

**FISHERIES AND OCEANS CANADA  
REAL PROPERTY, SAFETY, AND SECURITY**

**STRUCTURAL UPGRADES TO SALMON ELEVATOR  
AT RED INDIAN LAKE FISHWAY  
MILLERTOWN, NL**

**Project. Number: F6879-151011**

**SPECIFICATIONS**

**ISSUED FOR TENDER**

**October 14, 2015**

<b>PROVINCE OF NEWFOUNDLAND AND LABRADOR</b>	
 Newfoundland and Labrador <small>PROFESSIONAL ENGINEERS AND GEOSCIENTISTS</small>	<b>PERMIT HOLDER</b> <b>This Permit Allows</b>
<b>68925 NL CORPORATION O/A DMG CONSULTING LIMITED</b>	
<hr/>	
To practice Professional Engineering in Newfoundland and Labrador. Permit No. as issued by PEGNL <u>  N0588  </u> which is valid for the year <u>  2015  </u>	



---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Index

Page 1 of 1

---

Cover Page  
Index  
List of Drawings

**DIVISION 1 - GENERAL REQUIREMENTS**

Section #01 11 00 - Summary of Work  
Section #01 14 00 - Work Restrictions  
Section #01 31 00 - Project Management and Coordination  
Section #01 32 00 - Construction Progress Documentation  
Section #01 33 00 - Submittal Procedures  
Section #01 35 29.06 - Health and Safety Requirements  
Section #01 35 43 - Environmental Procedures  
Section #01 41 00 - Regulatory Requirements  
Section #01 45 00 - Quality Control  
Section #01 51 00 - Temporary Utilities  
Section #01 52 00 - Construction Facilities  
Section #01 56 00 - Temporary Barriers and Enclosures  
Section #01 61 00 - Common Product Requirements  
Section #01 73 00 - Execution  
Section #01 74 11 - Cleaning  
Section #01 78 00 - Closeout Submittals

**DIVISION 2 - EXISTING CONDITIONS**

Section #02 41 16 - Structure Demolition

**DIVISION 9 - FINISHES**

Section #09 91 13 - Exterior Painting

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011  
List of Drawings**

---

Issued October, 2015

Page 1 of 1

(All drawings, Issued for Tender, Rev.2, October 14, 2015)

- C-1.01 Site Plan
- S-1.01 Existing As-Built
- S-1.02 Existing As-Built
- S-2.01 Fishway Modifications
- S-2.02 Structure Repairs
- S-2.03 Structure Repairs
- S-3.01 Repair Requirement Photos
- S-3.02 New Structural Plan
- S-3.03 Proposed Fishway Counter Chute

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 11 00 – Summary of Works

Page 1 of 3

---

**PART 1      GENERAL**

**1.1            SECTION INCLUDES**

- .1      Title and description of Work.
- .2      Contractor use of premises.
- .3      Owner occupancy.

**1.2            WORK COVERED BY CONTRACT DOCUMENTS**

- .1      The work consists of the furnishing of all plant, labour, equipment and material for **STRUCTURAL UPGRADES TO SALMON ELEVATOR, RED INDIAN LAKE FISHWAY, MILLERTOWN, NL**, in strict accordance with specifications and accompanying drawings and subject to all terms and conditions of the Contract.
- .2      The following work is covered by the contract documents, as specified herein and/or indicated on the drawings. The repair work is detailed and specified on the drawings and the photographs included on the drawings. The scope of work includes but is not limited to:
  - 1.      Tighten all loose anchor and structural bolts.
  - 2.      Touch up painting to structure and anchors.
  - 3.      New fall protection ladder cage for fixed ladder, as per ANSI-ASC A14.3 standard.
  - 4.      Repair monorail beam.
  - 5.      Repair cut flanges on upper beam.
  - 6.      Repair and connect platform grating to structure.
  - 7.      Repair railings on upper platform.
  - 8.      Replace burst lower platform railings.
  - 9.      Supply and install one (1) STAHL Model SH-401220410L2K22A 5000 KG capacity wire rope hoist complete with two (2) radio controllers and wired controller backup, as specified and indicated on the drawings. Installation includes electrical hook-up and commissioning of the hoist.
  - 10.     Fish basket - replace all guides and bottom.
  - 11.     Replace cable strain relief bracket.
  - 12.     Supply and install new fish counting station & slide, as specified and indicated on the drawings. Manufactured by Superior Recreational Products or approved equal.
  - 13.     Supply and install new structural support system for the fish counting station complete with opening hatch.
  - 14.     Remove existing basket guides.
  - 15.     Supply and install new fish basket guides.
  - 16.     Supply and install new rubber stops.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 11 00 – Summary of Works

Page 2 of 3

---

17. Supply one (1) Vulcan Hoist HOU2A07-20 1-tonne capacity wire rope hoist complete with two (2) radio controllers and wired controller backup, as specified and indicated on the drawings.

- .3 To confirm the Scope of Work and existing conditions, Contractor should visit the site before submitting a lump sum price to complete the work.

**1.3 CONTRACTOR USE OF PREMISES**

**.1 Coordinate use of premises under direction of the Department. The fishway is in operation between mid-July to mid-October each year, and during that time period access to the fishway is not permitted.**

.2 Obtain and pay for use of additional storage or work areas needed for operations under this Contract.

.3 Remove or alter existing work to prevent injury or damage to portions of existing work which remain.

.4 Repair or replace portions of existing work which have been altered during construction operations to match existing or adjoining work, as directed by the Department.

**1.4 OWNER OCCUPANCY**

.1 Owner will occupy premises during entire construction period for execution of normal operations.

.2 Cooperate with the Department in scheduling operations to minimize conflict and to facilitate Department's usage.

**1.5 FAMILIARIZATION WITH SITE**

.1 Before submitting a bid, it is required that bidders visit the site and its surroundings to review and verify the form, nature and extent of the work, materials needed for the completion of the work, the means of access to the site, severity, exposure and uncertainty of weather, any accommodations they may require, and in general shall obtain all necessary information as to risks, contingencies and other circumstances which may influence or affect their bid or costs to do the work. No allowance shall be made subsequently in this connection on account of error or negligence to properly observe and determine the conditions that will apply.

.2 Contractors, bidders or those they invite to site are to review specification Section 01 35 29 - Health and Safety Requirements before visiting site. Take all appropriate safety measures for any visit to site, either before or after acceptance of bid.

.3 Obtain prior permission from the Department before carrying out such site inspection.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 11 00 – Summary of Works

Page 3 of 3

---

**1.6 CODES AND STANDARDS**

- .1 Perform work in accordance with the latest edition of the National Building Code of Canada, and any other code of provincial or local application including all amendments up to project bid 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.

**1.7 ON-SITE DOCUMENTS**

- .1 Maintain at job site documents as indicated in Section 01 31 00 – Project Management and Coordination.

**PART 2 PRODUCTS (NOT APPLICABLE)**

**PART 3 EXECUTION (NOT APPLICABLE)**

**END OF SECTION**

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section – 01 14 00 Work Restrictions

Page 1 of 1

---

**PART 1        GENERAL**

**1.1            SECTION INCLUDES**

- .1        Connecting to existing services.
- .2        Special scheduling requirements.

**1.2            RELATED SECTIONS**

- .1        Section 01 32 00 – Construct Progress Documentation.
- .2        Section 01 56 00 - Temporary Barriers and Enclosures.

**1.3            EXISTING SERVICES**

- .1        **Coordinate use of premises under direction of the Department. The fishway is in operation between mid-July to mid-October each year, and during that time period access to the fishway is not permitted.**
- .2        Notify Department and utility companies of intended interruption of services and obtain required permission.
- .3        Where Work involves breaking into or connecting to existing services, give Department 72 hours of notice for necessary interruption of mechanical or electrical service throughout course of work. Keep duration of interruptions minimum. Carry out interruptions after normal working hours of occupants, preferably on weekends.
- .4        Provide for pedestrian and vehicular traffic.

**PART 2        PRODUCTS (NOT APPLICABLE)**

**PART 3        EXECUTION (NOT APPLICABLE)**

**END OF SECTION**

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 31 00 - Project Management and Coordination

Page 1 of 4

---

**PART 1      GENERAL**

**1.1            SECTION INCLUDES**

- .1      Coordination work with other contractors and subcontractors under administration of the Department.
- .2      Scheduled project meetings.

**1.2            RELATED SECTIONS**

- .1      Section 01 11 00 - Summary of Work.

**1.3            DESCRIPTION**

- .1      Coordination of progress schedules, submittals, use of site, temporary utilities, construction facilities, and construction Work, with progress of Work of other contractors and subcontractors under instructions of the Department.

**1.4            PROJECT MEETINGS**

- .1      Project meetings to be held at times and locations as determined by the Department.
- .2      The Department will arrange project meetings and record and distribute minutes.

**1.5            CONSTRUCTION ORGANIZATION AND START-UP**

- .1      Within 10 days after award of Contract, request a meeting of parties in contract to discuss and resolve administrative procedures and responsibilities.
- .2      Establish time and location of meetings and notify parties concerned minimum 5 days before meeting.
- .3      Agenda to include following:
  - .1      Appointment of official representative of participants in Work.
  - .2      Schedule of Work, progress scheduling in accordance with Section 01 32 00 - Construction Progress Documentation.
  - .3      Schedule of submission of shop drawings, samples, colour chips in accordance with Section 01 33 00 - Submittal Procedures.
  - .4      Requirements for temporary facilities, site sign, offices, storage sheds, utilities, fences in accordance with Section 01 51 00 - Temporary Utilities.
  - .5      Delivery schedule of specified equipment in accordance with Section 01 32 00 - Construction Progress Documentation.
  - .6      Site security in accordance with Section 01 52 00 - Construction Facilities.



---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

**Issued October, 2015**

Section 01 31 00 - Project Management and Coordination

Page 2 of 4

- .7 Proposed changes, change orders, procedures, approvals required, mark-up percentages permitted, time extensions, overtime, and administrative requirements.
- .8 Record drawings in accordance with Section 01 78 00 - Closeout Submittals.
- .9 Maintenance manuals in accordance with Section 01 78 00 - Closeout Submittals.
- .10 Take-over procedures, acceptance, and warranties in accordance with Section 01 77 00 - Closeout Procedures and 01 78 00 - Closeout Submittals.
- .11 Monthly progress claims, administrative procedures, photographs, and holdbacks.
- .12 Appointment of inspection and testing agencies or firms in accordance with Section 01 45 00 - Quality Control.
- .13 Insurances and transcript of policies.
- .4 Comply with the Department's allocation of mobilization areas of site; for field offices and sheds, for access, traffic, and parking facilities.
- .5 During construction coordinate use of site and facilities through Department's procedures for intra-project communications: Submittals, reports and records, schedules, coordination of drawings, recommendations, and resolution of ambiguities and conflicts.
- .6 Comply with instructions of the Department for use of temporary utilities and construction facilities.

**1.6 ON-SITE DOCUMENTS**

- .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 Manufacturers' installation and application instructions.
  - .12 Labour conditions and wage schedules.
  - .13 Other documents as specified.

**1.7 SCHEDULES**

- .1 Submit preliminary construction progress schedule in accordance with Section 01 32 00 - Construction Progress Documents to the Department coordinated with the Department's

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

**Issued October, 2015**

Section 01 31 00 - Project Management and Coordination

Page 3 of 4

---

project schedule. Schedule to show anticipated progress stages and final completion of work within time period required by contract documents.

- .2 After review, revise and resubmit schedule to comply with project schedule requirements.
- .3 During progress of Work revise and resubmit at project progress meetings or as directed by the department.

**1.8 SUBMITTALS**

- .1 Make submittal to the Department for review.
- .2 Submit preliminary shop drawings, product data and samples in accordance with Section 01 33 00 – Submittal Procedures for review for compliance with Contract Documents; for field dimensions and clearances, for relation to available space, and for relation to Work of other contracts. After review, revise and resubmit for transmittal to the Department.
- .3 Submit requests for payment for review to The Department.
- .4 Submit requests for interpretation of Contract Documents, and obtain instructions through the Department.
- .5 Process change orders through The Department.
- .6 Deliver closeout submittals for review by The Department.

**1.9 COORDINATION DRAWINGS**

- .1 Provide information required by The Department for preparation of coordination drawings.
- .2 Review and approve revised drawings for submittal to The Department.
- .3 The Department may furnish additional drawings for clarification. These additional drawings have same meaning and intent as if they were included with plans referred to in contract documents.

**1.10 CLOSEOUT PROCEDURES**

- .1 Notify The Department when Work is considered ready for Substantial Performance.
- .2 Accompany The Department on preliminary inspection to determine items listed for completion or correction.
- .3 Comply with The Department's instructions for correction of items of Work listed in executed certificate of Substantial Performance and for access to Owner-occupied areas.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

**Issued October, 2015**

Section 01 31 00 - Project Management and Coordination

Page 4 of 4

---

- .4 Notify The Department of instructions of items of Work determined in The Department's final inspection.

**PART 2      PRODUCTS (NOT APPLICABLE)**

**PART 3      EXECUTION (NOT APPLICABLE)**

**END OF SECTION**

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 32 00 - Construction Progress Documentation

Page 1 of 3

---

**PART 1      GENERAL**

**1.1            RELATED SECTIONS**

- .1      Section 01 77 00 - Closeout Procedures.

**1.2            SCHEDULES REQUIRED**

- .1      Submit schedules as follows:
  - .1      Construction Progress Schedule.
  - .2      Submittal Schedule for Shop Drawings and Product Data.
  - .3      Submittal Schedule for Samples.
  - .4      Product Delivery Schedule.
  - .5      Cash Allowance Schedule for purchasing Products.
  - .6      Shutdown or closure activity.

**1.3            FORMAT**

- .1      Prepare schedule in form of a horizontal bar chart.
- .2      Provide a separate bar for each major item of work, trade or operation.
- .3      Split horizontally for projected and actual performance.
- .4      Provide horizontal time scale identifying first work day of each week.
- .5      Format for listings: chronological order of start of each item of work.
- .6      Identification of listings: By Systems description.

**1.4            SUBMISSION**

- .1      Submit initial format of schedules within 15 working days after award of Contract.
- .2      Submit schedules in electronic format, forward on disc as PDF files.
- .3      Submit one opaque reproduction, plus 2 copies to be retained by The Department.
- .4      The Department will review schedule and return review copy within 10 days after receipt.
- .5      Resubmit finalized schedule within 7 days after return of review copy.
- .6      Submit revised progress schedule with each application for payment.
- .7      Distribute copies of revised schedule to:
  - .1      Job site office.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 32 00 - Construction Progress Documentation

Page 2 of 3

---

- .2 Subcontractors.
- .3 Other concerned parties.
- .8 Instruct recipients to report to Contractor within 10 days, any problems anticipated by timetable shown in schedule.

**1.5 CRITICAL PATH SCHEDULING**

- .1 Include complete sequence of construction activities.
- .2 Include dates for commencement and completion of each major element of construction as follows.
  - .1 Site clearing.
  - .2 Site utilities.
  - .3 Foundation Work.
  - .4 Structural framing.
  - .5 Special Subcontractor Work.
  - .6 Equipment Installations.
  - .7 Finishes.
- .3 Show projected percentage of completion of each item as of first day of month.
- .4 Indicate progress of each activity to date of submission schedule.
- .5 Show changes occurring since previous submission of schedule:
  - .1 Major changes in scope.
  - .2 Activities modified since previous submission.
  - .3 Revised projections of progress and completion.
  - .4 Other identifiable changes.
- .6 Provide a narrative report to define:
  - .1 Problem areas, anticipated delays, and impact on schedule.
  - .2 Corrective action recommended and its effect.
  - .3 Effect of changes on schedules of other prime contractors.

**1.6 SUBMITTALS SCHEDULE**

- .1 Include schedule for submitting shop drawings, product data, and samples.
- .2 Indicate dates for submitting, review time, resubmission time, last date for meeting fabrication schedule.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

**Issued October, 2015**

**Section 01 32 00 - Construction Progress Documentation**

**Page 3 of 3**

---

**PART 2      PRODUCTS (NOT APPLICABLE)**

**PART 3      EXECUTION (NOT APPLICABLE)**

**END OF SECTION**

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 33 00 – Submittal Procedures

Page 1 of 5

---

**PART 1      GENERAL**

**1.1            SECTIONS INCLUDE**

- .1      Shop drawings and product data.
- .2      Samples.
- .3      Certificates and transcripts.

**1.2            RELATED SECTIONS**

- .1      Section 01 32 00 – Construction Progress Documentation.
- .2      Section 01 45 00 – Quality Control

**1.3            ADMINISTRATIVE**

- .1      This section specifies general requirements and procedures for contractor's submissions of shop drawings, product data, samples and mock-ups to The Department 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 an extension of Contract Time and no claim for extension by reason of such default will be allowed.
- .2      Do not proceed with work until relevant submissions are reviewed by The Department.
- .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 The Department. 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 shall be considered rejected.
- .6      Notify The Department, 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 coordinated.
- .8      Contractor's responsibility for errors and omissions in submission is not relieved by The Department's review of submittals.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 33 00 – Submittal Procedures

Page 2 of 5

---

- .9 Contractor's responsibility for deviations in submission from requirements of Contract Documents is not relieved by The Department review of submission, unless The Department gives written acceptance of specific deviations.
- .10 Make any changes in submissions which The Department may require consistent with Contract Documents and resubmit as directed by The Department. When resubmitting, notify The Department in writing of revisions other than those requested.
- .11 Notify The Department, in writing, when resubmitting, of any revisions other than those requested by The Department.
- .12 Keep one reviewed copy of each submission on site.

**1.4 SUBMITTALS**

- .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 Coordinate each submission with requirements of work and Contract Documents. Individual submissions will not be reviewed until all related information is available.
- .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 coordinated, regardless of Section under which adjacent items will be supplied and installed. Indicate cross references to design drawings and specifications.
- .4 Allow 10 days for The Department review of each submission.
- .5 Adjustments made on shop drawings by The Department are not intended to change contract price. If adjustments affect value of Work, state such in writing to The Department immediately after receipt of approval of shop drawings. If value of work is to change a change order must be issued prior to proceeding with work.
- .6 Accompany submissions with transmittal letter, 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.
- .7 Submissions shall include:
  - .1 Date and revision dates.



---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 33 00 – Submittal Procedures

Page 3 of 5

---

- .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.
- .8 After The Department review, distribute copies.
- .9 Submit 3 prints plus one electronic copy in PDF format of shop drawings for each requirement requested in specification Sections and as The Department may reasonably request.
- .10 Submit electronic copy in PDF format of product data sheets or brochures for requirements requested in Specification Sections and as requested by The Department where shop drawings will not be prepared due to standardized manufacture of product.
- .11 Delete information not applicable to project.
- .12 Supplement standard information to provide details applicable to project.
- .13 Cross-reference product data information to applicable portions of Contract Documents.
- .14 If upon review by The Department, 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.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 33 00 – Submittal Procedures

Page 4 of 5

---

- .15 Samples: examples of materials, equipment, quality, finishes, workmanship. Label samples with origin and intended use.
- .16 Notify The Department in writing, at time of submission of deviations in samples from requirements of contract documents.
- .17 Where colour, pattern or texture is criterion, submit full range of samples.
- .18 Adjustments made on samples by The Department are not intended to change Contract Price. If adjustments affect value of Work, state such in writing to The Department prior to proceeding with Work.
- .19 Make changes in samples, which The Department may require, consistent with Contract Documents.
- .20 Reviewed and accepted samples will become standard of workmanship and material against which installed Work will be verified.

**1.5 MOCK-UPS**

- .1 Erect mock-ups in accordance with Section 01 45 00 - Quality Control.

**1.6 PROGRESS PHOTOGRAPHS**

- .1 Progress photograph to be electronically formatted and labelled as to location and view.

**1.7 SHOP DRAWINGS REVIEW**

- .1 The review of shop drawings by The Department is for the sole purpose of ascertaining conformance with the general concept. This review shall not mean that The Department 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 to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

**Issued October, 2015**

**Section 01 33 00 – Submittal Procedures**

**Page 5 of 5**

---

**PART 2      PRODUCTS (NOT APPLICABLE)**

**PART 3      EXECUTION (NOT APPLICABLE)**

**END OF SECTION**

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 35 29.06 – Health and Safety Requirements

Page 1 of 9

---

**PART 1      GENERAL**

**1.1            REFERENCES**

- .1      Canadian Standards Association (CSA)
- .1      FCC No. 301 Standard for Construction Operations.
- .2      FCC No. 302 Standard for Welding and Cutting.
- .3      Canada Labour Code, Part 2, Canada Occupational Safety and Health Regulations.
- .4      National Building Code of Canada.

**1.2            RELATED SECTIONS**

- .1      Section 01 33 00 - Submittal Procedures
- .2      Section 01 35 43 - Environmental Procedures
- .3      Section 01 41 00 - Regulatory Requirements

**1.3            SUBMITTALS**

- .1      At least 10 (ten) working days prior to commencing any site work: submit to Project Manager copies of:
  - .1      A complete Health and Safety Risk Assessment and Management Plan.
- .2      Acceptance of the Project Health and Safety Risk Assessment and Management Plan and other submitted documents by the Project Manager shall only be viewed as acknowledgement that the contractor has submitted the required documentation under this specification section.
- .3      Project Manager makes no representation and provides no warranty for the accuracy, completeness and legislative compliance of the Project Health and Safety Risk Management Plan and other submitted documents by this acceptance.
- .4      Responsibility for errors and omissions in the Project Health and Safety risk Assessment and Management Plan and other submitted documents is not relieved by acceptance by Project Manager.

**1.4            OCCUPATIONAL HEALTH AND SAFETY (PROJECT HEALTH AND SAFETY RISK ASSESSMENT AND MANAGEMENT PLANS)**

- .1      Conduct operations in accordance with latest edition of the Canada Occupational Health and Safety (OH&S) Act and Regulations.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

**Issued October, 2015**

Section 01 35 29.06 – Health and Safety Requirements

Page 2 of 9

---

- .2 Prepare a detailed Project Health and Safety Risk Assessment and Management Plan for the Project Manager. Assessment shall identify, evaluate and control job specific hazards and the necessary control measures to be implemented for managing hazards.
- .3 Provide a copy of the Project Health and Safety Risk Assessment and Management Plan upon request to Occupational Health and Safety Branch and the Project Manager.
- .4 The written Health and Safety Risk Assessment and Management Plan shall incorporate the following:
  - .1 A site-specific health and safety plan, refer to clause 1.5 Site-Specific Health and Safety Risk Assessment and Management Plan of this section for requirements.
  - .2 An organizational structure which shall establish the specific chain of command and specify the overall responsibilities of contractor's employees at the work site.
  - .3 A comprehensive workplan which shall:
    - .1 define work tasks and objectives of site activities/operations and the logistics and resources required to reach these tasks and objectives
    - .2 establish personnel requirements for implementing the plan, and
    - .3 establish site specific training and notification requirements and schedules.
  - .4 A personal protected equipment (PPE) Program which shall detail PPE:
    - .1 Selection criteria based on site hazards.
    - .2 Use, maintenance, inspection and storage requirements and procedures.
    - .3 Decontamination and disposal procedures.
    - .4 Inspection procedures prior to during and after use, and other appropriate medical considerations.
    - .5 Limitations during temperature extremes, heat stress and other appropriate medical consideration.
  - .5 An emergency response procedure, refer to Clause 1.6 Supervision and Emergency Response Procedure of this section for requirements.
  - .6 A hazard communication program for informing workers, visitors and individuals outside of the work area as required.
  - .7 A health and safety training program.
  - .8 General safety rules.
- .5 Periodically review and modify as required each component of the Project Health and Safety Risk Assessment and Management Plan when a new hazard is identified during completion of work and when an error or omission is identified in any part of the Project Health and Safety Risk Assessment and Management Plan.
- .6 Implement all requirements of the Project Health and Safety Risk Assessment and Management Plan.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 35 29.06 – Health and Safety Requirements

Page 3 of 9

---

- .1 Ensure that every person entering the project site is informed of requirements under the Project Health and Safety Risk Assessment and Management Plan.
- .2 Take all necessary measures to immediately implement any the Departmenting controls, administrative contacts, personal protective equipment required or termination of work procedures to ensure compliance with the Project Health and Safety Risk Assessment and Management Plan.

**1.5 SITE SPECIFIC HEALTH AND SAFETY PLAN**

- .1 Prepare a detailed site Specific Project Health and Safety Plan which shall:
  - .1 Contain certain hazard assessment results.
  - .2 Identify the engineering and administrative demonstrative controls (work-practices and procedures) to be implemented for managing identified and potential hazards, and comply with applicable federal and provincial legislation and more stringent requirements that have been specified in these specifications.
- .2 Review for completeness the hazard assessment results immediately prior to commencing work, when a new hazard is identified during completion of work and when an error or omission is identified.
  - .1 Be solely responsible for investigating, evaluation and managing any report of actual or potential hazards.
  - .2 Retain copies of all completed hazard assessments at the project site and make available to the Department immediately upon request.

**1.6 SUPERVISION AND EMERGENCY RESCUE PROCEDURE**

- .1 Carry out work under the direct supervision of competent persons responsible for safety by ensuring the work complies with the appropriate section of OH&S Act and Regulations
- .2 Assign a sufficient number of supervisory personnel to the work site.
- .3 Provide a suitable means of communications for workers required to work alone.
- .4 Develop an emergency rescue plan for the job site and ensure that supervisors and workers are trained in the emergency rescue plan.
- .5 The emergency response plan shall address, as a minimum:
  - .1 Pre-emergency planning.
  - .2 Personnel roles, lines of authority and communication.
  - .3 Emergency recognition and prevention.
  - .4 Safe distances and places of refuge.
  - .5 Site security and control
  - .6 Evacuation routes and procedures

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 35 29.06 – Health and Safety Requirements

Page 4 of 9

---

- .7 Decontamination procedures which are not covered by the site specific safety and health plan.
- .8 Emergency medical treatment and first aid.
- .9 Emergency alarm, notification and response procedures including procedures for reporting incidents to local, provincial and federal government departments.
- .10 PPE and emergency equipment.
- .11 Procedures for handling emergency incidents.
- .12 Site specific emergency response training requirements and schedules.
- .6 The emergency response procedures shall be rehearsed regularly as part of the overall training program.
- .7 Provide adequate first aid facilities for the jobsite and ensure that a minimum number of workers are trained in first aid in accordance with the First Aid Regulations.

**1.7 CONTRACTORS SAFETY OFFICER**

- .1 The contractor shall employ a Safety Officer who will be solely responsible for the implementation and monitoring of the Project Health and Safety Risk Assessment and Management Plan, and will have the authority to implement health and safety changes as directed by the Project Manager. The Safety Officer shall have as a minimum:
  - .1 Completed training in hazardous occurrence management and response/protocols.
  - .2 Completed training in First Aid.
  - .3 Have working knowledge of occupational safety and health regulations.
  - .4 Be responsible for completing Contractor's Health and Safety Training Sessions and ensuring that personnel not successfully completing required training are not permitted to enter site to perform Work.
  - .5 Be responsible for implementing, enforcing daily and monitoring site-specific Contractor's Health and Safety Plan.
  - .6 Prior to mobilization on-site, the Contractor's Safety Officer shall hold an orientation meeting (in conjunction with Project Manager) with the construction team to review project occupational health and safety. Include a review of:
    - .1 Health and Safety Risk Assessment and Management Plan.
    - .2 Construction Safety Measures.
    - .3 Supervision and Emergency Rescue Procedures.
  - .7 Report directly to and be under direction of site supervisor.

**1.8 HEALTH AND SAFETY COMMITTEE**

- .1 Establish an Occupational Health and Safety Committee where ten or more workers are employed on the job site as per the OH&S Act and Regulations.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 35 29.06 – Health and Safety Requirements

Page 5 of 9

---

- .3 Be responsible for health and safety of persons on site, safety of property on site and for protection of persons adjacent to site and environment to extent that they may be affected by conduct of Work.
- .4 Comply with and enforce compliance by employees with safety requirements of Contract Documents, applicable federal, provincial, territorial and local statutes, regulations, and ordinances, and with site-specific Health and Safety Plan.

**1.9 RESPONSIBILITY**

- .1 Be responsible for health and safety of persons on site, safety of property on site and for protection of persons adjacent to site and environment to extent that they may be affected by conduct of Work.
- .2 Comply with and enforce compliance by employees with safety requirements of Contract Documents, applicable federal, provincial, territorial and local statutes, regulations, and ordinances, and with site-specific Health and Safety Plan.

**1.10 UNFORSEEN HAZARDS**

- .1 Should any unforeseen or peculiar safety-related factor, hazard, or condition become evident 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. Advise Project Manager verbally and in writing.

**1.11 INSTRUCTION AND TRAINING**

- .1 Workers shall not participate in or supervise any activity on the work site until they have been trained to a level required by this job function and responsibility. Training shall as a minimum thoroughly cover the following:
  - .1 Federal Health and Safety Legislation requirements including roles and responsibilities of workers and person(s) responsible for implementing, monitoring and enforcing health and safety requirements.
  - .2 Safety and health hazards associated with working on a contaminated site including recognition of symptoms and signs which might indicate over exposure to hazards.
  - .3 Limitations, use, maintenance and disinfection-decontamination of personal protective equipment associated with completing work.
  - .4 Limitations, use, maintenance and care of the engineering controls and equipment.
  - .5 Limitations and use of emergency notifications and response equipment including emergency response protocol.
  - .6 Work practices and procedures to minimize the risk of an accident and hazardous occurrence from exposure to a hazard.
- .2 Provide and maintain training of workers, as required, by Federal legislation.



---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 35 29.06 – Health and Safety Requirements

Page 6 of 9

---

- .3 Provide copies of all training certificates to Project Manager for review, before a worker is to enter the work site.
- .4 Authorized visitors shall not access the work site until they have been:
  - .1 Notified of the names of persons responsible for implementing, monitoring and enforcing the health and Safety Risk Assessment and Management Plan.
  - .2 Briefed on safety and health hazards present on the site.
  - .3 Instructed in the proper use and limitations of personal protective equipment.
  - .4 Briefed as the emergency response protocol including notification and evacuation process.
  - .5 Informed of practices and procedures to minimize risks from hazards and applicable to activities performed by visitors.

**1.12 CONSTRUCTION SAFETY MEASURES**

- .1 Observe construction safety measures of National Building Code, latest edition, Federal Government, OH&S Act and Regulations, Workplace Health and Safety and Compensation Commission provided that in any case of conflict or discrepancy more stringent requirements shall apply.
- .2 Administer the project in a manner that will ensure, at all times, full compliance with Federal Acts, regulations and applicable safety codes and the site Health and Safety Risk Assessment and Management Plan.

**1.13 HEALTH AND SAFETY MONITORING**

- .1 Periodic inspections of the contractor's work may be carried out by the Project Manager to maintain compliance with the Health and Safety Program. Inspections will include visual inspections as well as testing and sampling as required.
- .2 The contractor shall be responsible for any and all costs associated with delays as a result of contractor's failure to comply with the requirements outlined in this section.

**1.14 CORRECTION OF NON-COMPLIANCE**

- .1 Immediately address health and safety non-compliance issues identified by authority having jurisdiction or by Project Manager.
- .2 Provide Project Manager with written report of action taken to correct non-compliance of health and safety issues identified.
- .3 Project Manager may stop work if non-compliance of health and safety regulations is not corrected.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 35 29.06 – Health and Safety Requirements

Page 7 of 9

---

**1.15 WHMIS**

- .1 Ensure that all controlled products are in accordance with the Workplace Hazardous Materials Information System (WHMIS) Regulations and Chemical Substances of the OH&S Act and Regulations regarding use, handling, labelling, storage, and disposal of hazardous materials.
- .2 Deliver copies of relevant Material Safety Data Sheets (MSDS) to job site and the Project Manager. The MSDS must be acceptable to Labour Canada and Health and Welfare Canada for all controlled products that will be used in the performance of this work.
- .3 Train workers required to use or work in close proximity to controlled products as per OH&S Act and Regulations.
- .4 Label controlled products at jobsite as per OH&S and Regulations.
- .5 Provide appropriate emergency facilities as specified in the MSDS where workers might be exposed to contact with chemicals, e.g. eye-wash facilities, emergency shower.
  - .1 Workers to be trained in use of such emergency equipment.
- .6 Contractor shall provide appropriate personal protective equipment as specified in the MSDS where workers are required to use controlled products.
  - .1 Properly fit workers for personal protective equipment
  - .2 Train workers in care, use and maintenance of personal protective equipment.
- .7 No controlled products are to be brought on-site without prior approved MSDS.
- .8 The MSDS are to remain on site at all times.

**1.16 OVERLOADING**

- .1 Ensure no part of work or associated equipment is subjected to loading that will endanger its safety or will cause permanent deformation.

**1.17 PERSONAL PROTECTIVE EQUIPMENT**

- .1 Ensure workers on the jobsite use personal protective equipment appropriate to the hazards identified in the Risk Assessment and Management Plan and those workers are trained in the proper care, use, and maintenance of such equipment.
- .2 PPE selections shall be based on an evaluation of the performance characteristics of the PPE relative to the requirements and limitations of the site, task-specific conditions, duration and hazards and potential hazards identified on site.
- .3 Provide workers and visitors to the site with proper respiratory protection equipment.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

**Issued October, 2015**

Section 01 35 29.06 – Health and Safety Requirements

Page 8 of 9

---

- .1 No work shall be performed in an area where an airborne contaminant exceeds one half (½) the IDLH concentration.
- .2 Respiratory protection shall be provided in accordance with the requirements of the Canada Labour Code.
- .3 Establish, implement and maintain a respirator inspection and maintenance program.
- .4 Copies of all respirator owners' maintenance manuals, shall be kept at all times at the contractor's site office.
- .4 Provide and maintain a supply of dermal protection equipment to allow visitors and all workers proper dermal protection.
  - .1 Dermal protection shall be sufficient to act as a protective barrier between the skin and an airborne contaminant or hazardous material. Dermal protection shall also be provided for all physical hazards.
  - .2 Dermal protection equipment shall not be used after exceeding 75% of the break through time. The break through time shall be based on the contaminant which requires the least amount of time to break through the protective equipment
  - .3 Copies of all dermal protection user specifications, owners and maintenance manuals shall be kept at all times at the contractor's site office.
  - .4 Establish, implement and maintain air inspection program to ensure proper dermal protection in accordance with CSA, NIOSH, U.S. EPA and manufacturer's requirements.
- .5 Provide all workers and up to five (5) visitors to the site with proper hearing protection. Workers and visitors shall not be exposed to noise levels greater than 85 dB (A) over an eight hour shift without proper hearing protection.
- .6 Provide all workers and up to five (5) visitors to the site with CSA approved eye protection sufficient to act as a protective barrier between the eye and airborne contaminants, hazardous materials and physical hazard.
- .7 Provide workers and up to five (5) visitors to the site with CSA approved hard hats.

**1.18 WORK STOPPAGE**

- .1 Give precedence to safety and health of public and site personnel and protection of environment over cost and schedule considerations of Work.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

**Issued October, 2015**

**Section 01 35 29.06 – Health and Safety Requirements**

**Page 9 of 9**

---

**PART 2      PART 2      PRODUCTS (NOT APPLICABLE)**

**PART 3      PART 3      EXECUTION (NOT APPLICABLE)**

**END OF SECTION**

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 35 43 – Environmental Procedures

Page 1 of 2

---

**PART 1      GENERAL**

**1.1            FIRES**

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

**1.2            DISPOSAL OF WASTES**

- .1      Do not bury rubbish and waste materials on site.
- .2      Do not dispose of waste or volatile materials, such as mineral spirits, oil or paint thinner into waterways, storm or sanitary sewers.

**1.3            DRAINAGE**

- .1      Provide temporary drainage and pumping as necessary to keep excavations and site free from water.
- .2      Do not pump water containing suspended materials into waterways, sewer or drainage systems.
- .3      Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with local authority requirements.

**1.4            SITE CLEARING AND PLANT PROTECTION**

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

**1.5            WORK ADJACENT TO WATERWAYS**

- .1      Do not operate construction equipment in waterways.
- .2      Do not use waterway beds for borrow material.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 35 43 – Environmental Procedures

Page 2 of 2

---

- .3 Do not dump excavated fill, waste material or debris in waterways.
- .4 Design and construct temporary crossings to minimize erosion to waterways.
- .5 Do not skid logs or construction materials across waterways.
- .6 Avoid indicated spawning beds when constructing temporary crossings of waterways.
- .7 Do not blast under water or within 100 m of indicated spawning beds.

**1.6 POLLUTION CONTROL**

- .1 Maintain temporary erosion and pollution control features installed under this contract.
- .2 Control emissions from equipment and plant to local authorities emission requirements.
- .3 Prevent sandblasting and other extraneous materials from contaminating air beyond application area, by providing temporary enclosures.
- .4 Cover or wet down dry materials and rubbish to prevent blowing dust and debris. Provide dust control for temporary roads.

**1.7 NOTIFICATION**

- .1 The Department will notify Contractor in writing of observed non-compliance with Federal, Provincial or Municipal environmental laws or regulations, permits, and other elements of environmental protection. Contractor: after receipt of such notice, inform The Department of proposed corrective action and take such action as approved by The Department.
- .2 The Department may issue stop order of work until satisfactory corrective action has been taken.
- .3 No time extensions will be granted or equitable adjustments allowed to Contractor for such suspensions.

**PART 2 PRODUCTS (NOT APPLICABLE)**

**PART 3 EXECUTION (NOT APPLICABLE)**

**END OF SECTION**

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 41 00 – Regulatory Requirements

Page 1 of 2

---

**PART 1      GENERAL**

**1.1            RELATED SECTIONS**

- .1      N/A

**1.2            REFERENCES AND CODES**

- .1      Perform Work in accordance with National Building Code of Canada (NBC) including all amendments up to tender closing date and other codes of provincial or local application provided that in case of conflict or discrepancy, more stringent requirements apply.
- .2      Meet or exceed requirements of:
  - .1      Contract documents.
  - .2      Specified standards, codes and referenced documents.

**1.3            HAZARDOUS MATERIAL DISCOVERY**

- .1      Asbestos: stop work immediately should materials believed to contain asbestos be encountered in during the execution of the work and notify The Department. Do not proceed until written instructions have been received from The Department. Perform asbestos abatement and repair in accordance with Newfoundland and Labrador Asbestos Abatement Regulations, Latest Edition.
- .2      Mould: stop work immediately should material resembling mould be encountered during the execution of work and notify The Department. Do not proceed until written instructions have been received from The Department.

**1.4            BUILDING SMOKING ENVIRONMENT**

- .1      Comply with smoking restrictions.

**1.5            RELICS AND ANTIQUITIES**

- .1      Protect relics, antiquities, items of historical or scientific interest such as cornerstones and contents, commemorative plaques, inscribed tablets, and similar objects found during course of work.
- .2      Give immediate notice to The Department and await The Department's written instructions before proceeding with work in this area.
- .3      Relics, antiquities and items of historical or scientific interest remain Her Majesty's property.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

**Issued October, 2015**

**Section 01 41 00 – Regulatory Requirements**

**Page 2 of 2**

---

**PART 2      PRODUCTS (NOT APPLICABLE)**

**PART 3      EXECUTION (NOT APPLICABLE)**

**END OF SECTION**



---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 45 00 – Quality Control

Page 1 of 3

---

**PART 1            GENERAL**

**1.1                SECTIONS INCLUDE**

- .1      Inspection and testing, administrative and enforcement requirements.
- .2      Tests and mix designs.
- .3      Mock-ups.
- .4      Mill tests.
- .5      Equipment and system adjust and balance.

**1.2                RELATED SECTIONS**

- .1      Section 01 33 00 – Submittal Procedures

**1.3                INSPECTION**

- .1      Allow The Department 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 special tests, inspections or approvals by The Department.
- .3      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 or tests satisfactorily completed and make good such Work.
- .4      The Department may order any 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 examination and correction. If such Work is found in accordance with Contract Documents, The Department shall pay cost of examination and replacement.

**1.4                INDEPENDENT INSPECTION AGENCIES**

- .1      Independent Inspection/Testing Agencies will be engaged by The Department for purpose of inspecting and/or testing portions of Work. .
- .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.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 45 00 – Quality Control

Page 2 of 3

---

- .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 The Department at no cost to The Department. Pay costs for retesting and reinspection.

**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.

**1.6 PROCEDURES**

- .1 Notify appropriate agency and The Department 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 an orderly sequence so as not to cause delay 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.

**1.7 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 The Department 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 The Department it is not expedient to correct defective Work or Work not performed in accordance with Contract Documents, Owner may deduct from Contract Price difference in value between Work performed and that called for by Contract Documents, amount of which shall be determined by The Department.

**1.8 REPORTS**

- .1 Submit 3 copies of inspection and test reports to The Department, plus electronic copies in PDF format.
- .2 Provide copy to Subcontractor of work being inspected or tested, manufacturer or fabricator of material being inspected or tested.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

**Issued October, 2015**

Section 01 45 00 – Quality Control

Page 3 of 3

---

- .3 Include copy of all inspection and test reports in Commissioning Manuals.

**1.9            MOCK-UPS**

- .1 Prepare mock-ups for Work specifically requested in specifications. Include for Work of all Sections required to provide mock-ups.
- .2 Construct in all locations acceptable to The Department as specified in specific Section.
- .3 Prepare mock-ups for The Department review with reasonable promptness and in an orderly sequence, so as not to cause any delay in Work.
- .4 Failure to prepare mock-ups in ample time is not considered sufficient reason for an extension of Contract Time and no claim for extension by reason of such default will be allowed.
- .5 Remove mock-up at conclusion of Work or when acceptable to The Department
- .6 Specification section identifies whether mock-up may remain as part of Work or if it is to be removed and when.
- .7 Reviewed and accepted mock-ups will become standards of workmanship and material against which installed work will be verified.
- .8 Mock-ups may remain as part of Work.

**PART 2            PRODUCTS (NOT APPLICABLE)**

**PART 3            EXECUTION (NOT APPLICABLE)**

**END OF SECTION**

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 51 00 – Temporary Utilities

Page 1 of 4

---

**PART 1      GENERAL**

**1.1            RELATED SECTIONS**

- .1      Section 01 52 00 - Construction Facilities.
- .2      Section 01 56 00 - Temporary Barriers and Enclosures.

**1.2            INSTALLATION AND REMOVAL**

- .1      Provide temporary utilities controls in order to execute work expeditiously.
- .2      Remove from site all such work after use.

**1.3            DEWATERING**

- .1      Provide temporary drainage and pumping facilities to keep excavations and site free from standing water.

**1.4            WATER SUPPLY**

- .1      Arrange for connection with appropriate utility company and pay all costs for installation, maintenance and removal.

**1.5            TEMPORARY HEATING AND VENTILATION**

- .1      Pay for costs of temporary heat and ventilation used during construction, including costs of installation, fuel operation, maintenance and removal of equipment. Use of direct, fired heaters discharging waste products into work areas will not be permitted unless prior approval is given by The Department.
- .2      Construction heaters used inside building must be vented to outside or be non-flameless type. Solid fuel salamanders are not permitted.
- .3      Provide temporary heat and ventilation in enclosed areas as required to:
  - .1      Facilitate progress of Work.
  - .2      Protect Work and products against dampness and cold.
  - .3      Prevent moisture condensation on surfaces.
  - .4      Provide ambient temperatures and humidity levels for storage, installation and curing of materials.
  - .5      Provide adequate ventilation to meet health regulations for safe working environment.
- .4      Maintain temperatures of minimum 10°C and relative humidity less than 60% in areas where construction is in progress.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 51 00 – Temporary Utilities

Page 2 of 4

---

- .1 Maintain minimum temperature of 10°C or higher where specified as soon as finished work is commenced. Maintain until acceptance of structure by The Department.
- .2 Maintain ambient temperature and humidity levels as required for comfort of office personnel.
- .5 Ventilating:
  - .1 Prevent accumulations of dust, fumes, mists, vapours or gases in areas occupied during construction.
  - .2 Provide local exhaust ventilation to prevent harmful accumulation of hazardous substances into atmosphere of occupied areas.
  - .3 Dispose of exhaust materials in manner that will not result in harmful exposure to persons.
  - .4 Ventilate storage spaces containing hazardous or volatile materials.
  - .5 Ventilate temporary sanitary facilities.
  - .6 Continue operation of ventilation and exhaust system for time after cessation of work process to assure removal of harmful contaminants.
- .6 Maintain strict supervision of operation of temporary heating and ventilating equipment to:
  - .1 Conform with applicable codes and standards.
  - .2 Enforce safe practices.
  - .3 Prevent abuse of services.
  - .4 Prevent damage to finishes.
  - .5 Vent direct-fired combustion units to outside.
- .7 Be responsible for damage to Work due to failure in providing adequate heat, humidity and protection during construction.
- .8 Use of new or existing systems for temporary heating, ventilating or air conditioning will not be permitted.

**1.6 TEMPORARY POWER AND LIGHT**

- .1 Provide and pay for temporary power during constructing for temporary lighting, heating, site construction trailers and operating of power tools in accordance with governing regulations and the Canadian Electrical Code, latest edition.
- .2 Arrange for connection with Utility Company. Pay all costs for installation, maintenance and removal of cables, distribution and branch panel boards, poles, lighting, heating and general power receptacles as required.
- .3 Temporary power for electric cranes and other equipment requiring in excess of above is responsibility of Contractor.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 51 00 – Temporary Utilities

Page 3 of 4

---

- .4 Provide and maintain temporary lighting throughout project. Ensure level of illumination on all floors and stairs is not less than 162 lx. Temporary lighting to consist of wiring, pig tail sockets and 75 watt shatterproof incandescent lamps to provide a minimum light level of 162 lux.
- .5 Electrical power and lighting systems installed under this contract may be used for construction requirements only with prior approval of The Department provided that guarantees are not affected. Make good damage to electrical system caused by use under this contract. Replace lamps which have been used for more than 3 months.
- .6 General contractor responsible for payment of all electrical energy charges associated with temporary power up to date of substantial completion.

**1.7 FIRE PROTECTION**

- .1 Provide and maintain temporary fire protection equipment during performance of Work required by insurance companies having jurisdiction and governing codes, regulations and bylaws.
- .2 Burning rubbish and construction waste materials is not permitted on site.

**1.8 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.
- .3 When permanent water and drain connections are completed, provide temporary water closets and urinals complete with temporary enclosures, inside building. Permanent facilities may be used on approval of The Department.

**1.9 TEMPORARY COMMUNICATION FACILITIES**

- .1 Provide and pay for temporary telephone, fax, data hook up, lines and equipment necessary for own use and use of The Department.

**1.10 REMOVAL OF TEMPORARY FACILITIES**

- .1 Remove temporary facilities from site when directed by The Department.
- .2 When project is closed down at end of construction season keep temporary facilities operational until close down or removal is approved by The Department.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 51 00 – Temporary Utilities

Page 4 of 4

---

**PART 2      PRODUCTS (NOT APPLICABLE)**

**PART 3      EXECUTION (NOT APPLICABLE)**

**END OF SECTION**

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 52 00 – Construction Facilities

Page 1 of 3

---

**PART 1        GENERAL**

**1.1            SECTION INCLUDES**

- .1        Construction aids.
- .2        Office and sheds.
- .3        Parking.
- .4        Project identification.

**1.2            RELATED SECTIONS**

- .1        Section 01 35 29.06 – Health and Safety Requirements
- .2        Section 01 51 00 - Temporary Utilities.
- .3        Section 01 56 00 - Temporary Barriers and Enclosures.

**1.3            INSTALLATION AND REMOVAL**

- .1        Provide construction facilities in order to execute work expeditiously.
- .2        Remove from site all such work after use.

**1.4            SCAFFOLDING**

- .1        Provide and maintain scaffolding in rigid, secure and safe manner.
- .2        Erect scaffolding independent of walls. Remove promptly when no longer required.  
Refer to Section 01 35 29.06 – Health and Safety Requirements.

**1.5            HOISTING**

- .1        Provide, operate and maintain hoists cranes required for moving of workers, materials and equipment. Make financial arrangements with Subcontractors for use thereof.
- .2        Hoists cranes shall be operated by certified operator.

**1.6            SITE STORAGE/LOADING**

- .1        Confine work and operations of employees by Contract Documents. Do not unreasonably encumber premises with products.



---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 52 00 – Construction Facilities

Page 2 of 3

---

- .2 Do not load or permit to load any part of Work with a weight or force that will endanger the Work.

**1.7 CONSTRUCTION ACCESS AND PARKING**

- .1 Parking will be permitted on site provided it does not disrupt performance of work.
- .2 The Department and Others will maintain the access road to the project site and provide snow clearing on the access road as required. Clearing of snow around the work area is the Contractor's responsibility.
- .3 If authorized to use existing roads for access to project site, make good damage resulting from Contractor's use of roads.

**1.8 CONTRACTOR'S SITE OFFICES**

- .1 Provide office heated to 22 °C, lighted 750 lx and ventilated, of sufficient size to accommodate site meetings and furnished with drawing laydown table, fax machine, telephone, file cabinet and chair.
- .2 Provide a clearly marked and fully stocked first-aid case in a readily available location.
- .3 Subcontractors may provide their own offices as necessary. Direct location of these offices.

**1.9 EQUIPMENT, TOOL AND MATERIALS STORAGE**

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

**1.10 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.

**1.11 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.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

**Issued October, 2015**

**Section 01 52 00 – Construction Facilities**

**Page 3 of 3**

---

- .3 Store materials resulting from demolition activities that are salvageable.

**PART 2      PRODUCTS (NOT APPLICABLE)**

**PART 3      EXECUTION (NOT APPLICABLE)**

**END OF SECTION**

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 56 00 Temporary Barriers and Enclosures

Page 1 of 3

---

**PART 1      GENERAL**

**1.1            SECTION INCLUDES**

- .1      Barriers.
- .2      Environmental Controls.
- .3      Traffic Controls.
- .4      Fire Routes.

**1.2            RELATED SECTIONS**

- .1      Section 01 51 00 – Temporary Utilities.
- .2      Section 01 52 00 – Construction Facilities.

**1.3            INSTALLATION AND REMOVAL**

- .1      Provide temporary controls in order to execute Work expeditiously.
- .2      Remove from site all such work after use.
- .3      Provide barriers around trees and plants designated to remain. Protect from damage by equipment and construction procedures.

**1.4            GUARD RAILS AND BARRICADES**

- .1      Provide secure, rigid guard rails and barricades around deep excavations, open shafts, open stair wells, open edges of floors and roofs.
- .2      Provide as required by governing authorities.

**1.5            COLD WEATHER AND WINTER CONSTRUCTION ENCLOSURES**

- .1      Provide weather tight enclosures to permit work to continue during cold weather and winter conditions. Ensure ambient temperature is sufficient to meet minimum conditions required for work being carried out, such as welding or painting.
- .2      Provide temporary heat, ventilation, and lighting to permit work to be carried out safely. See Section 01 51 00.
- .3      Erect enclosures to allow access for installation of materials and working inside enclosure.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 56 00 Temporary Barriers and Enclosures

Page 2 of 3

---

- .4 Design and construct enclosures to withstand wind pressure and snow loading.

**1.6 DUST TIGHT SCREENS**

- .1 Provide dust tight screens or insulated partitions to localize dust generating activities, and for protection of workers, finished areas of Work and public.
- .2 Maintain and relocate protection until such work is complete.

**1.7 ACCESS TO SITE**

- .1 The Department and Others will maintain the access road to the project site and provide snow clearing on the access road as required. Clearing of snow around the work area is the Contractor's responsibility.
- .2 Provide and maintain ramps and construction runways as may be required for access to Work area. Provide snow clearing at Work area.
- .3 If authorized to use existing roads for access to project site, make good damage resulting from Contractor's use of roads.

**1.8 PUBLIC TRAFFIC FLOW**

- .1 Provide and maintain competent signal flag operators, traffic signals, barricades and flares, lights, or lanterns as required to perform Work and protect the public.

**1.9 FIRE ROUTES**

- .1 Maintain access to property including overhead clearances for use by emergency response vehicles.

**1.10 PROTECTION FOR OFF-SITE AND PUBLIC PROPERTY**

- .1 Protect surrounding private and public property from damage during performance of Work.
- .2 Be responsible for damage incurred.

**1.11 PROTECTION OF BUILDING FINISHES**

- .1 Provide protection for finished and partially finished building finishes and equipment during performance of Work.
- .2 Provide necessary screens, covers, and hoardings.
- .3 Confirm with The Department locations and installation schedule 3 days prior to installation.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

**Issued October, 2015**

**Section 01 56 00 Temporary Barriers and Enclosures**

**Page 3 of 3**

---

.4 Be responsible for damage incurred due to lack of or improper protection.

**PART 2      PRODUCTS (NOT APPLICABLE)**

**PART 3      EXECUTION (NOT APPLICABLE)**

**END OF SECTION**

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 61 00 – Common Product Requirements

Page 1 of 7

---

**PART 1      GENERAL**

**1.1            SECTION INCLUDES**

- .1      Product quality, availability, storage, handling, protection, and transportation.
- .2      Manufacturer's instructions.
- .3      Quality of Work, coordination and fastenings.

**1.2            RELATED SECTIONS**

- .1      Section 01 45 00 – Quality Control.
- .2      Section 01 73 00 – Execution.

**1.3            REFERENCES**

- .1      Within text of each specifications section, reference may be made to reference standards. Conform to these reference standards, in whole or in part as specifically requested in specifications.
- .2      Conform to latest date of issue of referenced standards in effect on date of submission of Tenders, except where specific date or issue is specifically noted.

**1.4            QUALITY**

- .1      Products, materials, equipment and articles (referred to as products throughout specifications) incorporated in Work shall be new, not damaged or defective, and of best quality (compatible with specifications) for purpose intended. If requested, furnish evidence as to type, source and quality of products provided.
- .2      Defective products, whenever identified prior to completion of Work, will be rejected, regardless of previous inspections. Inspection does not relieve responsibility, but is precaution against oversight or error. Remove and replace defective products at own expense and be responsible for delays and expenses caused by rejection.
- .3      Should any dispute arise as to quality or fitness of products, decision rests strictly with The Department based upon requirements of Contract Documents.
- .4      Within 7 (seven) days of written request by The Department, submit following information for material and equipment proposed for supply:
  - .1      Name and address of manufacturer.
  - .2      trade name, model and catalogue number,
  - .3      performance, descriptive and test data,

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 61 00 – Common Product Requirements

Page 2 of 7

---

- .4 manufacturer's installation or application instructions,
- .5 evidence of arrangements to procure.
- .5 Use products of one manufacturer for material and equipment of same type or classification unless otherwise specified.
- .6 Permanent labels, trademarks and nameplates on products are not acceptable in prominent locations, except where required for operating instructions, or when located in mechanical or electrical rooms.

**1.5 AVAILABILITY**

- .1 Immediately upon signing Contract, review product delivery requirements and anticipate foreseeable supply delays for any items. If delays in supply of products are foreseeable, notify The Department of such, in order that substitutions or other remedial action may be authorized in ample time to prevent delay in performance of work.
- .2 In event of failure to notify The Department at commencement of Work and should it subsequently appear that Work may be delayed for such reason, The Department reserves right to substitute more readily available products of similar character, at no increase in Contract Price or Contract Time.

**1.6 STORAGE, HANDLING AND PROTECTION**

- .1 Handle and store products in manner to prevent damage, adulteration, deterioration and soiling and in accordance with manufacturer's instructions when applicable.
- .2 Store packaged or bundled products in original and undamaged condition with manufacturer's seal and labels intact. Do not remove from packaging or bundling until required in Work.
- .3 Store products subject to damage from weather in weatherproof enclosures.
- .4 Store cementitious products clear of earth or concrete floors, and away from walls.
- .5 Keep sand, when used for grout or mortar materials, clean and dry. Store sand on wooden platforms and cover with waterproof tarpaulins during inclement weather.
- .6 Store sheet materials, lumber on flat, solid supports and keep clear of ground. Slope to shed moisture.
- .7 Store and mix paints in heated and ventilated room. Remove oily rags and other combustible debris from site daily. Take every precaution necessary to prevent spontaneous combustion.
- .8 Remove and replace damaged products at own expense and to satisfaction of The Department.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 61 00 – Common Product Requirements

Page 3 of 7

---

- .9 Touch-up damaged factory finished surfaces to The Department satisfaction. Use touch-up materials to match original. Do not paint over name plates.

**1.7 TRANSPORTATION**

- .1 Pay costs of transportation of products required in performance of Work.

**1.8 MANUFACTURER'S INSTRUCTIONS**

- .1 Unless otherwise indicated in specifications, install or erect products in accordance with manufacturer's instructions. Do not rely on labels or enclosures provided with products. Obtain written instructions directly from manufacturers.
- .2 Notify The Department in writing, of conflicts between specifications and manufacturer's instructions, so that The Department may establish course of action.
- .3 Improper installation or erection of products, due to failure in complying with these requirements, authorizes The Department to require removal and re-installation at no increase in Contract Price or Contract Time.

**1.9 QUALITY OF WORK**

- .1 Ensure Quality of Work is of highest standard, executed by workers experienced and skilled in respective duties for which they are employed. Immediately notify The Department if required Work is such as to make it impractical to produce required results.
- .2 Do not employ anyone unskilled in their required duties. The Department reserves right to require dismissal from site, workers deemed incompetent or careless.
- .3 Decisions as to standard or fitness of Quality of Work in cases of dispute rest solely with The Department, whose decision is final.

**1.10 CO-ORDINATION**

- .1 Ensure cooperation of workers in laying out Work. Maintain efficient and continuous supervision.
- .2 Be responsible for coordination and placement of openings, sleeves and accessories.

**1.11 CONCEALMENT**

- .1 In finished areas, conceal pipes, ducts and wiring in floors, walls and ceilings, except where indicated otherwise.
- .2 Before installation, inform The Department if there is interference. Install as directed by The Department.



---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 61 00 – Common Product Requirements

Page 4 of 7

---

**1.12 REMEDIAL WORK**

- .1 Perform remedial work required to repair or replace parts or portions of Work identified as defective or unacceptable. Coordinate adjacent affected Work as required.
- .2 Perform remedial work by specialists familiar with materials affected. Perform in a manner to neither damage nor put at risk any portion of Work.

**1.13 LOCATION OF FIXTURES**

- .1 Consider location of fixtures, outlets, and mechanical and electrical items indicated as approximate.
- .2 Locate equipment, fixtures and distribution systems to provide minimum interference and maximum usable space and in accordance with manufacturer's recommendations for safety, access and maintenance.
- .3 Inform The Department of conflicting installation. Install as directed.
- .4 Submit field drawings to indicate relative position of various services and equipment when required by The Department.

**1.14 FASTENINGS GENERAL**

- .1 Provide metal fastenings and accessories in same texture, colour and finish as base metal in which they occur. Prevent electrolytic action between dissimilar metals. Use non-corrosive fasteners, anchors and spacers for securing exterior work, unless stainless steel or other material is specifically requested in affected specification section.
- .2 Space anchors within individual load limit or shear capacity and ensure they provide positive permanent anchorage. Wood plugs are not acceptable.
- .3 Conceal fasteners where indicated. Space evenly and lay out neatly.
- .4 Fastenings which cause Spalding or cracking are not acceptable.
- .5 Obtain The Department's approval before using explosive actuated fastening devices. If approval is obtained comply with CSA Z166.

**1.15 FASTENINGS - EQUIPMENT**

- .1 Use fastenings of standard commercial sizes and patterns with material and finish suitable for service.
- .2 Use heavy hexagon heads, semi-finished unless otherwise specified. Use No. 304 stainless steel for exterior areas.
- .3 Bolts may not project more than one diameter beyond nuts.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 61 00 – Common Product Requirements

Page 5 of 7

---

- .4 Use plain type washers on equipment, sheet metal and soft gasket lock type washers where vibrations occur. Use resilient washers with stainless steel.

**1.16 PROTECTION OF WORK IN PROGRESS**

- .1 Prevent overloading of any part of building. Do not cut, drill or sleeve any load bearing structural member, unless specifically indicated without written approval of The Department.

**1.17 EXISTING UTILITIES**

- .1 When breaking into or connecting to existing services or utilities, execute work at times directed by local governing authorities, with minimum of disturbance to work.
- .2 Protect, relocate or maintain existing active services. When services are encountered, cap off in manner approved by authority having jurisdiction. Stake and record location of capped service.
- .3 Submit schedule to and obtain approval from The Department for any shut-down or closure of active services or facility. Adhere to approved schedule and provide notice to affected parties.
- .4 Where unknown services are encountered, immediately advise The Department and confirm findings in writing.
- .5 Remove abandoned services lines within 2m of structures. Cap or otherwise seal lines at cut-off points as directed by The Department.

**1.18 SELECTION OF MATERIAL AND EQUIPMENT**

- .1 Material and equipment will be specified in the tender documents, and selected by Contractor, by one or more of the following methods:
  - .1 Specification by reference to a relevant Standard, such as CSA, ASTM, ULC, etc., select any material or equipment that meets or exceeds the specified.
  - .2 Specification by reference to an accepted product evaluation publication, such as the CGSB “Qualified Products List”, or CCMC Registry of Product Evaluations”, - select any manufacturer’s product so listed.
  - .3 Specification by Prescriptive or Performance specification – select any material or equipment meeting or exceeding specification.
  - .4 Specification by identification of one or more Manufacturer’s specific product(s) as an “Acceptable Product”, along with a listing of other manufacturers who may offer equivalent products – select any product so named, or select from equivalent product(s) of other listed manufacturers.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 61 00 – Common Product Requirements

Page 6 of 7

---

- .2 “Acceptable Product” is deemed to be a complete and working commodity as described by a manufacturer’s name, catalogue number, trade name, or any combination thereof, and will constitute the minimum standard of acceptance.
- .3 The Department will determine acceptability of Contractor’s selection of material and equipment at time of Shop Drawing review.
- .4 When material or equipment is specified by a Standard, Prescriptive or Performance specification, upon request of the The Department, obtain from manufacturer an independent laboratory reporting, showing that material or equipment meets or exceeds the specified requirements.

**1.19 SUBSTITUTION OF MATERIAL AND EQUIPMENT**

- .1 **Prior to Tender** closing bidders may propose addition of other manufacturer’s names to those listed in the tender documents providing requests are made in writing at least 7 days prior to tender closing date or bid depository where bid depository is used. The Department will inform all prospective bidders of decision by addendum, issued at least 5 days prior to the tender closing date.

Where no manufacturer’s names are listed, the onus is on contractor to provide material and equipment to meet performance specification.

- .2 **After Contract award** substitutions of material or equipment, other than as selected by Contractor from those specified, will be considered by The Department only if:
  - .1 material or equipment selected from those specified are not available
  - .2 delivery date of material or equipment selected from those specified would unduly delay completion of the Contract; or
  - .3 alternative material or equipment to those specified, provided they are determined by the The Department to be equivalent to or better than those specified, will result in a credit to the Contract amount.
- .3 Requests for substitutions after Contract award must be accompanied by sufficient information in the form of shop drawings, manufacturer’s literature, samples or other data to permit proper investigation of the substitutes used. Requests must also include statements of respective costs of material or equipment originally specified and the proposed substitution.
- .4 Should a proposed substitution be accepted after Contract award either in part or in whole, assume full responsibility and costs when substitution affects other work on Project. Contractor to pay for design or drawing changes required as a result of the substitution.
- .5 Amounts of all credits arising from approval of substitutions after Contract award will be determined by The Department and the Contract amount will be reduced accordingly.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

**Issued October, 2015**

**Section 01 61 00 – Common Product Requirements**

**Page 7 of 7**

---

**PART 2      PRODUCTS (NOT APPLICABLE)**

**PART 3      EXECUTION (NOT APPLICABLE)**

**END OF SECTION**

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 73 00 – Execution

Page 1 of 3

---

**PART 1      GENERAL**

**1.1            SECTION INCLUDES**

- .1            Requirements and limitations for cutting and patching the Work.

**1.2            RELATED SECTIONS**

- .1            Section 01 11 00 - Summary of Work.
- .2            Section 01 33 00 - Submittal Procedures.

**1.3            SUBMITTALS**

- .1            Submit written request in advance of cutting or alteration which affects:
  - .1            Structural integrity of any element of Project.
  - .2            Integrity of weather-exposed or moisture-resistant elements.
  - .3            Efficiency, maintenance, or safety of any operational element.
  - .4            Visual qualities of sight-exposed elements.
  - .5            Work of Owner or separate contractor.
- .2            Include in request:
  - .1            Identification of Project.
  - .2            Location and description of affected Work.
  - .3            Statement on necessity for cutting or alteration.
  - .4            Description of proposed Work, and products to be used.
  - .5            Alternatives to cutting and patching.
  - .6            Effect on Work of Owner or separate contractor.
  - .7            Written permission of affected separate contractor.
  - .8            Date and time work will be executed.

**1.4            PREPARATION**

- .1            Inspect existing conditions, including elements subject to damage or movement during cutting and patching.
- .2            After uncovering, inspect conditions affecting performance of Work.
- .3            Beginning of cutting or patching means acceptance of existing conditions.
- .4            Provide supports to assure structural integrity of surroundings; provide devices and methods to protect other portions of project from damage.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 73 00 – Execution

Page 2 of 3

---

- .5 Provide protection from elements for areas which may be exposed by uncovering work; maintain excavations free of water.
- .6 Obtain The Department approval before cutting, boring or sleeving load-bearing members.

**1.5 EXECUTION**

- .1 Execute cutting, fitting, and patching including excavation and fill, to complete Work.
- .2 Fit several parts together, to integrate with other Work.
- .3 Uncover Work to install ill-timed Work.
- .4 Remove and replace defective and non-conforming Work.
- .5 Provide openings in non-structural elements of Work for penetrations of mechanical and electrical Work.
- .6 Execute Work by methods to avoid damage to other Work, and which will provide proper surfaces to receive patching and finishing.
- .7 Employ original installer to perform cutting and patching for weather-exposed and moisture-resistant elements, and sight-exposed surfaces.
- .8 Cut rigid materials using masonry saw or core drill. Pneumatic or impact tools not allowed on masonry work without prior approval.
- .9 Restore work with new products in accordance with requirements of Contract Documents.
- .10 Fit Work to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- .11 Refinish surfaces to match adjacent finishes: For continuous surfaces refinish to nearest intersection; for an assembly, refinish entire unit.
- .12 Conceal pipes, ducts and wiring in floor, wall and ceiling construction of finished areas except where indicated otherwise.
- .13 Make cuts with clean, true, smooth edges.
- .14 Where new work connects with existing, and where existing work is altered, cut, patch and make good to match existing work.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011  
Section 01 73 00 – Execution**

Issued October, 2015

Page 3 of 3

---

**PART 2      PRODUCTS (NOT APPLICABLE)**

**PART 3      EXECUTION (NOT APPLICABLE)**

**END OF SECTION**

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 74 11 – Cleaning

Page 1 of 2

---

**PART 1      GENERAL**

**1.1            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.
- .3      Provide adequate ventilation during use of volatile or noxious substances.

**1.2            PROJECT CLEANLINESS**

- .1      Maintain Work in tidy condition, free from accumulation of waste products and debris, other than that caused by Owner or other Contractors.
- .2      Remove waste materials and debris from site at the end of each working day. Do not burn waste materials on site.
- .3      Clear snow and ice from Work area.
- .4      Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
- .5      Provide on-site containers for collection of waste materials and debris.
- .6      Clean interior areas prior to start of finish work, maintain areas free of dust and other contaminants during finishing operations.
- .7      Store volatile waste in covered metal containers, and remove from premises at end of each working day.
- .8      Provide adequate ventilation during use of volatile or noxious substances.
- .9      Use only cleaning materials recommended by manufacturer of surface to be cleaned, and as recommended by cleaning material manufacturer.
- .10     Schedule cleaning operations so that resulting dust, debris and other contaminants will not fall on wet, newly painted surfaces..

**1.3            FINAL CLEANING**

- .1      Refer to General Conditions.



---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 74 11 – Cleaning

Page 2 of 2

---

- .2 When Work is Substantially Performed, remove surplus products, tools, construction machinery and equipment not required for performance of remaining Work.
- .3 Remove waste products and debris other than that caused by others, and leave Work clean and suitable for occupancy.
- .4 When the Work is Totally Performed, remove surplus products, tools, construction machinery and equipment. Remove waste products and debris other than that caused by the Owner or other Contractors.
- .5 Remove waste materials from the site at regularly scheduled times or dispose of as directed by The Department. Do not burn waste materials on site.
- .6 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
- .7 Leave the work broom clean before the inspection process commences.
- .8 Inspect finishes, fitments and equipment and ensure specified workmanship and operation.
- .9 Broom clean and wash exterior walks, steps and surfaces; rake clean other surfaces of grounds.
- .10 Remove dirt and other disfiguration from exterior surfaces.
- .11 Clean equipment and fixtures to a sanitary condition; clean or replace filters of mechanical equipment.
- .12 Remove snow and ice from Work area.

**PART 2      PRODUCTS (NOT APPLICABLE)**

**PART 3      EXECUTION (NOT APPLICABLE)**

**END OF SECTION**

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 78 00 – Closeout Submittals

Page 1 of 8

---

**PART 1      GENERAL**

**1.1            SECTION INCLUDES**

- .1      As-built, samples, and specifications.
- .2      Equipment and systems.
- .3      Product data, materials and finishes, and related information.
- .4      Operation and maintenance data.
- .5      Spare parts, special tools and maintenance materials.
- .6      Warranties and bonds.
- .7      Final site survey.

**1.2            RELATED SECTIONS**

- .1      Section 01 33 00 – Submittal Procedures.
- .2      Section 01 45 00- Quality Control.

**1.3            SUBMISSION**

- .1      Prepare instructions and data using personnel experienced in maintenance and operation of described products.
- .2      Submit one copy of completed volumes in final form 15 days prior to final inspection.
- .3      Copy will be returned after final inspection, with The Department's comments.
- .4      Revise content of documents as required prior to final submittal.
- .5      Two weeks prior to Substantial Performance of the Work, submit to The Department, two final copies of operating and maintenance manuals.
- .6      Ensure spare parts, maintenance materials and special tools provided are new, undamaged or defective, and of same quality and manufacture as products provided in Work.
- .7      If requested, furnish evidence as to type, source and quality of products provided.
- .8      Defective products will be rejected, regardless of previous inspections. Replace products at own expense.
- .9      Pay costs of transportation.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 78 00 – Closeout Submittals

Page 2 of 8

---

**1.4           FORMAT**

- .1       Organize data in the form of an instructional manual.
- .2       Binders: vinyl, hard covered, 3 'D' ring, loose leaf 219 x 279 mm with spine and face pockets.
- .3       When multiple binders are used, correlate data into related consistent groupings. Identify contents of each binder on spine.
- .4       Cover: Identify each binder with type or printed title 'Project Record Documents'; list title of project and identify subject matter of contents.
- .5       Arrange content under Section numbers and sequence of Table of Contents.
- .6       Provide tabbed fly leaf for each separate product and system, with typed description of product and major component parts of equipment.
- .7       Text: Manufacturer's printed data, or typewritten data.
- .8       Drawings: provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.
- .9       Provide CAD files in DWG format on CD. Also provide electronic files in PDF format.

**1.5           CONTENTS - EACH VOLUME**

- .1       Table of Contents: provide title of project; names, addresses, and telephone numbers of Consultant and Contractor with name of responsible parties; schedule of products and systems, indexed to content of volume.
- .2       For each product or system:
  - .1       List names, addresses and telephone numbers of subcontractors and suppliers, including local source of supplies and replacement parts.
- .3       Product Data: mark each sheet to clearly identify specific products and component parts, and data applicable to installation; delete inapplicable information.
- .4       Drawings: supplement product data to illustrate relations of component parts of equipment and systems, to show control and flow diagrams.
- .5       Typewritten Text: as required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions specified in Section 01 45 00 - Quality Control.

**1.6           AS-BUILTS AND SAMPLES**

- .1       In addition to requirements in General Conditions, maintain at the site for The Department one record copy of:

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 78 00 – Closeout Submittals

Page 3 of 8

---

- .1 Contract Drawings.
- .2 Specifications.
- .3 Addenda.
- .4 Change Orders and other modifications to the Contract.
- .5 Reviewed shop drawings, product data, and samples.
- .6 Field test records.
- .7 Inspection certificates.
- .8 Manufacturer's certificates.
  
- .2 Store record documents and samples in field office apart from documents used for construction. Provide files, racks, and secure storage.
  
- .3 Label record documents and file in accordance with Section number listings in List of Contents of this Project Manual. Label each document "PROJECT RECORD" in neat, large, printed letters.
  
- .4 Maintain record documents in clean, dry and legible condition. Do not use record documents for construction purposes.
  
- .5 Keep record documents and samples available for inspection by The Department.

**1.7 RECORDING ACTUAL SITE CONDITIONS**

- .1 Record information on set of blue line opaque drawings, provided by The Department.
- .2 Provide felt tip marking pens, maintaining red color pens for recording information.
- .3 Record information concurrently with construction progress. Do not conceal Work until required information is recorded.
- .4 Contract Drawings and shop drawings: legibly mark each item to record actual construction, including:
  - .1 Measured depths of elements of foundation in relation to finish first floor datum.
  - .2 Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
  - .3 Measured locations of internal utilities and appurtenances, referenced to visible and accessible features of construction.
  - .4 Field changes of dimension and detail.
  - .5 Changes made by change orders.
  - .6 Details not on original Contract Drawings.
  - .7 References to related shop drawings and modifications.
- .5 Specifications: legibly mark each item to record actual construction, including:
  - .1 Manufacturer, trade name, and catalogue number of each product actually installed, particularly optional items and substitute items.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 78 00 – Closeout Submittals

Page 4 of 8

---

- .2 Changes made by Addenda and change orders.
  - .6 Other Documents: submit manufacturer's certifications, inspection certifications, field test records, required by individual specifications sections.
  - .7 At completion of project provide all recorded information on print drawings or alternatively transfer to CAD files in DWG format. Submit DWG files, also with electronic files in PDF format as part of the Closeout Submittals.
- 1.8 FINAL SURVEY**
- .1 Submit final site survey certificate certifying that elevations and locations of completed Work are in conformance, or non-conformance with Contract Documents.
- 1.9 EQUIPMENT AND SYSTEMS**
- .1 Each Item of Equipment and Each System: include description of unit or system, and component parts. Give function, normal operation characteristics, and limiting conditions. Include performance curves, with the engineering data and tests, and complete nomenclature and commercial number of replaceable parts.
  - .2 Panel board circuit directories: provide electrical service characteristics, controls, and communications.
  - .3 Include installed colour coded wiring diagrams.
  - .4 Operating Procedures: include start-up, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down, and emergency instructions. Include summer, winter, and any special operating instructions.
  - .5 Maintenance Requirements: include routine procedures and guide for trouble-shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
  - .6 Provide servicing and lubrication schedule, and list of lubricants required.
  - .7 Include manufacturer's printed operation and maintenance instructions.
  - .8 Include sequence of operation by controls manufacturer.
  - .9 Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
  - .10 Provide installed control diagrams by controls manufacturer.
  - .11 Provide Contractor's coordination drawings, with installed colour coded piping diagrams.
  - .12 Provide charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 78 00 – Closeout Submittals

Page 5 of 8

---

- .13 Provide list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.
- .14 Include test and balancing reports
- .15 Additional requirements: As specified in individual specification sections.

**1.10 MATERIALS AND FINISHES**

- .1 Building Products, Applied Materials, and Finishes: include product data, with catalogue number, size, composition, and colour and texture designations. Provide information for re-ordering custom manufactured products.
- .2 Instructions for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
- .3 Moisture-protection and Weather-exposed Products: include manufacturer's recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
- .4 Additional Requirements: as specified in individual specifications sections.

**1.11 SPARE PARTS**

- .1 Provide spare parts, in quantities specified in individual specification sections.
- .2 Provide items of same manufacture and quality as items in Work.
- .3 Deliver to site location as directed; place and store.
- .4 Receive and catalogue all items. Submit inventory listing to The Department. Include approved listings in Maintenance Manual.
- .5 Obtain receipt for delivered products and submit prior to final payment.

**1.12 MAINTENANCE MATERIALS**

- .1 Provide maintenance and extra materials, in quantities specified in individual specification sections.
- .2 Provide items of same manufacture and quality as items in Work.
- .3 Deliver to site location as directed; place and store.
- .4 Receive and catalogue all items. Submit inventory listing to The Department. Include approved listings in Maintenance Manual.
- .5 Obtain receipt for delivered products and submit prior to final payment.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 78 00 – Closeout Submittals

Page 6 of 8

---

**1.13 SPECIAL TOOLS**

- .1 Provide special tools, in quantities specified in individual specification section.
- .2 Provide items with tags identifying their associated function and equipment.
- .3 Deliver to project site place and store.
- .4 Receive and catalogue all items. Submit inventory listing to The Department. Include approved listings in Maintenance Manual.

**1.14 STORAGE, HANDLING AND PROTECTION**

- .1 Store spare parts, maintenance materials, and special tools in manner to prevent damage or deterioration.
- .2 Store in original and undamaged condition with manufacturer's seal and labels intact.
- .3 Store components subject to damage from weather in weatherproof enclosures.
- .4 Store paints and freezable materials in a heated and ventilated room.
- .5 Remove and replace damaged products at own expense and to satisfaction of The Department.

**1.15 WARRANTIES AND BONDS**

- .1 Develop warranty management plan to contain information relevant to Warranties.
- .2 Submit warranty management plan to The Department for approval.
- .3 Warranty management plan to include required actions and documents to assure that Owner receives warranties to which it is entitled.
- .4 Provide plan in narrative form and contain sufficient detail to make it suitable for use by future maintenance and repair personnel.
- .5 Assemble approved information in binder and submit upon acceptance of work. Organize binder as follows:
  - .1 Separate each warranty or bond with index tab sheets keyed to Table of Contents listing.
  - .2 List subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.
  - .3 Obtain warranties and bonds, executed in duplicate by subcontractors, suppliers, and manufacturers, within ten days after completion of the applicable item of work.
  - .4 Except for items put into use with Owner's permission, leave date of beginning of time of warranty until the Date of Substantial Performance is determined.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 78 00 – Closeout Submittals

Page 7 of 8

---

- .5 Verify that documents are in proper form, contain full information, and are notarized.
- .6 Co-execute submittals when required.
- .7 Retain warranties and bonds until time specified for submittal.
- .6 Include information contained in warranty management plan as follows:
  - .1 Roles and responsibilities of personnel associated with warranty process, including points of contact and telephone numbers within the organizations of Contractors, subcontractors, manufacturers or suppliers involved.
  - .2 Listing and status of delivery of Certificates of Warranty for extended warranty items, to include roofs, HVAC balancing, pumps, motors, transformers, and commissioned systems such as fire protection, alarm systems, sprinkler systems, lightning protection systems.
  - .3 Provide list for each warranted equipment, item, feature of construction or system indicating:
    - .1 Name of item.
    - .2 Model and serial numbers.
    - .3 Location where installed.
    - .4 Name and phone numbers of manufacturers or suppliers.
    - .5 Names, addresses and telephone numbers of sources of spare parts.
    - .6 Warranties and terms of warranty: include one-year overall warranty of construction. Indicate items that have extended warranties and show separate warranty expiration dates.
    - .7 Cross-reference to warranty certificates as applicable.
    - .8 Starting point and duration of warranty period.
    - .9 Summary of maintenance procedures required to continue warranty in force.
    - .10 Cross-Reference to specific pertinent Operation and Maintenance manuals.
    - .11 Organization, names and phone numbers of persons to call for warranty service.
    - .12 Typical response time and repair time expected for various warranted equipment.
  - .4 Procedure and status of tagging of equipment covered by extended warranties.
  - .5 Post copies of instructions near selected pieces of equipment where operation is critical for warranty and/or safety reasons.
- .7 Respond in a timely manner to oral or written notification of required construction warranty repair work.
- .8 Written verification will follow oral instructions. Failure to respond will be cause for The Department to proceed with action against Contractor.



---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 01 78 00 – Closeout Submittals

Page 8 of 8

---

**1.16 PRE-WARRANTY CONFERENCE**

- .1 Meet with The Department to develop understanding of requirements of this section. Schedule meeting prior to contract completion, and at time designated by The Department.
- .2 The Department will establish communication procedures for:
  - .1 Notification of construction warranty defects.
  - .2 Determine priorities for type of defect.
  - .3 Determine reasonable time for response.

**1.17 WARRANTY TAGS**

- .1 Tag, at time of installation, each warranted item. Provide durable, oil and water resistant tag approved by The Department.
- .2 Leave date of acceptance until project is accepted for occupancy.
- .3 Indicate following information on tag:
  - .1 Type of product/material.
  - .2 Model number.
  - .3 Serial number.
  - .4 Contract number.
  - .5 Warranty period.
  - .6 Inspector's signature.
  - .7 Construction Contractor.

**PART 2      PRODUCTS (NOT APPLICABLE)**

**PART 3      EXECUTION (NOT APPLICABLE)**

**END OF SECTION**

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 02 41 16 - Structure Demolition

Page 1 of 5

---

**PART 1      GENERAL**

**1.1            SECTION INCLUDES**

- .1      Methods and procedures for demolition of parts of structures and items as indicated on the drawings. This includes, but not limited to, miscellaneous metals and framing, handrails, and hoisting equipment.

**1.2            RELATED SECTIONS**

- .1      Section 01 11 00 – Summary of Work
- .2      Section 01 35 29.06 - Health and Safety Requirements
- .3      Section 01 52 00 – Construction Facilities
- .4      Section 01 56 00 - Temporary Barriers and Enclosures
- .5      Section 01 35 43 – Environmental Procedures

**1.3            REFERENCES**

- .1      Canadian Standards Association (CSA).
  - .1      CSA S350, Code of Practice for Safety in Demolition of Structures

**1.4            QUALITY ASSURANCE**

- .1      Prior to start of Work arrange for site visit with The Department to examine existing site conditions adjacent to demolition work
- .2      Hold project meetings every month.
- .3      Ensure key personnel, site supervisor, project manager, subcontractor representatives, attend.

**1.5            EXISTING CONDITIONS**

- .1      Should material resembling spray or trowel applied asbestos or any other designated substance be encountered in course of demolition, stop work, take preventative measures, and notify The Department immediately. Do not proceed until written instructions have been received.
- .2      Structures to be demolished to be based on their condition on date that tender is accepted.
- .3      Salvage items as identified by The Department. Remove, protect and store salvaged items as directed by The Department. Deliver to the Department as directed.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 02 41 16 - Structure Demolition

Page 2 of 5

---

**1.6 DEMOLITION DRAWINGS**

- .1 Where required by authorities having jurisdiction, submit for approval drawings, diagrams or details showing sequence of demolition work and supporting structures and underpinning.
- .2 Submit drawings stamped and signed by qualified professional Engineer licensed in Province of Newfoundland and Labrador, Canada.

**1.7 ENVIRONMENTAL PROTECTION**

- .1 Prevent movement, settlement or damage of adjacent structures, services, walks, paving, trees, landscaping, adjacent grades parts of existing building to remain.
- .2 Support affected structures and, if safety of structure being demolished or adjacent structures or services appears to be endangered cease operations and notify The Department.
- .3 Prevent debris from blocking surface drainage system, elevators, mechanical and electrical systems which must remain in operation.
- .4 Ensure that demolition work does not adversely affect adjacent watercourses, groundwater and wildlife, or contribute to excess air and noise pollution.
- .5 Fires and burning of waste or materials is not permitted on site.
- .6 Do not bury waste or materials on site.
- .7 Do not dispose of waste or volatile materials such as mineral spirits, oil, petroleum based lubricants, or toxic cleaning solutions into watercourses, storm or sanitary sewers. Ensure proper disposal procedures are maintained throughout project.
- .8 Do not pump water containing suspended materials into watercourses, storm or sanitary sewers, or onto adjacent properties.
- .9 Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with local authorities' requirements.
- .10 Protect trees, plants and foliage on site and adjacent properties where indicated.
- .11 Prevent extraneous materials from contaminating air beyond application area, by providing temporary enclosures during demolition work.
- .12 Cover or wet down dry materials and waste to prevent blowing dust and debris. Control dust on all temporary roads.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 02 41 16 - Structure Demolition

Page 3 of 5

---

**1.8 SCHEDULING**

- .1 Ensure project time lines are met without compromising specified minimum rates of material diversion. Notify The Department in writing of delays.

**PART 2 PRODUCTS (NOT APPLICABLE)**

**PART 3 EXECUTION**

**3.1 PREPARATION**

- .1 Do work in accordance with 01 35 29.06 – Health and Safety Requirements.
- .2 Disconnect electrical and telephone service lines entering buildings to be demolished. Post warning signs on electrical lines and equipment which must remain energized to serve other properties during period of demolition.
- .3 Do not disrupt active or energized utilities designated to remain undisturbed.
- .4 Remove rodent and vermin as required by The Department.

**3.2 SAFETY CODE**

- .1 Do demolition work in accordance with Section 01 56 00 – Temporary Barriers and Enclosures.
- .2 Blasting operations not permitted during demolition.

**3.3 DEMOLITION**

- .1 Remove existing equipment, services, and obstacles where required for refinishing or making good of existing surfaces, and replace as work progresses.
- .2 At end of each day's work, leave Work in safe and stable condition. Protect interiors of parts not to be demolished from exterior elements at all times.
- .3 Demolish to minimize dusting. Keep materials wetted as directed by The Department.
- .4 Remove structural framing.
- .5 Contain all fibrous materials (e.g. Insulation) to minimize release of airborne fiber while being transported to waste disposal site or alternative disposal location.
- .6 Only dispose of material specified by selected alternative disposal option as directed by The Department.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 02 41 16 - Structure Demolition

Page 4 of 5

---

- .7 Ensure that these materials will not be disposed of in landfill or waste stream destined for landfill.
- .8 Remove and dispose of demolished materials except where noted otherwise and in accordance with authorities having jurisdiction.
- .9 Environmental:
  - .1 Remove contaminated or dangerous materials as defined by authorities having jurisdiction, relating to environmental protection, from site and dispose of in safe manner to minimized danger at site or during disposal.
- .10 Prior to the start of any demolition work remove contaminated or hazardous materials as defined by authorities having jurisdiction, from site and dispose of at designated disposal facilities.
- .11 Prior to the start of any demolition work remove underground storage tanks and piping as directed.
- .12 Use natural lighting to work by wherever possible. Shut off all lighting except those required for security purposes at the end of each day.

**3.4 STOCKPILING**

- .1 Stockpile materials in a location as directed by The Department.
- .2 Designate appropriate security resources/measures to prevent vandalism, damage and theft.
- .3 Separate from general waste stream each of the following materials. Stockpile materials in neat and orderly fashion in location and as directed by The Department for alternate disposal. Stockpile materials in accordance with applicable fire regulations.
  - .1 Wiring and conduit.
  - .2 Insulation batts.
  - .3 Miscellaneous metals.
- .4 Supply separate, clearly-marked disposal bins for all categories of waste material. Do not remove bins from site until inspected and approved by The Department.
- .5 Provide collection areas for collection of miscellaneous metals in the area of demolition.

**3.5 REMOVAL FROM SITE**

- .1 Notify The Department in writing of any materials identified as not suitable for alternate disposal. Provide reasons prior to approval for disposal.
- .2 Dispose of materials as directed by The Department.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 02 41 16 - Structure Demolition

Page 5 of 5

---

- .3 Remove stockpiled material as directed by The Department when it interferes with operations of project construction.
- .4 Remove stockpiles of like materials by an alternate disposal option once collection of materials is complete.
- .5 Transport material designated for alternate disposal in accordance with applicable regulations.
- .6 Dispose of materials not designated for alternate disposal in accordance with applicable regulations.

**3.6 REPORTING**

- .1 Record off-site removal of debris and materials and provide following information regarding removed materials to The Department within 24 hours.
  - .1 Time and date of Removal
  - .2 Description of Material
  - .3 Weight and Quantity of Materials.
  - .4 Breakdown of reuse, recycling and landfill quantities.
  - .5 End Demolition of Materials.

**3.7 COORDINATION**

- .1 Coordinate alternative disposal activities with The Department's on site waste diversion representative.

**END OF SECTION**

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 09 91 13 – Exterior Painting

Page 1 of 14

---

**PART 1      GENERAL**

**1.1            RELATED SECTIONS**

- .1      Section 01 33 00 – Submittal Procedures.
- .2      Section 01 45 00 - Quality Control.
- .3      Section 01 61 00 - Common Product Requirements.
- .4      Section 01 78 00 – Closeout Submittals.

**1.2            REFERENCES**

- .1      Environmental Protection Agency (EPA)
  - .1      EPA Test Method for Measuring Total Volatile Organic Compound Content of Consumer Products, Method 24 (for Surface Coatings).
- .2      Master Painters Institute (MPI)
  - .1      MPI Architectural Painting Specifications Manual
- .3      Society for Protective Coatings (SSPC).
  - .1      SSPC Painting Manual, Systems and Specifications Manual.
- .4      National Fire Code of Canada.

**1.3            QUALITY ASSURANCE**

- .1      Contractor shall have a minimum of five years proven satisfactory experience. When requested, provide a list of last three comparable jobs including, job name and location, specifying authority, and project manager.
- .2      Qualified journeyman shall be engaged in painting work. Apprentices may be employed provided they work under the direct supervision of a qualified journeyman in accordance with trade regulations.
- .3      Conform to latest MPI requirements for exterior painting work including preparation and priming.
- .4      Materials (primers, paints, coatings, varnishes, stains, lacquers, fillers, thinners, solvents, etc.) shall be in accordance with MPI Painting Specification Manual "Approved Products" listing and shall be from a single manufacturer for each system used.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 09 91 13 – Exterior Painting

Page 2 of 14

---

- .5 Other paint materials such as linseed oil, shellac, turpentine, etc. shall be the highest quality product of an approved manufacturer listed in MPI Painting Specification Manual and shall be compatible with other coating materials as required.
- .6 Retain purchase orders, invoices and other documents to prove conformance with noted MPI requirements when requested by The Department.
- .7 Standard of Acceptance:
  - .1 Walls: No defects visible from a distance of 1000 mm at 90° to surface.
  - .2 Ceilings: No defects visible from floor at 45° to surface when viewed using final lighting source.
  - .3 Final coat to exhibit uniformity of colour and uniformity of sheen across full surface area.

**1.4 ENVIRONMENTAL PERFORMANCE REQUIREMENTS**

- .1 Provide paint products meeting MPI "Environmentally Friendly" E2 or E3 ratings based on VOC (EPA Method 24) content levels.

**1.5 SCHEDULING OF WORK**

- .1 Submit work schedule for various stages of painting to The Department for approval. Submit schedule minimum of 48 hours in advance of proposed operations.
- .2 Obtain written authorization from The Department for changes in work schedule.
- .3 Schedule painting operations to prevent disruption of occupants in and about the building.

**1.6 SUBMITTALS**

- .1 Submit product data and manufacturer's installation/application instructions for paints and coating products to be used.
- .2 Submit WHMIS - MSDS - Material Safety Data Sheets.
- .3 Upon completion, submit records of products used, records to be included in Operation and Maintenance Manuals. List products in relation to finish system and include the following:
  - .1 Product name, type and use.
  - .2 Manufacturer's product number.
  - .3 Colour numbers.
  - .4 Manufacturer's Material Safety Data Sheets (MSDS).
  - .5 MPI Environmentally Friendly classification system rating.



---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 09 91 13 – Exterior Painting

Page 3 of 14

---

- .4 Submit manufacturer's application instructions for each product specified.
- .5 Submit duplicate 200 x 300 mm sample panels of each paint, stain, clear coating, with specified paint or coating in colours, gloss/sheen and textures required to MPI Painting Specification Manual standards submitted on the following substrate materials:
  - .1 3 mm plate steel for finishes over metal surfaces.
  - .2 13 mm birch plywood for finishes over wood surfaces.
  - .3 50 mm concrete block for finishes over concrete or concrete masonry surfaces.
  - .4 13 mm gypsum board for finishes over gypsum board and other smooth surfaces.
- .6 When approved, samples shall become acceptable standard of quality for appropriate on-site surface with one of each sample retained on-site.
- .7 Submit full range of available colours where colour availability is restricted.

**1.7 QUALITY CONTROL**

- .1 Provide mock-up in accordance with Section 01 45 00 - Quality Control.
- .2 When requested by the The Department or Paint Inspection Agency, prepare and paint designated surface, area, room or item (in each colour scheme) to requirements specified herein, with specified paint or coating showing selected colours, gloss/sheen, textures and workmanship to MPI Painting Specification Manual standards for review and approval. When approved, surface, area, room and/or items shall become acceptable standard of finish quality and workmanship for similar on-site work.

**1.8 EXTRA MATERIALS**

- .1 Submit maintenance materials in accordance with Section 01 78 00 - Closeout Submittals.
- .2 Submit 1 - 4 litre can of each type and colour of finish coating. Identify colour and paint type in relation to established colour schedule and finish formula.
- .3 Deliver to The Department and store where directed.

**1.9 DELIVERY, HANDLING AND STORAGE**

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements.
- .2 Deliver and store materials in original containers, sealed, with labels intact.
- .3 Labels shall clearly indicate:
  - .1 Manufacturer's name and address.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 09 91 13 – Exterior Painting

Page 4 of 14

---

- .2 Type of paint or coating.
- .3 Compliance with applicable standard.
- .4 Colour number in accordance with established colour schedule.
- .4 Remove damaged, opened and rejected materials from site.
- .5 Provide and maintain dry, temperature controlled, secure storage.
- .6 Observe manufacturer's recommendations for storage and handling.
- .7 Store materials and supplies away from heat generating devices.
- .8 Store materials and equipment in a well ventilated area with temperature range 7°C to 30°C.
- .9 Store temperature sensitive products above minimum temperature as recommended by manufacturer.
- .10 Keep areas used for storage, cleaning and preparation, clean and orderly to approval of Consultant. After completion of operations, return areas to clean condition to approval of Consultant.
- .11 Remove paint materials from storage only in quantities required for same day use.
- .12 Comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling storage, and disposal of hazardous materials.
- .13 Fire Safety Requirements:
  - .1 Provide one 9 kg Type ABC dry chemical fire extinguisher adjacent to storage area.
  - .2 Store oily rags, waste products, empty containers and materials subject to spontaneous combustion in ULC approved, sealed containers and remove from site on a daily basis.
  - .3 Handle, store, use and dispose of flammable and combustible materials in accordance with the National Fire Code of Canada.
- .14 Comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of hazardous materials.

**1.10 SITE REQUIREMENTS**

- .1 Heating, Ventilation and Lighting:
  - .1 Ventilate enclosed spaces.
  - .2 Perform no painting work unless adequate and continuous ventilation and sufficient heating facilities are in place to maintain ambient air and substrate

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 09 91 13 – Exterior Painting

Page 5 of 14

---

- temperatures above 10°C for 24 hours before, during and after paint application until paint has cured sufficiently.
- .3 Where required, provide continuous ventilation for seven days after completion of application of paint.
  - .4 Provide temporary ventilating and heating equipment where permanent facilities are not available.
  - .5 Perform no painting work unless a minimum lighting level of 323 Lux is provided on surfaces to be painted. Adequate lighting facilities shall be provided by General Contractor.
- .2 Temperature, Humidity and Substrate Moisture Content Levels:
- .1 Unless specifically pre-approved by The Department and, applied product manufacturer, perform no painting work when:
    - .1 ambient air and substrate temperatures are below 10°C.
    - .2 substrate temperature is over 32°C unless paint is specifically formulated for application at high temperatures.
    - .3 substrate and ambient air temperatures are expected to fall outside MPI or paint manufacturer's prescribed limits.
    - .4 the relative humidity is above 85% or when dew point is less than 3°C variance between air/surface temperature.
    - .5 rain or snow are forecast to occur before paint has thoroughly cured or when it is foggy, misty, raining or snowing at site.
  - .2 Perform no painting work when maximum moisture content of substrate exceeds:
    - .1 12% for concrete and masonry (clay and concrete brick/block).
    - .2 15% for wood.
    - .3 12% for plaster and gypsum board.
  - .3 Conduct moisture tests using a properly calibrated electronic Moisture Meter, except test concrete floors for moisture using a simple "cover patch test".
  - .4 Test concrete, masonry and plaster surfaces for alkalinity as required.
- .3 Surface and Environmental Conditions:
- .1 Apply paint finish only in areas where dust is no longer being generated by related construction operations or when wind or ventilation conditions are such that airborne particles will not affect quality of finished surface.
  - .2 Apply paint only to adequately prepared surfaces and to surfaces within moisture limits noted herein.
  - .3 Apply paint only when previous coat of paint is dry or adequately cured.
  - .4 Apply paint finishes only when conditions forecast for entire period of application fall within manufacturer's recommendations.
  - .5 Do not apply paint when:
    - .1 Temperature is expected to drop below 10°C before paint has thoroughly cured.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 09 91 13 – Exterior Painting

Page 6 of 14

---

- .2 Substrate and ambient air temperatures are expected to fall outside MPI or paint manufacturer's limits.
- .3 Surface to be painted is wet, damp or frosted.
- .6 Provide and maintain cover when paint must be applied in damp or cold weather. Heat substrates and surrounding air to comply with temperature and humidity conditions specified by manufacturer. Protect until paint is dry or until weather conditions are suitable.
- .7 Schedule painting operations such that surfaces exposed to direct, intense sunlight are scheduled for completion during early morning.
- .8 Remove paint from areas which have been exposed to freezing, excess humidity, rain, snow or condensation. Prepare surface again and repaint.
- .9 Paint occupied facilities in accordance with approved schedule only. Schedule operations to approval of the The Department such that painted surfaces will have dried and cured sufficiently before occupants are affected.

**1.11 WASTE MANAGEMENT AND DISPOSAL**

- .1 Separate waste materials for reuse and recycling in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.
- .2 Remove from site and dispose of packaging materials at appropriate recycling facilities.
- .3 Place materials defined as hazardous or toxic in designated containers.
- .4 Ensure emptied containers are sealed and stored safely.
- .5 Unused paint, coating materials must be disposed of at official hazardous material collections site as approved by The Department.
- .6 Paint, stain and wood preservative finishes and related materials (thinners, and solvents) are regarded as hazardous products and are subject to regulations for disposal.
- .7 Material which cannot be reused must be treated as hazardous waste and disposed of in an appropriate manner.
- .8 Place materials defined as hazardous or toxic waste, including used sealant and adhesive tubes and containers, in containers or areas designated for hazardous waste.
- .9 To reduce the amount of contaminants entering waterways, sanitary/storm drain systems or into ground follow these procedures:
  - .1 Retain cleaning water for water-based materials to allow sediments to be filtered out.
  - .2 Retain cleaners, thinners, solvents and excess paint and place in designated containers and ensure proper disposal.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 09 91 13 – Exterior Painting

Page 7 of 14

---

- .3 Return solvent and oil soaked rags used during painting operations for contaminant recovery, proper disposal, or appropriate cleaning and laundering.
- .4 Dispose of contaminants in approved legal manner in accordance with hazardous waste regulations.
- .10 Empty paint cans are to be dry prior to disposal or recycling (where available).

**PART 2      PRODUCTS**

**2.1      MATERIALS**

- .1 Paint materials listed in the latest edition of the MPI Approved Products List (APL) are acceptable for use on this project.
- .2 Paint materials for each coating formula to be products of a single manufacturer.
- .3 Low odour products: whenever possible, select products exhibiting low odour characteristics. If two products are otherwise equivalent, select the product with the lowest odour. Only qualified products with E2 or E3 "Environmentally Friendly" rating are acceptable for use on this project.
- .4 Paints, coatings, adhesives, solvents, cleaners, lubricants, and other fluids, shall:
  - .1 be water-based, water soluble, water clean-up.
  - .2 be non-flammable
  - .3 be manufactured without compounds which contribute to ozone depletion in the upper atmosphere.
  - .4 be manufactured without compounds which contribute to smog in the lower atmosphere.
  - .5 do not contain methylene chloride, chlorinated hydrocarbons, toxic metal pigments.
- .5 Water-borne surface coatings must be manufactured and transported in a manner that steps of processes, including disposal of waste products arising therefrom, will meet requirements of applicable governmental acts, by-laws and regulations including, for facilities located in Canada, Fisheries Act and Canadian Environmental Protection Act (CEPA).
- .6 Water-borne surface coatings must not be formulated or manufactured with aromatic solvents, formaldehyde, halogenated solvents, mercury, lead, cadmium, hexavalent chromium or their compounds.
- .7 Water-borne surface coatings must have a flash point of 61.0°C or greater.
- .8 Both water-borne surface coatings and recycled water-borne surface coatings must be made by a process that does not release:

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 09 91 13 – Exterior Painting

Page 8 of 14

---

- .1 Matter in undiluted production plant effluent generating a 'Biochemical Oxygen Demand' (BOD) in excess of 15 mg/L to a natural watercourse or a sewage treatment facility lacking secondary treatment.
- .2 Total Suspended Solids (TSS) in undiluted production plant effluent in excess of 15 mg/L to a natural watercourse or a sewage treatment facility lacking secondary treatment.
- .9 Water-borne paints and stains, and water borne varnishes must meet a minimum "Environmentally Friendly" E2 rating.

## **2.2 COLOURS**

- .1 The Department will provide Colour Schedule after Contract award.
- .2 Selection of colours will be from manufacturer's full range of colours.
- .3 Where specific products are available in a restricted range of colours, selection will be based on the limited range.
- .4 Second coat in a three coat system to be tinted slightly lighter colour than top coat to show visible difference between coats.

## **2.3 MIXING AND TINTING**

- .1 Perform colour tinting operations prior to delivery of paint to site. On-site tinting of painting materials is allowed only with The Department written permission.
- .2 Paste, powder or catalyzed paint mixes shall be mixed in strict accordance with manufacturer's written instructions.
- .3 Where thinner is used, addition shall not exceed paint manufacturer's recommendations. Do not use kerosene or any such organic solvents to thin water-based paints.
- .4 Thin paint for spraying according in strict accordance with paint manufacturer's instructions. If directions are not on container, obtain instructions in writing from manufacturer and provide copy of instructions to The Department.
- .5 Re-mix paint in containers prior to and during application to ensure break-up of lumps, complete dispersion of settled pigment, and colour and gloss uniformity.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 09 91 13 – Exterior Painting

Page 9 of 14

---

**2.4 GLOSS/SHEEN RATINGS**

- .1 Paint gloss shall be defined as the sheen rating of applied paint, in accordance with the following values:

<b>Gloss Level /Category</b>	<b>Units @ 60E/</b>	<b>Units @ 85°</b>
G1 - matte finish	0 to 5	max. 10
G2 - velvet finish	0 to 10	10 to 35
G3 - eggshell finish	10 to 25	10 to 35
G4 - satin finish	20 to 35	min. 35
G5 - semi-gloss finish	35 to 70	
G6 – gloss finish	70 to 85	
G7 - high gloss finish	> 85	

- .2 Gloss level ratings of painted surfaces shall be as specified herein.

**2.5 EXTERIOR PAINTING SYSTEMS**

- .1 The following paint formulas requires a three coat finish as indicated in the MPI Architectural Painting Specifications Manual.
- .2 Asphalt Surfaces: zone/traffic marking for drive and parking areas, etc.
- .1 EXT 2.1B Alkyd zone/traffic marking finish.
- .3 Concrete Vertical Surfaces: (including horizontal soffits)
- .1 EXT 3.1A – Latex G4 finish
- .4 Concrete Horizontal Surfaces: decks
- .1 EXT 3.2D - Alkyd floor enamel G4 finish.
- .5 Clay Masonry Units: (pressed and extruded brick)
- .1 EXT 4.1A - Latex G4 finish.
- .6 Concrete Masonry Units: smooth and split face block and brick
- .1 EXT 4.2A - Latex G4 finish.
- .7 Structural Steel and Metal Fabrications:
- .1 EXT 5.1J - Pigmented polyurethane finish (over high build epoxy).
- .8 Galvanized Metal: not chromate passivated
- .1 EXT 5.3D - Pigmented polyurethane finish for use in high contact/high traffic areas.
- .9 Dimension Lumber: columns, beams, exposed joists, underside of decking, siding, fencing, etc.
- .1 EXT 6.2L - Semi-transparent stain finish.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 09 91 13 – Exterior Painting

Page 10 of 14

---

- .2 EXT 6.2M - Latex G4 finish (over latex primer).
- .10 Dressed Lumber: doors, door and window frames, casings, battens, smooth facias, etc.
  - .1 EXT 6.3L - Latex G4 finish (over latex primer)
- .11 Wood Panelling: plywood siding, fascias, soffits, etc.
  - .1 EXT 6.4K - Latex G4 finish (over latex primer).
- .12 Wood Decks and Stairs/Steps: using spaced lumber
  - .1 EXT 6.5A - Latex porch and floor G4 finish (over primer).
  - .2 EXT 6.5F - Deck stain finish.

**PART 3      EXECUTION**

**3.1      GENERAL**

- .1 Perform preparation and operations for exterior painting in accordance with MPI Painting Specifications Manual except where specified otherwise.
- .2 Apply all paint materials in accordance with paint manufacturer's written application instructions.

**3.2      EXISTING CONDITIONS**

- .1 Investigate existing substrates for problems related to proper and complete preparation of surfaces to be painted. Report to The Department damages, defects, unsatisfactory or unfavourable conditions before proceeding with work.
- .2 Conduct moisture testing of surfaces to be painted using a properly calibrated electronic moisture meter, except test concrete floors for moisture using a simple "cover patch test" and report findings to The Department. Do not proceed with work until conditions fall within acceptable range as recommended by manufacturer.
- .3 Maximum moisture content as follows:
  - .1 Concrete: 12%.
  - .2 Clay and Concrete Block/Brick: 12%.
  - .3 Wood: 15%.

**3.3      PROTECTION**

- .1 Protect existing building surfaces and adjacent structures from paint spatters, markings and other damage by suitable non-staining covers or masking. If damaged, clean and restore such surfaces as directed by The Department.



---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 09 91 13 – Exterior Painting

Page 11 of 14

---

- .2 Cover or mask windows and other ornamental hardware adjacent to areas being painted to prevent damage and to protect from paint drops and splatters. Use non-staining coverings.
- .3 Protect items that are permanently attached such as Fire Labels on doors and frames.
- .4 Protect factory finished products and equipment.
- .5 Protect passing pedestrians, building occupants and general public in and about the building.
- .6 Remove electrical cover plates, light fixtures, surface hardware on doors, and all other surface mounted fittings, equipment and fastenings prior to undertaking any painting operations. Store for re-installation after painting is completed.
- .7 Cover or move exterior furniture and portable equipment around building as necessary to carry out painting operations. Replace as painting operations progress.
- .8 As painting operations progress, place "WET PAINT" signs in areas of work to approval of The Department.

### **3.4 CLEANING AND PREPARATION**

- .1 Clean and prepare exterior surfaces in accordance with MPI Painting Specification Manual requirements. Refer to the MPI Manual in regard to specific requirements and as follows:
  - .1 Remove dust, dirt, and other surface debris by wiping with dry, clean cloths or compressed air.
  - .2 Wash surfaces with a biodegradable detergent and bleach where applicable and clean warm water using a stiff bristle brush to remove dirt, oil and other surface contaminants.
  - .3 Rinse scrubbed surfaces with clean water until foreign matter is flushed from surface.
  - .4 Allow surfaces to drain completely and allow to dry thoroughly.
  - .5 Prepare surfaces for water-based painting, water-based cleaners should be used in place of organic solvents.
  - .6 Use trigger operated spray nozzles for water hoses.
  - .7 Many water-based paints cannot be removed with water once dried. However, minimize the use of kerosene or any such organic solvents to clean up water-based paints.
- .2 Prevent contamination of cleaned surfaces before prime coat is applied and between applications of remaining coats. Apply primer, paint, or pretreatment as soon as possible after cleaning and before deterioration occurs.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 09 91 13 – Exterior Painting

Page 12 of 14

---

- .3 Where possible, prime surfaces of new wood surfaces before installation. Use same primers as specified for exposed surfaces.
  - .1 Apply vinyl sealer to MPI #36 over knots, pitch, sap and resinous areas.
  - .2 Apply wood filler to nail holes and cracks.
  - .3 Tint filler to match stains for stained woodwork.
- .4 Sand and dust between coats as required to provide adequate adhesion for next coat and to remove defects visible from a distance up to 1000 mm.
- .5 Clean metal surfaces to be painted by removing rust, loose mill scale, welding slag, dirt, oil, grease and other foreign substances in accordance with MPI requirements. Remove traces of blast products from surfaces, pockets and corners to be painted by brushing with clean brushes or blowing with clean dry compressed air.
- .6 Touch up of shop primers with primer as specified in applicable section. Major touch-up including cleaning and painting of field connections, welds, rivets, nuts, washers, bolts, and damaged or defective paint and rusted areas, shall be by supplier of fabricated material.
- .7 Do not apply paint until prepared surfaces have been accepted by The Department.

### **3.5 APPLICATION**

- .1 Method of application to be as approved by The Department. Apply paint by brush roller, air sprayer, airless sprayer. Conform to manufacturer's application instructions unless specified otherwise.
- .2 Brush and Roller Application:
  - .1 Apply paint in a uniform layer using brush and/or roller of types suitable for application.
  - .2 Work paint into cracks, crevices and corners.
  - .3 Paint surfaces and corners not accessible to brush using spray, daubers and/or sheepskins. Paint surfaces and corners not accessible to roller using brush, daubers or sheepskins.
  - .4 Brush and/or roll out runs and sags, and over-lap marks. Rolled surfaces shall be free of roller tracking and heavy stipple.
  - .5 Remove runs, sags and brush marks from finished work and repaint.
- .3 Spray Application:
  - .1 Provide and maintain equipment that is suitable for intended purpose, capable of properly atomizing paint to be applied, and equipped with suitable pressure regulators and gauges.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 09 91 13 – Exterior Painting

Page 13 of 14

---

- .2 Keep paint ingredients properly mixed in containers during paint application either by continuous mechanical agitation or by intermittent agitation as frequently as necessary.
- .3 Apply paint in a uniform layer, with overlapping at edges of spray pattern.
- .4 Brush out immediately runs and sags.
- .5 Use brushes to work paint into cracks, crevices and places which are not adequately painted by spray.
- .4 Use dipping, sheepskins or daubers only when no other method is practical in places of difficult access and only when specifically authorized by The Department.
- .5 Apply coats of paint as a continuous film of uniform thickness. Repaint thin spots or bare areas before next coat of paint is applied.
- .6 Allow surfaces to dry and properly cure after cleaning and between subsequent coats for minimum time period as recommended by manufacturer.
- .7 Sand and dust between coats to remove visible defects.
- .8 Finish surfaces both above and below sight lines as specified for surrounding surfaces, including such surfaces as projecting ledges.
- .9 Finish top, bottom, edges and cutouts of doors after fitting as specified for door surfaces.

**3.6 MECHANICAL/ELECTRICAL EQUIPMENT**

- .1 Unless otherwise specified, paint exterior exposed conduits, piping, hangers, ductwork and other mechanical and electrical equipment with colour and finish to match adjacent surfaces, except as noted otherwise.
- .2 Touch up scratches and marks on factory painted finishes and equipment with paint as supplied by manufacturer of equipment.
- .3 Paint fire protection piping red.
- .4 Do not paint over nameplates.
- .5 Paint steel electrical light standards. Do not paint outdoor transformers and substation equipment.

**3.7 FIELD QUALITY CONTROL**

- .1 Field inspection of exterior painting operations to be carried out by The Department.
- .2 Advise The Department when each applied coating is ready for inspection. Do not proceed with subsequent coats until previous coat has been approved.

---

**Structural Upgrades to Salmon Elevator  
At Red Indian Lake Fishway  
Millertown, NL  
Project No. F6879-151011**

Issued October, 2015

Section 09 91 13 – Exterior Painting

Page 14 of 14

---

- .3 Co-operate with The Department and provide access to areas of work.

**3.8 RESTORATION**

- .1 Clean and re-install all hardware items removed before undertaken painting operations.
- .2 Remove protective coverings and warning signs as soon as practical after operations cease.
- .3 Remove paint splashings on exposed surfaces that were not painted. Remove smears and spatter immediately as operations progress, using compatible solvent.
- .4 Protect surfaces from paint droppings and dust to approval of The Department. Avoid scuffing newly applied paint.
- .5 Restore areas used for storage, cleaning, mixing and handling of paint to clean condition as approved by The Department.

**END OF SECTION**