

Haselton Barn

RECEIVED
OCT 22 2018
TOWN OF HUDSON
SELECTMEN'S OFFICE



Benson Park, Hudson, NH

Updating of 2003 Historic Structures Report with Preservation
Strategies for the Town of Hudson, NH
September 25, 2018

Bedard Preservation & Restoration LLC
PO Box 430
Gilmanton, NH 03237

Interior

Several dumpsters were filled with debris and removed from the site.

At least one additional grate was added to try to keep vandals from going from the basement into the first floor.

Ramifications of Stabilization Work since 2003

Exterior

Cupola



Cupola

The cupola was successfully removed from the barn and then the hole in the roof was patched. Structural repairs were also made to the roof framing. While the cupola was placed on bunks to try to protect it from ground moisture, a temporary roof was not built over it or the cupola was not moved to dry storage.

The cupola therefore continues to show significant deterioration since the 2003 report.

Executive Summary

In 2003, a Historic Structures Report was produced by Preservation Timber Framing Inc. After that report was completed, some of the stabilization recommendations mentioned in the report were accomplished.

Bedard Preservation and Restoration LLC was hired in 2018 to update the 2003 report concerning condition and costs as well to provide methods with cost estimates to better protect the building from vandals.

At the end of this report, a list of potential preservation strategies will be suggested. While it is possible that none of these strategies may be palatable, the condition of the Haselton Barn is in a critical state and requires action. Inaction going forward will quickly lead to the deterioration of the building to the point where the preservation of the barn becomes even more costly. This will then make it extremely difficult to come up with a plan that makes any sense at all.

2003 Historic Structures Report Update

Existing Conditions

Exterior

The 2003 Historic Structures Report was very comprehensive and provided good base-line documentation for the existing conditions of the building in 2003. The 2018 review of the building showed similar existing conditions as in 2003 but with further deterioration.

After the 2003 Historic Structures Report was completed, some of the stabilization suggestions were acted upon.

The cupola was removed from the roof and relocated to sit on the ground behind the barn. The hole, left by the removal of the cupola, was supported with framing and then filled-in.

The asphalt roof on the north side of the building was then re-roofed with architectural asphalt shingles.

Clapboards on various sections of the building were removed and Tyvar building wrap was installed over the sheathing.

Window openings were closed in by the removal of the remaining sash and then the openings were in-filled with plywood, Plexiglas and some ventilation grates.

Door openings were boarded over to deter vandalism.

Roof

The northerly roof was re-shingled after the 2003 report which has protected that side of the building.



North side of building showing re-shingled asphalt roof and Typar house wrap to cover areas where clapboards have been removed

Clapboards

Heavily damaged clapboards were removed in various areas and these areas were then covered with Typar house wrap as well as areas where the siding was completely missing.

Unfortunately, the house wrap should only be exposed to the elements for a maximum of six months. After all these years later, the house wrap has deteriorated to the point that it provides very little if any at all protection of the barn sheathing/framing underneath it.

The 2003 report called for the use tar/felt paper to protect these areas. While more costly and time consuming to install than Typar, the tar/felt paper would still be providing adequate protection for the building, would not have failed and would not have to be removed.

Window Openings

Since 2003, an honest attempt was made to fill-in the window openings, still provide ventilation and help secure the building from vandals.

The use of plywood, Plexiglas panels and vents did not work due to the fact that the Plexiglas panels and especially the vents could be kicked-out by vandals.



Plywood with Plexiglas and ventilation grill that fills the window opening and has been kicked-out by vandals

Some of the upper windows openings were not damaged as the lower ones were an easier target.

Interior

While a considerable amount of debris on the inside of the barn was removed (several dumpsters worth), other non historic debris was left inside the building. This has given vandals a supply of lumber that can be used for prying windows open etc.



Use of debris lumber to start to pry open plywood window unit

The idea of prying out this window was to gain access to the outside and connect to a wooden plank that was placed on the roof of the cupola.



A wooden plank leading from the attempted breach of the window opening to the roof of the cupola

Apparently sometime after 2003, a small fire was started by vandals on the main floor of the barn. Fortunately, it did not spread any further.



Charring from a small fire built on the wooden floor of the barn

Remaining debris allows for material to be used as tools to cause damage as well as fuel for fires



Debris inside of barn

2018 Existing Conditions (Major Issue of Concern Only)

As mentioned earlier, the overall condition of the building shows more deterioration than since the 2003 report. The following reflects the noted major area of concern only:

Exterior

The asphalt roof on the southern side of the main barn and the back side of the granary are in poor condition and shows signs of leaking in a few places such as in the valley between the main barn and granary.



South side of main barn roof with granary attached to far right.
The white arrow shows the location of the leaking valley

Inside the barn where the granary attaches to the main barn, one can see the leaking valley and the damage it has caused over the years.



The white arrow indicates the area of rot, repair and continued leaking

In the close-up of the south roof of the main barn, it appears that the shingles are actually beginning to slide-off of the roof itself. This damage would typically be caused by a roof sheathing failure but in this case it may be caused by settling concerning a rotted sill where the post above it settles along with the top plate, rafter and sheathing.



Section of the failing asphalt shingles on south side roof of the main barn



Inappropriate sill repair and replacement floor joist, south side

This area in the basement is the section where the sill and floor joists connecting to the sill were inappropriately replaced. In this particular section, a whole piece of the sill has been cut out. A new floor joist made out of a telephone pole has been installed in the cut-out sill space. This could be the source of the roof sagging (failure).

Suggested Stabilization Procedures

The following stabilization procedures are to merely protect the barn from as much deterioration as possible. **Even if these procedures are followed the rest of the barn will continue to deteriorate without the implementation of an overall rehabilitation/restoration plan. This plan has to be well thought out and also be funded appropriately so be able to succeed.**

The assumption, at this point, is that the barn will stay in its current configuration. This would include the main barn, with its later addition towards the back as well as the granary section addition.

Protection of the Cupola

The Cupola now rests on the ground behind the barn. A temporary frame with roof structure should be built over it to protect it from the elements.

Cost \$ 1,400

Repair area of Sagging Roof on South Side and South Side/Granary Roof Shingle Replacement

The repair of the sagging roof area should be done in conjunction with the replacement of the shingles on the south side of the barn/west side of the granary.

Cost

Repair of sagging area \$ 6,500- \$ 8,500 (while this range would be enough to cover the repair, it could actually be considerable less but will not be able to be determined until that area is opened-up)

Re-roofing of south roof and one side of granary (this includes stripping of the existing roof, minor repairs to sheathing and re-shingling the roof with 30 year architectural asphalt shingles)

Re-roof \$ 22,000-\$ 27,000

Re-grading around the building to keep water away from the foundation especially the south side

Cost \$ 1,500

Vandalism Reduction Methods

While it is always difficult to keep vandals from breaking into a building, additional methods can be implemented that will greatly discourage their attempts.

Keep brush and debris away from building. It is my understanding that the brush is cut by the Town twice per year. This should be increased to at least four times a year as this cover decreases visibility around the building.

Openings where wall vents have been removed should be replaced with heavier louvered vents. The inside of the window openings should then receive a cover of expanded diamond steel (a minimum of 1/4" thick 18 gauge). This material should be installed with large "square drive" screws as the "bit" is unusual. Do not use "Philips drive" screws. The floor hatch between the first floor and the basement should also receive an expanded metal cover, fastened appropriately.

Cost

Approximately 20 window openings including expanded metal for hatch opening \$ 5,000

Re-secure the door on first floor on south side. \$ 400

Clean out all debris (including wood) from the building

Cost \$ 800.00