

Schnitzer Steel Berth 1 Dock

Portland, Oregon



Client:

Schnitzer Steel Industries, Inc
Portland, Oregon

Contract Value:

\$6,905,302

Project Timeline:

Started: July 2005

Completed: June 2006

Project Highlights:

- 435-foot long by 48 ft., 21 ft. and 24 ft. wide dock, relieving platform, and approach slab
- 5,500 cy of structure excavation and 700 tons of rip rap slope protection
- 7,500 lineal feet of 24 and 36 inch, steel pipe piles
- 540 tons of structural steel
- 4,500 cy of cast-in-place reinforced concrete
- 485 lineal feet of 171# crane rail system with cable trough
- 29 each 255 kip tiebacks
- 1,000 lineal feet of utility and drainage piping

After completing removal of the existing concrete deck and structural steel under separate contract, Advanced American Construction, Inc. (AAC) constructed the new Berth 1 Dock for Schnitzer Steel Industries, Inc. at International Terminals in Portland, Oregon. The high load capacity dock, which supports the client's scrap metal operations, is a cast-in-place concrete deck supported by structural steel framing on steel pipe piling. Next to the dock is a pile supported cast-in-place concrete relieving platform and a cast-in-place concrete approach slab on grade.

The 40,000 square foot project required: 5,500 cy of structure excavation and 700 tons of rip rap slope protection; 7,500 lineal feet of 24 and 36-inch diameter open-ended steel pipe piles; 540 tons of structural steel framing; 4,500 cubic yards of cast-in-place reinforced concrete; 485 lineal feet of 171# crane rail system with stainless steel cable trough; 29, 255 kip tiebacks (for required seismic design loads); 100 tons of miscellaneous metal walkways and fabrications; and 1,000 lineal feet of under-dock utility and drainage piping.

Prior to contracting with the client to build the project, AAC value-engineered certain structural elements—including redesigning the steel pipe piling to a composite (steel pipe filled with reinforced concrete) pile section—resulting in over \$400,000 in up-front cost savings to the client.

