

**Masons Island - 28 School House Road - Site Evaluation Report**  
**January 6, 2021**

**Overview:**

At the request of neighbors (“Clients”) on School House Road in Mystic the undersigned was retained as a marine consultant in December 2020 to conduct a site inspection and evaluate application materials pursuant to an application by the owners of the property at 28 School House Road to seek permits to construct a dock at the property. This effort involved the review of public domain application materials of the property owners (“Owners”), specifically plans (8 sheets) revised through 11/30/20, aerial photos of the site and on-site inspections of the property from public domain locations that were waterward of the Mean High Water (“MHW”) line and from School House Road. As described the site was assessed to evaluate the to-be proposed dock from the Owners’ application materials and to evaluate the dock relative to current regulatory standards and criteria, including the Mystic Harbor Management Plan, relative to potential adverse impacts for the dock’s proposed design, relative to existing and potential violation(s) and non-compliance conditions and the accuracy of the Owners’ application materials.

**Methods:**

After reviewing the Owners’ application materials, as provided by the Clients, two site inspections were conducted, as described above, at times of Mean Low Water (“MLW”). In each site inspection the Owners’ applications materials were used as the basis of the inspections (see Documents #9 and #10, attached). On December 28, 2020 and December 31, 2020 on-site measurements and photos were taken that were from waterward of MHW and from School House Road. Additional research was conducted of the site at public domain internet sites, i.e. UCON MAGIC photo library and the Town of Stonington’s official website. Thereafter, an analysis of the data, photos, measurements, conversations with neighbors and the Owners’ application materials was assembled into the “Conclusions” and “Recommendations” below.

**Findings & Conclusions:**

The following findings and conclusions are organized into three main subject areas:

1. Filling of Tidal Wetlands:

- a. Mystic River Side: The property was purchased by the current Owners on 2-1-2019 (see Documents #1 and #2). Aerial photos from 2018 and 2019 clearly indicate that there was no new fill prior to the spring of 2019. However, fill was placed at the site waterward of the Coastal Jurisdiction Line (“CJL”) at some point after 2-1-2019. After 2-1-2019 approximately 40 cubic yards of sandy gravel measuring approximately 36’ long x 19’ wide x 1.5’ deep, plus approximately 1.5 cubic yards of process gravel measuring approximately 6’ wide x 6’ long x 1’ deep was placed at the landward end of the sandy gravel fill (see Documents #4 and #6). The two photos in Document #6 indicate that the sandy gravel was placed landward of the CJL without erosion controls and that this fill is actively eroding westerly into the Mystic River. This placement of fill waterward of the CJL appears to be causing adverse impacts and may be without permit(s) by the CT DEEP and locally. It may also be a violation of Connecticut’s 1969 Tidal Wetlands Act, specifically CT General Statutes Section 22a et seq. This placement of fill also violates the standards of the Mystic Harbor Management Plan, which states as a goal that all structures within the Plan area “shall be designed and built in accordance with all applicable local, state and federal regulations.” P. 13.
- b. School House Road Side: Based on discussions with neighbors process gravel was placed at the site from the School House Road side in the summer of 2019. This process gravel appears to have been placed at the site to act as a driveway for vehicles, i.e., cars and trucks, and is comprised of approximately 100 cubic yards and extends 16’ in width from School House Road across the site to, and including, the process gravel described in Section 1.a hereof (see Documents #6 and #8). Because it was not possible to determine the date when a larger volume of fill was originally placed at the site (see Document #5), i.e., whether such fill pre-dated Connecticut’s 1969 Tidal Wetlands Act, specifically CT General Statutes Section 22a et seq, it was not possible to determine if the placement of this predecessor fill may constitute an additional violation. Thus, these two placements of fill may constitute two separate violations and/or non-compliance conditions.

2. Tidal Wetlands Vegetation and Sub-Aquatic Vegetation:

- a. Tidal Wetlands Vegetation: Detailed inspection of the site clearly showed the presence of several tidal wetlands and non-wetlands vegetations that were not mapped to the Owners' application materials. The presence of these vegetations was so obvious as to immediately raise questions about why they were omitted from the application materials. These vegetations include both State of Connecticut listed special concern species and non-special concern species as are shown and described in Document #5. Such vegetations exist to the waterward Mystic River side and at the School House Road side of the site. Note that Sheet 8 of the plan set indicates "Existing Grade," but depicts no tidal vegetation, which is clearly visible in the field, nor does it identify the species of such plants and who identified them in the field. This creates the impression that the "existing grade" area is a desert when it is not. Sheet 7 indicates "Area of Tidal Wetlands Vegetation," but again fails to indicate which species are located where. This plan is not accurate or complete and cannot be considered, let alone approved, until it is.
- b. Sub-Aquatic Vegetation ("SAV"): Eel grass is the only SAV shown on the Owners' application documents. Eel grass is one of the SAV plants to grow underwater in coastal wetlands. It lives just beyond the low tide zone in the shallow subtidal environment. Eelgrass, like other SAV's provides a number of important ecosystem functions including foraging areas and shelter for young fish and invertebrates. Also, food for migratory waterfowl. But it is not clear from the Owners' application documents if other SAV populations are present at the site, nor are the relative sizes or densities of the SAV populations shown. From these application materials it is not possible to determine the suitability of the site to support the two dock berths shown on the Owners' application materials (see Document #9). It is also not possible to determine compliance with the Mystic Harbor Management Plan, which, as noted above, includes as a standard that all structures within the Plan area "shall be designed and built in accordance with all applicable local, state and federal regulations." P. 13. Many SAV's are species of special concern (see Document #5). The Plans also fail to indicate when the eel grass area was identified. This is important because eel grass is difficult to identify except during the growing season, so it should be confirmed that the survey was performed when the plants were clearly visible.

3. Dock Design Criteria:

- a. Float Size: The proposed dock design in the Owners' application materials indicate a float that is 8' wide x 20' long, comprising 160 SF in area. Clearly this proposed float is in conflict with CT DEEP design criteria, which limits floats for residential docks to not more than 100 SF of area. Thus, the proposed float is 60% greater in area than is approvable by DEEP. This is also contrary to the Mystic Harbor Management Plan, which provides that docks be evaluated for "impact on use of the harbor for uses other than those proposed in the application. Excessively long docks, for example, might unnecessarily . . . infringe on mooring areas or other reasonable uses of the water by the public." P. 13. The Plan also requires that the scale of docks "should be the minimum necessary to secure a legitimate water-related function." P. 14.
- b. Tie-off Piles: The indicated spans between the tie-off piles are 29' and 25' in boat width respectively; and the westerly slip has the piles spaced at 34.5' in boat length. The length of the easterly boat slip cannot be determined from the plans. However, the indicated spans between the tie-off piles on the adjacent dock southerly of the Owners' site are approximately 22' each, and these tie-off pile configurations have existed at the adjacent site for decades. Further examination of the Owners' application materials indicate they are proposing that power boats of under 30' in length be berthed at the two docks. But the proposed spans between the tie-off piles indicate that the actual boats to be berthed at the two berths are likely to be of much greater lengths. There is no explanation for having piles that are 20 feet waterward of the end of the proposed float, which itself is too large as noted above, and those outer piles should be eliminated from the plan. Boats of greater length have

correspondingly greater draft and hence the props are closer to the benthic environment. In addition, larger boats have higher horsepower engines, resulting in higher prop wash volumes. These conflicts potentially impose two adverse impacts as are addressed in 3.c below. They also violate the standards of the Mystic Harbor Management Plan that the scale of docks “should be the minimum necessary to secure a legitimate water-related function.” P. 14; and also the standard, “Areas of the River where recreational fishing is historically intensive shall be preserved from encroachment by structures and boat moorings.” P. 21. The Clients report that this is such an area. The proposal also provides for the docking of much larger boats than the adjacent docks, which will have visual impacts on nearby owners. Per the Plan, docks are to be designed to “limit or avoid negative visual and aesthetic impacts,” and “Visual access to the water should be maintained, improved, or enhanced.” P. 13.

- c. Decking Material: On Sheet 7 of the plans, the profile indicates “New fixed dock with open grate decking.” This is appropriate, but the cross section on the same sheet says “2x6 Decking,” which is not. The plans are inconsistent and should be identified as “Thru-Flow Decking,” <http://thruflow.com>, which has been specifically required by DEEP in such instances.
- d. Illumination: Sheet 7 indicates lighting but does not specify the type, height, or intensity. Lighting should be shielded down-lighting and the height, wattage, and fixture should be identified. Lighting can cause boat crews navigating the nearby channel to experience impaired night vision if lighting is too bright, not shielded, or colored to mimic running lights. Note that the Harbor Management Plan states, “Mooring areas and structures should be located in such a manner as to allow clear sight lines, with respect to the channel and channel markers, for boats navigating the River.” P. 25.
- e. Riparian Lines: The plans submitted do not depict the claimed riparian line being used for the subject property. Sheet 6 of the plan set shows the full property and fixed and floating portions of the dock, but omits the piles and vessels of the size that the dock can accommodate. The Mystic Harbor Management Plan provides, “The location of docks should not interfere with neighboring landowner’s riparian lines.” The Owners must depict the riparian lines that they are using and demonstrate that the entire proposal, including piles and actual vessels, is completely within their own riparian area.
- f. Adverse Impacts: At least two potential adverse impact conditions arise relative to the proposed dock design.
  - i. Benthic Environment Damage: Due to the implied conflicts of the lengths of the boats to be berthed at the two dock berths, i.e. the boats depicted at the docks vs. the spans between the tie-off piles, it is reasonable to conclude that deep draft boats are likely to be berthed at the docks and that such deep draft boats are likely to cause damage to the benthic environments, including to the sensitive SAV populations that inhabit those locations by groundings and by prop damage. The Mystic Harbor Management Plan also notes, “one characteristic of heavy boating activity is bottom churning from propeller action,” as well as “soapy rinse water from topside washdowns, . . . anti-fouling paint, discharge of galley dishwater . . . engine fluid spills, and the uncontrolled discharge of sewage from boats [that] contribute to the present degradation of the water quality of the Mystic River.” More boats and larger boats mean more of these adverse impacts.
  - ii. Harbor Management Commission Conflicts: Likewise, due to the implied conflicts by the lengths of the boats that could be berthed at the two docks, i.e. due to the lengths of the boats depicted at the docks vs. the spans between the tie-off piles, it is reasonable to conclude that deep draft boats are likely to be berthed at the docks that are different from the shallow draft boats depicted. Under such conflicted conditions, the resolution of such conflicts would impose an unfair hardship on the general public and the neighbors to resolve because such resolution could be referred to the local harbor management commission by DEEP. But, because the harbor management commission would not have issued the original dock permit, it could be

without the authority to resolve and to enforce a resolution of the problems and the DEEP may choose to not intervene in what it may construe to be a local matter. With two boat berths in the Owners' application the neighbors' legitimate interests could be unfairly impaired by Owners, whether current or future, who choose to run-up the neighbors' legal costs to win by attrition. This imposes an unfair and unreasonable potential burden on the neighbors, but which could be avoided by reducing the number of boat slips to one; reducing the span between the piles or eliminating the outer piles altogether; eliminating the lift for jet skis; and lowering the height of the fixed dock. This should be done by the Harbor Management Commission, and may also be addressed in the future by DEEP's clear declaration of the limits in the dock permit to boat lengths, draft and beam that are permitted to be berthed at the docks and the clear statement of authority by DEEP for the local harbor management commission to remove such offending boats or fine violators.

- iii. Use of the Harbor for Other Purposes. The Mystic Harbor Management Plan says that the Commission must consider "Impact on use of the harbor for uses other than those proposed by the application." P. 13. The Plan notes "the increase in the number of moorings, docks, finger piers, and boats" and concludes, "It is clear that the available public water area has decreased by virtue of the placement of large numbers of boats at private structures and moorings." P. 18. One owner seeking dockage for two large vessels and jet skis reduces the areas available for other purposes.

#### **Recommendations:**

1. Filling of Tidal Wetlands: Both of these issues are matters of law and should be referred to both the CT DEEP and the Town of Stonington for further investigation, possible enforcement and resolution. As open issues it is routine policy of DEEP that it will not open or consider an application, such as a permit application for a dock, until after full resolution of all open violations and non-compliance matters. Clearly, any current application for a dock permit is moot and cannot proceed until after these issues have been resolved.
2. Tidal Wetlands Vegetation and Sub-Aquatic Vegetation: Both of these issues will require further research. The Owner's current survey is clearly incomplete for both the tidal wetlands vegetations and the SAV populations. This failing provides a strong argument for an independent and State of Connecticut licensed soils scientist/botanist to conduct a new survey at a time after the site has been cleared by the DEEP and the Town of Stonington of all violations and non-compliance conditions pertaining to the filling of tidal wetlands to completely identify and protect the fragile ecosystems in the area of the proposed dock. Additionally, the DEEP's Natural Diversity Data Base ("NDDB") search application and results should be made part of a future application that is provided to those regulatory agencies tasked with reviewing a future dock permit application.
3. Dock Design Criteria: There are at least four open issues that bring into question unanswered concerns about the potential dock's design, its potential for unresolved adverse environmental impacts and its potential to impose post-permit issuance burdens on local authorities and neighbors. As with the Tidal Wetlands and SAV issues, the application should not be allowed to proceed until after the site has been cleared by the DEEP and the Town of Stonington of all violations and non-compliance conditions pertaining to the filling of tidal wetlands.

#### **Submitted by:**

#### **Marine Consultant:**

- Robert Shickel, marine consultant since 1986. Extensive experience with marine permitting of commercial marinas and residential docks, sea walls, dredging, DEEP SEP permitting and violations and non-compliance litigations for clients with the CT DEEP, the U.S. Army Corps of Engineers and local regulatory agencies. Email [eigillc@aol.com](mailto:eigillc@aol.com)

#### **Environmental Consultant:**

- Richard Snarski, Professional Wetlands Scientist (PWS #1391), Botanist, and Certified Soils Scientist of New England Environmental Services. 37 years of tidal and submerged aquatic plants surveys. Professional associations: Connecticut Botanical Society – Qualified Consulting Botanist; Connecticut Association of Wetlands Scientists; New England Wildflower Society; Soil Science Society of Southern New England; The Wildlife Society.