

PER No.:	15-096
Tenant:	City of Vancouver/ Untenanted
Project:	New Brighton Park Shoreline Habitat Restoration Project
Project Location:	New Brighton Park
VFPA SID No.:	VAN048-04394F-001
Land Use Designation:	Recreation
Applicant(s):	Vancouver Fraser Port Authority Habitat Enhancement Program
Applicant Address:	100 The Pointe, 999 Canada Place, Vancouver V6C 3T4
Category of Review:	C
Date of Approval:	AUGUST 8, 2016
Date of Expiry:	AUGUST 8, 2018

PROJECT DESCRIPTION

For the purposes of this project permit "the Permit", the "Project" is understood to include the following works on Vancouver Fraser Port Authority (VFPA) property:

Tidal Marsh, Eastern Berm, Plantings, and Disposal

- Excavation of approximately 19,800 m³ of soil from the northeast section of the property;
- The construction of a tidal marsh area comprised of a dual stream outlet surrounding a habitat island that includes channel (1,660 m²), mudflat (1,230 m²), salt marsh (2,335 m²), dune grass (1,530 m²), and other riparian plantings (5,300 m²) (all areas approximate);
- Placement of fill in two berms, along the western boundary of the property (approximately 6,700 m³) and along the eastern boundary of the park (approximately 8,350 m³);
- Planting of a variety of native trees and shrubs on top of the eastern berm;
- Import and placement of approximately 750 m³ of rock (rip rap, under layer, cobble) at the two channel outlets and one stream outlet in the proposed tidal marsh area; and,
- Off-site disposal of approximately 250 m³ (petroleum hydrocarbon contaminated) soil and 4,000 m³ (excess clean) soil.
- Removal, prior to infill, of existing trees within the Western Berm footprint, and potential replanting of trees in an on-site location yet to be determined;
- Planting of the eastern berm with grass. No hardscape or park features will be placed on the western berm.

Off-leash Dog Area

- Installation of a wooden fence around the off leash dog area;
- Installation of a double gate vestibule, service gate, and an entrance granular path.

Beach Access Area, View Decks, and Pathways

- Construction of three concrete pads and improvements to beach access east of the public pier;
- Construction of two view decks, both including beach grass plantings, logs and boulders, stone benches, signage, and concrete paving areas;
- Installation of a wooden fence, and granular pathways throughout the entire project area.

PROJECT AND ENVIRONMENTAL CONDITIONS

The Vancouver Fraser Port Authority (VFPA) has undertaken and completed a review of the Project in accordance with the *Canada Marine Act* and Section 5 of the Port Authorities Operations Regulations and, as applicable, Section 67 of the *Canadian Environmental Assessment Act, 2012*.

If at any time the Applicant fails to comply with any of the project and environmental conditions set out in the Permit below, or if VFPA determines that the Applicant has provided any incomplete, incorrect or misleading information in relation to the Project, VFPA may, in its sole and absolute discretion, cancel its authorization for the Project or change the project and environmental conditions to which such authorization is subject.

Pursuant to Section 29 of the Port Authorities Operations Regulations, VFPA may also cancel its authorization for the Project, or change the project and environmental conditions to which such authorization is subject, if new information is made available to VFPA at any time in relation to the potential adverse environmental and other effects of the Project.

The following are the project and environmental conditions that must be followed by the Applicant to mitigate potential or foreseeable adverse environmental and other effects.

No.	GENERAL CONDITIONS
1.	This Permit is conditional on a valid tenure agreement with respect to the subject premises being in place. No construction or any other physical activities may commence in the absence of a valid tenure agreement.
2.	This Permit is granted subject to the fulfillment of all other requirements of VFPA, relating to the Project. Furthermore, prior to commencing construction or any other physical activities the Applicant shall ensure that it has complied with all other necessary legal requirements and that all necessary regulatory approvals have been obtained.
3.	This Permit in no way endorses or warrants the design, engineering, or construction of the Project and no person may rely upon this Permit for any purpose other than the fact that VFPA has permitted the construction of the Project, in accordance with the terms and conditions of this Permit.
4.	In consideration of the granting of this Permit by VFPA the Applicant agrees to indemnify and save harmless VFPA against any and all actions, claims, loss, damages or other expenses in any way arising or following from or caused by the granting of this Permit or the construction or operation of the Project as contemplated by this Permit.
5.	The Applicant is responsible for locating all existing site services and utilities including any located underground and to employ best practices and meet applicable code requirements with respect to protection of existing site services and clearance between existing and proposed site services. The Applicant is responsible for repair or replacement of any damage to existing site services and utilities, to the satisfaction of VFPA, that result from construction and operation of the Project.

6.	The Applicant shall undertake and deliver the Project to total completion in a professional, timely and diligent manner in accordance with the Application submitted by the Applicant and the applicable standards and specifications set out in the sections above entitled Project Description and Information Sources, including the attached plans and drawings numbered PER No. 15-096-A to F . The Applicant shall not carry out any other physical activities unless expressly authorized by VFPA.
7.	The Applicant shall establish a spill prevention, containment and clean-up plan for hydrocarbon products (including fuel, oil and hydraulic fluid) and any other deleterious substances using standards, practices, methods and procedures to a good commercial standard, conforming to applicable law and using that degree of skill and care, diligence, prudence and foresight which would be reasonably and ordinarily expected from a qualified, skilled and experienced person engaged in a similar type of undertaking under the same or similar circumstances. The Applicant shall ensure that appropriate spill containment and clean-up supplies are available on site at all times and that all personnel working on the project are familiar with the spill prevention, containment and clean-up plan.
8.	<p>The Applicant shall have due regard to the potential application of the <i>Migratory Birds Convention Act</i> (Canada) and/or the <i>Wildlife Act</i> (British Columbia). To reduce the risk of Project-related harm to birds and/or their active nests and eggs, the Applicant may wish to avoid certain physical activities during the general bird breeding season, which falls between April 1 and July 31, or outside of this time span if occupied nests are present. The Applicant shall exercise all due diligence to avoid causing harm to birds and/or their active nests and eggs.</p> <p>The Applicant shall also have due regard to nests of those species of birds protected by Applicable Law at all times of the year, regardless of the time of year or whether or not the nests are occupied. The Applicant should, where circumstances warrant, retain the services of qualified environmental professionals to assist in developing and undertaking appropriate bird nest surveys immediately before, during and after the general bird breeding season.</p>
9.	The Applicant shall be solely responsible for reviewing DFO's Projects Near Water website (http://www.pac.dfo-mpo.gc.ca/habitat/know-savoir-eng.htm) to assess whether the Project requires DFO's involvement. The Applicant is solely responsible for submitting any necessary information through DFO's Project Review Process.
10.	The Applicant and their contractor(s) shall make available employment, training and contract opportunities relating to the project construction to qualified members and/or businesses of interested Aboriginal groups.
11.	The Applicant shall cooperate fully with VFPA in respect of any review by VFPA of the Applicant's compliance with these conditions including, without limitation, providing any information or documentation required by VFPA.
12.	The Applicant shall make a copy of this Permit available to all employees, agents, contractors, licensees and invitees prior to commencing any physical activities. The Applicant shall be solely responsible for ensuring that all such employees, agents, contractors, licensees and invitees comply with these conditions.
13.	The Applicant shall make available upon request by any regulatory authority (such as a Fishery Officer) a copy of this Permit.

14.	Unless otherwise noted, the Applicant shall submit all documents required for VFPA approval to email: per@portvancouver.com ; fax: 1-866-284-4271 and referencing PER No.15-096.	
	CONDITIONS - PRIOR TO COMMENCING CONSTRUCTION OR ANY PHYSICAL ACTIVITIES	SUBMISSION TIMING (business days)
15.	The Applicant shall notify the Fisheries and Oceans Canada (DFO), Conservation and Protection Field Supervisor for Lower Mainland/Squamish in Steveston, British Columbia (telephone: 604 664 9250; fax: 604 664 9255). The Applicant shall copy VFPA Environmental Programs and the Harbour Master on this notification EnvironmentalPrograms@portvancouver.com and Harbour_Master@portvancouver.com ; or fax 1-866-284-4271.	2 days before commencing construction or any physical activities
16.	The Applicant shall submit signed and sealed drawings for proposed works approved for construction by a professional engineer licensed to practice in the Province of British Columbia.	5 days before commencing construction or any physical activities
17.	The Applicant shall submit an updated Construction Communications Plan to the satisfaction of VFPA. Draft construction notifications must be included in this plan.	20 days before commencing construction or any physical activities
18.	The Applicant shall distribute a construction notice in accordance to the approved Construction Communications Plan. The Applicant shall copy VFPA on this notification.	10 days before commencing construction or any physical activities
19.	The Applicant shall submit a Construction Parking and Traffic Management Plan to the satisfaction of VFPA.	10 days before commencing construction or any physical activities
20.	The Applicant shall submit an Archeological Chance Find Procedure to the satisfaction of VFPA. The Applicant shall provide interested Aboriginal groups the opportunity to review and comment on the Archeological Chance Find Procedure prior to submission to VFPA.	10 days before commencing construction or any physical activities
21.	The Applicant shall submit a Construction Environmental Management Plan, written in accordance with the guidelines on VFPA's website (http://www.portvancouver.com/wp-content/uploads/2015/10/PER-Construction-Environmental-Management-Plan-CEMP-Guidelines-FINAL-2015-10-16.pdf) and to the satisfaction of VFPA.	10 days before commencing construction or any physical activities
22.	Prior to the commencement of any vessel-related activities, the Applicant shall contact the appropriate Canadian Coast Guard ("CCG") Marine Communications and Traffic Services ("MCTS") centre regarding the issuance of a Notice to Shipping ("NOTSHIP") to advise the marine community of potential hazards associated with the Project.	As per Coast Guard requirements

23.	<p>Prior to finalizing design of interpretive signage, the Applicant shall:</p> <ul style="list-style-type: none"> • Seek input from Aboriginal groups on the content for interpretive signage. • Submit a draft of the proposed content of interpretive signage to the satisfaction of VFPA. 	10 days prior to finalizing signage design
CONDITIONS – DURING CONSTRUCTION OR ANY PHYSICAL ACTIVITIES		
24.	The Applicant shall notify VFPA upon commencement of construction or any physical activities of the Project.	
25.	All general construction and physical activities related to the Project shall be conducted between Monday to Saturday between the hours of 7:00am to 8:00pm . No construction and physical activities shall occur during Sundays or holidays. These hours shall not be modified without prior approval from VFPA.	
26.	The Applicant shall remove all abandoned utilities from the site, both underground and aboveground. At locations of connections to municipal network (i.e. at property lines), the abandoned utilities shall be capped.	
27.	The Applicant shall ensure that an appropriately qualified archaeological monitor be on site at all times during ground disturbing activities that may intrude into native soils.	
28.	The Applicant shall provide interested Aboriginal groups the opportunity to participate in any archaeological monitoring conducted as part of the project	
29.	<p>In the event that evidence of what is suspected to be an archaeological resource is encountered, the Applicant shall:</p> <ul style="list-style-type: none"> • Immediately stop any activities that might disturb the archaeological resource or the site in which it is contained ("Site"). • Not move or otherwise disturb the artifacts or other remains present at the Site. • Stake or flag off the Site to prevent additional disturbances. • Immediately notify VFPA. 	
30.	The Applicant shall not, directly or indirectly: (a) deposit or permit the deposit of a deleterious substance of any type in water frequented by fish in a manner contrary to Section 36(3) of the <i>Fisheries Act</i> ; or (b) adversely affect fish or fish habitat in a manner contrary to Section 35(1) of the <i>Fisheries Act</i> .	
31.	The Applicant shall ensure that debris and waste material resulting from the Project are contained, collected, and disposed of at suitable upland locations using standards, practices, methods and procedures to a good commercial standard, conforming to applicable law and using that degree of skill and care, diligence, prudence and foresight which would be reasonably and ordinarily expected from a qualified, skilled and experienced person engaged in a similar type of undertaking under the same or similar circumstances.	
32.	The Applicant shall ensure that all equipment is in good mechanical condition and maintained free of fluid leaks, invasive species, and noxious weeds.	
33.	There shall be no in-water works during the fisheries sensitive period from March 1 to August 15 inclusive.	

34.	The disturbance to the intertidal foreshore shall be kept to the minimum required to complete the project. Land-based equipment and machinery should not travel along the foreshore beyond the footprint of the project area.
35.	The direct or indirect release or deposit of sediment or sediment laden water into the aquatic environment shall be minimized during the works. In this regard, reference should be made to the water quality criteria described in the British Columbia Water Quality Guidelines (Criteria): January 2010 Edition produced by the BC Ministry of Environment.
36.	Rock to be placed in-water shall be clean and free of fines.
37.	The Applicant shall manage stormwater and surface runoff using standards, practices, methods and procedures to a good commercial standard, conforming to Applicable Law and using that degree of skill and care, diligence, prudence and foresight which would be reasonably and ordinarily expected from a qualified, skilled and experienced person engaged in a similar type of undertaking under the same or similar circumstances.
38.	Should environmentally contaminated materials be encountered, the Applicant shall ensure that all contaminated materials, including contaminated drill cuttings and equipment wash water, are removed, contained, and disposed of at appropriate off-site facilities using standards, practices, methods and procedures to a good commercial standard, conforming to Applicable Law and using that degree of skill and care, diligence, prudence and foresight which would be reasonably and ordinarily expected from a qualified, skilled and experienced person engaged in a similar type of undertaking under the same or similar circumstances. Suspect materials should be treated as contaminated or stockpiled until their environmental quality has been determined.
39.	No soil wetted by hydrocarbon contaminated groundwater shall be re-used on site without de-watering or another form of treatment.
40.	The Applicant shall implement the Project Soil and Groundwater Management Plan.
41.	If any vessel-related activities are conducted, the Applicant shall: <ul style="list-style-type: none"> • Position vessels and equipment associated with the Project in such a manner so as not to obstruct line of sight to navigational aids or markers. • As per the International Regulations for Preventing Collisions at Sea, exhibit the appropriate lights and day shapes at all times. • Monitor the VHF channel used for MCTS communications in the respective area at all times and participate as necessary. • Be familiar with vessel movements in areas affected by the Project. The Applicant shall plan and execute the Project in a manner that will not impede navigation or interfere with vessel operations.
42.	Project construction shall be monitored by an appropriately qualified environmental professional. The monitor shall provide monitoring reports to VFPA on a monthly basis or more frequently if circumstances warrant. In addition, a summary report for the whole monitoring period shall be forwarded to VFPA within 6 weeks of the conclusion of the monitoring period. VFPA reserves the right to rule on the adequacy of monitoring and the content of reports.

43.	The Applicant shall not conduct refueling or equipment maintenance activities within 30 meters of any watercourse, or in an area where there is potential for run-off to reach surface water bodies. Fuel and other hydrocarbon inventories shall not be stored in such areas.	
44.	The Applicant shall conduct all work associated with the Project involving the use of concrete, cement, mortars and other Portland cement or lime-containing construction materials so as to ensure that sediments, debris, concrete (cured or uncured), and concrete fines are not deposited into the aquatic environment, either directly or indirectly. Water that has contacted uncured or partly cured concrete or Portland cement or lime-containing construction materials, such as the water that may be used for exposed aggregate wash-off, wet curing, equipment and truck washing, etc. shall not be permitted to enter the aquatic environment. The Applicant shall provide containment facilities at the site for the wash-down water from concrete delivery trucks, concrete pumping equipment, and other tools and equipment, as required.	
45.	Invasive plants shall be handled in a manner that will prevent their spread and shall be appropriately contained, collected and disposed of. Disturbed soil will be managed to prevent establishment and spread of invasive plant species.	
46.	The Applicant shall ensure that all construction equipment operated within VFPA property conforms to the Non-Road Diesel Equipment Program (http://www.portvancouver.com/environment/air-energy-climate-action/cargo-handling-equipment/nrde/) in compliance with all aspects of the Fee Document with the exception of the labelling requirements.	
47.	Dust, noise, and air emissions associated with construction and operation shall be minimized.	
48.	The Applicant shall protect and safe guard the groundwater monitoring wells along the western edge of the Property.	
49.	Prior to planting vegetation within the shoreline habitat restoration area, the applicant shall: <ul style="list-style-type: none"> • Provide interested Aboriginal groups the opportunity to review and comment on the Project Planting Plan. • Provide a draft Project Planting Plan t to the satisfaction of VFPA. 	
50.	The Applicant shall submit a plan to install habitat features for birds, bats, bees, or other wildlife, to the satisfaction of VFPA.	
	CONDITIONS – UPON COMPLETION	
	SUBMISSION TIMING (Business Days)	
51.	The Applicant shall notify VFPA upon completion of the Project.	Within 10 days of completion
52.	The Applicant shall provide record drawings, in both AutoCAD and Adobe (PDF) format to VFPA.	Within 40 days of completion
53.	Record drawings shall be submitted by the applicant to CHS Hydrographic Data Centre at Chsdatacentre@dfo-mpo.gc.ca and to VFPA at navigation.review@portvancouver.com to facilitate the relevant updates to the local nautical charts.	Within 40 days of completion

VFPA reserves the right to rescind or revise these conditions at any time that new information warranting this action is made available to VFPA.

LENGTH OF PERMIT VALIDITY

The construction of the Project must commence by **August 8, 2017** (the "Commencement Date") and be complete no later than **August 8, 2018** (the "Expiry Date").

AMENDMENTS

- Details of any material proposed changes to the Project, including days and hours when construction and any physical activities will be conducted, must be submitted to VFPA for consideration of an amendment to this Permit.
- For an extension to the Commencement Date, the Applicant must apply to VFPA in writing no later than 30 days following that date.
- For an extension to the Expiry Date, the Applicant must apply in writing to VFPA no later than 30 days prior to that date.

Failure to apply for an extension as required may, at the sole discretion of VFPA, result in termination of this Permit.

PROJECT AND ENVIRONMENTAL REVIEW DECISION

Project Permit PER No. 15-096 is approved by:

Original Copy Signed _____

August 8, 2016

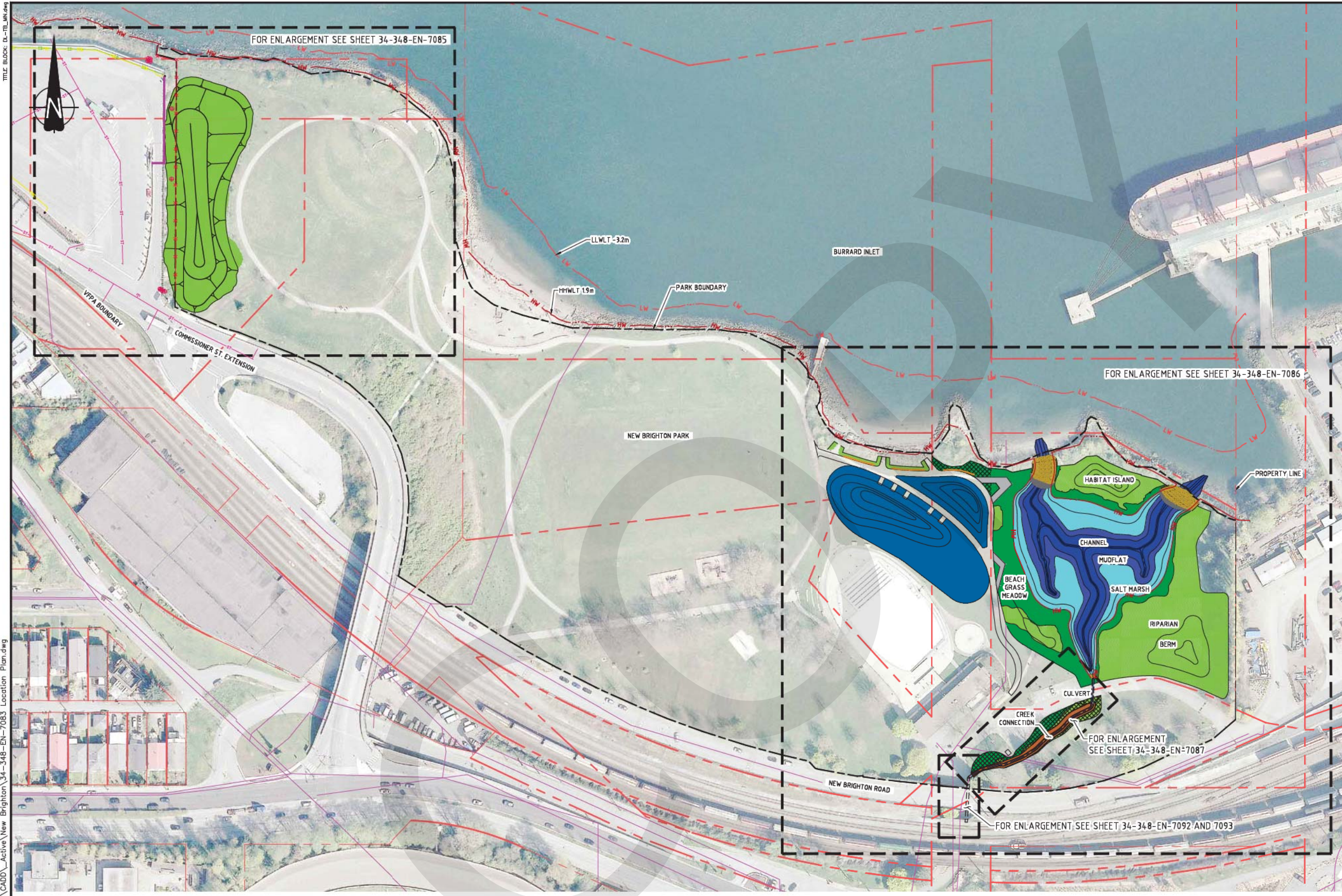
CARRIE BROWN
DIRECTOR, ENVIRONMENTAL PROGRAMS

DATE OF APPROVAL

CONTACT INFORMATION

Vancouver Fraser Port Authority (VFPA)
100 The Pointe, 999 Canada Place,
Vancouver BC V6C 3T4 Canada

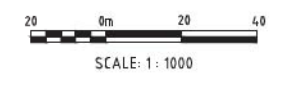
Project & Environmental Review
Tel.: 604-665-9047
Fax: 1-866-284-4271
Email: PER@portvancouver.com
Website: www.portvancouver.com



VANCOUVER FRASER PORT AUTHORITY
 This drawing has been reviewed by the Vancouver Fraser Port Authority solely for the purpose of VFPA's issuance of a Project Permit. This permit in no way denotes design, engineering or structural approval or endorsement.

- LEGEND:**
- Hw** HIGHER HIGH WATER LARGE TIDES (HHWLT) = 1.9m GD
 - Lw** LOWER LOW WATER LARGE TIDES (LLWLT) = -3.2m GD
 - PROPERTY LINE
 - EXISTING UTILITIES

NOT FOR CONSTRUCTION



LOCATION PLAN
 SCALE: 1:1000

DATE: 2016/07/14 - 4:18pm
 PATH: P:\8033 Habitat Banking Ph2\CADD\Active\New Brighton\34-348-EN-7083 Location Plan.dwg

Ref.No.	REFERENCE

CONSULTANT

777 WEST BROADWAY, SUITE 301 VANCOUVER, BC, CANADA, V5Z 4J7
 604-707-9004

IN ASSOCIATION WITH:

No.	Date	REVISION	Dr'n	Ch'd
C	16-07-15	ISSUED FOR TENDER	LL	MT
B	16-06-17	ISSUED FOR 95%	LL	MT
A	16-04-28	ISSUED FOR 60%	LL	MT

VANCOUVER FRASER PORT AUTHORITY
 ENGINEERING DEPARTMENT

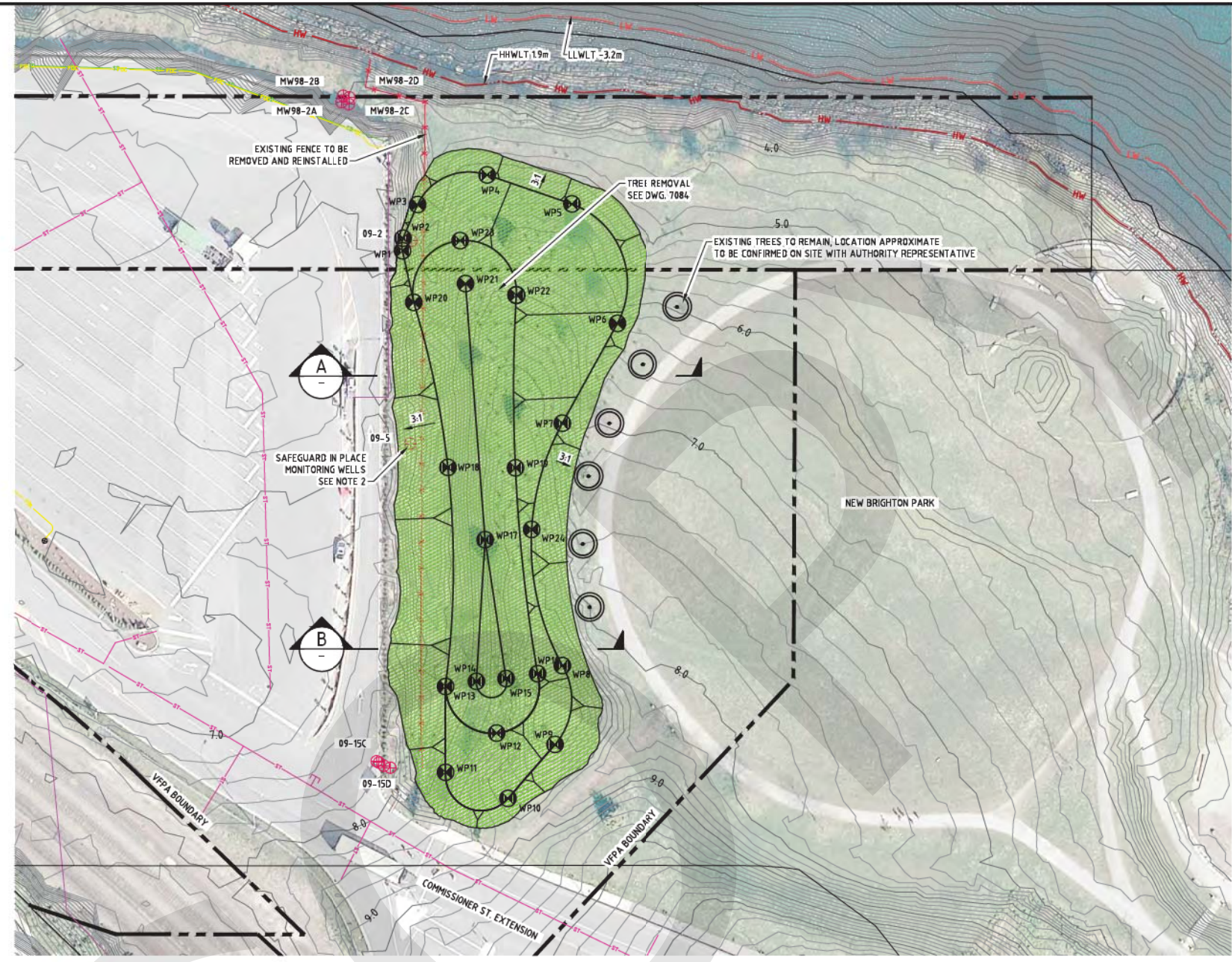
DESIGN BY	WT
DRAWN BY	LL
APPROVED	JF
DATE	APR. 25, 2016
SCALE	AS SHOWN
PMW SITE	

NEW BRIGHTON PARK
SHORELINE HABITAT RESTORATION PROJECT
LOCATION PLAN

SIZE	DWG.	34-348-EN-7083	SHEET	REV.
D			4 of 25	C

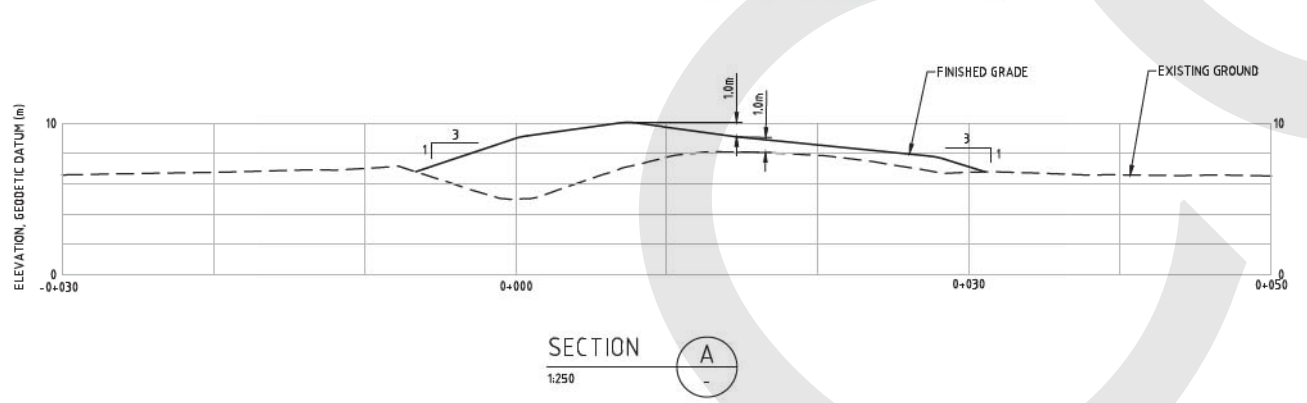
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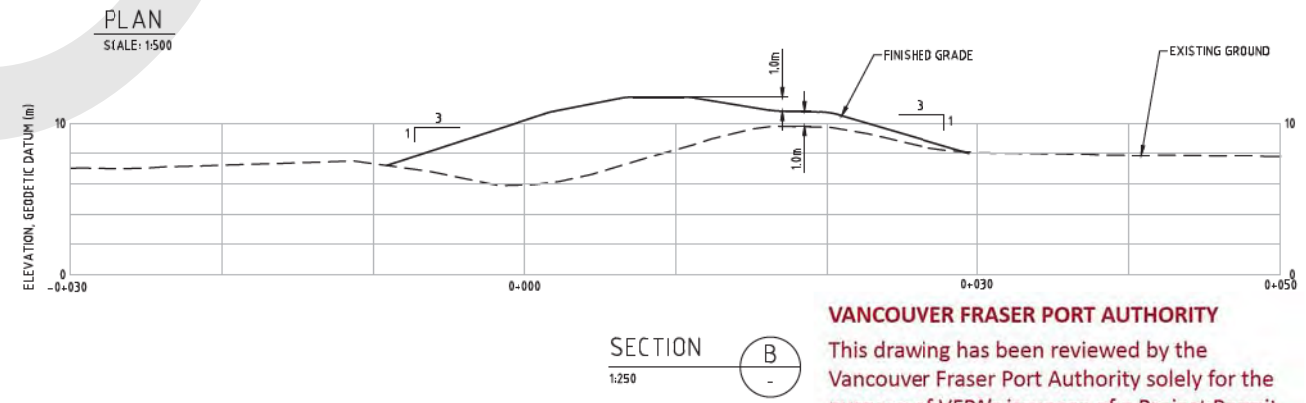


WORK POINTS			
WORKPOINT	EASTING	NORTHING	ELEVATION (m)
WP1	496962.817	5459911.229	7.14
WP2	496962.916	5459913.450	6.91
WP3	496965.496	5459919.400	6.20
WP4	496977.804	5459924.649	6.19
WP5	496992.819	5459919.511	6.52
WP6	497000.873	5459898.349	7.27
WP7	496991.128	5459880.649	8.54
WP8	496991.131	5459837.690	10.80
WP9	496989.833	5459823.717	11.04
WP10	496981.499	5459814.157	10.13
WP11	496970.450	5459818.772	8.57
WP12	496979.472	5459825.728	9.61
WP13	496970.450	5459833.996	10.64
WP14	496975.903	5459834.907	11.65
WP15	496981.156	5459835.394	11.61
WP16	496986.735	5459836.261	10.97
WP17	496977.451	5459860.008	11.07
WP18	496970.861	5459872.830	9.67
WP19	496982.821	5459872.744	9.67
WP20	496964.804	5459902.073	8.18
WP21	496973.971	5459905.408	8.75
WP22	496982.971	5459903.363	7.97
WP23	496973.016	5459913.020	6.78
WP24	496985.686	5459861.827	10.04

LEGEND:	AREA:
FILL - TYPE 1 HYDRO-SEED MIX.	4006 m²
HW - HIGHER HIGH WATER LARGE TIDES (HHWLT) = 1.9m GD	
LW - LOWER LOW WATER LARGE TIDES (LLWLT) = -3.2m GD	
PROPERTY LINE	
EXISTING UTILITIES	

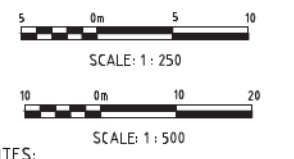


SECTION A-A
1:250



SECTION B-B
1:250

NOT FOR CONSTRUCTION



VANCOUVER FRASER PORT AUTHORITY
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- NOTES:**
1. ALL ELEVATIONS REFER TO GEODETIC DATUM.
 2. MONITORING WELLS TO BE SAFEGUARDED IN PLACE AS PER SPECIFICATIONS.

Ref.No.	REFERENCE

CONSULTANT

777 WEST BROADWAY, SUITE 301 VANCOUVER, BC, CANADA, V5Z 4J7
 604-707-9004

IN ASSOCIATION WITH:

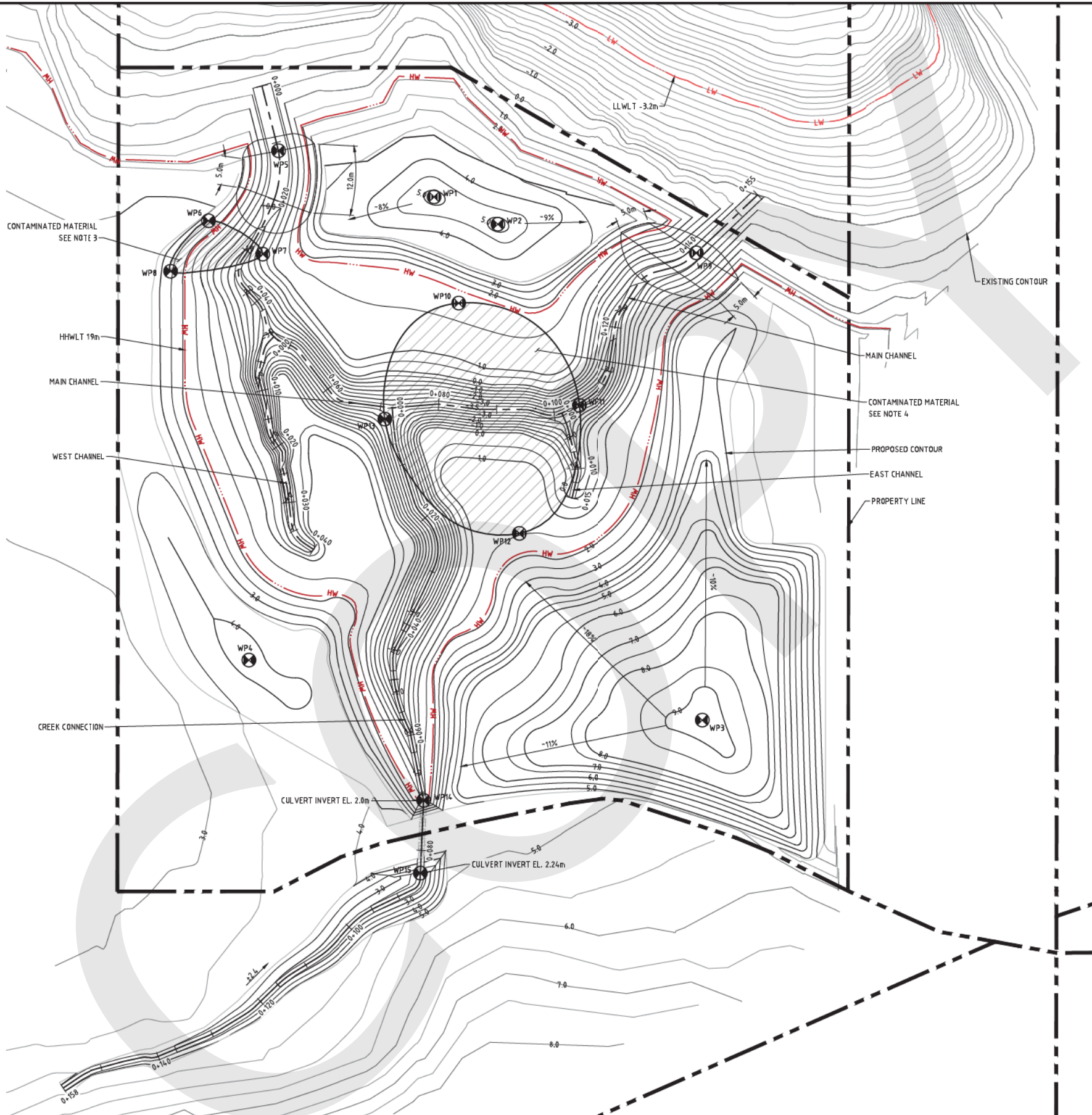
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C	16-07-15	ISSUED FOR TENDER	LL	MT
B	16-06-17	ISSUED FOR 95%	LL	MT
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VANCOUVER FRASER PORT AUTHORITY
 ENGINEERING DEPARTMENT

DESIGN BY	WT
DRAWN BY	LL
APPROVED	JF
DATE	APR. 25, 2016
SCALE	AS SHOWN
PMW SITE	

NEW BRIGHTON PARK
 SHORELINE HABITAT RESTORATION PROJECT
 WEST FILL PLAN AND TYPICAL SECTION

SIZE: D DWG. 34-348-EN-7085 SHEET 6 of 25 REV. C



BERM HIGH POINTS			
WORKPOINT	EASTING	NORTHING	ELEVATION (m)
WP1	497437.786	5459724.886	5.0
WP2	497448.711	5459720.198	5.0
WP3	497483.797	5459635.135	9.0
WP4	497405.993	5459645.439	4.0

WORK POINTS			
WORKPOINT	EASTING	NORTHING	ELEVATION (m)
WP5	497411.052	5459732.787	0.300
WP6	497399.082	5459720.785	2.63
WP7	497408.352	5459715.057	0.19
WP8	497392.605	5459712.119	2.59
WP9	497482.767	5459715.284	-1.00
WP10	497442.003	5459706.658	1.74
WP11	497462.693	5459689.123	-3.10
WP12	497452.384	5459667.162	1.46
WP13	497429.323	5459686.776	-3.07
WP14	497435.987	5459621.380	2.00
WP15	497435.419	5459608.898	2.24

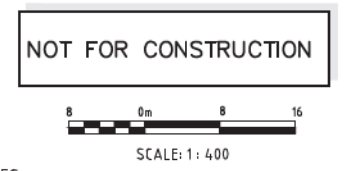
MAIN CHANNEL			
STAT.	EASTING	NORTHING	ELEVATION (m)
0+00	497408.236	5459743.895	0.30
0+20	497410.312	5459724.374	0.12
0+40	497407.370	5459706.987	-2.27
0+60	497419.511	5459691.948	-3.50
0+80	497438.581	5459689.326	-3.50
0+100	497458.403	5459687.476	-3.50
0+120	497468.800	5459702.513	-2.30
0+140	497482.744	5459715.263	-1.00
0+155	497493.263	5459725.220	-1.00

WEST CHANNEL			
STAT.	EASTING	NORTHING	ELEVATION (m)
0+00	497410.274	5459700.916	-3.11
0+10	497408.259	5459691.673	-2.33
0+20	497411.027	5459682.167	-1.56
0+30	497412.849	5459672.477	-0.78
0+40	497417.055	5459664.418	0.00

CREEK CONNECTION			
STAT.	EASTING	NORTHING	ELEVATION (m)
0+00	497430.694	5459688.714	-3.50
0+20	497436.227	5459669.837	-3.50
0+40	497433.123	5459651.582	-2.62
0+60	497433.790	5459632.584	0.32
0+80	497435.598	5459612.806	2.16
0+100	497423.201	5459599.669	2.62
0+120	497407.970	5459586.892	3.09
0+140	497390.481	5459577.475	3.56
0+158	497374.054	5459572.051	4.00

EAST CHANNEL			
STAT.	EASTING	NORTHING	ELEVATION (m)
0+00	497459.691	5459687.818	-3.25
0+010	497462.444	5459678.228	-1.08
0+015	497461.430	5459673.238	0.00

LEGEND:
 - - - - - HW - HIGHER HIGH WATER LARGE TIDES (HHWLT) = 1.9m GD
 - - - - - LW - LOWER LOW WATER LARGE TIDES (LLWLT) = -3.2m GD
 - - - - - PROPERTY LINE



- NOTES:**
- ALL ELEVATIONS REFER TO GEODETIC DATUM.
 - FILL SHALL BE PLACED IN HORIZONTAL LIFTS OF MAXIMUM 400MM LOOSE THICKNESS AND COMPACTED BY MECHANICAL MEANS.
 - HYDROCARBON CONTAMINATED MATERIAL IN THIS AREA BETWEEN 0.3M AND 3.0M (APPROXIMATELY 2.9M AND 0.2M EL. GD) BELOW GROUND SURFACE TO BE DISPOSED OFF SITE AS DIRECTED BY AUTHORITY REPRESENTATIVE.
 - MATERIAL IN THIS AREA BETWEEN 0.3M AND 1.5M (APPROXIMATELY 2.95M - 3.26M AND 1.75M - 2.06M EL. GD) BELOW GROUND SURFACE SHALL BE PLACED WITHIN BERM EAST OF MARSH BETWEEN 4.0M AND 6.0M EL.GD, AND SHALL HAVE MINIMUM 2.0M COVER.

VANCOUVER FRASER PORT AUTHORITY
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DATE: 2016/07/14 - 4:21pm PATH: P:\8033 Habitat Banking Ph2\CADD\Active\New Brighton\34-348-EN-7088 Marsh Grading.dwg

Ref.No.	REFERENCE

CONSULTANT

777 WEST BROADWAY, SUITE 301 VANCOUVER, BC, CANADA, V5Z 4J7
604-707-9004

IN ASSOCIATION WITH:

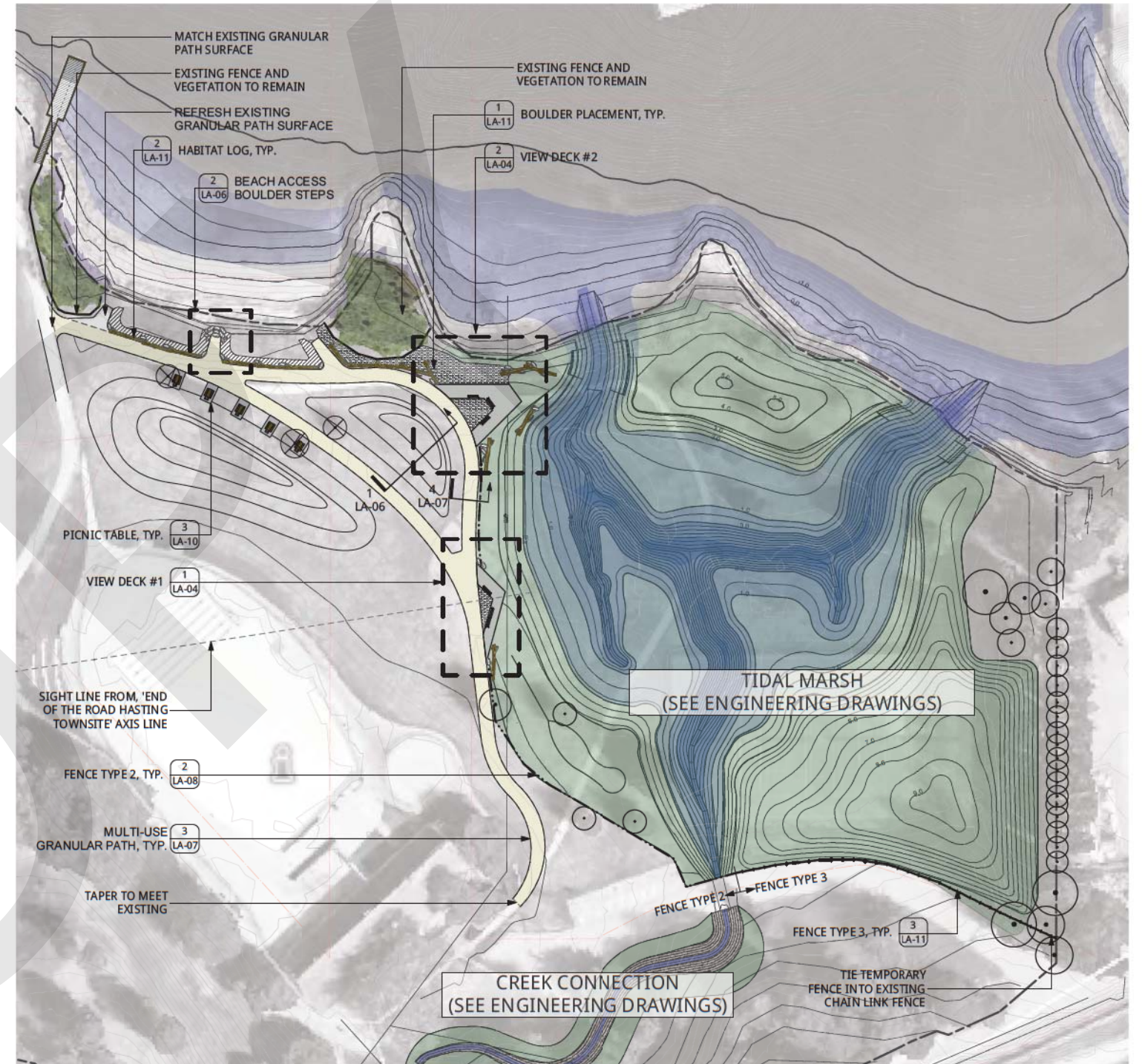
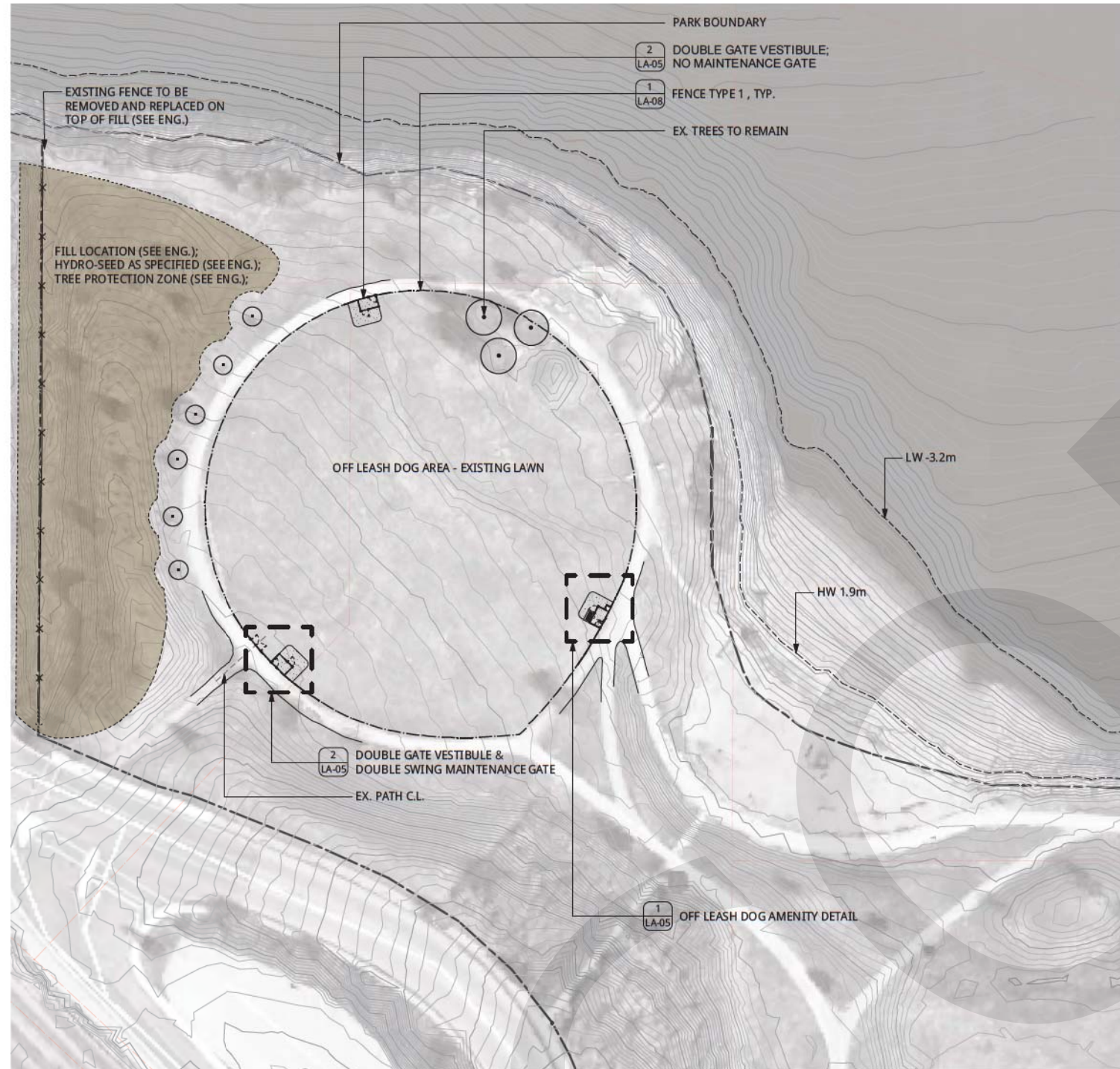
No.	Date	REVISION	Dr'n	Ch'd
C	16-07-15	ISSUED FOR TENDER	LL	MT
B	16-06-17	ISSUED FOR 95%	LL	MT
A	16-04-28	ISSUED FOR 60%	LL	MT

VANCOUVER FRASER PORT AUTHORITY
ENGINEERING DEPARTMENT

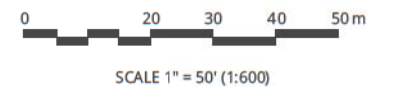
DESIGN BY	WT
DRAWN BY	LL
APPROVED	JF
DATE	APR. 6, 2015
SCALE	AS SHOWN
PMW SITE	

NEW BRIGHTON PARK
SHORELINE HABITAT RESTORATION PROJECT
GRADING PLAN

SIZE: D DWG: 34-348-EN-7088 SHEET: 9 of 25 REV: C



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Ref.No.	REFERENCE

CONSULTANT: **moffatt & nichol**
777 WEST BROADWAY, SUITE 301 VANCOUVER, BC, CANADA V5Z 4J7
604-707-9004

IN ASSOCIATION WITH:

connect LANDSCAPE ARCHITECTURE

G. Williams & Associates Ltd.
Heritage Management Consulting

No.	Date	REVISION	Dr'n	Ch'd
3	16-07-15	ISSUED FOR TENDER	MV	KL
2	16-06-17	ISSUED FOR 95%	MV	KL
1	16-04-28	ISSUED FOR 60%	MV	KL

PORT of vancouver

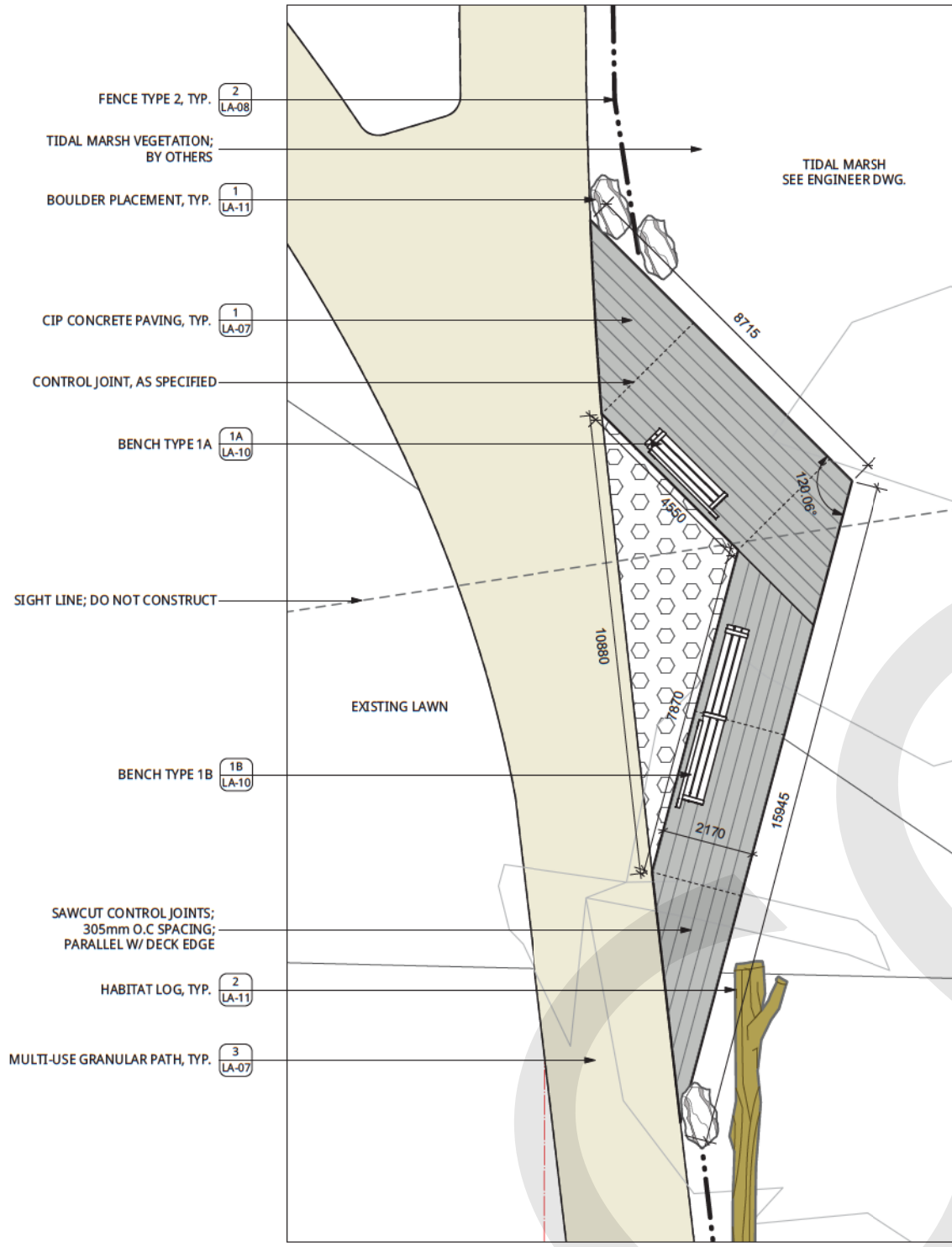
VANCOUVER FRASER PORT AUTHORITY
ENGINEERING DEPARTMENT

DESIGN BY	KLMV
DRAWN BY	MV
APPROVED	KL
DATE	JULY 15, 2016
SCALE	AS SHOWN
PMW SITE	

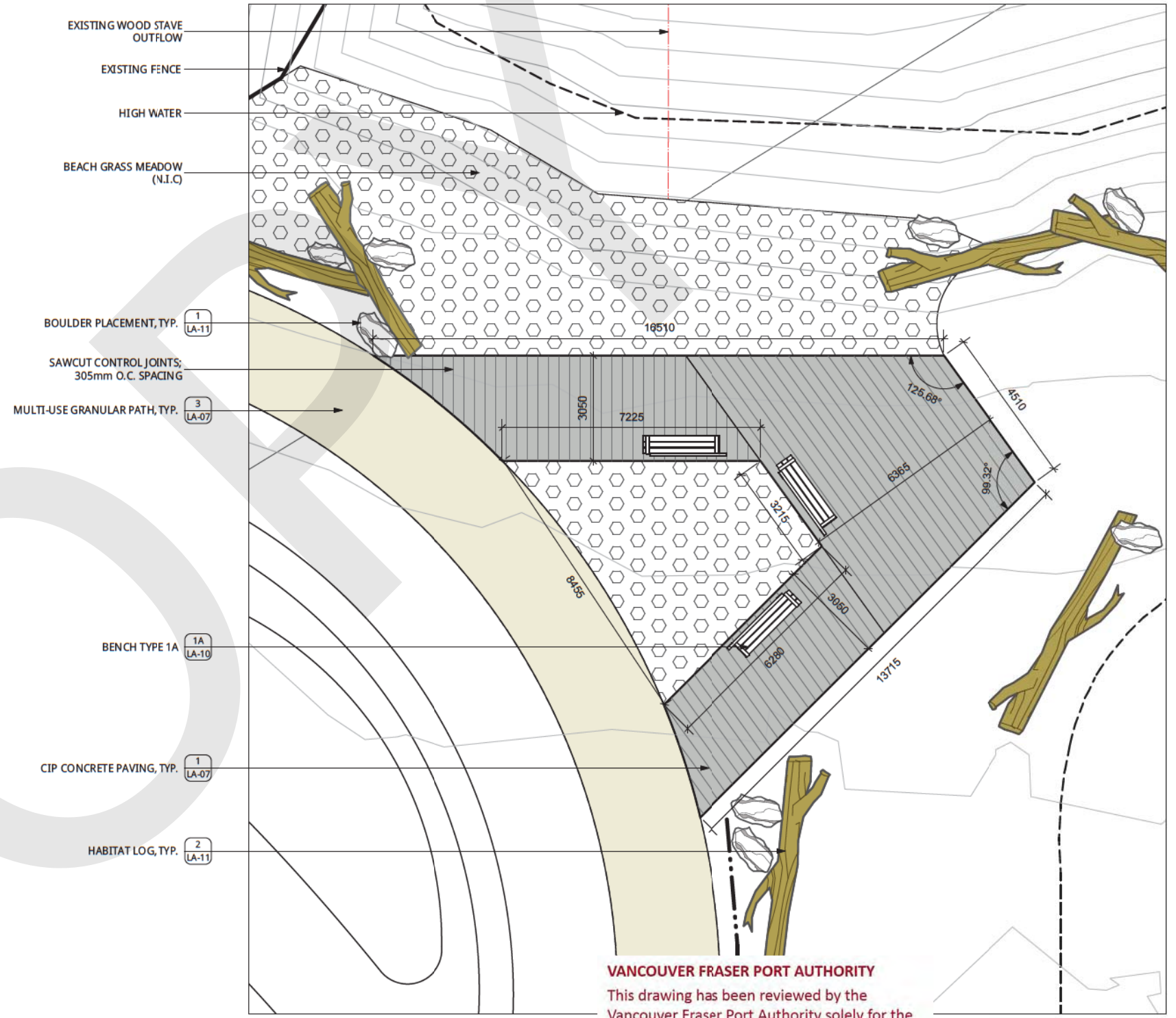
NEW BRIGHTON PARK
SHORELINE HABITAT RESTORATION PROJECT
PARK FEATURES
SITE PLAN ENLARGEMENT

SIZE: D, DIM: 06-448-LA-02, SHEET: 16 of 25, REV: A

TITLE BLOCK DATE: 16-04-17



1 VIEW DECK #1 (38m2)
Scale: 1:75



2 VIEW DECK #2 (85m2)
Scale: 1:75



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Ref.No.	REFERENCE

CONSULTANT

IN ASSOCIATION WITH:

777 WEST BROADWAY, SUITE 301 VANCOUVER, BC, CANADA V5Z 4J7
604-707-9004

No.	Date	REVISION	Dr'n	Ch'd
3	16-07-15	ISSUED FOR TENDER	MV	KL
2	16-06-17	ISSUED FOR 95%	MV	KL
1	16-04-28	ISSUED FOR 60%	MV	KL

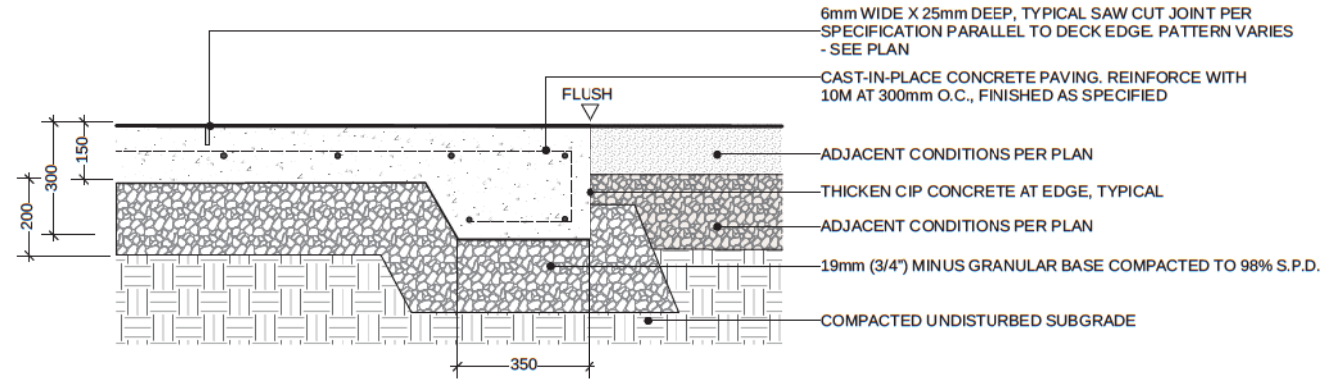
VANCOUVER FRASER PORT AUTHORITY
ENGINEERING DEPARTMENT

DESIGN BY	KLMV
DRAWN BY	MV
APPROVED	KL
DATE	JULY 15, 2016
SCALE	AS SHOWN
PMW SITE	

NEW BRIGHTON PARK
SHORELINE HABITAT RESTORATION PROJECT
PARK FEATURES
VIEW DECKS

SIZE: D DML: 06-448-LA-04

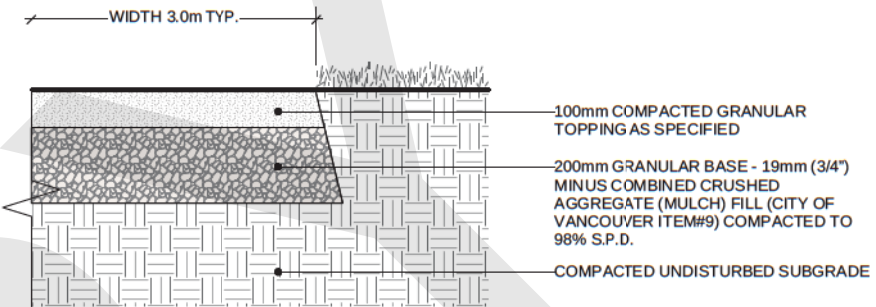
SHEET: 18 of 25
REV: A



NOTES:

1. SEE LAYOUT PLAN FOR SAWCUT JOINT PATTERN AND BAND WIDTH (DWG. LA-04)
2. FINAL LOCATION FOR ALL JOINTS AND SAW CUTS TO BE CONFIRMED ON SITE WITH AUTHORITY REPRESENTATIVE PRIOR TO INSTALLATION

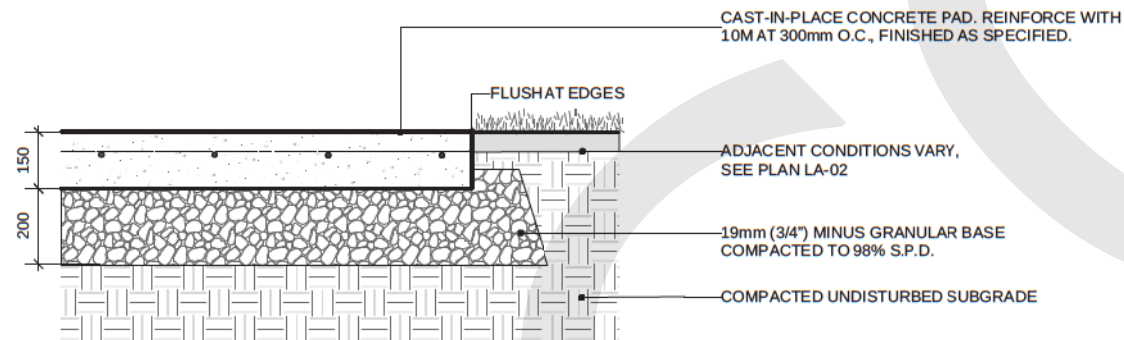
1 CIP CONCRETE PAVING (VIEW DECKS)
Scale: 1:10



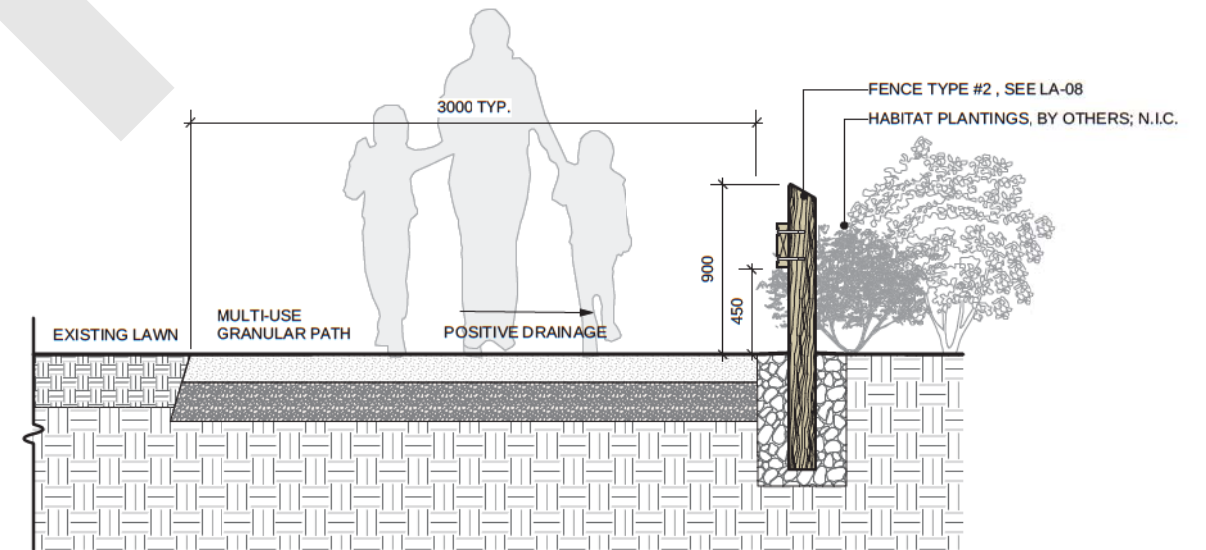
NOTES:

1. POSITIVE SLOPE ALL AREAS; MIN. 2%
2. SLOPE VARIES - SEE GRADING PLAN, LA-03

3 MULTI-USE GRANULAR PATH
Scale: 1:10



2 CIP CONCRETE PAD DETAIL (BENCH TYPE 2 & PICNIC TABLES)
Scale: 1:10



4 SECTION AT HABITAT AREA
Scale: 1:20

VANCOUVER FRASER PORT AUTHORITY
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Ref.No.	REFERENCE

CONSULTANT

IN ASSOCIATION WITH

777 WEST BROADWAY, SUITE 301 VANCOUVER, BC, CANADA V6Z 4J7
604-707-9004

No.	Date	REVISION	Dr'n	Ch'd
3	16-07-15	ISSUED FOR TENDER	MV	KL
2	16-06-17	ISSUED FOR 95%	MV	KL
1	16-04-28	ISSUED FOR 60%	MV	KL

VANCOUVER FRASER PORT AUTHORITY
ENGINEERING DEPARTMENT

DESIGN BY	KL/MV
DRAWN BY	MV
APPROVED	KL
DATE	JULY 15, 2016
SCALE	AS SHOWN
PMV SITE	

NEW BRIGHTON PARK
SHORELINE HABITAT RESTORATION PROJECT
PARK FEATURES
DETAILS: HARDSCAPE

06-448-LA-07

SHEET	REV.
21 OF 25	A