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OLD PATCH HOUSE, RHODODENDRON STATE PARK
EVALUATION OF EXISTING CONDITIONS
AND
REVIEW OF PROPOSED REHABILITATION

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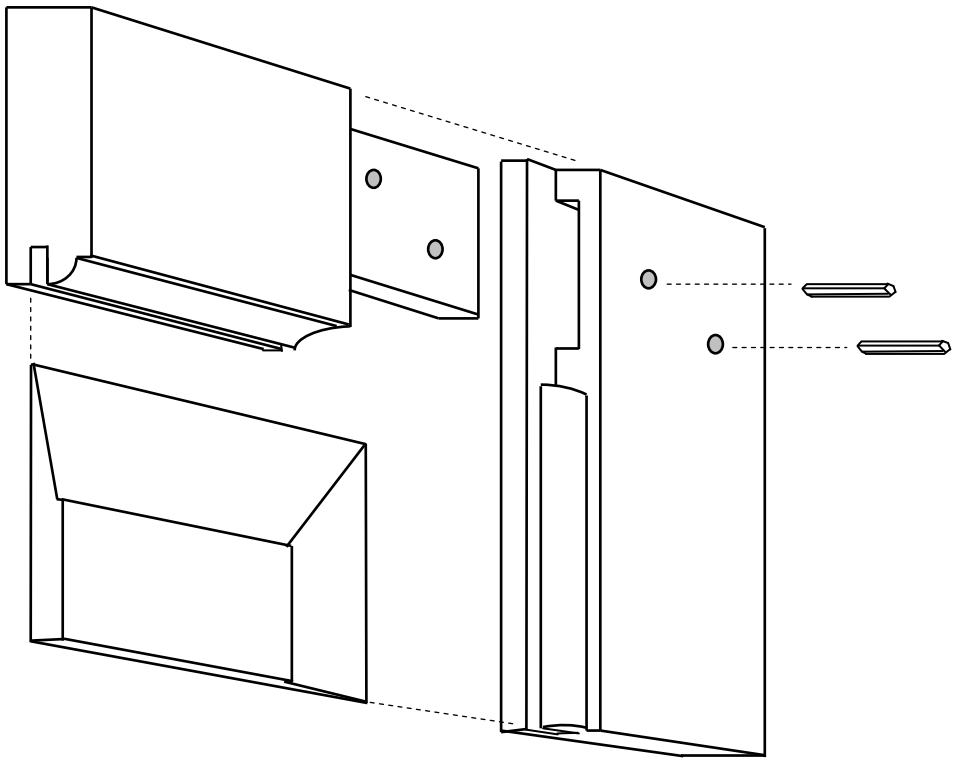
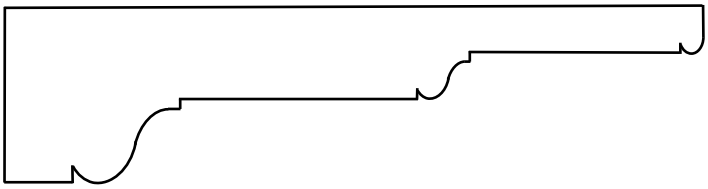
(RE-TYPED MAY 9, 2006 WITH DRAWINGS SUBSTITUTED FOR PHOTOGRAPHS)

Existing Conditions: The Patch House is a one-and-a-half story dwelling which retains enough early detailing to be dated at about 1800. The style of paneling in the house is generally of the Georgian type common during the 1700s (raised panels with ovolo mouldings planed into the stiles and rails; see drawing below), yet most of the mouldings in the house



have the quirked profiles which began to be popular in New England in the 1790s (see drawing below).



The nails originally used in construction, insofar as they still exist and are visible, are a combination of the hand-forged type generally superseded by cut nails around 1800, and of these machine-made cut nails (used universally in the house as lathing nails).

The house retains detailing which is remarkable in a rural farmhouse, clearly deriving its fine joiner's work from the presence of skilled craftsmen in the nearby village of Fitzwilliam. Unfortunately, the degree of architectural integrity described in the National Register nomination of 1979 has been greatly compromised through construction work carried out in the intervening years. The extent to which the house can regain some of its architectural significance depends entirely upon the care that was used in removing joiner's work, the degree to which this work has been safely retained in storage, and the intelligence and care with which it is replaced in the building.

Most of the partitions of the first story of the house were removed when the first floor framing and boarding and the sills of the house were replaced. The materials removed at that time are stored in the adjacent barn, and consist of doors and door casings or frames (still attached to one another by butt hinges in some cases), one-inch planed boards used for partitions of vertical boarding, floor boards, and miscellaneous trim. There is no way of determining by visual inspection alone whether all of the materials removed from the house during re-flooring is stored in the barn, but the presence of small pieces of early work thrown into the cellar of the house as debris, and now largely decayed, suggests that many items not considered important by the workmen were casually disposed of. Some damage resulting from hasty or careless removal is evident on the materials stored in the barn, but most of this is probably not beyond repair.

Because of the replacement of the sills, the house is generally in sound structural condition from the level of the first floor upward. There appears to be a small, active infestation of carpenter ants in the roof area above the rear (north) door, in the general region where a chimney girt has been replaced; damage by ants has left at least two of the rafters damaged where their feet bear upon the plate of the house, and susceptible to weakening through further insect action.

A more serious structural problem exists on the north foundation wall of the house near the northeast corner. Here the foundation is poorly constructed, is subsiding through the action of water and frost, and is in evident danger of collapse. This is the area of the foundation in which Charles W. Crouch recommends in his preliminary plan of rehabilitation (7/5/84) the installation of a bulkhead areaway, and the condition of the wall here has a bearing upon this

suggestion (see below). It should be noted that in this area of the frame, the new first floor joists bear directly upon the curb stones of the foundation without a wooden sill.

Generally, the frame of the house appears sound. The front (south) and rear walls of the house have four supporting posts which create the structural bays. The end (east and west) walls each have two corner posts and a prick post near the center, creating two structural bays. The prick posts support the ends of chimney girts which run longitudinally through the main axis of the house just behind the chimney stack, intersecting other chimney girts or rafter ties which run from front to rear on each side of the chimney.

In the middle of the ceiling of each of the [former] front rooms is a summer beam which runs from the end wall to a point above each fireplace. These summer beams are framed into their supporting timbers at each end by a treenailed dovetail joint on the exterior wall and by a treenailed mortise and tenon joint at the chimney girt. These beams, and the joists they support, were not intended to be visible. Although the present ceiling furring in these front rooms appears to date from a re-plastering of the house which took place in the late nineteenth or early twentieth century, there can be no doubt that the ceilings in these rooms were originally plastered and should be covered with some form of plaster again (see below).

It is equally clear from lath and nail evidence that the three rooms that existed until recently along the rear of the house had plastered ceilings. For some time, however, the ceiling in the central bay of the rear, near the kitchen fireplace and the north door, has had its joists exposed to view (evidently with panels of plaster or drywall between the joists, placed against the bottoms of the floor boards above); these joists have been painted dark brown for rustic effect. This point relates to a recommendation made by Charles W. Crouch (see below).

The following comments relate directly to recommendations for "Proposed Rehabilitation" of the Patch House, submitted as a preliminary report by Charles W. Crouch to Wilbur F. LaPage on July 6, 1984. Where no comment is made, Mr. Crouch's comments appear acceptable without discussion.

Page 1, item 3, Repair and pointing of foundation walls.

The house cellar extends only along the east and south sides of the chimney foundation. The cellar walls are of fieldstone, laid dry, and are extremely pervious to groundwater. The problem of water infiltration and frost action is especially serious on the north and south walls, below the front and rear eaves of the roof; here, all the water collected on the broad roof planes is precipitated in a narrow band directly adjacent to the basement walls, and this has caused much soil infiltration between the loosely-laid stones, with a consequent shifting of stones and subsidence of soil outside the foundation walls. Perhaps the best remedy for this condition is not the repointing of foundation walls (interior pointing is seldom effective in preventing water infiltration), but rather the laying of two lines of drainage tiles, in front and rear, to carry water away from the foundation and down the slope toward the road at the east. Pointing of the walls on the inside may be helpful in preventing further soil migration between foundation stones and in keeping small animals out of the house, and may be

worthwhile for these reasons alone. Such pointing of dry-laid walls was commonplace in the eighteenth and early nineteenth centuries, before foundation walls were commonly laid with the stones bedded in mortar. Although the choice of mortar for use with granite is not as crucial a matter as with brick, it may be well to use a soft lime-sand mortar or so-called "masonry cement," with a limited admixture of Portland cement, for this work, rather than going to a mix with a high proportion of Portland cement. A soft mortar has the advantage of permitting some flexibility in the final wall construction so that frost action will not introduce stresses that could split the stones in the wall.

Page 1, item 5, Install concrete areaway and steel bulkhead door.

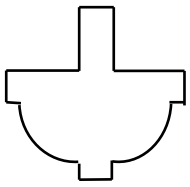
This recommendation appears sound in light of the fact that the foundation wall at the northeast corner of the house is beginning to fail. Some remedial work will be necessary here in any case, and this will provide an economical opportunity to install a bulkhead door. Special care will be required to support the split granite stones above grade in this area, since these support the first floor framing directly and are interlocked at the northeast corner of the house. One of these stones will have to be used as a lintel above the proposed bulkhead door. Some thought might be given to the use of the foundation fieldstones from below grade in the construction of a curb for the areaway above grade, thus reducing the visual impact of the concrete.

Page 1, item 6, Roof repairs.

It is unclear what is meant by the phrase, "[to add] a roof drainage system." If this refers to the installation of gutters, the installation of the drainage tile system mentioned earlier will be unnecessary. If gutters are contemplated, however, special attention will have to be paid to the insulation of the roof of the house to reduce heat loss in that area. If even a moderate degree of heat loss occurs, the presence of gutters will encourage the formation of ice dams. If gutters are installed, special care should also be given to avoiding damage to the original crown moulding of the cornice on the north wall of the house (see below).

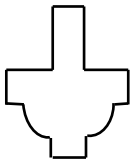
Page 2, item 7a, Replacement of window sashes.

Three sashes have been retrieved from the cellar and placed near the north door of the house. One is a six-light sash of late Georgian or early Federal design, with relatively thick muntins (see drawing below):



The style of this sash may predate the general style of the house, but the sash may have been used somewhere in the building (perhaps in an attic window) before window remodelings took place.

The other two sashes are a six-light and a nine-light sash with typical Federal-style muntins (see drawing below):



Although these do not fit existing window openings (which generally appear unaltered on the first floor of the house), their muntin profile is typical of the era of the house and should serve as a valuable pattern in reproducing sashes for the windows. There seems to be a question of whether the lights in window sashes in the Fitzwilliam area ought to be arranged as nine-over-six or six-over-nine. Fitzwilliam seems to be one of the few areas of New Hampshire where both arrangements are found with nearly equal frequency; elsewhere in the state, nine-over-six is the usual arrangement. Perhaps early photographs of the house, or other evidence within the fabric of the structure itself, can answer the question.

Page 2, item 7b, Clapboard replacement.

Nail evidence should be sought, before the walls are covered on the interior of the house, regarding the original exposure to weather of the former clapboards. If possible, radial-sawn pine clapboards, back-primed before application, should be used for maximum stability and longevity. Some thought should be given to the use of cut (as opposed to wire) clapboard nails if hot-dipped cut nails can be secured, since cut nails would have been the original choice on the house and create a texture that is not reproduced by modern wire clapboard nails.

Page 2, item 7c, Replacement of hardware.

It should be noted that the door on the east end of the house, near the northeast corner, is original to the house. It is a paneled door with a backing of boards. Efforts should be made to do as little damage to this door as possible during installation of new hardware.

Page 2, Basement, 1, Cleaning of cellar.

Care should be used in this work since there are several components of the original woodwork of the house amid the debris here. Perhaps anything that is not recognizably new should be stored temporarily in the barn for a quick inspection by a specialist before final disposal.

Page 2, item 2, Fireplaces.

Every effort should be made to reinforce the cracked granite lintel of the old kitchen fireplace rather than replacing it. Replacement would be costly, would likely result in further damage to the chimney (which is remarkably well preserved), and would result in the loss of evidence of the original construction.

Page 2, item 3, damp-proofing the basement.

As mentioned above, it will be extremely difficult to prevent water infiltration in this area due to the fact that the stone walls were laid dry. It is unlikely that any "interior cement painting" after repointing would be truly effective. Probably the best hope is to try to minimize water infiltration through the installation of drain tiles (mentioned above) and, if a concrete cellar floor is poured, to pitch it carefully toward a sump pit. To help reduce water problems, such a floor should be poured over a good prepared bed of crushed stone with a thick polyethylene (or equivalent) vapor barrier.

Page 3, item 2, Insulation.

Care should be taken to be sure that a good, unbroken vapor barrier is installed over all exterior walls before drywall is applied over the insulation. The one advantage of the wholesale removal of original plaster in the house will be this excellent opportunity to provide a good vapor barrier during the installation of insulation; in a house which will always have problems with dampness in the basement and crawl space, such a barrier is of utmost importance in preventing destructive condensation within the walls.

A vapor barrier should also be laid on grade in the crawl space below the western rooms of the house to minimize the penetration of water vapor into the air of the cellar and upper floors.

Page 3, item 3, Replacement of all original joiner's work.

This item is of crucial importance to the future value of the house as an architectural specimen. It should be undertaken with the greatest degree of care and deliberation. Some of the woodwork stored in the barn has been damaged during removal; this should be repaired where possible. The final nailing of woodwork that is to be replaced should await inspection of the components as they are placed in their original positions. One or more experienced persons should be consulted to ensure that these pierces are positioned in their original locations and sequences before the are fixed permanently in place. When the woodwork is re-nailed, the best approach will probably be to use fine modern wire finish nails. Some modern finish has already been mounted in the house using Tremont Nail Company cut nails with false rose heads. These nails reproduce a type of head that would never have been used for finish purposes and is totally inappropriate for reinstallation of the original joiner's work. The original intention with regard to finish woodwork, and one that ought to be observed today, is that, after painting, the nails that hold the wood should be completely invisible.

The same is true of the floors. The present first floor has been nailed with Tremont rose headed nails, evidently with the thought that this would serve as the visible floor. Mr. Crouch's comments suggest the possibility of replacing the original finish floor boards over the present floor. If this is done, the protruding heads of the Tremont nails will have to be driven flush with the surface of the modern flooring in order to provide good bearing for the old finish floor boards. Care should be exercised to determine what type of nail was used with the original finish floor; if, as is likely, cut finish nails with small heads were used, a similar nail should be chosen for replacement of the boards in order to avoid a false "rustic" appearance.

Page 3, item 4, Ceiling treatment.

Well-laid drywall for the ceilings will be the best practicable method of duplicating the effect of the original plaster ceilings.

It is clear that the ceiling of the old kitchen (referred to as the "Living Room" in Mr. Crouch's report) originally was plastered in the same manner as other ceilings in the house. As noted above (p. 3), however, the joists in this area have long been exposed to view, have been painted brown, and evidently had panels of plaster or drywall between them to accentuate their appearance.

Mr. Crouch suggests retaining this scheme. Since this ceiling area has long been exposed to view, this idea would recall the taste of the twentieth century and the long-standing conditions in the old kitchen of the Patch House. Since the furring to which the old plaster was attached has been removed, retaining the exposed joists would require less work than re-framing this area and attaching drywall.

If this scheme is followed, some attention will have to be given to a detail above the paneling of the kitchen fireplace. It is clear that earlier occupants closed the gap between the top of the paneling and the flooring above with a wooden box. Notches have been made in the joists to receive corresponding notches in the fascia of this box. The box should be replaced or reproduced in order to cover the inauthentic gap that now exists above the paneling.

Page 3, item 6, Paint.

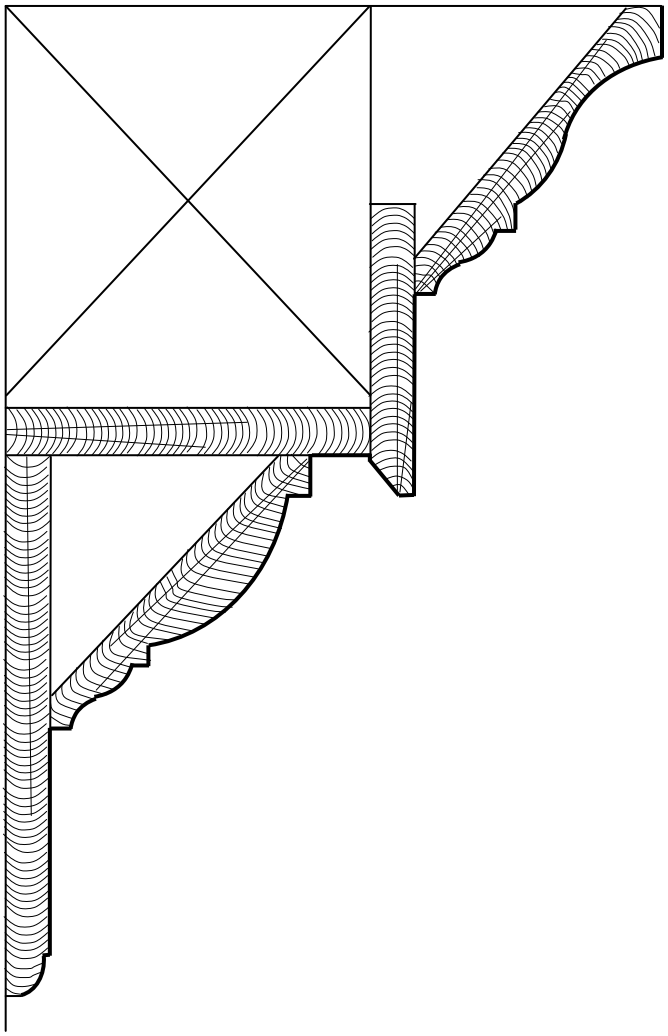
Some attempt might be made to reproduce original colors on the painted woodwork.

Page 3, Second Floor renovation.

All visible work on the second floor is of modern vintage except for the floor boards. These appear to be old (possibly original), and may reveal evidence of the former uses of this area. These boards appear to be a finish floor laid over a very thin subfloor, and suggest that the attic area had some use other than storage. Evidence in the finish floor may come to light as partitions are moved during renovation, and evidence of any sort regarding former uses of the attic should be sought during this stage of work.

Page 4, Phase II, Item 5, Roof work.

Care should be taken not to damage the roof trim during re-shingling. Of particular concern are the rake boards, which appear to be original on both ends of the house, and the eastern two-thirds of the north eaves cornice, which retains both bed and crown mouldings (the western third of the cornice was interrupted by an ell, now removed, which intersected the main house at the western third of the rear elevation).



Finally, it should be reiterated that the interior detailing of the Patch House is of exceptional quality and serves as an architectural document that has as much importance in its own locale as do the Wentworth-Coolidge Mansion and the Pierce Homestead in their locales. Every effort toward the retention and careful replacement of stored architectural features should be made, with as much intelligence and skill recruited for the job as possible.