

DOCK & SHIP LOADING SYSTEM DESIGN

CLIENT - Confidential LOCATION - Confidential COMPLETED - 2016

DESCRIPTION

Matrix PDM Engineering completed the design of a new ship loading system for a Lower Mississippi River facility. Due to the condition and age, the client wanted to replace their system with a new dock and ship loading system.

After providing a study for the design of the new system and dock, including general arrangement drawings, an opinion of probable cost (OPC), and a project schedule, Matrix PDM Engineering was selected to perform final design.

PRINCIPAL FEATURES

- (3) new 54 inch wide conveyors
- 40-foot wide by 1,000-foot long structural truss and (3) 1,000-foot long outbound conveyors
- Ability to handle Panamax vessels without shifting during loading and post-Panamax vessels with likely shifting
- All design aspects completed in 3D
- Air-supported belt conveyors with return drives and specially designed loaders and discharges to reduce dust generation
- Utilized engineered chute transfer technology and point source dust containment to minimize the need for additional dust collection equipment
- Prepared overall site plan and three enlarged site plans including the new ship loading dock and the access road to the new ship dock and Sennebogen
- Electrical engineering design services including a short circuit, coordination and load study of the power distribution system for the ship loading system to determine electrical demand and equipment requirements
- Preparation of the OPC with a target accuracy of +/-10 percent, OPC narrative and project schedule



