 5.3.4 Marine Communications

Foundex Explorations (Foundex) has been retained to undertake the geotechnical investigations in Ladner Reach.

- The marine communications outlined below identifies the:
- Contacts within the firm that can be contacted regarding the works,
- a list of marinas in which information bulletins will be posted to inform recreation/commercial/indigenous users of the works
- Noted VHF channels that will be monitored,
- Issuance of weekly NAVWARNS, (to be posted with the Marine Communications and Traffic Services of the Canada Coast Guard (MCTSCGG),
- Issuance of daily construction notices between Nov 15<sup>th</sup> -18<sup>th</sup> 2025; and,
- Inclusion of mariners in the monthly Marine User Groups (MUG) being formed for the Proposed In-River Test Program and Supplemental Test Dredge program, also occurring in the main Fraser River.

#### 5.3.5 Foundex Contacts

A list of Foundex Contacts is provided below. Upon issuance of NAVWARNS associated with the works, only the key and directly accessible contacts CFP and Foundex will be provided.



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President   Dave Ward   G04-594-8333   778-908-1531   DWard@Found	Email
Project Manager   Mike Hadzariga   604-594-8333   250-830-4497   Mhadzariga@F	lex.com
Project Engineer   Gregg Yin   604-594-8333   604-404-9162   Grin@Founder	dex.com
Health & Safety   Dakota Gurney   604-594-8333   236-333-2295   Daurney@Four	oundex.com
Supervisor   Terry Sovdi   604-594-8333   778-549-4627 TSovdi@Found   Supervisor   Jeff Weir   604-594-8333   778-888-4488   INVEIR@Founde   Supervisor   John Wallace   604-594-8333   778-908-3715   INVAILace@Founde   Supervisor   John Wallace   604-594-8333   778-908-3715   INVAILace@Founde   Supervisor   John Wallace   604-594-8333   604-414-7283   bwc.coastatile_Bh	.com
Supervisor   Jeff Weir   604-594-8333   778-888-4488   Weir@Founder   Supervisor   John Wallace   604-594-8333   778-908-3715   IWallace@Founder   John Wallace   604-594-8333   778-908-3715   IWallace@Founder   John Wallace   604-594-8333   604-414-7283   bwc.oastilie_abs   604-594-8333   604-414-7283   bwc.oastilie_abs   604-594-8333   604-372-2930   kozakatilia_abs   604-594-8333   902-940-5570   smackinnon   604-594-8333   902-940-5570   smackinnon   504-594-8333   306-421-9579   jadevolesky@h   604-594-8333   778-908-1484   Pbreadon@Founder   604-594-8333   778-908-1484   Pbreadon@Founder   604-594-8333   778-908-1484   Pbreadon@Founder   604-594-8333   778-908-1484   Pbreadon@Founder   604-947-9855   KPayne@Founder   604-739-1893   KPayne@Founder   604-947-9455   604-831-1072   KPayne@Founder   604-947-9455   604-831-1072   KPayne@Founder   604-739-1893   KPayne@Founder   604-947-9455   604-831-1072   KPayne@	dex.com
Supervisor   John Wallace   604-594-8333   778-908-3715   Wallace@Four   Driller   Derrick Watson   604-594-8333   604-414-7283 bw.coastlife13 br.   Driller   Chace Holbrook   604-594-8333   604-374-2930 kozakatilia@h   Driller   Chace Holbrook   604-594-8333   604-374-2930 kozakatilia@h   Drillers Helper   Shane Mackinnon   604-594-8333   902-940-5570 smackinnon10   Drillers Helper   Corwin Meler   604-594-8333   306-421-9579   jadevolesky@h   CPT   Paul Breadon   604-594-8333   778-908-1484   Pbreadon@Fot   Foto   Payme   604-947-9855   KPayme@Fount   Foto	ex.com
Driller	x.com
Driller	ndex.com
Drillers Helper	@gmail.com
Drillers Helper   Corwin Meler   604-594-8333   306-421-9579   iadevolesky@h	tmail.com
CPT	hotmail.com
Certain Payne & Associates   CPT   Kevin Payne   G04-947-9855   KPayne@Fount   G04-947-9855   KPayne@Fount   G04-947-9855   KPayne@Fount   G04-418-1072	otmail.com
CPT Operator   Bill Schwartz   G04-418-1072   bschwrtz@telu	index.com
Water Taxi Operator	dex.com
Water Taxi Operator	s.net
Water Taxi Operator	
24 hour number   604-739-1893	
Mercury Transport         President         James Bates         604-921-7451         604-834-1663 james@mercur           Operations Manager         Madison Trueman         604-921-7451         604-835-1991 madison@mercur           Contracting/invoicing         Charles Jeffery         604-921-7451         604-690-1900 charles@mercs           Active Marine Services         Captain         Tony Toxopeus         604-318-0015         tony@boatsun           Active Safety Management         Director of Operations         Ken Klein         604-889-6625         604-557-3595         ken@actsafem           OFA Saturday Day Shifts         604-889-6625         604-889-6625         604-889-6625           OFA Evening/Nights         604-889-6625         604-889-6625	
Mercury Transport         President         James Bates         604-921-7451         604-834-1663 james@mercur           Operations Manager         Madison Trueman         604-921-7451         604-835-1991 madison@mercur           Contracting/invoicing         Charles Jeffery         604-921-7451         604-690-1900 charles@mercs           Active Marine Services         Captain         Tony Toxopeus         604-318-0015         tony@boatsun           Active Safety Management         Director of Operations         Ken Klein         604-889-6625         604-557-3595         ken@actsafem           OFA Saturday Day Shifts         604-889-6625         604-889-6625         604-889-6625           OFA Evening/Nights         604-889-6625         604-889-6625	
Operations Manager   Madison Trueman   604-921-7451   604-835-1991   madison@merc	
Contracting/invoicing   Charles Jeffery   604-921-7451   604-690-1900   charles@merco.	ytransport.ca
Active Marine Services         Captain         Tony Toxopeus         604-318-0015         tony@boatsun           Active Safety Management         Director of Operations         Ken Klein         604-889-6625         604-557-3595         ken@actsafem           Supervisor         604-889-6625         604-889-6625         604-889-6625           OFA Saturday Day Shifts         604-889-6625         604-889-6625           OFA Evening/Nights         604-889-6625         604-889-6625	curytransport.c
Comparison   Com	irytransport.ca
Supervisor         604-889-6625           OFA Saturday Day Shifts         604-889-6625           OFA Evening/Nights         604-889-6625           604-889-6625         604-889-6625	ey.ca
OFA Saturday Day Shifts 604-889-6625 OFA Evening/Nights 604-889-6625 604-889-6625	an.com
OFA Evening/Nights 604-889-6625 604-889-6625	
604-889-6625	
Harbour Master Ladner Harbour Master Craig Hutchison chutchison@de	
	lta.ca

**Table 1: Foundex Contacts** 

### 5.3.6 Recreational Postings

To support commercial, recreational, and indigenous fisheries that utilize Ladner Reach, information boards will be posted at the following locations, prior to works being initiated.

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



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An illustration of the poster board is presented below.







### **NOTICE: GEOTECHNICAL ACTIVITIES IN THE FRASER RIVER**

In-river geotechnical work for the Fraser River Tunnel Project will begin in late October 2025 and continue until February 2026.

- From Monday to Saturday, crews will work day-shifts from barges and other marine equipment in the areas identified on the map below (yellow).
- During certain periods of construction, night shifts will be in effect.
- Recreational boaters should use caution transiting through the work areas shown below.
- Weekly navigational warnings will be posted to Highway99Tunnel.ca/FRT-Current-Work.



LEGEND





**Contact the Project** 





Marine channels
VHF 16 – Canadian Coast Guard
VHF 72 – Geotechnical Marine
Contractors
VHF 74 – Emergencies



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#### 5.3.7 VHF Channels

The following VHF channel will be monitored:

- Channel 16 for the Canadian Coast Guard Emergency
- Channel 74 for marine traffic on the Fraser River

#### 5.3.8 Issuance of NAVWARNS

NAVWARNS will be issued weekly to inform marines of works being undertaken in Ladner Reach.

In addition, CFP will issue a daily construction notice between November 15<sup>th</sup> – 18<sup>th</sup> 2025 to illustrate the specific location of the marine construction staging equipment in proximity to the domestic navigation channel.

### 5.3.9 Indigenous Fisheries

If an indigenous fishery occurs during the works, the contractor will be responsible for communicating with the Indigenous group the location of the marine construction equipment to promote safe passage to and from fishing grounds.

#### 5.3.10 Marine Communication Group

Monthly information updates regarding geotechnical investigations will be communicated via the broader Marine User Group (MUG) formed for the In-River Geotechnical Investigations and Supplemental Test Dredge program via coordination with CFP staff.



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