# PROJECT > Dennis Edward Tunnel Relining - Rt 26

CEMENT & CONCRETE PRODUCTS\*\*

Shotcrete MS - Fiber Reinforced Sunset Highway Timber, OR



## **PROJECT Description:**

The Dennis Edward Tunnel, located 34 miles west of Portland on highway 26, is a vital thoroughfare for vehicles traveling from Portland to the Oregon Coast. The 772 foot tunnel, originally constructed in 1941, required a complete tunnel relining; replacing the timber shoring with steel fiber reinforced Shotcrete. QUIKRETE® Shotcrete MS - Fiber Reinforced (wet mix formulation) was selected to complete the project. Johnson Western Gunite mixed the shotcrete in Ready Mix trucks and applied the material directly to the rock tunnel walls at a minimum depth of 6 inches.

QUIKRETE® Shotcrete MS is a micro silica enhanced shotcrete that exhibits extremely low rebound and achieves compressive strengths over 9,000 PSI at 28 days.

The project specifications required the shotcrete to reach 6,500 PSI at 28 days; shotcrete MS significantly out performed the specification, achieving over 3,800 PSI at 1 day and over 9,400 PSI at 15 days.

### **GENERAL CONTRACTOR:**

Johnson Western Gunite

#### **QUIKRETE® PRODUCTS USED:**

• 3,000 lb Shotcrete MS - Fiber Reinforced : 1,203 bags

#### **PROJECT START DATE:**

January 2011

#### **PROJECT COMPLETION DATE:**

July 2011



QUIKRETE® Shotcrete MS - Fiber Reinforced >> Product No. 1228-51



