

## Barnstable bulkhead nears completion

Written by Andrew Roiter



The bulkhead at Millway Marina/Barnstable Harbor. Photo by Alan Belanich

As Barnstable Harbor settles into spring, repair work on the harbor bulkhead is coming to a close nearly a year ahead of estimates.

The original plans scheduled the work, done by construction firm Northern Construction and engineering firm GZA Geoenvironmental Inc, to be completed during spring 2016. The repairs began in the fall and were put on hold during the winter, the plan was to work through the spring, pause again in the summer, work again in the fall, and then finish next spring. Work on the bulkhead cannot be done in the winter because of the weather nor in the summer because of how busy the harbor is.

“But in reality the contractor moved very quickly and got everything done,” John Juros, town architect

for the Town of Barnstable said. The last steps of this phase, painting the road stripes, will be underway Monday and are scheduled to finish Tuesday, April 28.

"We're basically a year ahead in getting it done," Juros said.

There will be a second phase in the fall, where the vertical surfaces are going to be scrapped of their old paint and repainted. This phase is expected to be finished before the winter.

"Then we'll be all done," he said.

Work on the bulkhead began in the fall after an inspection revealed that the washers which helped secure the 18-inch long steel bolts into the bulkhead's structure were found to have butterflied, meaning the normally flat washers had folded in on themselves due to the weight. Without the washers in working condition, some of the bolts sheared, meaning they lost their heads. This compromised the structural integrity of the bulkhead, which is made up of a steel structure with earth and wood built around it. The majority of the work involved removing the wood and dirt, replacing the steel components and then placing the other elements back.

To determine the issues, inspectors came in and dug two holes to check on the steel structure.

"We dug the holes and found the plate and said 'ah-ha,'" Juros said.

The damage was caused by a mistake in the type of washer used to secure the bolts. The original plan called for  $\frac{3}{8}$  of an inch thick washers, after the inspection it was found that the washers should have been  $\frac{3}{4}$  of an inch thick. Twice as thick as originally planned.

"Fortunately for us," Juros said. "GZA accepted the responsibility and working with AGI ... we amicably settled the issue and they have done this work through their insurance carrier and it hasn't cost the town anything."

Juros praised the work done by GZA and Northern Construction.

"It's outstanding, a really great bunch to work with," he said. "I can't speak more highly of (GZA), nor can I speak more highly of Northern Construction. It could have gone a different way and we would not be where we are today ... I am very pleased with the work that's been done."

Following the repainting, there is no additional work expected to be done on the bulkhead save for general maintenance. This includes replacing the protective coating and removing rust on any steel that is exposed to the elements. Though it is unlikely that this will be necessary for at least five years. Juros added that some communities don't even do it that often.

The Town Architect's office is located within the Department of Public Works. For more information on the Department of Public Works visit [www.townofbarnstable.us/publicworks](http://www.townofbarnstable.us/publicworks).

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