# Vancouver Landfill Owner's List of Known Workplace Hazards

CONTRACT TITLE: PROFESSIONAL SERVICES FOR WASTE COMPOSITION STUDY

PROJECT MANAGER (CITY EMPLOYEE): DAVE TOLNAI

CONTRACT NAME & # (IF KNOWN): PS20181201

#### **Purpose**

This document shall be completed by the project manager, who shall list all the <u>known</u> worksite hazards and all the <u>existing</u> work process hazards that will be associated with the upcoming contract. The completed document shall then be provided to all potential contractors, as part of the tender package, so the project can be bid appropriately based on the known worksite hazards.

#### Definitions

**Project Manager** - the City employee designated to be the liaison with the contractor for the purpose of managing, overseeing, coordinating or in any other way administering the contract.

#### **Instructions for Completion**

The document must be completed in full. Choices for each entry are:

Y - Yes - the known worksite hazard or existing work process hazard does exist

N - No - the known worksite hazard or existing work process hazard does not exist\*

NA - Not Applicable - worksite hazard or existing work process is not applicable for this contract type

TBD - a third party (environmental consultant) will address the issue (primarily for a hazardous materials assessment)

\*based on reasonable estimation from all input by persons with expertise or relevant knowledge and understanding

# Information from Hazardous Materials Assessments Provided by a Third Party

A hazardous materials assessment may be completed prior to the Project Manager completing the Owners List of Known Workplace Hazards. Any such assessment should be referenced by the Project Manager in this document and provided with the tender package. Hazardous materials may include asbestos, lead, crystalline silica, ammonia, PCB's, CFC's, moulds, mercury, ozone depleting substances (ODS), radioactive substances.

## Work Description:

| The City of Vancouver will be hiring a Consultant to perform waste composition studies on municipal    |
|--|
| solid waste and construction and demolition (C&D). The studies will include the residential and litter |
| can streams received at the Vancouver South Transfer Station (VSTS) and construction & demolition      |
| (C&D) material received at the Vancouver Landfill (VLF or Landfill") ) in Delta.                       |
|  |
|  |
|  |

#### Work Changes

2015 08

If there are any changes to the work description, please review this document to ensure any additional hazards posed by the new scope of work are identified.

| 1. | ASBESTOS-CONTAINING MATERIALS - asbestos is accepted for disposal at the landfill in accordance with the asbestos policy, asbestos trench/work area at the active face, residential drop off area asbestos bin, buried throughout the Landfill site with some locations identified, and any area of the site due to accidental receipt. | Yes (Y) No<br>(N) Not<br>Applicable<br>(NA) To Be<br>Determined<br>(TBD) |
|----|---|--|
| a) | Asbestos containing materials (ACM) may be encountered  | Υ  |
| b) | A hazardous materials assessment for asbestos is provided in the tender package   | N  |
| c) | A hazardous materials assessment for asbestos is the responsibility of the contractor   | Υ  |

If yes to a), Vancouver Landfill Asbestos Exposure Control Plan available upon request.

| LEAD-CONTAINING MATERIALS - disturbance of lead-based paint, buried wood, electrical circuitry or metal alloys. | Yes (Y) No<br>(N) Not<br>Applicable<br>(NA) To Be<br>Determined<br>(TBD) |
|---|--|
| a) Inorganic lead-containing materials may be encountered   | Y  |
| b) A hazardous materials assessment for lead is provided in the tender package                                  | N  |
| c) A hazardous materials assessment for lead is the responsibility of the contractor                            | Y  |

| 3. | OTHER HAZARDOUS MATERIALS - moulds and spores (at the Landfill active face and composting facility), wastewater treatment plant residuals, i.e. grit and sludge/scum screenings (at the Landfill active face), water treatment plant residuals (at the Landfill active face), bottom ash (on roads 40/50, at the Landfill active face), leachate/condensate (throughout the site), ammonia (ammonia-containing fridges accepted at RDO) | Yes (Y) No<br>(N) Not<br>Applicable<br>(NA) To Be<br>Determined<br>(TBD) |
|----|---|--|
| a) | A resource document for (list the specific hazardous material) is provided in the tender package  Document title: NA  | Y  |
| b) | A resource document for (list the specific hazardous material) will be provided in the  |  |
|    | tender package  | Υ  |
|    | Document title: NA  |  |
| c) | A hazard assessment for (list the specific hazardous materials) will be the contractors responsibility  | Y  |

If yes to any, provide the applicable document upon request from the contractor:

<u>Moulds and spores - Landfill Control Measures Against Exposure to Microbiological Agents - Safe Operating Procedure</u>

<u>Wastewater treatment plant residuals - Wastewater Treatment Residuals OH&S Info - 2014-03</u> Water treatment plant residuals - <u>Drinking Water Treatment Residuals OH&S Info - 2014-03</u>

<u>Bottom ash: Safe Operating Procedure: Bottom Ash Management at Vancouver Landfill and Executive Summary of Vancouver Landfill Bottom Ash Management: Occupational Exposure Assessment and Human Health Risk Assessment</u>

Ammonia - Management of Ammonia-Containing Refrigerators - Safe Operating Procedure

| 4. | CONFINED SPACES - as marked on site at flare station, pump station, compost, scales, admin parking lot. Examples include flares, sewer manholes, sewer wet wells, water/oil separator, drainage sump, utility chambers. | Yes (Y) No (N) or Not Applicable (NA) |
|----|---|---------------------------------------|
| a) | A hazard assessment (for entry and inspection only) from the City of Vancouver is provided in the tender package  | NA                                    |
| b) | The City of Vancouver shall provide procedures to isolate adjacent piping, or to lock out equipment (complicated systems only)  | NA                                    |
| c) | The contractor shall be responsible for isolation and lockout procedures in the confined space  | NA                                    |

| 5. | LOCK OUT - lockout procedures required for specific equipment and electrical systems (ie. electrical repair, pump maintenance/repair).                                    | Yes (Y)<br>No (N) or<br>Not<br>Applicable<br>(NA) |
|----|---|---|
| a) | Lockout will be required to isolate or prevent the unexpected release of energy (electrical, mechanical, hydraulic, chemical, thermal, kinetic, gravitational, pneumatic) | N   |
| b) | Work will be performed on or near energized equipment, lines, or circuits   | Y   |

If yes to a) or b) describe:

The samplers will be assigned to the designated area and will be in the vicinity of excavators, garbage trucks and other vehicles.

|   | 6. FALL PROTECTION - any time a person will be exposed to a fall of 10' or greater, or a fall of less than 10' where serious injury may occur: tree pruning, working on a roof, window and ledge cleaning, window replacement, roll-up door replacement/maintenance, tent installation, awning/canopy installation, overhead a exchange installation/maintenance, construction inspection and testing services. | No (N) or<br>Not |
|---|---|------------------|
|   | a) Workers will be exposed to a potential fall in excess of 3 m (10 feet), or to a fall of less than 3 m which would likely result in a serious injury (ex. impalement on rebar)  | N                |
| k | b) Scaffolding or ladders will be required to be secured to a building or structure   | N                |

2015 08

| 7. | OVERHEAD AND UNDERGROUND UTILITIES - overhead high voltage power lines, underground utilities i.e. gas, water, sewer, etc.  | Yes (Y)<br>No (N) or<br>Not<br>Applicable<br>(NA) |
|----|---|---|
| a) | There will be electrical hazards associated with overhead power lines such as limits of approach and contact  | N   |
| b) | Necessary assurances (in writing) have (or will be) obtained by the City, through the utility company, for any work where minimum limits of approach cannot be maintained (provide documentation and review at pre job meeting with the successful contractor candidate). Form 30M33 is the assurance in writing acceptable to WorkSafe BC. | NA  |
| c) | Necessary assurances must be obtained (in writing) by the successful contractor, through the utility company, for any work where minimum limits of approach will not be able to be maintained. Form 30M33 is the assurance in writing acceptable to WorkSafe BC.  | NA  |
| d) | Underground or hidden utilities are located on the job site. Any excavation or drilling work in proximity to an underground utility service must be undertaken in conformity with the requirements of the owner of that utility service. The work will require the owner's utility plans and/or BC1 Call package as appropriate.            | NA  |

If yes to c), and the specific physical locations where minimum limits of approach will not be able to be maintained are known, how will this information be provided to the contractor?

| 8. | CONSTRUCTION, EXCAVATION, SHORING AND DEMOLITION   | Yes (Y) No (N) or Not Applicable (NA) |
|----|--|---------------------------------------|
| a) | As Prime Contractor, the City of Vancouver project manager will submit the Notice of Project (refer to When is a Notice of Project Required) | NA                                    |
| b) | Workers will be required to enter an excavation over 1.2m (4 ft) in depth  | NA                                    |

| 9. | CHEMICALS, SOLVENTS, FUMES, VAPORS, AND/OR DUSTS - various nuisance dust   | Yes (Y)<br>No (N) or<br>Not<br>Applicable<br>(NA) |
|----|--|---|
| a) | The worksite has chemicals solvents, fumes, vapors or dusts that may affect the contractor                           | Υ   |
| b) | Material Safety Data Sheets for controlled products at the worksite will be available, on request, to the contractor | Υ   |

If yes to a), list the work processes and/or chemicals in use:

Encounter dusts as the waste material is being dumped (both VSTS and VLF) and dust may become airborne if it gets windy at the VLF.

| 10. NOISE - Landfill active face, Residential Drop Off Area, flare station, compost facility, demolition area | Yes (Y) No (N) or Not Applicable (NA) |
|---|---------------------------------------|
| a) Employees will be exposed to noise levels above 85dbA  | Y                                     |

If a) is Yes, the Vancouver Landfill Noise Exposure Control plan is available on request.

| OTHER | HAZARDS (NOT IDENTIFIED ABOVE)  | Yes (Y) No (N) or Not Applicable (NA) |
|-------|---|---------------------------------------|
| a)    | compressed cylinder gas release (residential drop off area, flare station, active face)   | Y                                     |
| b)    | eye hazards (throughout the site)   | Y                                     |
| c)    | fires/explosion (Landfill active face, composting facility, flare station, equipment, throughout the site)  | Y                                     |
| d)    | mobile equipment/vehicle traffic (throughout the site)  | Υ                                     |
| e)    | needle stick/blood borne pathogens (in garbage/on wheels/tracks of equipment) -   | Υ                                     |
| f)    | spills (known/unknown materials)  | Υ                                     |
| g)    | Silica dust (background levels at active face, demolition area, and scales)   | Υ                                     |
| h)    | trip/slip hazards (throughout the site)   | Υ                                     |
| i)    | violence (scalehouse, RDO, active face, compost)  | N                                     |
| j)    | Landfill gas arising from the decomposition of municipal solid waste (flare station, active face, landfill gas piping system, demolition area, pump station, low lying areas such as trenches or ditches) | Y                                     |
| k)    | Equipment tipping/rollover (RDO, active face, compost, demolition area)   | Y                                     |
| l)    | Hot surfaces (equipment, flare station)   | Y                                     |

| KNOWN WORKPLACE HAZARDS LIST COMPLETED BY |        |
|---|--------|
| Project Manager Name (print): Dave Tolnai |        |
|   |        |
| Project Manager Signature:                | Date:  |
|   |        |
| Title:                                    | Phone: |
|   |        |

# Vancouver South Transfer Station Owner's List of Known Workplace Hazards

CONTRACT TITLE: PROFESSIONAL SERVICES FOR WASTE COMPOSITION STUDY

PROJECT MANAGER (CITY EMPLOYEE): DAVE TOLNAI

CONTRACT NAME & # (IF KNOWN): PS20181202

### **Purpose**

This document shall be completed by the project manager, who shall list all the <u>known</u> worksite hazards and all the <u>existing</u> work process hazards that will be associated with the upcoming contract. The completed document shall then be provided to all potential contractors, as part of the tender package, so the project can be bid appropriately based on the known worksite hazards.

#### **Definitions**

**Project Manager** - the City employee designated to be the liaison with the contractor for the purpose of managing, overseeing, coordinating or in any other way administering the contract.

#### **Instructions for Completion**

The document must be completed in full. Choices for each entry are:

Y - Yes - the known worksite hazard or existing work process hazard does exist

N - No - the known worksite hazard or existing work process hazard does not exist\*

NA - Not Applicable - worksite hazard or existing work process is not applicable for this contract type

TBD - a third party (environmental consultant) will address the issue (primarily for a hazardous materials assessment)

\*based on reasonable estimation from all input by persons with expertise or relevant knowledge and understanding

#### Information from Hazardous Materials Assessments Provided by a Third Party

A hazardous materials assessment may be completed prior to the Project Manager completing the Owners List of Known Workplace Hazards. Any such assessment should be referenced by the Project Manager in this document and provided with the tender package. Hazardous materials may include asbestos, lead, crystalline silica, ammonia, PCB's, CFC's, moulds, mercury, ozone depleting substances (ODS), radioactive substances.

#### Work Description:

| The City of Vancouver will be hiring a Consultant to perform waste composition studies on municipal    |
|--|
| solid waste and construction and demolition (C&D). The studies will include the residential and litter |
| can streams received at the Vancouver South Transfer Station (VSTS) and construction & demolition      |
| (C&D) material received at the Vancouver Landfill (VLF or Landfill") ) in Delta.                       |
|  |
|  |
|  |

Work Changes

2015 08

If there are any changes to the work description, please review this document to ensure any additional hazards posed by the new scope of work are identified.

| 1. | ASBESTOS-CONTAINING MATERIALS - may be received without authorization. Locations include tipping floor, pit, or recycling depot. | Yes (Y) No<br>(N) Not<br>Applicable<br>(NA) To Be<br>Determined<br>(TBD) |
|----|--|--|
| a) | Asbestos containing materials (ACM) may be encountered   | Υ  |
| b) | An exposure control plan for asbestos is provided in the tender package  | N  |
| c) | A hazardous materials assessment for asbestos is the responsibility of the contractor  | Υ  |

If yes to a), VSTS Asbestos Exposure Control Plan available upon request from contractor.

| 2. LEAD-CONTAINING MATERIALS - disturbance of lead-based paint                       | Yes (Y) No<br>(N) Not<br>Applicable<br>(NA) To Be<br>Determined<br>(TBD) |
|--|--|
| a) Inorganic lead-containing materials may be encountered                            | Υ  |
| b) A hazardous materials assessment for lead is provided in the tender package       | N  |
| c) A hazardous materials assessment for lead is the responsibility of the contractor | Υ  |

| 3. OTHER HAZARDOUS MATERIALS - moulds and spores (tipping floor, lower floor, yard waste), ammonia (ammonia-containing fridges accepted at Recycling Depot) | Yes (Y) No<br>(N) Not<br>Applicable<br>(NA) To Be<br>Determined<br>(TBD) |
|---|--|
| a) Resource document for (list the specific hazardous material) is provided in the tender package   |  |
| Document title: <u>VSTS Control Measures Against Exposure to Microbiological Agents - Safe Operating Procedure</u>  | Y  |
| b) Resource document for (list the specific hazardous material) will be provided in the tender package  |  |
| Document title: <u>Ammonia - Management of Ammonia-Containing Refrigerators - Safe</u> <u>Operating Procedure</u>   | Y  |
| c) A hazardous materials assessment for (list the specific hazardous materials) will be the contractors responsibility                                      | Y  |

If yes to any, provide the applicable document upon request from contractor:

# <u>Moulds and spores - VSTS Control Measures Against Exposure to Microbiological Agents - Safe Operating Procedure</u>

<u>Ammonia - Management of Ammonia-Containing Refrigerators - Safe Operating Procedure</u>

| 4. | CONFINED SPACES - as marked on site. Examples include scales, sewer manholes, sewer wet wells, drainage sump.                  | Yes (Y) No (N) or Not Applicable (NA) |
|----|--|---------------------------------------|
| a) | A hazard assessment (for entry and inspection only) from the City of Vancouver is provided in the tender package               | NA                                    |
| b) | The City of Vancouver shall provide procedures to isolate adjacent piping, or to lock out equipment (complicated systems only) | NA                                    |
| c) | The contractor shall be responsible for isolation and lockout procedures in the confined space                                 | NA                                    |

| 5. | LOCK OUT - lockout procedures required for specific equipment and electrical systems (ie. electrical repair), annual electrical vault inspection.                         | Yes (Y)<br>No (N) or<br>Not<br>Applicable<br>(NA) |
|----|---|---|
| a) | Lockout will be required to isolate or prevent the unexpected release of energy (electrical, mechanical, hydraulic, chemical, thermal, kinetic, gravitational, pneumatic) | N   |
| b) | Work will be performed on or near energized equipment, lines, or circuits   | Y   |

If yes to a) or b) describe:

| The samplers will be assign | gned to the des | signated area | and will | be in the | vicinity o | f excavators, | garbage |
|-----------------------------|-----------------|---------------|----------|-----------|------------|---------------|---------|
| trucks and other vehicles   |                 | •             |          |           |            |               |         |
|                             |                 |               |          |           |            |               |         |

| 6. | <b>FALL PROTECTION</b> - any time a person will be exposed to a fall of 10' or greater, or a fall of less than 10' where serious injury may occur: working adjacent to the pit, tree pruning, working on a roof, window and ledge cleaning, window replacement, roll-up door replacement/maintenance, awning/canopy installation, overhead air exchange installation/maintenance, construction inspection and testing services. | Yes (Y)<br>No (N) or<br>Not<br>Applicable<br>(NA) |
|----|---|---|
| a) | Workers will be exposed to a potential fall in excess of 3 m (10 feet), or to a fall of less than 3 m which would likely result in a serious injury (ex. impalement on rebar)   | N   |
| b) | Scaffolding or ladders will be required to be secured to a building or structure  | N   |

2015 08

| 7. | OVERHEAD AND UNDERGROUND UTILITIES - overhead high voltage power lines, underground utilities i.e. gas, water, sewer, etc.  | Yes (Y)<br>No (N) or<br>Not<br>Applicable<br>(NA) |
|----|---|---|
| a) | There will be electrical hazards associated with overhead power lines such as limits of approach and contact  | N   |
| b) | Necessary assurances (in writing) have (or will be) obtained by the City, through the utility company, for any work where minimum limits of approach cannot be maintained (provide documentation and review at pre job meeting with the successful contractor candidate). Form 30M33 is the assurance in writing acceptable to WorkSafe BC. | NA  |
| c) | Necessary assurances must be obtained (in writing) by the successful contractor, through the utility company, for any work where minimum limits of approach will not be able to be maintained. Form 30M33 is the assurance in writing acceptable to WorkSafe BC.  | NA  |
| d) | Underground or hidden utilities are located on the job site. Any excavation or drilling work in proximity to an underground utility service must be undertaken in conformity with the requirements of the owner of that utility service. The work will require the owner's utility plans and/or BC1 Call package as appropriate.            | NA  |

If yes to c), and the specific physical locations where minimum limits of approach will not be able to be maintained are known, how will this information be provided to the contractor?

8. CONSTRUCTION, EXCAVATION, SHORING AND DEMOLITION

a) As Prime Contractor, the City of Vancouver project manager will submit the Notice of Project (refer to When is a Notice of Project Required)

b) Workers will be required to enter an excavation over 1.2m (4 ft) in depth

NA

| 9. | CHEMICALS, SOLVENTS, FUMES, VAPORS, AND/OR DUSTS - various nuisance dusts  | Yes (Y) No (N) or Not Applicable (NA) |
|----|--|---------------------------------------|
| a) | The worksite has chemicals solvents, fumes, vapors or dusts that may affect the contractor                           | Υ                                     |
| b) | Material Safety Data Sheets for controlled products at the worksite will be available, on request, to the contractor | Υ                                     |

If yes to a), list the work processes and/or chemicals in use:

Encounter dusts as the waste material is being dumped (both VSTS and VLF) and dust may become airborne if it gets windy at the VLF. Vehicle traffic potentially causes dust.

| 10. NOISE - tipping floor, recycling depot, pit (in equipment) | Yes (Y) No (N) or Not Applicable (NA) |
|--|---------------------------------------|
| a) Employees will be exposed to noise levels above 85dbA       | Υ                                     |

# VSTS Noise Exposure Control plan available on request

| OTHER HAZARDS (NOT IDENTIFIED ABOVE)   | Yes (Y) No (N) or Not Applicable (NA) |
|--|---------------------------------------|
| a) compressed cylinder gas release (in pit)  | Υ                                     |
| b) eye hazards (throughout the site)   | Υ                                     |
| c) fires/explosion (in pit, equipment, throughout the site)                        | Υ                                     |
| d) mobile equipment/vehicle traffic (throughout the site)                          | Υ                                     |
| e) needle stick/blood borne pathogens (in garbage/on wheels/tracks of equipment) - | Y                                     |
| f) spills (known/unknown materials)  | Y                                     |
| g) trip/slip hazards (throughout the site)   | Y                                     |
| h) violence (scalehouse, recycling depot, tipping floor)                           | N                                     |
| i) silica (tipping floor)  | N                                     |

| KNOWN WORKPLACE HAZARDS LIST COMPLETED BY |                     |
|---|---------------------|
| Project Manager Name (print): Dave Tolnai |                     |
| Project Manager Signature:                | Date:               |
| Title:                                    | Phone: 604.873.7239 |

#### Contractors Pre-Work Hazard Identification

| CONTRACT TITLE                  |
|---------------------------------|
| PROJECT MANAGER (CITY EMPLOYEE) |
| CONTRACTOR REPRESENTATIVE       |
| CONTRACT NAME & #               |

## **Purpose**

This document shall be completed by the contractor awarded the contract, who shall identify all the **known and potential work process hazards** associated with the contract. The contractor, who is responsible for all identified actions, shall provide a completed Contractors Pre-Work Hazard Identification (CHI) document to the Project Manager (City employee) for review and consultation before the contract work begins.

#### Reference Material

In order to complete this document, the contractor should reference a completed copy of the List of Known Workplace Hazards, initially provided with the tender package. The contractor is also responsible to reference any Hazardous Materials Assessments, provided by the City with the tender package, and possibly referenced in the List of Known Workplace Hazards document.

#### **Instructions for Completion**

The document must be completed in full. Choices for each entry are:

Y - Yes - this work process or worksite hazard will exist for this contract and are the responsibility of the contractor

 ${\bf N}$  - No - Even though the work process or worksite hazard will exist, it will not be the responsibility of the contractor

NA - Not Applicable - the work process or worksite hazard is not applicable for this contract

**TBD** - a third party (environmental consultant) will address the issue (primarily for a hazardous materials assessment)

Each grouping of safety hazards or issues in this document (bold text, capitalized) may list some examples of work tasks where this hazard may be encountered. These examples are not conclusive; there may be other examples of work tasks that create this hazard or issue.

#### **Documentation and Training Requirements**

During the contract term, the contractor may be requested by the City of Vancouver, and shall provide documented evidence for items identified with a **(D)** in this document.

The summary table at the end of the document provides all potentially required documentation, and if applicable, the WCB OHS Regulation reference.

For any identified hazard marked with a **(T)**, the contractor is responsible to train their employees.

# **HAZARDOUS MATERIALS**

The contractor is responsible for providing additional information on hazardous materials which may be encountered as part of the work process, yet not identified in the List of Known Workplace Hazards.

| HAZARD OR ISSUE   | Confirmation   |
|---|--|
| <ol> <li>ASBESTOS-CONTAINING MATERIALS - disturbance or penetrations of flooring, walls,<br/>ceiling tiles, pipe lagging, ac pipe, transite siding, particularly in older facilities; e.g.,<br/>furniture/fixture installation, carpeting/flooring services, and boiler repair/tune-up<br/>services.</li> </ol>   | Yes (Y) No (N) Not Applicable (NA) or To Be Determined (TBD) |
| a) We have reviewed the hazardous materials assessment for asbestos provided by the City of Vancouver (or third party) in the tender package  | Y N NA<br>TBD  |
| b) We will provide a written hazardous materials assessment for asbestos  | Y N NA<br>TBD  |
| c) We have a written Asbestos Program <b>(D)</b>  | Y N NA   |
| d) As Prime Contractor, we will submit a Notice of Project Asbestos(NOP-A) to WorksafeBC at least 24 hours in advance of the project startup  | Y N NA   |
| 2. LEAD-CONTAINING MATERIALS - disturbance of lead-based paint, particularly in older facilities. Also present in certain electrical circuitry and metal alloys; .e.g., overhead bridge crane maintenance/repair, high-voltage cable splicing services, boiler repair/tune-up services, fixture installation services, and chiller maintenance/repair services. | Yes (Y) No (N) or Not Applicable (NA)                        |
| a) We have reviewed the hazardous materials assessment for lead provided by the City of Vancouver (or third party) in the tender package  | Y N NA<br>TBD  |
| b) We will provide a written hazardous materials assessment for lead  | Y N NA<br>TBD  |
| c) We have a written exposure control program for Lead <b>(D)</b>   | Y N NA   |
| 3. OTHER HAZARDOUS MATERIALS - may include PCBs, CFCs, molds, mercury, ozone depleting substances (ODS), radioactive substances, sewage and unidentified contaminated hazardous materials, other: (list other here)   | Yes (Y) No (N) or Not Applicable (NA)                        |
| a) We have reviewed the hazardous materials assessment for (insert hazardous material type here) provided by the City of Vancouver, or a third party, in the tender package   | Y N NA<br>TBD  |
| b) We have reviewed the horsedess rectainly accessed for Great transfer and the   | V N NA   |

2015 01 2

Y N NA

b) We have reviewed the hazardous materials assessment for (insert hazardous material

|    | type here) provided by the City of Vancouver, or a third party, in the tender package      | TBD           |
|----|--|---------------|
| c) | We will provide a hazardous materials assessment for (insert hazardous material type here) | Y N NA<br>TBD |
| d) | We will provide a hazardous materials assessment for (insert hazardous material type here) | Y N NA<br>TBD |

| 4. | CONFINED SPACES - working in vaults, chambers, pits, tanks, etc.; e.g., construction, inspection and testing services, water/fuel storage tank clean-out services, and utility corrosion inspection services. | No<br>App | Yes (Y)<br>No (N) or<br>Not<br>Applicable<br>(NA) |    |
|----|---|-----------|---|----|
| a) | We have reviewed the confined space hazard assessment provided by the City of Vancouver in the tender package   | Υ         | N<br>TBI  |    |
| b) | We have a written confined space entry program (D)  | Υ         | N   | NA |
| c) | Our employees have received confined space training (T)   | Υ         | N   | NA |
| d) | We shall complete a confined space hazard assessment specific to the work to be performed $(\mathbf{D})$  | Υ         | N   | NA |
| e) | We shall develop site specific written safe operating procedures (including evacuation and rescue components) prior to starting work $(D)$  | Υ         | N   | NA |
| f) | We shall identify and record isolation points (D)   | Υ         | N   | NA |
| g) | We will develop alternate procedures (as per WCB OHS Regulation $\#$ 9.22) to be used to isolate adjacent piping containing harmful substances (D)  | Υ         | N   | NA |
| h) | We will provide for the services of rescue persons  | Υ         | N   | NA |

If yes to g), provide brief description:

| 5. | LOCK OUT - industrial equipment maintenance, power machinery repair services, pump maintenance/repair services, mechanical refrigeration systems, elevator repair, overhead bridge crane maintenance/repair services, cathodic protection services, hydraulic test systems repair/service, and air compressor rebuilding services. | Yes (Y)<br>No (N) or<br>Not<br>Applicable<br>(NA) |
|----|--|---|
| a) | We will be required to lock out in order to isolate or prevent the unexpected release of energy (electrical, mechanical, hydraulic, chemical, thermal, kinetic, gravitational, pneumatic)  | Y N NA  |
| b) | We will perform work on, or near, energized equipment, lines or circuits   | Y N NA  |

Note: If yes to a) or b) above, no work may be performed until reviewed by City of Vancouver project manager or project manager designate.

If yes to a) or b) describe:

| 6A. | FALL PROTECTION - tree pruning, window and ledge cleaning, window replacement, overhead bridge crane maintenance/repair services, roll-up door replacement, tent installation, awning/canopy installation, overhead air exchange installation, construction inspection and testing services. | No | Yes (Y)<br>No (N) or<br>Not<br>Applicable<br>(NA) |    |
|-----|--|----|---|----|
| a)  | Our employees will be exposed to a potential fall in excess of 3 m (10 feet), or to a fall of less than 3 m which would likely result in a serious injury (ex. impalement on rebar)  | Υ  | N   | NA |
| b)  | We will produce a written Fall Protection Plan for work that will occur more than 25 feet above grade, or, if written procedures (control zone) are to be used as the means of fall protection <b>(D)</b>  | Υ  | N   | NA |
| c)  | Our employees who will be required to use fall protection have received training (T)   | Υ  | N   | NA |

| If yes to a), describe: |  |  |
|-------------------------|--|--|
|                         |  |  |
|                         |  |  |

| 6B | . SCAFFOLDING AND LADDERS - window replacement or cleaning, tree pruning, roll-up door replacement, tent installation, and awning/canopy installation. | No | Yes (Y)<br>No (N) or<br>Not<br>Applicable<br>(NA) |    |
|----|--|----|---|----|
| a) | Our employees will use scaffolding or ladders for access to the work   | Υ  | N   | NA |
| b) | The scaffolding or ladders will be exposed to wet and/or slippery conditions   | Υ  | N   | NA |
| c) | We will ensure scaffolding or ladders are secured before accessing the worksite  | Υ  | N   | NA |
| d) | Scaffolding will be erected and dismantled only by qualified workers   | Υ  | N   | NA |

| 7. | OVERHEAD POWER LINES AND UNDERGROUND UTILITIES - tree pruning services, tree removal, utility relocation or replacement, underground utility identification services, concrete sawing services, pole painting | Yes (Y)<br>No (N) or<br>Not<br>Applicable<br>(NA) |
|----|---|---|
| a) | There are electrical hazards associated with overhead power lines such as limits of approach and contact  | Y N NA  |
| b) | We will obtain necessary assurances, in writing, through the utility company, for any work where minimum limits of approach cannot be maintained  | Y N NA  |
| c) | Underground or hidden utilities may be on the job site and we shall contact the Project Manager and BC OneCall at least four business days prior to the start of any  | Y N NA  |

|    | excavation work  |   |   |    |
|----|--|---|---|----|
| d) | In the event of an inadvertent utility strike, we will have a written procedure for immediate notification of both the utility company and WorkSafeBC $m(D)$ | Υ | N | NA |

| 8. CONSTRUCTION, EXCAVATION, SHORING AND DEMOLITION |   | Yes (Y) No (N) or Not Applicable (NA) |   |    |
|---|---|---------------------------------------|---|----|
| a)  | As Prime Contractor, we will submit a Notice of Project (NOP) to WorksafeBC at least 24 hours in advance of the project startup date                          | Υ                                     | N | NA |
| b)  | Workers may be required to enter an excavation over 1.2m (4 ft) in depth  | Υ                                     | N | NA |
| c)  | We will develop site specific written safe operating procedures, including evacuation and rescue components, prior to starting any excavation work <b>(D)</b> | Υ                                     | N | NA |
| d)  | Shoring will be installed in accordance with Part 20 of the WorkSafeBC OH&S Regulation  | Υ                                     | N | NA |
| e)  | We will provide safe means of entry and exit for excavations  | Υ                                     | N | NA |
| f)  | We will provide for the services of rescue persons and equipment (excavation rescue)  | Υ                                     | N | NA |
| g)  | We will develop a demolition/salvage plan <b>(D)</b>  | Υ                                     | N | NA |
| h)  | We will evaluate the demolition materials for reuse or recycling  | Υ                                     | N | NA |
| i)  | We will protect passers-by from potential hazards   | Υ                                     | N | NA |

| 9. | CHEMICALS, SOLVENTS, FUMES, VAPORS, AND DUSTS - cleaning solvents, adhesives, paints, coatings, binders; e.g., storage tank clean-out services, countertop installation (epoxies), and flooring   | Yes (Y)<br>No (N) or<br>Not<br>Applicable<br>(NA) |
|----|---|---|
| a) | We will complete a hazard assessment for chemicals we will use in our work, and if chemicals already exist at the workplace, our assessment will identify possible results of any reactions between our chemicals and those of the Citys operations | Y N NA  |

| 10. NOISE AND VIBRATION - includes installations and heavy equipment operation. Noise examples for 85 - 90 dbA (at noise source) include forklift, smoke alarm, table saw. Whole body vibration examples include truck or equipment operator and jackhammer operation | Yes (Y)<br>No (N) or<br>Not<br>Applicable<br>(NA) |
|---|---|
| a) Our employees will be exposed to noise levels above 85dbA  | Y N NA  |

| b) | We have a written hearing conservation program (D)                              | Υ | N | NA |
|----|---|---|---|----|
| c) | Our employees will be exposed to excessive levels of whole body vibration (WBV) | Υ | N | NA |

| 11 | . OCCUPATIONAL HEALTH AND SAFETY PROGRAM  | No | Ν̈́ο | or<br>t<br>able |
|----|---|----|------|-----------------|
| a) | We have a written Safety Program <b>(D)</b>   | Υ  | N    | NA              |
| b) | We will make regular inspections of all workplaces  | Υ  | N    | NA              |
| c) | We will immediately investigate any reported unsafe conditions and correct as required  | Υ  | N    | NA              |
| d) | We will investigate all incidents and provide written incident reports to the Project Manager   | Υ  | N    | NA              |
| e) | We will develop a written plan <b>(D)</b> identifying how risk to the public and workers will be minimized (may include the use of barriers and safe entry/exit points from the worksite) | Υ  | N    | NA              |

| 12 | . FIRST AID  | No | N) (N | able |  |
|----|--|----|-------|------|--|
| a) | First aid equipment, supplies, facilities and services will be readily accessible during working hours | Υ  | N     | NA   |  |
| b) | We will complete a first aid assessment <b>(D)</b>   | Υ  | N     | NA   |  |
| c) | We will post site drawings and signs indicating the location of, and how to summon, first aid          | Υ  | N     | NA   |  |
| d) | We will develop an effective means of communication between the first aid attendant and the work areas | Υ  | N     | NA   |  |

| 13. FIRE PROTECTION - solvents, fuels, soldering, torch cutting, or heating devices; e.g., gasoline and diesel fuel delivery services, flooring services, fire suppression service, and water pipe repair services | Yes (Y) No (N) or Not Applicable (NA) |
|--|---------------------------------------|
| a) We will weld, solder, or cut with a torch   | Y N NA                                |

| b) We will use or store flammable/combustible liquids              | Y N NA |
|--|--------|
| c) We will use temporary heating devices                           | Y N NA |
| d) We will provide water and/or fire extinguishers on the job site | Y N NA |

| 14 | . PERSONAL PROTECTIVE EQUIPMENT (PPE)   | N | Yes (Y) No (N) or Not Applicable (NA) |   | or |
|----|---|---|---------------------------------------|---|----|
| a) | We will ensure our workers have appropriate personal protective clothing and equipment (e.g., safety footwear, hi-vis vests, hardhats, eye protection, face protection, hearing protection, chemical gloves/clothing) | Υ | N                                     | N | NA |
| b) | We have a written PPE program <b>(D)</b>  | Υ | N                                     | V | NA |

| 15. RESPIRATORY PROTECTION   | Yes (Y) No (N) or Not Applicable (NA) |
|--|---------------------------------------|
| a) The work will involve materials or processes requiring respiratory protection | Y N NA                                |
| b) We have a written respiratory protection program <b>(D)</b>                   | Y N NA                                |

| 16. TOOLS MACHINERY AND EQUIPMENT   | Yes (Y) No (N) or Not Applicable (NA) |
|---|---------------------------------------|
| a) We will use powder-actuated tools.   | Y N NA                                |
| b) Our employees who operate equipment have been trained and are qualified in us that equipment. <b>(T)</b> | se of Y N NA                          |

If yes to a), describe:

| 17. CRANES, FORKLIFTS, AND MANLIFTS - heavy or oversized goods delivery, tree pruning, overhead bridge crane maintenance/repair, and roll-up door replacement. | Yes (Y) No (N) or Not Applicable (NA) |
|--|---------------------------------------|
| a) We will use a crane, forklift, manlift or other lifting equipment   | Y N NA                                |

| b) | Our lifting and rigging equipment is certified where applicable, and inspected on a regular basis  | Υ | N | NA |
|----|--|---|---|----|
| c) | Our operators shall have a valid operators certificate (mobile crane or tower crane) or have received training (boom lift, scissor lift or forklift) $(T)$ | Υ | N | NA |
| d) | Only lifting attachments approved for use by the forklift manufacturer will be used  | Υ | N | NA |

| 18. RIGGING   | Yes (Y) No (N) or Not Applicable (NA) |
|---|---------------------------------------|
| a) We will lift or sling loads overhead                             | Y N NA                                |
| b) We will inspect ropes, hooks and slings before use on each shift | Y N NA                                |

| 19. MOTOR VEHICLES AND HEAVY EQUIPMENT - goods delivery, personnel transportation services, trailer relocation services, oil/water pumpout and recycling services, asphalt grinding and asphalt sealing services, weed/brush abatement and mowing services, landscape hydroseed services, tree stump grinding, and concrete sawing and removal |        |
|--|--------|
| a) We will use motor vehicles or heavy equipment at the work location  | Y N NA |
| b) All operators have a valid provincial driver's license  | Y N NA |
| c) We will inspect vehicles, including safety features (e.g., ROPS)  | Y N NA |

| 20 | . TRAFFIC CONTROL   |   | es<br>(N<br>No<br>plic<br>(N | t<br>ot<br>cab | or |
|----|---|---|------------------------------|----------------|----|
| a) | There will be uncontrolled movement of vehicular traffic at the worksite  | Υ | N                            | N              | IA |
| b) | We will develop a written traffic control plan <b>(D)</b>   | Υ | N                            | N              | IA |
| c) | We will put in place any required traffic control devices   | Υ | N                            | N              | IA |
| d) | The traffic control devices conform to the Ministry of Transportation and Infrastructure (MoTI) "Traffic Control Manual for Work on Roadways" | Υ | N                            | N              | IA |
| e) | We will provide Traffic Control Persons (TCP's) as required by law  | Υ | N                            | N              | IA |

| 21. CRYSTALLINE SILICA DUST | Yes (Y)<br>No (N) or<br>Not |
|-----------------------------|-----------------------------|
|-----------------------------|-----------------------------|

|  |                        | Applicable (NA)                       |
|--|------------------------|---------------------------------------|
| Our work will involve jackhammering, rotohamm disturbance of concrete or stone, creating poten |                        | Y N NA                                |
|  |                        | ı                                     |
| 22. Additional Concerns  |                        | Yes (Y) No (N) or Not Applicable (NA) |
| We foresee additional health and safety concerns ass   | sociated with the work | Y N NA                                |
| If yes, describe:  |                        | -                                     |
| a)   |                        |                                       |
| D)   |                        |                                       |
| 5)   |                        |                                       |
| d)   |                        |                                       |
| e)   |                        |                                       |
| f)   |                        |                                       |
|  |                        |                                       |
| Describe the control measures each of the concerns .   |                        |                                       |
| a)   |                        |                                       |
| b)   |                        |                                       |
| c)<br>-  |                        |                                       |
| <u>d)</u>  |                        |                                       |
| e)   |                        |                                       |
| f)   |                        |                                       |
|  |                        |                                       |
|  |                        |                                       |
|  |                        |                                       |
|  |                        |                                       |
| PRE CONTRACT HAZARD ASSESSMENT COMPLETED   | ВҮ                     |                                       |
| Contractor's Representative Name (print):  |                        |                                       |
| Contractor's Representative Signature:   | Date:                  |                                       |
| dispression orginates of   |                        |                                       |
| Title:   | Phone:                 |                                       |

# CONTRACTOR'S DESIGNATE RESPONSIBLE FOR ONSITE SAFETY

| Name (print): |        |
|---------------|--------|
| Title:        | Phone: |
|               |        |

|  | RY OF DOCUMENTATION <b>(D)</b> TO BE PROVIDED BY THE CONTRACTOR upon request City of Vancouver  | Yes (Y) or<br>Not  |
|--|---|--------------------|
| (documentation required as per Workers Compensation Board Occupational Health and Safety (WCB OHS) Regulation, the Workers' Compensation Act (WCA) or the City of Vancouver) |   | Applicable<br>(NA) |
| a)   | Safety Program (WCB OHS Regulation Parts 3.1-3.3)   |                    |
| b)   | Asbestos Exposure Control Plan (WCB OHS Regulation Part 6.3)  |                    |
| c)   | Lead (Pb) Exposure Control Plan (WCB OHS Regulation Part 6.60)  |                    |
| d)   | Respiratory Protection Program (WCB OHS Regulation Part 8.5)  |                    |
| e)   | Confined Space Entry Program (WCB OHS Regulation Parts 9.5 and 9.6)   |                    |
| f)   | Plan for minimizing risk to public and to workers (City of Vancouver)   |                    |
| g)   | Personal Protective Equipment (PPE) Program (WCB OHS Regulation Part 8.5)   |                    |
| h)   | Hearing Conservation Program (WCB OHS Regulation Part 7.5)  |                    |
| i)   | Confined Space Hazard Assessment (WCB OHS Regulation Part 9.9)  |                    |
| j)   | Work Procedure, including evacuation and rescue, for confined space (WCB OHS Regulation Part 9.10 and 9.11)   |                    |
| k)   | Identification of Isolation Points (confined space) (WCB OHS Regulation Part 9.19)  |                    |
| l)   | Alternate procedures to isolate adjacent piping (confined space) (WCB OHS Regulation Part 9.22)   |                    |
| m)   | Fall Protection Plan (WCB OHS Regulation Part 11.3)   |                    |
| n)   | Traffic Control Plan (Ministry of Transportation and Infrastructure (MOTI) manual, as referenced in WCB OHS Regulation Part 18.3)   |                    |
| o)   | In the event of a utility strike, a written procedure for notification of Utility Provider (WCB OHS Regulation Part 4.18) and WorksafeBC (Workers' Compensation Act Part 3, Division 10, Sec. 172 (1)(c)) |                    |
| p)   | Work Procedure (including evacuation and rescue) for excavations (City of Vancouver)  |                    |
| q)   | Demolition/Salvage Plan (City of Vancouver in reference to WCB OHS Regulation Part 20.112)  |                    |

| r | First Aid Assessment     | (WCB OHS Regulation Part 3.16 ( | 21) |
|---|--------------------------|---------------------------------|-----|
|   | I II St Ald Assessificit | (WCD OHS Regulation Lait 3.10 ( | ~)) |

| SUMMARY OF TRAINING REQUIREMENTS (T) OF CONTRACTOR EMPLOYEES (for any persons completing this type of work throughout the duration of the contract) | Yes (Y) or<br>Not<br>Applicable<br>(NA) |
|---|---|
| a) Confined Space Entry (WCB OHS Regulation Part 9.8)   |   |
| b) Fall Protection (WCB OHS Regulation Part 11.2 (6))   |   |
| c) Equipment Operation (WCB OHS Regulation Part 4.3 (1) (b)(i) (ii))  |   |
| d) Mobile Equipment (ex. boom lift, scissor lift, forklift) (WCB OHS Regulation Part 16.4)  |   |