PART 1 GENERAL

1.1 RELATED REQUIREMENTS

.1 Section 05 50 00.01 –Steel Fencing

.2 Section 01 33 00 – Submittals

1.2 SUMMARY

.1 Content of the section:

.1 Work under this section consists of the lumber necessary for construction of the stairs, and repair of the cliff fence.

1.3 REFERENCES

.1 American Society for Testing and Materials (ASTM)

.1 ASTM D 5116-90, Standard Guide For Small-Scale Environmental Chamber Determinations of Organic Emissions From Indoor Materials/Products.

.2 American Wood Preservers' Association (AWPA)

.1 AWPA A2-98, Standard Methods for Analysis of Water-bourne Preservatives and Fire Retardant Formulations.

.2 AWPA A3-97, Standard Methods for Determining Penetration of Preservatives and Fire Retardants.

.3 AWPA.M2-81, Inspection of Treated Timber Products.

.4 AWPA.M4-80, Care of Preservative-Treated Wood Products.

.3 Association canadienne de normalisation (CSA)

.1 CSA B111-1974, Wire Nails, Spikes and Staples.

.2 CAN/CSA-Series O80-M97, Wood Preservation.

.3 CAN3-O86.1M01, Engineering Design in Wood (Limit Based Design).

.4 CAN/CSA-O80 Series-M89, Wood Preservation.

.5 CAN/CSA-O80.201-M89, Hydrocarbon Solvents for Preservatives.

.4 CSA International

.1 CAN/CSA-Z809-F08, Sustainable Forest Management.

.5 Environmental Choice Program (ECP)

.1 ECP-76-98, Recycled Water-Borne Surface Coatings.

.6 National Lumber Grading Association (NLGA)

.1 NLGA, Standard Grading Rules for Canadian Lumber-1991.

.7 Forest Stewardship Council (FSC)

.1 FSC-STD-01-001-2004, FSC Principle and Criteria for Forest Stewardship.

.8 Sustainable Forestry Initiative (SFI)

.1 SFI-2010-2014.

1.4 REFERENCES (cont'd)

.9 Greenguard

.1 Responsible forestry, (SCS certified)

.2 National Green Building certification under ICC 700-2008.

1.4 ACTION AND INFORMATIONAL SUBMITTALS

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

.2 Product Data:

.1 Submit manufacturer's instructions, printed product literature and data sheets for wood products and accessories and include product characteristics, performance criteria, physical size, finish and limitations.

.2 Wood Certification: submit vendor's and manufacturer's Chain-of-Custody Certificate number for CAN/CSA-Z809 or FSC or SFI certified wood.

.3 Low emission materials.

.3 Provide the following information for materials treated with pressure applied preservative, after certification by an authorized representative of the treatment plant:

.1 Information under AWPA.M2 and modifications listed in CAN/CSA-O80, under additional requirements under AWPA.M2 applying to the treatment.

.2 The degree of humidity after drying, after water soluble preservation treatment.

.3 Acceptable types of paints, stains and clear finishes for application to treated wood.

1.5 QUALITY ASSURANCE

.1 Identify pieces of treated lumber and plywood used in preserved wood foundations by CSA O322 certification stamp or provide written proof.

.2 Stamp lumber in accordance with NLGA 1991 (Standard Grading Standards for Canadian Lumber).

.3 Carry out plant inspection of materials treated with pressure applied preservative by designated test laboratory to AWPA.M2 and modifications under CAN/ CSA-O80, under under additional requirements under AWPA.M2 applying to the treatment.

.4 Carry out inspection tests by test laboratory designated by the Departmental Representative.

.5 The "pressure treated lumber" label means: treated lumber treated under pressure in container, plant, vaccum and controlled pressure. Treatment must comply with most recent standards issued by the Canadian Standards Association and American Wood Preservers Association standards.

.6 Supply lumber by a recognized retailer or manufacturer of the lumber in accordance with the described standards and grading stamp recognized by the Canadian Lumber Standards administration Board.

.7 Sustainable development certification:

.1 Certified wood: submit list of wood products used and meeting CAN/CSA-Z809 or FSC or SFI.

1.6 DELIVERY, STORAGE AND HANDLING

.1 Deliver, store and handle materials in accordance with Section and manufacturer's written instructions.

.2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.

.3 Storage and Handling Requirements:

.1 Store materials off ground, indoors, in dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.

.2 Store and protect wood from nicks, scratches, and blemishes.

.3 Replace defective or damaged materials with new.

PART 2 PRODUCT

2.1 MATERIALS

.1 Green colour ecological treated wood, category A.

.1 Lumber for stairs and risers to B4FNLGA grading rules; quality grade spinet “Grade 2 and better” (no imitation wood), to NLGA 124 B-C, B4F, dry before treating.

.2 Thickness and lengths in accordance with drawings, maximum 19% humidity content before and after treatment. Treatment for rot in accordance with CSA 080, pressure treated to AAC, average absorption 6.4 Kg/m³ of wood.

.2 Products certified to CAN/CSA-Z809 or FSC or SFI.

.2 Wood treatment and preservation:

.1 Treat wood in accordance with CAN/ CSA-O80 using preservation product MCA-Terra, to obtain net minimal retention of 6.4 kg/m3 of wood.

.2 Make incision in wood according to “GEN II” (Micro Incision), vacuum in closed area, in accordance with CSA 080-M89, most recent edition.

.3 Ensure preservative forms deep uniform envelope.

.4 After treatment using water soluble preservation product, dry materials to obtain humidity content under 19%.

.3 Accessories:

.1 Fasteners, nails, screws and washers to ASTM A153.

.2 Elastomeric bitumen self-adhering sealing strip, waterproofing joist protector, polyethylene top and detachable silicon film.

.4 Fill:

.1 Granular material: MG-20.

.2 Material: MG-112.

PART 3 EXECUTION

3.1 EXAMINATION

.1 Verification of Conditions: verify conditions of substrates previously installed under other Sections or Contracts are acceptable for product installation.

.1 Visually inspect substrate in presence of Departmental Representative.

.2 Inform Departmental Representative of unacceptable conditions immediately upon discovery.

.3 Proceed with installation only after unacceptable conditions have been remedied and after receipt of written approval to proceed from Departmental Representative.

3.2 EXCAVATION, BACKFILLING

.1 Excavate surface and depth as required to place granular foundation. Compact materials to obtain stable soil and prevent future collapse. Control runoff to direct water away from stair, based on existing site profile.

3.3 TREATMENT ON SITE

.1 Prior to installing wood elements, touch up all surfaces sawn, planed or drilled using a brush and ample quantity of preservative.

3.4 LAG BOLT INSTALLATION

.1 Drill hole same length and diameter as unthreaded segment of lag bolts.

.2 Drill two-thirds of diameter of lag bolt and length of threaded segment of lag bolt.

.3 Use lag bolt impact wrench; do not use hammer, sledge hammer or other percussion appliance.

3.5 DRILLING FOR INSTALLATION OF STEEL RODS

.1 Drill to place rods at same diameter as previous.

.2 Drill to enclose nuts and bolts, to sufficient depth to add wood pegs. Fill cavity with sealing product and glue and nails if necessary. Use finish nails.

.3 Use keys to attach rods. Do not use hammers, sledgehammer or other percussion tool.

3.6 ASSEMBLY

.1 Remove damaged wood on surface.

.2 Mount and assemble decking to ACNOR 086.1-01 and span requirements in this document.

.3 Align, level and make plumb as indicated, assembly plumb and space evenly.

.4 Use continuous pieces using longest pieces.

.5 Turn planed surface upwards.

3.7 FASTENERS

.1 Use fasteners and hardware necessary for carpentry work.

.2 Solidly assemble, anchor, fasten and brace elements.

.3 Countersink bolts to make flush.

.4 Assemble equipment in accordance with drawings and details. Unless otherwise indicated, use heavy duty screws to prevent movement or breaking.

3.8 EXPOSED SURFACES

.1 Install structural components to conceal retailer marks or stamps on exposed surfaces.

.2 Plane or sand edges.

.3 Remove tool marks, scratches and rub marks.

3.9 CLEANING

.1 Progress Cleaning: clean in accordance with Section 01 74 11 - Cleaning.

.1 Leave Work area clean at end of each day.

.2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 11 - Cleaning.

END OF SECTION