

## **ITEM 09607.9101 M - GROOVED SHEATHING REMOVAL AND REPLACEMENT ON WOOD NOISE BARRIER WALL**

### **DESCRIPTION**

The work shall consist of the removal and disposal of damaged and/or deteriorated grooved sheathing sheets from the existing noise wall and their replacement with new sheathing to match existing at locations indicated on the contract documents or as ordered by the Engineer. All damaged or deteriorated framing revealed at the time of sheathing removal shall be removed and disposed of and replaced in-kind in accordance with the contract documents and as ordered by the Engineer.

### **MATERIALS**

The material used to replace damaged sheathing on the wood noise barrier wall, shall meet requirements specified in the following subsections of the Standard Specifications:

Water Preservative - Water Borne	708-31
Caulking Compound	705-06
Stress Graded Timber and Lumber	712-14

Additional requirements for the replacement sheathing shall be as follows:

Lumber for sheathing delivered to the site shall be 16mm thick, No. 1 grade, per Southern Pine Inspection Bureau Grading Rules, Table 2, or other National Grading Rules as approved by the Engineer, and shall be straight, sound, square edged, free from shakes, loose knots, or decay. Sheathing shall be preservative treated in accordance with Subsection 708-31. Wood Preservative - Water Borne except minimum retention shall be 9.6 kg/m<sup>3</sup>. It shall be kiln dried to a maximum moisture content of 19% after treatment.

Sheathing shall be double depth tongue and groove. Sheathing shall be classified as "Planks" and shall have a design value of 10,000 kPa or greater after adjustment for wind loading and wet service conditions. All stresses are extreme fiber bending stresses and use classifications as defined in ASTM D245.

Hardware used for attachment of sheathing to the stringers shall be standard quality stainless steel 16d Spiral Shank cement or resin coated nails acceptable to the Engineer.

**Basis of Acceptance:** Criteria for acceptance shall be based on conformance to applicable standards as stated elsewhere in this specification and in the contract documents.

### **CONSTRUCTION DETAILS**

**Replacement Determinations:** The contract documents describe panel locations where known sheets of damaged or deteriorated sheathing sheets exist and shall be replaced, the contractor and Engineer shall inspect the panels and determine which sheets should be replaced. All sheets with holes through, significant delamination, buckling, cupping, or deterioration shall be replaced in their entirety. Any sheets that have been partially replaced in the past shall be replaced along with the partial sheet that was left in-place. The Engineer shall make the final determination regarding which sheets shall be replaced.

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**Sheet Replacement Details:** Sheathing sheets indicated for removal by the Engineer shall be removed from the noise barrier wall panels with care not to damage existing sheets to remain or the panel framing. Sheathing is to be removed in full sheets; partial sheet replacement will not be permitted. Sheathing or framing materials damaged by the contractor's operations shall be replaced at his expense.

Upon removal of the existing sheathing panels, the caulk of all adjacent seams shall be removed and all adjacent edges shall be cleaned. Any foreign material or vegetation shall be removed from inside the panel structure.

Exposed stringers and splice boards shall be inspected for cracks and/or deterioration. The Engineer shall determine which stringers and splice boards are to be replaced. Stringers and splice boards shall be replaced as per plan details and to the satisfaction of the Engineer. The Engineer may permit strengthening or splicing of stringers, if, in his judgement, the repair will provide the proper support. No separate measurement or payment shall be made to strengthen or replace stringers and splice boards; the cost shall be included in this item.

Removed sheets shall be replaced within 14 calendar days. Replacement sheets shall have a tight fit with adjacent existing sheets to remain. Caulk seams between all adjacent sheets prior to nailing. Replacement sheets shall be attached to the existing panels as detailed in the contract documents and to the satisfaction of the Engineer.

Materials that have been removed shall be suitably disposed off the site of work.

### **METHOD OF MEASUREMENT**

This item shall be paid for as the square meter quantity of sheathing sheets replaced in accordance with this specification. The quantity will be measured as the in-place width of the replacement sheet times the in-place height of the sheet. Stringers, splice boards and attachment hardware will not be measured. The cost of these items shall be included in the price bid for sheathing replacement.

### **BASIS OF PAYMENT**

The unit price bid per square meter shall include the cost of furnishing all labor, materials, equipment and tools necessary to complete the work as described.