

South Acworth Village Store / Union Hall

1068 NH Route 123A
Acworth, New Hampshire



Village Fair / 1914

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1. Introduction

This assessment was prepared for the Acworth Historical Society by Dan Bartlett (architecture), Helen Frink (history), Jeff Ingram (construction), and Jim Perkins (preservation) to facilitate planning for improved flood resilience, accessibility, life safety, energy efficiency, and economic sustainability at the South Acworth Village store property. The report outlines treatment recommendations for six bundles of related projects addressing the owner's broad goals; narrower goals and certain timing would simplify the recommendations, enabling more granular cost estimates. Nevertheless, this report documents the history, condition, and emerging threats to the property, offers a guide to its historic preservation and possible rehabilitation, and provides budget estimates for the entire scope of work and for its near-term projects.

The South Acworth Village Store was listed in the New Hampshire State Register of Historic Places in 2024. (See NH-DHR file ACW0006.)



*Village Store & Union Hall
November 2023*

SUMMARY

The South Acworth Village Store is the only food store remaining in the town of Acworth, New Hampshire, and operates as a community non-profit enterprise, leasing space from the Acworth Historical Society, owner of the building since 2002. Torrential rains in 2022 and 2023 caused Bowers Brook to alter its former course, damaging downstream structures. Although the brook's earlier path was restored by new earthworks in summer 2024, subsequent erosion (absent a major storm) suggests that the store building remains at risk; it must adopt flood resilience measures to continue its role as a viable economic asset to the community. All applicable treatments outlined in the Secretary of Interior's *Guidelines on Flood Adaptation for Rehabilitating Historic Buildings* (2021) have been considered, and the recommended treatment entails removing utilities from the partially excavated basement into a new, elevated addition constructed at the south side (rear) of the building; this addition may also be enlarged upwards to improve life safety and access for the building's second floor apartment tenants.

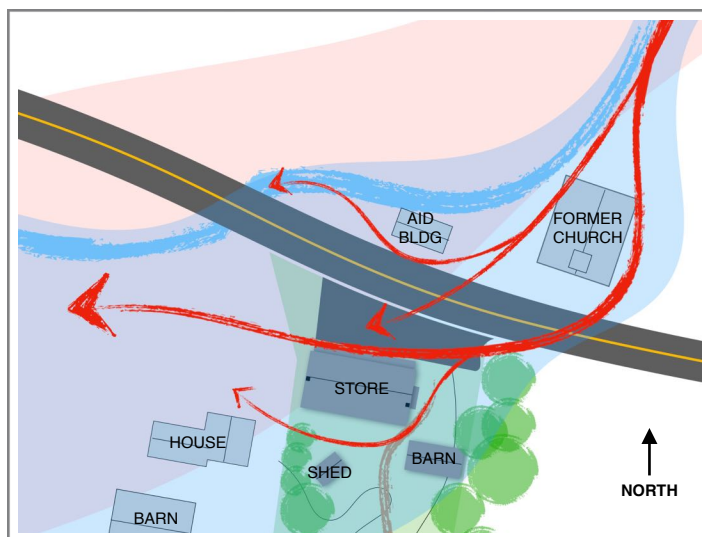


Bowers Brook, looking downstream at the former church and community aid buildings, with the store beyond. August 2024



*Bowers Brook floodwaters crossing the state highway
July 10, 2023*

Still images and video of the 2023 flooding show the direction and relative flow rates of water moving past the South Acworth Village Store. In the diagram below, the flooded area (shaded blue) extended south and east of the designated flood hazard zone (shaded pink). In addition to relocating utilities, resilience plans should include measures to deflect onrushing floodwaters originating from north and east of the building in order to minimize interior flooding and mitigate the hydrologic forces which may weaken the building's dry stone foundation.



*Relative magnitude/direction of floodwaters
July 10, 2023*

2. Property History & Development

HISTORICAL NARRATIVE

The following historical narrative was provided by Helen Frink, Acworth Historical Society.

The Acworth Village Store stands at the south edge of state route 123A (formerly known as Main Street) in the village of South Acworth. This small industrial village coalesced as water power on the Cold River drew population downhill from the older hill settlement that encompasses Acworth's town hall (1821), Congregational church (1821), and Silsby Library (1892). As early as 1767 a grist mill stood on the Cold River a quarter-mile west of the present Village Store. Other water-powered mills in South Acworth manufactured woolen cloth, shoe pegs, and lumber products. The Baptist Church, built in 1812 near the center of town was moved onto the Common in 1844 and down to South Acworth in 1854, where it now stands opposite the Village Store. The Methodist Church was also re-located from the town center to South Acworth in 1866-67. By the mid-1800s a blacksmith shop, general store and post office stood at the corner of Main Street and Beryl Mountain Road. By 1865 when the Village Store was founded, Acworth's population had declined from 1,526 in 1810 to 1,118 in 1860, and South Acworth surpassed Acworth Center in population and had become a thriving social, manufacturing, and business center.

Here seven prominent businessmen formed a Union Hall Association that contributed the land and funds to erect the present thirty by sixty-foot building that served as a commercial hub and social center. The "Agreement to Build Union Hall in South Acworth" is dated May 28, 1865 and names the building committee: NATHAN ADAMS, JOSEPH S. BOWERS, & SAMUEL A. RYDER, all of Acworth in the county of Sullivan and State of New Hampshire, of the one part, and ALVA W. BARNEY, ADNA KEYES, SANFORD H. BASCOM, & JULIUS R. CROSSETT, all of said Acworth, as building Committee for Union Hall on the other part."¹

South Acworth's own post office and general store had been established at least fifteen years earlier less than a quarter-mile west of the proposed Union Hall. Nevertheless, each of the seven signers of the Union Hall Agreement had something to gain from the new building. Nathan Adams settled in South Acworth in 1858 and bought the woolen factory on the Cold River across the bridge from the post office and general store. In 1868 the factory produced 6,500 yards of "cassimere" from the town's 6,771 sheep. On Beryl Mountain Joseph Bowers mined mica for stove windows and feldspar for scouring powder and headstones. Julius Crossett and later Alva Barney operated a sawmill downstream on the Cold River at the site still known as Deep Hole. There spruce, hemlock, and hardwood were sawn into lumber, shingles and lath that may well have been used to build Union Hall. Further upstream at the foot of Grout Hill, Ruel Bascom's sawmill produced chair stock and clapboards. Adna Keyes's carpenter shop stands on the bank of Bowers Brook opposite Union Hall. Both Adna Keyes and Alva Barney worked as carpenters and may have had a hand in building the store.

While the ground floor became a general store, Union Hall above offered space for entertainment. At the western end of the hall stood a stage for performers, and a second stairway led to a gallery providing more seating. The hall had a sprung floor for dancing and hosted minstrel shows, music groups, celebrations and Grange meetings for nearly eighty years. The hall's coved ceiling was probably intended

¹ Typescript by Frank B. Kingsbury identifies the source as "Paper is now owned by Osman Barney, Winchester, NH."

to enhance acoustics. While the Methodist Church was being dismantled and moved from the town common to its present location in South Acworth, Methodist Sunday services were held in Union Hall. South Acworth's Cold River Grange, founded in 1874, also met in Union Hall until 1888, then returned in 1894-1896. In the intervening years, and again from the late 1890s until 1923, the Grange met in the third floor of a large building behind the general store and post office at the corner of Main Street and Beryl Mountain Road.

The 1892 Hurd map identifies the present Village Store as J. B. Richardson's Store and indicates the presence of a small barn adjacent to the east. The "G. W. Emerson" and Grange Hall to the west represent the general store and post office whose large rear building housed the Grange Hall until 1923, when it was destroyed by fire.

After the Village Store was built at the end of the Civil War, small local industries declined, although road travel improved through the early 20th century. The resulting population decline saw the town's residents drop to just 536 in 1910. Between 1913 and 1915 New Hampshire's state highway system expanded with the construction of the so-called "South Side Road." It ran from the Connecticut river in Walpole through Langdon, Alstead, and South Acworth, then south to Marlow, through Gilsum and Keene, and finally east to Portsmouth. The new highway made automobile travel easier and increased traffic passing the Store. By the end of World War I the Village Store had gas pumps and a public telephone. A small building just to the west was known as "Grammie Knight's Store" and also sold gasoline, candy, and a few other items from the 1920s through the 1950s.

Fire and population decline contributed to the loss of several small businesses that once stood in South Acworth. In 1923 fire destroyed Emerson's store and post office just east of the bridge over the Cold River. The fire also destroyed the large barn connected to the store that had housed a tin shop, blacksmith shop, and Grange Hall. After the fire the post office moved into the Union Hall store. The Grange met upstairs in Union Hall, which also hosted minstrel shows, musical performances, Christmas exercises, and dog shows. On March 27, 1944 store owner Fay Evans sold his business to Harold Austin.² A typescript in the Acworth history archives at Silsby Library says the Austins "will live over their store."³ Hence it is safe to assume that Union Hall was converted to an owners' apartment in 1944. Until 2001, some owners continued to use the second floor apartment, reached today by the "Union Hall" door at the eastern end of the store's porch.

Between 1944 and 1948 Harold Austin operated his business as a "Red and White food store." An undated newspaper advertisement gives the prices for common grocery items in the store: 25 pounds of flour, \$1.79; molasses, 35 cents a quart; 2 cans of peas, 29 cents; a half-pound of Baker's chocolate, 16 cents; 50 pounds of onions, \$1.29; a can of Snow's fish or clam chowder, 27 cents; 20 pounds of macaroni \$2.23; one pound of cheese, 67 cents; 2 packages of Spic and Span, 39 cents.⁴

Today a small church and Community Aid Building still stand opposite the Village Store, separated by Bowers Brook; in 2021 and 2023 its floodwaters severely undermined and damaged these buildings as well as the store.

² Sullivan County Registry of Deeds, Vol. 291 pg. 443.

³ Acworth Silsby Library, "1940s" folder; history archives: Frank B. Kingsbury notes from various newspapers.

⁴ Undated newspaper insert for "week of October 7"; Acworth history file "Stores" in Silsby Library history archives.

Even today, a coin-operated phone booth stands at the western edge of the store porch. Acworth residents loudly protested its removal because surrounding hills limit cell phone access. Other changes in the past 20 years include removal of the gas pumps due to EPA mandates and the store's termination of the unprofitable post office lease in 2019. Both changes decreased store traffic and income.

Since 1865 the Acworth Village Store has been a center of commercial and social activity in Acworth. After a series of more recent owners faced difficulties keeping the store viable, the property was purchased in 2002 by the nonprofit Acworth Historical Society (AHS). Dedicated community members organized the Acworth Community Project (ACP), a domestic nonprofit corporation, to continue operating the store as a business.

Building Chronology

Information about building alterations is taken from previous research reports and personal recollections.

1865	Store and Union Hall constructed as a dual-use building.
1924	Gasoline pumps installed.
1944	Union Hall (upper floor) converted to residential apartment for store owner.
1946-66	Katherine Burke, proprietor.
1966-80	Bob and Molly Boothby, proprietors.
1980	Store owners Thomas and Gail Duggan annexed 4 acres to store property.
1983-86	Transitional period — two proprietors in quick succession.
1986-2002	Richard and Nancy Stewart, proprietors.
2001	Condition deteriorated after decade of deferred maintenance; store property for sale; community fundraising and LCHIP grant proposal.
2002	Property purchased by Acworth Historical Society; Acworth Community Project co-op formed to operate store as a domestic non-profit corporation. Exterior painting, asphalt roof replacement (25-year shingles), foundation stabilization, window repair and storm windows, septic system. Interior store remodeling by volunteers.
2015	Septic system failure and replacement; plan shows proposed new water well.
2016	Front porch repaired by volunteers, seven posts replaced.
2017	Electricity extended underground to back meadow concert stage.
2019	Post Office contract terminated.
2021	Flooding in July. Kitchen stove fire suppression installed. Trash sheds built on east end.
2023	Flooding in June. Furnace repaired; oil tank replaced.

ARCHITECTURAL DESCRIPTION

The South Acworth Village Store and Union Hall is a two-story, wood-framed building measuring 60 feet along its storefront façade and 30 feet in depth. An 1865 “Agreement to Build Union Hall in South Acworth” specifies the size, materials, and division of responsibilities between two syndicates (Adams, et al., and Barney, et al.). The contract states, in part (with emphasis added):

The said ADAMS, BOWERS and RYDER doth hereby covenant and agree that they will purchase and furnish land and also [bear] $\frac{3}{4}$ of the expense of constructing a building *thirty feet by sixty*, one story in height including the *frame and clapboards* and labor of same to complete the outside excepting the doors and windows, that they will construct and lay suitable *foundation stones* for all of said building ready for the *underpinning stones or planks*, and that they will furnish and build or set ready for the sills $\frac{3}{4}$ of said underpinning stone or planks, that they will give the Union Hall Association or its committee a deed of the right to build and occupy forever, $\frac{1}{4}$ of said building on their land, and to put an *additional story* over the remaining $\frac{3}{4}$ of said building, and that the land between said building and the highway shall be open and used as a public right of way.

The said BARNEY, KEYES, BASCOM and CROSSETT, doth hereby covenant and agree, that they will [bear] $\frac{1}{4}$ part of the expense of constructing said building including the underpinning stones or planks, also including frame and clapboards, and that they will furnish doors and windows of the East $\frac{3}{4}$ part of said building and occupy the same, and that they will build an additional story over the whole of said building and cover the same with a *good and suitable roof*, and that they will [bear] the whole expense of furnishing and constructing a partition dividing the two parts of said building, and that they will at their own expense *lathe ready for plastering* the Westerly side of said partition.

Parsing the contract is made difficult by the fractional division of ownership and responsibilities, but the first floor seems intended to be partitioned ($\frac{1}{4}$ west and $\frac{3}{4}$ east) and perhaps this explains the presence and irregular placement of two entrance doors on the north side and two rear doors on the south. The interior is merged today but vestiges of a former partition might be found in framing and flooring. The Union Hall Association, meanwhile, clearly exercised its right to construct a second story and provide a “good and suitable roof” overhead.⁵ Both parties probably had some incentive to economize, which perhaps explains why the building is underpinned in sections by granite and plank.

Framing

Balloon framing in New Hampshire is generally considered a post-Civil War practice, especially for light, open span buildings like this one, which is essentially a 30 x 60 shell with no irregularities or projections. Built in 1865, this would seem to be an early balloon example, but Jim Garvin notes that the new framing technique, said to have been imported from the midwest, had been adopted in the Keene area as early as the 1830s.⁶ Skeptics abounded in New England, as framing assembled from light

⁵ The second floor function hall was accessed by a staircase built within the original Adams (eastern) portion of the first floor, reducing its own floorspace, and perhaps reflecting the collaboration between two groups in establishing a function space for the Union Hall Association.

⁶ See Garvin, *A Building History of Northern New England*, page 25.

dimensional lumber and steel nails was considered structurally inferior to a freestanding timber frame.⁷ This misperception failed to account for the increased structural importance of joists and sheathing (or “lining”). For this Union Hall, the building specified in the contract could only have been executed as a balloon frame since it contains so many contingencies. It is not certain, for example, that the structure would even have a second story function hall (which is specified as a right, but not an obligation, in the contract). Add to that a scarcity of labor and the principals’ interests in local saw mills, manufacturing both dimensional lumber and clapboards, and the choice of balloon framing was not a radical departure from the norm—it was the only viable option.

By contract, the Barney group was responsible for providing the unadorned flat panel doors and $\frac{6}{6}$ sash windows throughout the building, most of which survive. The dry stone foundation was laid up by the Adams group, but it is unclear when the current furnace room was excavated at the western end of the building.

The exterior seems little changed from its original design and presents itself as a typical postbellum commercial building, although its orientation with entrances under the eaves would have been less common in more densely developed streetscapes. The store and accompanying warehouse (built just east, stepped back) effectively screen from view most of the current property, a narrow 4.2 acre parcel running about 800 feet from the highway to the Cold River.⁸

Exterior

Running parallel to the highway, the front porch is this building’s most prominent feature but is not mentioned in the 1865 contract and is of unknown origin.⁹ Its deck is five feet wide (or deep) and runs the entire 60-foot length of the north-facing storefront, and its shed roof provides overhead clearance of 8 feet. The two pairs of large display windows on either side of the main store entrance likely replaced original double-hung windows found elsewhere on the building. The porch intercolumniation is not aligned with the doors and windows beyond; five posts are positioned evenly (14 feet apart), quartering the façade, while a sixth post was inserted halfway between the two posts nearest the store’s present entrance.¹⁰

On the rear (south) elevation, a vertical trim board let into the clapboards (but apparently serving no other purpose) demarcates the western quarter of the building—perhaps related to its 1865 contract specifications but more likely the vestige of a somewhat later shed addition, present in 1914 and removed in 1980.

⁷ Writing in 1860, architect-engineer George Woodward said that: “This style of frame can be used with confidence for barns of all sizes, for all manner of dwelling houses, outbuildings, &c, and can be put up by anybody of the least mechanical genius. In Rural Architecture it is a good desideratum, and although ridiculed by eastern mechanics, it will assume the same importance that it has and still occupies in the West.” See series of “Balloon framing” articles in *The Cultivator* (1860-61).

⁸ Initially the property was just about a quarter acre immediately around the store and barn.

⁹ Locating original materials as a dating aid to the porch is difficult; most of the visible framing is modern, pressure-treated wood. Perhaps its roof structure contains earlier wood and fasteners.

¹⁰ The porch construction date is unknown, but six posts are visible in a 1912 photograph.



While fenestration on the first floor appears haphazard, the second floor is rigidly regular, with windows placed at fixed intervals front and back. The two gable ends differ because the center of the west wall now accommodates an interior chimney, eliminating the center window on the second floor; the date of this chimney is unknown but it is constructed of concrete block below the roofline. There are no windows at the west end of the first floor, which may have been used for storage (as it is today).

Interior

The stone-lined excavated cellar under the building's western end has proven an important feature: it is so porous that the basement floods easily, but its walls also relieve hydrological forces and the foundation has largely survived intact. The eastern two-thirds of the building have only a crawlspace. At

least in some visible portions, the stone is topped with a leveling course of mortar and brick, upon which the wood/granite underpinning lies.

An open first floor plan is enabled by posts, beams, and braces (in the manner of a timber frame but lacking the timbers). Unfinished floor boards are laid in a north-south direction in the mid-section of the store and east-west on either end.¹¹ The dry storage and kitchen areas towards the rear (south side) of the first floor are now covered in vinyl composition tile.

Reached by a steep staircase at the northeast corner of the building, most of the second floor was reportedly converted from a function hall (fully open to a cathedral ceiling) into a residence for the store proprietor and his family in 1944. Presumably ceiling joists were added above this living space to attach strapping for fiberboard paneling or plaster and lath—both are present. This conversion during wartime years was done inexpensively using partition paneling (with trim covering the seams) and a variety of salvaged doors and hardware. With light admitted from all directions by 19 windows on that level, it retains the sense of an open space. The unfinished floor boards on this level are oriented east-west exclusively.

Today's attic space was formerly open to the second floor below, with the exception of a narrow gallery at the east end where, presumably, musicians overlooked the dancing below. The gallery has two windows for light and ventilation and is reached by a flight of steep stairs returning from a narrow corridor off the second floor stair landing. The striking feature of the attic is its plaster and lath ceiling, coved rather than peaked at the apex. Beyond the wooden gallery and its knee wall, there is no permanent attic floor since the area was formerly an open void. A second chimney (of brick construction) rises through the attic at the west end, and lengths of suspended stovepipe indicate how the Union Hall was heated in winter. In summer it was reportedly cooled by suspending blocks of melting ice on window-mounted platforms, sending chilled air into the hall.¹²

¹¹ Since the mid- and east portions of the building are not visible from the excavated basement, sills and floor joists must be investigated via a portal in the east foundation wall (now located in the trash shed area).

¹² Hardware attached to the exterior window trim along the south side on the second floor suggests the exposed south side may also have once been shaded by awnings.

CHARACTER DEFINING FEATURES

Primary spaces, features, and finishes impart character to a building as they convey its architectural and historical significance. Secondary spaces and features not delineated below may also hold significance for a building's historic interpretation. Project scope and design decisions should respect a building's physical character and conform to the Secretary of the Interior's *Standards for the Treatment of Historic Properties* and related guidelines (*see Supplemental Information*). Character-defining features of the South Acworth Village Store / Union Hall include:

Exterior

- Footprint, proportions, landscape setting
- Roadside orientation
- Fieldstone foundation
- Mixed wood plank and granite underpinning
- Storefront porch
- Storefront display windows
- Chamfered porch posts with vernacular "capitals"
- Pitched roof
- Flat panel doors and period hardware
- Clapboard exterior siding
- East chimney and brickwork
- Simple corner and fascia boards (no moldings)
- Deep eaves (without returns)
- Contrasting fenestration (irregular below/regular above)

Interior

- Chamfered interior posts (first floor)
- Ticket window opening (head of Union Hall stairs)
- Ceiling cove and vault in attic space
- Gallery platform in attic space
- Steel tie rods in attic space
- Double-hung wood sash windows
- Flat panel interior doors
- Historic hardware
- Exposed wood floors
- Plaster walls and ceilings

Because so much original material remains in this building, there are relatively few opportunities to restore documented lost features.¹³

¹³ However, if the non-historic west chimney is rendered obsolete by conversion to electric heat pumps, then it could be removed in order to restore the building's documented appearance. See cover photo.

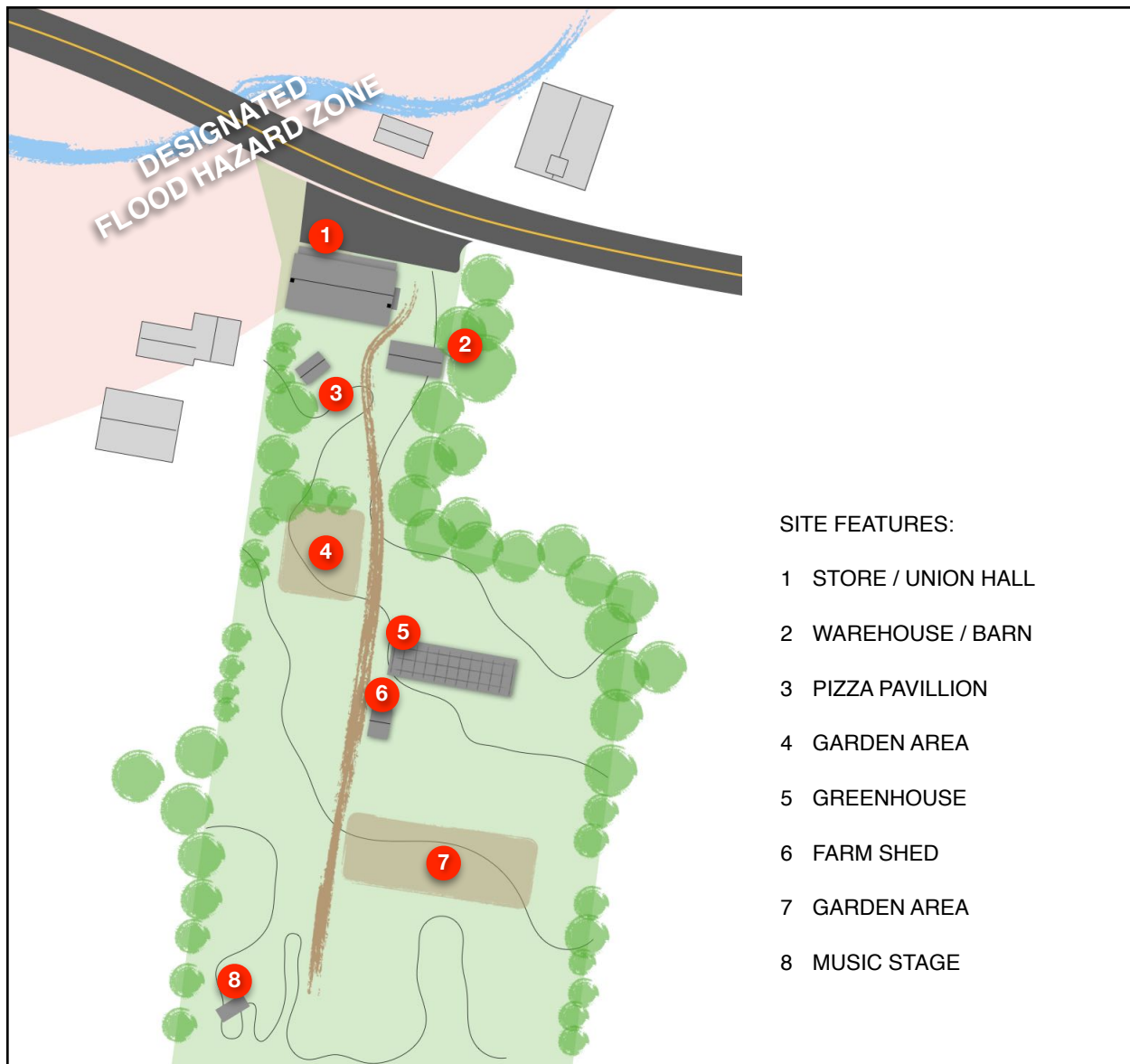
3. Existing Conditions Assessment

SITE PLANS

The following site maps are drawn to approximate scale for illustrative purposes using Acworth tax maps, NH GRANITView layers, and aerial photography.



*Sketch map showing 4.2 acre property extending to the Cold River.
Source: Apple maps, Acworth Property Maps #246 & 247.*



Sketch map showing built features on the northern half of the property; the southern portion is meadow and scrub extending to the Cold River.

EXTERIOR CONDITIONS

The following table summarizes the building's exterior condition observed during site visits on November 3, 2023, March 28 and April 18, 2024. Captioned photographs are included in Appendix A of this report. Conclusions are based on visual, non-invasive inspection of the building; with the exception of the eastern crawlspace, access throughout the building is good.

Category	Comments	Appendix A References
Site	<p>The Site is relatively flat, sloping slightly towards the rear, which is southerly, towards the Cold River. Bowers Brook passes to the north and under a State Highway bridge. Culverts are located on the abutting State road to the north but in the recent heavy rain storms this Brook can overflow its southerly banks flooding the Village Store site. The Site is located in FEMA Flood Zone A; ASCE 24-14 Flood Design Class 3 (BFE +1').</p> <p>The area near the building is clear of tree limbs and shrubbery. Observed in late winter, the area immediately behind (south) the building was soft, with snow melted above the septic settlement tanks which may be in need of routine pumping. Normal roof runoff does not appear to pool below either the north or south sides of the pitched roof.</p>	4 – 8
Foundation	<p>The foundation represents a combination of materials, from stone footings and dry laid walls, to a leveling course of mortar and brick, to an underpinning of granite and wood plank. Despite recent flooding the foundation appears sound, having been repaired (to an unknown extent) in 2002. Some stone may have been dislodged during recent flooding on the north side under the porch. Dry-laid stone was used for the bulk of the foundation wall below grade. There is a full cellar on approximately 25% of the building area, on the westerly side, and crawlspace for the remaining 75% of the building area. For the portion of the foundation walls above grade, brick appears to be used on the north wall; wood plank on the east and west (gable) walls; and granite blocks for the more exposed south wall.</p>	12, 13

Category	Comments	Appendix A References
Framing	<p>With a plastered attic and partial basement, framing is largely hidden, so its condition can only be assessed indirectly. There is a noticeable sag in the middle of the south eaves and corresponding bulge on the north side (also visible in the 1914 photograph); a pair of transverse tie rods spans the attic and connects the two sidewalls at the midsection. Also seen along attic's north side are three 2x4s (randomly placed) tying the roof rafters to ceiling joists—perhaps in response to a sagging ceiling below.</p> <p>Visible first floor framing is in comparatively good condition, especially considering the recent flooding. There is scant evidence of rot, mold or decay in the beams, joists and floor boards. //Some decay was noticed in the columns.// Second floor framing appears to be adequate for residential floor loading, and its condition appears to be sufficient. In any case the cost and disruption to augment the second floor joists is not warranted at this time. New joists were added to provide a ceiling for the second floor residence. These joists are sufficient for ceiling joists, but structurally they are not acceptable as floor joists; the attic space should not be considered functional for either storage or habitation.</p> <p>Wall studs appear to be structurally sufficient. There is some 'bowing' of north and south walls, possibly due to inadequate tension ties at the top of the wall plate. Additional ties might be warranted to arrest further deformation, pending more structural analysis. There are implications for heat loss through the existing assembly due to the insufficient depth of insulation, but the Energy Code section of this report addresses compliance options. (See Appendix C, code reviews.)</p>	5
Windows	The first floor store has eight original double-hung ($\frac{6}{6}$) wood sash windows and two large store display windows flanking its main entrance; the original windows have exterior white aluminum storms installed. The 19 windows surrounding the second floor are all original, without counterweights or meeting rail locks; all but the one opening in the attic stairwell have storm windows. The attic has just two windows, both in the east gable, original with storms. The condition of the 29 original windows is generally fair, with some paint and putty loss. Low-profile storm windows are set within the window trim.	4 – 8
Doors	The five exterior doors, three north and two south, appear in good condition, though only the main store entrance and the Union Hall stair entrance are used regularly. The two doors in the east quarter of the building and the hall entrance are all of vertical, six-panel ($\frac{3}{3}$) construction. The other rear (south) door to the back yard is a four-panel door, unpainted and perhaps a modern reproduction of the original, while the store's main entry door includes an upper glass panel, a horizontal wood panel and a pair of square panels below—all panels framed by wide moldings and more consistent with the later 1800s; the door hardware is also from the Victorian period but a modern push plate with deadbolt have been added above the earlier latch. The front door and the one opposite on the south side have screen doors for seasonal ventilation.	10, 11

Category	Comments	Appendix A References
Siding	Siding around the building appears sound for repainting without replacement, though closer examination should be made on the south elevation to see if there is moisture migrating through the wall or caused by the commercial kitchen exhaust fan, around which newer paint has been applied. A few courses of siding above the foundation on the south side and above the porch roof on the north have previously been replaced.	4 – 8
Paint	The building shows extensive areas of paint loss and lifting from portions of siding, window trim and sills. Newer, mismatched white paint or primer has been applied to the clapboards surrounding the exhaust fan ductwork on the south side of the building.	4, 6
Roof	The current asphalt roof shingles were installed in 2002 using a 25-year product and showing its age but not yet curling or disintegrating. There is one missing strip on the southwest, found three courses below the peak. The entire north side has been blackened with mildew. A slight protrusion runs vertically about ten courses in the southeast portion of the roof. The ridge line appears to run straight and fairly level from east to west gable end. Viewed from the rake, the surface of the south roof appears slightly scalloped, with intermediate surface depressions.	8
Chimney	The building has chimneys at each gable end. The east chimney rises through the roof about three feet south of the peak, while the west chimney is centered on the roof and appears to be of newer construction without the creosote so evident on the more exposed east chimney stack. This older chimney was clearly used for wood stoves heating the store and upstairs function hall. The newer west chimney serves a modern central furnace and is concrete below the roofline.	16, 17
Access	The building has no ramps or other means of facilitating access or egress for store patrons or employees with mobility concerns. The public restroom is not ADA compliant.	

INTERIOR CONDITIONS

The following table summarizes the building's interior condition observed during site visits on November 3, 2023, March 28 and April 18, 2024. Captioned photographs are included in Appendix B of this report. Conclusions are based on visual, non-invasive inspection of the building; with the exception of the eastern crawlspace, access throughout the building is good.

Category	Comments	Appendix B References
Basement	The cellar portion was completely inundated with water to just below the floor boards during a recent heavy rain. Presumably the crawl space was too, but there were no reports of water entering the habitable areas of the first floor. The water naturally abated through the walls and adjacent soils. The basement remains filled with about 8" of sediment carried through the stone foundation by floodwaters. This covers the lower portions of stair stringers and support posts, which are wicking moisture. Below the sediment reportedly lies a bed of crushed stone, installed after flood in 2021; there has been no effort made to remove sediment introduced by the 2023 flood.	0.1 – 0.9
Floors	Floors throughout the building are generally unfinished (or well worn) pine or other softwood of varying width and face-nailed. The central portion of the store is an exception and has fixed-width toe-nailed boards laid in a north-south direction, perpendicular to all other floors in the building. The second floor kitchen floor was painted and is now quite worn. The store's kitchen and dish/storage room show vinyl composite tile installed over an underlayment atop the historic floor boards (exposed by some areas of missing tiles).	1.2, 1.3 2.1
Walls	Walls are plaster and lath throughout the first floor, exterior walls on the second floor, and attic. The second floor apartment has wallboard partitions and ceilings, partially skim-coated, which date from its 1944 rehabilitation into the proprietor's residence.	
Ceilings	Plaster ceilings within the store are in good repair but mostly obstructed; surfaces, though rough, are painted with no obvious cracks. The bathroom ceiling is also plastered with evident lath. The dish room area has a much rougher ceiling, showing multiple patches un-sanded and painted over. Second floor ceilings are in poor condition and mainly of fiber-board construction, with and without a plaster skim coat. (Un-plastered portions have wooden trim covering the seams.) The kitchen area has decorative exposed "beams" to differentiate the space within an otherwise open plan. The attic is lath and single coat plaster throughout, with large areas of loss. Prior to 1944, this ceiling was visible from the open second floor. The lath is laid vertically, perpendicular to the horizontal strapping spanning the rafters. At its peak, however, the plaster and lath form a rounded cove rather than a sharp peak.	1.2 – 1.6 2.2, 2.6 3.2, 3.3
Windows	See Exterior Conditions.	
Doors	Most interior doors on the second floor were installed during the 1944 residence conversion but were likely salvaged from elsewhere as they represent a mix of styles and are fitted with a wide variety of hinges and latches. Flat-panel doors are likely original or of that period.	1.6 2.1, 2.2

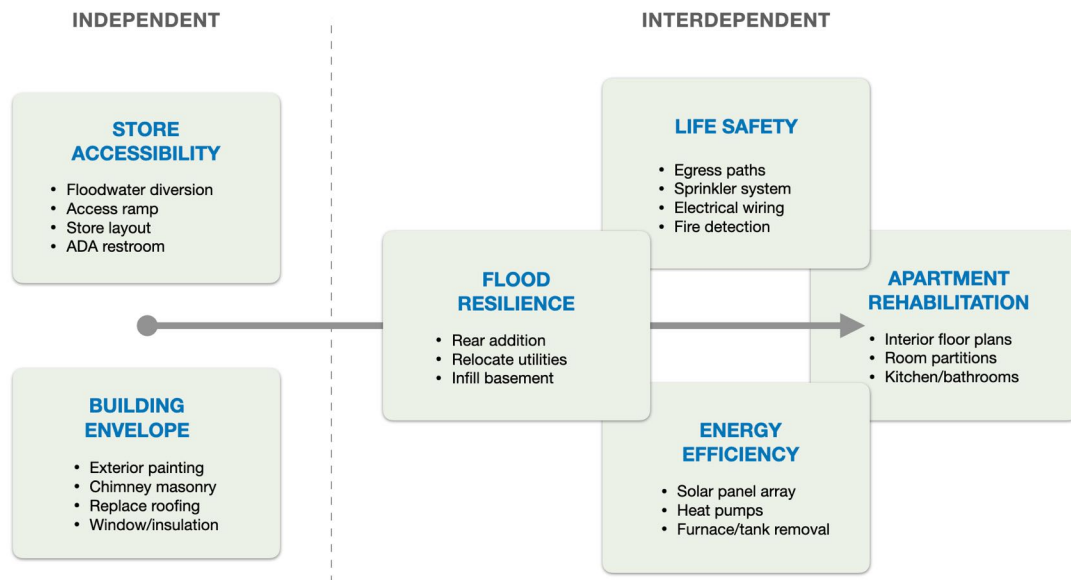
Category	Comments	Appendix B References
Woodwork	Interior woodwork is generally limited to painted 1x4 trim boards without ornament, though the visible 4x6 posts supporting the second floor have chamfered edges. Presumed angled wall braces have been enclosed at four locations in the first floor store.	1.2, 1.3 2.3
Stairs	Three interior stairs serve the basement, second floor, and attic. All are straight runs and steep by today's standards. The lowest portion of the basement stairs remains covered by silt carried in by floodwaters and their condition is uncertain.	0.1 2.1
Mechanical	The building is heated by a Buderus oil-fired boiler in the basement serving hot water baseboard radiators in occupied spaces above. The fuel oil tank was replaced in 2023. An external propane tank serves the commercial stove in the kitchen area.	
Electrical	The main electric panel was replaced after flooding in 2021, but the overall condition and composition of the wiring has not been surveyed. On the second floor, an electrical sub-panel with exposed wiring appears in the hallway on the second floor.	0.1, 0.2 2.5
Plumbing	A basement pump draws water from an external drilled well located east of the porch, under the driveway leading to the field behind the store. The current septic system was installed in 2015 and reportedly replaced a failed system installed in 2001. Approved plans for the system have been located and show tanks and a pump installed in the vicinity of the rear picnic area and a leach field near the greenhouse. The condition of this septic system is being evaluated. Visible interior pipes show copper supply and PVC waste lines.	0.3
Safety	Life safety in a historic building that houses both a commercial kitchen and a rental apartment (smoking permitted) should be a great concern, but only minimal measures have been taken—and those somewhat negated by the removal of most smoke detectors on the second floor, whose emergency egress is via windows onto the porch roof. The commercial kitchen stove in the store is equipped with a fire suppression system.	2.6

4. Treatment Recommendations

Despite recent flooding events which inundated the basement, the building's overall condition remains fair and, importantly, functional. After a brief closure to repair damaged utilities, the store has operated daily and the rental apartment upstairs was not evacuated. In order to ensure that this community space is sustainable, treatment plans must address flood resilience, life safety, accessibility, and energy needs in addition to routine maintenance of its structure, materials, and finishes. This is a large responsibility for the small Acworth Historical Society, whose remarkable efforts thus far have preserved the store and its adjacent farmland as a valuable and productive community asset.

Among all options recommended by the Secretary of Interior's *Guidelines on Flood Adaptation for Rehabilitating Historic Buildings* (2021), the most feasible long-term solution entails elevating utilities within a new addition built at the rear of the building and abandoning the basement. The design should facilitate the introduction of solar energy and exterior heat pumps for efficient heating/cooling. The excavated basement should be infilled to eliminate pooling of water under the building and bolster the stone foundation against floodwaters. These measures should be augmented by floodwater diversion around the building, particularly along the north side (under the porch). Although Bowers Brook has been redirected by new earthworks, its natural flow puts the building at continued risk. The rear addition could also be designed to provide principal access to the second floor living space, reserving the historic Union Hall stairs for emergency egress and attic access.

Addressing flood hazards, life safety, energy, and accessibility concerns is required to preserve this building, maintain its ability to generate income, and reduce operating costs and climate impact. These can be accomplished with minimal loss of historic material, character, or alteration to its street façade.



The total cost of contemplated work is estimated at about \$860,000 (see Appendix C: Outline Scope of Work), but these objectives could be funded and undertaken in phases. The four project groups shown to the right above are interdependent will require more coordination than those at the left. For this reason, **store accessibility** (with a flood resilience component) and **building envelope** are recommended as initial projects. They will require separate contractor estimates for project budgeting.

Based on the foregoing observations, the following projects are recommended:

INITIAL PROJECTS

1. **Accessibility.** A dedicated handicap parking place and adjacent ramp would make the store accessible to patrons and also provide an opportunity to enhance flood resilience. This project will require regrading the parking area (for improved floodwater runoff to the west) and raising the porch floor by approximately 5" to meet the store threshold. Supported by shortened columns, the porch roof remains in place. With the porch deck temporarily removed, an impervious barrier should be installed against the existing north foundation to deflect floodwaters running from east to west along the northern length of the building. ADA compliance will also require updating the public restroom and perhaps modifying a section of the customer service counter. This project has no significant dependencies on other projects and could be undertaken at any time. (See Appendix C-11 for plan.) *For budget purposes, this project has been estimated at \$60,000 (see Appendix C).*
2. **Building Envelope.** The building requires near-term exterior maintenance. This includes repainting all siding and trim, replacing the asphalt roof (installed in 2002), repairing and repointing chimneys (especially at the east end), adding one storm window (east end stairs) and evaluating all wood sash windows for condition and operability. These repairs could be undertaken at any time but exterior painting might logically follow accessibility work on the front porch. *For budget purposes, this project has been estimated at \$110,000 (see Appendix C).*

ADDITIONAL WORK

3. **Flood Resilience.** This larger resilience project requires removing utilities (heat, electric, plumbing, refrigeration compressors) from the flood-prone excavated cellar into a new elevated addition at the rear (south) side of the building. The excavated cellar should then be infilled to crawlspace depth, allowing floodwaters to pass through the structure without pooling. Additional drainage/ventilation will reduce flood recovery time. Improvements should also include: exterior site grading for improved diversion and perimeter runoff on all sides of the building; rigid foam insulation and moisture protection underneath the first floor; replacement of foundation windows with louvered venting/drainage units; removal of the existing bulkhead after cellar abandonment. *Note: The store accessibility project (#1, above) provides an opportunity to divert most of the moving floodwater past the north side of the building, but it does not obviate the need to relocate utilities, infill the excavation, and regrade elsewhere as water will likely seep through unprotected sections of the foundation.*
4. **Life Safety.** Given the importance of rental income to meet the cost of operating the building as a community store, life safety concerns in both the upstairs apartment and downstairs store must be addressed. Fire is a paramount concern for balloon-frame buildings where the flames easily travel upwards through unbroken wall cavities. Treatment plans should include new components for early detection and warning, fire suppression, and emergency egress. (See Appendix C: Code Review for more detailed analysis.)

5. **Energy Efficiency.** Installation of a solar panel array, either ground-mounted in the field south of the store building or roof-top on the south side (after re-roofing), will reduce operating costs and carbon footprint when combined with air-source heat pumps for heating, cooling, and domestic hot water. This is likely to require a concrete pad and protective shed roof for external mechanical units located next to the proposed addition. Removal of other utilities from the cellar into an addition will facilitate this energy-source transition.
6. **Apartment Rehabilitation.** With appropriate life safety measures in place, the second floor residential apartment, now occupied by a single tenant, might be reconfigured into two rental units to increase income or provide more housing. Layout of the units must account for the fact that both will be accessed from the south stairwell addition. Design of the new living spaces is not within the scope of this report, but even if the single apartment remains, the new south entry will require adjustment to the existing bathroom/kitchen layout (*see plan on page C-13*).

5. Supplemental Information

BIBLIOGRAPHY

In addition to the following sources, information regarding the history of Acworth is available at the Acworth Silsby Library (5 Lynn Hill Road):

Town History & Context

Frink, Helen. *These Acworth Hills: A History of Acworth, New Hampshire, 1767–1988*. Acworth: Town of Acworth, 1989.

Reinstein, Ted, and Anne-Marie Dorning. *New England's General Stores*. Globe Pequot Press, 2017.

Building Construction

Garvin, James L. *A Building History of Northern New England*. Lebanon: UPNE, 2002.

Woodward, George. "Balloon Frames." Albany: *The Cultivator*, 1860–1861.

Historical Maps

Hurd, D. Hamilton. *The Town and City Atlas of the State of New Hampshire*. Boston: D. H. Hurd & Co., 1892.

Walling, Henry F. "Topographical Map of the County of Sullivan, New Hampshire." 1:47,520. New York: Smith & Morley, 1860.

STANDARDS FOR TREATMENT

The Secretary of Interior's *Standards for the Treatment of Historic Properties* are a series of concepts about maintaining, repairing, and replacing historic materials, as well as designing new additions or making alterations. They provide practical guidance for decision-making about work or changes to a historic property. Applicants to the Land and Community Heritage Investment Program (LCHIP) and some other preservation grant programs must be willing to adhere to these Standards. The Standards are to be applied to specific rehabilitation projects in a reasonable manner, taking into consideration economic and technical feasibility. Of the four treatment approaches, the *Standards for Rehabilitation* apply to most buildings in current use:

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.
2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize a property will be avoided.
3. Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.
4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.
5. Distinctive materials, features, finishes and construction techniques or examples of craftsmanship that characterize a property will be preserved.
6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.
7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
9. New additions, exterior alterations or related new construction will not destroy historic materials, features and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.
10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired. When the property's distinctive materials, features, and spaces are essentially intact and thus convey the historic significance without extensive repair or replacement; when depiction at a particular period of time is not appropriate; and when a continuing or new use does not require additions or extensive alterations, Preservation may be considered as a treatment.

More information about the *Standards* and related preservation guidelines may be found online at <https://www.nps.gov/tps/standards.htm>.

NPS PRESERVATION BRIEFS

The National Park Service publishes *Preservation Briefs* with technical guidance on preserving, rehabilitating, and restoring historic buildings. The following selection may be useful references for planning and directing future work on this building:

BRIEF #	TITLE / ABSTRACT	YEAR
3	Improving Energy Efficiency in Historic Buildings. Jo Ellen Hensley and Antonio Aguilar. Discusses the inherent energy efficient features of historic buildings. Recommends actions to increase energy efficiency. Describes alternate energy sources that have been used for historic buildings.	2011
4	Roofing for Historic Buildings. Sara M. Sweetser. Provides a brief historic of the most commonly used roofing materials in America. Presents a sound preservation approach to roof repair, roof replacement, and the use of alternative roofing materials.	1978
9	The Repair of Historic Wooden Windows. John H. Myers. Provides information on evaluating the condition of historic wood windows and on practical methods for repair.	1981
10	Exterior Paint Problems on Historic Woodwork. Kay D. Weeks and David W. Look, AIA. Identifies and describes common types of paint surface conditions and failures. Provides guidance on preparing historic woodwork for repainting, including limited and total paint removal.	1982
11	Rehabilitating Historic Storefronts. H. Ward Jandl. Explores the role of the storefront in historic buildings and provides guidance on rehabilitation techniques for historic storefronts as well as compatible storefront designs.	1982
14	Exterior Additions to Historic Buildings: Preservation Concerns. Anne E. Grimmer and Kay D. Weeks. Uses a series of examples to suggest ways that attached additions can successfully serve contemporary uses as part of a rehabilitation project while preserving significant historic materials and features and the building's historic character.	2010
16	The Use of Substitute Materials on Historic Building Exteriors. John Sandor, David Trayte, Amy Elizabeth Uebel. Provides general guidance on the use of substitute materials as replacement materials for distinctive features on the exterior of historic buildings. Revised.	2023

BRIEF #	TITLE / ABSTRACT	YEAR
17	<u>Architectural Character—Identifying the Visual Aspects of Historic Buildings as an Aid to Preserving Their Character.</u> Lee H. Nelson, FAIA. Essential guidance to help property owners and architects identify those features of historic buildings that give the building its visual character so that their preservation can be maximized in rehabilitation.	1988
18	<u>Rehabilitating Interiors in Historic Buildings—Identifying Character-Defining Elements.</u> H. Ward Jandl. Assists building owners in identifying significant interior spaces, features, and finishes so they may be preserved in rehabilitation work. Applies to all building types and styles, from 18th century churches to 20th century office buildings.	1988
21	<u>Repairing Historic Flat Plaster—Walls and Ceilings.</u> Marylee MacDonald. Guides building owners on repairing historic plaster using traditional materials (wet plaster) and techniques. Suggests replacement options if the historic plaster is severely deteriorated. Useful chart on various plaster bases and compatible basecoats and finish coats.	1989
24	<u>Heating, Ventilating, and Cooling Historic Buildings: Problems and Recommended Approaches.</u> Sharon C. Park, AIA. Underscores the importance of careful planning in order to balance preservation objectives with the interior climate needs of the building.	1991
32	<u>Making Historic Properties Accessible.</u> Thomas C. Jester and Sharon C. Park, AIA. Introduces the complex issue of providing accessibility at historic properties, and underscores the need to balance accessibility and historic preservation. Provides guidance and many examples of successful projects.	1993
39	<u>Holding the Line: Controlling Unwanted Moisture in Historic Buildings.</u> Sharon C. Park, AIA. Outlines a way to diagnose moisture problems and choose remedial treatments. Provides guidance on managing moisture deterioration, repairing and maintaining historic building materials, and correcting common problem areas. Includes charts on types of diagnostic tools, recommended treatments and treatments that should always be avoided.	1996
45	<u>Preserving Historic Wooden Porches.</u> Aleca Sullivan and John Leeke. Explains how to assess the condition of historic porches. Provides detailed procedures for proper maintenance and repair, and includes measures to address code issues. Provides a range of information from the selection of materials to guidance on contemporary alterations.	2006

BRIEF #	TITLE / ABSTRACT	YEAR
47	<u>Maintaining the Exterior of Small and Medium Size Historic Buildings.</u> Sharon Park, FAIA. Discusses the benefits of regular inspection, monitoring, and seasonal maintenance work for historic buildings. Provides guidance on maintenance treatments for historic building exteriors.	2006