

165 High Street Carriage House

Restoration-Rebuild Concept Review

Background

The main house (Figure 1) at 165 High Street was built (c1800) by John Smith (co-owner with James DeWolf of the brig the Yankee Privateer) and the Carriage House (Figure 2) built some time later. Both buildings are post and beam construction but differ in the method the timbers were made; the main house timbers are all (pre 1800) hand-hewn using broad axe and adze where as the Carriage house timbers are pit-sawn.

Original Construction

The Carriage house (aka barn) is distinguishable as having two distinct sections. The front, with 9 foot ceilings, is where the carriage would have been kept while the back, with 7 foot ceilings, is where the horse stalls would have been. The second floor loft area would have been used for hay and storage of tack and supplies.

The post-and-beam barn was built on a field stone foundation. The main floor is constructed of multi layered narrow hard-wood boards (Figure 3). The loft floor, which doubles as the first floor ceiling, is double layered wide hard-wood planks.

The post and beam frame joinery consists of early pegged mortise and tenon joints (Figure 4). There is no evidence of braces used in the original construction (typical of barns built in this period).

The current oak barn doors (Figure 5) replicate what was in place when the barn was used as a Carriage house including period iron strap hinges (built c1990 by the current owner to replace a 1960's overhead door).

The barn has several original 12 pane sash windows (restored by the current owner when the barn doors were built) that provide ventilation and light.

Existing Condition

The stone foundation has settled, and in various sections along the outer walls, the stone foundation is no longer visible. This has resulted in the sill beams being in contact with the ground (Figure 6) resulting in extensive rotting of the sill beams. Much of this damage was hidden from view as the clapboard and plank siding covered the sill beams and extended to the ground (where the stone foundation was not visible).

The corner posts have experienced a severe wicking of moisture due to post end contact with the ground and rotted sill beam (Figure 7). This moisture saturation has resulted in rot extending a significant section into the corner posts.

Due to the lack of corner post timber bracing in the original construction, and deterioration of the beam sills, the barn leans to the south. As of today, the barn leans approximately 4 degrees.

Modifications were made to the rear of the barn in 1930's (I was told, to accommodate a large automobile). These modifications included removal of the rear wall framing timbers (Figure 8).

All of the above have compromised the structural integrity of the barn.

Planned Restoration

Our plan is to rebuild the Carriage house from ground up using the existing planks, and where they can be salvaged, posts/beams/and joinery. The building will retain its original look including; period clapboard siding, oak barn doors w/iron strap hinges, and 12x12 true shash wood windows. New posts and/or beams will be used and the joinery replicated. Struts and braces will be included in the new post-and-beam frame to prevent any racking of the building.

The traditional layout of the Carriage house will be retained to maintain the historic nature of its use and purpose. This includes the step down of the ceiling/floor from front to back. Using the existing ceiling/floor boards will also preserve the feel of the lower level as it did in the 18th century.

A new stone foundation would be laid to support the rebuilt post and beam frame. The new foundation will raise the sill beams off the ground by at least 6 inches preventing any future sill beam and corner post rot.

The first phase of the plan will be the dismantling of the Carriage house and cataloging of planks and beams for reuse. This phase will start as soon HDC approval is granted and will continue through the Fall and Winter or 2026.



Figure 1: The John Smith House (main house at 165 High St) showing Carriage House at the end of the driveway.



Figure 2: Front of the John Smith Carriage House



Figure 3: Carriage House first floor hard-wood floor boards



Figure 4: Corner post showing joinery and lack of corner bracing.



Figure 5: Carriage House barn doors with iron strap hinges



Figure 6: Stone foundation and horizontal sill beams in contact with ground.



Figure 7: Corner post showing extensive rot from being in contact with rotted sill beam and ground.



Figure 8: Rear wall showing the beam pockets where framing timbers were removed when building was lengthened in the early 1900s