

Permit Application for Temporary Repairs after Super Storm Sandy

The purpose of this application is to put in place temporary repairs to the Darien Boat Club for damage sustained during Super Storm Sandy in the fall of 2012. These repairs are the minimum necessary to get the club back in operation for the 2013 boating season starting May 1, 2013. These changes are **temporary** and are pending the submission and approval of permits for the permanent reconstruction of the club. It is planned to restore the club to its "pre-Sandy" state without any cosmetic modifications.

History

The Darien Boat Club is located at 135 Pear Tree Point Road in Darien. Founded in the late 1940's, and open to any resident of Darien, the membership has grown from a few charter members, to over 800 member families.

The boat club has slips for 250 boats ranging in size from dinghies to 28' power and sail boats. Other facilities include a launch service, racks for inflatables, kayaks, sunfishes, & canoes and additional space for beached dinghies secured by a chain. The Boat Club also has a gas dock with fuel and pump-out facilities, fresh water on all docks, lockers for gear, and bagged ice for sale. A major attraction to the club for many members is the picturesque deck that is situated on the shores of Long Island Sound and enjoyed for outdoor lounging, family gatherings, picnic meals, club events and boater access to our docks.

Along with providing at least 300 Darien families (Dock and Mooring) access to the waters of Long Island Sound, the club also provides access to the water for the Darien Police and Darien Harbor Master.



On October 29, 2012 the Darien Boat Club along with the surrounding community was hit hard by Super Storm Sandy. The Boat Club sustained significant damage to the deck and parts of the existing building.



The picture shown above is of the noon tide when the wind was coming from the North. The main damage was done during the evening tide when the wind and waves were out of the South.



Prior to the storm the club had a beautiful deck that was increased in size and finished in 2004.



After the storm, the front part of the deck was destroyed as well as the awning and sunroom on the West side of the club building.



For the safety of our members and the Darien residents and to prevent further environmental damage, it was decided to deconstruct the damaged sections of the building. Prior to doing this, we discussed the situation and gained concurrence from Planning and Zoning. We then wrapped the building with a tarp to protect it from the winter weather and any additional storm damage. We also cleaned up the significant debris field that formed along the beach and across the access to the club.

At the same time the club contracted a structural engineer to certify that the remaining building was structurally safe and sound. Leo E. Dwyer P.E. did the analysis and his letter representing his affirmative findings is attached.

As we approach the 2013 boating season, the permitting process and flood plain engineering are clearly going to take many months to complete. So we are asking the Planning and Zoning Department and the Building Department to grant us a permit to perform minimal **temporary** repairs that will allow the club to open for business in 2013.

Plans for Darien Boat Club post "Sandy" Re-Construction

After discussions with the Planning and Zoning Officials as well as the Building Officials the following plans are being recommended and followed:

- 1. Design and apply for permitting for enough **temporary** repairs to get the club up and running for the 2013 boating season starting May 1, 2013.
- 2. Once approved, contract with Quality of Living Builders to construct the temporary repairs.
- 3. Establish that returning the club to "pre-Sandy" condition will cost less than 50% of the assessed value of \$194,300.
- 4. Once a "Repair" is approved, engage a marine engineer to design a repair of the deck and awning to Zone VE (EL 15) / Zone AE (EL 14) flood plain standards
- 5. Have the engineering drawings approved by Darien Building officials
- Check with DEEP to ensure compliance of any coastal regulations for rebuilding existing "pre-Sandy" structures
- 7. Execute the repairs per the approved engineered plans
- 8. Submit a stamped certification that the construction meets the engineering specifications.

Plan Specifics for Temporary Repairs

On the following 4 pages are the diagrams referred to in this discussion. The first diagram is the club "pre-Sandy" as it existed. Diagram two is what was left after the storm and subsequent efforts to make the area safe. Diagram 3 shows the plan for the temporary repairs. Finally Diagram 4 is the interior structure of the club and shows how we are going to access the docks through the building. The reason for dock access through the building is that it clears the areas where the permanent repairs will be taking place. Thus, if the club receives the necessary approvals during the boating season, construction can start immediately and be completed as soon as possible.

The following temporary repairs are shown on diagram 3:

- Repair the existing yellow section of deck that sustained very minor damage
- Install 5 temporary supports, which will be Pressure Treated 8"x8"s dug down a minimum of 42"(these are denoted by red squares on the diagram.
- Install new temporary decking in the green areas. The beams will be double 2"x10", the joists will be 2"x8" and the decking will be Pressure Treated 5/4"x6" material.
- Install code compliant railings on all new sections of decking that is more than 30" above grade (denoted by red lines on the diagram)
- Replace the window on the South side of the club by the toilets with a 32" door into the existing locker room.
- Install a landing and ramp on the south side of club up to this new temporary door and toilet area.
- Install a wood walk that is flush with the top of the existing concrete walks to provide continuous access to the club without walking through sand
- Temporary roofing repairs will be done as needed
- The main entrance to the locker room (West side of building) will be temporarily locked shut for safety
- All electrical outlets that are below the 4' level will be replaced. The electrical panels were all well above flood levels, but will be check and certified by an electrician. Shore power will be restored to the docks, and the pump-out station will be repaired and re-commissioned.
- Plumbing for the bathrooms will be checked and recertified.

Diagram 4 shows the path through the interior of the club to provide access to the docks.

A picture of the existing window that will be replaced with a temporary door is shown:



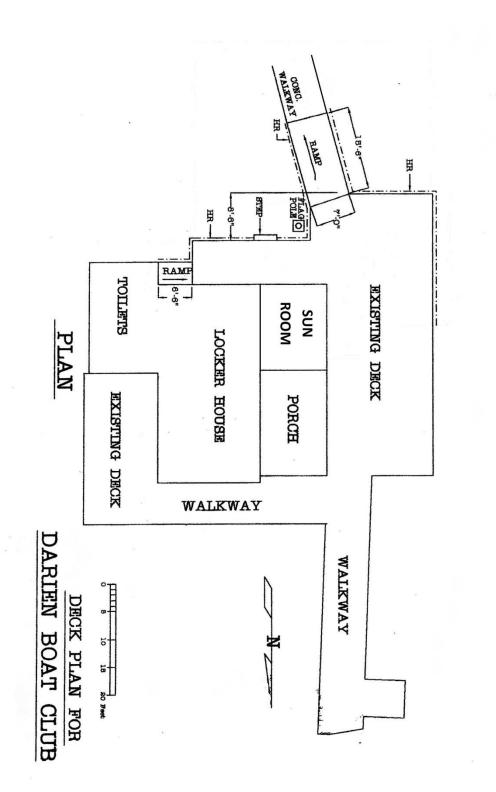
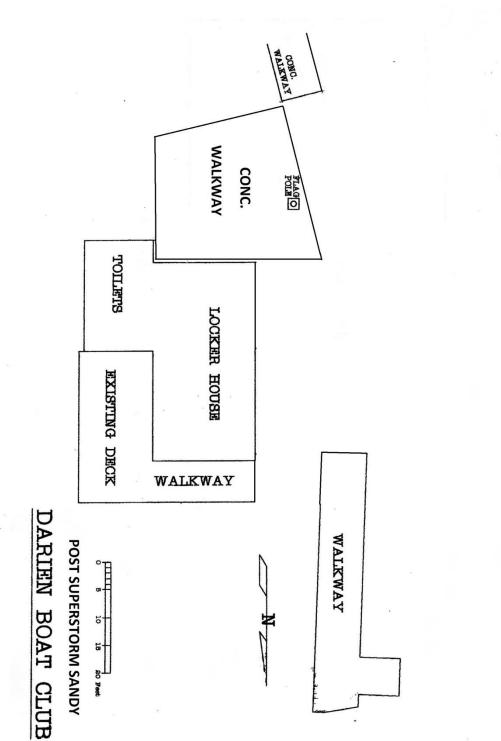


Diagram 2



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Diagram 3

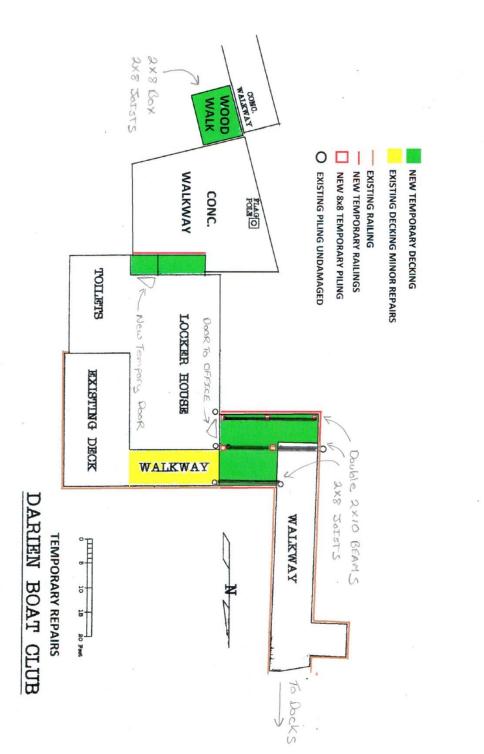
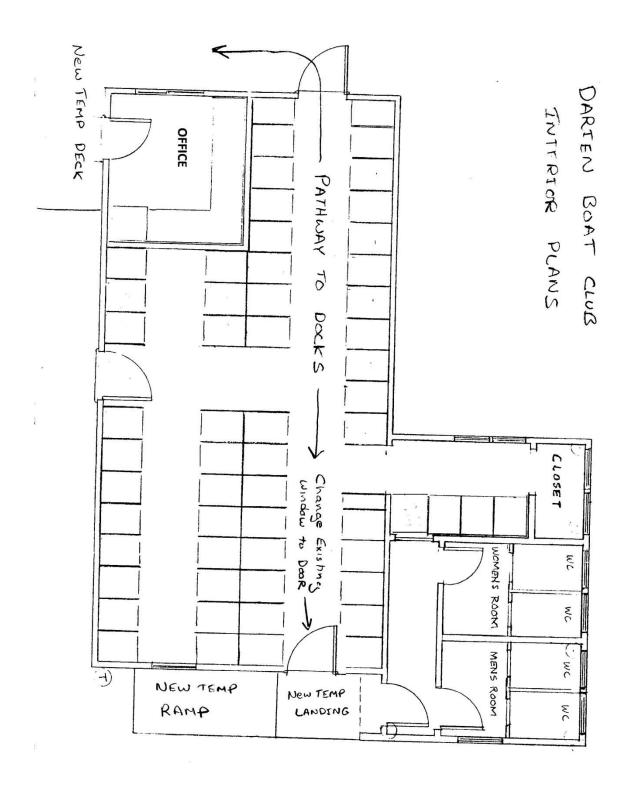


Diagram 4



November 20, 2012

Darien Boat Club 135 Pear Tree Point Road Darien, Connecticut 06820

I inspected the above ground structures at the above referenced address one week after hurricane sandy and have the following comments;

- The structures are a 18' wide x 36' long enclosed locker room with small office (on timber piles), a 12' wide x 19' long enclosed bathroom with storage closet (on concrete piers/piles), a collapsed 11' wide x 34' long screened porch, a 16' wide x 50' long outdoor wood deck/ boat storage racks broken and moved off their concrete beam and pier/pile foundations, and 13' wide x 28' long plus 7' wide x 36' long plus 6' wide x 18' long outdoor decks. The timber piles are cross braced with wood from the bottom of the locker room building to the grade.
- 2. Water stains on walls suggest the flood level/storm surge entered the enclosed spaces and was about three feet above the floors and decks levels.
- 3. The locker room w/office was not damaged and is intact. This is due to the gaps between narrow floorboards allow the passage of rising and lowering water level. Also the 24 inch on center full height, top cut on slope and connected to rafter, x 2-1/2' wide plywood locker side walls acted as shear walls resisting lateral forces at the exterior. The interior plywood lockers 24 inch on center, three 2x4 full height, connected to rafters, and ³/₄ height plywood braced wood columns stiffened, kept the vaulted ceiling/roof in plane, no excess deflections during the storm. All the doors and windows opened and closed by me without difficulty, they did not distort/rack. The bathroom part of this structure also remained intact.
- I produced drawings A-1 and S-2 showing post storm architectural and structural members. After review by the Darien Boat Club I can pencil in any desired changes and what needs to be done to bring the structures back to what they were before the storm.

