



WBA expansion joints are durable, customizable and quiet

Sarah Mildred Long Bridge

The Sarah Mildred Long Bridge named after Sarah Mildred Long, a 50-year employee of the Maine- New Hampshire Interstate Bridge Authority, is a lift bridge over the Piscataqua River. It follows U.S. Route 1 Bypass, linking Kittery, ME and Portsmouth, NH.

Its aging structure needed to be replaced after 76 years in operation (1940- 2016). The new bridge would improve marine navigation by straightening the channel, allowing ships to access the port and shipyard.

The design process for a replacement span began in 2013 with plans for joints that could be cast in place with the deck and move at three positions at the lift tower. Wabo®Standard Finger Joints, with a movement range of 4"-14.5" fit the specification and were easily implemented into the structure. The finger joints were chosen for their durability, customizable components, and large movement range. Additionally they have minimal debris collection at the roadway surface and a low noise profile.

Construction started in January 2015 and by its completion Cianbro installed six finger joints at the tower and approach in a symmetrical configuration. The new bridge was open in March 2018.

WBA PRODUCTS USED



Wabo®Standard Finger Joint (FIN)- Cantilevered system with single direction of movement



INSTALLATION

2015-2017

COMPLETION

2018

U.S. Route 1 Bypass between Kittery, ME and Portsmouth, NH

Piscataqua River

OWNER

- Maine DOT (lead), New Hampshire DOT and FHWA

DESIGN- BUILD TEAM

- FIGG/ Hardesty & Hanover JV (design)
- Cianbro (construction manager/ general contractor)

STATISTICS

- 2,800 ft. long
- 300 ft. longest span
- 200 ft. high precast concrete towers
- 300 ft. long streamlined structural steel box girder lift span
- 158.5 million project budget