



CASE STUDY

I-95 LONG BRIDGE

Bridge Steel Pile Protection



Project Data

Location	Sandpoint, ID
Completed	September 2021
Project Type	Bridge Steel Pile Protection
Products / Systems Used	SeaShield Series 2000HD™

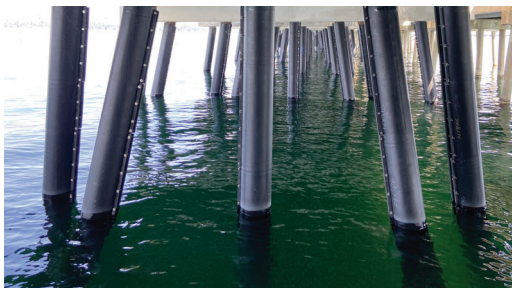
Project Details

The 2-mile-long Sandpoint Long Bridge was built in 1981 and spans the Pend Oreille River in Sandpoint, ID. It is the main highway in the area offering access into Sandpoint and further north into Canada. After 40 years of service, the steel piles that support the bridge needed additional corrosion protection. The Idaho DOT selected Denso's SeaShield Series 2000HD System to protect the approximately 1,800 steel piles (over 54,000 LF of piles of 16" and 18" Dia.) and over 10,000 LF of L and 2L X-bracing from corrosion. Due to the environmental consideration for aquatic life in the River and Lake below, abrasive blasting would not be permissible. Therefore the selection of the Denso System was a favorable option, as it can be applied with minimal surface preparation. McMillen Jacobs was awarded the project, which started in March 2021 and was completed ahead of schedule in September 2021. Over 15 full truckloads of materials were shipped during the 6-month installation period.

After the piles received proper surface preparation, which mostly included hand tool cleaning and pressure washing, the Dive Contractor, Harbor Offshore, applied Denso Paste S105™ as needed, Densyl™ Tape wrap with a 55% overlap, and the SeaShield Series 2000HD Outercover (80 mil HDPE) to the entire full length of all piles. In addition to the cylindrical piles, there was extensive L and 2L shaped cross bracing, which received a combination of the SeaShield Series 2000HD System and Denso Glass Outerwrap UV™ instead of the 80 mil HDPE Outercovers (SeaShield Series 70™ System). Additionally, the node or connection areas received a combination of SeaShield 525™ Epoxy (above water) and SeaShield SZ UW Epoxy (underwater). All piles were fully protected from 1 foot below the mudline to the pile cap. The Contractor utilized a 6-man crew and installed an average of 450 LF of SeaShield materials per day. The SeaShield Series 2000HD System will provide 20+ years of corrosion protection and allow the bridge to operate for many years to come.

Benefits

- High impact resistance
- Long maintenance-free service life
- Can be applied underwater
- Long term cost effective corrosion protection



Completed 16" & 18" Dia. Cylindrical Piles are fully protected with the SeaShield Series 2000HD System.



Completed Cross-Bracing fully protected with the SeaShield Series 2000HD System as well as SeaShield 525 Epoxy at node areas.



SeaShield Series 2000HD System being installed underwater.

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