



PORT of  
**vancouver**

Vancouver Fraser  
Port Authority

# PER 20-055 Portside / Blundell Road Improvements Project Portside Overpass / Blundell Widening Component

## Request for Construction Outside of Regular Work Hours

Prepared for:

Vancouver Fraser Port Authority  
100 The Pointe  
999 Canada Place  
Vancouver B.C. V6C 3T4  
PER No 20-055

January 19, 2023

Prepared by:

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## Contents

1	Introduction .....	2
2	Project Information.....	2
2.1	Project Location.....	2
2.2	Project Description .....	3
3	Requirements .....	3
3.1	Request Rationale and Project Components .....	3
3.2	Sources of Noise from Construction .....	4
3.3	Proposed Work Dates and Times .....	4
3.4	Map and Site Plan .....	4
3.5	Proposed Mitigations .....	5
3.6	Screening Level Worksheet .....	6
3.7	Contact .....	7
3.8	Construction Notification Draft.....	7
Appendix 1:	Project Legal Sketch .....	8
Appendix 2:	Screening-Level Worksheet – Filled .....	9
Appendix 3:	Construction Notification – Draft .....	10

## DOCUMENT REVISION HISTORY

Version	Date	Comments/Summary of Changes
0	January 19, 2023	<ul style="list-style-type: none"><li>• First issue</li></ul>

## 1 Introduction

The following document is prepared to request for extended work hours for the Portside / Blundell Road Improvements Project (the Project) led by the Vancouver Fraser Port Authority (Port Authority). The document has been prepared in accordance with the Port Authority guidance on construction outside regular work hours requirements and part of the Port Authorities' Project and Environmental Review (PER) process.

## 2 Project Information

The Project is a package of road and rail infrastructure upgrades that are part of the wider Greater Vancouver Gateway (GVG) program currently being delivered by Port Authority.

The Port Authority is proposing to upgrade roadways in the Fraser Richmond Industrial Lands (FRIL). This location and its connections to major transportation routes and facilities make it an active industrial area for warehouse and transload businesses that pack and unpack shipping containers moving to and from the Port of Vancouver. This corridor has some of the most concentrated activity in the region for moving goods from marine terminals to rail lines and trucks, and then off to other destinations.

### 2.1 Project Location

The site is in the Port Authority's Planning Area 7, located within the FRIL on the south arm of the Fraser River in the City of Richmond (CoR). The geographical coordinates at the Project's approximate center are 49° 09' 18" North and 123° 02' 01" West. **Figure 1** below illustrates the Project location.

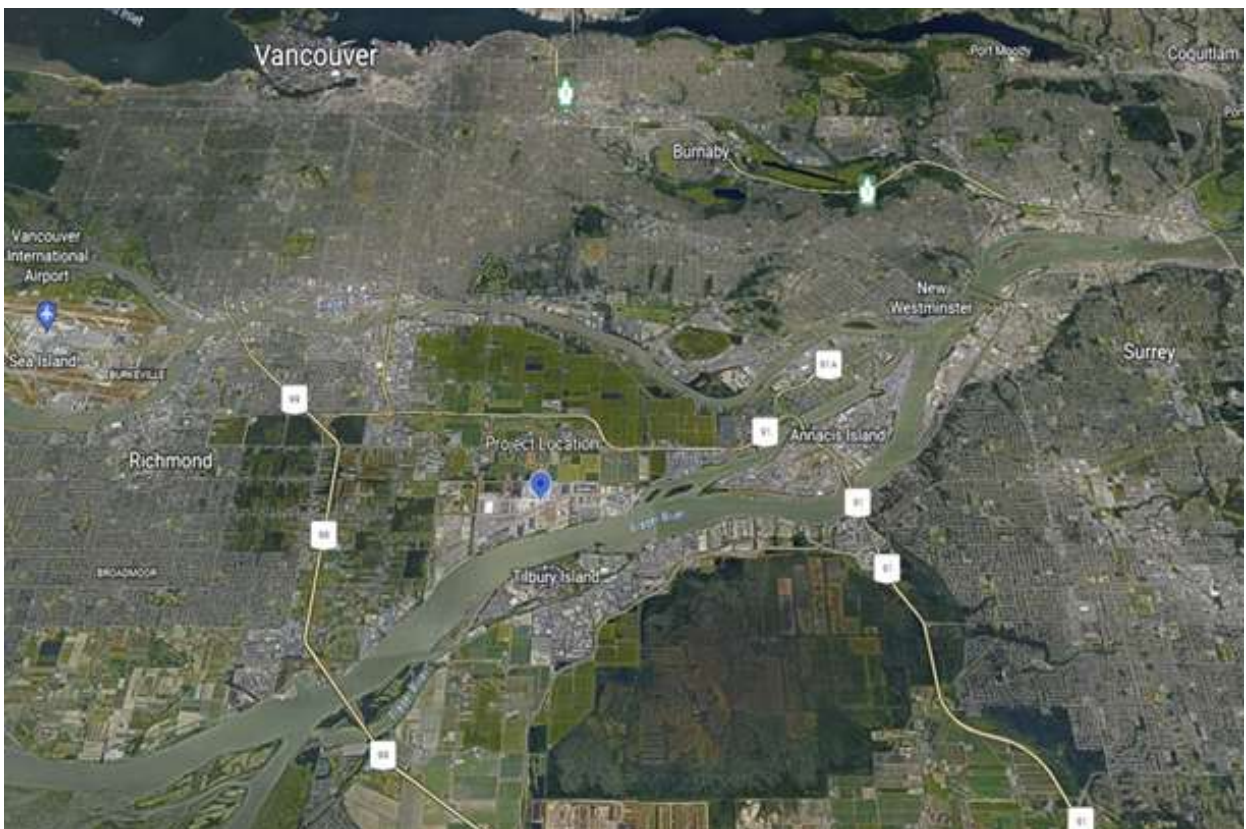


Figure 1. Project Location

## 2.2 Project Description

All construction works will be conducted at PBRI. The following is a general overview of the planned Project work:

- Building a new overpass over the Canadian National (CN) Ewen Yard, connecting Blundell Road and Portside Road.
- Widening Blundell Road from two lanes to four lanes between the No. 8 Road intersection and just west of York Road.
- Developing a new multi-use path (MUP) along the north side of Blundell Road and the south side of Portside Road.

## 3 Requirements

The Project is providing the following information to meet the requirements as outlined in the PER guideline for applying extended work hours. Some information provided below are extracted from the Project's Construction Environmental Management Plan (CEMP). As the Project is currently under Pre-Construction Services (PCS) Phase, the CEMP will be re-issued for construction as execution plans, and schedules are progressed. Therefore, it is noted that the information provided herein may be subject to change.

### 3.1 Request Rationale and Project Components

The Project expects to create an impact on traffic flow during some critical phases of bridge/overpass erection and paving works. This necessitates a full or partial shutdown of the roadway during overnight hours when traffic flow is typically limited.

The construction equipment and activities that are associated with the extended work hours request are as follows:

- Two 500-ton cranes
- Manlifts
- Tandem axle dump trucks
- B-train sized truck and trailers
- Excavators
- Loaders
- Compaction equipment
- Multiple workers on roadway
- Wall erections
- Slab placements
- Girder erections

The Project anticipates having a crew size varying from 5 to 50.

### **3.2 Sources of Noise from Construction**

During the extended work hours, activities and offsite noise disturbances resulting from work will be as follows:

- Low-frequency noise can be expected from cranes and compaction equipment.
- High-pitched whines from asphalt saw cutting.
- Hammering sound from pneumatic or electric drills and impact guns.

Noise will be generated on Blundell Road and Portside Road, from approximately Number 8 Road to Number 7 road canal. The Project is located within an industrial area surrounded by agricultural land. The nearest residence that may be affected by construction noise will be more than 1 km from the worksite.

### **3.3 Proposed Work Dates and Times**

Pending regulatory approvals, Project construction is scheduled to commence in Q1 2023. Blundell Road and Portside Road will be improved in stages between 2023 and 2026. The overpass will be opened tentatively in 2025. Construction is estimated to take 30 months. Ground improvements, earthworks, and foundations will be executed between 2023-2025, with superstructure and bridge paving occurring throughout the first half of 2026.

The construction schedule will be based on 5 working days, 10 hours per day (approximately 07:00 – 17:00). Certain critical activities (e.g., girders, beams, structural steel, etc.) will need to be completed outside of the standard construction hours to minimize impacts to traffic and to port authority tenants.

The proposed extended work times will be Monday to Saturday, 8:00 p.m. to 7:00 a.m., and full-day work on Sundays and holidays. Intermittent works are scheduled from approximately May 2023 to April 2026.

### **3.4 Map and Site Plan**

The Project and adjacent sites are zoned for industrial use. The closest existing residential receptor is located on No. 7 Road; approximately 1 km from the project boundary. The closest non-industrial land to the project boundary is agricultural zoned land which is at least 250 meters from the Project boundary. The Project and closest non-industrial areas are shown in Figure 2. See Appendix 1 for Legal Sketch of the Project footprint, highlighting all relevant buildings and property lines.

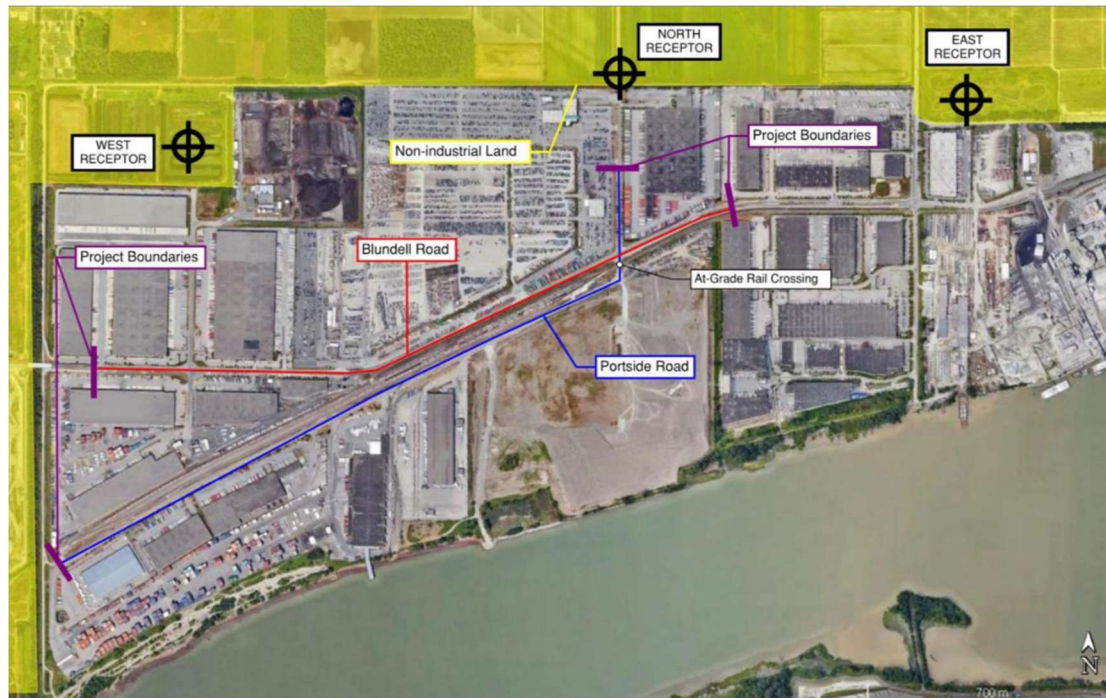


Figure 2. Project Site and Surrounding Area

### 3.5 Proposed Mitigations

To minimize or prevent sensory disturbances from noise contribution, the proposed mitigations as provided in the Project CEMP are as follows:

- Scheduling pile driving construction and decommissioning activities during the daytime.
- Piling noise and vibration levels may also be controlled by alternative techniques (e.g., above-ground noise-dampening shroud), or a saddle/pad to cushion hammer impacts on the pile.
- Turning off idling equipment such as diesel engines when not in use for more than 30 minutes.
- Fit gas or diesel-powered equipment with intake (if appropriate) and exhaust silencers (mufflers) meeting manufacturer's recommendations for optimal attenuation and maintain these silencers in effective working condition.
- Where more than one type/model of equipment or construction technique can be used to do a particular job with similar efficiency, use the quietest. Fit air-powered equipment with mufflers on the compressed air ports as per manufacturer's recommendations and consider using hydraulic-powered equipment.
- Supply and operate equipment with appropriate covers, hoods, shields etc., in place and latched shut.
- Carry out regular maintenance on equipment, including lubrication and replacement of worn parts, especially exhaust systems.
- Operate equipment at minimum engine speeds consistent with effective operation.
- If a noise source has pronounced directivity (e.g., the exhaust stack or intake air louvres of a fixed piece of equipment such as a generator) direct the noisy side away from potentially sensitive local receptors.
- Where feasible, the use of a close-fitting enclosure or shroud to partially contain noise emissions from the contact of the pile and hammer during piling operations.
- A stop-work procedure will be in place prior to construction to manage construction noise within permitted levels.

### **3.6 Screening Level Worksheet**

See Appendix 2 for the completed screening-level worksheet.



### 3.7 Contact

Table 1 provides a central contact list for key Project team members in the event that port authority receives a noise complaint.

Table 1 Contact List

Name	Title	Address	Phone	Email
Noel Allison	PER Lead	Vancouver Fraser Port Authority, 100 The Pointe, 999 Canada Place, Vancouver, BC V6C 3T4	604.665.9382	noel.allison@portvancouver.com
Sepehr Davani	Senior Project Delivery Specialist	Vancouver Fraser Port Authority, 100 The Pointe, 999 Canada Place, Vancouver, BC V6C 3T4	236.877.1483	Sepehr Davani@portvancouver.com
Sat Oberoi	Design Build Manager	Ledcor CMI Ltd., 1200, 1067 West Cordova Street, Vancouver, BC V6E 2E9	778.886.9706	sat.oberoi@ledcor.com
Gary Lin	Senior Engineer	McElhanney, #100 8837, 201 Street, Langley, BC V2Y 0C8	778.357.1294	glin@mcelhanney.com

### 3.8 Construction Notification Draft

See Appendix 3 for a draft Construction Notification

## **Appendix 1: Project Legal Sketch**

SKETCH PLAN OF:  
 PARTS OF SECTION 13, 23 & 24 BLOCK 4 NORTH, RANGE 5 WEST NEW WESTMINSTER DISTRICT  
 PARTS OF EAST 1/2, NORTHWEST 1/4 & SOUTHWEST 1/4 SECTION 14, BLOCK 4 NORTH, RANGE 5 WEST NEW WESTMINSTER DISTRICT  
 PARTS OF SECTION 18 BLOCK 4 NORTH, RANGE 4 WEST NEW WESTMINSTER DISTRICT

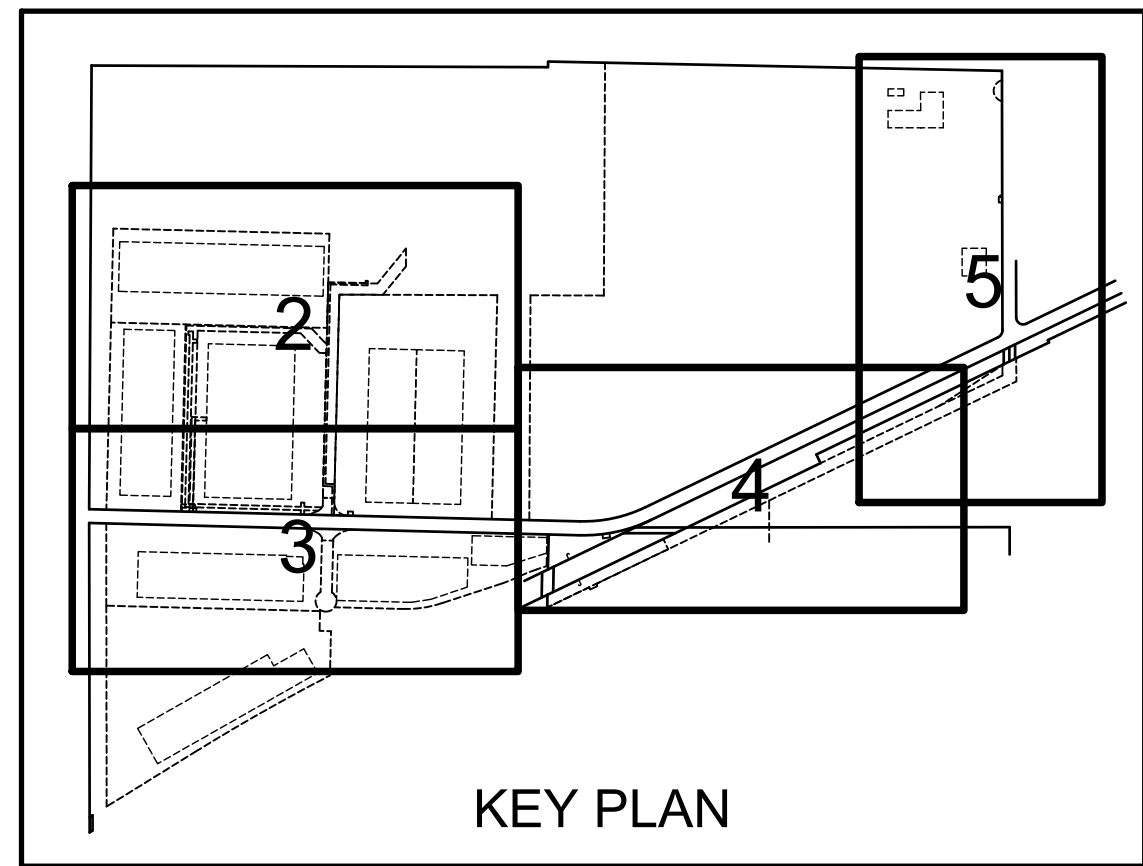
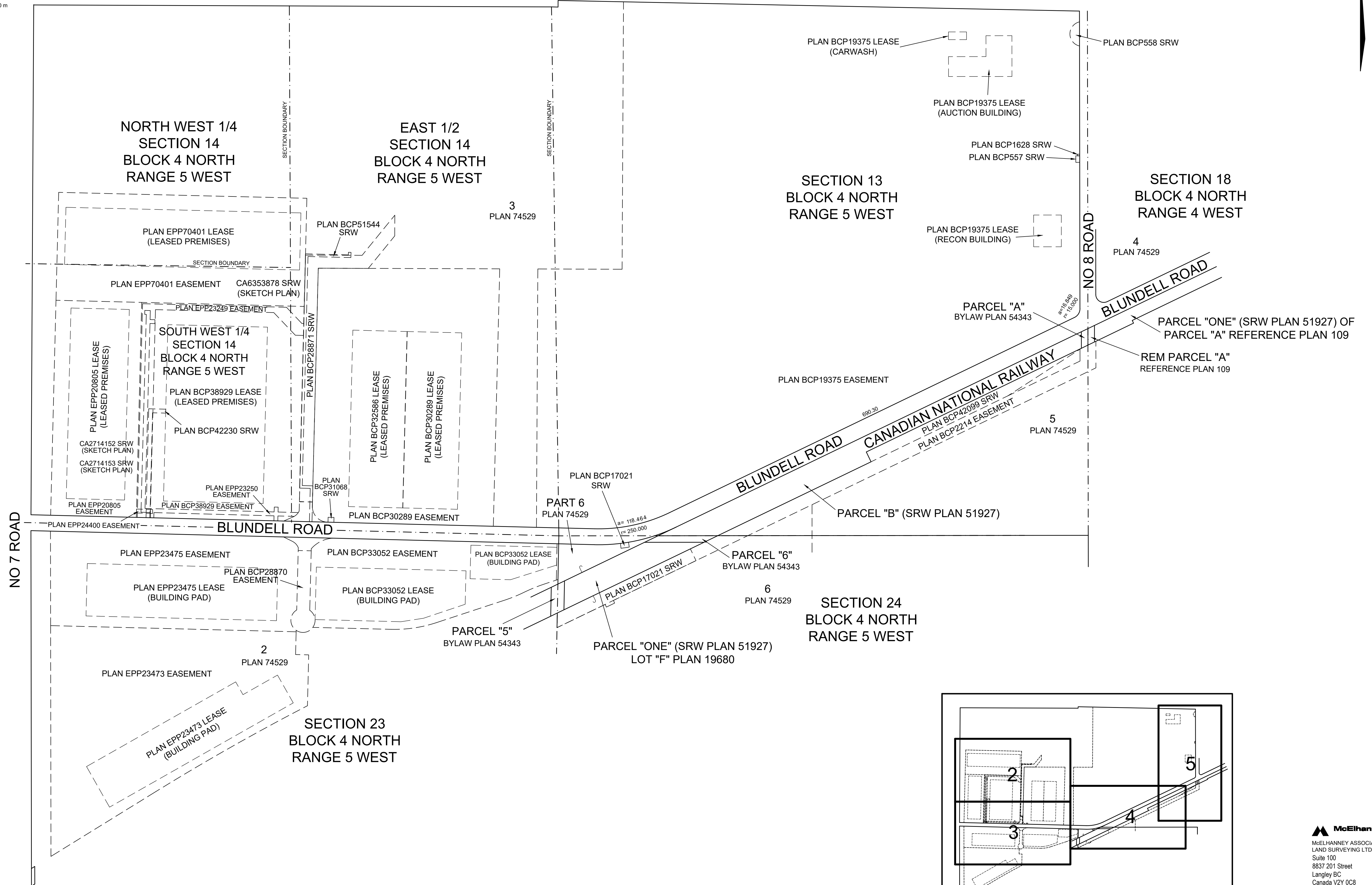
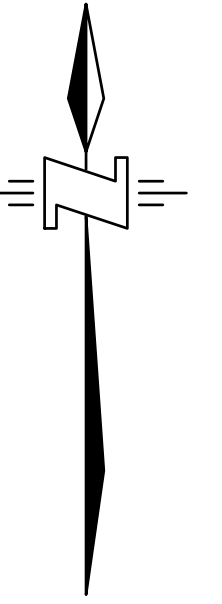
SHEET 1 OF 5



ALL DISTANCES ARE IN METRES AND DECIMALS THEREOF  
 THE INTENDED PLOT SIZE OF THIS PLAN IS 864 mm IN WIDTH BY 560 mm IN HEIGHT (D-SIZE) WHEN PLOTTED AT A SCALE OF 1:3000

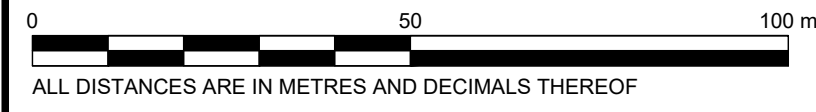
NOTES

1. THE SURVEY IS ON A LOCAL GROUND COORDINATE SYSTEM.
2. TO CONVERT TO UTM ZONE 10 NAD83(CSRS) 4.0.0.BC.1.MVRD, MULTIPLY BY THE COMBINED FACTOR OF 0.99960238 ABOUT 0.0
3. PARCEL BOUNDARIES HAVE BEEN DERIVED FROM FIELD MEASUREMENTS AND LTO RECORDS.
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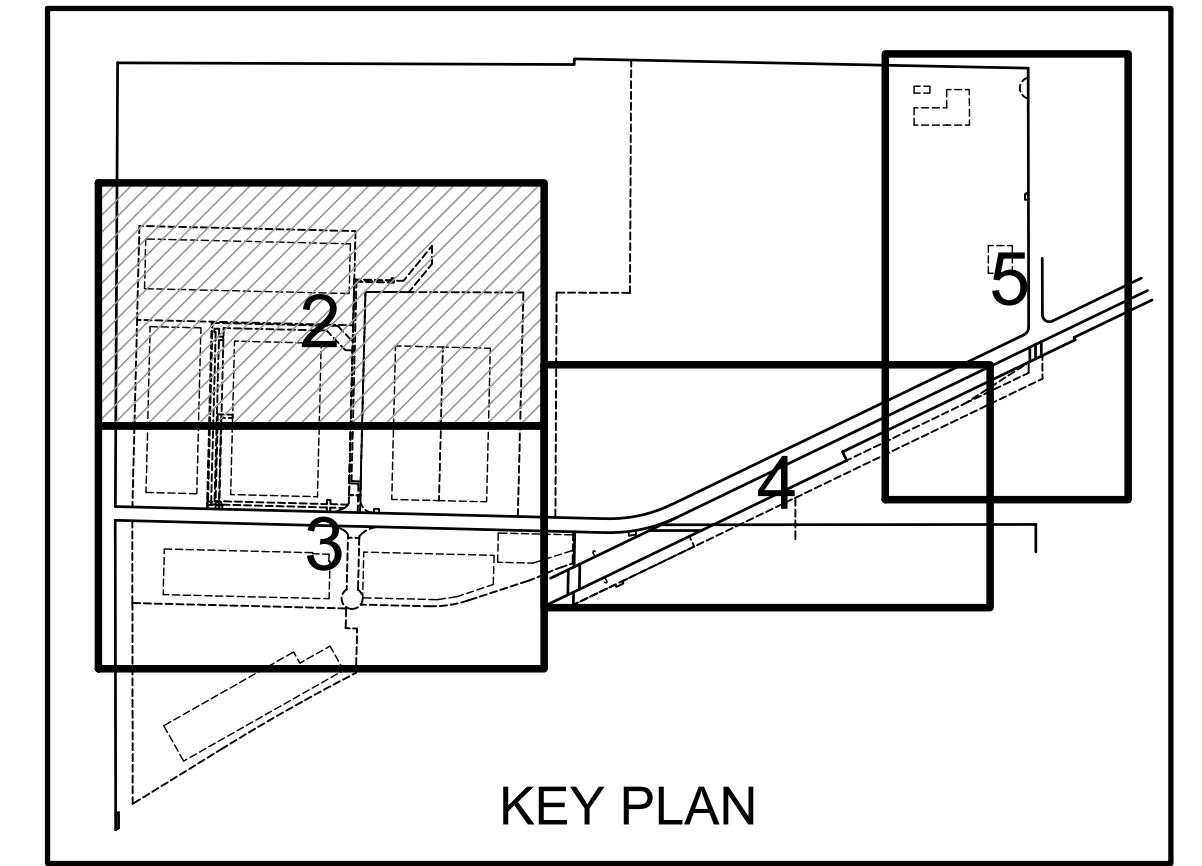
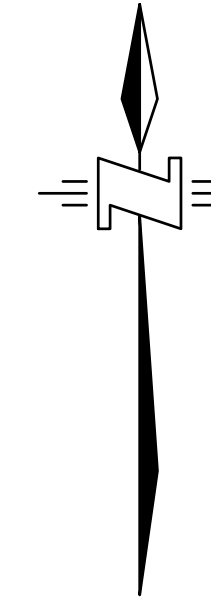
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 PARTS OF SECTION 18 BLOCK 4 NORTH, RANGE 4 WEST NEW WESTMINSTER DISTRICT

SHEET 2 OF 5



ALL DISTANCES ARE IN METRES AND DECIMALS THEREOF

THE INTENDED PLOT SIZE OF THIS PLAN IS 864 mm IN WIDTH BY 560 mm IN HEIGHT (D-SIZE) WHEN PLOTTED AT A SCALE OF 1:1000



NORTH WEST 1/4  
 SECTION 14  
 BLOCK 4 NORTH  
 RANGE 5 WEST

3  
 PLAN 74529

PLAN EPP70401 LEASE  
 (LEASED PREMISES)

SECTION BOUNDARY

PLAN BCP51544 SRW

SECTION BOUNDARY

PLAN EPP70401 EASEMENT

CA6353878 SRW  
 (SKETCH PLAN)

EAST 1/2  
 SECTION 14  
 BLOCK 4 NORTH  
 RANGE 5 WEST

PLAN EPP23249 EASEMENT

PLAN EPP20805 LEASE  
 (LEASED PREMISES)

SOUTH WEST 1/4  
 SECTION 14  
 BLOCK 4 NORTH  
 RANGE 5 WEST

PLAN BCP38929 LEASE  
 (LEASED PREMISES)

PLAN BCP32586 LEASE  
 (LEASED PREMISES)

PLAN BCP30289 LEASE  
 (LEASED PREMISES)

CA2714152 SRW  
 (SKETCH PLAN)

CA2714153 SRW  
 (SKETCH PLAN)

PLAN BCP42230 SRW

PLAN BCP51544 SRW  
 PLAN BCP28871 SRW

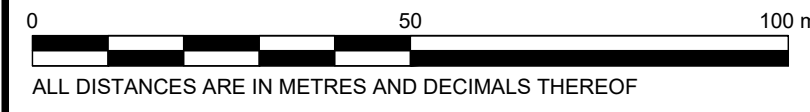


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 DRAWING NO. V-02  
 PROJECT DRAWING NO.  
 356-135-SKT-26 2 OF 5

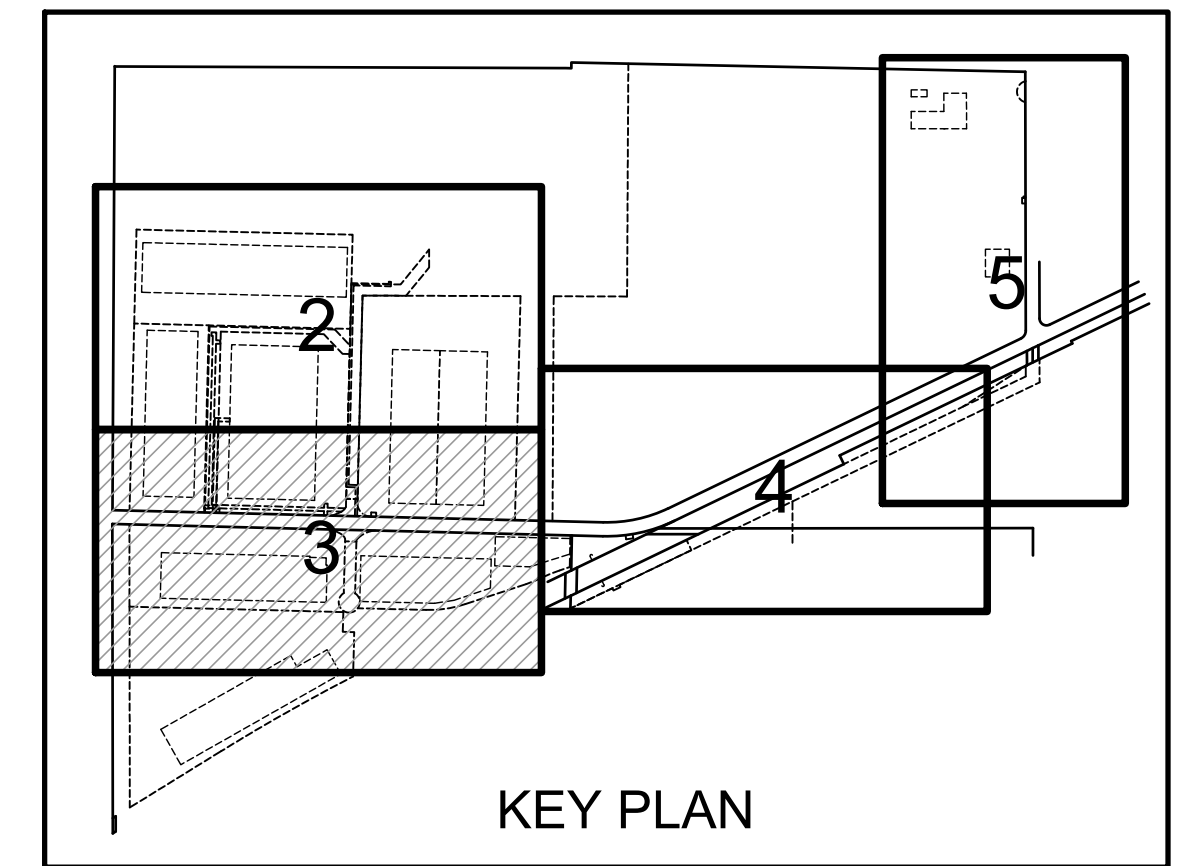
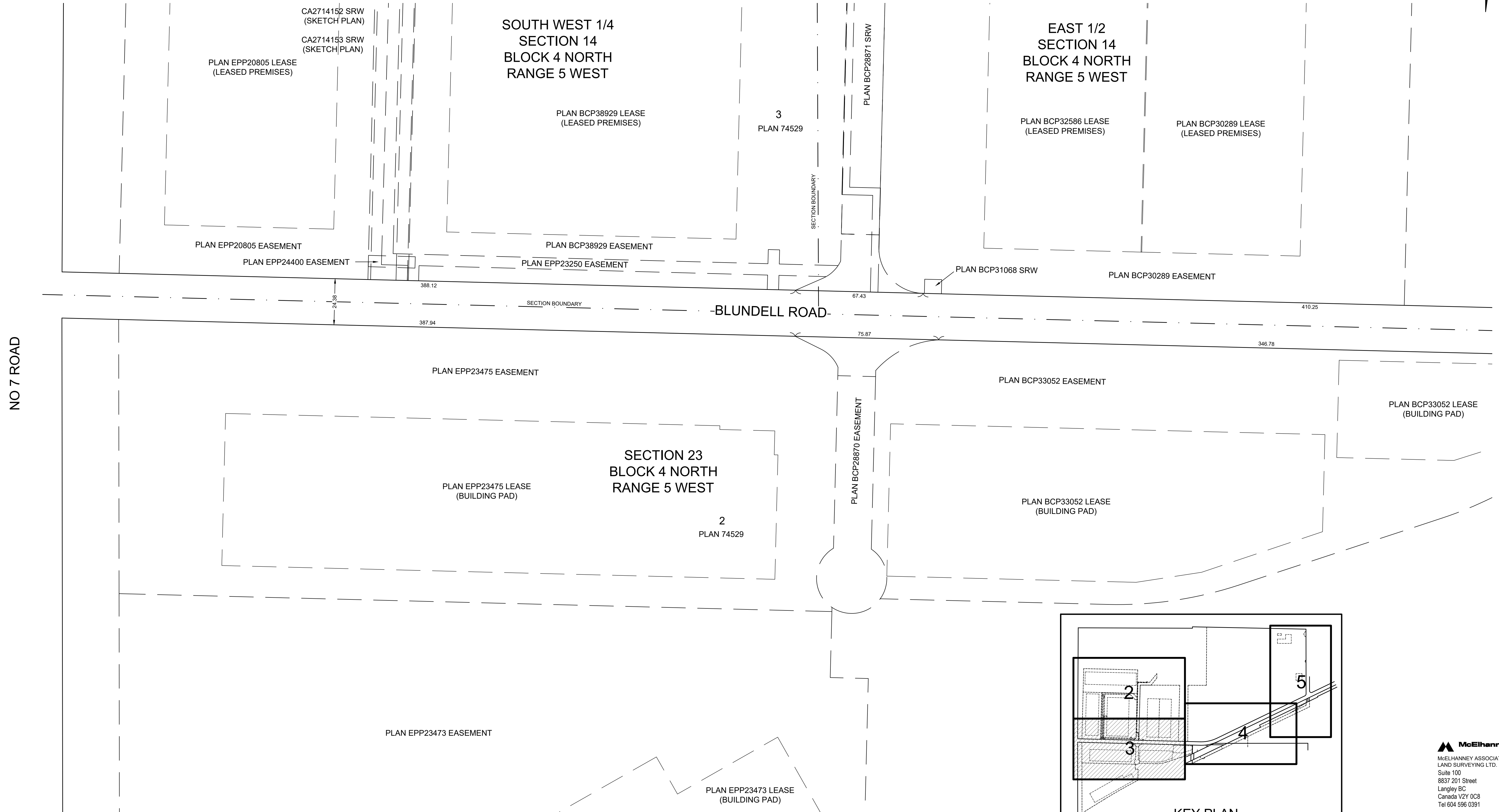
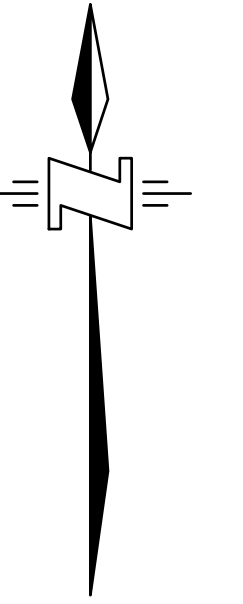
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SHEET 3 OF 5



ALL DISTANCES ARE IN METRES AND DECIMALS THEREOF

THE INTENDED PLOT SIZE OF THIS PLAN IS 864 mm IN WIDTH BY 560 mm IN HEIGHT (D-SIZE) WHEN PLOTTED AT A SCALE OF 1:1000







## **Appendix 2: Screening-Level Worksheet – Filled**



## Appendix I - Noise Screening Worksheet

This worksheet should be filled out by one or more informed individuals representing the Applicant in order to establish the potential to create noise impacts within surrounding areas. This screening procedure is opinion-based and largely qualitative in nature. Complete this worksheet marking each of the eight questions and submit as part of the extended work hours request.

<b>Question 1 – Noise levels expected on project site</b>	
Based on experience with similar construction operations, or on your best judgment, do you expect that noise levels within the project site will be:	
Very Low	<input type="checkbox"/>
Low	<input type="checkbox"/>
Moderate	<input type="checkbox"/>
High	<input checked="" type="checkbox"/>
Very High	<input type="checkbox"/>

<b>Question 2 - Presence of undesirable characteristics</b>	
Will any of the key activities create ongoing noise which (indicate all that apply):	
Are clearly tonal (hums, whirs, whines)	<input checked="" type="checkbox"/>
Are impulsive or have very rapid onset (bumps, bangs, material handling impacts, rail car shunting, compressed air release etc.)	<input checked="" type="checkbox"/>
Contains strong low-frequency content (e.g. large diesel engines, large fans or air compressors)	<input checked="" type="checkbox"/>

<b>Question 3 – Presence of high-energy impulsive noise</b>	
Will any activities create noise which could be classified as “High-energy Impulsive”? Examples could include the industrial use of explosives, explosive circuit breakers, or pile driving.	
No	<input checked="" type="checkbox"/>
Yes	<input type="checkbox"/>

<b>Question 4 – Hours/days of operation</b>	
Will the extended hours schedule be (check all that apply):	
Evening Shift [ 8 p.m. to midnight; weekdays ]	<input checked="" type="checkbox"/>
Evening Shift [ 8 p.m. to midnight; weekend ]	<input checked="" type="checkbox"/>
Night Shift [ midnight to 7 a.m.; weekdays ]	<input checked="" type="checkbox"/>
Night Shift [ midnight to 7 a.m.; weekend ]	<input checked="" type="checkbox"/>

<b>Question 5 – Proximity to noise-sensitive areas</b>	
How far is the nearest noise-sensitive land use (residences, schools, hospitals, parks etc.) from the property line of the project site?	
More than 1,000 m	<input checked="" type="checkbox"/>
500 to 1,000 m	<input type="checkbox"/>
250 to 500 m	<input type="checkbox"/>
125 to 250 m	<input type="checkbox"/>
less than 125 m	<input type="checkbox"/>

<b>Question 6 – Presence of noise shielding or reflection</b>	
Will buildings, structures, vegetation and/or landforms partially or totally screen construction noise sources from nearby noise receptors (that is, interrupt the line of sight and direct hearing)? Here consideration should be given to the relative elevations of the noise sources, the noise receptors (ground floors vs. upper floors) and the intervening buildings and/or landforms.	
Substantial, continuous noise shielding	<input type="checkbox"/>
Substantial, but not total, screening	<input checked="" type="checkbox"/>
Intermittent shielding, e.g., row of smaller, non-adjointing buildings	<input type="checkbox"/>
Scattered shielding by objects, machinery, stockpiles	<input type="checkbox"/>
No shielding potential	<input type="checkbox"/>

<b>Question 7 – Existing noise environment</b>	
How would you rate the existing noise environment in the vicinity of the project site?	
Very noisy (near busy highway, busy port, airport, heavy industry)	<input checked="" type="checkbox"/>
Noisy (near busy arterial road, light industrial area, urban core)	<input type="checkbox"/>
Moderately noisy (near collector road, suburban residential)	<input type="checkbox"/>
Quiet (suburban residential away from collector roads)	<input type="checkbox"/>
Very quiet (rural residential, well away from industry or main roads)	<input type="checkbox"/>

<b>Question 8 – Population potentially exposed to project noise</b>	
Approximately how many residences are located within 500 m of the project site?	
5 or less	<input checked="" type="checkbox"/>
5 to 15	<input type="checkbox"/>
16 to 40	<input type="checkbox"/>
41 to 100	<input type="checkbox"/>
more than 100	<input type="checkbox"/>

## **Appendix 3: Construction Notification – Draft**



## NOTICE OF PORTSIDE / BLUNDELL ROAD IMPROVEMENTS PROJECT DRAFT CONSTRUCTION NOTIFICATION

DATE

RE: [Title]

We are writing to notify you that [insert upcoming activity, scope of work, traffic impact etc.] is [being relocated, rebuilt, taking place etc.] on DATE as part of the Portside / Blundell Road Improvements Project (Project). The work is being carried out by Ledcor on behalf of the Vancouver Fraser Port Authority.

### **Work hours and days:**

- [insert work date, hours]

### **What to expect:**

- [insert detailed scope of work, activities etc.]

### **Mitigation measures:**

- [insert mitigation measures]

The [scope of work] is part of the Portside / Blundell Road Improvements Project, which include benefits on reducing congestion in the area, improving safety and emergency response, and accommodating trade growth.

For more information or if you have any questions or concerns, please contact [Ledcor contact]. If you are interested in learning more about the Portside / Blundell Road Improvements Project, visit <https://www.portvancouver.com/projects/road-and-rail/portside-blundell-road-improvements-project/> or email [gateway@portvancouver.com](mailto:gateway@portvancouver.com).

Thank you for your patience and understanding while we undertake this work.

Sincerely,

The Portside / Blundell Road Improvements Project Team

**[If you have any maps or diagrams, include below]**

Copy: Vancouver Fraser Port Authority