



# Public Works and Government Services Canada

Requisition No: EZ899-212143/A

DRAWINGS & SPECIFICATIONS

For

Tahltan River Slide Salmon Migration Passage Restoration

Tahltan River, BC

## APPROVED BY:

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**END OF SECTION**

PROFESSIONAL SEAL



## SECTION 01 11 00 SUMMARY OF WORK

### PART 1 GENERAL

#### 1.1 SCOPE AND DESCRIPTION

- .1 This section presents an overview of the work detailed in this tender package. It includes the title and description of Work, Project Location, Contract Method, Work by Others, and the Work Sequence.

The purpose of this work is to remove drape mesh installed for temporary worker safety during a drilling and blasting passage restoration project completed in 2018. The drill and blast work is now complete and the drape mesh is to be removed and safely stored on site to be readily available to be reinstalled if required in the future.

#### 1.2 PRECEDENCE

- .1 For Federal Government projects, General Conditions take precedence over technical specifications.

#### 1.3 RELATED SECTIONS

- .1 All

#### 1.4 PROJECT LOCATION

- .1 The project is located near Telegraph Creek, British Columbia. Construction work site is located in northwest BC adjacent to the Telegraph Creek Road. The Site is approximately 1 km upstream of the confluence of the Tahltan River with the Stikine River. Please see Appendix A for further project location information.

#### 1.5 WORK COVERED BY CONTRACT DOCUMENTS

- .1 The Contract documents, drawings and specifications are intended to complement each other, and to provide for and include everything necessary for the completion of the work.
- .2 Drawings, photographs and product technical sheets indicate the scope and general arrangements of the work.
- .3 These specifications are subdivided in accordance with the current 6-digit National Master Specifications System. IN the event of discrepancies or conflicts when interpreting the drawings and specifications, the specifications govern.
- .4 In preparation for and during the Work at the Tahltan River Slide, an “Environmental Protection Plan” (EPP) is to be prepared by the successful Contractor to meet the requirements of Section 01 35 43 – Environmental Procedures to ensure the desired minimal adverse effects are achieved. The Departmental Representative and Department of Fisheries and Oceans (DFO) will refer to the approved EPP in determining compliance with the plan and contract specifications. The EPP will form part of the contract.
- .5 The major Work Items of this Contract comprise re-establishing site access and removing the wire rock mesh. Tasks in the Work of this Contract consist of:
  - .a Mobilization and Demobilization of all manpower, equipment, materials, and other resources necessary to execute the Work in accordance with Section 01 25 20 – Mobilization and Demobilization.

- .b Temporary Access: Specification Section 31 10 00. Re-establish approximately 50 m of access trail to the drape mesh location. The trail was cleared and partially levelled in 2018 and is currently blocked by two jersey barriers. The existing access trail should be considered accessible by foot and tracked machine. Imported fill may be required if the contractor intends to drive vehicles to the site. Site photos are included in the Photo Appendix.
  - .c Rock scaling: As required for worker safety and per Specification Section 31 23 20. Scaling work may be completed through the existing drape mesh if possible without damaging the mesh. Note a tension crack first identified in winter 2018 is present in the slope crest underneath the mesh as shown on the Design Drawings. The crack was tested with air bags prior to the 2018 work with no movement. The contractor and Departmental Representative shall inspect the tension crack and conduct testing as required to satisfy worker safety requirements.
  - .d Rock Mesh Removal: Specification Section 31 33 26.
- .6 Manage the project in accordance with Section 01 31 00 – Project Management and Coordination.
  - .7 Carry out the Work in the order of priority specified, or as determined by the Departmental Representative.
  - .8 Prepare and submit all required submittals in accordance with Section 01 33 00 - Submittal Procedures.
  - .9 Responsibility for all aspects of site safety in accordance with Section 01 35 33 – Health and Safety Requirements.

## **1.6 CONTRACT METHOD**

- .1 Provide Work under the Contract in a Unit Rate Contract.
- .2 Rates for provision of equipment and labour to carry out additional works such as rock scaling, or works not explicitly specified herein shall be in accordance with the most recent edition of the BC Roadbuilders and Heavy Construction Association Equipment Rental Rate Guide (Bluebook) and will be all inclusive and fully operated. Labor rates will be paid out at a mutually agreed upon force account rate. Transportation time to and from site is to be reimbursed only if equipment is used exclusively for additional work. Hourly labour and rental of equipment will be measured in actual working time and necessary travel time.

## **1.7 WORK BY OTHERS**

- .1 The Contractor for this Work is Prime Contractor.

## **1.8 WORK SEQUENCE**

- .1 Commence mobilization and site preparation work within two weeks after the project submittals have been received and accepted.
- .2 Work can take place as long as safe working conditions exist. Increase in ambient temperatures above freezing or rising water levels may create unsafe working conditions at which time work will cease. The completion date for all work has been set as March 15, 2021 (Contract Completion Date).

**1.9 ACTION REQUIRED BY CONTRACTOR**

- .1 Time is of the essence. The Contractor will take whatever measures necessary to complete the work while safe working conditions exist prior to the spring thaw.

**1.10 CONTRACTOR USE OF PREMISES**

- .1 The Contractor has unrestricted use of the Site until the Contract Completion date, subject to Section 01 14 00 – Work Restrictions.

**1.11 OWNER FURNISHED ITEMS**

- .1 The Owner will not supply any labour, equipment, or material resources for this project.

**1.12 EXECUTION**

- .1 The Contractor shall discuss and come to an agreement (sign off sheet required) with the Department Representative on measurement and payment at the end of each day.
- .2 The contractor shall execute work in an efficient and expeditious manner. The Departmental Representative reserves the right to order the removal from the work site any employee of the Contractor who fails to work in a safe, efficient, or expeditious manner. This may include but is not limited to the Project Superintendent. This shall be strictly enforced.
- .3 The Departmental Representative reserves the right to order any piece of equipment that is not in good operation condition removed from site. The Contractor shall immediately rectify problem or replace faulty equipment with an equivalent unit within 48 hours.
- .4 Scope and Description of Work Site
  - .a The work site is illustrated and described in the attached drawings and following contract specifications.
  - .b The quantities are summarized in the Unit Price Schedule Table and are estimated quantities only.

**PART 2 PRODUCTS**

**2.1 NOT USED**

- .1 Not Used.

**PART 3 EXECUTION**

**3.1 NOT USED**

- .1 Not Used.

**PART 4 MEASUREMENT**

**4.1 NOT USED**

- .1 Not Used.

**END OF SECTION**

## **SECTION 01 14 00 WORK RESTRICTIONS**

### **PART 1 GENERAL**

#### **1.1 SCOPE AND INTENT**

- .1 This section provides information on Work Restrictions related to the use of the Work Site including conducting work near waterways, access to adjacent properties, existing utilities and infrastructure, protection of persons and property, use of public areas, supervisory personnel, meetings, mixing and storage of explosives, and waste disposal.

#### **1.2 PRECEDENCE**

- .1 For Federal Government projects, General Conditions take precedence over technical specifications.

#### **1.3 RELATED SECTIONS**

- .1 Section 01 11 00 – Summary of Work.
- .2 Section 01 35 33 – Health and Safety Requirements.
- .3 Section 01 35 43 – Environmental Procedures.

#### **1.4 EXISTING SERVICES**

- .1 Keep all existing roads adjacent the site open and free of debris at all times.
- .2 Contractor's use of the road shall be done in a safe and efficient manner to minimize any impact to local road users.
- .3 Proper signage to notify road users of construction activity must be set up at the beginning of each shift and removed at the end of each shift.

#### **1.5 USE OF THE WORK SITE/LAYDOWN AREA**

- .1 The Work Site (limits shown on Drawings) will be taken to mean any location the Contractor is working, has personnel, or has equipment (being used or stored), or any location noted in the Drawings.
- .2 The Work Site and Laydown Area will be allocated by the Departmental Representative as shown on the drawings and shall only be used for purposes of the Work. Laydown Area will be made available for the Contractor's non-exclusive use for the duration of the Work, unless otherwise provided in the Contract Documents.
- .3 The Contractor shall keep the Work Site clean and free from accumulation of waste materials and rubbish regardless of the source. Snow shall be removed by the Contractor as necessary for the performance and inspection of the Work.
- .4 While the Work Site and Laydown Area are under the Contractor's control, the Contractor shall be entirely responsible for the safety and security of these areas.
- .5 Any damage to the Work Site or adjacent roadways or other existing facilities caused by the Contractor shall be repaired by the Contractor at their own expense.

- .6 The Contractor may undertake construction work twelve (12) hours a day, seven (7) days per week, with the following restrictions:
  - .a Upon completion of the Work, all site based equipment shall be removed from the work sites to leave sites in a safe condition with the temporary access road blocked off to the public by reinstating the jersey barriers.

**1.6 WORK CONDUCTED OVER OR ADJACENT TO WATERWAYS**

- .1 All components of the Work within 30 m of a wetland, water body, stream or river shall be conducted in accordance with Section 01 35 43 – Environmental Procedures and the Environmental Protection Plan for the project.
- .2 All waste materials from the work shall be contained and collected in a manner to prevent any contact with the river waterways. Waste materials shall be disposed of in accordance with Section 01 35 43 - Environmental Procedures and the Environmental Protection Plan for the project.

**1.7 UTILITIES AND EXISTING INFRASTRUCTURE**

- .1 The Contractor shall be responsible for moving signs, concrete barriers, and other infrastructure where feasible to do so, and otherwise protecting all existing infrastructure such as road surface in the Work Sites. The Contractor shall be responsible for repairing all damage that can reasonably be prevented. The costs of this work shall be considered incidental to contract and no separate payment will be made.

**1.8 PROTECTION OF PERSONS AND PROPERTY**

- .1 The Contractor shall take all necessary precautions and measures to prevent injury or damage to persons and property on or near the Work Site in accordance with all requirements outlined in Section 01 35 33 – Health and Safety Requirements.
- .2 The Contractor shall take every practical effort to minimize damage to the existing drape mesh, anchors, cables and related components. The Contractor shall be responsible for repairing all damage that can reasonably be prevented. The costs of this work shall be considered incidental to contract and no separate payment will be made. Refer to Section 31 33 26 for Rock Slope Mesh Removal specifications.

**PART 2 PRODUCTS**

**2.1 NOT USED**

- .1 Not Used.

**PART 3 EXECUTION**

**3.1 NOT USED**

- .1 Not Used.

**END OF SECTION**

## **SECTION 01 25 00 MOBILIZATION AND DEMOBILIZATION**

### **PART 1 GENERAL**

#### **1.1 SCOPE AND INTENT**

- .1 This section describes the requirements for one mobilization and one demobilization from the Work site.

#### **1.2 RELATED SECTIONS**

- .1 All.

#### **1.3 DESCRIPTION**

- .1 Mobilization and demobilization consists of preparatory work and operations including, but not limited to, those necessary for moving personnel, materials, equipment, camp, buildings, supplies, shops, offices, incidentals, and other facilities to and from the project sites.

#### **1.4 MEASUREMENT PROCEDURES**

- .1 Payment shall be made under “Work Item No.1 – Mobilization/Demobilization” and will be lump sum.
- .2 60% of Lump Sum Contract Price for Mobilization and Demobilization to be paid when mobilization to site is complete.
- .3 The Remainder of Lump Sum Price for Mobilization and Demobilization is to be paid when work is complete and all materials, equipment, camp, buildings, supplies, shops, offices, incidentals, and other facilities have been removed from site, and the site has been cleaned and left in a condition that satisfies the Departmental Representative and all other Agencies having Jurisdiction.
- .4 Demobilization and subsequent remobilization due to incomplete work will not be measured for payment.
- .5 Payment up to 10% of the total price tendered will be scheduled as outlined above. If the amount bid for Mobilization and Demobilization is greater than 10% of the total price tendered, payment of the remainder of the amount will be authorized when contract has been completed.

### **PART 2 PRODUCTS**

#### **2.1 NOT USED**

- .1 Not Used.

### **PART 3 EXECUTION**

#### **3.1 NOT USED**

- .1 Not Used.

**END OF SECTION**



## **SECTION 01 31 00 PROJECT MANAGEMENT AND COORDINATION**

### **PART 1 GENERAL**

#### **1.1 SCOPE AND INTENT**

- .1 This section includes the requirements for Project Management and Coordination during the Work, including organization and start-up, on-site documents, scheduling, meetings, and submittals.

#### **1.2 RELATED SECTIONS**

- .1 Section 01 11 00 – Summary of Work.
- .2 Section 01 33 00 – Submittal Procedures.
- .3 Section 01 35 33 – Health and Safety Requirements.
- .4 Section 01 35 43 – Environmental Procedures.
- .5 Section 01 52 00 – Construction Facilities.
- .6 Section 01 77 00 – Closeout Procedures.

#### **1.3 MEASUREMENT**

- .1 Project Management is considered incidental to the Contract and shall not be measured for payment.

#### **1.4 COORDINATION**

- .1 The Contractor shall coordinate progress schedules, submittals, use of site, temporary utilities, construction facilities, construction Work, and work by others, under the direction of the Departmental Representative.

#### **1.5 CONSTRUCTION ORGANIZATION AND START-UP**

- .1 Within seven (7) days after award of Contract, the Contractor shall attend a start-up meeting to discuss administrative procedures and responsibilities. Senior representatives of Department of Fisheries and Oceans (DFO), the Engineer of Record, the Departmental Representative, the Contractor, and major Subcontractors are to attend the start-up meeting. The meeting will be held (time and location to be determined), and will be chaired by the Departmental Representative.
- .2 The start-up meeting agenda will include:
  - .a Appointment of official representatives of participants in Work.
  - .b Schedule of Work and progress schedule updates.
  - .c Submittal requirements and deadlines.
  - .d Site safety and security in accordance with Section 01 52 00 – Construction Facilities and Section 01 35 33 – Health and Safety Requirements.
  - .e Quality Control for all Work activities.
  - .f Proposed changes, change orders, approvals required, mark-up percentages, time extensions, and other administrative requirements and procedures.

- .g Monthly progress claims, photographs, and holdbacks.
  - .h Insurances, project staffing and applicable training certificates, and transcript of policies.
  - .i Other business.
- .3 All Work shall comply with the Departmental Representative's allocation of laydown areas on site for field offices and sheds, access, traffic, parking, sanitary facilities, and use of temporary utilities and construction facilities.
  - .4 The Contractor shall coordinate intra-project communications including submittals, reports and records, schedules, coordination of Drawings, recommendations, and resolution of ambiguities and conflicts through the Departmental Representative.
  - .5 The Contractor shall coordinate with the Departmental Representative to review and layout the proposed work at the site prior to the start of work.

## **1.6 ON-SITE DOCUMENTS**

- .1 The Contractor shall maintain at the job site, one up-to-date copy of the following:
  - .a Contract Drawings, Specifications, and Addenda.
  - .b Change Orders and other modifications to the Contract.
  - .c Site Access and Laydown Plan.
  - .d Safety Plan.
  - .e Emergency Response Plan
  - .f WHMIS documentation and all Health and Safety records.
  - .g Environmental Protection Plan.
  - .h Field reports/QC documentation.
  - .i Copy of most recent revision of the approved Work Schedule.
  - .j Applicable editions of regulations and by-laws.

## **1.7 SCHEDULES**

- .1 The Contractor shall submit a preliminary construction progress schedule to the Departmental Representative coordinated with the projects scheduled milestone dates in accordance with Section 01 33 00 – Submittal Procedures.
- .2 Following review by the Departmental Representative, the Contractor shall revise and resubmit the schedule as required to comply with the current project schedule.
- .3 In the event of a delay claim the contractor shall submit a revised project schedule to the Departmental Representative as part of the written claim documentation. The schedule shall provide sufficient detail to assess the impact of the claim to the project timeline.

## 1.8 CONSTRUCTION PROGRESS MEETINGS

- .1 A kick-off meeting with the Departmental Representative and the Contractor shall be held upon project award. A minimum of two progress meetings will be held as conference calls. Progress meetings are to be scheduled as required and specified by the Departmental Representative.
- .2 The progress meeting agenda shall include:
  - .a Review and approval of previous meeting minutes.
  - .b Review of environmental issues.
  - .c Review of Emergency response protocol issues.
  - .d Review of site safety and security issues.
  - .e Review of Contractor issues and coordination with other subcontractors or stakeholders.
  - .f Review of progress of Work since previous meeting.
  - .g Discussion of field observations, problems and conflicts.
  - .h Review of submittal schedules.
  - .i Corrective measures and procedures to regain projected schedule (as required).
  - .j Revisions to construction schedule.
  - .k Weekly progress schedule during succeeding work period.
  - .l Review of construction budget, progress payments and variances from contract.
  - .m Other business.

## 1.9 SUBMITTALS

- .1 The Contractor shall submit a Daily Quantity Sheet the following business day to the Departmental Representative including all site activities.
- .2 The Contractor shall submit requests for payment to the Departmental Representative for review and transmittal.
- .3 The Contractor shall submit requests for interpretation of Contract Documents, and obtain instructions through the Departmental Representative.
- .4 The Contractor shall process Contemplated Change Notices (CCN) and Change Orders (CO) through the Departmental Representative.
- .5 The Contractor shall deliver closeout submittals for review and preliminary inspections to the Departmental Representative for transmittal.
- .6 Requests for Information (RFIs) and Requests for Variance (RFVs): Any RFIs or RFVs shall receive a response within fourteen (14) calendar days. Each RFI or RFV shall be uniquely numbered and shall be in electronic PDF format.
- .7 Non-conformances (NC) shall be resolved prior to issuance of the Certificate of Substantial Completion.

**1.10 PROJECT CLOSEOUT**

- .1 The Contractor shall undertake project closeout in accordance with Section 01 77 00 – Closeout Procedures.

**PART 2 PRODUCTS**

**2.1 NOT USED**

- .1 Not Used.

**PART 3 EXECUTION**

**3.1 NOT USED**

- .1 Not Used.

**END OF SECTION**

## SECTION 01 33 00 SUBMITTAL PROCEDURES

### **PART 1 GENERAL**

#### **1.1 SCOPE AND INTENT**

- .1 This section provides requirements for project submittals including administrative procedures and required Contractor submittals.

#### **1.2 PRECEDENCE**

- .1 For Federal Government projects, General Conditions take precedence over technical specifications.

#### **1.3 RELATED SECTIONS**

- .1 Section 01 14 00 – Work Restrictions.
- .2 Section 01 31 00 - Project Management and Coordination.
- .3 Section 01 52 00 – Construction Facilities.
- .4 Section 01 35 33 – Health and Safety Requirements.
- .5 Section 01 35 43 – Environmental Procedures.
- .6 Section 31 10 00 – Temporary Access.
- .7 Section 31 33 26 – Rock Slope Mesh Removal.

#### **1.4 REFERENCES**

- .1 Not used.

#### **1.5 ADMINISTRATIVE**

- .1 Unless otherwise agreed in writing with the Departmental Representative, the Contractor shall provide submittals to the Departmental Representative for review within the specified time. Failure to provide submittals within the specified time is not considered sufficient reason for an extension of Contract Time and could result in delays to certain components of the Work that will be at the Contractor's expense.
- .2 The submittals shall be in electronic format (Word, Excel, PowerPoint, Project, or PDF) sent by email to the Departmental Representative. Details will be provided during the start-up meeting.
- .3 Work affected by a submittal shall not proceed until review is complete and the submittal has been deemed acceptable by the Departmental Representative.
- .4 All information shall be submitted in SI/Metric Units. Where information is not produced in SI/Metric units, the Contractor is required to convert the units to metric.
- .5 All submittals and associated information shall be in English.
- .6 All documents shall be clearly, accurately, and unambiguously marked with the associated date of the document. Where a document has been revised and resubmitted, it shall bear record of the revision by revision number or letters and dates.
- .7 The Contractor shall review all submittals prior to providing to the Departmental Representative. This review represents that the necessary requirements have been

determined and verified (or will be verified), and that each submittal has been checked and coordinated with the requirements of the Work and Contract Documents. Submittals not stamped, signed, and dated by the Contractor, and identified to the specific project, will be returned without being examined and shall be considered rejected.

- .8 Identify in writing to the Departmental Representative at time of submission any deviations from requirements of the Contract Documents and state reasons for deviations.
- .9 The Contractor shall verify that field measurements are correct. Whenever survey records are provided, the Contractor shall satisfy itself as to the accuracy and completeness of the survey records provided by the Departmental Representative or others for any area before commencing construction in that area.
- .10 The Contractor's responsibility for errors and omissions in submissions is not relieved by Departmental Representative's review of submittals.
- .11 The Contractor's responsibility for deviations in submissions from requirements of the Contract Documents is not relieved by Departmental Representative's review.
- .12 The Contractor shall keep a reviewed copy of each submission on site.

## **1.6 CERTIFICATES AND TRANSCRIPTS**

- .1 The Contractor shall submit the Contractor's Workers' Compensation Board status to the Departmental Representative a minimum of seven (7) days prior to mobilization to site.
- .2 Immediately after award of Contract, the Contractor shall submit a transcription of their insurance coverage and policy to the Departmental Representative.

## **1.7 LIST OF REQUIRED CONTRACTOR SUBMITTALS**

- .1 General:
  - .a This section identifies the plans, programs, and documentation required prior to mobilization to site, during the construction phase, and upon project completion.
  - .b The Contractor shall not construe the Departmental Representative's review and authorization of the submittals to imply approval of any particular method or sequence for conducting the Work. Authorization of the programs shall not relieve the Contractor from the responsibility to conduct the Work in strict accordance with the requirements of Federal or Provincial regulations, this specification, or to adequately protect the health and safety of all workers involved in the project and any members of the public who may be affected by the project. The Contractor shall remain solely responsible for the adequacy and completeness of the programs and work practices, and adherence to them.
    - (i) The Contractor shall submit the following plans and programs to the Departmental Representative for review within the specified time frame detailed in the relevant section. The Contractor shall not begin any site Work until the Departmental Representative has authorized acceptance of the submittals in writing.
- .2 Pre-Mobilization Submittals:
  - .a Project Schedule detailing milestone dates, schedule of workdays, and manpower required to complete each project activity. In addition, for each activity critical elements that could impact the schedule are to be identified. The initial schedule shall be submitted within ten (10) days of Contract Award. The Project Schedule shall be updated as conditions change, and as requested by the Department Representative.

- .b A list of subcontractors, suppliers and consultants, and their role and key personnel, including names, positions, and phone numbers within ten (10) days of Contract Award.
  - .c Contractor Chain of Command, listing the key Contractor personnel, names and positions, addresses, email addresses, telephone and/or pager numbers. The list shall include contact persons who are available on a 24-hour basis in the event of emergencies.
  - .d A Work Plan describing the Contractor's intended methods including, but not limited to, methods of mesh removal, required equipment, required material, required personnel, and environmental mitigation strategies.
  - .e Environmental Protection Plan (EPP) and Spill Response Plan in accordance with Section 01 35 43 - Environmental Procedures.
  - .f Emergency Response Plan detailing the Contractor's procedures for management of emergency situations (including spills) and providing a response plan, protocols, and contact information in accordance with Section 01 35 33 – Health and Safety Requirements. Departmental Representative can supply the Contractor with contact names and numbers for emergency response purposes.
  - .g Occupational Health and Safety Program - The Contractor shall have a Certificate of Recognition (COR) or Registered Safety Plan (RSP) including a site-specific Health and Safety Plan acceptable to the Departmental Representative in accordance with Section 01 35 33 – Health and Safety Requirements. The Contractor shall implement and maintain the Health and Safety Plan during the Work.
- .3 Construction Phase Submittals:
- .a Clearing and Grubbing plan if required in accordance with Section 31 10 00 – Temporary Access.
  - .b Progress Reports in accordance with Section 01 31 00 – Project Management and Coordination.
  - .c Daily Quantity Sheet in accordance with Section 01 31 00 – Project Management and Coordination.
  - .d Work Site Health and Safety Inspection Report (weekly) – Submit weekly in accordance with Section 01 35 33 – Health and Safety Requirements.

**PART 2 PRODUCTS**

**2.1 NOT USED**

- .1 Not Used.

**PART 3 EXECUTION**

**3.1 NOT USED**

- .1 Not Used.

**END OF SECTION**

## SECTION 01 35 33 HEALTH AND SAFETY REQUIREMENTS

### PART 1 GENERAL

#### **PWGSC Update on Asbestos Use**

**Effective April 1, 2016, all Public Works and Government Services of Canada (PWGSC) contracts for new construction and major rehabilitation will prohibit use of asbestos-containing materials.**

#### **COVID 19**

**All contractors shall follow Canadian Construction Association COVID-19 - Standardized Protocols for All Canadian Construction Sites, Provincial Regulations and Federal Site Specific Guidelines.**

### 1.1 SCOPE AND INTENT

- .1 This section provides Health and Safety considerations required to ensure that the Owner shows due diligence towards health and safety on construction sites, and meets both federal and provincial legislative requirements.
- .2 The Contractor shall take all necessary precautions and measures to prevent injury or damage to persons, property and the environment on or near the Work Site.

### 1.2 PRECEDENCE

- .1 For Federal Government projects, General Conditions take precedence over technical specifications.

### 1.3 REFERENCES

- .1 Government of Canada.
  - .a Canada Labour Code - Part II (as amended)
  - .b Canada Occupational Health and Safety Regulations. (as amended)
- .2 National Building Code of Canada (NBC): (as amended)
  - .a Part 8, Safety Measures at Construction and Demolition Sites.
- .3 The Canadian Electrical Code (as amended)
- .4 Canadian Standards Association (CSA) as amended:
  - .a CSA Z797-2018 Code of Practice for Access Scaffold.
  - .b CSA S269.1-2016 Falsework for Construction Purposes.  
CSA S350-M1980 (R2003) Code of Practice for Safety in Demolition of Structures.
  - .c CSA Z1006-10 Management of Work in Confined Spaces.
  - .d CSA Z462-18 Workplace Electrical Safety Standard
- .5 National Fire Code of Canada 2015 (as amended)
  - .a Part 5 – Hazardous Processes and Operations and Division B as applicable and required.
- .6 American National Standards Institute (ANSI): (as amended)
  - .a ANSI/ASSP A10.3-2013, Operations – Safety Requirements for Powder-Actuated Fastening Systems.



- .7 Province of British Columbia:
  - .a Workers Compensation Act Part 3-Occupational Health and Safety. (as amended)
  - .b Occupational Health and Safety Regulation (as amended)
- .8 WGSC Preliminary Hazard Assessment (Dated 2020-11-20)

#### **1.4 RELATED SECTIONS**

- .1 Refer to the following current NMS sections as required:
  - .a All sections of Tahltan River Rockslide Remediation – Phase 2

#### **1.5 WORKERS' COMPENSATION BOARD COVERAGE**

- .1 Comply fully with the Workers' Compensation Act, regulations and orders made pursuant thereto, and any amendments up to the completion of the work.
- .2 Maintain Workers' Compensation Board coverage during the term of the Contract, until and including the date that the Certificate of Final Completion is issued.

#### **1.6 COMPLIANCE WITH REGULATIONS**

- .1 PWGSC may terminate the Contract without liability to PWGSC where the Contractor, in the opinion of PWGSC, refuses to comply with a requirement of the Workers' Compensation Act or the Occupational Health and Safety Regulations.
- .2 It is the Contractor's responsibility to ensure that all workers are qualified, competent and certified to perform the work as required by the Workers' Compensation Act or the Occupational Health and Safety Regulations.

#### **1.7 SUBMITTALS**

- .1 Submit to Departmental Representative submittals listed for review in accordance with Section 01 01 50.
- .2 Work affected by submittal shall not proceed until review is complete.
- .3 Submit the following:
  - .a Organizations Health and Safety Plan.
  - .b Site Specific Safety Plan or Health and Safety Plan (SSSP or HASP)
  - .c Copies of reports or directions issued by Federal and Provincial health and safety inspectors.
  - .d Copies of incident and accident reports.
  - .e Complete set of Material Safety Data Sheets (SDS), and all other documentation required by Workplace Hazardous Materials Information System (WHMIS) requirements.
  - .f Emergency Response Procedures.
- .4 The Departmental Representative will review the Contractor's Site Specific Safety Plan or Health and Safety Plan (SSSP/HASP) and emergency response procedures, and provide comments to the Contractor within 5 days after receipt of the plan. Revise the plan as appropriate and resubmit to Departmental Representative.
- .5 Medical surveillance: where prescribed by legislation, regulation or safety program, submit certification of medical surveillance for site personnel prior to commencement of work, and submit additional certifications for any new site personnel to Departmental Representative.

- .6 Submission of the Site Specific Safety Plan or Health and Safety Plan, and any revised version, to the Departmental Representative is for information and reference purposes only. It shall not:
  - .a Be construed to imply approval by the Departmental Representative.
  - .b Be interpreted as a warranty of being complete, accurate and legislatively compliant.
  - .c Relieve the Contractor of his legal obligations for the provision of health and safety on the project.

## **1.8 RESPONSIBILITY**

- .1 Assume responsibility as the Prime Contractor for work under this contract.
- .2 Be responsible for health and safety of persons on site, safety of property on site and for protection of persons adjacent to site and environment to extent that they may be affected by conduct of Work.
- .3 Comply with and enforce compliance by employees with safety requirements of Contract documents, applicable Federal, Provincial and local statutes, regulations, and ordinances, and with site-specific Health and Safety Plan.

## **1.9 HEALTH AND SAFETY COORDINATOR**

- .1 Assign a competent and qualified Health and Safety Coordinator who shall:
  - .a Be responsible for completing all health and safety training, and ensuring that personnel that do not successfully complete the required training are not permitted to enter the site to perform work.
  - .b Be responsible for implementing, daily enforcing, and monitoring the Site Specific Safety Plan (SSSP) or Health and Safety Plan (HASP)
  - .c Be on site during execution of work.
  - .d Have minimum two (2) years' site-related working experience
  - .e Have working knowledge of the applicable occupational safety and health regulations.

## **1.10 GENERAL CONDITIONS**

- .1 Provide safety barricades and lights around work site as required to provide a safe working environment for workers and protection for pedestrian and vehicular traffic.
- .2 Ensure that non-authorized persons are not allowed to circulate in designated construction areas of the work site.
  - .a Provide appropriate means by use of barricades, fences, warning signs, traffic control personnel, and temporary lighting as required.
  - .b Secure site at night time or provide security guard as deemed necessary to protect site against entry.

## **1.11 PROJECT/SITE CONDITIONS**

- .1 Work at site will involve contact with:
  - .a Multi-employer work site.
  - .b Federal employees and general public.
  - .c Working from heights.
  - .d PWGSC Preliminary Hazard Assessment (Dated 2020-11-20)

#### **1.12 UTILITY CLEARANCES**

- .1 The Contractor is solely responsible for all utility detection and clearances prior to starting the work.
- .2 The Contractor will not rely solely upon the Reference Drawings or other information provided for Utility locations.

#### **1.13 REGULATORY REQUIREMENTS**

- .1 Comply with specified codes, acts, bylaws, standards and regulations to ensure safe operations at site.
- .2 In event of conflict between any provision of the above authorities, the most stringent provision will apply. Should a dispute arise in determining the most stringent requirement, the Departmental Representative will advise on the course of action to be followed.

#### **1.14 WORK PERMITS**

- .1 Obtain specialty permit(s) related to project before start of work.

#### **1.15 FILING OF NOTICE**

- .1 The General Contractor is to file Notice of Project with Provincial authorities prior to commencement of work. (All construction projects require a Notice of Work)
- .2 Provide copies of all notices to the Departmental Representative.

#### **1.16 SITE SPECIFIC HEALTH AND SAFETY PLAN**

- .1 Conduct a site-specific hazard assessment based on review of Contract documents, required work, and project site. Identify any known and potential health risks and safety hazards.
- .2 Prepare and comply with the Site-Specific Safety Plan (SSSP) or Health and Safety Plan (HASP) based on the required hazard assessment, including, but not limited to, the following:
  - .a Primary requirements:
    - .1 Contractor's safety policy.
    - .2 Identification of applicable compliance obligations.
    - .3 Definition of responsibilities for project safety/organization chart for project.
    - .4 General safety rules for project.
    - .5 Job-specific safe work, procedures.
    - .6 Inspection policy and procedures.
    - .7 Incident reporting and investigation policy and procedures.
    - .8 Occupational Health and Safety Committee/Representative procedures.
    - .9 Occupational Health and Safety meetings.
    - .10 Occupational Health and Safety communications and record keeping procedures.
    - .11 COVID 19 Protocols and Procedures
  - .b Summary of health risks and safety hazards resulting from analysis of hazard assessment, with respect to site tasks and operations which must be performed as part of the work.
  - .c List hazardous materials to be brought on site as required by work. SDS required for all products.

- .d Indicate Engineering and administrative control measures to be implemented at the site for managing identified risks and hazards.
  - .e Identify personal protective equipment (PPE) to be used by workers.
  - .f Identify personnel and alternates responsible for site safety and health.
  - .g Identify personnel training requirements and training plan, including site
  - .h orientation for new workers.
- .3 Develop the plan in collaboration with all subcontractors. Ensure that work/activities of subcontractors are included in the hazard assessment and are reflected in the plan.
  - .4 Revise and update Site Specific Safety Plan (SSSP) and/or Health and Safety Plan (HASP) as required, and re-submit to the Departmental Representative.
  - .5 Departmental Representative's review: the review of Site Specific Safety Plan and/or Health and Safety Plan by PWGSC shall not relieve the Contractor of responsibility for errors or omissions in final Site Specific Safety Plan and/or Health and Safety Plan of responsibility for meeting all requirements of construction and Contract documents and legislated requirements.

#### **1.17 EMERGENCY PROCEDURES**

- .1 List standard operating procedures and measures to be taken in emergency situations. Include an emergency response and emergency evacuation plan and emergency contacts (i.e. names/telephone numbers) of:
  - .a Designated personnel from own company.
  - .b Regulatory agencies applicable to work and as per legislated regulations.
  - .c Local emergency resources.
  - .d Departmental Representative.
  - .e . A route map with written directions to the nearest hospital or medical clinic.
- .2 Include the following provisions in the emergency procedures:
  - .a Notify workers and the first-aid attendant, of the nature and location of the emergency.
  - .b Evacuate all workers safely.
  - .c Check and confirm the safe evacuation of all workers.
  - .d Notify the fire department or other emergency responders.
  - .e Notify adjacent workplaces or residences which may be affected if the risk extends beyond the workplace.
  - .f Notify Departmental Representative.
- .3 Provide written rescue/evacuation procedures as required for, but not limited to:
  - .a Work at high angles.
  - .b Work in confined spaces or where there is a risk of entrapment.
  - .c Work with hazardous substances.
  - .d Underground work.
  - .e Work on, over, under and adjacent to water.
  - .f Workplaces where there are persons who require physical assistance to be moved.

- .4 Design and mark emergency exit routes to provide quick and unimpeded exit.
- .5 Revise and update emergency procedures as required, and re-submit to the Departmental Representative.
- .6 Contractors must not rely solely upon 911 for emergency rescue in a confined space, working at heights, etc.

#### **1.18 HAZARDOUS PRODUCTS**

- .1 Comply with requirements of Workplace Hazardous Materials Information System (WHMIS 2015) regarding use, handling, storage and disposal of hazardous materials, and regarding labelling and provision of Safety Data Sheets (SDS) acceptable to the Departmental Representative and in accordance with the Canada Labour Code.
- .2 Where use of hazardous and toxic products cannot be avoided:
  - .a Advise Departmental Representative beforehand of the product(s) intended for use. Submit applicable SDS and WHMIS 2015 documents as per Section 01 01 50.
  - .b In conjunction with Departmental Representative schedule to carry out work during "off hours" when tenants have left the building.
  - .c Provide adequate means of ventilation in accordance with Section 01 51 00.
  - .d The contractor shall ensure that the product is applied as per manufacturers recommendations.
  - .e The contractor shall ensure that only pre-approved products are bought onto the work site in an adequate quantity to complete the work.

#### **1.19 ASBESTOS HAZARD**

- .1 Carry out any activities involving asbestos in accordance with current applicable Federal and Provincial Regulations.
- .2 Removal and handling of asbestos will be in accordance with current applicable Provincial / Federal Regulations.

#### **1.20 PCB REMOVALS**

- .1 Mercury-containing fluorescent tubes and ballasts which contain polychlorinated biphenyls (PCBs) are classified as hazardous waste.
- .2 Remove, handle, transport and dispose of as indicated in Division 2 specifications.

#### **1.21 REMOVAL OF LEAD-CONTAINING PAINT**

- .1 All paint containing TCLP lead concentrations above 5 ppm are classified as hazardous.
- .2 Carry out demolition and/or remediation activities involving lead-containing paints in accordance with current applicable Provincial / Territorial Regulations.
- .3 Work with lead-containing paint shall be completed as per Provincial and Federal regulations.
- .4 Dry Scraping/Sanding of any materials containing lead is strictly prohibited.
- .5 The use of Methylene Chloride based paint removal products is strictly prohibited.

#### **1.22 ELECTRICAL SAFETY REQUIREMENTS**

**(Reference: Worksafe BC OHS Regulation Part 19 – Electrical Safety)**

- .1 Comply with authorities and ensure that, when installing new facilities or modifying existing facilities, all electrical personnel are completely familiar with existing and new electrical circuits and equipment and their operation.
  - .a Before undertaking any work, coordinate arc flash protection, required energizing and de-energizing of new and existing circuits with Departmental Representative.
  - .b Maintain electrical safety procedures and take necessary precautions to ensure safety of all personnel working under this Contract, as well as safety of other personnel on site.

### **1.23 ELECTRICAL LOCKOUT**

- .1 Develop, implement and enforce use of established procedures to provide electrical lockout and to ensure the health and safety of workers for every event where work must be done on any electrical circuit or facility.
- .2 Prepare the lockout procedures in writing, listing step-by-step processes to be followed by workers, including how to prepare and issue the request/authorization form. Have procedures available for review upon request by the Departmental Representative.
- .3 Keep the documents and lockout tags at the site and list in a log book for the full duration of the Contract. Upon request, make such data available for viewing by Departmental Representative or by any authorized safety representative.

### **1.24 OVERLOADING**

- .1 Ensure no part of work is subjected to a load which will endanger its safety or will cause permanent deformation.

### **1.25 FALSEWORK**

- .1 Design and construct falsework in accordance with CSA S269.1-1975 (R2003) (as amended)

### **1.26 SCAFFOLDING**

- .1 Design, construct and maintain scaffolding in a rigid, secure and safe manner, in accordance with CSA Z797-2009 (as amended) and B.C. Occupational Health and Safety Regulations. (as amended)

### **1.27 CONFINED SPACES**

- .1 Carry out work in compliance with current Provincial / Territorial regulations.

### **1.28 POWDER-ACTUATED DEVICES**

- .1 Use powder-actuated devices in accordance with ANSI A10.3 (as amended) only after receipt of written permission from the Departmental Representative.

### **1.29 FIRE SAFETY AND HOT WORK**

- .1 Obtain Departmental Representative's authorization before any welding, cutting or any other hot work operations can be carried out on site.
- .2 Hot work includes cutting/melting with use of torch, flame heating roofing kettles, or other open flame devices and grinding with equipment which produces sparks.

Hot Work permits are a mandatory requirement for any hot work activities.

### **1.30 FIRE SAFETY REQUIREMENTS**

- .1 Store oily/paint-soaked rags, waste products, empty containers and materials subject to spontaneous combustion in ULC approved, sealed containers and remove from site on a daily basis.
- .2 Handle, store, use and dispose of flammable and combustible materials in accordance with the National Fire Code of Canada. (as amended)
- .3 Portable gas and diesel fuel tanks are not permitted on most federal work sites. Approval from the Departmental Representative is required prior to any gas or diesel tank being brought onto the work site.

### **1.31 FIRE PROTECTION AND ALARM SYSTEM**

- .1 Fire protection and alarm systems shall not be:
  - .a Obstructed.
  - .b Shut off.
  - .c Left inactive at the end of a working day or shift.
- .2 Do not use fire hydrants, standpipes and hose systems for purposes other than firefighting.
- .3 Be responsible/liable for costs incurred from the fire department, the building owner and the tenants, resulting from false alarms.

### **1.32 UNFORESEEN HAZARDS**

- .1 Should any unforeseen or peculiar safety-related factor, hazard or condition become evident during performance of the work, immediately stop work and immediately advise the Departmental Representative verbally and in writing.

### **1.33 POSTED DOCUMENTS**

- .1 Post legible versions of the following documents on site:
  - .a Site Specific Safety Plan (SSSP) or Health and Safety Plan (HASP)
  - .b Sequence of work.
  - .c Emergency procedures.
  - .d Site drawing showing project layout, locations of the first-aid station, evacuation route and marshalling station, and the emergency transportation provisions.
  - .e Notice of Project.
  - .f Floor plans or site plans. Must be posted in a non-inmate access area and locked up when not being used.
  - .g Notice as to where a copy of the Workers' Compensation Act and Regulations are available on the work site for review by employees and workers.
  - .h Workplace Hazardous Materials Information System (WHMIS 2015) documents.
  - .i Material Safety Data Sheets (SDS).
  - .j List of names of Joint Health and Safety Committee members, or Health and Safety Representative, as applicable.
  - .k All Hazardous Material and Substance Reports including Lab Analysis
- .2 Post all Material Safety Data Sheets (MSDS) on site, in a common area, visible to all workers and in locations accessible to tenants when work of this Contract includes construction activities adjacent to occupied areas.

- .3 Postings should be protected from the weather, and visible from the street or the exterior of the principal construction site shelter provided for workers and equipment, or as approved by the Departmental Representative.

#### **1.34 MEETINGS**

- .1 Attend health and safety pre-construction meeting and all subsequent meetings called by the Departmental Representative.

#### **1.35 CORRECTION OF NON-COMPLIANCE**

- .1 Immediately address health and safety non-compliance issues identified by the Departmental Representative.
- .2 Provide Departmental Representative with written report of action taken to correct non-compliance with health and safety issues identified.
- .3 The Departmental Representative may issue a "stop work order" if noncompliance of health and safety regulations is not corrected immediately or within posted time. The General Contractor/subcontractors will be responsible for any costs arising from such a "stop work order".

### **2 PRODUCTS**

- .1 Not used.

### **3 EXECUTION**

- .1 Not used.

**END OF SECTION**



## **SECTION 01 35 43 ENVIRONMENTAL PROCEDURES**

### **PART 1 GENERAL**

#### **1.1 SCOPE AND INTENT**

- .1 This section provides environmental requirements for working at Tahltn River Site including general and task-specific information. The Contractor, and all personnel involved in the project must conduct activities and operations in such a way as to minimize the impact on the environment, and must comply with applicable environmental legislation, regulations, permits, licenses, and agreements that apply to the work under this project:
- .2 This specification is intended to provide procedures and requirements for protection of the environment as outlined in the below references. All relevant environmental permits will be obtained by the Department of Fisheries and Oceans (DFO).

#### **1.2 PRECEDENCE**

- .1 For Federal Government projects, General Conditions take precedence over technical specifications.

#### **1.3 RELATED SECTIONS**

- .1 Section 01 14 00 – Work Restrictions.
- .2 Section 01 31 00 – Project Management and Coordination.
- .3 Section 01 33 00 – Submittal Procedures.
- .4 Section 01 52 00 – Construction Facilities.
- .5 Section 01 74 23 – Cleaning.
- .6 Section 31 10 00 – Temporary Access.

#### **1.4 REFERENCES**

- .1 Applicable legislation, regulations, bylaws and guidelines may include the following:
  - .a Fisheries Act;
  - .b Canadian Environmental Protection Act;
  - .c Canadian Environmental Assessment Act;
  - .d Migratory Birds Convention Act;
  - .e BC Water Sustainability Act;
  - .f BC Wildlife Act;
  - .g BC Environmental Management Act;
  - .h Heritage Conservation Act;
  - .i CCME Water Quality Guidelines for the Protection of Aquatic Life;
  - .j BC Water Quality Guidelines for the Protection of Aquatic Life.

## **1.5 MEASUREMENT PROCEDURES**

- .1 Preparation and implementation of an Environmental Protection Plan (EPP) in accordance with this Section 01 57 19 – Environmental Procedures will not be measured separately for payment and will be considered incidental to the Work.
- .2 The Contractor shall maintain one up-to-date copy of the EPP at the job site in accordance with information in Section 01 31 00 Project Management and Coordination.

## **1.6 SUBMITTALS**

- .1 The Contractor is required to prepare an EPP in accordance with the information outlined in this section.
- .2 The EPP shall include, but is not limited to the following:
  - .a Work limit requirements (Clause 1.10.2).
  - .b Sediment and erosion control measures applicable to the timing and nature of work (Clause 1.11.1).
  - .c Spill response measures (Clause 1.12.1).
  - .d Fire prevention and control measures applicable to the timing and nature of work (Clause 1.14.1).
- .3 The EPP shall be submitted in accordance with the requirements of Section 01 33 00 Submittal Procedures.

## **1.7 START-UP AND ENVIRONMENTAL BRIEFING**

- .1 **Environmental surveillance** for the project will be carried out by the Departmental Representative.
- .2 The Departmental Representative will attend the site to monitor the construction activity for conformance with the EPP. The main duties are to monitor the progress of the construction on an project step basis to ensure compliance with environmental protection measures and to provide guidance in the event of unanticipated environmental problems. Direction to the Contractor will be the duty of the Departmental Representative.
- .3 All staff employed at the construction site will be subject to an Environmental Briefing regarding their individual and collective responsibilities to ensure avoidable adverse environmental impact does not arise from their activities and personal choices. All employees must attend the Environmental Briefing, lasting approximately one (1) hours, before beginning their work at the site. The Departmental Representative will maintain an attendance record for all Environmental Briefings.

## **1.8 CONSTRUCTION SITE ACCESS AND PARKING**

- .1 The Contractor shall review short-term and long-term construction access requirements with the Departmental Representative, at start-up and throughout.

## **1.9 PROTECTION OF WORK LIMITS**

- .1 Work limits will be defined in accordance with Section 01 14 00 Work Restrictions.
- .2 The EPP shall instruct the Contractor in how to mark Work limits and contain procedures that prevent trespass outside these limits, to the satisfaction of the Departmental Representative. The Contractor shall ensure that the environment beyond the Work limits is not negatively

affected or damaged by workers' vehicles or construction machinery and shall instruct workers on the defined boundaries.

- .3 The Work limits shall be identified by stake and ribbon or other methods approved by the Departmental Representative.
- .4 Equipment and vehicle movement shall be restricted to the Work limits. Unless authorized by the Departmental Representative, activities beyond the Work limits are not permitted. No machinery shall enter, work in, or cross over streams, rivers, wetlands, water bodies, or watercourses, nor damage aquatic and riparian habitat or trees and plant communities.
- .5 When, in the opinion of the Departmental Representative, negligence on the part of the Contractor results in damage or destruction of vegetation, or other environmental or aesthetic features beyond the designated work area, the Contractor shall be responsible, at its expense, for complete restoration including the replacement of trees, shrubs, topsoil, grass, and other vegetation to the satisfaction of the Departmental Representative.

#### **1.10 HAZARDOUS PRODUCTS AND SPILL MANAGEMENT**

- .1 A Spill Response Plan shall be prepared as part of the EPP and shall include a list of products and materials to be used or brought to the construction site that are hazardous or toxic to the environment. The Spill Response Plan shall detail containment and storage, security, handling, use, and disposal of empty containers, surplus product, or waste generated through use of products to the satisfaction of the Departmental Representative and in accordance with all applicable Federal and Provincial legislation.
- .2 Hazardous products shall be stored no closer than 100 m from any rivers and their tributaries. The Contractor shall prevent any deleterious and objectionable materials from entering streams, rivers, wetlands, water bodies, or watercourses that would result in damage to aquatic and riparian habitat.
- .3 An impervious berm shall be constructed around fuel tanks and any other potential spill areas. The berm shall be capable of holding 110% of the tank storage volume and shall be to the satisfaction of the Departmental Representative before start-up. Measures such as collection/drip trays and berms lined with occlusive material such as plastic and a layer of sand, and double-lined fuel tanks can prevent spills into the environment.
- .4 The Contractor shall provide spill kits at re-fueling, lubrication, and repair locations that will be capable of dealing with 110% of the largest potential spill and shall be maintained in good working order at all times. The Departmental Representative must approve these spill kits prior to project start-up. The Contractor and site staff shall be informed of the location of the spill response kits and be trained in their use.
- .5 Timely and effective action shall be taken to stop, contain, and clean up all spills as long as the site is safe to enter. The Departmental Representative shall be notified immediately of any spill.
- .6 In the event of a major spill, all other work shall be stopped and all personnel devoted to spill containment and clean up.
- .7 The costs involved in a spill incident (the control, clean up, disposal of contaminants, and site remediation to pre-spill conditions) shall be the responsibility of the Contractor. The site will be inspected to ensure completion to the expected standard and to the satisfaction of the Departmental Representative.

### **1.11 EQUIPMENT MAINTENANCE, FUELING, AND OPERATION**

- .1 The Contractor shall ensure that all soil, seeds, and any debris attached to construction equipment to be used on the project site shall be removed (e.g., by power washing) before delivery to the Work Site. Project cleanliness and waste management will be in accordance with Section 01 74 23 Cleaning.
- .2 Equipment fueling sites shall be identified by the Contractor and approved by the Departmental Representative. Except for chain saws or hand tools requiring additional fueling within the canyon site, any fueling closer than 30 m to any streams, wetlands, water bodies, or waterways shall require the authorization and oversight of the Departmental Representative.
- .3 Fueling personnel shall maintain presence at and immediate attention to fueling operations.
- .4 Mobile fuel containers (e.g., slip tanks, small fuel carboys) shall remain in the service vehicle at all times while not used for fueling equipment.
- .5 Oil changes, lubricant changes, greasing, and machinery repairs shall be performed at locations approved by the Departmental Representative. Waste lubrication products (e.g., oil filters, used containers, used oil) shall be secured in spill-proof containers and properly recycled or disposed at an approved facility. No waste petroleum, lubricant products, or related materials are to be discarded, buried, or disposed at the project site as per section 1.18.
- .6 The Contractor shall ensure that all equipment is inspected daily for fluid/fuel leaks and maintained in good working order. Leaking equipment will be ordered off site immediately and shall be replaced by the Contractor at no expense to the Owner or the project schedule.
- .7 Fuel containers, lubricant products, or other potentially deleterious substances shall be stored only in secure locations specified by the Departmental Representative and be secured in tamperproof containers. Alternatively, the Contractor may hire security personnel to prevent unauthorized access or damage.

### **1.12 FIRE PREVENTION AND CONTROL**

- .1 A fire extinguisher shall be carried and available for use on each machine and equipment.
- .2 In case of fire, the Contractor or worker shall take immediate action to extinguish the fire if safe to do so. The Departmental Representative shall be notified of any fire immediately.
- .3 Fires or burning of waste materials is not permitted.

### **1.13 WILDLIFE**

- .1 During the Environmental Briefing, all personnel shall be instructed by the Departmental Representative on procedures to follow if wildlife appears near or within the Work Site, as well as any other wildlife concerns.
- .2 Avoid or terminate activities on site that attract or disturb wildlife and vacate the area and stay away from the immediate location if bears, cougars, wolves, elk or moose display aggressive behavior or persistent intrusion. Extra care to control materials that might attract wildlife (e.g., food or food scraps) shall be exercised at all times (see Clause 1.19.5).
- .3 Notify the Departmental Representative immediately about dens, litters, nests, carcasses (road kills), bear activity, or encounters on or around the site or crew accommodation. Other wildlife-related encounters are to be reported within 24 hours.

#### **1.14 BIRDS AND THEIR NESTS**

- .1 The Migratory Bird Convention Act (MBCA) restricted activity periods shall be observed for any clearing in this contract and will guide the timing of the Work so that migratory birds and their nests are not disturbed. Environment Canada's General Regional Nesting Period for the Northwestern Interior Forest, Zone B6 is April 24 to August 30 (ECCC 2017).
- .2 If limited clearing is required within the MBCA restricted activity period, Departmental Representative approval must be obtained.
- .3 Prior to any clearing activities a survey of birds present in the immediate clearing area is to be completed in order to haze the wildlife from the site before proceeding. This may be completed by a designated staff member as determined by the Departmental Representative and the contractor.

#### **1.15 RELICS, FOSSILS, AND ANTIQUITIES**

- .1 Artifacts, relics, fossils, antiquities, and items of historical interest such as cornerstones, commemorative plaques, inscribed tablets, and similar objects found on the work site shall be reported to the Departmental Representative immediately. The Contractor and workers shall wait for instructions before proceeding with their work.

#### **1.16 WASTE MATERIALS STORAGE AND REMOVAL**

- .1 The Contractor shall dispose of hazardous wastes in conformance with the Environmental Contaminants Act, applicable Provincial regulations, and the Code of Good Practice for Management of Hazardous and Toxic Wastes at Federal Establishments.
- .2 All wastes originating from construction, trade, hazardous, and domestic sources shall be kept separate for disposal in separate waste streams where available or required.
- .3 Sanitary facilities shall be provided and maintained in accordance with Section 01 52 00 – Construction Facilities.

### **PART 2 PRODUCTS**

#### **2.1 NOT USED**

- .1 Not Used.

### **PART 3 EXECUTION**

#### **3.1 GRUBBING**

- .1 Grubbing will be conducted in accordance with Section 31 10 00 – Temporary Access.
- .2 The Contractor shall ensure that substrate or riparian area of streams, rivers or watercourses, whether open water or frozen over, shall not be disturbed by tracked, wheeled, or self-propelled equipment (e.g., skidder, truck). The Departmental Representative will provide direction in the case of work occurring near any wetland area or watercourses.
- .3 The Contractor shall take all measures to ensure the minimum amount of vegetation is cleared or disturbed at each site. Mature (Diameter at Breast Height [DBH] >30 cm), and wildlife trees will be avoided, when possible.

- .4 The Contractor shall take all measures to ensure that grubblings do not fall into streams, rivers, wetlands, or water bodies or outside the clearing limits as marked by colored flagging. Generally, work within 30 m of watercourses, water bodies, or wetlands requires the oversight of the Departmental Representative.
- .5 Logs and other salvage materials are to be conveyed to and placed at the storage site without spread of debris or damage to other standing trees or landscape resources outside the marked clearing or storage limits and shall remain on site. They shall not be skidded through wetlands, waterways, or water bodies.
- .6 During grubbing, stumps, roots, embedded logs, and other non-soil debris shall be transported to locations as directed by the Departmental Representative.

**END OF SECTION**

## **SECTION 01 52 00 CONSTRUCTION FACILITIES**

### **PART 1 GENERAL**

#### **1.1 SCOPE AND INTENT**

- .1 This section includes requirements for Construction Facilities for the Work including site storage/loading, security, offices, equipment, tool and material storage, sanitary facilities, and construction signage.

#### **1.2 PRECEDENCE**

- .1 For Federal Government projects, General Conditions take precedence over technical specifications.

#### **1.3 RELATED SECTIONS**

- .1 Section 01 25 00 – Mobilization and Demobilization.

#### **1.4 INSTALLATION AND REMOVAL**

- .1 Provide Construction Facilities in order to execute work expeditiously and in accordance with all Project Specifications and regulations.
- .2 Remove all Construction Facilities from site after use.

#### **1.5 SITE STORAGE/LOADING**

- .1 Confine the Work and operations of employees in accordance with the Contract Documents. Do not unreasonably encumber Work areas with products or material.
- .2 Do not load any part of the Work area with a weight or force that will endanger the Work or site personnel.

#### **1.6 SECURITY**

- .1 If required by the Contractor, the Contractor shall provide and pay for security personnel to guard the Work, Work Site, and contents of site after working hours, during holidays, and during extended shutdowns.

#### **1.7 OFFICES**

- .1 No site office is required to be provided.
- .2 The Contractor shall provide a clearly marked and fully stocked Level 1 first aid kit in a readily available location and ETV equipment in accordance with Schedule 3-A Minimum Levels of First Aid of WorkSafeBC legislation.

#### **1.8 EQUIPMENT, TOOL, AND MATERIALS STORAGE**

- .1 Provide and maintain, in a clean and orderly condition, lockable weatherproof sheds for storage of tools, equipment, and materials.

#### **1.9 SANITARY FACILITIES**

- .1 The Contractor shall provide and maintain a minimum of one (1) portable sanitary facility (toilet) for use by both the Contractor and the Departmental Representative, in accordance with governing regulations and Environmental Procedures for this project.

- .2 Post notices and comply with requirements of the local health authorities. Keep area and premises in sanitary condition.
- .3 The contractor shall remove the sanitary facility and all other garbage from site upon completion of the work in accordance with Section 01 25 00.

**1.10 CONSTRUCTION SIGNAGE**

- .1 No signs or advertisements other than warning signs are permitted on Site.
- .2 Approved signs and notices shall be maintained in good condition for the duration of project, and removed from Site upon completion, or earlier if directed by Departmental Representative.

**PART 2 PRODUCTS**

**2.1 NOT USED**

- .1 Not Used.

**PART 3 EXECUTION**

**3.1 NOT USED**

- .1 Not Used.

**PART 4 MEASUREMENT**

**4.1 NOT USED**

- .1 All items described above are considered incidental to the Contract and shall not be measured for payment.

**END OF SECTION**



## SECTION 01 74 23 CLEANING

### PART 1 GENERAL

#### 1.1 SCOPE AND INTENT

- .1 This section includes requirements for progressive cleaning and final cleaning for the duration of the Work.

#### 1.2 PRECEDENCE

- .1 For Federal Government projects, General Conditions take precedence over technical specifications.

#### 1.3 RELATED SECTIONS

- .1 Section 01 35 33 - Health and Safety.
- .2 Section 01 35 43 - Environmental Procedures.
- .3 Section 01 77 00 - Closeout Procedures.

#### 1.4 MEASUREMENT

- .1 Clean work areas, laydowns and access trails are considered part of the Contractor's general housekeeping in meeting the minimum Health and Safety requirements for the scope of work, and are incidental to the Contract and will not be measured for payment.

#### 1.5 PROJECT CLEANLINESS

- .1 Keep Work area and site office in clean, tidy condition, free from accumulation of waste products and debris, including that caused by the Owner, the Public, or other contractors. Clean road surface as needed to minimize dust or as directed by the Departmental Representative.
- .2 Remove waste materials and debris from site at the end of each work day or as directed by Departmental Representative.
- .3 Do not burn waste materials on site.
- .4 Dispose of waste materials and debris off site in approved facilities.
- .5 Clear snow and ice from work areas and access trails during active work periods in accordance with worker Health and Safety requirements.
- .6 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
- .7 Store volatile waste in covered metal containers, and remove from the premises at the end of each work day.

**1.6 FINAL CLEANING**

- .1 When Work is considered Substantially Complete, remove surplus products, tools, construction machinery and equipment not required for performance of remaining Work.
- .2 Create an earth berm or place concrete blocks at the entrance of the access to prevent the public from entering the access road.

**PART 2 PRODUCTS**

**2.1 NOT USED**

- .1 Not Used.

**PART 3 EXECUTION**

**3.1 NOT USED**

- .1 Not Used.

**END OF SECTION**

## SECTION 01 77 00 CLOSEOUT PROCEDURES

### PART 1 GENERAL

#### 1.1 SCOPE AND INTENT

- .1 This section includes requirements for closeout of the project including the Contractor's Inspection, the Departmental Representative's Inspection, and Final Inspection.

#### 1.2 RELATED SECTIONS

- .1 Section 01 25 00 Mobilization and Demobilization.
- .2 Section 01 31 00 – Project Management and Coordination.
- .3 Section 01 74 23 – Cleaning.

#### 1.3 MEASUREMENT PROCEDURES

- .1 This work shall be incidental to the contract and will not be measured for payment.

#### 1.4 INSPECTION AND DECLARATION

- .1 Contractor's Inspection: The Contractor and all subcontractors shall conduct an inspection of the Work, identify deficiencies and defects, and repair as required to conform to the Contract Documents. Once the Contractor's Inspection is complete:
  - .a Notify the Departmental Representative in writing of satisfactory completion of Contractor's Inspection and that corrections have been made.
  - .b Request the Departmental Representative's Inspection.
- .2 Departmental Representative's Inspection: The Departmental Representative and Contractor will perform an inspection of the Work to identify obvious defects or deficiencies. Contractor shall correct the Work accordingly.
- .3 Completion: The Contractor shall submit a written certificate that the following have been performed:
  - .a Work has been completed and inspected for compliance with Contract Documents.
  - .b Defects have been corrected and deficiencies have been completed.
  - .c Brief construction completion report, including photographs, describing the condition of the mesh, cables, anchors and other equipment to be left onsite. Include comments on the feasibility of redeploying the drape mesh down the slope.
- .4 Interim Holdback Release: Holdback release procedure is described in the Contract General Conditions.
- .5 Final Inspection: When items noted above are completed, the Contractor shall request a Final Inspection of the Work by the Departmental Representative and the Contractor. If the Work is deemed incomplete by the Departmental Representative, the Contractor shall complete outstanding items and request re-inspection.

**PART 2 PRODUCTS**

**2.1 NOT USED**

.1 Not Used.

**PART 3 EXECUTION**

**3.1 NOT USED**

.1 Not Used.

**END OF SECTION**

## SECTION 31 10 00 TEMPORARY ACCESS

### PART 1 GENERAL

#### 1.1 SCOPE AND INTENT

- .1 This section includes information on the requirements for clearing and grubbing required for construction of site access in Work areas as indicated on the Drawings.

#### 1.2 RELATED SECTIONS

- .1 Section 01 11 00 – Summary of Work
- .2 Section 01 35 43 – Environmental Procedures.

#### 1.3 DESCRIPTION

- .1 Temporary Access shall include all work for preparation of laydown construction activities, clearing, grubbing, supply and installation of materials to allow access to the crest of the rock slope at the Work Site as identified on the drawings and described in Section 01 11 00 – Summary of Work.
- .2 Access path shall be re-established to the extent needed to perform the work. Photographs of the site are included in the Photo Appendix.
- .3 Jersey barriers are to be removed for the work and reinstated following completion.

#### 1.4 MEASUREMENT PROCEDURES

- .1 Temporary Access required for construction of access shall be paid for under the Temporary Access pay item as a lump sum following construction of the site access.

#### 1.5 DEFINITIONS

- .1 Clearing: Cut trees and brush as specified. No clearing requirements are expected as part of this Work.
- .2 Grubbing: Excavation and disposal of stumps, roots, and wood debris as specified.

#### 1.6 QUALITY CONTROL AND QUALITY ASSURANCE

- .1 All Quality Control and Quality Assurance testing shall be completed by the Contractor.

#### 1.7 PROTECTION

- .1 The Contractor shall prevent damage to trees, natural features, bench marks, existing pavement, water courses and root systems of trees which are outside clearing areas.
- .2 Repair any items damaged as a result of the Work.
- .3 Replace damaged trees designated to remain, if any. Identical species shall be replanted at the direction of Department of Fisheries and Oceans (DFO)'s Environmental Surveillance Officer.

**PART 2 PRODUCTS**

**2.1 MATERIALS**

- .1 Not used.

**PART 3 EXECUTION**

**3.1 PREPARATION**

- .1 No Clearing and Grubbing is expected to be required to re-establish foot and tracked equipment access to the site. If the Contractor proposes establishing site vehicle access they shall submit a Clearing and Grubbing plan a minimum of five (5) days prior to commencing clearing and grubbing for review and approval by the Departmental Representative. The plan should clearly outline:
  - .a Limits of clearing, grubbing, and topsoil stripping for each site.
  - .b Methods and equipment that will be used for performing the Work.
- .2 The Contractor shall meet with the Departmental Representative and/or the Environmental Surveillance Officer to designate items to remain and extents of clearing, grubbing, and stripping prior to the Start of Work.

**3.2 CLEARING**

- .1 As required, the Contractor shall cut trees and brush within the areas designated for clearing work; and stockpile the material in acceptable locations designated by the Departmental Representative.

**3.3 GRUBBING**

- .1 As required, grub out stumps and wood debris including roots and embedded logs to not less than 200 mm below ground surface.
- .2 The penetration depth of grubbing equipment shall be kept as shallow as possible to minimize contamination of topsoil with subsoils. This may require individual ripping of stumps in some locations. In addition, while removing stumps, roots, or embedded logs, the Contractor shall shake them on site to remove as much soil as possible.

**3.4 REMOVAL AND DISPOSAL**

- .1 All cleared and grubbed wood materials shall be sorted, hauled and stored in approved locations as directed by the Departmental Representative.

**END OF SECTION**

## SECTION 31 23 20 ROCK SCALING

### PART 1 GENERAL

#### 1.1 SCOPE AND INTENT

- .1 This section provides requirements for scaling of rock faces where necessary for Safety to carry out the Work, including submittals and execution.

#### 1.2 PRECEDENCE

- .1 For Federal Government projects, General Conditions take precedence over technical specifications.

#### 1.3 RELATED SECTIONS

- .1 Section 01 11 00 – Summary of Work
- .2 Section 01 35 33 – Health and Safety Requirements.

#### 1.4 DEFINITIONS

- .1 Scaling: The removal of loose material from the slope face using scaling bars, portable hydraulic jacks, air bags, other hand tools, wire rope cables, compressed air / water blow pipes, blasting without the need for drilled holes and other methods authorized by the Departmental Representative; and the removal of loose soil, rock, and overburden from up to 10 m behind the crest of the slope, the slope face, and benches on the slope.
- .2 Hand Scaling: Scaling done by hand working from a fall restraint or work positioning system and using suitable hand tools and powered equipment.

#### 1.5 MEASUREMENT PROCEDURES

- .1 Scaling will be measured as the hours spent by each individual scaler actively working on the slope, beginning at the top of rope descent to the scaling area, and ending at the time the scaler reaches the bottom of that particular rope descent. Time spent accessing scaling areas, maintaining equipment, or carrying out work using tools or methods that are not best suited to a particular situation will not be measured for payment.
- .2 Scaling, where required by the Departmental Representative, will be paid at Blue Book Rates and mutually agreed upon labor rates for Scaling as per Section 01 11 00 – Summary of Work, and shall be full compensation for supplying all material, labour, and equipment to execute the Work as specified, including any timber and brush disposal, and other overhead costs.

### PART 2 PARTS

#### 2.1 NOT USED

- .1 Not Used

## **PART 3 EXECUTION**

### **3.1 SUBMITTALS**

- .1 Contractor Experience and Qualifications: The scaling crew shall consist of a supervising scaling foreman with at least eight (8) years' experience with an average (mean) of at least four (4) years' experience in each scaling and working from ropes at heights. The scaling crew shall not have more than one (1) scaler with less than one (1) years' experience at any time. A minimum of twenty (20) days prior to mobilizing to site, the Contractor shall provide a Statement of Qualifications to the Departmental Representative including:
  - .a Experience and duties of all personnel assigned to Rope Access / Scaling activities.
  - .b A summary of previous project experience including the project name, location, duration, and the owner/client name and contact information.
  - .c Rope Access procedure and methodology including proposed equipment.

### **3.2 REQUIREMENTS**

- .1 The Contractor is required to have available on site at the start of the Work the following equipment: suitable ropes, work positioning, rappelling and ascending equipment, scaling bars, mattocks/pulaskis, shovels, hydraulic jacks or wedge jacks, compressed air and water "blow pipes", air bags, and wire ropes.
- .2 The Scaling foreman and at least one other scaler on the slope shall have a two-way radio for communication with supervisory personnel at the Road grade.

### **3.3 GENERAL EXECUTION**

- .1 Scaling work shall generally be minimized to the extent possible. The slope shall be visually inspected and scaling through the mesh shall be completed for temporary worker safety during mesh removal.
- .2 Scaling shall be carried out using the most appropriate and effective tools and methods for any given situation as approved by the Departmental Representative.
- .3 Any construction access on the slope including but not limited to trail building, installing access ropes and ladders, and tree and brush removal to facilitate access to the designated scaling areas shall be considered incidental to the Work. Any temporary construction access shall be removed upon completion of the Work.
- .4 All scaling carried out with rope access shall comply with best practices detailed in the applicable WorkSafe BC Regulation.

**END OF SECTION**



## **SECTION 31 33 26 ROCK SLOPE MESH REMOVAL**

### **PART 1 GENERAL**

#### **1.1 SCOPE AND INTENT**

- .1 This Section applies to rock slope mesh structures installed on site to be removed from the slope face and then stored at the slope crest.

#### **1.2 PRECEDENCE**

- .1 For Federal Government projects, General Conditions take precedence over technical specifications.

#### **1.3 RELATED SECTIONS**

- .1 Section 01 11 00 – Summary of Work
- .2 Section 01 35 33 – Health and Safety Requirements.
- .3 Section 31 23 20 – Rock Scaling

#### **1.4 MEASUREMENT PROCEDURES**

- .1 Slope mesh removal shall be measured by the square metre of slope meshed area.
- .2 Payment for slope mesh will be at the Contract Unit Price per square metre removed. The Unit Price will be full compensation for all requirements in this specification.

### **PART 2 MATERIALS**

#### **2.1 SLOPE MESH MATERIALS**

- .1 Mesh installed is Geobrug Deltax rhomboid G80/2 high tensile stainless steel. Material data sheet is included.
- .2 Mesh anchors threadbar conforms to CSA G30.18, grade 400 steel, manufactured by Dywidag Systems Int. (DSI) or authorized equivalent. Anchors are drilled to 2.2 m and installed with epoxy resin at slope crest as shown in the Design Drawings. Some have loosened since the original installation.
- .3 All cables are unspliced fibre core conforming to CSA G4.

### **PART 3 EXECUTION**

#### **3.1 SUBMITTALS**

- .1 Prior to removal the contractor shall prepare a Work Plan that includes methodology and equipment to be used for approval by the Departmental Representative.
- .2 Field conditions may vary from the Project Drawings. Any variations must be documented in writing to support extra work claims.
- .3 The installation crew shall consist of a supervising foreman with at least five (5) years' experience with rock slope support and mesh installations. A minimum of twenty (20) days prior to mobilizing to site, the Contractor shall provide a Statement of Qualifications to the Departmental Representative including a summary of previous project experience demonstrating at least three similar projects providing the location, duration, and the owner/client name and contact information.

### 3.2 REQUIREMENTS

- .1 **Cable and Mesh Removal** – The bottom perimeter cable and mesh panel seams are to be detached prior to rolling up mesh panels, and each panel shall be rolled up to surface and fixed to the top suspension cable. If feasible, adjacent panels may be rolled up together without detaching clips along every overlap. Mesh is to remain on site along with all accompanying wire rope and fixtures.

### 3.3 GENERAL EXECUTION

- .1 Rock face shall be visually inspected and check scaled, only as required for worker safety prior to mesh removal.
- .2 Mesh overlaps shall be fully detached with all vertical connection clips removed. Mesh shall be broken into strips of manageable width (3.9 m width or other) according to the Departmental Representative approved Work Plan.
- .3 Mesh shall be neatly rolled up to surface and stored using a spreader bar. The Contractor shall take care not to damage the mesh during removal.
- .4 Rolled mesh shall be fixed to the top suspension cable with at least six (6) clips, wire rope (or approved equivalent) and stored at least 6 m back from the slope crest.
- .5 Any construction access on the slope including but not limited to trail building, installing access ropes and ladders, and tree and brush removal to facilitate access to the designated areas shall be considered incidental to the Work. Any temporary construction access shall be removed upon completion of the Work.
- .6 All scaling carried out with rope access shall comply with best practices detailed in the applicable WorkSafe BC Regulation.

**END OF SECTION**



### PRELIMINARY HAZARD ASSESSMENT FORM

Project Number:	R.112648.001
Location:	Tahltan River Slide Fish Passage Remediation, Telegraph Creek, B.C.
Date:	2020-11-20
Name of Departmental Representative:	George Stazicich, PSPC
Name of Client:	Department of Fisheries and Oceans

Site Specific Orientation Provided at Project Location    **Yes**     **No**

Notice of Project Required    **Yes**     **No**

**NOTE:**

PWGSC requires "**A Notice of Project**" for all construction work related activities.

**NOTE:**

OHS law is made up of many municipal, provincial, and federal acts, regulations, bylaws and codes. There are also many other pieces of legislation in British Columbia that impose OHS obligations.

*Important Notice: This hazard assessment has been prepared by PWGSC for its own project planning process, and to inform the Contractor of actual and potential hazards that may be encountered in performance of the work. PWGSC does not warrant the completeness or adequacy of this hazard assessment for the project and the paramount responsibility for project hazard assessment rests with the Contractor.*

TYPES OF HAZARDS TO CONSIDER	Potential Risk for:				COMMENTS
	PWGSC, Other Government Departments, and Inmates		General Public or other provincial contractors		
Examples: Chemical, Biological, Natural, Physical, Psychosocial, and Ergonomic  Listed below are common construction related hazards. Your project may include pre-existing hazards that are not listed. Contact the Regional Construction Safety Coordinator for assistance should this issue arise.	Yes	No	Yes	No	Note: When thinking about this pre-construction hazard assessment, remember a <b>hazard</b> is anything that may cause harm, such as chemicals, electricity, working from heights, etc; the <b>risk</b> is the chance, high or low, that somebody could be harmed by these and other hazards, together with an indication of how serious the harm could be.

Typical Construction Hazards					Comments
Concealed/Buried Services (electrical, gas, water, sewer etc)		No		No	
Slip Hazards or Unsound Footing	Yes		Yes		Steep terrain and natural elements, E) rock, snow, ice
Working at Heights	Yes		Yes		Contractor to provide an emergency rescue plan as per Section 013533
Working Over or Around Water	Yes		Yes		Contractor to provide a emergency rescue plan as per Section 013533



## PRELIMINARY HAZARD ASSESSMENT FORM

Heavy overhead lifting operations, mobile cranes etc.	TBD		TBD		Contractor to confirm and address appropriately
Marine and/or Vehicular Traffic (site vehicles, public vehicles, etc.)	Yes		Yes		
Fire and Explosion Hazards	Yes		Yes		
High Noise Levels	Yes		Yes		
Excavations		No		No	
Blasting		No		No	
Construction Equipment	Yes		Yes		
Pedestrian Traffic (site personnel, tenants, visitors, public)	Yes		Yes		
Multiple Employer Worksite	Yes		Yes		Prime Contractor may have inspections and site visits from Federal, Provincial, and First Nations representatives
Falling rock from cliff face	Yes		Yes		Contractor to confirm and address if appropriate

Electrical Hazards					Comments
Contact With Overhead Wires		No		No	
Live Electrical Systems or Equipment		No		No	
<b>Other:</b> Arc Flash		No		No	

Physical Hazards					Comments
Equipment Slippage Due To Slopes/Ground Conditions	Yes		Yes		
Earthquake	Yes		Yes		
Tsunami		No		No	
Avalanche		No		No	
Forest Fires		No		No	
Fire and Explosion Hazards	Yes		Yes		
Working in Isolation	Yes		Yes		Remote site
Working Alone	TBD			TBD	Contractor to
Violence in the Workplace	Yes		Yes		
High Noise Levels	Yes		Yes		
Inclement weather	Yes		Yes		High winds and snow
High Pressure Systems	Yes		Yes		Hydraulic hoses from heavy machinery
<b>Other:</b>					

Hazardous Work Environments					Comments
Confined Spaces / Enclosed Spaces	n/a		n/a		
Suspended / Mobile Work Platforms	TBD				Contractor to confirm and address if appropriate
<b>Other:</b>					



### PRELIMINARY HAZARD ASSESSMENT FORM

Biological Hazards					Comments
Mould Proliferations		No		No	
Accumulation of Bird or Bat Guano		No		No	
Bacteria / Legionella in Cooling Towers / Process Water		No		No	
Rodent / Insect Infestation		No		No	
Poisonous Plants		No		No	
Sharp or Potentially Infectious Objects in Wastes	Yes		Yes		
Wildlife	Yes		Yes		Hunting season
<b>Other</b>					
<b>COVID 19</b>	Yes		Yes		Reference: CSA National COVID 19 Standardized Protocol, Province of B.C. Construction - Business PHO, and Revised Worksafe BC COVID-19 Procedures as amended

Chemical Hazards					Comments
Asbestos Materials on Site		No		No	N/A
Designated Substance Present		N/A		N/A	If "yes" a pre-project designated substance survey report is required.
Chemicals Used in work ( <b>see comments</b> )	Yes		Yes		WHMIS 2015 SDS for all products being used
Lead in paint		N/A		N/A	N/A
Mercury in Thermostats or Switches ( <b>see comments</b> )		N/A		N/A	Reference: CCC Hazardous Building Materials Assessments, Stantec Dated March 2018
Application of Chemicals or Pesticides		N/A		N/A	
PCB Liquids in Electrical Equipment ( <b>see comments</b> )		N/A		N/A	N/A
Radioactive Materials in Equipment		N/A		N/A	
<b>Other:</b>					

Contaminated Sites Hazards					Comments
Hazardous Waste		No		No	
Hydrocarbons		No		No	
Metals		No		No	
<b>Other:</b>					
Security Hazards					Comments
Risk of Assault	Yes		Yes		
<b>Other:</b>					

Other Hazards					Comments



## PRELIMINARY HAZARD ASSESSMENT FORM


Other Compliance and Permit Requirements <sup>1</sup>	YES	NO	Notes / Comments <sup>2</sup>
Is a Building Permit required?		n/a	
Is a Electrical permit required?		n/a	Contractor to secure permits
Is a Plumbing Permit required?		n/a	
Is a Sewage Permit required?		n/a	
Is a Dumping Permit required?	TBD		Contractor shall follow federal/provincial regulations
Is a Hot Work Permit required?	Yes		Mandatory for any hot work process
Is a Permit to Work required?		No	
Is a Confined Space Entry Permit required?		n/a	Mandatory for all Confined Spaces
Is a Confined Space Entry Log required?		n/a	Mandatory for all Confined Spaces
Discharge Approval for treated water required?		n/a	

**Notes:**

- (1) Does not relieve Contractor from complying with all applicable federal, provincial, and municipal laws and regulations.
- (2) TBD means To Be Determined by Contractor.

<b>Prime Contractor Acknowledgement: We confirm receipt and review of this Preliminary Project Hazard Assessment and acknowledge our responsibility for conducting our own assessment of project hazards, and taking all necessary protective measures (which may exceed those cited herein) for performance of the work.</b>			
<b>Contractor Name</b>			
<b>Signatory for Contractor</b>		<b>Date Signed</b>	
<b>RETURN EXECUTED DOCUMENT TO PWGSC DEPARTMENTAL REPRESENTATIVE PRIOR TO ANY WORK COMMENCING</b>			