

Name redacted  
xxxxxx Drive  
Woodbridge, CT 06525

May 10, 2018

RE: Tree Fall Damage - Structural Assessment at xxxxxxxx Drive, Woodbridge, CT

Ms. xxxxx,

On May 9, 2018, we inspected the damage caused by a tree impact at the above referenced location. Our scope was to visually assess the existing house for significant structural damage and/or distress subsequent to a recent tree fall onto the structure and to provide our assessment of the extent of structural repairs required.

The following are our findings:

Structural damage to the residence was generally noted in three locations – The first floor attached sunroom, the main house roof, and a section of the ceiling joists at the second floor bathroom. In addition to this, water infiltration was noted in the basement, and kitchen ceiling (lowered area) as a result of this damage.

Continuing water infiltration to the structure is also a concern.

### **Sunroom**

The 12' x 22' sunroom located at the rear of the main structure was most severely affected by the tree fall event. The tree impacted the rear wall and roof of the sunroom, damaging a significant area of the roof, wall, windows and skylights. The existing hardwood floor has warped due to water intrusion and is beyond repair. The windows on all three exterior walls of the sunroom are out of square, and fail to open and close properly. These gas-filled double pane windows have likely had their internal seal damaged which will eventually allow the gas to escape.

The underlying floor joists and structural support system of the sunroom were also inspected, and no signs of damage were found.

A small ceiling soffit in the main house adjacent to the sunroom has been effected by water infiltration.

### **Main House Roof**

The tree penetrated the roof and the impact caused damage to the roof covering, sheathing, roof rafters and second floor ceiling joists. Located directly above the second floor bathroom, 4 existing roof rafters have been damaged. (See Photos).

The skylight at the top of the first to second floor stairs was reportedly destroyed by the impact, and the opening had been boarded up prior to our arrival. The structural skylight chase was also inspected, with no damage noted.

A temporary tarp has been mechanically fastened to the roof, through the roofing material on both sides of the ridge.

### **Second Floor Bathroom**

Multiple 2x6 joists at the ceiling of the second floor bathroom were affected by the impact. Additionally, there is extensive damage to the finishes and sheetrock in this bathroom.

### **Basement**

Inspection of the basement below the area of the damages revealed water infiltration through the structure had also reached the basement and first floor framing.

### **Recommendations:**

The sunroom floor support system was unaffected by the event, however all upper portions of the structure have been severely impacted, therefore it is our recommendation that the three side walls and roof of the sunroom be removed and the sunroom rebuilt in its entirety atop the substructure. The sunroom should not be occupied until repairs are complete.

The 4 affected roof rafters in the roofing system should be replaced in kind, along with all affected bays of roof sheathing. Additionally, gutter and exterior trim will require replacement. If repairs are not immediately commenced, temporary shoring must be installed in this area.

In order to provide temporary closure to the elements and forestall greater damage, a tarp has been mechanically fastened to the roof, through the roofing material on both sides of the ridge. This will require that the entire roof be replaced once the structural repairs are completed.

The 4 affected ceiling joists in the second floor bathroom should be replaced, as well as all affected trim and finishes.

The interior soffit adjacent to the sunroom doorway to the main house requires rebuilding.

The water infiltration into the basement has not yet caused any structural damage, however should repairs be excessively delayed, this could become a concern.

Anthony Torello  
Construction Inspector

Atul Dalal, P.E.  
Project Engineer



1. Overall view of Exterior Damage.



2. Damage to Sunroom.



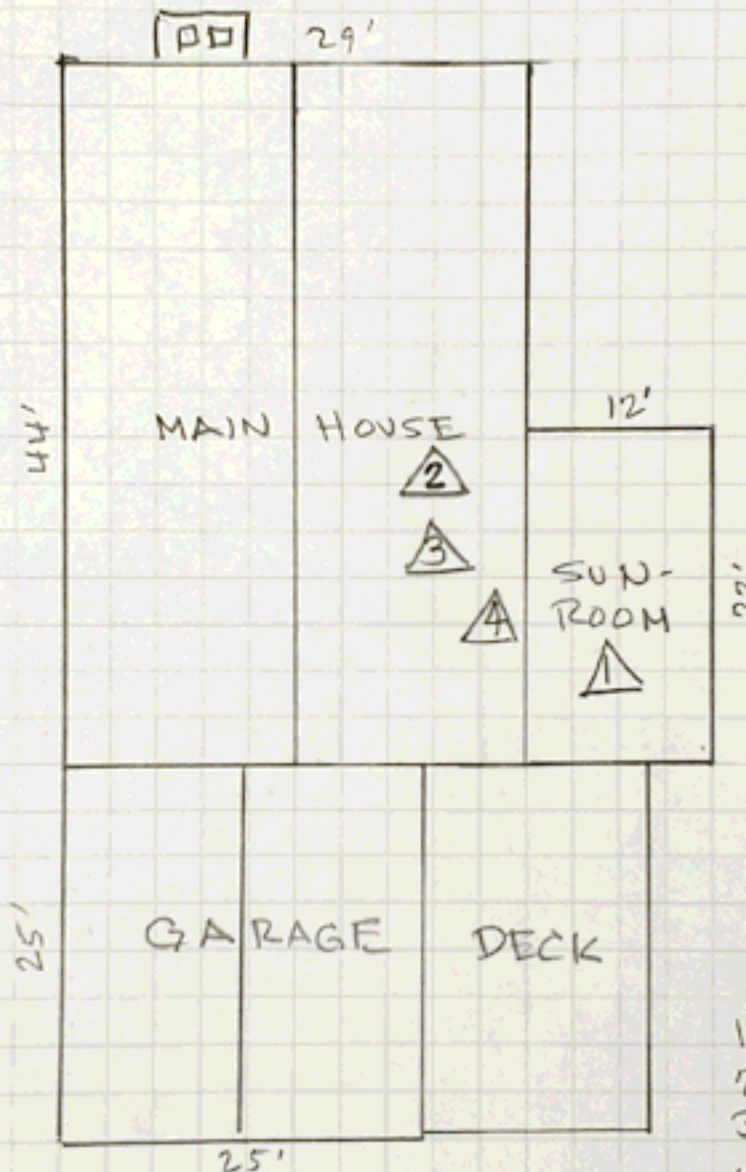
3. Damaged joists at second floor bathroom.



4. Roof rafter and sheathing damage.



PROJECT 81207  
MAY 10, 2018



KEY PLAN

△ LOCATIONS

1. SUNROOM
2. SKYLIGHT
3. DAMAGED ROOF
4. INTERIOR SOFFIT

See Report for  
discussion.