



B2D2 Project

Extended Hours Work Plan

PLAN-B2D2-0005

REV	DATE	REASON FOR ISSUE	CONTRIBUTORS		APPROVERS	
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B	Oct 19,2022	For Review	BKL	Dynamic Ocean	Matt Simmons	Victoria Burdett-Coutts
A	Sept 9, 2022	For Review	Tanya Wright			Victoria Burdett-Coutts



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1 INTRODUCTION

1.1 Background

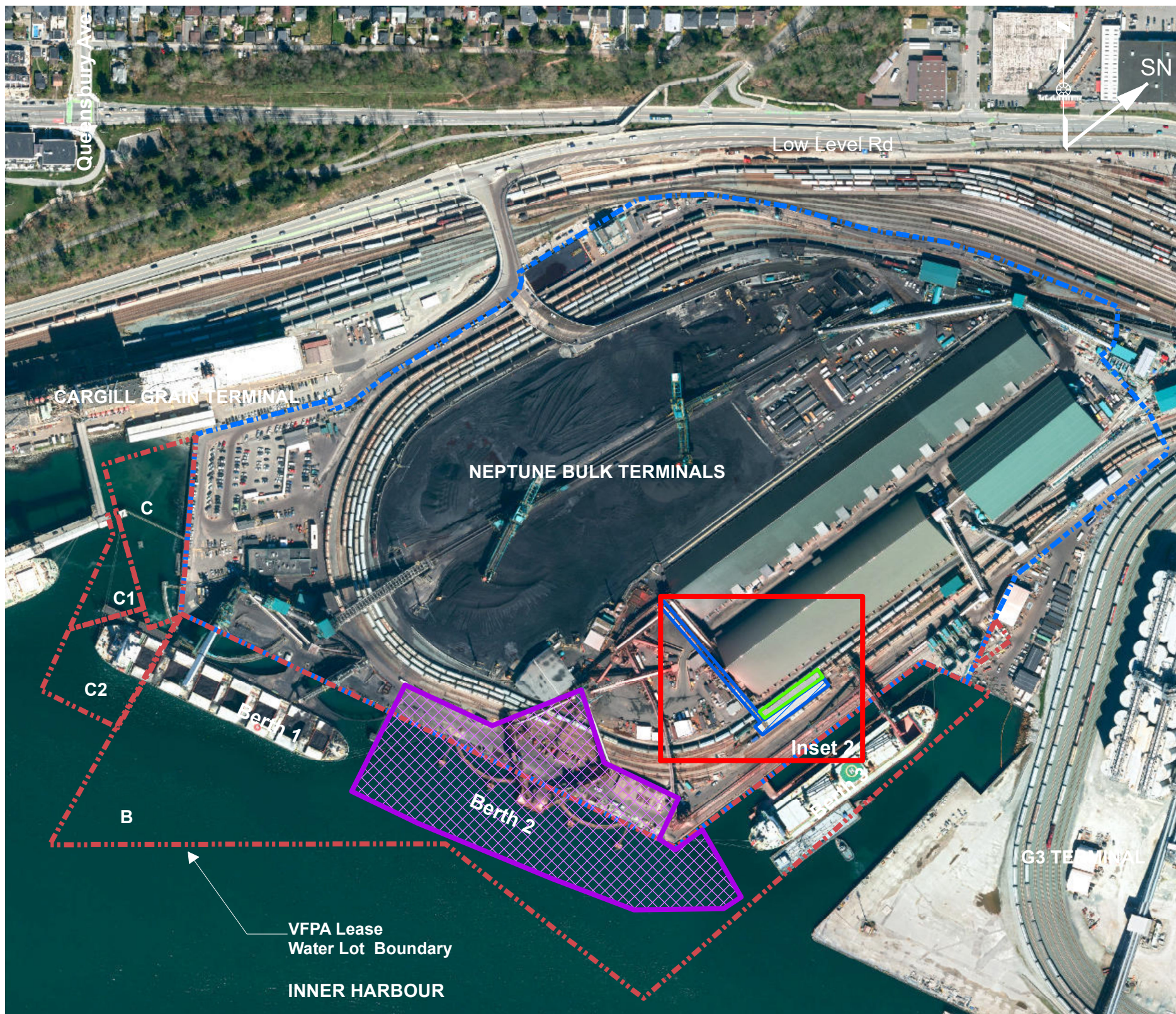
Neptune Bulk Terminals (Canada) Ltd. (NBT) is on the north shore of Vancouver Harbour in Burrard Inlet’s Inner Harbour, located at 1001 Low Level Road, in the City of North Vancouver (CNV), British Columbia (BC). NBT is a bulk materials handling venture of Canpotex Ltd. and Teck Resources Ltd. (the Terminal). Refer to the Berth 2 Shiploader and Potash Dumper 2 Replacement Project Construction Environmental Management Plan (B2D2 CEMP) for detailed project background (NBT, 2023a).

The B2 Shiploader Project (B2 Project) and the Dumper 2 Potash Replacement Project (D2 Project), collectively referred to as the B2D2 Project, are considered maintenance works to facilitate ongoing operations (see Sections 1.3.1 and 1.3.2 of the B2D2 CEMP) (NBT, 2023a) for the respective Project Descriptions. The Project site, B2D2 footprints and study areas are shown in Figure 1-1. The public comment period will be undertaken for the B2 Project (Category C, Project and Environmental Review (PER) 21-068) through the 30-day posting on the Impact Assessment Agency (IAA) Registry. The B2 Project will also undergo a 20 day public engagement, details of which will be provided in the B2 Public Engagement Plan (NBT, 2023b). The public comment period was completed for the D2 project through the IAA Registry from June 16 to July 15, 2022, and no comments were received.

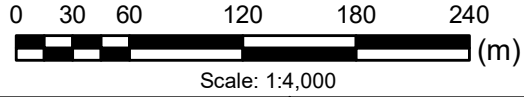
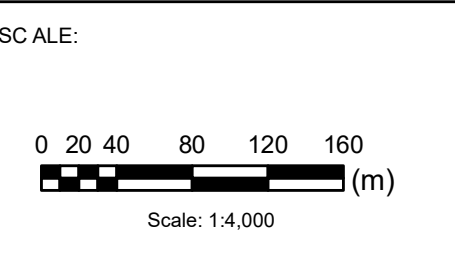
Construction is expected to require 17 months for the B2 Project and up to 15 months for the D2 Project, initiating in July and May of 2024, respectively. B2 Project in-water construction activity is planned to occur over a 10-month period. Although B2D2 Project construction will primarily occur within the Vancouver Fraser Port Authority’s (Port Authority) standard working hours (Monday to Saturday, 7:00 a.m. to 8:00 p.m., none on Sundays/holidays), it is expected that construction activities outside of the standard working hours will be required throughout the B2 and D2 Project construction for critical path activities. B2D2 Project schedules are summarized in Table 3-9 and Table 3-10 of the B2D2 CEMP. B2D2 Project schedule updates will be communicated on NBT’s B2D2 Project website.

Port Authority, schedule will be updated in the future when D2 is confirmed

2-Aug-23



INSET 1



LEGEND

- Berth 2 Project Area
- Dumper 2 Project Area
- Dumper 1
- Property Line
- Water Lot Boundary

SCALE:	SOURCE / NOTE: - Aerial image is downloaded from Google EarthPro.(2021)	PROJECT:							
		SYSTEM:							
0 20 40 80 120 160 (m) Scale: 1:4,000		ASSET:							
		DISCIPLINE							
			REV	YYYY-MM-DD	DESCRIPTION	DRAWN	APPROVED		
			ISSUES/REVISIONS						

VENDOR	ISSUED AS RECORD COPY (YES/NO) NO	TITLE:
		Project Site, B2D2 Footprints and Study Areas
	THIS DRAWN IS THE PROPERTY OF NEPTUNE BULK TERMINALS (CANADA) LTD. NEITHER THIS DRAWING NOR ANY PORTION THEREOF SHALL BE REPRODUCED WITHOUT WRITTEN PERMISSION FROM NEPTUNE BULK TERMINALS (CANADA) LTD.	Figure 1-1
	SCALE: 1:6000	SHEET 1 OF 1
		DRAWING NO:



1.2 Port Authority Standard Work Hours

Projects within the Port Authority’s jurisdiction are permitted to occur between Monday and Saturday from 7:00 a.m. to 8:00 p.m., with no activities permitted on Sundays and Statutory holidays. Separate applications for the B2 and D2 Projects have been submitted to the Port Authority requesting an exemption from the Port Authority to allow for construction outside of these time periods. The requirements for requesting approval of activities outside of standard working hours is provided in the Port Authority’s ‘Project and Environmental Review Guideline – Construction Outside of Regular Work Hours’ (Port Authority, 2023c).

Hours outside of the Port Authority’s standard working hours are defined in terms of ‘Categories’ and ‘Bins’ (see Table 1-1).

Categories are:

- Monday to Saturday.
- Sundays.
- Statutory Holidays.

Bins are:

- Day.
- Evening.
- Night.

Monday through Saturday is exclusive to evening and night, where statutory holidays and Sundays include ‘day’.

Table 1-1: Port Authority Construction Hour Categories

CATEGORY	BIN		
	07:00 to 20:00 (Day)	20:01 – 22:00 (Evening)	22:01 – 06:59 (Night)
Monday to Saturday	Regular standard work hours	Outside of standard hours	Outside of standard hours
Sundays	Outside of standard hours		
Statutory Holidays			

Source: Appendix I of Port Authority (2023c).

1.3 Report Scope

While the majority of construction can be undertaken within the Port Authority’s standard work hours (see Section 1.1), some construction will be required to occur outside of the Port Authority’s standard work hours for critical path activities. This Extended Hours Work Plan (EHWP) meets Conditions 23 and x of the respective D2 and B2 PER approvals (D2: PER No. 21-172, B2: PER 21-068).

to come once PER 21-068 issued

02-Aug-23

The intention of the EHWP is to support NBT's compliance commitments during B2D2 Project construction activity being completed outside of the Port Authority standard working, and will include:

- Schedule of activities and frequency of occurrence for construction occurring outside of standard working hours.
- Detail of the B2D2 Project noise threshold criteria and describe the procedures to be taken should noise exceedances occur.
- Outline of the noise mitigation and monitoring measures to be implemented during construction activities conducted outside of standard working hours to minimize negative effects to the community.
- B2D2 Project communication commitments with the Port Authority, neighbours and between the B2 and D2 Projects.
- Identification of appropriate B2D2 Project adaptive management procedures to be implemented should noise threshold exceedances occur.

The EHWP is an evolving document that will be updated as required based on changes requested through the Port Authorities review, and as construction progresses should adaptive management measures be required.

1.4 Regulatory Context

NBT is located within federal jurisdiction and thus authorization of construction activity outside of standard hours is through the Port Authority.

1.5 Supporting Documents and Best Management Practices

Supporting documentation relevant to the EHWP that supported the Port Authority in their review during the B2D2 Project's permitting phase and applicable Best Management Practices (BMPs) that have guided the development of the measures provided in the EHWP are summarized as follows:

- NBT: Environmental Complaint Procedure (NBT, 2022).
- NBT: Port Authority and Neptune Noise Monitoring Station 2022 Analysis Report (NBT, in progress).
- Vancouver Fraser Port Authority – Project & Environmental Review Guidelines: Construction Outside of Regular Work Hours (Port Authority, 2023c).
- Vancouver Fraser Port Authority – Project & Environmental Review Guidelines: Construction Environmental Management Plan (CEMP) (Port Authority, 2021).
- Port Metro Vancouver – Project & Environmental Review Guidelines – Environmental Noise Assessment (March 2023) (Port Authority, 2023b).
- Noise data from the Port Authority's Noise Monitoring Program: CNV Queensbury and CNV Heywood (Port Authority, 2023a).
- City of North Vancouver Bylaw – No. 8885 (City of North Vancouver, 2021).



For the full list of regulatory and compliance supporting documents for the B2D2 Project, please refer to Sections 2.2 and 6.1 of the B2D2 CEMP (NBT, 2023a).

2 PROJECT DESCRIPTION

Port Authority: activities to be updated in the future once confirmed. Amendment to D2 will be required prior to construction 02-Aug-23

2.1 Construction Activities

Construction activities for the B2 and D2 Projects that may occur outside of standard working hours are described in this section, with an asset location figure provided in Figure 1-2 of the B2D2 CEMP. High level description of construction activities for the B2 and D2 Projects are described in Section 3 of the B2D2 CEMP. The construction activities for the B2 Project will occur within the B2 water lot and on land (see B2 Project footprint in Figure 1-1). Within the water lot, construction activities will occur above and below the High-Water Line (HWL). The construction activities for the D2 Project will occur exclusively on land, largely within the existing D2 footprint. Construction activities are summarized in Table 2-1.

Table 2-1: Summary of Construction Activities for B2 and D2

B2	D2
Berth demolition (e.g., shiploader, conveyors, quadrant beams, wharfhead, existing dolphins, walkways, shore mooring, and associated upland buildings, structures, and foundations).	Temporary removal and reinstatement of Tracks 4, 5, and 6 (supports construction of both B2 and D2 Projects but is described in D2 for ease of maintaining all track construction together).
Pile driving (Installation/removal).	D2 demolition (e.g., foundations, dumper vault structural components, ridems, sumps, C31 and C32, conveyor tunnel, and C32 swivel chute system).
Drilling to support pile installation/removal (potential).	Installation of D661 and associated components (e.g., shoring, foundations, dumper vault structural components, concrete pours, ridems, sumps).
Berth construction (e.g., service platform installation, marine structure installation, gangway landing platform installation, Conveyor No. 242 (C242), Conveyor No. 243 (C243) and gallery installation, and shiploader installation).	Installation of C662, C663 and C631 swivel chute system.
Concrete (cast-in-place and pre-cast).	Electrical and controls installation.



B2	D2
Scour protection removal/displacement and reinstatement/installation.	
Dredging.	
Infill.	
Stone column (GI).	

2.2 Equipment

Equipment requirements for the B2D2 Project are summarized in Table 2-2.

The B2 marine-based construction activities will be carried out using conventional marine construction methods and equipment from either a floating barge or from land, depending on site access available to the Contractor. Marine vessel traffic would include a barge mounted crane for pile installation, materials barges, work skiffs/punts, and tugs to assist in barge movement. The B2 land-based construction activities will be carried out using conventional land-based demolition and construction methods including crane(s), excavators, miscellaneous equipment (e.g., telehandlers, scissor lifts), and trucks (e.g., flat deck delivery trucks, tandem dump trucks, etc.).

The D2 construction activities will be carried out using conventional land-based demolition and construction methods including crane(s), excavators, miscellaneous equipment (e.g., telehandlers, scissor lifts, etc.), and trucks (e.g., flat deck delivery trucks, tandem dump trucks, etc.).

The Contractor will be responsible for preparing a Traffic Management Plan (TMP) and a Marine Construction Staging Plan to manage land-based and marine-based equipment and traffic respectively. The minimum requirements for each of the documents is outlined within the B2D2 CEMP.

Table 2-2: Expected Equipment on Site for B2 and D2

EQUIPMENT	ACTIVITY	B2	D2
Vibratory hammer	Pile installation and removal.	Y	Y
Bubble curtains	Pile installation and removal.	Y	N
Spud Barge	General Construction (e.g., pile installation/removal, scour protection removal and reinstatement).	Y	N
Materials Barge	General construction.	Y	N



EQUIPMENT	ACTIVITY	B2	D2
Barge mounted or crawler crane	Pile installation, pre-cast concrete and berth construction (e.g., fenders), stone column installation.	Y	N
Cranes	Demolition and construction/installation (e.g., conveyor, dumper vault).	Y	Y
Pile drilling and cleanout equipment	Pile installation and removal.	Y	N
Clamshell bucket	Scour protection removal and reinstatement/installation.	Y	N
Excavators	Demolition and scour protection removal and reinstatement.	Y	Y
Telehandlers and scissor lifts	General construction.	Y	Y
Tandem dump trucks	Demolition (e.g., soil removal).	Y	Y
Flat deck delivery trucks	Demolition and construction – removal of material and delivery of construction material and prefabricated construction components.	Y	Y

Port Authority: as above to be updated in the future. 02-Aug-23

2.3 Schedule for Construction Outside of Standard Working Hours

The B2 Project is expected to require 17 months of construction beginning in July 2024, with the D2 Project expected to require 12 to 14 months of construction beginning in May of 2024. Updates to the Project schedule and updates on potential noise impacts due to construction will be posted monthly to the B2D2 Project specific webpage within the NBT website.

3 NOISE MANAGEMENT COMPLIANCE

NBT is committed to taking the conservative approach to the noise levels generated by the Terminal as we are a part of the City of North Vancouver landscape and community. Noise management from an operational perspective for the Terminal is managed through a detailed complaints procedure, monitoring through documentation with audio and visual recording equipment, and a communication plan. BKL Consultants Ltd. (BKL) are the Qualified Professional (QP) who support our noise compliance commitments.

3.1 Complaints Procedures

NBT strives to respond quickly and proactively to every communication from the community. With each response, NBT also aims to explain the noise source the complainant hears and provide closure to the complainant. Where possible, the complainant is provided with the data and information to support the proper monitoring measures in place at NBT.

NBT's Environmental Complaint Procedure (NBT, 2022) will be followed in the event of any questions, concerns, and complaints received from the community either forwarded through the Port Authority's Community Feedback line or directly via NBT's Community Inquiries line. Investigations of noise concerns will involve reviewing the timing of the event in correlation to the noise monitoring stations. The data will be reviewed in part with the operations taking place onsite. If further analysis of the noise data is required, the QP will be brought in to further the investigation process.

The procedure is summarized below:

- Complaint is received by NBT from either a resident, business, or from a regulatory authority.
- Complaint is referred to Director of People & Community and Vice President of Health, Safety and Environment.
- The complaint is investigated thoroughly to determine whether the noise is attributable to NBT. Noise monitors are checked with every complaint to attempt to determine the noise source and to confirm the noise has not exceeded allowable thresholds.
- Should investigation results indicate that the noise is not from NBT, the complainant will be provided with a response indicating the potential noise source and referred to the appropriate regulatory authority or company.
- Should investigation results indicate that the noise is from NBT, an internal investigation will be conducted to assess which aspect of the Terminal the noise originated from and to determine whether additional mitigation measures are applicable to reduce noise. The complainant will be provided with a response indicating the noise source and provided with the additional steps NBT will implement to reduce noise.
- All complaints will be recorded within NBT's internal database.
- NBT will notify the Port Authority of any questions, concerns, or complaints received within two business days of being received and will also provide the Port Authority with a copy of NBT's response to the community concern.

3.2 Noise Threshold

A noise threshold for construction noise management outside of standard work hours is not required by the Port Authority; however, the B2D2 Project will utilize one as a measure of due diligence and best practice. The determination of this threshold is based on a combination of NBT construction and operational experience from past projects of similar scale and scope, analysis of NBT's complaints log, and analysis of noise data from NBT and the Port Authority's monitoring stations (see Appendix A, Figure A-1). A summary of the justification for the B2D2 noise threshold is provided in the report titled 'Neptune Berth 2 Dumper 2 Noise Threshold Analysis Report' (NBT, 2023c).



The proposed noise threshold for the B2D2 Project is as follows:

- Monday to Saturday (evenings and nights): 66 decibels (dB).
- Sunday and holidays (day, evening, night): 63 dB.

These thresholds were developed by BKL to support the Allison Project (PER 12-066-2, 17-131-1) The Allison Project’s threshold has been chosen for the B2D2 Project due to the similarities in project scope and scale. The noise thresholds applied for the Allison Project were developed using the British Standard BS 5228-1:2009 for establishing noise criteria, where mean ambient noise (i.e., in absence of construction at NBT) measured over a period time, plus five dB determined the threshold.

3.3 Noise Monitoring Commitments

NBT manages a series of onsite and offsite noise monitoring equipment. Instrumentation at each monitoring site will consist of Class 1 Sound Level Analyzers equipped with weatherproof microphone systems.

3.3.1 Stations

Noise monitoring stations are present onsite and offsite to support NBT in interpreting the Terminal’s contribution to the local noisescape, to manage operational noise thresholds at our terminal boundary and to monitor for noise that NBT may be accountable for within the community. The noise monitoring station locations are provided in Appendix A, Figure A-1.

3.3.1.1 Offsite

NBT currently has two offsite noise monitoring stations that are managed on our behalf by BKL. One of the offsite noise monitoring stations was set up on April 15, 2019, and the other offsite noise monitoring station was set up on October 19, 2022. The Port Authority has two monitoring stations in close proximity to the Terminal. These stations will not be used to support construction noise, however, data from these stations may be requested from the Port Authority for noise complaints analysis during construction.

Details on the noise monitoring stations are provided in Table 3-1.

Table 3-1: Neptune Noise Monitoring Stations

ORGANIZATION	STATION NO.	STATION NAME	DISTANCE TO NBT ONSITE NOISE MONITORING STATION
NBT	1	817 4 th Street East Monitor Station	270 m NW
	2	926 Cloverley Street Monitor Station	450 m N
Port Authority	3	CNV Heywood Monitor Station	185 m NE
	4	CNV Queensbury Monitor Station	500 m W



3.3.1.2 Onsite

NBT has one noise monitoring station set up onsite at the Main Power Sub Station that is continuously logging noise data.

For noise complaints that do not correlate with the alerts to suggest the noise could be attributable to B2 and/or D2 Project construction noise, temporary short term attended noise monitoring will be carried out by a qualified QP using a hand-held Class 1 precision sound analyzer at the discretion of NBT.

3.3.2 Recording Frequency

The noise monitoring stations are programmed to record noise data and audio files during Port Authority out of hours periods (see Section 1.1)

The noise monitoring stations are configured to record L_{eq} values every second so that detailed time history graphs can be plotted if necessary to aid in identification of any unusual noise events and to permit computation of statistical indices if required. Hourly L_{eq} values will also be computed during data analysis.

3.3.3 System Maintenance

Offsite monitoring sites are visited monthly by BKL to conduct calibration and maintenance of the monitoring systems. BKL will continue to conduct monthly maintenance and calibration during the duration of the B2D2 Project.

3.3.4 Exceedance Response

BKL will take action on all noise threshold exceedances brought to BKL's attention by a NBT personnel. The immediate response and subsequent investigation procedures are discussed below.

3.3.4.1 Immediate

In the event of a noise threshold exceedance (described in Section 3.2) detected at any of NBT's offsite noise monitoring stations, an alert Short Message Service (SMS) or email will be immediately sent to a designated group of NBT personnel. SMS data sent will include the following:

- Instrument serial number and IP address.
- Location of the instrument.
- Date and time.
- User defined text indicating the threshold exceeded.
- An .mp3 file of the noise threshold exceedance detected.

Neptune will subscribe to an add-on cloud storage service which includes receiving .mp3 files when a noise threshold exceedance is detected. Upon receipt of the noise threshold exceedance alert, NBT personnel will undertake the following steps:



- The NBT personnel receiving the alert will determine whether the noise is due to B2 and/or D2 construction activities by reviewing the activities occurring onsite at the time of the alert.
- If the noise exceedance is determined to be due to B2 and/or D2 construction activities, corrective actions will be undertaken to either stop work or engage with the Contractor to implement adaptive mitigations to minimize noise generated by the activity.
- For any noise threshold exceedances, brought to BKL's attention by a NBT personnel, .mp3 clips of the noise exceedance and relevant logged data will be collected by BKL to support in analyzing and investigating the source of noise exceedances (see Section 3.3.5).
- NBT will develop and maintain a log of alerts received and the follow-up actions taken.

3.3.4.2 Subsequent Investigation

- BKL will download and analyze the cloud-stored data on the following BKL business day, after a qualified exceedance event is brought to BKL's attention by a NBT personnel.
- After analyzing the data, BKL will attempt to confirm whether the exceedance was attributable to B2 and/or D2 Project construction noise by reviewing the second-by-second time history, listening to the audio files, and consulting with Neptune personnel to determine the construction activity occurring at that time.
- Complaints received by NBT's complaints group will also be analyzed using the same approach as above.

3.3.5 Data Management and Analysis

Data will be stored in the cloud and on memory cards which will be downloaded or manually retrieved during the monthly site visits.

3.4 Commitments

Mitigation measures to minimize disturbance to the community during construction activities outside of standard working hours are outlined in Section 6.5.11, Table 6-11 of the B2D2 CEMP (NBT, 2023a). Mitigations specific to noise management have been brought into this document and summarized in Table 3-2. Should a noise non-compliance event occur, additional mitigation measures may be developed in collaboration with BKL to prevent further occurrence of noise exceedances during construction activities outside of standard working hours.



Table 3-2: Noise Mitigations

B2D2 CEMP MITIGATION NO.	DESCRIPTION
VN1	Conduct construction activities within the Port Authority’s standard work hours (Monday to Saturday, 7:00 a.m. to 8:00 p.m., with no work permitted on Sundays or holidays) except for approved/permitted construction activities outside of standard work hours (described in Section 3.5 of the B2D2 CEMP).
VN2	A construction notice will be distributed as outlined within conditions stipulated in the respective PER approvals.
VN3	Noise monitoring will be conducted for activities confirmed through the respective PER approvals to confirm effectiveness of mitigation measures.
VN5	<p>Mitigation measures for activities occurring outside of Port Authority standard work hours will include:</p> <ul style="list-style-type: none"> • Where possible and safe to execute, barge and piling equipment is to be placed to obstruct the dominant sound path between the source and the receptor of the noise. • Removing unnecessary chains associated with the piling activities that generate noise. • Utilizing the quietest practical frequency of the vibratory hammer to achieve the pile driving desired. • Passive noise monitoring systems being checked by the Contractor and/or EM regularly to verify that noise levels at the property boundary are in compliance with the thresholds described in Section 3.2 and Section 6.7.8 of the B2D2 CEMP. • Lighting will be positioned away from residences, placed at low levels, and focused only on work areas, enabling the crews to perform work safely. • The expected crew size will be limited to only required personnel and is not expected to exceed the number of personnel present during daytime activities. • NBT will provide monthly updates detailing the anticipated construction activities and proposed working hours. This information will be provided to the Port Authority and will be posted on the NBT website (neptuneterminals.com). • Where possible and safe to do so, diesel engines will be shut off when not in use, electrically powered equipment will be preferentially used, back-up alarm volumes will be lowered when appropriate and used in combination with strobe lights, black screens will be used during welding activity, use of high-noise power tools will be avoided, use of synthetic hammers instead of steel hammers, and any concrete installation activity will be completed with a crane and bucket. • No impact pile driving will occur outside of standard working hours. • Noise monitoring will be conducted as described in Section 3.3.

B2D2 CEMP MITIGATION NO.	DESCRIPTION
	<ul style="list-style-type: none"> Any complaints received will be investigated to confirm whether the source of noise originated from the B2 Project and managed as per the NBT Environmental Complaint Procedure (NBT, 2022).
VN6	<p>Should noise non-compliance occur, the following additional mitigation measures may be implemented:</p> <ul style="list-style-type: none"> Use of noise shrouds for the vibratory equipment. Implementation of a noise barrier. Confirming proper operation and function of compressors and equipment. Temporarily stopping the activity and resuming during normal construction hours. Any noise levels observed to be non-compliant with pertinent permits and approvals will be communicated to the Port Authority in accordance with the conditions stipulated in the respective PER approvals.
VN7	Equipment will be properly maintained and fitted with exhaust and muffler systems.
VN8	Engines will be turned off when not in use or reduced to idle.
VN9	NBT will monitor Terminal noise complaints to confirm any that are due to the B2D2 Project construction. If noise complaints are received, the effectiveness of mitigation measures will be reviewed.

Note: The B2D2 CEMP mitigation number VN4 is missing from the table as it refers to this document.

3.5 Communications Plan

NBT is committed to maintaining open and up to date communication with regulators and the community during the B2D2 Project. This includes providing up to date information regarding when construction activities may be occurring outside of standard working hours through pre-construction notifications and project updates through the B2D2 webpage on the NBT website.

The following sections will outline the communication plan with Regulatory Authorities, the community, and internally during B2D2 Project activities occurring outside of standard working hours. For a complete list of the project Communication Commitments, please refer to Section 6.5.18 in the B2D2 CEMP (NBT, 2023a).

3.5.1 Vancouver Fraser Port Authority

The Port Authority will be notified at least 30 business days prior to the intended commencement of construction outside of standard working hours for the B2 and D2 Projects. NBT will notify the Port Authority of the Project’s intended dates and activities occurring outside of standard working hours and will be submitting this EWHP for review and approval.

Within two business days, NBT will notify the Port Authority of any complaints received during the B2 and D2 Projects that have been investigated and determined to be due to the B2D2 Project. Any noise levels observed to be non-compliant with thresholds outlined within this EWHP will be communicated to the Port Authority in accordance with conditions stipulated in respective PER approvals.



3.5.2 Notifications

A notice will be distributed to the community a minimum of 10 business days prior to any real-time public engagement opportunities and prior to the commencement of any construction activities outside of standard work hours, or as stipulated within conditions of the respective Project PER approvals, based on a spatial proximity map (see Appendix A, Figure A-2 and Figure A-3).

NBT will provide monthly updates on anticipated construction activities, proposed working hours, and potential noise impacts due to construction activities on NBT's website: www.neptuneterminals.com.

Port Authority, website to be updated to be B2D2 specific 02-Aug-23

3.5.3 Between Berth 2 and Dumper 2 Projects

As the B2 and D2 projects will be completed concurrently, communication of planned activities occurring outside of standard working hours will be undertaken to avoid overlapping of activities that may result in noise exceedances.

3.6 Reporting

BKL will provide bi-weekly monitoring reports to NBT presenting the data analyzed and identifying any hours in which noise levels exceeded the noise criteria and, to the extent possible, the cause of the exceedance and recommendations for additional noise mitigation, if warranted. At the end of each month, BKL will provide NBT with a .csv spreadsheet of all hourly averages ($L_{Aeq,1hr}$) for the month, at each station.

Any exceedances in noise levels above the Port Authority approved thresholds will be communicated to the Port Authority and the stop work procedure, as established in Section 6.6.8 of the B2D2 CEMP will be implemented.



4 CONTRIBUTIONS

Regulatory professionals from BKL and NBT (through Dynamic Ocean) have contributed to developing this Extended Hours Work Plan.

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5 REFERENCES

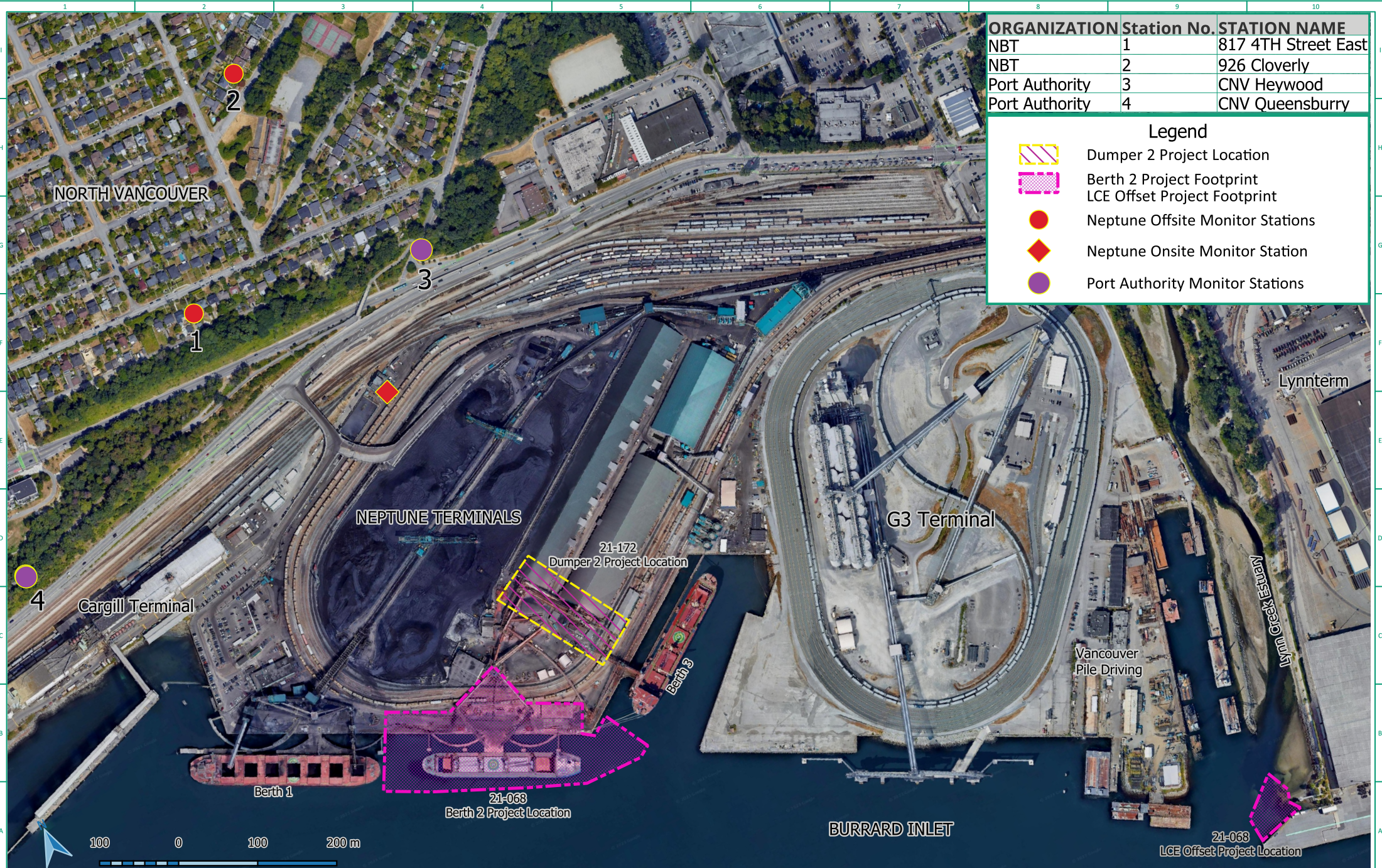
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Doc Title:
Doc Ref #:
Doc Rev #:

Extended Hours Work Plan
PLAN-B2D2-0005
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APPENDIX A: SUPPORTING FIGURES



ORGANIZATION	Station No.	STATION NAME
NBT	1	817 4TH Street East
NBT	2	926 Cloverly
Port Authority	3	CNV Heywood
Port Authority	4	CNV Queensbury

Legend

- Dumper 2 Project Location
- Berth 2 Project Footprint
LCE Offset Project Footprint
- Neptune Offsite Monitor Stations
- Neptune Onsite Monitor Station
- Port Authority Monitor Stations

LEGEND: SOURCES / NOTE: NAD1983 CORS96 UTM 10N Scale 1:5000 Units: meters Static (relies on a datum which is plate-fixed) Celestial body: Earth Method: Universal Transverse Mercator (UTM)	PROJECT: Neptune Terminals B2D2 SYSTEM: ASSET: DISCIPLINE: Regulatory	REV A 2023-02-03 Neptune Terminals Noise Monitor C. Knight	DRAWN C. Knight APPROVED C. Knight	VENDOR: 	TITLE: Neptune and Port Authority Noise Monitoring Locations
		REV YYYY-MM-DD DESCRIPTION DRAWN APPROVED	SHEET 1 OF 1 SCALE: As Shown DRAWING NO. 2023-03-28-004 REV: A		



LEGEND

- B2 Project Footprint
- 1 km radius
- 500 m radius

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NOTE:
 - Aerial image is downloaded from Google EarthPro.(2019)
 - Original drawing is ANSI full bleed B (11.00 x17.00 Inches)
 and in color

Scale:



Title: Site Plan - Berth 2

Client: Neptune Bulk Terminals (Canada) Ltd.

Project: B2 Project Neighbour Notification

Site Location: 1001 Low Level Road, North Vancouver, BC

Figure A-2

Rev. No: 00

Date: September 2022

Project: 21126

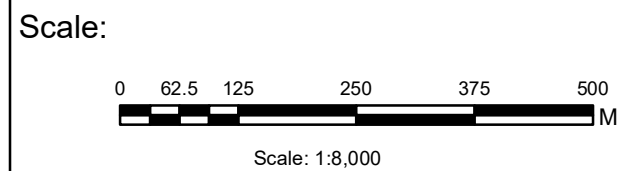
Drawn: HL

Checked: TD



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NOTE:
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 and in color



Title: Site Plan - Dumper 2	Figure A-3	Rev. No: 01
Client: Neptune Bulk Terminals (Canada) Ltd.	Date: September 2022	
Project: D2 Project Neighbour Notification	Project: 21232	
Site Location: 1001 Low Level Road, North Vancouver, BC	Drawn: HL	Checked: TD