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This document is the document referred to as “Plans and Specifications” and marked “A” in the Articles of Agreement and includes the following:

“A”

Department of Public Works and Government Services Canada

Still Brook, Effies Brook, Halfway Brook and North Aspy River (North)
- Bridge Rehabilitations
CAPE BRETON HIGHLANDS NATIONAL PARK
NOVA SCOTIA

Project No R 072242.001

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END OF SECTION

SUMMARY OF WORK

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Part 1 GENERAL

1.1 REFERENCES

- .1 Nova Scotia Transportation and Infrastructural Renewal and Public Works (NSTIR) Standard Specification for Highway Construction and Maintenance (latest edition).

1.2 CODES

- .1 Perform work in accordance with NSTIR Standard Specification, latest edition, and any other applicable code of Federal, Provincial or local application provided that, in any case of conflict or discrepancy, the more stringent requirements shall apply.
- .2 Meet or exceed requirements of:
 - .1 Contract Documents,
 - .2 Specified standards, codes and referenced documents.

1.3 WORK COVERED BY CONTRACT DOCUMENTS

- .1 Work in this Contract comprises of rehabilitation of the following bridges located in Cape Breton National Highlands Park; and identified as:
 - .1 Still Brook Bridge
 - .2 Effies Brook Bridge
 - .3 Halfway Brook Bridge
 - .4 North Aspy River (North) Bridge

1.4 DESCRIPTION OF WORK

- .1 A detailed listing of work to be completed can be found in the table on each of the individual drawings.

1.5 SITE CONDITIONS

- .1 The Contractor shall visit the sites prior to undertaking the work and make his own assessment of existing site conditions.

1.6 WORK SEQUENCE

- .1 Provide within 5 working days after Contract award, schedule showing anticipated progress stages and final completion of work within time period required by Contract documents.
- .2 Submit to Departmental Representative within 10 working days of Award of Contract a detailed Bar (GANTT) Chart as Master Plan for planning, monitoring and reporting of project progress.

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- .3 Interim reviews of work progress based on submitted work schedule will be conducted as decided by the Department Representative and the schedule updated by Contractor to the approval of the Department Representative.
- .4 Contract Work is to be done in stages to the approval of the Department Representative and provide the least disturbance to public usage and access to affected roads.
- .5 Absolutely no in-water work shall be permitted after September 30, 2015.
- .6 Maintain fire access/control to approval of Parks Canada.

1.7 CONTRACTOR USE OF SITES

- .1 It is essential to maintain a minimum of one lane traffic at all times.
- .2 With a pre submitted plan and **approval** of Department Representative any one bridge at a time may be taken out of service for a maximum of 15 minutes.
- .3 Submit a laydown plan for work and storage for approval by the Department Representative within one week of the award of contract. It is to be noted there is limited space available at each work site.
- .4 Repair or replace portions of existing work which have been altered during construction operations to match existing or adjoining work, to approval by Department Representative.
 - .1 At completion of construction condition of existing work: equal to or better than that which existed before new work started.

1.8 SETTING OUT OF WORK

- .1 The Contractor is responsible for defining the general location, alignment and elevation of the work.
- .2 Provide all devices and expertise needed to layout and construct work.
- .3 Supply such devices as tapes, straight edges and templates required to facilitate Department Representative's inspection of work.
- .4 Supply stakes and other survey markers required for laying out work.

1.9 DOCUMENTS REQUIRED

- .1 Maintain at job site, one copy each document as follows:
 - .1 Contract Drawings.
 - .2 Specifications.
 - .3 Addenda.
 - .4 Reviewed Shop Drawings.
 - .5 List of Outstanding Shop Drawings.
 - .6 Change Orders.

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- .7 Other Modifications to Contract.
- .8 Field Test Reports.
- .9 Copy of Approved Work Schedule.
- .10 Health and Safety Plan and Other Safety Related Documents.
- .11 Tool box meetings.
- .12 Other documents as specified.

END OF SECTION

Part 1 GENERAL**1.1 REFERENCES**

- .1 Owner/ Contractor Agreement.
- .2 Nova Scotia Transportation and Infrastructural Renewal (NSTIR) Standard Specification for Highway Construction and Maintenance.

1.2 DESCRIPTION OF WORK

- .1 The work to be completed in this contract is described in detail in a table on each of the individual drawings associated with the bridges namely
 - .1 Still Brook Bridge
 - .2 Effies Brook Bridge
 - .3 Halfway Brook Bridge
 - .4 North Aspy River (North) Bridge

1.3 PROJECT MEASUREMENT

- .1 General
 - .1 This section details the measurement method to be used for payment purposes. Incidental items covered in the various sections of the Specification are to be allowed for in the pricing of each pay item.
 - .2 Item of work completed under this contract will be reimbursed in the following terms
 - .1 Lump sum for the items described in tender.
 - .2 Unit prices for items described in the tender.

1.4 MEASUREMENT FOR PAYMENT

- .1 **Division 01 General Requirements**
 - .1 No measurement will be taken for work scheduled or done under Division 1 and no will any payments be made for work specified in Division 1. This effort will be considered incidental to the contract.
- .2 **Division 03 Concrete**
 - .1 03 10 00 Concrete Forming and Accessories
 - .1 No measurement will be made under this Section. Work done under this section including the cost of all labour, material, equipment, and all other items of expense necessary for the

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successful completion of the erecting, dismantling and removal
of the formwork is to be included in this section:

-Section 03 30 00 - Cast-In-Place Concrete.

.2 03 15 15 Laminated Elastomeric Bridge Bearings

.1 Description and location of work:

This work consists of replacing the bridge girder bearings on
Halfway Brook Bridge.

.2 Measurement and Payment:

This item shall include all labour, concrete drilling to facilitate
jack installations, supply and placement of steel support structure
for jacks, supply and placement of jersey barriers, temporarily
removal of bridge guide rails connections, supply and placement
of any temporary steel ramps, installation of jacks, jacking of
prestressed concrete girders, removal of the existing laminated
elastomeric bearing pads, protection of items to remain, blast
cleaning of exposed surfaces of dowel bars and bearing surfaces,
application of two coats rust inhibiting primer on exposed
surfaces of steel dowels, preparation of shop drawings, and the
supply and installation of new laminated elastomeric bearing
pads, concrete restoration to match existing, and all ancillaries
required to complete the works to approval of Department
Representative.

Measurement for payment shall be for each (Ea)
laminated bearing pad successfully removed and replaced in kind
with a new laminated elastomeric bearing pad.

.3 03 20 00 Concrete Reinforcing

.1 No measurement will be made under this Section. Work done
under this section including the cost of all labour, material,
equipment, and all other items of expense necessary for the
successful completion of the placement of reinforcing is to be
included in this section:

-Section 03 30 00 - Cast-In-Place Concrete.

- .4 03 30 00 Cast- in- Place Concrete
- .1 Description and location of work included:
- Effies Brook Bridge**
1. Repair to low chainage abutment drain and extension of drain beyond footing (dwg 3)
 2. Concrete levelling pad (dwg 2)
 3. Remove previous formwork (dwg 1)
- Halfway Brook Bridge**
1. Undermining repairs (dwg 5)
 2. Remove previous formwork (dwg 4)
- Still Brook Bridge**
1. New curb (dwg7)
 2. Removal of existing curb and concrete facia and painting of outside face of steel shall be **incidental** to work (dwg 7)
- North Aspy River Bridge**
1. Crash block repair (dwg 8)
- .2 Measure cast-in-place concrete in cubic metres calculated from neat dimensions as indicated on the drawings and /or as authorized in writing by Departmental Representative.
- .3 Concrete placed beyond dimensions indicated will not be measured for payment unless approved by the Department Representative.
- .4 No deductions will be made for volume of concrete displaced by reinforcing steel, structural steel.
- .5 No deductions will be made for volume of concrete less than 0.1 m³ in volume displaced by individual drainage openings.
- .6 Supply and installation of anchor bolts, nuts and washers and bolt grouting will not be measured and will be considered incidental to work.
- .7 Include in this unit price all associated including but not limited to:
- .1 Excavation and removal of excess unclassified fill
 - .2 Supply, placement and removal of forms
 - .3 Supply, placement of reinforcing, anchor bolts and weep holes
 - .4 Supply and placement of drain extension dwg 3
 - .5 Supply, placement and curing of concrete

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- .6 Backfill as indicated on drawings
- .7 Clean up

.5 03 30 52 High Strength Patching Mortar and Crack Repair

- .1 Description and location of high strength patching repair includes:

Effies Brook Bridge

- 1. Miscellaneous patching (dwg 1 and2)

Halfway brook Bridge

- 2. Miscellaneous patching (dwg 5)
- 3. Patch girder ends (dwg.6)

Still Brook Bridge

- 4. Miscellaneous patching (dwg 7)

Measure patch repair as indicated on drawings or as approved by Department Representative in square meters

- .1 Work done to up to a base depth of 150 mm will be paid at the contract unit price rate.
- .2 Work done with depth greater than 150 mm as approved by Department Representative. Payment will be based on the progressive multiple 150 mm depth of cut , beyond the initial 150 mm, multiplied by number of square meters at that depth with the price increasing 50% at each level. This formula is found in the:

NSTIR standard specification

Division 5 Section 13 8.2.1

Bridge Deck Repair, Bridge Soffit Repair

- .2 Description and location of crack repair includes:

Effies Brook Bridge

- 1. Miscellaneous crack filling (dwg.2)

Halfway brook Bridge

- 1. Repair diaphragm cracking (dwg.4)

Measure linear cracks repairs as indicated on drawings or as approved by Department Representative in linear meters. Payment is to be made on the length of acceptable repairs in meters.

.3 **Division 07 Thermal & Moisture Protection**

.1 07 92 15 Expansion Joints Neoprene Glands

.1 Description and location of joint replacement:

Effies Brook Bridge

1. Replacement of neoprene glands (dwg 3)

Halfway Brook Bridge

2. Replacement of expansion and control joints (dwg 6)

- .2 Payment will be made on the measure of linear meter length of strip seal glands successfully removed and reinstated with new neoprene glands.

- .3 This item shall include the removal of the existing neoprene strip seal glands located above the abutment seats, cleaning of the face of the strip seal steel nosings, and the supply and installation of new neoprene strip seal glands.

.4 **Division 31 Earthwork**

.1 Description and location of work included

Effies Brook Bridge

1. Fill against structure road drain sub base (dwg 3)
2. Fill behind armour rock (dwg 2)
3. Armour rock (dwg 2)

Halfway Brook Bridge

1. Rip rap repair (dwg 4 and 5)
2. Armour rock placement (dwg 4 and 5)

.2 31 23 301 Excavation, Trenching and Backfill

- .1 Excavated materials will not be measured, or paid for. All excavation work will be considered incidental to each section where in it occurs.

- .2 Backfilling with unclassified fill will be considered incidental to the work to obtain sub base grade or final grade for:

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- .1 Sub base grade for rip rap
 - .2 Sub base grade for placement of topsoil (if requested).
 - .3 Final grade in general clean up
 - .3 Any excess or rejected material due to moisture content will become the property of the contractor to be disposed of off property with the approval of the Department Representative at no additional cost to the contract.
- .3 31 32 1901 Geotextiles
 - .1 No measurement of geotextiles will be taken. Geotextiles shall be considered incidental to the work and placed as shown on Drawings.
- .4 31 37 00 Rip-rap
 - .1 Measurement for rip rap shall be the number of square metres of finished surface area of material acceptably placed in accordance with the drawings and the specifications and as approved by the Department Representative. Calculation of area shall be based on width by length determined by the Department Representative, measured along slope as shown on the drawing.
 - .2 Measurement for armour rock shall be the number of tonnes acceptably placed in accordance with the drawings and the specifications and as approved by the Department Representative. Calculations of tonnes will be determined from suppliers delivery slip and approved by Department Representative.
 - .3 Measurement for fill against structure shall be the number of tonnes acceptably placed in accordance with the drawings and the specification (N.S.T.I.R. Div 3 Section10) and as approved by the Department Representative. Calculations of tonnes will be determined from suppliers delivery slip and approved by Department Representative.
- .5 **Division 32 Exterior Improvements**
 - .1 Description and location of work included
 - Effies Brook Bridge**
 - 1. Hydraulic Seeding (dwg 2)
 - Still Brook Bridge**
 - 1. Brush cutting along approaches (dwg 7)

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- .2 32 92 19.16 Hydraulic Seeding
 - .1 Measure hydraulic seeding square metres of actual surface area for:
 - .1 Mixture to include fertilizer.
 - .2 Areas of blending into existing turf grass will not be measured for payment.
 - .2 Payment for hydraulic seeding made at unit price bid of actual area surface measurements taken and computed by Departmental Representative.
 - .3 No additional payment will be made for maintenance during establishment period and warranty period.
 - .4 Topsoil as requested by Department Representative is to be paid by the square meter for acceptably placed material under the hydro seeding to a depth as indicated on the drawings.
 - .5 Payment for brush cutting shall be a lump sum price.
- .6 **Division 34 Transportation**
 - .1 34 71 13.28 Vehicle Box Beam Guide Rail
 - .1 Description and location of work
 - .1 **Halfway Brook Bridge**
 - .1 Replacement of hardware on guard rail (dwg 4)
 - .2 **Still Brook Bridge**
 - .1 Removal and installation of new PL-2 guard rail on both the upstream and downstream side of the bridge as shown on dwg 7.
 - .2 Description and location of work
 - .1 The method of payment shall be a lump sum price for the replacement of hardware on guard rail for Halfway Brook Bridge.
 - .2 The method of payment shall be by the linear meter of guard rail replaced for Still Brook Bridge

END OF SECTION

Part 1 GENERAL**1.1 GENERAL REQUIREMENTS**

- .1 This section specifies general requirements and procedures for contractor's submissions of shop drawings, product data, samples and mock-ups to the Department Representative for review. Additional specific requirements for submissions are specified in individual sections of the Specifications.
- .2 Do not proceed with work until relevant submissions are reviewed by the Department Representative.
- .3 Present shop drawings, product data, samples and mock-ups are to be in metric units.
- .4 Where items or information is not produced in metric units, imperial units converted to metric values are acceptable.
- .5 Contractor's responsibility for errors and omissions in submission is not relieved by the Department Representative's review of submissions.
- .6 Notify the Department Representative, in writing at time of submission, identifying deviations from requirements of Contract Documents and stating reasons for deviations.
- .7 Contractor's responsibility for deviations in submission from requirements of Contract Documents is not relieved by the Department Representative's review of submission, unless the Department Representative gives written acceptance of specific deviations.
- .8 Make any changes in submissions which Department Representative may require consistent with Contract Documents and resubmit as directed by the Department Representative.
- .9 Notify the Department Representative, in writing, when resubmitting, of any revisions other than those requested by the Department Representative.

1.2 SUBMISSION REQUIREMENTS

- .1 Coordinate each submission with requirements of work and Contract Documents. Individual submissions will not be reviewed until all related information is available.
- .2 Allow 7 days for the Department Representative review of each submission.
- .3 Accompany submissions with transmittal letter, in duplicate, containing:
 - .1 Date.
 - .2 Project title and number.
 - .3 Contractor's name and address.
 - .4 Identification and quantity of each shop drawing, product data and sample.
 - .5 Other pertinent data.
- .4 Submissions shall include:

- .1 Date and revision dates.
- .2 Project title and number.
- .3 Name and address of:
 - .1 Subcontractor.
 - .2 Supplier.
 - .3 Manufacturer.
- .5 Contractor's stamp, signed by Contractors authorized representative certifying approval of submissions, verification of field measurements and compliance with Contract Documents.
- .6 Details of appropriate portions of Work as applicable:
 - .1 Fabrication.
 - .2 Layout, showing dimensions, including identified field dimensions, and clearances.
 - .3 Setting or erection details.
 - .4 Capacities.
 - .5 Performance characteristics.
 - .6 Standards.
 - .7 Operating weight.
 - .8 Wiring diagrams.
 - .9 Single line and schematic diagrams.
 - .10 Relationship to adjacent work.
- .7 After the Department Representative's review, distribute copies.

1.3 SHOP DRAWINGS

- .1 Shop drawings: original drawings, or modified standard drawings provided by Contractor, to illustrate details of portions of Work, which are specific to project requirements.
- .2 Maximum sheet size: 762 mm by 1067 mm.
- .3 Submit shop drawings as follows:
 - .1 Number of prints Contractor requires for distribution plus 4 copies which will be retained by the Department Representative
- .4 Cross-reference shop drawing information to applicable portions of Contract Documents.

1.4 PRODUCT DATA

- .1 Product data: manufacturers catalogue sheets, brochures, literature, performance charts and diagrams, used to illustrate standard manufactured products.
- .2 Submit same number of copies of product data as shop drawings.

- .3 Sheet size: 215 mm by 280 mm, maximum 280 mm by 430 mm.
- .4 Delete information not applicable to project.
- .5 Supplement standard information to provide details applicable to project.
- .6 Cross-reference product data information to applicable portions of Contract Documents.

1.5 SAMPLES

- .1 Samples: examples of materials, equipment, quality, finishes, workmanship.
- .2 Where colour, pattern or texture is criterion, submit full range of samples.
- .3 Reviewed and accepted samples will become standard of workmanship and material against which installed work will be verified.

1.6 MOCK-UPS

- .1 Mock-ups: field-erected example of work complete with specified materials and workmanship.
- .2 Erect mock-ups at locations acceptable to the Department Representative.
- .3 Reviewed and accepted mock-ups will become standards of workmanship and material against which installed work will be verified.

1.7 SHOP DRAWINGS REVIEW

- .1 The review of shop drawings by the Department Representative is for the sole purpose of ascertaining conformance with the general concept. This review shall not mean that the Department Representative approves the detail design inherent in the shop drawings, responsibility for which shall remain with the Contractor submitting same, and such review shall not relieve the Contractor of responsibility for errors or omissions in the shop drawings or of responsibility for meeting all requirements of the construction and contract documents. Without restricting the generality of the foregoing, the Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

END OF SECTION

Part 1 GENERAL

1.1 RELATED REQUIREMENTS

- .1 Section 01 33 00

1.2 REFERENCES

- .1 Nova Scotia Transportation and Infrastructural Renewal (NSTIR) Standard Specification for Highway Construction and Maintenance (current edition).
- .2 Nova Scotia Temporary Workplace Traffic Control Manual - 09.

1.3 PROTECTION OF PUBLIC TRAFFIC

- .1 Comply with requirements of Acts, Regulations and By-Laws in force for regulation of traffic or use of roadways upon or over which it is necessary to carry out Work or haul materials or equipment.
- .2 When working on travelled way:
 - .1 Place equipment in position to minimize interference and hazard to travelling public.
 - .2 Keep equipment units as close together as working conditions permit and preferably on same side of travelled way.
 - .3 Do not leave equipment on travelled way overnight.
- .3 Close lanes of road only after receipt of written approval from Departmental Representative.
 - .1 Before re-routing traffic erect suitable signs and devices to Nova Scotia Temporary Workplace Traffic Control Manual - 09
- .4 Keep travelled way graded, free from pot holes and of sufficient width for required number of lanes of traffic.
 - .1 Provide 7 m wide minimum temporary roadway for traffic in two-way sections through Work and on detours.
 - .2 Provide 5 m wide minimum temporary roadway for traffic in one-way sections through Work and on detours.
- .5 Provide and maintain road access and egress to property fronting along Work under Contract and in other areas as indicated, that meet approval of Departmental Representative.

1.4 INFORMATIONAL AND WARNING DEVICES

- .1 Provide and maintain signs, flashing warning lights and other devices required to indicate construction activities or other temporary and unusual conditions resulting from Project Work which requires road user response.
- .2 Supply and erect signs, delineators, barricades and miscellaneous warning devices to Place signs and other devices in locations recommended in Nova Scotia Temporary Workplace Traffic Control Manual - 09
- .3 Meet with Departmental Representative prior to commencement of Work with a prepared list of signs and other devices required for project and a drawing showing where and when they will located. If situation on site changes, revise list to approval of Departmental Representative.
- .4 Continually maintain traffic control devices in use:
 - .1 Check signs daily for legibility, damage, suitability and location. Clean, repair or replace to ensure clarity and reflectance.
 - .2 Remove or cover signs which do not apply to conditions existing from day to day.

1.5 CONTROL OF PUBLIC TRAFFIC

- .1 Provide competent flag personnel, trained in accordance with, and properly equipped to Nova Scotia Temporary Workplace Traffic Control Manual - 09 for situations as follows:
 - .1 When public traffic is required to pass working vehicles or equipment that block all or part of travelled roadway.
 - .2 When it is necessary to institute one-way traffic system through construction area or other blockage where traffic volumes are heavy, approach speeds are high and traffic signal system is not in use.
 - .3 When workmen or equipment are employed on travelled way over brow of hills, around sharp curves or at other locations where oncoming traffic would not otherwise have adequate warning.
 - .4 Where temporary protection is required while other traffic control devices are being erected or taken down.
 - .5 For emergency protection when other traffic control devices are not readily available.
 - .6 In situations where complete protection for workers, working equipment and public traffic is not provided by other traffic control devices.
 - .7 Delays to public traffic due to contractor's operators: 15 minutes maximum.
- .2 Where roadway, carrying two-way traffic, is restricted to one lane, for greater than 8 hours each day, provide portable traffic signal system.
 - .1 Adjust, as necessary, and regularly maintain system during period of restriction.

SPECIAL PROCEDURES FOR TRAFFIC CONTROL

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- .2 Ensure signal system meets requirements of Nova Scotia Temporary Workplace
Traffic Control Manual - 09

END OF SECTION

SPECIAL PROCEDURES ON FIRE SAFETY REQUIREMENTS

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Part 1 GENERAL

1.1 SECTION INCLUDES

- .1 Fire Safety Requirements
- .2 Hot Work Permit
- .3 Existing Fire Protection and Alarm Systems

1.2 RELATED WORK

- .1 Section 01 35 29: Health and Safety
- .2 Section 01 35 25: Special Procedures on Lockout Requirements

1.3 REFERENCES

- .1 FCC No. 301-June 1982 Standard for Construction Operations.
- .2 FCC No. 302-June 1982 Standard for Welding and Cutting.

1.4 DEFINITIONS

- .1 Hot Work defined as:
 - .1 Welding work
 - .2 Cutting of materials by use of torch or other open flame devices
 - .3 Grinding with equipment which produces sparks.

1.5 SUBMITTALS

- .1 Submit copy of Hot Work Procedures, to Departmental Representative for review, within 14 calendar days after contract award.
- .2 Include sample of Hot Work Permit.
- .3 Submit above documents in accordance with the submittal - general requirements specified in Section 01 33 00.

1.6 FIRE SAFETY AND HOT WORK REQUIREMENT

- .1 Implement and follow fire safety measures during Work. Comply with following:
 - .1 National Fire Code, 1995
 - .2 Fire Protection Standards FCC 301, Standard for Construction Operations and FCC 302, Standard for Welding and Cutting as issued by the Fire Protection Services of Human Resources Development Canada.

SPECIAL PROCEDURES ON FIRE SAFETY REQUIREMENTS

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- .3 Federal and Provincial Occupational Health and Safety Acts and Regulations as specified in Section 01 35 29.
- .2 In event of conflict between any provisions of above authorities the most stringent provision will apply. Should a dispute arise in determining the most stringent requirement, Departmental Representative will advise on the course of action to be followed.
- .3 FCC standards, noted above, may be viewed at the Regional Fire Protection Services' office (previously known as the Fire Commissioner of Canada) located at 99 Wyse Road, 8th floor, Dartmouth, NS; telephone: (902)-426-6053.
- .4 Hot Work Requirements:
 - .1 Obtain Departmental Representative's written Authorization to Proceed for the performance of Hot Work on site as may be required in the course of Work.
 - .2 To obtain authorization submit to Departmental Representative for review:
 - .3 Contractor's Hot Work Procedures to be followed on site in accordance with clause 1.8 below.
 - .4 Type of work and frequency of situations which will require Hot Work.
 - .5 Upon confirmation that effective fire safety measures will be implemented for hot work, Departmental Representative will grant Authorization to Proceed.
 - .6 In most cases, Departmental Representative will issue only one written authorization covering the entire construction project and duration of work. However in some cases, depending on the nature or phasing of work, the quantity of various trades needing to perform welding and cutting on site, or other deemed situation, Departmental Representative might designate certain portions of the work as separate entities, each entity requiring individual written authorization to proceed. Follow Departmental Representative's directives in this regard.
- .5 Do not perform any Hot Work until receipt of Departmental Representative's written Authorization to Proceed.

1.7 CONFORMANCE

- .1 Ensure that Hot Work Procedures, as established for project and agreed upon with Departmental Representative, are stringently followed. Enforce use and compliance by all workers.
- .2 Brief all workers and subcontractors on Hot Work Procedures and Permit system,
- .3 Failure to comply with the established hot work procedures may result in the issuance of a Non-Compliance Notification at Departmental Representative's discretion with possible disciplinary measures imposed.

1.8 HOT WORK PROCEDURES

- .1 Develop Hot Work Procedures, to be followed when Hot Work is required as part of the work.
- .2 Describe safe work practises and sequence of activities to be followed on site by Contractor and workers to minimize the potential occurrence of a fire resulting from Hot Work.
- .3 Hot Work Procedures to include:
 - .1 Requirement to perform hazard assessment of the site or immediate work area, based on type and extent of Hot Work required, in accordance with Hazard Assessment and Safety Plan requirements of section 01 35 29. Carryout hazard assessment for each hot work event.
 - .2 Use of a Hot Work Permit system, issued by an authorized person in Contractor's employ, for each event when Hot Work is required, granting permission to carryout hot work.
 - .3 Provision of a designated person(s) to carryout a Fire Safety Watch for a minimum of 30 minutes immediately upon completion of the hot work.
- .4 Procedures to comply with fire safety codes and standards specified herein and occupational health and safety regulations specified in section 01 35 29.
- .5 Generic procedures, if used, must be edited, supplemented with pertinent information and tailored to reflect specific project conditions. Clearly label as being the Hot Work Procedures applicable to this contract.
- .6 Include within procedures the step by step process on how to prepare and issue the Hot Work Permit.
- .7 Hot Work Procedures to be in typewritten format, listing step by step procedures and worker instructions, clearly establishing and allocating responsibilities of:
 - .1 Worker(s),
 - .2 Designated person authorized to issue the Hot Work Permit,
 - .3 Fire Safety Watcher,
 - .4 Subcontractors and Contractor.

1.9 HOT WORK PERMIT

- .1 Develop "Hot Work Permit" form in typewritten format.
- .2 Hot Work Permit form to include, as a minimum, the following data:
 - .1 Project name and project number;
 - .2 Building name, address and specific floor, room or area where hot work will be performed;
 - .3 Date when permit issued;

SPECIAL PROCEDURES ON FIRE SAFETY REQUIREMENTS

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- .4 Description on type of hot work to be carried out;
- .5 Special precautions required, including type of fire extinguisher needed;
- .6 Name and signature of authorized person, designated by Contractor, to issue the permit.
- .7 Name of worker(s) (clearly printed) to which the permit is being issued.
- .8 Time duration of permit (not to exceed 8 hours) indicating "Start" time & date and "Completion" time & date when Hot Work permit will be in effect.
- .9 Worker signature with date and time when hot work terminated.
- .10 Specified period of time requiring Safety Watch.
- .11 Name and signature of person designated as Fire Safety Watcher, complete with time & date when safety watch terminated, certifying that the surrounding area was under his continual watch and inspection for the minimum time period specified in Permit and commenced immediately upon the completion of Hot Work.
- .3 Industry Standard forms shall only be used if all data specified above is included on form.
- .4 Each Hot Work Permit to be completed in full and signed as follows:
 - .1 Authorized person issuing Permit before hot work commences;
 - .2 Worker(s) upon completion of Hot Work;
 - .3 Fire Safety Watcher upon termination of safety watch and;
 - .4 Returned to Contractor's Site Superintendent for safe keeping.

1.10 DOCUMENTS ON SITE

- .1 Keep Hot Work Permits and Hazard assessment documentation on site for duration of Work.
- .2 Upon request, make available to Departmental Representative or to authorized safety representative for inspection.

END OF SECTION

Part 1 GENERAL**1.1 RELATED REQUIREMENTS**

- .1 Section 01 35 24 - Special Procedures on Fire Safety Requirements.

1.2 REFERENCES

- .1 Canada Labour Code, Part 2, Canada Occupational Safety and Health Regulations
- .2 Province of Nova Scotia
 - .1 Occupational Health and Safety Act, S.N.S. - Updated 2013.
- .3 Definitions
 - .1 COSH: Canada Occupational Health and Safety Regulations made under Part II of the Canada Labour Code.
 - .2 Competent Person: means a person who is:
 - .1 Qualified by virtue of personal knowledge, training and experience to perform assigned work in a manner that will ensure the health and safety of persons in the workplace, and;
 - .2 Knowledgeable about the provisions of occupational health and safety statutes and regulations that apply to the Work and;
 - .3 Knowledgeable about potential or actual danger to health or safety associated with the Work.
 - .3 Medical Aid Injury: any minor injury for which medical treatment was provided and the cost of which is covered by Workers' Compensation Board of the province in which the injury was incurred.
 - .4 PPE: personal protective equipment.
 - .5 Work Site: where used in this section shall mean areas, located at the premises where Work is undertaken, used by Contractor to perform all of the activities associated with the performance of the Work.

1.3 SUBMITTALS

- .1 Make submittals in accordance with Section 01 33 00.
- .2 Submit site-specific Health and Safety Plan prior to commencement of Work.
 - .1 Submit within 10 work days of notification of Bid Acceptance. Provide 3 copies.
 - .2 Departmental Representative will review Health and Safety Plan and provide comments.

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- .3 Revise the Plan as appropriate and resubmit within 5 work days after receipt of comments.
- .4 Departmental Representative's review and comments made of the Plan shall not be construed as an endorsement, approval or implied warranty of any kind by Canada and does not reduce Contractor's overall responsibility for Occupational Health and Safety of the Work.
- .5 Submit revisions and updates made to the Plan during the course of Work.
- .3 Submit name of designated Health & Safety Site Representative and support documentation specified in the Safety Plan.
- .4 Submit building permit, compliance certificates and other permits obtained.
- .5 Submit copy of Letter in Good Standing from Provincial Workers Compensation or other department of labour organization.
 - .1 Submit update of Letter of Good Standing whenever expiration date occurs during the period of Work.
- .6 Submit copies of reports or directions issued by Federal, Provincial and Territorial health and safety inspectors.
- .7 Submit copies of incident reports.
- .8 Submit WHMIS MSDS - Material Safety Data Sheets.

1.4 COMPLIANCE REQUIREMENTS

- .1 Comply with the Occupational Health and Safety Act for the Province of Nova Scotia, and the Occupational Health and Safety Regulations made pursuant to the Act.
- .2 Comply with Canada Labour Code Part II, (entitled Occupational Health and Safety) and the Canada Occupational Health and Safety Regulations (COSH) as well as any other regulations made pursuant to the Act.
 - .1 The Canada Labour Code can be viewed at: [www.http://laws.justice.gc.ca/en/L-2](http://laws.justice.gc.ca/en/L-2)
 - .2 COSH can be viewed at: [www.http://laws.justice.gc.ca/eng/SOR-86-304/ne.html](http://laws.justice.gc.ca/eng/SOR-86-304/ne.html).
 - .3 A copy may be obtained at: Canadian Government Publishing Public Works & Government Services Canada Ottawa, Ontario, K1A 0S9 Tel: (819) 956-4800 (1- 800-635-7943) Publication No. L31-85/2000 E or F).
- .3 Observe construction safety measures of:
 - .1 Part 8 of National Building Code.
 - .2 Municipal by-laws and ordinances.
- .4 In case of conflict or discrepancy between any specified requirements, the more stringent shall apply.

- .5 Maintain Workers Compensation Coverage in good standing for duration of contract .Provide proof of clearance through submission of Letter of Good Standing.
- .6 Medical Surveillance: Where prescribed by legislation or regulation, obtain and maintain worker medical surveillance documentation.

1.5 RESPONSIBILITY

- .1 Be responsible for health and safety of persons on site, safety of property and for protection of persons and environment adjacent to the site to extent that they may be affected by conduct of Work.
- .2 Comply with and enforce compliance by all workers, sub-contractors and other persons granted access to work site with safety requirements of Contract Documents, applicable Federal, Provincial, and local by-laws, regulations, and ordinances, and with site specific Health and Safety Plan.

1.6 SITE CONTROL AND ACCESS

- .1 Control the Work and entry points to Work Site. Approve and grant access only to workers and authorized persons. Immediately stop and remove non-authorized persons.
 - .1 Departmental Representative will provide names of those persons authorized by Departmental Representative to enter onto Work Site and will ensure that such authorized persons have the required knowledge and training on Health and Safety pertinent to their reason for being at the site, however, Contractor remains responsible for the health and safety of authorized persons while at the Work Site.
 - .2 Isolate Work Site from other areas of the premises by use of appropriate means.
 - .1 Erect fences, hoarding, barricades and temporary lighting as required to effectively delineate the Work Site, stop non-authorized entry, and to protect pedestrians and vehicular traffic around and adjacent to the adjacent to the Work and create a safe environment .
 - .2 Post signage at entry points and other strategic locations indicating restricted access and conditions for access.
 - .3 Use professionally made signs with bilingual message in the 2 official languages or international known graphic symbols.
 - .3 Provide safety orientation session to persons granted access to Work Site. Advise of hazards and safety rules to be observed while on site.
 - .4 Ensure persons granted site access wear appropriate PPE. Supply PPE to inspection authorities who require access to conduct tests or perform inspections.
 - .5 Secure Work Site against entry when inactive or unoccupied and to protect persons against harm.

1.7 PROTECTION

- .1 Give precedence to safety and health of persons and protection of environment over cost and schedule considerations for Work.
- .2 Should unforeseen or peculiar safety related hazard or condition become evident during performance of Work, immediately take measures to rectify situation and prevent damage or harm. Advise Departmental Representative verbally and in writing.

1.8 FILING OF NOTICE

- .1 File Notice of Project with pertinent provincial health and safety authorities prior to beginning of Work.
 - .1 Departmental Representative will assist in locating address if needed.

1.9 PERMITS

- .1 Post permits, licenses and compliance certificates at Work Site.
- .2 Where a particular permit or compliance certificate cannot be obtained, notify Departmental Representative in writing and obtain approval to proceed before carrying out applicable portion of work.

1.10 HAZARD ASSESSMENTS

- .1 Perform site specific health and safety hazard assessment of the Work and its site.
- .2 Carryout initial assessment prior to commencement of Work with further assessments as needed during progress of work, including when new trades and subcontractors arrive on site.
- .3 Record results and address in Health and Safety Plan.
- .4 Keep documentation on site for entire duration of the Work.

1.11 PROJECT/SITE CONDITIONS

- .1 Following are potential health, environmental and safety hazards at the site for which Work may involve contact with:
 - .1 Existing hazardous and controlled products stored on site:
None
 - .2 Existing hazardous substances or contaminated materials:
None
 - .3 Known latent site and environmental conditions:
None
- .2 Above items shall not be construed as being complete and inclusive of potential health and safety hazards encountered during Work.

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- .3 Include above items in the hazard assessment of the Work.
- .4 MSDS Data sheets of pertinent hazardous and controlled products stored on site can be obtained from Departmental Representative.

1.12 MEETINGS

- .1 Attend pre-construction health and safety meeting, convened and chaired by Departmental Representative, prior to commencement of Work, at time, date and location determined by Departmental Representative. Ensure attendance of:
 - .1 Superintendent of Work
 - .2 Designated Health & Safety Site Representative
 - .3 Subcontractors
- .2 Conduct regularly scheduled tool box and safety meetings during the Work in conformance with Occupational Health and Safety regulations.
- .3 Keep documents on site.

1.13 HEALTH AND SAFETY PLAN

- .1 Prior to commencement of Work, develop written Health and Safety Plan specific to the Work. Implement, maintain, and enforce Plan for entire duration of Work and until final demobilization from site.
- .2 Health and Safety Plan shall include the following components:
 - .1 List of health risks and safety hazards identified by hazard assessment.
 - .2 Control measures used to mitigate risks and hazards identified.
 - .3 On-site Contingency and Emergency Response Plan as specified below.
 - .4 On-site Communication Plan as specified below.
 - .5 Name of Contractor's designated Health & Safety Site Representative and information showing proof of his/her competence and reporting relationship in Contractor's company.
 - .6 Names, competence and reporting relationship of other supervisory personnel used in the Work for occupational health and safety purposes.
- .3 On-site Contingency and Emergency Response Plan shall include:
 - .1 Operational procedures, evacuation measures and communication process to be implemented in the event of an emergency.
 - .2 Evacuation Plan: site and floor plan layouts showing escape routes, marshalling areas. Details on alarm notification methods, fire drills, location of fire fighting equipment and other related data.
 - .3 Name, duties and responsibilities of persons designated as Emergency Warden(s) and deputies .

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- .4 Emergency Contacts: name and telephone number of officials from:
 - .1 General Contractor and subcontractors.
 - .2 Pertinent Federal and Provincial Departments and Authorities having jurisdiction.
 - .3 Local emergency resource organizations.
- .5 Harmonize Plan with Facility's Emergency Response and Evacuation Plan. Departmental Representative will provide pertinent data including name of PWGSC and Facility Management contacts.
- .4 On-site Communication Plan:
 - .1 Procedures for sharing of work related safety information to workers and subcontractors, including emergency and evacuation measures.
 - .2 List of critical work activities to be communicated with Facility Manager which have a risk of endangering health and safety of Facility users.
- .5 Address all activities of the Work including those of subcontractors.
- .6 Review Health and Safety Plan regularly during the Work. Update as conditions warrant to address emerging risks and hazards, such as whenever new trade or subcontractor arrive at Work Site.
- .7 Departmental Representative will respond in writing, where deficiencies or concerns are noted and may request re-submission of the Plan with correction of deficiencies or concerns.
- .8 Post copy of the Plan, and updates, prominently on Work Site.

1.14 SAFETY SUPERVISION

- .1 Employ Health & Safety Site Representative responsible for daily supervision of health and safety of the Work.
- .2 Health & Safety Site Representative may be the Superintendent of the Work or other person designated by Contractor and shall be assigned the responsibility and authority to:
 - .1 Implement, monitor and enforce daily compliance with health and safety requirements of the Work.
 - .2 Monitor and enforce Contractor's site-specific Health and Safety Plan.
 - .3 Conduct site safety orientation session to persons granted access to Work Site.
 - .4 Ensure that persons allowed site access are knowledgeable and trained in health and safety pertinent to their activities at the site or are escorted by a competent person while on the Work Site.
 - .5 Stop the Work as deemed necessary for reasons of health and safety.
- .3 Health & Safety Site Representative must:
 - .1 Be qualified and competent person in occupational health and safety.

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- .2 Have site-related working experience specific to activities of the Work.
- .3 Be on Work Site at all times during execution of the Work.
- .4 All supervisory personnel assigned to the Work shall also be competent persons.
- .5 Inspections:
 - .1 Conduct regularly scheduled safety inspections of the Work on a minimum bi-weekly basis. Record deficiencies and remedial action taken.
 - .2 Conduct Formal Inspections on a minimum monthly basis. Use standardized safety inspection forms. Distribute to subcontractors.
 - .3 Follow-up and ensure corrective measures are taken.
- .6 Cooperate with Facility's Occupational Health and Safety representative should one be designated by Departmental Representative.
- .7 Keep inspection reports and supervision related documentation on site.

1.15 TRAINING

- .1 Use only skilled workers on Work Site who are effectively trained in health and safety procedures and practices pertinent to their assigned task.
- .2 Maintain employee records and evidence of training received. Make data available to Departmental Representative upon request.
- .3 When unforeseen or peculiar safety-related hazard, or condition occur during performance of Work, follow procedures in place for Employee's Right to Refuse Work in accordance with Acts and Regulations of Province having jurisdiction and advise Departmental Representative verbally and in writing.

1.16 MINIMUM SITE SAFETY RULES

- .1 Notwithstanding requirement to abide by federal and provincial health and safety regulations; ensure the following minimum safety rules are obeyed by persons granted access to Work Site:
 - .1 Wear appropriate PPE pertinent to the Work or assigned task; minimum being hard hat, safety footwear, safety glasses and hearing protection.
 - .2 Immediately report unsafe condition at site, near-miss accident, injury and damage.
 - .3 Maintain site and storage areas in a tidy condition free of hazards causing injury.
 - .4 Obey warning signs and safety tags.
- .2 Brief persons of disciplinary protocols to be taken for non compliance. Post rules on site.

1.17 CORRECTION OF NON-COMPLIANCE

- .1 Immediately address health and safety non-compliance issues identified by authority having jurisdiction or by Departmental Representative.

- .2 Provide Departmental Representative with written report of action taken to correct non-compliance of health and safety issues identified.
- .3 Departmental Representative will stop Work if non-compliance of health and safety regulations is not corrected in a timely manner.

1.18 INCIDENT REPORTING

- .1 Investigate and report the following incidents to Departmental Representative:
 - .1 Incidents requiring notification to Provincial Department of Occupational Safety and Health, Workers Compensation Board or to other regulatory Agency.
 - .2 Medical aid injuries.
 - .3 Property damage in excess of \$10,000.00,
 - .4 Interruptions to Facility operations resulting in an operational lost to a Federal department in excess of \$5000.00.
- .2 Submit report in writing.

1.19 HAZARDOUS PRODUCTS

- .1 Comply with requirements of Workplace Hazardous Materials Information System (WHMIS).
- .2 Keep MSDS data sheets for all products delivered to site.
 - .1 Post on site.
 - .2 Submit copy to Departmental Representative.

1.20 BLASTING

- .1 Blasting or other use of explosives is not permitted on site.

1.21 POWDER ACTUATED DEVICES

- .1 Use powder actuated fastening devices only after receipt of written permission from Departmental Representative.

1.22 CONFINED SPACES

- .1 Abide by occupational health and safety regulations regarding work in confined spaces.

1.23 SITE RECORDS

- .1 Maintain on Work Site copy of safety related documentation and reports stipulated to be produced in compliance with Acts and Regulations of authorities having jurisdiction and of those documents specified herein.
- .2 Upon request, make available to Departmental Representative or authorized Safety Officer for inspection.

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1.24 POSTING OF DOCUMENTS

- .1 Ensure applicable items, articles, notices and orders are posted in conspicuous location on Work Site in accordance with Acts and Regulations of Province having jurisdiction.
- .2 Post other documents as specified herein, including:
 - .1 Site specific Health and Safety Plan
 - .2 WHMIS data sheets

END OF SECTION

Part 1 GENERAL**1.1 REFERENCES**

- .1 Related work
 - .1 Section 01 11 00
 - .2 Section 01 33 00 Submittal Procedures
- .2 Definitions:
 - .1 Environmental Pollution and Damage: presence of chemical, physical, biological elements or agents which adversely affect human health and welfare; unfavourably alter ecological balances of importance to human life; affect other species of importance to humans; or degrade environment aesthetically, culturally and/or historically.
 - .2 Environmental Protection: prevention/control of pollution and habitat or environment disruption during construction.
- .3 Reference Standards:
 - .1 Canadian Environmental Protection Act.

1.2 ENVIRONMENTAL PERFORMANCES

- .1 The- Contractor is required to follow the Canadian Environmental Protection Act.
- .2 A meeting will be held with the successful contractor prior to start-up. All Contractor's supervisors and Engineer's staff assigned to project are required to attend. Duration can be expected to be approximately three hours. Environmental protection requirements for the project will be reviewed, including, but not limited to, appropriate specifications, related permit requirements and on-site reporting and monitoring procedures. To facilitate full comprehension of the requisite environmental protection performance of the proposed work, the contractor will be presented with a copy of the Environmental Screening Report as prepared by the Canadian Park Service.
- .3 The Contractor is held responsible to ensure that all necessary permits related to Environmental Protection have been obtained and that necessary documentation is available on-site.

1.3 SITE SET-UP AND USE

- .1 All site activities related to construction are to be confined within the defined project boundaries.
- .2 No work camps or office facilities will be located within the boundaries of the Cape Breton Highlands National Park.
- .3 Work sites will be equipped with appropriate and properly maintained sanitary facilities.

- .4 Garbage must be collected and removed daily from the worksite to keep the site sanitary and to prevent unwanted interactions with Park fauna (e.g. bears). All material must be removed, transported and disposed of in accordance with existing provincial - municipal and Park solid waste disposal guidelines and/or regulations.
- .5 Littering is prohibited. Violators will be fined in accordance with the National Park Act.
- .6 Temporary storage, parking areas, and turn-a-round facilities for contractor-related equipment and vehicles will be limited to those areas agreed to and designated by the Department Representative.
- .7 To reduce potential negative impacts on Park fauna (especially moose), noise control measures, such as properly functioning mufflers on equipment, must be in place.

1.4 FIRES

- .1 Fires and burning of rubbish on site are not permitted.
- .2 The Contractor is required to comply with the Fire Protection Regulations of the National Parks Act.
- .3 In accordance with these Regulations, the Park Superintendent may restrict activities, or access to work areas, in the interest of fire prevention
- .4 The Contractor's equipment must be in proper working condition, and be used in such a manner as to minimize the potential for ignition of vegetation.
- .5 Vehicles and stationary equipment must be equipped with fire suppression equipment such as an operable fire extinguisher.
- .6 If storage and/or operation of in-Park equipment during a high fire hazard season is of concern to the Park, the Contractor may be required to prepare and implement a Fire Suppression Contingency Plan.
- .7 The Engineer and the Duty Warden of the Park must be contacted immediately in the event of a fire. The Contractor is held responsible to make all reasonable efforts to extinguish any fires on the site.

1.5 CONCRETE REMOVAL AND SANDBLASTING

- .1 Provide temporary enclosures/platforms as required to prevent debris from concrete removal operations falling into the water.
- .2 Provide temporary enclosures/platforms as required to prevent debris from sandblasting operations from falling or blowing into the water.
- .3 Cover or wet down bridge deck to prevent dust from blowing into the water.
- .4 Remove all construction debris including concrete waste, sand, garbage, etc. at the end of each working day. Dispose of all materials off-site in an environmentally friendly manner.

1.6 WORK ADJACENT TO WATERWAYS

- .1 Do not operate construction equipment in waterways.
- .2 Do not use waterway beds for borrow material.
- .3 Do not dump excavated fill, waste material or debris in waterways.
- .4 Do not clean or drain equipment in waterways.

1.7 DISPOSAL OF WASTES

- .1 Do not bury rubbish and waste materials on site. Remove all garbage and construction debris from site daily and dispose in environmentally acceptable disposal site in accordance with all applicable Provincial and Municipal regulations.
- .2 Do not dispose of waste or volatile materials, such as mineral spirits, oil or paint thinner into waterways, storm or sanitary sewers.

1.8 DRAINAGE

- .1 Do not pump water containing suspended materials into waterways.
- .2 Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with local authority requirements.

1.9 POLLUTION CONTROL

- .1 Control emissions from equipment and plant to Federal, Provincial and local authorities' emission requirements.
- .2 Cover or wet down dry materials and rubbish to prevent blowing dust and debris. Chemicals used in dust control must have prior approval of the Department Representative.

1.10 HAZARDOUS MATERIALS

- .1 Dangerous goods, whose release into the environment could cause adverse effect, shall be stored and handled in a manner which gives due regard for workers and public safety, and for the protection of the environment.
- .2 No material toxic to fish or any aquatic life shall be permitted to enter any stream, river, or lake. This shall include, but not be limited to lubricants, fuels, testing fluids, insecticides, detergents, herbicides, cement, lime or concrete.
- .3 The management of fuels, lubricants and chemicals must meet with the requirements of the Nova Scotia Dangerous Goods and Hazardous Wastes Management Criteria and all other appropriate provincial and federal regulations to include but not be limited to the following:
 - .1 Temporary fuel storage sites are to be located a minimum 200 m from any watercourse.

- .2 Fuel storage containers must be accompanied by impermeable structures that would provide containment of 125% of the container capacity in the event of a leak or spill.
- .3 Fuelling and lubricating of equipment shall not be done closer than 100 m to any watercourse. All refuelling and lubricating operations shall employ protection measures such as drip pans, to reduce the potential for escape or petroleum products to the environment.
- .4 The Department Representative and the Park Warden must be immediately contacted after a spill of more than 10 L of fuel or lubricant, and after any amount of other chemical products has escaped.
- .5 Storage of large amounts of fuel (more than 900 L) in the Park is not permitted. Refuelling of on-line equipment from storage facilities located outside Park boundaries is strongly preferred. Storage of any fuel has to occur only in previously approved locations, and with Park consent. The Contractor must submit plans for fuel management and a Spill Contingency Plan seven days prior to the start of the Work. The Contractor is expected to be prepared to effect the containment and cleanup of all spills related to the Work.
- .6 Storage of hazardous material, including explosives, shall not be permitted within the Park, except for quantities which shall normally be expected to be utilized in a day of Work, and which are not permitted to stockpile.
- .7 Emulsion storage tanker and transfer of emulsion from tanker to spray vehicle are not permitted within National Park.

1.11 TREATED WOOD

- .1 Creosote is not approved for use in Parks.
- .2 All treated wood must be treated with a Parks Canada approved pesticide and in accordance with current CSA 080 Series-97 (R2007) standard. Any on-site application must be done in accordance with Parks Management Directive 2.4.1.
- .3 Workers shall be made aware of the possible health risks associated with exposure to CCA or creosote treated timber as well as the recommended safe practices for handling such materials.
- .4 Disposal of treated wood wastes including saw-dust must be outside of the Park, and in accordance with all applicable Provincial and Municipal regulations.

1.12 SITE DECOMMISSIONING

- .1 Unless prior permission from the Department Representative is obtained, all contractor equipment, facilities and materials must be removed from the Park at the finish of each work phase, or if work is suspended due to weather or other circumstance, upon the suspension of work activities.
- .2 All work sites must be returned to a neat and tidy condition upon site abandonment.

- .3 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .4 Before commencing construction activities or delivery of materials to site, submit Environmental Protection Plan for review and approval by Departmental Representative.
- .5 Environmental Protection Plan must include comprehensive overview of known or potential environmental issues to be addressed during construction.
- .6 Address topics at level of detail commensurate with environmental issue and required construction tasks.
- .7 Include in Environmental Protection Plan:
 - .1 Names of persons responsible for ensuring adherence to Environmental Protection Plan.
 - .2 Names and qualifications of persons responsible for manifesting hazardous waste to be removed from site.
 - .3 Names and qualifications of persons responsible for training site personnel.
 - .4 Erosion and sediment control plan identifying type and location of erosion and sediment controls to be provided including monitoring and reporting requirements to assure that control measures are in compliance with erosion and sediment control plan, Federal, Provincial, and Municipal laws and regulations.
 - .5 Work area plan showing proposed activity in each portion of area of each site and identifying areas of limited use or non-use.
 - .1 Plan to include measures for separating limits of use areas and methods for protection of features to be preserved within authorized work areas.
 - .6 Spill Control Plan to include procedures, instructions, and reports to be used in event of unforeseen spill of regulated substance.
 - .7 Non-Hazardous solid waste disposal plan identifying methods and locations for solid waste disposal including clearing debris.
 - .8 Air pollution control plan detailing provisions to assure that dust, debris, materials, and trash, are contained on project site.
 - .9 Contaminant Prevention Plan identifying potentially hazardous substances to be used on job site; intended actions to prevent introduction of such materials into air, water, or ground; and detailing provisions for compliance with Federal, Provincial, and Municipal laws and regulations for storage and handling of these materials.
 - .10 Waste Water Management Plan identifying methods and procedures for management of discharge of waste waters which are directly derived from construction activities, such as concrete curing water, clean-up water, dewatering of ground water.

1.13 FIRES

- .1 Fires and burning of rubbish on site is not permitted

1.14 DRAINAGE

- .1 Develop and submit erosion and Sediment Control Plan (ESC) identifying type and location of erosion and sediment controls provided. Plan to include monitoring and reporting requirements to assure that control measures are in compliance with erosion and sediment control plan, Federal, Provincial, and Municipal laws.
- .2 Provide temporary drainage and pumping required to keep excavations and site free from water.
- .3 Ensure pumped water into waterways or drainage systems is free of suspended materials.
- .4 Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with Department of Environment and local authority requirements.

1.15 SITE CLEARING AND PLANT PROTECTION

- .1 Protect trees and plants on site and adjacent properties as indicated.
- .2 Protect trees and shrubs adjacent to construction work, storage areas and encase with protective wood framework from grade level to height of 2 m minimum.
- .3 Protect roots of designated trees to dripline during excavation and site grading to prevent disturbance or damage.
 - .1 Avoid unnecessary traffic, dumping and storage of materials over root zones.
- .4 Minimize stripping of topsoil and vegetation.
- .5 Restrict tree removal to the approval by Departmental Representative.

1.16 WORK ADJACENT TO WATERWAYS

- .1 Construction equipment to be operated on land only.
- .2 Use waterway beds for borrow material is not permitted.
- .3 Waterways to be kept free of excavated fill, waste material and debris.
- .4 Design and construct temporary barriers to minimize erosion to waterways.
- .5 Do not skid logs or construction materials across or into waterways.

1.17 POLLUTION CONTROL

- .1 Maintain temporary erosion and pollution control features installed under this Contract.
- .2 Control emissions from equipment in accordance with local authorities' emission requirements.
- .3 Prevent sandblasting and other extraneous materials from contaminating air and waterways beyond application area.
 - .1 Provide temporary enclosures to the approval of Departmental Representative.

1.18 NOTIFICATION

- .1 Departmental Representative will notify Contractor in writing of observed noncompliance with Federal, Provincial or Municipal environmental laws or regulations, permits, and other elements of Contractor's Environmental Protection plan.
- .2 Contractor: after receipt of such notice, inform Departmental Representative of proposed corrective action and take such action for approval by Departmental Representative.
 - .1 Take action only after receipt of written approval by Departmental Representative.
- .3 Departmental Representative will issue stop order of work until satisfactory corrective action has been taken.
- .4 No time extensions granted or equitable adjustments allowed to Contractor for such suspensions.

Part 2 EXECUTION**2.1 CLEANING**

- .1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.
 - .1 Leave Work area clean at end of each day.
- .2 Ensure public waterways, remain free of waste and volatile materials.
- .3 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.
- .4 Waste Management: separate waste materials for reuse or recycling
 - .1 Remove recycling containers and bins from site and dispose of materials at appropriate facility.

END OF SECTION

Part 1 GENERAL**1.1 INSPECTION**

- .1 Allow Departmental Representative access to Work. If part of Work is in preparation at locations other than Place of Work, allow access to such Work whenever it is in progress.
- .2 Give timely notice requesting inspection if Work is designated for tests, inspections or approvals by Departmental Representative.
- .3 If Contractor covers or permits to be covered Work that has been designated for tests, inspections or approvals before such is made, uncover such Work, have inspections or tests satisfactorily completed and make good such Work.
- .4 Departmental Representative will order part of Work to be examined if Work is suspected to be not in accordance with Contract Documents. If, upon examination such work is found not in accordance with Contract Documents, correct such Work and pay cost of correction. If such Work is found in accordance with Contract Documents, Departmental Representative shall pay cost of examination and replacement.

1.2 INDEPENDENT INSPECTION AGENCIES

- .1 Independent Inspection/Testing Agencies will be engaged by Departmental Representative for purpose of inspecting and/or testing portions of Work. Cost of such services will be borne by Departmental Representative.
- .2 Provide equipment required for executing inspection and testing by appointed agencies.
- .3 Employment of inspection/testing agencies does not relax responsibility to perform Work in accordance with Contract Documents.
- .4 If defects are revealed during inspection and/or testing, appointed agency will request additional inspection and/or testing to ascertain full degree of defect. Correct defect and irregularities as advised by Departmental Representative at no cost to Departmental Representative. Pay costs for retesting and reinspection.

1.3 ACCESS TO WORK

- .1 Allow inspection/testing agencies access to Work, off site manufacturing and fabrication plants.
- .2 Co-operate to provide reasonable facilities for such access.

1.4 PROCEDURES

- .1 Notify Departmental Representative in advance of requirement for tests, in order that attendance arrangements can be made.

- .2 Submit samples and/or materials required for testing, as specifically requested in specifications. Submit with reasonable promptness and in orderly sequence to not cause delays in Work.
- .3 Provide labour and facilities to obtain and handle samples and materials on site. Provide sufficient space to store and cure test samples.

1.5 REJECTED WORK

- .1 Remove defective Work, whether result of poor workmanship, use of defective products or damage and whether incorporated in Work or not, which has been rejected by Departmental Representative as failing to conform to Contract Documents. Replace or re-execute in accordance with Contract Documents.
- .2 Make good other Contractor's work damaged by such removals or replacements promptly.
- .3 If in opinion of Departmental Representative it is not expedient to correct defective Work or Work not performed in accordance with Contract Documents, Owner will deduct from Contract Price difference in value between Work performed and that called for by Contract Documents, amount of which will be determined by.

1.6 REPORTS

- .1 Submit 4 copies of inspection and test reports to Departmental Representative.
- .2 Provide copies to subcontractor of work being inspected or tested, manufacturer or fabricator of material being inspected or tested.

1.7 TESTS AND MIX DESIGNS

- .1 Furnish test results and mix designs as requested.
- .2 Cost of tests and mix designs beyond those called for in Contract Documents or beyond those required by law of Place of Work will be appraised by Departmental Representative and may be authorized as recoverable.

1.8 MILL TESTS

- .1 Submit mill test certificates as requested

END OF SECTION

Part 1 GENERAL**1.1 ACTION AND INFORMATIONAL SUBMITTALS**

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.

1.2 INSTALLATION AND REMOVAL

- .1 Identify areas at each site and or a common site as a laydown area(s) to the approval of the Department Representative.
- .2 Identify areas which have to be gravelled to prevent tracking of mud.
- .3 Indicate use of supplemental or other staging area.
- .4 Remove from site all such work after use.

1.3 SCAFFOLDING

- .1 Scaffolding in accordance with CAN/CSA-S269.2.
- .2 Provide and maintain scaffolding, ramps, ladders, swing, staging, platforms
 - .1 Working from in stream is prohibited.

1.4 HOISTING

- .1 Hoists, cranes to be operated by qualified operator.

1.5 SITE STORAGE/LOADING

- .1 Confine work and operations of employees to the immediate area around each site. Do not unreasonably encumber premises with products.
- .2 There is limited access to the sites and every effort is to be made to preserve the natural vegetation.

1.6 CONSTRUCTION PARKING

- .1 Parking will be permitted on site provided:
 - .1 It does not disrupt performance of Work
 - .2 It does not impede the flow of traffic or create a hazard

1.7 OFFICES

- .1 Provide office sufficient size to accommodate site meetings and furnished with drawing laydown table.
- .2 Provide marked and fully stocked first-aid case in a readily available location.

- .3 Departmental Representative's Site office.
 - .1 Provide temporary office for Departmental Representative.
 - .2 Equip office with 1 x 2 m table, 2 chairs,
 - .3 Maintain in clean condition.

1.8 EQUIPMENT, TOOL AND MATERIALS STORAGE

- .1 Provide and maintain, in clean and orderly condition, lockable weatherproof sheds for storage of tools, equipment and materials.
- .2 Locate materials not required to be stored in weatherproof sheds on site in manner to cause least interference with work activities.

1.9 SANITARY FACILITIES

- .1 Provide sanitary facilities for work force in accordance with governing regulations and ordinances.
- .2 Post notices and take precautions as required by local health authorities. Keep area and premises in sanitary condition.

1.10 CONSTRUCTION SIGNAGE

- .1 Provide and erect as requested by Department Representative to:
 - .1 Nova Scotia Transportation and Infrastructural Renewal (NSTIR) Standard Specification for Highway Construction and Maintenance (current edition).
- .2 Maintain approved signs and notices in good condition for duration of project, and dispose of off site on completion of project or earlier if directed by Departmental Representative.

1.11 PROTECTION AND MAINTENANCE OF TRAFFIC

- .1 Provide access as necessary to maintain traffic.
- .2 Maintain and protect traffic on affected roads during construction period
- .3 Provide measures for protection and diversion of traffic, including provision of watch-persons and flag-persons, erection of barricades, placing of lights around and in front of equipment and work, and erection and maintenance of adequate warning, danger, and direction signs
- .4 Protect travelling public from damage to person and property.
- .5 Verify adequacy of existing roads and allowable load limit on these roads. Contractor: responsible for repair of damage to roads caused by construction operations.
- .6 Provide necessary lighting, signs, barricades, and distinctive markings for safe movement of traffic.

CONSTRUCTION FACILITIES

Still Brook, Effies Brook, Halfway Brook,
and North Aspy River (North) Bridge Rehabilitations
Cape Breton Highlands National Park, NS
R.072242.001
Public Works and Government Services Canada

Section 01 52 00

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- .7 Dust control: adequate to ensure safe operation at all times.

1.12 CLEAN-UP

- .1 Remove construction debris, waste materials, packaging material from work site daily.
- .2 Clean dirt or mud tracked onto paved or surfaced roadways.
- .3 Store materials resulting from demolition activities that are salvageable.
- .4 Stack stored new or salvaged material not in construction area.

END OF SECTION

Part 1 GENERAL

1.1 PROJECT CLEANLINESS

- .1 Maintain Work in tidy condition, free from accumulation of waste products and debris, including that caused other Contractors.
- .2 Remove waste materials from site at daily regularly scheduled times
- .3 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
- .4 Provide on-site containers for collection of waste materials and debris.
- .5 Dispose of waste materials and debris off site with the approval of Department Representative. Do not burn waste materials or debris.
- .6 Store volatile waste in covered metal containers, and remove from premises at end of each working day.

1.2 FINAL CLEANING

- .1 When Work is Substantially Performed remove surplus products, tools, construction machinery and equipment not required for performance of remaining Work.
- .2 Prior to final review remove all surplus products, tools, construction machinery, waste products and debris.

END OF SECTION