

PART 1 - GENERAL

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| 1.1 | <u>Related Sections</u> | .1 | Section 01 74 21 - Construction/Demolition Waste Management and Disposal. |
| | | .2 | Section 06 10 10 - Dimension Timber. |
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| 1.2 | <u>References</u> | .1 | Canadian Standards Association (CSA International) |
| | | .1 | CSA O80 Series-97, Wood Preservation. |
| | | .2 | CSA O322-02, Procedure for Certification of Pressure-Treated Wood Materials for Use in Preserved Wood Foundations. |
| | | .3 | NLGA Standard grading rules for Canadian Lumber 1980 edition or most recent edition at time of tendering. |
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| 1.3 | <u>Certificates</u> | .1 | For products treated with preservative by pressure impregnation, submit following information certified by authorized signing officer of treatment plant: |
| | | .1 | Information listed in AWPMA M2 and revisions specified in CSA O80 Series-97 Series, Supplementary Requirement to AWPMA M2 applicable to specified treatment. |
| | | .2 | Moisture content after drying following treatment with water-borne preservative. |
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| 1.4 | <u>Waste Management Disposal</u> | .1 | Do not dispose of preservative treated wood through incineration or with other materials destined for recycling or reuse. |
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| 1.5 | <u>Measurement For Payment</u> | .1 | No payment to be made under this section. Include costs of work of this section in applicable sections where treatment is required. |

PART 2 - PRODUCTS

2.1 Materials

- .1 Preservative Treatment: Treat to CSA 080 M1989 commodity standard 080.18, Table 1 and its reference for coastal waters.

	CCA Kg/m ³	ACA Kg/m ³
Dimension Timber		
Douglas Fir	24	24
Pacific Coast Hemlock	24	24
Eastern Hemlock	24	24
Creosote Treatment not permitted		

2.2 Grading

- .1 All dimension timber shall be graded to the "National Lumber Grading Authority" (NLGA) or an equivalent "Canadian Lumber Standards Association Board" approved grading authority.

PART 3 - EXECUTION

3.1 Application Preservative

- .1 Treat to CSA 080.18 Series using CCA preservative to obtain minimum net retention specified for Marine applications.

3.2 Application Field Treatment

- .1 Comply with AWP A M4 and revisions specified in CSA 080 Series-97 Series, Supplementary Requirements to AWP A M2.

3.3 Treatment

- .1 Apply three (3) brush coats of same preservative used in original treatment to all bolt holes, saw cuts and exposed untreated wood in field to CSA 080-M1989. Treat exposed ends or cuts with three (3) liberally brushed coats allowing sufficient interval between applications to permit total absorption and timber to dry. In the case of creosote, the preservative is to be applied hot.
- .2 Fill all unused bored holes with preservative and plug with treated wooden plugs.

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| | .3 | Field cutting of timber after treatment is not permitted unless specifically approved by Departmental Representative. |
| 3.4 | <u>Field Handling</u> | .1 Carefully handle material to prevent damage to treated wood. |
| | .2 | Damaged material will be rejected and replaced with new material. |
| 3.5 | <u>Delivery and Storage</u> | .1 Store timber horizontally, evenly supported and piled to permit air circulation when stored for prolonged periods. |
| | .2 | When handling long timber, provide support at sufficient number of points, properly located to prevent damage due to excess bending. |
| | .3 | Handle treated timber with hemp, manila or sisal rope slings or other approved means of support that will not damage surface. |
| | .4 | Do not use sharp pointed tools to handle treated timber. Any timber so handled will be rejected. |
| 3.6 | <u>Field Quality</u> | .1 Timbers which contain rot, splits exposing untreated wood, excessive wane, or timbers which cannot be fastened in the work so as to be structurally sound are unacceptable. |
| | .2 | The Departmental Representative reserves the right to carry out field testing of treated timber for penetration and retention of preservative. Timber not meeting the requirements of the specification may be rejected for use under this contract. |

PART 1 - GENERAL

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| 1.1 | <u>Related Sections</u> | .1 | Section 01 74 21 - Construction/Demolition Waste Management And Disposal. |
| | | .2 | Section 05 50 00 – Miscellaneous Metals. |
| | | .3 | Section 06 05 73 - Wood Treatment. |
| 1.2 | <u>References</u> | .1 | Canadian Standards Association (CSA) |
| | | .1 | CAN/CSA-G164-M92 (R1998), Hot Dip Galvanizing of Irregularly Shaped Articles. |
| | | .2 | CAN/CSA-O141-91 (R1999), Softwood Lumber. |
| | | .2 | National Lumber Grades Authority (NLGA) |
| | | .1 | Standard Grading Rules for Canadian Lumber 2000. |
| 1.3 | <u>Quality Assurance</u> | .1 | Lumber by grade stamp of an agency certified by Canadian Lumber Standards Accreditation Board. |
| 1.4 | <u>Dimensions</u> | .1 | Construct and install dimension timber, to dimensions indicated on the detail or as instructed by the Departmental Representative. |
| | | .2 | Check dimensions before commencing work and report discrepancies to Departmental Representative. |
| 1.5 | <u>Measurement For Payment</u> | .1 | New treated dimension timber supplied and installed for wales, cross-bracing, blocks, and other miscellaneous timber to complete the work will be paid by the m ³ of dimension timber, calculated from the neat dimensions indicated or authorized in writing by the Departmental Representative. |
| | | .1 | Including fasteners and connection devices to the areas shown on the details. |

.2 Ladders: Ladders will be paid by the unit price.
Included in the unit price will be the removal and disposal of the existing ladders and the supply and installation of new treated timber ladders including the ladder extensions as specified on the plan or as directed by the Departmental Representative.

PART 2 - PRODUCTS

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| 2.1 <u>Materials</u> | .1 Use timber graded and stamped in accordance with applicable grading rules and standards of Associations or Agencies approved to grade lumber by Canadian Lumber Standards Administration Board of CSA.

.2 Species: to CAN3-086- m84.
.1 Structural timber species: Pacific Coast Hemlock, Eastern Hemlock, or Douglas Fir (CCA Treated).
.2 Grade: No.1 Structural. |
| 2.2 <u>Wood Preservative</u> | .1 In accordance with Section 06 05 73. |
| 2.3 <u>Miscellaneous Metals</u> | .1 Miscellaneous Metals: refer to section 05 50 00. |

PART 3 - EXECUTION

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| 3.1 <u>Installation</u> | .1 Install fasteners in accordance with section 05 50 00.

.2 Install members true to line, levels and elevations, square and plumb.

.3 Construct continuous members from pieces of longest practical length.

.4 Install spanning members with "crown-edge" up. |
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- .5 Do installation of dimension timber to CSA 086-M83.
- .6 Precut timber prior to preservative treatment.

3.2 Field Cutting
Treated Timber

- .1 Field cuts are to be minimal to suit field conditions. Follow best practices by cutting and field preserving treated timber in one location over a ground sheet and collect all saw dust, scraps and drippings for disposal at an approved disposal site.
- .2 Treat, in field, cuts and damage to surface of treated material with an appropriate preservative as described in CSA O80 Series-97. Ensure that damaged areas such as abrasions, nail and spike holes are thoroughly saturated with field treatment solutions as per CSA O80 Series-97.
- .3 Treat bolt holes cut-offs and field cuts in accordance with CSA O80 Series-97.

3.3 Timber Wales

- .1 Install new Timber wale as shown on detail or as directed by the Departmental Representative.
- .2 Secure wale to bearing piles with 25 mm diameter machine bolts as shown on drawings.
- .3 Do not notch or cut wale to provide straight face. Blocking/shims will be installed as required or as directed by the Departmental Representative.
- .4 Wales will extend a minimum of 150mm beyond the pile at each end.

3.4 Timber Cross
Bracing

- .1 Supply and install new cross bracing as indicated or as directed by the Departmental Representative.
- .2 Secure each bracing as shown on detail or drawing.
- .3 Each cross bracing will extend 150mm beyond the pile to which it is attached.
- .4 Cross bracing will be secured to each pile, crossed with a

22mm diameter machine bolt.

3.5 Timber Ladder

- .1 The Contractor shall fabricate and install new ladders as shown on the detail or plan, complete with all hardware, rungs and holdfasts and ladder extension.
- .2 Each ladder will be composed of two 250mm x 250mm vertical timber uprights, spaced 460mm apart having rungs of 25mm diameter and 710mm long, spaced 305mm apart and a ladder extension secured to the upright as indicated on the detail or Plan.
- .3 Supply and install holdfasts on the timber deck and install a holdfast on the ladder extension as indicated on the detail or Plan.
- .4 The ladders will be secured to the outside stringers on the ladder support wales, using 22mm diameter machine bolts, which are to be countersunk, as indicated on the detail or plan.
- .5 The exact locations of the ladders may vary from that indicated on the detail or plan.