

December 19, 2019

Vermont Department of Fish and Wildlife Mike Wichrowski 5 Perry St. Suite 40 Barre, VT 05735

Dear Mr. Wichrowski,

REF: Drawings Lake Rescue Boat Launch RES-006 dated 12/03/2019 pages 1 - 3

Per your request, please find below an explanation of the rationale for the design for the floating dock at the existing Lake Rescue boat launch. As a reminder, the original design for the boat launch dock system had a 24' long ramp and a 24' long dock section which is the preferred recommendation; the reduced lengths to two 20' sections will work but is not the ideal system for the size of the lake and boats on the lake.

With any project site, we evaluate the following information in order to provide the best recommendation for the dock system

- Site access, in this particular case vehicle access, turning area and ease of use of the floating dock to launch and retrieve vessels.
- Lake bottom contours and water depths during high and low water conditions
- Exposure to wind and wave activity
- Boating fairway or access to and from the dock system

I have visited the site on two occasions, the first time being 11/28/2017 and the second time being 11/23/2019 in order to evaluate the conditions at the boat launch. Based on my site evaluation we are recommending the attached design for the dock system based on the following.

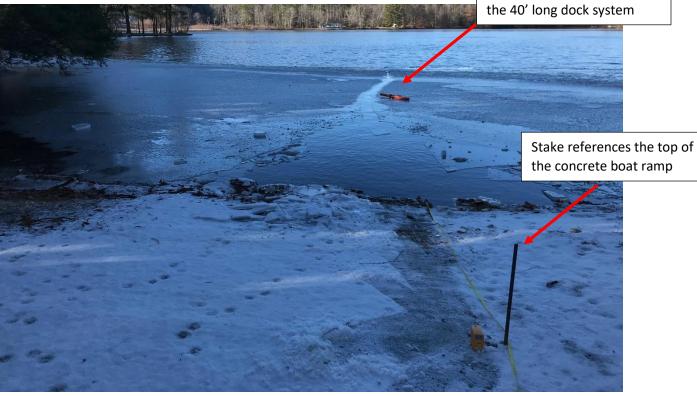
- Compliance with ADA regulations The design with the permanent platform shore anchor provides an area of 6' wide x 6' long to comply with the regulation for a flat surface turning area. The slope of the 20' long ramp section will not exceed 1:12.
- Functional configuration for the vehicle operator Having the dock located on the driver's side of the vehicle will provide easier access and view of the dock for the driver of the vehicle. This will also better accommodate launching and retrieval of a vessel if the driver is alone.
- Functional configuration based on the site parameters The water depths, pitch of the boat ramp and average boat being launched and retrieved will all be factors on the length of the ramp and floating dock. Based on the water depths I surveyed, the ramp should remain to be 20' long so the floatation unit on at the end of the ramp does not bottom out on the lakebed. The length of the dock should remain 20' to accommodate an average boat that may launch on Lake Rescue; for this we modeled a boat on a trailer measuring 22' length overall (Reference drawing 3 / 3 RES-006 dated 12/3/2019). If the ramp and dock were only a total of 30' long, the boat would be beyond the end of the dock making it difficult to launch and retrieve the boat and securely moor the boat to the dock (Reference drawing 1 / 1 RES-007 dated 12/19/19.



Based on the information gathered from the site and our experience with waterfront access and boat launch sites, it is our professional recommendation the proposed project plans remain as designed.

The photos below were taken during the site visit on 11/23/2019.

Object references the end of the 40' long dock system





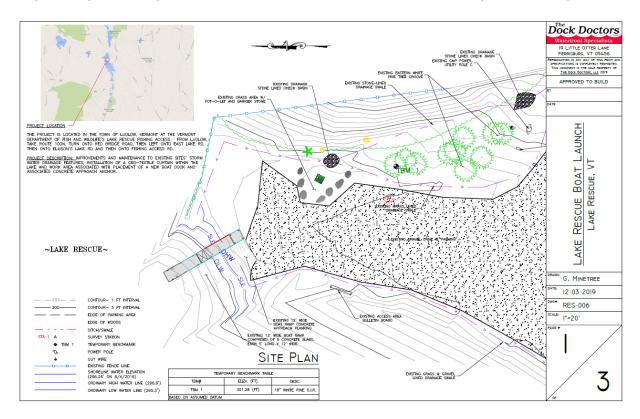
Sincerely,

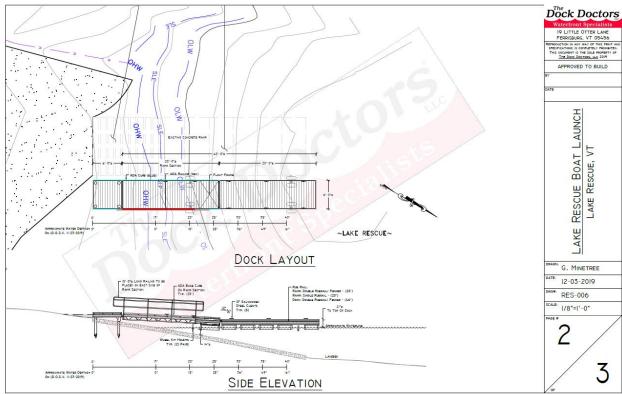
Michael Savioli

Michael Savioli

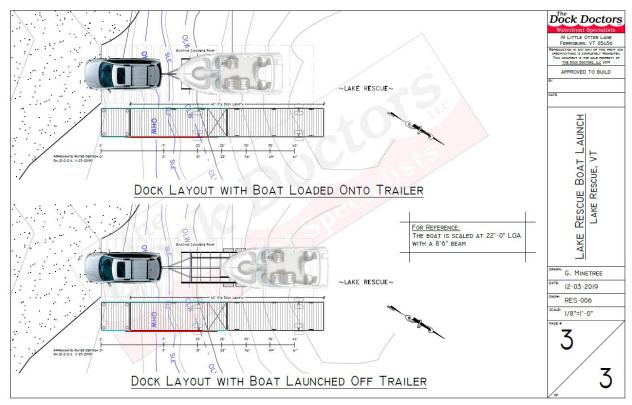


Drawing RES-006-3 drawing pages - Drawing package that is based on the overall length of the dock being 40' long. The design allows the boat to be tied to the dock while launching and retrieving.

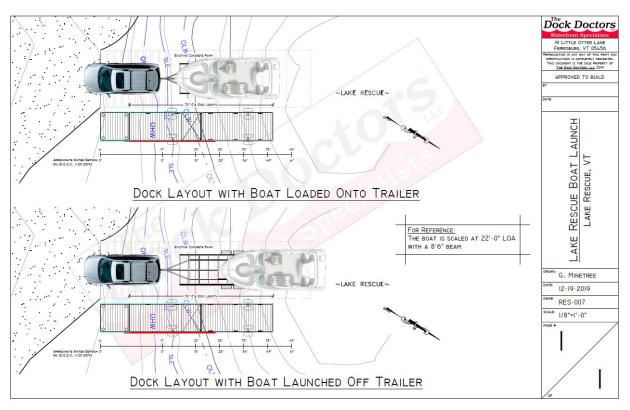








Drawing RES-007 - Drawing based on the overall length of the dock being 30' long. The boat is beyond the end of the dock while launching or retrieving the boat.



The Dock Doctors

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