

Questions and Answers

Q1. For AEC-3 Phase II Remediation as specifications identify items to be completed “in full or in part or not at all at the discretion of the owner”. Can you clarify what factors will influence whether or not this work is completed as part of this contract?

A1. This was originally intended to allow for variable Client funding. All necessary funding is now secured and PSPC/TC expects all work to be completed in full.

Q2. Based on our assessment of locally available aggregate sources, there is not sufficient material currently available to meet the tender specifications and schedule. The only licensed quarry in Iqaluit is located on Government of Nunavut land and is currently being mined to support a local infrastructure project, The New Iqaluit Airport. A small section of the quarrying area is situated on City of Iqaluit land, however City of Iqaluit department representatives consider this area to be un-surveyed land and will not issue blasting authority unless approved by the City Council. It is our understanding that due to space and access constraints, this blasting area is not large enough to process the volume of aggregate required for the Metal Dump project. With limited access to aggregate extraction this puts prospective bidders at a competitive disadvantage. Would PWGSC/Transport Canada be able to secure sufficient space from the Government of Nunavut to drill and blast within the existing GN quarry to ensure equitable access for all firms interested in bidding on the Metal Dump tender?

A2. It is our understanding that the aggregate type and quantity is commercially available from sources within the study area.

Bidders Conference questions and Answers:

Q3. Is it possible to upload previous consulting reports referenced in the specifications to Buy and Sell (i.e. Remedial Action Plan, Phase II/III ESAs)?

A3. Previous reporting per the Appendices have been supplied to Procurement for distribution via Buy/Sell

Q4. For the evaluation criteria 1.10 – what are the optional items?

A4. There are no longer any optional items, the evaluation criteria have been revised.

Q5. In regards to the lead amended materials to be disposed of, what are the materials?

A5. The majority of the materials are metal, the departmental representative (DR) plans to mark the items that are to be removed.

Q6. There is a large volume of lead amended material, can we consolidate this material and test it prior to taking it offsite to try and reduce that amount that needs to be taken offsite?

A6. Yes

Q7. Who would test this material, the DR or the contractor?

A7. The DR will test this material

Q8. AEC 3 includes are an area to be dewatered, has this water been tested?

A8. We are not expecting any contaminants in this water, the contractor is not required to treat the water.

Q9. 2.9.3 refers to 2000L of liquid waste to be disposed, does this waste include PCBs?

A9. This is mainly HC impacted waste, we do not expect any PCBs.

Q10. In regards to testing, what testing falls under the consultant's responsibility and what testing is the responsibility of the contractor?

A10. The DR will be responsible for analytical testing and confirmatory sample analyses. The DR will share those results with the Contractor for action.

Q11. If the contractor is responsible, at what frequency is testing required?

A11. See above

Q12a. In the specifications it refers to HC soils being treated in Iqaluit or shipped south, is there a possibility that the HC soils could be co-contaminated with metals in which case it would have to be shipped south?

A12a. Yes, it is possible and the soil would have to be shipped south in that case.

Q12b. How would the contractor be compensated in that case?

A12b. The Contractor would be compensated at the agreed unit rate typical for the packaging and shipping of other same/similar hazardous materials for this work.

Q13. There seems to be some contradiction in the specifications whether excavated contaminated soils are to be transferred to the staging area or to the treatment facility, please advise.

A13. Contaminated soils are to be moved to the staging area first for testing and then the consultant will identify where it is supposed to go from there.

Q14. In the Bid and Acceptance Form (BA) item BA06 Construction Time, States that:
"The Contractor shall perform and complete the Work within 12 weeks from the date of notification of acceptance of the offer."

While in the Specification Section "01 11 00 Summary of Work" Item "1.9 Work Restrictions" States:

"1. The overall sequence of work may be completed over a one year contract period including AEC-3 Remediation."

Can you please clarify, is it 4 months or one year to complete the work?

A14. The field work this season must be completed within the approximately 12 weeks though: mid-July to beginning of October.

There will be allowance for the Contractor to store containers of hazardous materials or other waste material on-site over winter if they are unable to backhaul them on a barge before freeze up, so long as they arrange for removal during FY 2018-19. Revisions to the specifications are attached in Addendum 004.

Bidders Conference Attendees:

**PROJECT: Iqaluit Metal Dump
Remediation****PROJET: R.083118.001**

**NOTIFICATION NO. / NO. DE
NOTIFICATION: EW699-180040****DATE: 2017-06-01**

LOCATION / EMPLACEMENT: WebEx

COMPANY NAME / NOM D'ENTREPRISE	PRINT NAME / NOM EN LETTRES MOULÉES
Contracting Officer	Amanda Wiebe
Project Manager	Michael Brownlee
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Part 1 GENERAL

1.1 INTRODUCTION

- .1 The following Section summarizes the work required during the remediation program of one area of scattered metal debris (AEC-1) one former vehicle storage area (AEC-2), and one former metal dump/community landfill (AEC-3) referred to as Main Landfill, located at Iqaluit, Nunavut (the Site). It is anticipated that all work described herein will be completed under this contract. However, the owner reserves the right to add to or remove some of the proposed work as described herein.

1.2 SITE LOCATION

- .1 Iqaluit (formerly named Frobisher Bay) is located on the southern tip of Baffin Island. The Iqaluit Former Metal Dump/Community Landfill (UTM coordinates of E521904.94, N7067812.69) is located at the West 40 area on the border of Sylvia Grinnell Territorial Park and the Sylvia Grinnell River, 1.7 km southwest of the City of Iqaluit. Historically, the site has been referred to as Sylvia Grinnell Park Dump and West 40 – Dump Site #1 and Vehicle Dump and Community Landfill or simply “Site” or “Landfill”.

1.3 SITE ACCESS

- .1 The Site accessible from the municipal roads of the city. Access to the three (3) areas of environmental concern (AECs) requiring remedial work is provided by single track dirt/gravel service roads running from the city. There is no direct access road to the base of the slope of the Solid Waste Landfill (AEC-3). Refer to Drawing C01. The proposed works include the construction of a haul road and ramp to the base of the AEC-3 Main Landfill as shown on the Drawings C02 to C04.
- .1 Additional temporary roadways may also be required to gain access to the AEC-1 and AEC-2, during construction activities.

1.4 SITE DESCRIPTION

- .1 The United States Air Force (USAF) used the Site from between 1955 to 1963 as a metal dump for vehicles, truck bodies, barrels and scrap metal. The majority of materials were deposited in 1963 when the US Military left Frobisher Bay. Shops, buildings, and other materials were simply bulldozed over the cliff. The cliff is a bedrock outcrop rising approximately 30 m above the tidal area where the Sylvia Grinnell River meets Frobisher Bay. The area to the north side of the slope was used by the USAF and to a lesser degree the community of Iqaluit as a landfill site for household garbage until sometime in the 1970's.
- .2 Three main areas of waste are present at the Site: 1) the up-gradient partially buried debris area (AEC-1) 2) the vehicle dump located approximately to the south and parallel with the main landfill (AEC-2) and 3) the main landfill area located in the central portion of the site and spanning the top, side and toe of a bedrock escarpment that runs northwest/southeast (AEC-3).
- .3 Environmental investigations have been carried out at the site, dating back to 2008. The work has focused on the presence and impacts of petroleum hydrocarbons (PHCs), inorganic elements, pesticides, polycyclic aromatic

hydrocarbons (PAHs) and polychlorinated biphenyls (PCB) contamination in soils, surface water, and sediments.

- .4 The site covers an area of approximately 53,000 m². The site is situated on an escarpment leading to the Sylvia Grinnell River and has several shallow ravines and coulees partially filled with metal debris. The debris is scattered over a large area and consists of vehicles, equipment, barrels, and scrap metal.
- .5 The Phase III ESA (Franz, 2010) identified four areas of environmental (AECs) concern at the site. Only 3 areas are the subject this proposed contract (AEC-1, AEC-2, and AEC-3).
 - .1 **AEC-1 Upgradient Buried Debris** The area of the Site directly up gradient from the vehicle dump contains buried metal debris identified during the Phase I/II/III ESA completed by Franz (2009, 2010). The presence of debris was confirmed during the Arcadis 2016 supplemental assessment.
 - .2 **AEC-2 Vehicle Dump:** The area was referred to as the vehicle dump in the Franz (2009, 2010) studies and described as containing vehicles, such as trucks, cars, trailers, boilers, tankers, and other materials. During the Arcadis 2016 supplemental assessment, the area was observed to contain fewer debris as a result of a recycling program. Much of the vehicular debris was removed in 2011 during a community wide recycling program. The contractor involved in that recycling program removed the vehicles, crushed them and shipped them south. The area is located to the east of the main landfill area. A drainage channel runs directly through the center of this debris pile discharging to the ponds, then the River.
 - .3 **AEC-3 Main Landfill:** The main landfill area consists of a mixture of debris spread across a steep graded bedrock slope. The top of the landfill area has been capped with granular material and the toe is left exposed with debris scattered throughout the area.

1.2 RELATED SECTIONS

- .1 All sections of this contract document and drawings.

1.3 REFERENCE DOCUMENTS

- .1 Phase I/II Environmental Site Assessment, Vehicle Dump and Community Landfill, Iqaluit, Nunavut (Franz Environmental Inc., March 2009).
- .2 Phase III Environmental Site Assessment, Vehicle Dump and Community Landfill, Iqaluit Nunavut (Franz Environmental Inc., March 2010)
- .3 Vehicle Dump and Community Landfill, Iqaluit, Nunavut – Ecological and Human Health Detailed Quantitative Risk Assessment (DQRA). (Franz Environmental Inc., March 31, 2010)
- .4 Remedial Action Plan, Former Metal Dump and Community Landfill, Iqaluit, Nunavut (Arcadis Canada, 27 January, 2017)
- .5 Other supporting documentation may be made available during the bidders meeting.

1.4 DEFINITIONS

- .1 Work(s): Scope of work as detailed and described in this Specification and potential additive scope of works under or in conjunction with this Specification.

- .2 Site: Former Vehicle Dump and Community Landfill, Iqaluit Nunavut.
- .3 Owner: the owner of the Site is the Government of Canada.
- .4 Departmental Representative: Directors and/or other employees designated as representatives of and exercising the roles and attributes of Canada under the contract including those personnel authorized by Public Works and Government Services Canada and/or Transport Canada.
- .5 Contractor: Firm or representative retained to conduct the Works as per this Specification.
- .6 Contractor's Foreman: Contractor's resident site representative, who is authorized to make decisions on behalf of Contractor and will be present at the Site for the duration of the Works.
- .7 Provide: For this Specification, the word "provide" means supply and/or install at the cost of the contractor.
- .8 AEC-1: Upgradient Debris
- .9 AEC-2: Vehicle Dump
- .10 AEC-3: Main Landfill
- .11 Work Areas: Any area falling within AEC-1, AEC-2, or AEC-3 and surrounding areas and/or any area utilized by the contractor in order to complete the remedial work outlined in the specifications.
- .12 Contaminated Soil: All soils indicated within the Contract Documents as exceeding the federal Soil Quality Criteria (Commercial) or as identified by Departmental Representative during the course of the Work.
- .13 Waste: Any physical object deposited within any of the work areas whether inert, hazardous or non-hazardous.
- .14 Landfill Materials: All non-hazardous or recyclable materials, originating from the former landfills and storage areas (AEC-1 to AEC-3) requiring transport, packaging, segregation and/or storage within the Main Landfill (AEC-3).
- .15 Non-Hazardous Waste: Waste materials generated previously placed within the work area. Generally, it includes domestic waste, demolition debris and scrap metal debris. Same meaning as Landfill Waste, Debris, Garbage, Domestic Waste, Metal Debris and Construction Debris.
- .16 Buried Waste: Landfill materials that are covered, partially covered or below the surface of the surrounding area and require mechanical equipment to access, uncover, extricate or excavate to be packaged or hauled. Applies to work areas AEC-1, AEC-2, and AEC-3.
- .17 Exposed Waste: Landfill materials that are partially covered or landfill materials openly sitting on the ground surface. The materials may or may not require mechanical equipment to access, uncover, extricate or excavate to be packaged or hauled. Applies to AEC-1, AEC-2, and AEC-3.
- .18 Hazardous Solid Wastes: Hazardous waste materials that are in a consolidated, solid, encapsulated or powder form and placed within the work area. Generally, it includes transformers, batteries, fire extinguishers, asbestos containing materials and/or pesticides. Same meaning as Hazardous Materials, Designated Substances, Toxic Materials and Toxic Wastes.
- .19 Hazardous Fluid Wastes: Hazardous waste materials that are in a liquid,

- gaseous, gel-like or colloidal form and placed within the work area. Generally, it includes paint, antifreezes, lubricants, fuels, glycols, ozone depleting substances and/or pesticides. Same meaning as Hazardous Materials, Hazardous Liquids, Designated Substances, Toxic Materials and Toxic Wastes.
- .20 Lead Amended Paint Wastes: All painted materials within the Contract Documents as exceeding the territorial Environmental Guideline for Waste Lead and Lead Paint or as identified by Departmental Representative during the course of the Work.
- .21 Asbestos-Containing Materials (ACMs): materials identified under Existing Conditions including fallen materials and settled dust.
- .22 Top of Landfill: The relatively flat section of the work areas that is located at or above the Top of Slope and includes areas of landfill waste placement and/or soils. Same as Top of Escarpment and Crest of Landfill.
- .23 Top of Slope: The highest elevations of the slope. Same as Slope Edge, Nose of Landfill, Crest of the Slope, and Crest of the Landfill Embankment
- .24 Toe of Slope: The lowest elevations of the slope. Same as Slope Bottom or Base.
- .25 Slope Face: The angled plane of the landfill and/or overburden extending from the Top of Slope to the Toe of Slope. Same as Slope Surface.
- .26 Angle of Repose: Steepest angle of the slope face, whilst maintaining the integrity of the slope, surface grade and any nearby features.
- .27 Slope Angle: The current, proposed or final gradient of the Slope face measured in three dimensions (3D) and reported as an angle or ratio of horizontal (run) to vertical (rise).
- .28 Swale: A engineered linear depression constructed along the Top of Landfill (Upper), Toe of Slope (Lower) and Slope Face to collect and direct surface water flow away from the Landfill Nose towards the bottom of the landfill. Same as drainage ditch, trench.
- .29 Solid Hazardous Waste Containers: The intermediate container necessary to contain solid Hazardous Waste Material as required by the Transportation of Dangerous Goods Act and Regulations.
- .30 Marine Shipping Container: sea shipping containers with the nominal dimensions of 6.1 m x 2.4 m x 2.6 m (20 feet x 8 feet x 8.5 feet) and the container into which the intermediate containers are placed for the purpose of shipping to a disposal facility.
- .31 Temporary Storage Area: The designated area approved by the Departmental Representative for the storage of packaging and/or shipping containers prior to transportation off-site.
- .32 Temporary Working Area: A designated area approved by the Departmental Representative for managing waste including segregating, testing, processing, containerizing and stockpiling. Same as "sorting area", "staging area".

1.5 DESCRIPTION OF WORK

- .1 Work of this Contract comprises a remediation program of a former landfill, a former vehicle storage area and upgradient area where buried debris has been found at Iqaluit, Nunavut; as outlined in these specifications. Description of

all work to be completed at the site as part of the remediation program includes but is not limited to:

- .1 Acquire all required permits and approvals to conduct the works. The site custodian will obtain any inter-governmental agency permitting and supply to the successful bidder upon contract award (i.e., Nunavut Impact Review Board and Nunavut Water Board).
- .2 Mobilization and demobilization of equipment and personnel to the Site; the nearest area with appropriate lodging facilities in the city of Iqaluit, Nunavut.
- .3 Define and setup work areas (i.e. hoarding area, truck turnaround, storage, temporary facilities, etc.).
- .4 Mobilize and install temporary utilities, fencing and facilities as specified in the contract documents.
- .5 Secure Site as required.
- .6 Identify sources of earthworks materials to be utilized and obtain approval of the sources and materials by the Departmental Representative and any other stakeholders.
- .7 Complete a detailed topography survey of all work areas (AEC-1, AEC-2, and AEC-3) prior to beginning site work to establish existing conditions.
- .8 Excavation, containerization, transport, and off-site disposal of hazardous waste materials and lead-amended painted material to the Departmental Representative Approved Designated Hazardous Waste Disposal or Treatment Facility in Southern Canada or United States of America.
- .9 Upgrade access roads or create new access roads to facilitate construction traffic where necessary.
- .10 Import, screen as required, and stockpile aggregate material from external sources.
- .11 **AEC-1 Remediation – the following work to be included but not limited to:**
 - .1 Removing approximately 100 m³ of exposed and/or partially buried non-hazardous metal debris from AEC-1, and hauling it to the Temporary Working Area located north of AEC-1.
 - .2 Processing non-hazardous metal debris excavated from within AEC-1, including cutting to sizes as indicated in the Contract Documents, and transferring it to the Main Landfill (AEC-3) for final disposal.
 - .3 Removing approximately 50 m³ of exposed and/or partially buried hazardous material from AEC-1, and hauling it to the Temporary Working Area where it will be segregated and prepared for shipping to the South to an approved hazard waste disposal/treatment facility.
 - .4 Excavating and hauling, approximately 400 m³ of petroleum hydrocarbon (PHC) contaminated soil from AEC-1 to the Temporary Working Area for testing and then transferring it to and disposing it at a Departmental Representative approved disposal facility (Iqaluit Landfarm or other). Excavations to be backfilled with approved granular material.
 - .5 Excavating and hauling approximately 200 m³ of metal contaminated soil in AEC-1 and depositing it within the Main Landfill (AEC-3) for final disposal. Excavations to be backfilled

- with approved granular material.
- .6 Removing all tires, batteries and liquids and shipping these to a final disposal facility.
- .7 Capping selected areas of AEC-1 with coarse granular fill to prevent erosion and re-grading to redirect surface water away to existing surface water drainage features and to match existing conditions as directed by the Departmental Representative.
- .12 **AEC-2 Remediation - the following work to be included but is not limited to:**
 - .1 Removing approximately 750 m³ of exposed non-hazardous material from AEC-2, and hauling it to the Temporary Working Area located north of AEC-1.
 - .2 Processing non-hazardous metal debris excavated from within AEC-2, including cutting to sizes as indicated in Contract Documents, and transferring it to the Main Landfill (AEC-3) for burial and final disposal.
 - .3 Removing approximately 250 m³ of exposed and/or partially buried hazardous material, from AEC-2, and hauling it to the Temporary Working Area where it will be segregated and prepared for shipping to the South to an approved hazardous waste disposal/treatment facility.
 - .4 Excavating and hauling approximately 100 m³ of PHC contaminated soil from AEC-2 then transferring it to the Temporary Working Area for testing and then transferring it to and disposing it at a Departmental Representative approved disposal facility (Iqaluit Landfarm or other). Excavations to be backfilled with approved granular material.
 - .5 Excavating and, hauling approximately 100 m³ of metal contaminated soil from AEC-2 and transferring it to the Main Landfill (AEC-3) for burial and final disposal. Excavations to be backfilled with approved granular material.
 - .6 Excavating, and hauling approximately 100 m³ of PCB contaminated sediment from AEC-2 to the Temporary Working Area and then transferring it to a Departmental Representative approved disposal facility. Excavated sediments to be backfilled with approved rip-rap material underlain by geotextile as directed.
 - .7 Removing all tires, batteries and liquids and shipping these to a final disposal facility.
 - .8 Capping selected areas disturbed by the soil removal in AEC-2 with coarse granular material to prevent erosion and re-grading it to redirect surface water away to existing surface water drainage features and to match existing conditions as directed by the Departmental Representative.
- .13 **AEC-3 Remediation Part I – the following work will be included in the Main Contract:**
 - .1 Reconstructing the Site access road and constructing a new road and ramp down to the base of the Main Landfill as shown on the contract drawings. This will include grubbing, stripping and rough grading of the ground surface, as and where required; placement and compaction of granular fill; installation of culverts with bedding

- and backfill; rerouting existing surface drainage features; and constructing new roadside ditches and swales. Aggregate utilized for ramp construction will be re-used as part of landfill capping at a later point.
- .2 Removing and consolidating approximately 1,650m³ of non-hazardous surface waste scattered throughout the AEC-3, main landfill area and beyond the toe of the landfill in a Temporary Working Area in AEC-3 as directed by the Departmental Representative.
 - .3 Removing approximately 650 m³ of exposed and/or partially buried hazardous material from AEC-3 and transferring it to the Hazardous Waste Material Processing Area (north of AEC 1), segregating and preparing it for shipping South to an approved hazardous disposal facility.
 - .4 Removing all tires, batteries and liquids and shipping these to a final disposal facility.
 - .5 Processing the estimated 1,500m³ of non-hazardous wastes including cutting or crushing metal debris to sizes as indicated in contract documents for burial in Zone 1 of the proposed Main Landfill embankment.
 - .6 Placement and compaction of non-hazardous waste from AEC-1, AEC-2 and AEC-3 in horizontal lifts in Zone 1 of the proposed Main Landfill embankment to the lines and levels shown on the drawings.
 - .7 Placement of metals impacted soil from AEC 1 and AEC 2 into Zone 1 of the proposed Main Landfill embankment.
 - .8 Placement and compaction, to the extent possible, of Zone 1 granular fill material on top of each waste lift to infill the voids and stabilize the material and achieve an outer slope of 2H:1V (as per contract documents).
 - .9 Constructing drainage swales at the bottom and ditches at the top of the Main Landfill and along roads and install a culvert with bedding and backfill as indicated in contract documents. Drainage swales and ditches will be lined with non-woven geotextile material as per contract documents.
- .14 **AEC-3 Remediation Part II- the following work will be included in full or in part or not at all at the discretion of the Owner.**
- .1 Grubbing, topsoil stripping and rough grading of the ground surface to remove organic matter and soils where Zone 2 embankment materials are to be placed outside the foot print of Zone 1.
 - .2 Removal of the access ramp from approximately Road 'A' chainage 0+200 to 0+350 and re-using the granular materials in Zone 2 the landfill embankment
 - .3 Placing and compacting of Type 2 fill materials in Zone 2 of the landfill embankment in lifts as indicated in contract documents.
 - .4 Grading the Zone 2 slope face to a slope angle of generally no steeper than or 2H:1V as indicated in contract documents and as directed by the Departmental Representative.
 - .5 Placing a non-woven geotextile beneath the Zone 3 Rip Rap material anchored into the Zone 2 fill at elevation 13m.

- .15 Work specified herein also includes, but is not limited to, clearance of subsurface and overhead utilities with the appropriate agencies, set up of temporary facilities, permitting, environmental protection and site restoration, submittals, and all related activities to execute the Site remediation and rehabilitation program and related site activities.
- .16 All hazardous materials must be packaged in accordance with the contract documents before transporting of the hazardous material to a Departmental Representative approved hazardous waste facility.
- .17 Backfill and re-grade excavations using approved aggregate from approved sources.
- .18 Re-grade any damaged municipal roads as required at the end of the contract
- .19 Complete site survey of all work areas including but not limited to AEC-1, AEC-2, and AEC-3 roads, swales/ditches, and culverts to establish final conditions at the end of the contract.
- .20 Work specified herein also includes, but is not limited to: Contractor mobilization/demobilization, set up of temporary facilities, permitting, environmental protection and site restoration, submittals, and all related activities to execute the Works.
- .21 All other work identified in these Contract Documents.

1.9 WORK RESTRICTIONS

- .1 The overall sequence of work may be completed over a one year contract period including AEC-3 Remediation. The field work this season must be completed within the approximately 12 weeks from mid-July to the beginning of October. There will be allowance for the Contractor to store containers of hazardous materials or other waste on site over winter if they are unable to backhaul them on a barge before freeze-up, so long as arrangements for removal during field year 2018-2019 have been made.
- .1 Sequence of work events and scheduling will be at the discretion of the contractor subject to approval of the Owner and the Departmental Representative.
- .2 The contractor shall submit as part of the bid documents detailed scheduling, planning, and resource allocation to complete the work. These documents will outline what work is scheduled to be completed in each month.

1.10 OVERALL WORK SEQUENCE

- .1 The overall sequence of work to be completed at the site as part of the remediation program is presented below. The following is provided for information purposes only and the contractor may elect to re-order and re-prioritize the exact sequence of events as approved by the Departmental Representative during remedial activities.
- .2 Preparation of a Site Health and Safety Plan.
- .3 Preparation and submission of detailed work schedules for the contract duration providing details on project schedules and allocation of resources throughout the contract duration.
- .4 The contractor may refer to the following suggested sequence of work in order to complete the Work:

- .1 Site preparation:
 - .1 Obtain, at the cost of the contractor any relevant permits/approvals required to complete the work.
 - .2 Confirm with the Departmental Representative the areas of soil and sediment remediation and limitations.
 - .3 Confirm with the Departmental Representative the area for use as temporary storage and staging.
 - .4 Confirm with the Departmental Representative the extents of the work areas
 - .5 Mobilize and site set-up and installation of temporary utilities, fencing and facilities.
- .2 Survey of all work areas, including but not limited to AEC-1, AEC-2, and AEC- 3 , to establish existing ground levels and conditions including probing to bedrock along the proposed, alignments of ditches and swales
- .3 Provide and install environmental protection as outlined in the contract documents.
- .4 Consolidation of Landfill Materials: includes the mobilization of equipment, packaging, transport, stockpiling, storage and labelling of non-hazardous and hazardous material as indicated and as directed. This includes the placement of non-hazardous materials within the AEC-3 Main Landfill.
- .5 Remediation: Involves mobilization, excavation and transport of equipment to collect, package and store hazardous materials, collect and stockpile surficial non-hazardous materials (AEC-1 and AEC-2) and place within AEC-3. Excavation of PHC contaminated soil in AEC-1 and AEC-2 for disposal at an approved facility, and excavation of metals impacted soil from AEC-1 and AEC-2 and placement into AEC-3 landfill, as per the specifications.
 - .1 Remove (from AEC-1 and AEC-2), reduce size and consolidate all non-hazardous material into the toe of AEC 3 as outlined in the contract documents.
 - .2 Excavate all metal impacted soil in AEC-1 and AEC-2 and consolidate into the toe of AEC-3 as outlined in the contract documents.
 - .3 Staging, sorting, packaging, and shipping of all hazardous materials in AEC-1, AEC-2 and AEC-3 (selected).
 - .4 Excavation and disposal of PHC impacted soil and sediment to a departmental approved disposal facility (Iqaluit Landfarm or other).
 - .5 Excavation and disposal of PCB impacted soil and sediment to a departmental approved disposal facility, as on-site capping materials or shipping waste south.
- .6 Site survey of final conditions at AEC-1, AEC-2, and AEC-3.
- .7 Reinstatement of site, including backfilling using granular fill, as indicated and re-vegetation of the top plateau of AEC-3 and capping at AEC-1 and AEC-2.
- .8 Changes in sequence as provided by the Departmental Representative shall be at no extra cost to the Owner.
- .9 Demobilization of equipment and reinstatement of the Site (i.e. removal of fencing/temporary facilities, check grading and general housekeeping, final

inspection by Departmental Representative and Contractor Foreman).

- .5 Maintain fire access/control throughout the contract period.
- .6 The contractor is required to restrict site access to the work areas and post tri-lingual signage as per the specifications.

1.11 CONTRACTOR USE OF PREMISES

- .1 Access to the project site is given to the Contractor solely and exclusively for the completion of the site remediation work and limited to the work areas and the area reserved for the Contractor and owner access.
- .2 Locate staging area to the north of AEC-1 for material storage and parking as approved by Departmental Representative.
- .3 Limit use of premises for:
 - .1 Security.
 - .2 Health and Safety.
 - .3 Work.
 - .4 Access.
 - .5 Storage.
- .4 Access to areas other than the work area is strictly forbidden to the contractor unless so authorized by Departmental Representative in writing.
- .5 It is strictly forbidden, except when authorized by Departmental Representative, to conduct excavation outside of the work area. Any soil/material excavated and associated work without the approval of Departmental Representative will become the responsibility of the Contractor who will be responsible for all associated costs to reinstate the impacted area.
- .6 No storage/placement of materials and/or equipment is permitted on site outside the work area as approved by Departmental Representative. Co-ordinate use of premises under direction of Departmental Representative.
- .7 Obtain and pay for use of additional storage or work areas needed for operations under this Contract.
- .8 At completion of operations, restore the site, work area and access roads to equal or better than that which existed before new work started.
- .9 Given the site's location and the potential for adverse weather conditions, the contractor shall consider fog, frost conditions and snow removal requirements, if encountered, at no extra cost to the Owner.

1.12 EXISTING SERVICES/UTILITIES

- .1 Where unknown services are encountered, immediately advise Departmental Representative and confirm findings in writing.
- .2 Protect, relocate or maintain existing active services. When inactive services are encountered, cap off in manner approved by authorities having jurisdiction.
- .3 Record locations of maintained, re-routed and abandoned service lines.
- .4 Construct barriers in accordance with contract documents.

1.13 DOCUMENTS REQUIRED

- .1 Maintain at job site, one copy of each document as follows:
 - .1 Contract Drawings.
 - .2 Specifications.
 - .3 Addenda.
 - .4 Materials/equipment tracking sheets, updated daily. (includes imported/exported materials, chargeable equipment hours)
 - .5 Meeting minutes.
 - .6 Reviewed Shop Drawings.
 - .7 List of Outstanding Shop Drawings.
 - .8 Change Orders.
 - .9 Copy of Approved Work Schedule.
 - .10 Other Modifications to the Contract.
 - .11 Health and Safety Plan and Other Safety Related Documents.
 - .12 Other Documents as Specified.
- .2 Sources of all materials must be identified in writing to and approved by Departmental Representative prior to contract award and the start of work on site. All information submitted will be subject to verification by Departmental Representative.

Part 2 PRODUCTS

2.1 NOT USED

Part 3 EXECUTION

3.1 NOT USED

END OF SECTION

PART 1 GENERAL

1.1 SECTION INCLUDES

- .1 General Restrictions
- .2 Work hours

1.2 RELATED SECTIONS

- .1 Section 01 32 16.07 – Construction Schedule
- .2 Section 01 33 00 – Submittals
- .3 Section 01 35 13 – Special Procedures for Contaminated Sites
- .4 Section 01 32 16 – Construction Progress Schedule

1.3 GENERAL RESTRICTIONS

- .1 No work of any kind can begin until the proper authorization from the Departmental Representative and/or work permits have been obtained.
- .2 Work under this contract is to be distributed into one season. There will be allowance for the Contractor to store containers of hazardous materials or other waste material on-site over winter if they are unable to backhaul them on a barge before freeze up, so long as arrangements for removal during Field Year 2018-19 are made.

1.4 HOURS OF WORK

- .1 Construction work time, normal hours:
 - .1 Work hours are to be determined by the contractor, agreed upon and approved by the Departmental Representative, but must not exceed 12 hours per working day.

END OF SECTION