

# CSX NORTHBANK BULKHEAD

📍 Jacksonville, FL

## BACKGROUND

An existing bulkhead in front of the CSX National Headquarters along the St John's River in Jacksonville, like many of the bulkheads along the Northbank riverwalk, is reaching the end of its service life as they were constructed back in the 1950s. The CSX Bulkhead replacement project was started to replace these aging bulkheads.

## SCOPE OF WORK

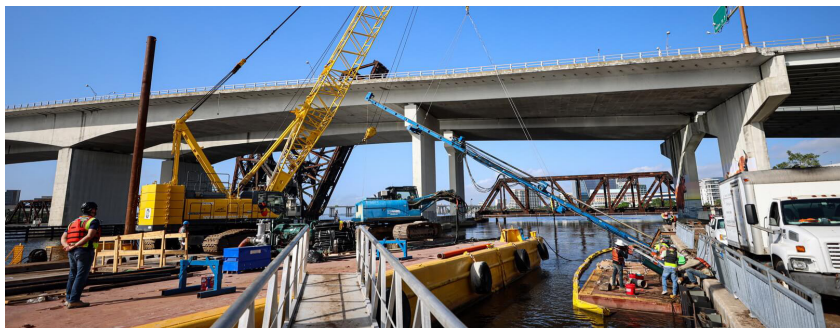
Heavy civil contractor **J.B. Coxwell** contracted Schnabel to install permanent tiebacks as part of a new proposed bulkhead. The contract was for the installation of tiebacks only through the existing bulkhead. J.B. Coxwell would drive sheet piles adjacent to the existing bulkhead, which is being abandoned in place, and Schnabel would install tiebacks through both the new sheets and the old bulkhead to resist lateral loads. This would allow J.B. Coxwell to construct a new bulkhead in front of the existing one.

Schnabel installed **more than 60 tiebacks** of varying lengths, with the longest drill length reaching **73 feet**. The work was completed using Schnabel's newly modified mast, which is capable of drilling up to 92 feet in a single stroke without casing.

## CHALLENGES

This project was particularly challenging due to limited landside access and difficult drilling conditions. With only one entrance behind the bulkhead, all work had to be completed from the waterside using barges.

Schnabel encountered subsurface obstructions including steel, concrete, and buried wood—likely remnants of old support systems and docks from the 1950s. Schnabel's Equipment Division supplied specialized tooling to drill through these materials and complete the tieback installation.



## AT A GLANCE

### WORK PERFORMED BY SCHNABEL

- Installation of 60+ permanent tiebacks.
- Work completed from waterside using barges.
- Drill lengths of up to 70+ feet.

### BENEFITS FOR CLIENT

- The work was completed **ahead of schedule**,
- allowing the client to continue working on the full replacement of the bulkhead.

### BENEFITS FOR COMMUNITY

- The overall project will replace aging bulkheads
- along the Northbank riverwalk and include additional improvements to the surrounding area.



**KEVIN CARGILL, PE**  
Schnabel President

"With over 60 years of experience, Schnabel is committed to being the safest and most efficient geotechnical company, providing effective and timely solutions for our clients."

