

---

## 1.1 DESCRIPTION OF WORK

- .1 In general, work under this Contract shall consist of but not be limited to the following:
  - .1 Reconstruction of timber pile wharf structure and new concrete deck on steel deck.
  - .2 Removal of existing concrete, timber deck, piles cut offs, pile caps, etc. and other debris, and dispose off-site in accordance with all applicable environmental legislations or other requirements.
  - .3 Provide new timber piles, pile caps, wales, curbs etc., as shown on drawings.
  - .4 Removal and reinstating of any electrical overhead wiring as required within the area defined or disrupted by this work to be removed under this contract and reinstate with new lines at new location as required.
  - .5 Any utilities including water or sewer lines shall be removed and reinstated as required. This work shall be considered incidental and not paid separately.
  - .6 All electrical work including pole straightening, power and light removal and supply and new installation shall be incidental and paid under general requirements.
  - .7 Supply and install miscellaneous metal, bolts, nuts and washers.
  - .8 Placing of new Class 'A' gravel to match the existing grade. This work shall be considered incidental and not paid separately.
- .2 Site of work is at Montague Harbour, located on the Small Craft Harbour property in the town of Montague, Kings County, PEI.

## 1.2 FAMILIARIZATION

- .1 Before submitting a bid, it is recommended that bidders inspect and examine the site of work and satisfy themselves as to the form and nature of the work, materials, the means of access the site, and the temporary facilities required for completion of the work.
- .2 Obtain prior permission from the Departmental Representative before carrying out such site inspection.
- .3 Existing wharf deck is not suitable to support the heavy equipment and machines.
- .4 Contractors are required to review the list of potential site hazards provided in Section 0135 29, to wear all appropriate personal protective equipment and to take all necessary precautionary measures to ensure their safety during pre-tender visits.

## 1.3 CODES AND STANDARDS

- .1 Perform work in accordance with the National Building Code of Canada (2010) and any other code of provincial or local application including all amendments up to project tender closing date provided that in any case of conflict or discrepancy, the more stringent requirements shall apply.

- 
- .2 Materials and workmanship must meet or exceed requirements of specified standards, codes and referenced documents.

#### **1.4 INTERPRETATION OF DOCUMENTS**

- .1 Supplementary to the Order of Precedence article of the General Conditions, the Division 01 Sections take precedence over the technical division sections of these Specifications.

#### **1.5 TERM ENGINEER**

- .1 Unless specifically stated otherwise, the term Engineer when used in the Specifications and on the Drawings shall mean the Departmental Representative as defined in the General Conditions of the Contract.

#### **1.6 SETTING OF WORK**

- .1 Assume full responsibility for and execute complete layout of work to locations, lines and elevations indicated.
- .2 Provide devices needed to lay out and construct work.
- .3 Supply such devices as straight edges and templates required to facilitate Departmental Representative's inspection of work.
- .4 Supply stakes and other survey markers required for laying out work.
- .5 Setting out the work, mob, demob, and other costs associated with the work, but not included as part of specific bid items will be considered as incidental to the Project Layout and General Requirements lump sum bid item.

#### **1.7 MEASUREMENT FOR PAYMENT**

- .1 Notify Departmental Representative sufficiently in advance of operations to permit required measurements for payment.

#### **1.8 DOCUMENTS REQUIRED**

- .1 Maintain at job site, one copy each of the following:
  - .1 Contract Drawings
  - .2 Specifications
  - .3 Addenda
  - .4 Reviewed Shop Drawings
  - .5 List of outstanding Shop Drawings
  - .6 Change Orders
  - .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 Electrical Lock-out
  - .12 Fire Safety Hot Work Permit
  - .13 Permits, Codes and Acts
  - .14 Waste Management Plan
  - .15 Other documents as stipulated elsewhere in the Contract Documents, Drawings and these Specifications

## **1.9 PERMITS**

- .1 In accordance with the General Conditions, obtain and pay for building permit, certificates, licenses and other permits as required by municipal, provincial and federal authorities.
- .2 Provide appropriate notifications of project to municipal and provincial inspection authorities.
- .3 Obtain compliance certificates as prescribed by legislative and regulatory provisions of municipal, provincial and federal authorities as applicable to the performance of work.
- .4 Submit to Departmental Representative, copy of application forms and approval documents received from above referenced authorities.

## **1.10 EXISTING**

- .1 Before commencing work, establish location and extent of service lines and notify Departmental Representative of findings in writing.
- .2 Submit schedule to and obtain approval from Departmental Representative for any shut-down or closure of active service or facility. This includes disconnection of electrical power and communication services to tenant's operational areas. Adhere to approved schedule and provide notice to affected parties.
- .3 Be aware that the Facility must be kept operational for the full duration of Work of this Contract. Services to areas used by the public, fishers and harbour users must also be maintained at all times.
- .4 Protect, relocate or maintain existing active services as required. When inactive services are encountered, cap off in manner approved by authorities having jurisdiction over service. Record locations of maintained, re-routed and abandoned service lines.
- .5 Removal and reinstatement of pipes, services, utilities, poles, etc., (in accordance with service providers' or owners' requirements) will be incidental to the Work.

**END OF SECTION**

## 1.1 SUBMITTALS

- .1 Upon award of contract and prior to commencement of work, submit to Departmental Representative the following work management documents:
  - .1 Work Schedule as specified herein
  - .2 Shop Drawing Submittal Schedule specified in Section 01 33 00
  - .3 Waste Management Plan specified in Section 01 74 21
  - .4 Health and Safety Plan specified in Section 01 35 29
  - .5 Hot Work Procedures specified in Section 01 35 24
  - .6 Lockout Procedures specified in Section 01 35 25

## 1.2 WORK SCHEDULE

- .1 Upon acceptance of bid submit:
  - .1 Detailed work schedule submitted within 7 calendar days of contract award.
  - .2 Schedule to indicate all calendar dates from commencement to completion of all work within the time stated in the accepted bid.
  - .3 Provide sufficient details in schedule to clearly illustrate entire implementation plan, depicting efficient coordination of tasks and resources, to achieve completion of work on time and permit effective monitoring of work progress in relation to established milestones.
  - .4 Work schedule content to include as a minimum the following:
    - .1 Bar (GANTT) Charts, indicating all work activities, tasks and other project elements, their anticipated durations, planned dates for achieving key activities and major project milestones supported with;
    - .2 Written narrative on key elements of work illustrated in bar chart, providing sufficient details to demonstrate a reasonable implementation plan for completion of project within designated time.
    - .3 Generally Bar Charts derived from commercially available computerized project management system are preferred but not mandatory.
  - .5 Work schedule must take into consideration and reflect the work phasing, and operational restrictions as indicated on drawings.
  - .6 Schedule work in cooperation with the Departmental Representative. Incorporate within Work Schedule, items identified by Departmental Representatives during review of schedule.
  - .7 Completed schedule shall be approved by Departmental Representative. When approved, take necessary measures to complete work within scheduled time. Do not change schedule without Departmental Representative's approval.
  - .8 Ensure that all sub trades and subcontractors are made aware of the work restraints and operational restrictions specified.
  - .9 Schedule Update:
    - .1 Submit when requested by Departmental Representative

- 
- .2 Provide information and pertinent details explaining reasons for necessary changes to implementation plan.
  - .3 Identify problem areas, anticipated delays, impact on schedule and proposed corrective measures to be taken.
  - .10 Departmental Representative will make interim reviews and evaluate progress of work based on approved schedule. Frequency of such reviews will be as decided by Departmental Representative. Address and take corrective measures on items identified by reviews and as directed by Departmental Representative. Update schedule accordingly.
  - .11 In every instance, change or deviation from the Work Schedule, no matter how minimal the risk or impact on safety or inconvenience to tenant or public might appear, will be subject to prior review and approval by the Departmental Representative.

### **1.3 OPERATIONAL RESTRICTIONS**

- .1 The Contractor must recognize that Harbour activities and occupants will be affected by implementation of this Contract. The Contractor must perform the work with utmost regard to the safety and convenience of all Harbour users. All work activities must be planned and scheduled with this in mind. The Contractor will not be permitted to disturb any portion of the Harbour without providing temporary facilities as necessary to ensure safe and direct passage through disturbed or otherwise affected areas.
- .2 Facility circulation maintained:
  - .1 Ensure that entrances, roadways, loading zones and other circulation routes are maintained free and clear providing safe and uninterrupted passage for Facility users and public at all times during the entire Work.
  - .2 Maintain those areas clean and free of construction materials and equipment.

### **1.4 PROJECT MEETINGS**

- .1 Schedule and administer project meetings, held on a minimum bi-weekly basis, for entire duration of work and more often when directed by Departmental Representative as deemed necessary due to progress of work or particular situation.
- .2 Prepare agenda for meetings.
- .3 Notify participants in writing 4 working days in advance of meeting date.
  - .1 Ensure attendance of all subcontractors.
  - .2 Departmental Representative will provide list of other attendees to be notified.
- .4 Hold meetings at project site or where approved by Departmental Representative.
- .5 Preside at meetings and record minutes.
  - .1 Indicate significant proceedings and decisions. Identify action items by parties.
  - .2 Distribute to participants by mail or by facsimile within 3 calendar days after each meeting.
  - .3 Make revisions as advised by Departmental Representative.

- 
- .4 Departmental Representative will advise whether submission of minutes by Email is acceptable. Decision will be based on compatibility of software among participants.

## **1.5 WORK COORDINATION**

- .1 The General Contractor is responsible for coordinating the work of the various trades and predetermining where the work of such trades interfaces with each other.
- .1 Designate one person from own employ having overall responsibility to review contract documents and shop drawings, plan and manage such coordination.
- .2 Submission of shop drawings and ordering of prefabricated equipment or prebuilt components shall only occur once a coordination meeting for such items has taken place between trades and all conditions affecting the work of the interfacing trades has been made known and accounted for.
- .3 Work Cooperation:
- .1 Ensure cooperation between trades in order to facilitate the general progress of the work and avoid situations of spatial interference.
- .2 Ensure that each trade provides all other trades reasonable opportunity for the completion of the work and in such a way as to prevent unnecessary delays and the need to remove and replace completed work.
- .4 No extra costs to the Contract will be considered by the Departmental Representative as a result of Contractor's failure to effectively coordinate all portions of the Work. Disputes between the various trades as a result of their not being informed of the areas and extent of interface work shall be the sole responsibility of the General Contractor to be resolved at his own cost.

## **1.6 OTHER CONTRACTS**

- .1 Further contracts may be let during the period that this Contract is in progress.
- .2 Cooperate with other Contractors in carrying out their respective work and carry out all instructions from the Departmental Representative in this regard.
- .3 Connect properly and coordinate work with that of other Contractors.

**END OF SECTION**

---

## **1.1 RELATED SECTIONS**

- .1 Section 01 35 24 – Special Procedures on Fire Safety Requirements
- .2 Section 01 35 29 - Health & Safety requirements
- .3 Section 01 78 00 - Closeout Submittals
- .4 Section 03 20 00 - Concrete Reinforcing
- .5 Section 03 30 00 - Cast-in-Place Concrete
- .6 Section 05 31 00 - Steel Decking
- .7 Section 31 62 19 - Timber Piles

## **1.2 ADMINISTRATIVE**

- .1 Submit to Departmental Representative submittals listed for review. Submit promptly and in orderly sequence to not cause delay in Work. Failure to submit in ample time is not considered sufficient reason for extension of Contract Time and no claim for extension by reason of such default will be allowed.
- .2 Do not proceed with Work affected by submittal until review is complete.
- .3 Present shop drawings, product data, samples and mock-ups in SI Metric units.
- .4 Where items or information is not produced in SI Metric units converted values are acceptable.
- .5 Review submittals prior to submission to Departmental Representative. This review represents that necessary requirements have been determined and verified, or will be and that each submittal has been checked and co-ordinated with requirements of Work and Contract Documents. Submittals not stamped, signed, dated and identified as to specific project will be returned without being examined and considered rejected.
- .6 Notify Departmental Representative, in writing at time of submission, identifying deviations from requirements of Contract Documents stating reasons for deviations.
- .7 Verify field measurements and affected adjacent Work are co-ordinated. Contractor is responsible to get all field measurement before preparing shop drawings and proceeding with the work.
- .8 Contractor's responsibility for errors and omissions in submission is not relieved by Departmental Representative's review of submittals.
- .9 Contractor's responsibility for deviations in submission from requirements of Contract Documents is not relieved by Departmental Representative review.
- .10 Keep one reviewed copy of each submission on site.

## **1.3 SHOP DRAWINGS AND PRODUCT DATA**

- .1 The term "shop drawings" means drawings, diagrams, illustrations, schedules, performance charts, brochures and other data which are to be provided by Contractor to illustrate details of a portion of Work.

- 
- .2 Submit shop drawings bearing stamp and signature of qualified professional engineer registered or licensed in Province of PEI.
  - .3 Indicate materials, methods of construction and attachment or anchorage, erection diagrams, connections, explanatory notes and other information necessary for completion of Work. Where articles or equipment attach or connect to other articles or equipment, indicate that such items have been co-ordinated, regardless of Section under which adjacent items will be supplied and installed. Indicate cross references to design drawings and specifications.
  - .4 Adjacent items will be supplied and installed. Indicate cross references to design drawings and specifications.
  - .5 Allow 14 calendar days for Departmental Representative's review of each submission.
  - .6 Adjustments made on shop drawings by Departmental Representative are not intended to change Contract Price. If adjustments affect value of Work, state such in writing to Departmental Representative prior to proceeding with Work.
  - .7 Make changes in shop drawings as Departmental Representative may require, consistent with Contract Documents. When resubmitting, notify Departmental Representative in writing of revisions other than those requested.
  - .8 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.
  - .9 Submissions include:
    - .1 Date and revision dates.
    - .2 Project title and number.
    - .3 Name and address of:
      - .1 Subcontractor.
      - .2 Supplier.
      - .3 Manufacturer.
    - .4 Contractor's stamp, signed by Contractor's authorized representative certifying approval of submissions, verification of field measurements and compliance with Contract Documents.
    - .5 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.
  - .10 After Departmental Representative's review, distribute copies.
  - .11 Submit sufficient copies of shop drawings for each requirement requested in specification Sections required by the General Contractor and sub-contractors plus 3 copies which will be retained by Departmental Representative.
  - .12 Submit copies of product data sheets or brochures for requirements requested in specification Sections and as requested by Departmental Representative where shop drawings will not be prepared due to standardized manufacture of product.
  - .13 Submit 6 copies of test reports for requirements requested in specification Sections and as requested by Departmental Representative.
    - .1 Report signed by authorized official of testing laboratory that material, product or system identical to material, product or system to be provided has been tested in accord with specified requirements.
    - .2 Testing must have been within 3 years of date of contract award for project.
  - .14 If upon review by Departmental Representative, no errors or omissions are discovered or if only minor corrections are made, copies will be returned and fabrication and installation of Work may proceed. If shop drawings are rejected, noted copy will be returned and resubmission of corrected shop drawings, through same procedure indicated above, must be performed before fabrication and installation of Work may proceed.
  - .15 The review of shop drawings by the Departmental Representative is for sole purpose of ascertaining conformance with general concept.
    - .1 This review shall not mean that the Departmental Representative approves detail design inherent in shop drawings, responsibility for which shall remain with Contractor submitting same, and such review shall not relieve Contractor of responsibility for errors or omissions in shop drawings or of responsibility for meeting requirements of construction and Contract Documents.
    - .2 Without restricting generality of foregoing, Contractor is responsible for dimensions to be confirmed and correlated at job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of Work of sub-trades.

#### 1.4 SAMPLES

- .1 Submit for review samples in duplicate as requested in respective specification Sections. Label samples with origin and intended use.
- .2 Deliver samples prepaid to Departmental Representative's business address.
- .3 Notify Departmental Representative in writing, at time of submission of deviations in samples from requirements of Contract Documents.

- 
- .4 Where colour, pattern or texture is criterion, submit full range of samples.
  - .5 Adjustments made on samples by Departmental Representative are not intended to change Contract Price. If adjustments affect value of Work, state such in writing to Departmental Representative prior to proceeding with Work.
  - .6 Make changes in samples which Departmental Representative may require, consistent with Contract Documents.
  - .7 Reviewed and accepted samples will become standard of workmanship and material against which installed Work will be verified.

**END OF SECTION**



---

## **1.1 SECTION INCLUDES**

- .1 Informational and warning devices.
- .2 Protection and control of public traffic
- .3 Operational Requirements

## **1.2 REFERENCES**

- .1 Manual of Uniform Traffic Control Devices for Streets and Highways US FHWA Part IV.
- .2 Uniform traffic control devices for Canada (UTCD) distributed by Transportation Association of Canada

## **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 present minimum of 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 Do not close any lanes of road without approval of Departmental Representative. Before re-routing traffic erect suitable signs and devices in accordance with instructions contained in Part D of UTCD.
- .4 Keep travelled way graded, free of pot holes and of sufficient width for required number of lanes of traffic.
- .5 Provide and maintain road access and egress to property fronting along Work under Contract and in other areas as indicated, unless other means of road access exist 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 as specified in Part D, Temporary Conditions Signs and Devices, of UTCD manual.

- 
- .3 Place signs and other devices in locations recommended in UTCD manual.
  - .4 Meet with Departmental Representative prior to commencement of Work to prepare list of signs and other devices required for project. If situation on site changes, revise list to approval of Departmental Representative.
  - .5 Continually maintain traffic control devices in use by:
    - .1 Checking signs daily for legibility, damage, suitability and location. Clean, repair or replace to ensure clarity and reflectance.
    - .2 Removing or covering signs which do not apply to conditions existing from day to day.

## **1.5 CONTROL OF PUBLIC TRAFFIC**

- .1 Provide competent flag persons, trained in accordance with, and properly equipped as specified in, UTCD manual in following situations:
  - .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.

## **1.6 OPERATIONAL REQUIREMENTS**

- .1 Maintain existing conditions for traffic throughout period of contract except that, when required for construction under contract and when measures have been taken as specified and approved by Departmental Representative to protect and control public traffic.

**END OF SECTION**

---

## **1.1 SECTION INCLUDES**

- .1 Fire Safety Requirements
- .2 Hot Work Permit

## **1.2 RELATED WORK**

- .1 Section 01 35 29 Health and Safety Requirements

## **1.3 REFERENCES**

- .1 Fire Protection Standards issued by Fire Protection Services of Human Resources Development Canada as follows:
  - .1 FCC No. 301 – Standard for Construction Operations.
  - .2 FCC No. 302 – Standard for Welding and Cutting.
  - .3 FCC standards, 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, Tel: (902) 426-6053.
  - .4 All standards mentioned above shall be of latest edition.

## **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.
  - .4 Use of open flame torches.

## **1.5 SUBMITTALS**

- .1 Submit copy of Hot Work Procedures and sample of Hot Work permit to Departmental Representative for review, within 14 calendar days after contract award.
- .2 Submit in accordance with section 01 33 00.

## **1.6 FIRE SAFETY REQUIREMENT**

- .1 Implement and follow fire safety measures during Work. Comply with following:
  - .1 National Fire Code
  - .2 Fire Protection Standards FCC 301 and FCC 302.
  - .3 Federal and Provincial Occupational Health and Safety Acts and Regulations.
- .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.

## **1.7 HOT WORK AUTHORIZATION**

- .1 Obtain Departmental Representative's written "Authorization to Proceed" before conducting any form of Hot Work on site.
- .2 To obtain authorization submit to Departmental Representative:
  - .1 Contractor's typewritten Hot Work Procedures to be followed on site as specified below.
  - .2 Description of the type and frequency of Hot Work required.
  - .3 Hot Work Permit as per instruction clause 1.9.
- .3 Upon review and confirmation that effective fire safety measures will be implemented and followed during performance of hot work, Departmental Representative will give authorization to proceed as follows:
  - .1 Issue one written "Authorization to Proceed" covering the entire for duration of work or;
  - .2 Subdivide the work into pre-determined, individual activities, each activity requiring a separately written authorization to proceed.
- .4 Requirement for individual authorization will be based on:
  - .1 Nature or phasing of work;
  - .2 Risk to Facility operations;
  - .3 Quantity of various trades needing to perform hot work on project or;
  - .4 Other situation deemed necessary by Departmental Representative to ensure fire safety on premises.
- .5 Do not perform Hot Work until receipt of Departmental Representative's written "Authorization to Proceed" for that portion of work.

## **1.8 HOT WORK PROCEDURES**

- .1 Develop and implement safety procedures and work practices to be followed during the performance of Hot Work.
- .2 Hot Work Procedures to include:
  - .1 Requirement to perform hazard assessment of site and immediate work area before hand for each hot work event in accordance with Safety Plan specified in Section 01 35 29.
  - .2 Use of a Hot Work Permit system with individually written permit issued by Contractor's Superintendent to specific worker or subcontractor granting permission to proceed with Hot Work.
  - .3 Permit required for each Hot Work event.

- 
- .4 Designation of a person on site as a Fire Safety Watcher responsible to conduct a fire safety watch for a minimum duration of 60 minutes immediately following the completion of Hot Work.
  - .5 Compliance with fire safety codes, standards and occupational health and safety regulations specified.
  - .3 Generic procedures, if used, must be edited and supplemented with pertinent information tailored to reflect specific project conditions. Label document as being the Hot Work procedures for this contract.
  - .4 Procedures shall clearly establish responsibilities of:
    - .1 Worker performing hot work,
    - .2 Person issuing the Hot Work Permit,
    - .3 Fire Safety Watcher,
    - .4 Subcontractor (s) and Contractor.
  - .5 Brief all workers and subcontractors on Hot Work Procedures and of Permit system. Stringently enforce compliance.
  - .6 Failure to comply with fire safety procedures may result in the issue of a Non-Compliance notification as specified in Section 01 35 29.

## **1.9 HOT WORK PERMIT**

- .1 Hot Work Permit to include the following:
  - .1 Project name and project number;
  - .2 Area where hot work will be performed;
  - .3 Date of issue;
  - .4 Description of hot work type needed;
  - .5 Special precautions to be followed, including type of fire extinguisher needed;
  - .6 Name and signature of permit issuer;
  - .7 Name of worker to which the permit is issued;
  - .8 Permit validity period not to exceed 8 hours. Indicate start time/date and termination time/date;
  - .9 Worker's signature with time/date of hot work completion;
  - .10 Stipulated time period of safety watch;
  - .11 Fire Safety Watcher's signature with time/date.
- .2 Permit to be typewritten form. Industry Standard forms shall only be used if all data specified above is included on form.
- .3 Each Hot Work Permit to be completed in full, signed and returned to Contractor's Superintendent for safe keeping on site.

---

**1.10 FIRE PROTECTION AND ALARM SYSTEMS**

- .1 Fire protection and alarm systems shall not be:
  - .1 Obstructed.
  - .2 Shut-off, unless approved by Departmental Representative.
  - .3 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 Costs incurred, from the fire department and Facility owner, resulting from negligently setting off false alarms will be charged to the Contractor in the form of financial progress payment reductions and holdback assessments against the Contract.

**1.11 DOCUMENTS ON SITE**

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

**END OF SECTION**

---

## 1.1 SECTION INCLUDES

- .1 Procedures to isolate and lockout electrical facility and other equipment from energy sources.

## 1.2 RELATED WORK

- .1 Section 01 35 29: Health and Safety

## 1.3 REFERENCES

- .1 CSA C22.1- Canadian Electrical Code, Part 1, Safety Standard for Electrical Installations.
- .2 CSA C22.3 No. 1– Overhead Systems.
- .3 CSA C22.3 No. 7– Underground Systems.
- .4 COSH: Canada Occupational Health and Safety Regulations made under Part II of the Canada Labour Code.
- .5 All standards mentioned above shall be of latest edition.

## 1.4 DEFINITIONS

- .1 Electrical Facility: means any system, equipment, device, apparatus, wiring, conductor, assembly or part thereof that is used for the generation, transformation, transmission, distribution, storage, control, measurement or utilization of electrical energy, and that has an amperage and voltage that is dangerous to persons.
- .2 Guarantee of Isolation: means a guarantee by a competent person in control or in charge that a particular facility or equipment has been isolated.
- .3 De-energize: in the electrical sense, that a piece of equipment is isolated and grounded, e.g. if the equipment is not grounded, it cannot be considered de-energized (DEAD).
- .4 Guarded: means that an equipment or facility is covered, shielded, fenced, enclosed, inaccessible by location, or otherwise protected in a manner that, to the extent that is reasonably practicable, will prevent or reduce danger to any person who might touch or go near such item.
- .5 Isolate: means that an electrical facility, mechanical equipment or machinery is separated or disconnected from every source of electrical, mechanical, hydraulic, pneumatic or other kind of energy that is capable of making it dangerous.
- .6 Live/alive: means that an electrical facility produces, contains, stores or is electrically connected to a source of alternating or direct current of an amperage and voltage that is dangerous or contains any hydraulic, pneumatic or other kind of energy that is capable of making the facility dangerous to persons.

---

## 1.5 COMPLIANCE REQUIREMENTS

- .1 Comply with the following in regards to isolation and lockout of electrical facilities and equipment:
  - .1 Canadian Electrical Code;
  - .2 Federal and Provincial Occupational Health and Safety Acts and Regulations;
  - .3 Regulations and code of practice as applicable to mechanical equipment or other; machinery being de-energized;
  - .4 Procedures specified herein.

## 1.6 SUBMITTALS

- .1 Submit a copy of proposed lockout procedures and sample of lockout permit or lockout tags to Departmental Representative for review, within 14 calendar days after contract award.

## 1.7 ISOLATION OF EXISTING SERVICES

- .1 Obtain Departmental Representative's written authorization prior to working on existing live or active electrical facilities and equipment and before proceeding with isolation of such item.
- .2 To obtain authorization, submit to Departmental Representative the following documentation:
  - .1 Written request to isolate the particular service or facility and;
  - .2 Copy of Contractor's Lockout Procedures.
- .3 Make a Request for Isolation for each event, unless directed otherwise by Departmental Representative, as follows:
  - .1 Make written request indicating:
    - .1 The equipment, system or service to be isolated and its location;
    - .2 Duration of isolation period (i.e.: start time and date and completion time and date);
    - .3 Voltage of service feed to system or equipment being isolated;
    - .4 Name of person making the request.
- .4 Do not proceed with isolation until receipt of written notification from Departmental Representative granting the Isolation Request and authorizing to proceed with the work.
- .5 Conduct safe, orderly shutdown of equipment or facility. De-energize, isolate and lockout power and other sources of energy feeding the equipment or facility.

- 
- .6 Determine in advance, as much as possible, in cooperation with the Departmental Representative, the type and frequency of situations which will require isolation of existing services.
  - .7 Plan and schedule shut down of existing services in consultation with the Departmental Representative. Minimize impact and downtime of Facility operations. Follow Departmental Representative's directives in this regard.
  - .8 Conduct hazard assessment as part of the process in accordance with health and safety requirements specified Section 01 35 29.

## 1.8 LOCKOUTS

- .1 De-energize, isolate and lockout electrical facility, mechanical equipment and machinery from all potential sources of energy prior to working on such items.
- .2 Develop and implement clear and specific lockout procedures to be followed as part of the Work.
- .3 Prepare typed written Lockout Procedures describing safe work practices, procedures, worker responsibilities and sequence of activities to be followed on site by work force to safely isolate an active piece of equipment or electrical facility and effectively lockout and tagout it's sources of energy.
- .4 Include as part of the Lockout Procedures a system of lockout permits managed by Contractor's Superintendent or other qualified person designated by him/her as being "in-charge" at the site.
  - .1 A lockout permit shall be issued to specific worker providing a Guarantee of Isolation before each event when work must be performed on a live equipment or electrical facility.
  - .2 Duties of person managing the permit system to include:
    - .1 Issuance of permits and lockout tags to workers
    - .2 Determining permit duration
    - .3 Maintaining record of permits and tags issued
    - .4 Making a Request for Isolation to Departmental Representative when required as specified above
    - .5 Designating a Safety Watcher, when one is required based on type of work.
    - .6 Ensuring equipment of facility has been properly isolated
    - .7 Collecting and safekeeping lockout tags returned by workers as a record of the event
- .5 Clearly establish, describe and allocate responsibilities of:
  - .1 Workers
  - .2 Person managing the lockout permit system
  - .3 Safety Watcher

- 
- .4 Subcontractor (s) and General Contractor
  - .6 Generic procedures, if used, must be edited and supplemented with pertinent information to reflect specific project requirements.
    - .1 Clearly label the document as being the Lockout procedures applicable to work of this contract.
  - .7 Use energy isolation lockout devices specifically designed and appropriate for type of facility or equipment being locked out.
  - .8 Use industry standard lockout tags.
  - .9 Provide appropriate safety grounding and guards as required.

#### **1.9 CONFORMANCE**

- .1 Brief all workers and subcontractors on requirements of this section. Stringently enforce use and compliance.
- .2 Failure to follow lockouts procedures specified herein may result in the issuance of a Non-Compliance notification as specified in section 01 35 29.

#### **1.10 DOCUMENTS ON SITE**

- .1 Post Lockout Procedures on site in common location for viewing by workers.
- .2 Keep copies of Request for Isolation forms and lockout permits and tags issued to workers on site for full duration of Work.
- .3 Upon request, make these available to Departmental Representative or to authorized safety Representative for inspection.

**END OF SECTION**

---

## 1.1 RELATED SECTIONS

- .1 Section 01 35 24 - Special Procedures on Fire Safety Requirements.
- .2 Section 01 35 25 - Special Procedures on Lockout Requirements.
- .3 Section 01 33 00 - Submittal Procedures
- .4 Section 01 74 21 - Construction/Demolition Waste Management & Disposal
- .5 Section 03 30 00 - Cast-in-Place Concrete
- .6 Section 05 31 00 - Steel Decking
- .7 Section 31 62 19 - Timber Piles

## 1.2 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.
  - .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 and 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 Occupational Occupational Health and Safety Act for Province of Prince Edward Island, and 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 as well as any other regulations made pursuant to the Act.
  - .1 The Canada Labour Code can be viewed at: [www.http://laws-lois.justice.gc.ca/eng/acts/L-2/fulltext.html](http://laws-lois.justice.gc.ca/eng/acts/L-2/fulltext.html).
  - .2 Canadian Occupational Health and Safety Regulations can be viewed at: <http://laws-lois.justice.gc.ca/eng/regulations/SOR-86-304/index.html>.
  - .3 A copy may be obtained at: Canadian Government Publishing Public Works & Government Services Canada Ottawa, Ontario, K1A 0S9 Tel: 819-956-4800 or 1-800-635-7943 Publication No. L31-85/2000 (E or F).
- .3 Treasury Board of Canada Secretariat (TBS):
  - .1 Treasury Board, Fire Protection Standard April 1, 2010 [www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=17316&section=text](http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=17316&section=text)
- .4 Canadian Standards Association (CSA):
  - .1 CSA S350 (Latest Edition), Code of Practice for Safety in Demolition of Structures.
- .5 Observe construction safety measures of:
  - .1 NBC 2010, Division B, Part 8.
  - .2 Municipal By-laws and Ordinances.
- .6 In case of conflict or discrepancy between above specified requirements, the more stringent shall apply.

- 
- .7 Maintain Workers Compensation Coverage in good standing for duration of Contract. Provide proof of clearance through submission of Letter in Good Standing.
  - .8 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 on site 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, stop non-authorized entry, and to protect pedestrians and vehicular traffic around and adjacent to the Work and create a safe environment. See Section 01 50 00 for minimum acceptable requirements.
  - .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 two 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. [Provide security guard where adequate protection cannot be achieved by other means].

## **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 Department Representative will assist in locating address, if needed.

## **1.9 PERMITS**

- .1 Post permits, licenses and compliance certificates, specified in section 01 10 10, 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 which must be properly managed if encountered during course of work.
  - .1 There are known Existing hazards and controlled products stored or used by Facility personnel.
  - .2 Existing hazardous substances or contaminated building materials.
  - .3 Safety hazards due to existing site conditions and conduct of work are:
    - .1 overhead electrical wires
    - .2 tidal waters
    - .3 winter work, freezing conditions (ice, wind and water)
    - .4 summer work, hot conditions (sun, heat)
    - .5 unpredictable marine weather and wave conditions
    - .6 sharp or protruding objects
    - .7 heavy vehicle movement
    - .8 loading and unloading materials
    - .9 moving and working with large and heavy materials
    - .10 creosote timber and removed wharf materials

- 
- .11 working over, near or on the water
  - .12 falling in the water
  - .13 uneven and jagged travelling and working surfaces
  - .14 slippery surface conditions
  - .15 slipping and falling
  - .16 falling materials
  - .17 unknown load carrying ability of structure and access to site
  - .18 structure not posted for loads
  - .19 structure partially barricaded
  - .20 Harbour users and recreational boaters activities and traffic
  - .21 pedestrians, vehicles and Harbour operation traffic
- .2 Above items shall not be construed as being complete and inclusive of potential health and safety hazards encountered during Work.
  - .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 Department Representative. Ensure attendance of:
  - .1 Superintendent of Work
  - .2 Designed 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 firefighting equipment and other related data.
    - .3 Name, duties and responsibilities of persons designated as Emergency Warden(s) and deputies.
    - .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.
    - .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 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 occupational 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 \$5,000.00.
- .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 without prior receipt of written permission and instructions from Departmental Representative.

### **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.

#### **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**

ENVIRONMENTAL PROTECTION  
PROCEDURES FOR MARINE WORK

---

## 1.1 RELATED WORK

- .1 Waste Management and Disposal: Section 01 74 21.

## 1.2 REFERENCES

- .1 WHMS: Workplace Hazardous Materials Information System, Health Canada.
- .2 Transportation of Dangerous Goods Act. Transport Canada, updated 2008-02-21.
- .3 Guidelines for the Use of Explosives In or Near Canadian Fisheries Waters, Department of Fisheries and Oceans Canada, 1998.
- .4 MBCA: Migratory Birds Convention Act, Environment Canada, 1994.
- .5 Canadian Coast Guard Regulations, Department of Fisheries and Oceans Canada.
- .6 Canadian Shipping Act, Transport Canada, 2001.
- .7 AWWPA: American Wood Preserver Association
- .8 Contractor will be required to acquire PEI water course wetland and buffer zone activity permit.

## 1.3 DEFINITIONS

- .1 Hazardous Material: Product, substance, or organism that is used for its original purpose; and that is either dangerous goods or a material that may cause adverse impact to the environment or adversely affect health of persons, animals, or plant life when released into the environment.
- .2 Wetlands: land where the water table is at, near or above the surface or which is saturated for a long enough period to promote such features as wet-altered soils and water tolerant vegetation. Wetlands include organic wetlands or "peat lands," and mineral wetlands or mineral soil areas that are influenced by excess water but produce little or no peat.
- .3 Watercourses: refers to the bed and shore of a river, stream, lake, creek, pond, marsh, estuary or salt-water body that contains water for at least part of each year.
- .4 Alien species: refers to a species or subspecies introduced outside its normal distribution whose establishment and spread threaten ecosystems, habitats or species with economic or environmental harm.
- .5 Buffer zone: a vegetated land that protects watercourses from adjacent land uses. It refers to the land adjacent to watercourses, such as streams, rivers, lakes, ponds, oceans, and wetlands, including the floodplain and the transitional lands between the watercourse and the drier upland areas.

## 1.4 TRANSPORTATION

- .1 Transport hazardous materials and hazardous waste in compliance with Federal Transportation of Dangerous Goods Act.

ENVIRONMENTAL PROTECTION  
PROCEDURES FOR MARINE WORK

---

- .2 Do not overload trucks when hauling material. Secure contents against spillage.
- .3 Maintain trucks clean and free of mud, dirt and other foreign matter.
- .4 Avoid potential release of contents and of any foreign matter onto highways, roads and access routes used for the Work. Take extra care when hauling [dredged] material and other hazardous materials. Immediately clean any spillage and soils.
- .5 Before commencement of work, advise the Departmental Representative of the existing roads and temporary routes proposed to be used to access work areas and to haul material to and from the site.

### **1.5 DISPOSAL OF EXCAVATED MATERIAL**

- .1 Obtain applicable permit from the Department of the Environment for the Province of Prince Edward Island and stringently follow all directives and procedures stipulated in permit for transportation and disposal of excavated material to approved disposal site.
- .2 Any material excavated shall be stock piled on site in a contained area to be tested by the departmental representative before it can be permitted to leave the site for disposal.

### **1.6 HAZARDOUS MATERIAL HANDLING**

- .1 Handle and store hazardous materials on site in accordance with WHMIS procedures and requirements.
- .2 Store all hazardous liquids in location and manner to prevent their spillage into the environment.
- .3 Maintain written inventory of all hazardous materials kept on site. List product name, quantity and storage date.
- .4 Keep MSDS data sheets on site for all items.

### **1.7 PETROLEUM, OIL AND LUBRICANTS**

- .1 Comply with Federal and Provincial laws, regulations, codes and guidelines for the storage of fuel and petroleum products on site.
- .2 Do not place fuel storage tanks and store fuel or other petroleum products within a 30 meter buffer zone of watercourses and wetlands. Do not fuel or lubricate equipment within this 30 meter buffer zone. Obtain approval from Departmental Representative of acceptable location on site for fuel storage and equipment service.
- .3 Do not dump petroleum products or any other deleterious substances on ground or in the water.
- .4 Be diligent and take all necessary precautions to avoid spills and contaminate the soil and water (both surface and subsurface) when handling petroleum products on site and during fuelling and servicing of vehicles and equipment.
- .5 Maintain on site appropriate emergency spill response equipment consisting of at least one 250-litre (55 gallon) over pack spill kit for containment and cleanup of spills.

ENVIRONMENTAL PROTECTION  
PROCEDURES FOR MARINE WORK

---

- .6 Maintain vehicles and equipment in good working order to prevent leaks on site.
- .7 In the event of a petroleum spill, immediately notify the Departmental Representative and the Canadian Coast Guard (CCG) at 1-800-565-1633 (24 hour report line). Perform clean-up in accordance with all regulations and procedures stipulated by authority having jurisdiction.

## 1.8 DISPOSAL OF WASTES

- .1 Do not bury rubbish, demolition debris and waste materials on site.
- .2 Dispose and recycle demolition debris and waste materials in accordance with project waste management requirements specified in section 01 74 21.
- .3 Do not dispose of hazardous waste, volatile materials (such as mineral spirits, paints, thinners etc...) and petroleum products into waterways, storm or sanitary sewers or in waste landfill sites.
- .4 Dispose of hazardous waste in accordance with applicable federal and provincial laws, regulations, codes and guidelines.
- .5 Concrete waste:
  - .1 Do not discharge residual or rejected concrete on site.
  - .2 Immediately clean any accidental release of concrete on site prior to solidification.
  - .3 Do not wash and clean concrete vehicles on site.
  - .4 Perform dumping of residual material and truck cleaning operations only at the concrete plant. Follow environmental regulations and good practices as approved by the Provincial Department of the Environment and other authorities having jurisdiction.

## 1.9 WATER QUALITY

- .1 Conduct excavation work of a watercourse or wetland in such a manner to limit turbidity and reduce sediment suspension in the water to an absolute minimum at all times.
  - .1 Maintain appropriate production speed and momentum of the dredging or excavation equipment. Make adjustments as required and as approved by Departmental Representative.
  - .2 Strategically position excavating equipment and barge or haul vehicles to avoid over the water swings of excavated material whenever possible.
  - .3 Any excavation in waters must be done behind the silt curtains.
- .2 Where work may affect the water quality adjacent to water intake lines used by Lobster Holding Facilities, Fish Processing Facilities and other harbour users, schedule work in cooperation with the Harbour Authority as directed by Departmental Representative to minimize interference and impact to harbour users.
- .3 Visually monitor the water turbidity of the surrounding areas adjacent to the work.

ENVIRONMENTAL PROTECTION  
PROCEDURES FOR MARINE WORK

---

- .1 Should excessive change occur in the turbidity beyond the excavation limit which differs from existing conditions of the surrounding water bodies, such as a distinct colour difference; notify the Departmental Representative to obtain appropriate mitigation measures to be followed.
- .4 Water contamination by preservative treated wood:
  - .1 Preservative treated lumber and timber, whether plant or site treated, shall be cured for a minimum of 30 days from date of the treatment application before their installation in areas which will be in contact with the water.
  - .2 Do not cut treated wood lumber over the surface of a watercourse or wetland.
  - .3 Do not use liquid applied preservative products over the surface of a watercourse or wetland.
  - .4 Wood treated with Chromate Copper Arsenate (CCA) or Ammoniac Copper Zinc Arsenate (ACZA) must be CSA or AWWA approved.
  - .5 Do not use timber and lumber treated with creosote, petroleum and pentachlorophenol for any part of the Work.

#### **1.10 SOCIOECONOMIC RESTRICTIONS**

- .1 Abide by municipal and provincial regulations for any restrictions on work performed during the night time and on flood lighting of the site. Obtain applicable permits.
- .2 Place flood lights in opposite direction of adjacent residential and business areas.
- .3 Equip equipment and machinery with purposely designed mufflers to reduce noise on site to lowest possible level. Maintain mufflers in good operating condition at all times.

#### **1.11 BIRD AND BIRD HABITAT**

- .1 Become knowledgeable with abide by the Migratory Birds Convention Act (MBCA) in regards to the protection of migratory birds, their eggs, nests and their young encountered on site and in the vicinity.
- .2 Minimize disturbance to all birds on site and adjacent areas during the entire course of the Work.
- .3 Do not approach concentrations of seabirds, waterfowl and shorebirds when anchoring equipment, accessing wharves or ferrying supplies.
- .4 During night time work, position flood lights in opposite direction of nearby bird nesting habitat.
- .5 Do not use beaches, dunes and other natural previously undisturbed areas of the site to conduct work unless specifically approved by the Departmental Representative.
- .6 Should nests of migratory birds in wetlands be encountered during work, immediately notify Departmental Representative for directives to be followed.
  - .1 Do not disturb nest site and neighboring vegetation until nesting is completed.

ENVIRONMENTAL PROTECTION  
PROCEDURES FOR MARINE WORK

---

- .2 Minimize work immediately adjacent to such areas until nesting is completed.
- .3 Protect these areas by following recommendations of Canadian Wildlife Service.

### 1.12 FISH AND FISH HABITAT

- .1 Be aware of the risk for contamination of the fish habitat at the site as a result of alien species being introduced in the water.
- .2 To minimize the possibility of fish habitat contamination, all construction equipment which will be immersed into the water of a watercourse, or has the possibility of coming into contact with such water during the course of the work, must be cleaned and washed to ensure that they are free of marine growth and alien species.
  - .1 Equipment shall include boats, barges, cranes, excavators, haul trucks, pumps, pipe lines and other all miscellaneous tools and equipment previously used in a marine environment. Any equipment that has been in marine environment shall be cleaned off any sediments, plants or animal and pressure washed with fresh water and/or sprayed with undiluted vinegar prior to being mobilized to the project site.
- .3 Conduct cleaning and washing operations as follows:
  - .1 Scrap and remove heavy accumulation of mud and dispose appropriately.
  - .2 Wash all surfaces of equipment by use of a pressurized fresh water supply.
  - .3 Immediately follow with application of a heavy sprayed coating of undiluted vinegar or other environmentally approved cleaning agent to thoroughly remove all plant matter, animals and sediments.
  - .4 Check and remove all plant, animal and sediment matter from the all bilges and filters.
  - .5 Drain standing water from equipment and let fully dry before use.
  - .6 Upon removal from the water, drain standing water from equipment and let fully dry before removal off the site.
- .4 Do not perform cleaning and wash down within a 30 meter buffer zone of a wetland, watercourse or other identified environmentally sensitive area.
- .5 Record of Assurance Logbook:
  - .1 Maintain an on-going log of past and present usage and wash downs of all equipment to illustrate mitigation measures undertaken against fish habitat contamination by alien species.
  - .2 Write data in a hard cover bound logbook.
  - .3 Include the following:
    - .1 Date and location where equipment was previously used in a watercourse or wetland;
    - .2 Type of work performed.
    - .3 Dates of wash down for each piece of equipment;

ENVIRONMENTAL PROTECTION  
PROCEDURES FOR MARINE WORK

---

- .4 Cleaning method and cleaning agent(s) used.
- .4 Keep Record of Assurance Logbook updated from project to project. Upon request, submit logbook to Departmental Representative for review.
- .5 Abide by requirements and recommendations of the Federal Department of Environment and the Department of Fisheries and Oceans - Habitat Protection and Sustainable Development Branch in cleaning and wash down of equipment.

**1.13 AIR QUALITY**

- .1 Keep airborne dust and dirt resulting from the work on site to an absolute minimum.
- .2 Apply dust control measures to roads, parking lots and work areas.
- .3 Spray surfaces with water or other environmentally approved product. Use purposely suited equipment or machinery and apply in sufficient quantity and frequency to provide effective result and continued dust control during the entire course of the work.
- .4 Do not use oil or any other petroleum products for dust control.

**1.14 FIRES**

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

**END OF SECTION**

## TESTING AND QUALITY CONTROL

---

### 1.1 RELATED SECTIONS

- .1 Section 03 20 20- Concrete Reinforcing
- .2 Section 03 10 10 – Cast-in-Place Concrete
- .3 Section 31 23 10- Excavating, Trenching and Backfilling

### 1.2 INSPECTION

- .1 Give timely notice requesting inspection if Work is designated for special tests, inspections or approvals by Departmental Representative or by inspection authorities having jurisdiction.
- .2 If contractor covers or permits to be covered Work that has been designated for special tests, inspections or approvals before such is made, uncover such Work, have inspections tests satisfactorily completed and make good such Work.
- .3 Departmental Representative will order part of Work to be examined if Work is suspected to be not in accordance with Contract Documents, correct such Work and pay cost of examination and correction.
- .4 Pay costs to uncover and make good work disturbed by inspections and tests.

### 1.3 TESTING

- .1 Tests on materials as specified in various sections of the Specifications is the responsibility of the Departmental Representative except where stipulated otherwise.
- .2 Unspecified tests may also be made by Departmental Representative, at the discretion of the Departmental Representative. The costs of these tests will be paid for by the Department.
- .3 Where tests or inspections reveal work not in accordance with contract requirements, Contractor shall pay costs for additional tests and inspections incurred by Departmental Representative as required to verify acceptability of corrected work.
- .4 Pay costs to uncover and make good work disturbed by inspections of tests.

### 1.4 INDEPENDENT INSPECTION AGENCIES

- .1 Independent Inspection/Testing Agencies may 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 except for the following which remains part of contractor's responsibilities.
- .2 Provide equipment required for executing inspection and testing by appointed agencies.

## TESTING AND QUALITY CONTROL

---

- .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 re inspection.

### **1.5 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.
- .3 Furnish labour and facility to provide access to the work being inspected and tested.

### **1.6 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.

**END OF SECTION**

## TEMPORARY FACILITIES

---

### **1.1 SITE ACCESS AND PARKING**

- .1 Parking facilities at site are limited and cannot be used by Contractor. Make arrangements with Harbour Authority elsewhere for Contractor's vehicles, including those of subcontractors and workers.
- .2 Provide snow removal and dust control during period of work for all roads and paved areas.
- .3 Maintain roads and parking areas at site, where used by Contractor, for duration of contract.
  - .1 Keep clean and free of mud and dirt by washing on a regular basis.
  - .2 Make good and repair damage resulting from Contractor's use of roads, asphalted areas and lawns on site.

### **1.2 CONTRACTOR'S SITE OFFICE**

- .1 Be responsible for and provide own site office, if required, including electricity, heat, lights and telephone. Locate site office as advised by Departmental Representative.
- .2 Provide all required facilities and shelter by legislation or code for use of workers and Departmental Representative and/or their identified field staff.

### **1.3 MATERIAL STORAGE**

- .1 Locate site storage trailers in location of least interference with existing Facility operations.
- .2 Material storage space on site is limited and cannot be used by the Contractor.

### **1.4 SANITARY FACILITIES**

- .1 Provide sanitary facilities for work force and Departmental Representative and/or their identified field staff in accordance with governing regulations and ordinances.
- .2 Post notices and take such precautions as required by local health authorities. Keep area and premises in sanitary condition.

### **1.5 POWER**

- .1 Arrange, pay for and maintain temporary electrical power supply in accordance with governing regulations and ordinances.
- .2 Supply and install all temporary facilities for power such as pole lines, meter socket, underground cables, etc., as required and to approval of local power supply authority.
- .3 Power is available at the site and is the property of the Harbour Authority. Use of the power must be arranged prior to use from the HA.

## TEMPORARY FACILITIES

---

### **1.6 WATER SUPPLY**

- .1 Arrange, pay for and maintain temporary water supply in accordance with governing regulations and ordinances.

### **1.7 CONSTRUCTION SIGN AND NOTICES**

- .1 Upon request by Departmental Representative, erect a self-supporting project sign in location indicated.
- .2 Departmental Representative will provide a vinyl sign facing for installation by Contractor on sign framework. Sign frame to be plywood face of approximately 1,200 x 2,400 mm in size complete with required wood framing at 400 mm o.c. and support posts.
- .3 Install sign plumb and level in neat wood framework and securely anchor in ground by posts to withstand wind pressure of 160 km/h.
- .4 Contractor or subcontractor advertisement signboards are not permitted on site.
- .5 Safety and Instruction Signs and Notices:
  - .1 Signs and notices for safety and instruction shall be in both official languages, or commonly understood graphic symbols conforming to CAN3-Z321 (Latest Edition).
- .6 Maintenance and Disposal of Site Signs:
  - .1 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.

### **1.8 REMOVAL OF TEMPORARY FACILITIES**

- .1 Remove temporary facilities from site when Work is complete.

**END OF SECTION**

CLEANING

---

**1.1 RELATED SECTIONS**

- .1 Section 01 77 00 - Closeout Procedures

**1.2 GENERAL**

- .1 Conduct cleaning and disposal operations to comply with local ordinances and anti-pollution laws.
- .2 Store volatile waste in covered metal containers, and remove from premises at end of each working day.

**1.3 PROJECT CLEANLINESS**

- .1 Maintain Work in tidy condition, free from accumulation of waste products and debris, including that caused by users or other Contractors. Clean areas on a daily basis.
- .2 Provide on-site containers for collection of waste materials and debris.
- .3 Provide and use marked separate bins for recycling. Refer to Section 01 74 21 - Construction/Demolition Waste Management and Disposal.
- .4 Dispose of waste materials and debris on a daily basis.

**1.4 FINAL CLEANING**

- .1 When Work is Substantially Performed remove surplus products, tools, construction machinery and equipment not required for performance of remaining Work.
- .2 Broom clean and wash exterior paved surfaces and walks: rake clean other surfaces of grounds.

**END OF SECTION**

---

## 1.1 GENERAL

- .1 Carry out work placing maximum emphasis on the areas of:
  - .1 Waste Reduction
  - .2 Division of waste from landfill and;
  - .3 Material recycling.

## 1.2 RELATED SECTIONS

- .1 Section 01 35 44 - Environmental Protection Procedures for Marine Work
- .2 Section 01 10 10 - General Instructions
- .3 Section 03 30 00 - Cast-in-Place concrete

## 1.3 MEASUREMENT PROCEDURES

- .1 Removal of construction material/excavation.
  - .1 All non-creosote, non-treated and non-fill (type) construction material, including reinforced concrete, armour stone, ballast, steel, untreated timber etc. that needs to be removed from the work (to either facilitate the work or to ensure the structural integrity of the work) and as agreed upon with Departmental Representative shall be disposed off-site.
  - .2 All creosote and treated timber construction material including piles that need to be removed from the work (to facilitate the work or ensure the structural integrity of the work as agreed upon with the Departmental Representative.
  - .3 All excavated material shall be disposed off-site.
- .2 Removal of construction material existing and excavated, etc. shall be disposed off-site in accordance with all applicable environmental legislation or other requirements. This item shall be considered incidental to the project and not paid separately.
- .3 Measurement for Payment
  - .1 Costs associated with Section, unless indicated otherwise, will be considered incidental to the Work.
  - .2 The removal and reinstatement of the items will be measured for payment on a Lump Sum and included in this Section.
  - .3 Other demolition and disposal will be paid as Lump Sum.

## 1.4 WASTE MANAGEMENT PLAN

- .1 Prior to commencement of work, prepare waste management work plan.
- .2 Work plan to include:
  - .1 Waste reduction practices.
  - .2 Material source separation process.
  - .3 Procedures for sending recyclables to recycling facilities.

- 
- .4 Procedures for sending non-salvageable items and waste to approved waste processing facility or landfill site.
  - .5 Training and supervising workforce on waste management at site.
  - .3 Work plan to incorporate waste management requirements specified herein and in other sections of the Specifications.
  - .4 Develop work plan in collaboration with all subcontractors to ensure all waste management issues and opportunities are addressed.
  - .5 Submit copy of work plan to Departmental Representative for review.
    - .1 Make revisions to plan as directed by Departmental Representative.
  - .6 Implement and manage all aspects of Waste Management Work plan for duration of work.
  - .7 Revise plan as work progresses addressing new opportunities for diversion of waste from landfill.

## **1.5 WASTE REDUCTION**

- .1 Develop waste reduction program.
- .2 Structure program to prioritize actions, with waste reduction as first priority, followed by salvage and recycling effort, then disposal as solid waste.
- .3 Identify materials and equipment to be:
  - .1 Salvaged for resale by Contractor.
  - .2 Sent to recycling facility.
  - .3 Sent to waste processing/landfill site for their recycling effort
  - .4 Disposed of in approval landfill site.
- .4 Reduce construction waste during installation work. Undertake practices which will minimize waste and optimize full use of new materials on site, such as:
  - .1 Use of a central cutting area to allow for easy access to off-cuts;
  - .2 Use of off-cuts for blocking and bridging elsewhere.
  - .3 Use of effective and strategically placed facilities on site for storage and staging of left-over or partially cut materials (such as plywood, dimension timber, etc.) to allow for easy incorporation into work whenever possible avoiding unnecessary waste.
- .5 Develop other strategies and innovative procedures to reduce waste.

## **1.6 MATERIAL SOURCE SEPARATION PROCESS**

- .1 Develop and implement material source separation process at commencement of work as part of mobilization and waste management at site.
- .2 Provide on-site facilities to collect, handle and store anticipated quantities of reusable, salvageable and recyclable materials.
- .3 Use suitable containers for individual collection of items based on intended purpose.

- 
- .4 Locate to facilitate deposit but without hindering daily operations.
  - .5 Establish methods whereby hazardous and toxic waste materials, and their containers, encountered or used in the course work are properly isolated, stored on site and disposed in accordance with applicable laws and regulations from authorities having jurisdiction.

### **1.7 WORKER TRAINING AND SUPERVISION**

- .1 Provide adequate training to workforce, through meetings and demonstrations, to emphasize purpose and worker responsibilities in carrying out Waste Management Plan.
- .2 Waste Management Coordinator: designate full-time person on site, experienced in waste management and having knowledge of the purpose and content of Waste Management Plan to:
  - .1 Oversee and supervise waste management during work.
  - .2 Provide instructions and directions to all workers and subcontractors on waste reduction, source separation and disposal practices.
  - .3 Post a copy of plan in a prominent location on site for review by workers.

### **1.8 DISPOSAL REQUIREMENTS**

- .1 Dispose of waste only at approved waste processing facility or landfill sites approved.
- .2 Contact the authority having jurisdiction prior to commencement of work, to determine what, if any construction waste materials have been banned from disposal in landfills. Take appropriate action to isolate such banned materials at site of work and dispose in strict accordance with provincial and municipal regulations.
- .3 Collect, bundle and transport salvaged materials to be recycled in separated categories and condition as directed by recycling facility. Ship materials only to approved recycling facilities.
- .4 Sale of salvaged items by Contractor to other parties not permitted on site.

**END OF SECTION**

---

**1.1 SECTION INCLUDES**

- .1 Administrative procedures preceding inspection and acceptance of work by Departmental Representative.

**1.2 RELATED SECTIONS**

- .1 Section 01 78 00 – Closeout Submittals

**1.3 INSPECTION AND DECLARATION**

- .1 Notify Departmental Representative in writing of satisfactory completion of Contractor's Inspection and that corrections have been made.
- .2 Request Departmental Representative Inspection.
- .3 Departmental Representative Inspection: Departmental Representative and Contractor will perform inspection of Work to identify obvious defects or deficiencies. Contractor to correct Work accordingly.
- .4 Completion: submit written certificate that following have been performed:
  - .1 Work has been completed and inspected for compliance with Contract Documents.
  - .2 Defects have been corrected and deficiencies have been completed.
  - .3 Equipment and systems have been tested and are fully operational.
  - .4 Operation of systems have been demonstrated to Departmental representative and Owner's personnel.
  - .5 Work is complete and ready for final inspection.
  - .6 Final Inspection: when items noted above are completed, request final inspection of Work by Departmental Representative, and Contractor. If Work is deemed incomplete by Departmental Representative, complete outstanding items and request re-inspection.

**END OF SECTION**

---

## 1.1 SECTION INCLUDES

- .1 Project record documents.

## 1.2 PROJECT RECORD DOCUMENTS

- .1 Departmental Representative will provide 2 white print sets of contract drawings and 2 copies of Specifications Manual specifically for “as-built” site conditions.
- .2 Maintain at site on set of the Contract Drawings and Specifications to record actual as-built site conditions.
- .3 Maintain up-to-date, real time as-built drawings and specifications in good condition and make available for inspection by the Departmental Representative upon request.
- .4 As-Built Drawings:
  - .1 Record changes in red ink on the prints. Mark only on one set of prints and at completion of work, neatly transfer notations to second set (also by use of red ink).
  - .2 Submit both sets to Departmental Representative prior to application for Certificate of Substantial Completion.
  - .3 Stamp all drawings with “As-Built Drawings”. Label and place Contractor’s signature and date.
  - .4 Show all modifications, substitutions and deviations from what is shown on the contract drawings or in specifications.
  - .5 Record following information:
    - .1 Depths of various elements in relation to survey datum.
    - .2 Horizontal and vertical location of various elements in relation to LNT (Datum);
    - .3 Field changes of dimension and detail;
    - .4 Location of all capped or terminated services and utilities.
    - .5 All design elevations, sections and details dimensioned and marked-up to consistently report finished installation conditions;
    - .6 Any details produced in the course of the contract by the Departmental Representative to supplement or to change existing design drawings;
    - .7 All change orders issued over the course of the contract must be documented on the finished as-built documents, accurately and consistently depicting the changed condition as it applies to all affected drawing details.
- .5 As-built Specifications: legibly mark in red each item to record actual construction, including;
  - .1 manufacturer, trade name, and catalogue number of each product actually installed, particularly items substituted from that specified.
  - .2 Changes made by Addenda and Change Orders.

- 
- .3 mark up both copies of specifications; stamp “as-built”, sign and date similarly to drawings as per above clause.
- .6 Maintain As-built documents current as the contract progresses. Departmental Representative will conduct reviews and inspections of the documents on a regular basis. Failure to maintain as-builts current and complete to satisfaction of the Departmental Representative shall be subject to financial penalties in the form of progress payment reductions and holdback assessments.

**END OF SECTION**