Township of Esquimalt	COST OF SERVICES FORM
Site Remediation Program - Area A1, A2, B1, B2, C1, C2	, E1, E2, and F LUMP SUM/UNIT PRICES
Esquimalt Town Square	SLR Project Number 205.03688.00001
1235 Esquimalt Road, Esquimalt, BC	February 2017

This Appendix forms an integral part of the Request For Pricing. It is understood and agreed that with respect to the submission of this Appendix, the following shall apply:

- 1. The estimated prices for the items listed in this Section shall include the costs of materials, transportation, taxes (excluding GST) labour, installation, maintenance, and the Contractor's overhead and profit, etc.
- 2. Any work called for in the Request For Pricing Documents, shown on the plans, or which is necessary for the completion of the Work called for in the Request For Pricing and which is not specifically listed as a separate item in this Appendix shall be deemed incidental to the performance of the work and to the general purpose of the Request For Pricing; no separate payment will be made on account of any such Work, but the cost of any such incidental Work shall be included in this Estimated Price.
- 3. Each Lump Sum Price requested shall be submitted.
- 4. Where a unit cost is requested and an estimated number of units is provided, the estimated total cost is provided to allow comparison of estimated prices only. No adjustment to the unit cost quoted will be allowed if the final total number of units varies.

CONTRACTOR/FIRM NAME:	

	PART I – SITE PREPARATION AND REQUIRED SITE EQUIPMENT AND SUPPLIES					
	Item	Unit	Estimated # Units	Unit Cost	Total Cost	
1.	Mobilization and Demobilization (all personnel, equipment, and site office)	LS	1	Not Applicable	\$	
2.	Provision of Site Facilities	LS	1	Not Applicable	\$	
3.	On-Site Temporary Access Route Maintenance (including maintenance of road access and parking for tenants and cleaning of access roads)	LS	1	Not Applicable	\$	
4.	Supply, Operation and Maintenance of Truck Wheel Wash Facility	LS	1	Not Applicable	\$	
5.	Provision of Traffic Control	LS	1	Not Applicable	\$	
6.	Supply, Installation, and Removal of Temporary Fencing Around the Site	LS	1	Not Applicable	\$	
7.	Creation of an Environmental Protection Plan	LS	1	Not Applicable	\$	
8.	Provision of All Equipment Required For Environmental Protection Measures (silt fencing, straw bales geofabric, polyethelene liner above/below stockpiles, etc.)	LS	1	Not Applicable	\$	
9.	Utility Clearance	LS	1	Not Applicable	\$	
	SUB	\$				
10	. Maintenance of Selected Infrastructure and Existing Utilities (provision of alternate equivalent utilities can also be proposed)	LS	1	Not Applicable	\$	

PART I – SITE PREPARATION AND REQUIRED SITE EQUIPMENT AND SUPPLIES				
Item	Unit	Estimated # Units	Unit Cost	Total Cost
11. Supply, Operation and Maintenance of All Water Collection and Treatment Equipment	LS	1	Not Applicable	\$
12. Geotechnical / Structural Engineering Excavation Memorandum, Excavation Monitoring, and Summary Report	LS	1	Not Applicable	\$
	\$			

<b>SUB-TOTAL I(a)</b>	\$
SUB-TOTAL I(b)	\$
SUB-TOTAL PART "I"	\$

PART II – MATERIAL REMOVAL, DISPOSAL, AND IMPORTATION					
Item	Unit	Estimated # Units	Unit Cost	Total Cost	
		Area A1 and	d A2		
13. Area A1/A2 Excavation Preparation and Staging	LS	1	Not Applicable	\$	
14. Area A1 Excavation, Transportation and Off-Site Disposal of PAH, PHC and Metal Contaminated Soil CL+	Tonne	2550	\$	\$	
15. Area A2 Excavation, Segregation, and Stockpiling of Suspect Non-Compliant Soils (Na and CI)	Cubic Metres	6000	\$	\$	
16. Area A2 Loading and Disposing Confirmed Non-Compliant Soils (Na and Cl) CL+	Tonne	5100	\$	\$	
17. Area A2 Loading and Disposing Confirmed Non-Compliant Soils (Na and Cl) > Schedule 7, Column II/III < CL	Tonne	5100	\$	\$	
		Area B1 and	d B2		
18. Area B1/B2 Excavation Preparation and Staging	LS	1	Not Applicable	\$	
19. Area B1 Excavation, Transportation and Off-Site Disposal of PAH, PHC, Na, Cl and Metal Contaminated Soil CL+	Tonne	3188	\$	\$	
20. Area B2 Excavation,	Cubic	4375	\$	\$	

PART II – MATERIAL REMOVAL, DISPOSAL, AND IMPORTATION					
Segregation, and Stockpiling of Suspect Non-Compliant Soils (Na and Cl)	Metres				
21. Area B2 Loading and Disposing Confirmed Non-Compliant Soils (Na and Cl) CL+	Tonne	3718.75	\$	\$	
22. Area B2 Loading and Disposing Confirmed Non-Compliant Soils (Na and CI) >Schedule 7 Column II/III < CL	Tonne	3718.75	\$	\$	
		Area C1 and	d C2		
23. Area C1/C2 Excavation Preparation and Staging	LS	1	Not Applicable	\$	
24. Area C1 Excavation, Transportation and Off-Site Disposal of PAH, PHC, Na, Cl and Metal Contaminated Soil CL+	Tonne	179	\$	\$	
25. Area C2 Excavation, Segregation, and Stockpiling of Suspect Non-Compliant Soils (PHC and Cl) CL+	Cubic Metres	245	\$	\$	
26. Area C2 Loading and Disposing Confirmed Non-Compliant Soils (PHC and Cl) CL+	Tonne	208.5	\$	\$	
27. Area C2 Loading and Disposing Confirmed Non-Compliant Soils (PHC and Cl) > Schedule 7, Column II < CL	Tonne	208.5	\$	\$	

PART II – MATERIAL REMOVAL, DISPOSAL, AND IMPORTATION				
		Areas E1, E2	and F	
28. Area E1, E2, and F Excavation Preparation and Staging	LS	1	Not Applicable	\$
29. Area E1, E2 and F Excavation, Segregation, and Stockpiling of Suspect Non-Compliant Soils (Na and CI)	Cubic Metres	5250	\$	\$
30. Areas E1, E2 and F Loading and Disposing Confirmed Non-Compliant Soils (Na and Cl) CL+	Tonnes	4462.5	\$	\$
31. Areas E1, E2 and F Loading and Disposing Confirmed Non-Compliant Soils (Na and Cl) > Schedule 7, Column II/III < CL	Tonnes	4462.5	\$	\$
Excavation Shoring				
32. Excavation Shoring	LS	1	Not Applicable	\$
SUB-TOTAL II				

ESTIMATED PRICE (PART "I")	<b>\$</b>
ESTIMATED PRICE (PART "II")	\$
EXCLUDING GST	
TOTAL ESTIMATED PRICE	\$

PART III – UNIT COSTS					
Item	Unit	Estimated # Units (leave blank)	Unit Cost	Estimated Total Cost (leave blank)	
33. Estimated Equipment fo other Personnel Costs).				lude Operator and	
Project Manager	Hour		\$	\$	
Site Supervisor	Hour		\$	\$	
Labourer	Hour		\$	\$	
	Hour		\$	\$	
	Hour		\$	\$	
	Hour		\$	\$	
	Hour		\$	\$	
	Hour		\$	\$	
	Hour		\$	\$	
	Hour		\$	\$	
	Hour		\$	\$	

### **PAYMENT ITEMS**

### Part I - Site Preparation and Required Site Equipment and Supplies

### 1. MOBILIZATION AND DEMOBILIZATION

Payment for this item includes, but is not limited to, all costs for the mobilization to and demobilization from the site of all necessary personnel and equipment for all works as well as site facilities. Included in the payment are all incidental costs for site traffic control and the decontamination of equipment and materials required for the work.

Payment will be made based on the Lump Sum price tendered.

#### 2. PROVISION OF SITE FACILITIES

Payment for this item includes, but is not limited to, all costs for the provision of office space and sanitary facilities for the duration of the remediation.

Payment will be made based on the Lump Sum price tendered.

### 3. ON-SITE TEMPORARY ACCESS ROUTE MAINTENANCE

Payment for this item includes, but is not limited to, all costs for the maintenance of temporary on-site access routes to provide mobilization of equipment to and hauling of material from the site, and maintain access roads and parking for tenants of the Municipal hall and Library Building. Included in the payment are all costs to reinstate the private site access roads owned by the Township to their initial condition or better at the conclusion of the work. Included in the payment are all costs to reinstate any areas used for temporary on-site access routes constructed during the work and cleaning of roads accessing the site during work.

Payment will be made based on the Lump Sum price tendered.

### 4. TRUCK WHEEL WASH FACILITY

Payment for this item includes all costs for mobilization/demobilization, installation and maintenance of a truck wheel wash facility.

Payment will be made based on the Lump Sum price tendered for operation and maintenance.

#### 5. PROVISION OF TRAFFIC CONTROL

The Contractor shall provide barricades and flag persons for access onto Park Place, Catherine Street, Fraser Street or Esquimalt Road when trucks are leaving the site (loaded or empty).

Payment will be made based on the Lump Sum price tendered.

#### 6. TEMPORARY FENCING

Payment for this item includes, but is not limited to, all costs to pickup (from 405 Lampson Street in Esquimalt BC), install and maintain fencing until after completion of remediation. Locking gates are required to secure the work area.

Payment will be made based on the Lump Sum price tendered.

### 7. CREATION OF AN ENVIRONMENTAL PROTECTION PLAN

Payment for this item includes all costs for creation of an Environmental Protection Plan (EPP) including all requirements included in Section 2.6.2.

Payment will be made based on the Lump Sum price tendered.

# 8. PROVISION OF ALL EQUIPMENT FOR ENVIRONMENTAL PROTECTION MEASURES

Payment for this item also includes all costs for equipment, materials (i.e. silt fencing, straw bales, geofabric, etc.) and labour to temporarily divert, redirect or collect groundwater/surface water or precipitation sufficiently to allow for the removal of soil, prevent the entry of surface water into excavations, and minimize the discharge of suspended solids due to excavation. Included in the payment are all costs to install, maintain and remove the equipment and reinstate any temporary drainage ditches to a safe and stable condition; and cover stockpiled soil with polyethylene liner above and below.

Payment will be made based on the Lump Sum price tendered for on-site equipment, operation and maintenance.

#### 9. UTILITY CLEARANCE

Payment for this item includes, but is not limited to, all costs to identify locations of, and clear all, buried and aboveground services prior to the commencement of excavation. Included in the payment are all costs to reinstate, to their initial condition, any utilities damaged during the project works.

Payment will be made based on the Lump Sum price tendered.

#### 10. MAINTENANCE OF SELECTED INFRASTRUCTURE AND EXISTING UTILITIES

Payment for this item includes, but is not limited to, all costs to maintain the existing backup generator, trees, charging stations and other buried utilities that might remain in the work area.

Provision of alternate, equivalent, utilities can be proposed by the Contractor but the Township reserves the right to accept or reject any proposed alternate. Any proposed alternate utility provision must be approved by the appropriate agency.

Payment will be made based on the Lump Sum price tendered.

# 11. SUPPLY, OPERATION, AND MAINTENANCE OF ALL WATER COLLECTION AND TREATMENT EQUIPMENT

Payment for this item includes mobilization/demobilization, installation and the ongoing operation and maintenance of all equipment (i.e. pumps, piping, power, tankage, treatment system, etc.), and obtaining any necessary permits or approvals. Included in the payment are all incidental costs for decontamination of equipment and materials required for the work and water generated in the wheel wash facility. Payment also includes incidental costs such as decontamination of equipment and water generated in the wheel wash facility.

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The system must be capable of removing metals, oil, suspended solids, particulates, LNAPL (light non-aqueous phase liquids), and dissolved phase petroleum hydrocarbons prior to discharge. The contaminants of concern in the water associated with soils are metals, hydrocarbons and PAHs.

Payment will be made based on the Lump Sum price tendered for on-site equipment, operation and maintenance. No payment will be made if treatment is required and the treatment system is not able to meet the water discharge quality requirements. It is expected that the treated water will be discharged to ground and will have concentrations of dissolved metals and total suspended solids below applicable standards/criteria. The total suspended solids limit for discharge is less than 75 mg/L (CRD Water Bylaw).

# 12. GEOTECHNICAL / STRUCTURAL ENGINEERING TECHNICAL MEMORANDUM, EXCAVATION MONITORING, AND SUMMARY REPORT

Payment for this item includes all costs for the creation of a geotechnical / structural engineering technical memorandum on how to excavate in the vicinity of the adjacent roadways, sidewalks and any infrastructure onsite. The geotechnical / structural engineering memorandum will outline excavation offsets, slot excavations, shoring, sloping, and any other requirements that the engineering subcontractor determines are needed to maintain the integrity of existing facilities and infrastructure.

The geotechnical / structural engineer will be available to conduct monitoring during excavation to ensure the requirements of the technical memorandum are being met.

The geotechnical / structural engineer will prepare a summary report that summarizes the excavation procedures used and the results of the excavation monitoring.

Costs shall include deliverables including the technical engineering memorandum, detailed excavation monitoring, and an excavation monitoring report.

Payment will be made based on the Lump Sum price tendered.

#### Part II – Material Removal and Disposal

#### 13. 18. 23. 28. EXCAVATION PREPERATION AND STAGING

Payment for this item includes all costs for preparing temporary storage areas for materials and/or equipment, including preparing equipment for task and relocation onsite. This item also includes decontaminating equipment prior to moving it.

# 14. 19. 24. SOIL EXCAVATION, LOADING, TRANSPORTATION, AND OFF-SITE DISPOSAL

Payment for all these items includes all costs for the excavation, direct-loading, transportation and disposal of soil from the site. For the purposes of this Request For Pricing, excavation, transport and disposal costs are to be estimated for the BC CSR soil category:

• Metals, Chloride, Sodium, PHC, PAH > CSR CL

Payment will be made based on the Unit Costs tendered.

# 15. 20. 25. 29. EXCAVATION, SEGREGATION, AND STOCKPILING ON-SITE OF SUSPECT NON-COMPLIANT SOILS

Payment for this item includes all costs for the excavation, segregation, and stockpiling of suspect non-compliant soils.

For excavation, segregation, and stockpiling on-site, the Consultant and Contractor will fill a truck and/or truck and pup to an agreed upon level that represents a specific volume of soil (i.e. 7 m<sup>3</sup> per tandem truck / 14 tonnes).

Payment will be made based on the Unit Costs tendered.

# 16. 21. 26. and 30. LOADING, TRANSPORTATION, AND OFF-SITE DISPOSAL OF NON-COMPLIANT SOILS AFTER CHARACTERIZATION

Payment for this item includes all costs for the loading, transportation, and off-site disposal of suspect non-compliant soil that is characterized by the Consultant.

For the purposes of these line items, excavation, transport and disposal costs are to be estimated for the BC CSR soil catagories:

- Chloride, Sodium > CSR CL
- Chloride and PHC > CSR CL (Line 26 Only)

Payment will be made based on the Unit Costs tendered.

# 17. 22. 27. and 31. LOADING, TRANSPORTATION, AND OFF-SITE DISPOSAL OF NON-COMPLIANT SOILS AFTER CHARACTERIZATION

Payment for this item includes all costs for the loading, transportation, and off-site disposal of suspect non-compliant soil that is characterized by the Consultant.

For the purposes of this line item, excavation, transport and disposal costs are to be estimated for the BC CSR soil catagory:

- Chloride and Sodium > CSR Schedule 7, Column II/III < CL
- Chloride and PHC > CSR Schedule 7, Column II < CL (Line 27 Only)

Payment will be made based on the Unit Costs tendered.

#### 28. EXCAVATION SHORING

The Excavation shoring described in the memorandum by the Contractor's engineer will be implemented in accordance with its specifications. Shoring quality will be moniotored and inspected by the Contrator's engineer to ensure adherence to memorandum specifications with details provided in the summary report.

Costs shall include time and materials required to construct and maintain shoring.

Payment will be made based on the Lump Sum price tendered.