

# Carpenter Brothers House Renovation to Historical Structure Application (REVISED)

## Purpose for Revision

Our original application was submitted with the intent of simply renovating the existing structure and adding 410 square feet to create a living space for our son. While the renovation would change the interior of the structure, we hoped to retain important aspects of the exterior to be consistent with the original. The upgraded exterior is necessary to provide increased fire safety (we are in a high fire hazard severity zone, per CalFire), as well as enhance the energy efficiency of the structure as we move into more extreme climate conditions.

The previous application was submitted prior to an extensive investigation of the existing structure. In the past weeks such an investigation was completed and it is evident that there are significant structural safety issues that cannot be “renovated”. Our only option is to demolish the existing structure and rebuild from the ground up.

In the following sections we will document those issues, which primarily deal with the foundation.

That said, it is our intent to preserve significant historical aspects of the building. Having performed the investigations, I am even more convinced that there is important history represented by this structure and that it should be honored.

## Foundation issues

While it was clear that there was no concrete foundation, I had assumed that it was built on piers with girders and floor joists. Wrong. I removed the subfloor in the existing bathroom investigate. Figure 1 below shows the results.

Findings:

1. All floor joints are 2x10 full dimensional redwood.
2. They are supported by approximately 2 inches of gravel on soil.
3. The cross braces were added during the 1960 renovation because they are 2x4 dimensional (1.5x3.5). My Dad did this, probably to stiffen the floor joists from twisting.
4. Floor joists run north/south.

I excavated the northeast bay so I could examine the outside foundation structure. See Figure 2.

Figure 3 shows a “girder” that runs east-west under the floor joists. This is a 2x4 (full dimensional). You can see various blocks of wood supporting it on the soil. It is supported on the pier for about 1”. Note that this was all covered up by the gravel and soil fill.

Figure 4 shows one of the “piers” supporting the outside wall sill plate. The pier is just a sandstone block placed on the soil. The pier is approximately 24 inches in length.



Figure 1: Bathroom floor joists, overview



Figure 2: Excavated bay showing eastern most floor joist



Figure 3: Start of girder



Figure 4: Sandstone support of eastern sill plate

The use of sandstone for piers is consistent with other construction aspects of the cottage. Before the 1960's renovation there was a sandstone fireplace on the western wall. As expected, after a 100 years of being exposed to weather, it was crumbling, so we removed it.

There must have been a source of sandstone nearby and it was a good choice for a cottage "built on the cheap" because the Carpenter Bros could easily cut the stone to make a flat surface to support the sill plates, without having to use rock and mortar. The sandstone piers were not directly exposed to weather, but soil moisture has taken a toll. During the excavation, my shovel grazed the pier and a chip crumbled off.

What is equally disturbing is that there is direct soil to timber contact throughout. The only reason there has been less deterioration is because all timbers were redwood, which was widely (and cheaply) available during the 1850's.

However, the foundation construction and its current condition is not suitable for any modern day renovation. It is for this reason that we are now requesting a demolition permit prior to reconstruction.

### Aspects of the cottage we are preserving.

We remain committed to preserving as much of the historical context of the Carpenter House as possible. We feel there are 3 areas where this is possible: The front porch, the roofline and siding, and the landscape contributions of the Carpenter Brothers.

#### Front porch

A covered front porch was a staple for early houses. The even though this was a small, simple structure (the original structure was just 416 sq ft), the Carpenter brothers extended the roof 6' to the north. The original porch may have had just a wood floor with 6 4x4 redwood posts supporting the roof. The floor disappeared and sometime in the 1900's a concrete porch was poured. The concrete was poured around the existing posts. More importantly, the "ceiling of the porch, was constructed with the same redwood tongue and groove material that was used to cover the inside walls of the cottage.

We intend to retain the covered front porch and are confident that we can salvage enough of the interior tongue and groove to cover the rebuilt front porch with the same original material.

#### Roofline and Siding

The cottage was built with a simple gable roof. We intend to keep that same design and slope.

The original siding was 1/2" redwood shiplap. This was discovered when I removed the two layers of siding nailed on top of it. Figure 5 below illustrates the original shiplap. If you look closely at the boards, the raised grain is similar to the proposed Hardie Plank siding, which we intend to use for its durability and fire protection.



Figure 5: Exterior redwood shiplap siding

### Carpenter Brothers contributions and other historical items

The Carpenter brothers were agriculturalists. One of the first things they did was to plant California Mission Figs around their cottage. Today, some of these trees still exist and produce 3 delicious crops a year. Figure 6 shows the view of one of the trees from the front porch of the house. There are 4 remaining trees, 3 on the north and 1 on the west.

The brothers also planted an almond orchard, shown in Figure 7. The orchard was much more extensive, but we intend to keep these trees as a tribute to their early efforts. The trees still produce almonds each year. We don't harvest them, but the squirrels do!

Finally, while investigating the structural elements of the house, I removed the plywood siding my Dad and I put up in 1960, and was astonished to find one wall filled with love-notes, probably by high school sweethearts around 1915. An example of this can be seen in Figure 8. Right in the middle of the Figure you can make out "RH + RS My Love For You Will Never Die"! The wall is filled with other initials and hearts and arrows. Several of the writings refer to 1915.

All this reinforces our belief that this house has had many lifecycles. Some inhabited, some not. We're not sure what we will do with these wall notes, but they impress on us that this historical cottage has a long and interesting history, worth remembering and documenting.



Figure 6: Fig tree planted by Carpenter Brothers



Figure 7: Almond orchard planted by Carpenter brothers



Figure 8: Love notes carved in wall