

TOWN OF DARIEN
OFFICES OF THE BUILDING DEPARTMENT
& PLANNING AND ZONING DEPARTMENT

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Dear Darien Property Owner:

The Darien Building Department and Planning and Zoning Department have been working with many of you as a result of the recent storm Sandy. You may have read our recent press release in the Darien Times regarding permitting and application processing, and our policy to waive Town application fees and expedite processing for storm reconstruction work. We realize that it is important to relay information to you all on both a one-on-one basis, as well as some basic matters which apply to everyone regarding both building and planning matters.

MOVE BACK INTO THE HOUSE ONLY AFTER

- The electrical system has been inspected and cleared by a licensed electrician. Salt water inundation will corrode the electrical system causing wiring to short circuit and fuse electrical panel breakers or fuses to fail, allowing too much electrical energy to pass through the system. The corrosion can occur very quickly or can take months to reach a point that is unsafe.
- Dirty water has been drained away and the house is dried out using large fans. Rugs, carpeting, paneling and sheetrock that had been wet will likely begin to grow mold and thus need to be removed and discarded.
- Heating checked by an expert and safe.
- Debris is removed and properly disposed of.

Zoning and Building Permits are needed to repair structural aspects of the house, the electrical system, plumbing, and insulation. All repair work is to be done by licensed contractors. In some cases, homeowner permits may be allowed. All of this type of work needs to be inspected to make sure that the work complies with the minimum Building Code and safety requirements. Proof that permits have been obtained and inspections have been conducted may be needed to resolve insurance claims (adjusters do check our files) and to obtain FEMA financial assistance.

Applications to fix storm damage will be processed on an expedited basis. Any applications to repair storm damage will have their Town application fees waived and Town building permit fees waived. The only fees to be charged will be the State of Connecticut fees for Planning and Zoning applications required under CGS 22a-27j of \$60 per application, and a State required education training fee which is 26 cents per \$1,000 of value of repair cost, for the Building Department.

APPLICATIONS TO RELOCATE OR ELEVATE THE HOUSE

Meet with the staff of the Planning and Zoning Department. Bring any available survey maps of the property and floor plans of the house. Review information to determine if any variances of zoning setbacks, building height, building coverage, or other provisions of the regulations are needed. Plans of proposed work will be needed, including information on current elevations around the house, and the elevation of the flood zone on your property.

Applications to Planning and Zoning Commission for construction work within the flood zone must comply with all flood damage prevention provisions within the regulations, or a variance from the Zoning Board of Appeals will be necessary. Instead of conducting the typically required Public Hearing, the Planning and Zoning Commission has noted its desire to waive the requirement for a public hearing, and can act on the request at their next available meeting. The Planning and Zoning Commission and the Zoning Board of Appeals have both are willing to establish special meeting dates to address storm rebuilding applications. Again, all Town application fees will be waived, and only the State required \$60 fee will need to be submitted.

In the A flood zones, the lowest floor (including basement) must be at least one foot above the expected flood level. Unfinished garage spaces can remain below the expected flood level, and new garages can also be below the expected flood level. All utilities and mechanical devices (space or water heaters, air conditioning, washers, dryers, pool equipment, generators, etc.) must be at or above the flood level.

If the structure is within a V flood zone that is influenced by wave velocities, then special, more stringent restrictions must be satisfied.

A project engineer must certify that the project will not redirect flood waters toward any neighbor and will not increase the likelihood of flood damage to any other property.

Homeowners need to have an architect, structural engineer and/or house lifting contractor inspect the house to determine if it is feasible to lift up the house and then reinforce the existing foundation, build a higher foundation under the propped-up house, then set the house down on the new higher foundation. Some structures may not be easily, or safely, or cost efficiently lifted. Get estimates of what it will cost to implement the lifting plan versus building a replacement house. There is no sense in getting approvals and permits for a project that is not cost effective to implement.

The house must have a foundation that will not be structurally damaged by flooding and must be designed and certified in writing by an architect or an engineer licensed in the State of Connecticut. The design is subject to review and action by the Planning and Zoning Commission. The design professional hired by the applicant must inspect the work during the installation and must provide written certification to the Town that the project has been completed in accordance with the approved design.

MISCELLANEOUS INFORMATION

Any house in a flood zone is not allowed to have a basement, but is allowed to have a crawl space provided there is no more than 5 feet between the slab of the crawl space and level of the first floor. Proper flood vents must allow the flood waters on the outside of the foundation to flow into the inside of the crawl space so the water pressure will be equalized and thus the foundation will not collapse in on itself. After the flood waters recede, the water within the foundation must have a way to drain out without any mechanical assistance (pumps). One owner who moved into his

recently constructed home within a flood zone recommended that owners avoid the open crawl space design and use a solid platform design (foundation walls containing structural fill or concrete), and then construct the house on that elevated platform.

Filling around the house is allowed, but discouraged.

Make provision for a platform so that the HVAC equipment and generator will be at or above the expected flood level as required by the Flood Damage Prevention regulations and must follow all manufacturer installation instructions.

In flood hazard zones, fuel tanks, whether they are above ground or buried, must be engineered so that they are strapped down to a large, buried anchor so that they will not pop out of the ground or become buoyant in flood conditions. The anchor is typically a large slab of buried concrete that is sufficient in size to prevent the tank from being moved by flood forces. The anchoring design must be done by an engineer and is subject to review and action by the Planning and Zoning Commission. The project engineer must witness the installation and strapping of the fuel tank and must submit written certification that the tank was properly installed in compliance with the Flood Damage Prevention Regulations and the specific design for that tank and anchoring system in that location.

Our analysis of the storm Sandy water levels and eyewitness accounts of the extent of the flood waters indicates that the water reached 9.4 to 10 feet above the NAVD 88 datum. That is about 1 - 1.6 feet below the predicted flood level for a 100 year design storm.

SEA LEVEL OR ELEVATION ZERO?

Prior to 2010, ground elevations were generally measured above sea level or elevation 0.0 which was established in 1929 by the United States Geological Survey (USGS). Most maps refer to this as National Geodetic Vertical Datum 1929 or NGVD 29. Some maps use an assumed datum or vertical starting point. In Darien, typical or average high tide, Mean High Water (MHW) was approximately 4.2 feet above sea level (NGVD 29).

In 2010, with the adoption of revised Flood Insurance Rate Maps (FIRMs) produced by FEMA, the Town started using a new point as elevation zero (0.0). It is no longer linked to sea level. It is referred to as North American Vertical Datum 1988 (NAVD 88). The new elevation 0.0 is 1.1 feet higher than the old sea level. A piece of land or the floor level of a house that was listed as elevation 8.4 on a map prior to 2010 (using NGVD 29) would be shown on a current map as elevation 7.3 NAVD 88. In Darien, average high tide or Mean High Water (MHW) is elevation 3.1 (NAVD 88).

CURRENT FLOOD MAPS OR DRAFT MAPS?

The Town of Darien has Flood Damage Prevention provisions within the Darien Zoning Regulations. They refer to Flood Insurance Rate Maps (FIRMs) prepared by the Federal Emergency Management Agency (FEMA) and adopted by the Town. The current FIRMs indicate that most the immediate coastline near the Noroton Yacht Club and Baywater Drive is within the VE-14 flood zone and much of the interior of the neighborhood is within the AE-10 or AE-11 flood zones. The lowest floor allowed in the AE zones must be at least one foot above the expected flood level, and the foundation must be able to withstand the pressure of the flood waters. In the VE zone, the lowest floor needs to be 2 feet or more above the expected flood level and the foundation must be able to withstand the wave forces. Applications submitted now need to comply with the regulations and expected flood elevations on the current maps.

FEMA has supplied the Town with one copy of draft FIRMs that are likely to become effective in the spring of 2013. These draft maps utilize a revised formula and engineering study to calculate expected flood levels in coastal areas. The draft maps show that some of the coastline will be classified as VE-15 and that much of the interior of Noroton Bay will be in the AE-13 flood zone. Although we do not require that current applications must comply with the draft restrictions, it would be prudent to do so.

SUMMARY

To summarize:

- Zoning and Building Permits are needed for renovation, structural aspects and reconstruction work. Those permits will be expedited and all Town fees waived. The only fees charged will be the State of Connecticut education training fee of 26 cents per \$1000 of repair cost value for the Building Department, and a \$60 State required fee to be submitted to the Planning and Zoning Department.
- The Planning and Zoning Commission and the Zoning Board of Appeals have both noted their willingness to establish special meeting dates in December and/or January to address storm rebuilding applications. Again, all Town application fees will be waived except as noted above.
- Both Departments stand ready and willing to assist you in any way possible. If you want a zoning officer or building official to visit your property, please come by the office or give us a call.

We look forward to working with you in your rebuilding efforts. For further questions, call the Building Department at (203) 656-7347 or Planning and Zoning at (203) 656-7351.

Sincerely,

Peter Solheim
Darien Building Official

Jeremy Ginsberg
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