DISSEN & JUHN COMPANY

CASE STUDY

Project: Perryville Pier and Floating Dock

Client: Town of Perryville

Location: Perryville, MD

Engineer/Architect: BayLand Consultants & Designers, Inc., Hanover, MD

PROJECT SCOPE

Like many marine construction projects, the Perryville Pier was implemented as part of a greater effort to stimulate the local economy through increased tourism, public access to the Susquehanna River, and vitalization of its downtown area.

The 10' wide timber pier extends 580' into the Susquehanna River to provide access to a floating dock system and 12 boat slips for transient boaters. It is located on the town's historic waterfront next to Rogers Tavern. Built in the mid 1700s, the tavern is historically significant due in part to its original owner, and in part to the many illustrious guests that frequented the establishment. During the Revolutionary War, Perryville served as a staging area for the Continental Army. It was here that a local tavern owner and ferry operator John Rogers, served as a colonel in the local militia. His company played a key role in the early stages of the war.

FEATURES

- 515' x 10' timber pedestrian pier
- 60' x 10' bridge
- 80' x 6' concrete walkway
- 122' x 8' floating pier with electrical service, 12 transient boat slips and 86' x 8' T-head floating pier

CHALLENGES

Chief among the challenges on this project was constructing a 280-foot section of the pier that extended through a tidal marsh to the water's edge. The pier required fixed pile bents be driven 39' into the ooze, so the crew had to construct a temporary stone ramp down into the marsh to provide equipment access. The steep ramp dropped 20' over its 90' length, making feeding the job with materials difficult. At the bottom of the ramp, crews constructed a temporary service road using a combination of timber crane mats and engineered plastic "marsh mats." These mats are preferred for marsh and wetland applications because they minimize disturbance to environmentally sensitive habitats.

The pier is built at a right angle to the river bank. Pile length varied from 60' at the waterline, to encountering refusal 5' below the mud line at the landward end of the structure. A steeply sloping rock layer necessitated a re-design of the first 100 feet of pier. With deck elevations approaching +17 MLW, building the superstructure required working from scaffolds for most operations.

Crews working in the 300' tidal zone had to overcome challenges of their own. At low tide, this area is high and dry for much of its length – conditions not conducive to floating crane work. The crane barge could only work during periods of high tides and was often on bottom. The work to overcome these challenges earned Dissen & Juhn Company an award by Associated Builders and Contractors (ABC), Chesapeake Shores Chapter.