

CAMP SALMEN Technical Guidelines for Reconstruction

CONDITIONS AND RECCOMENDED ACTION

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MASTER OF PRESERVATION STUDIES

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CAMP SALMEN

Technical Guidelines for Reconstruction

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CONDITIONS AND RECCOMENDED ACTION ROOFING

A weather-tight roof is imperative for the preservation of a building. It serves as a barrier to the elements and prevents accelerated deterioration of the internal structures, building materials, and decorative features.

As it exists today, the compromised state of the roof poses the greatest threat to the Camp Salmen Trading Post and is the primary cause of the overall deterioration of the house. Water intrusion through the roof has resulted in subsequent damage to the ceilings, interior walls, and floors.

The objective of the roof rehabilitation is to retain the existing slope and chimney stack while restoring its functionality in shedding water off the building, preventing intrusion by the elements, and protecting the interior of the house.

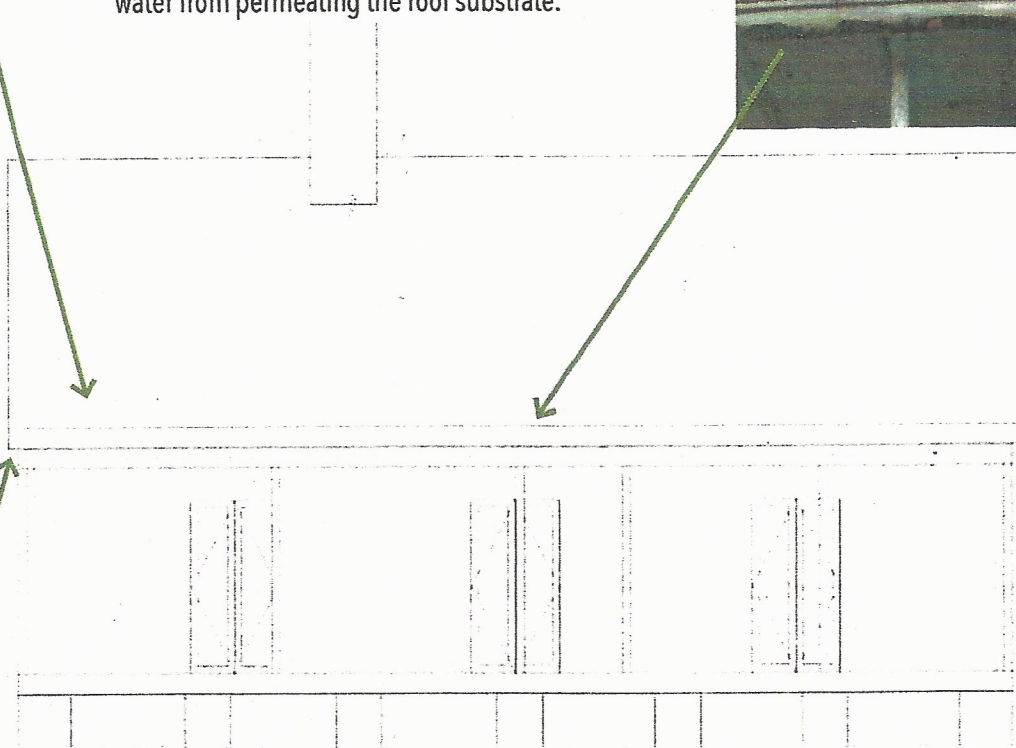
In general, replacement of the roof shall include:

- The asphalt shingles shall not be replaced in-kind. Instead an aluminum standing seam metal roof shall be installed with underlayment and drip edges.
- Repoint open mortar joints in the chimney stack with a lime-based, compatible mortar
- Install flashing at the chimney stack-roof juncture
- Replace fascia, rake, and soffit where rot or water damage is evident and repaint
- Replace existing roof decking where rot is evident with compatible wood type and reinforce roof substrate with sheathing layer nailed in line with the existing joists



Asphalt shingles have deteriorated and are no longer preventing water from permeating the roof substrate.

Bio-growth at the eave is indicative of water intrusion and resulting impairment of the substrate.



Rake / Fascia / Soffit juncture is separating from water intrusion. Gutters have disintegrated beyond functionality.

Roof Decking - as seen from the interior - spans the roof horizontally, perpendicular to the joists.




CONDITIONS AND RECCOMENDED ACTION

MATERIALS/ ELEMENTS	CURRENT CONDITION	RECOMMENDATIONS
Asphalt Shingles	The asphalt shingles are in poor condition and exhibit granule loss, delamination and shingle distortion exposing the under-surface of the shingles. As a result, water is allowed to penetrate the roof.	Remove existing asphalt shingle roof. Replacement roof should include a 0.040 aluminum standing seam metal roof with concealed fasteners and Kynar 500 prefinished metal coating over underlayment - to include two layers of ice and water shield - required for a 30-year roof warranty. The system shall be equal to Pac-Clad Peterson Aluminum "Snap-Clad" Panel, 12" wide panel. Fasteners, gasketing and flashing shall also meet warranty requirements. Install preformed drip edge.
Roof decking and substrate	Deterioration of the asphalt shingles and evident water damage to the interior of the house indicate that the roof decking has been subject to significant water damage and is in poor condition. Biogrowth is evident along the above the eaves and is evidence of water penetration.	Further assessment of existing conditions of the roof decking is necessary. Roof decking shall be maintained where possible. Replace roof decking as needed where roof members are missing or where rot is encountered with wood of compatible type and dimensions. Two houses of similar vintage and type are being demolished nearby in St. Tammany Parish. If necessary, compatible roof decking may be able to be utilized from the deconstructed materials of those houses. An additional layer of substrate shall be installed to reinforce the structural system of the roof. The appearance of the additional substrate and minimizing its visibility from within the interior spaces should be considered. Install #15 felt over the existing 1 x 6 decking. Install 1/2" plywood sheathing over the #15 felt. Fastners shall be concealed and shall be spaced to anchor in line with existing joists. Install new underlayment and new roofing system over 1/2" plywood.
Chimney	At the time of the assessment, the chimney was visible or accessible.	Further assessment of existing conditions of the brick and the mortar is necessary. Repoint deteriorated or open mortar joints with a lime-stabilized clay mortar, which should match original in appearance, profile, hardness and composition. Replace flashing around the chimney to prevent water intrusion at the chimney-roof juncture.
Gutters	The existing half-round gutters on the west and east elevations have rusted through and disintegrated throughout.	Remove deteriorated gutters. Replacement gutters are not recommended as the steep-pitch of the roof slope and the overhanging eaves sufficiently move water off the roof and away from the house.
Rake/Fascia	At the time of assessment, the rake and fascia were largely inaccessible. However, visible areas appear to be compromised from water intrusion and separation from the soffit at the eave juncture.	Replace deteriorated fascia and rake with compatible material. Repaint rake and fascia. Further assessment may be needed once the existing tarp and gutters have been removed to verify the condition of the rake and fascia.

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CONSTRUCTION AND RECONSTRUCTION

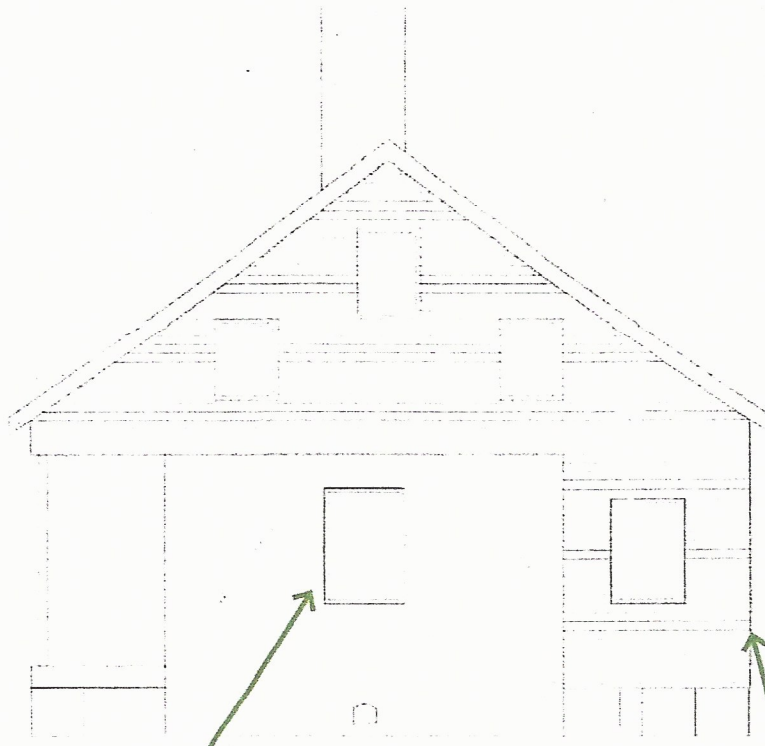
EXTERIOR WOODWORK-



As the outer layer of the building materials, wood siding provides a protective barrier for the rest of the wall system. Functionally, wood siding and trim provide a weather-tight building enclosure. Aesthetically, wood siding can also be used to define the style, period, and character. Wood trim provides a visual frame and transition between doors, windows and corners. Woodwork should always remain attached to the building and painted. Paint provides a protective surface and prolongs the life of exterior woodwork.

Regular inspections of exterior woodwork and routine maintenance plans are recommended. Exterior surfaces should be repainted every 5-8 years. In general, modifications of the siding shall and trim include:

- Verify secure attachments of weather-boards and trim to framing members
- Replace boards and trim with in-kind material, as needed.
- Wash existing materials using a mild detergent solution and natural bristle brush
- Carefully remove all paint, either by scraping or sanding to achieve a smooth surface.
- Allow for drying time. Wood should be completely dry before applying primer or paint
- Prime bare wood with low VOC primer compatible with the laytex paint finish.
- Paint surface in accordance to manufacturer's recommendations. Color should be determined based on historical documents



Vegetation growing on house



Missing trim at corner

CONDITIONS AND RECCOMENDED ACTION

MATERIALS/ ELEMENTS CURRENT CONDITION

RECOMMENDATIONS

Weatherboard Siding	Loose, cracked, or missing wood siding	Clean surface. Remove damaged weather boards and replace with in-kind materials as needed to enclose building envelope. Check for loose boards and secure with stainless steel ring shank nails. Start replacement siding from the bottom and work up towards the roof, matching the existing reveal. Stagger seams or where possible use full length boards.
	Paint deterioration	Clean properly and remove loose paint surfaces as noted in general recommendations. Prime and repaint with appropriate color as recommended by design guidelines.
	Vines growing on the exterior	Remove vines, which typically trap moisture in woodwork by block sunlight and air circulation. Vines typically follow moisture. Water issues may be perpetuated by the condition of the roof. Once roof is replaced, reassess vegetation growth.
Trim	Missing	Replace missing trim at back corners w/ in-kind materials as needed. Windows covered with plywood- unable to determine current condition. Verify existence and condition of window trim when plywood removed. Repair or Replace deteriorated areas as needed.



Weatherboards not secured tightly to wall framing

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CONDITIONS AND RECCOMENDED ACTION

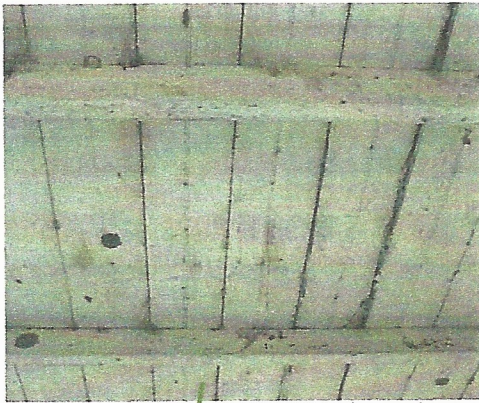
FRONT PORCH

Exterior woodwork is integral to the style, period, and character of a building. Typical exterior woodwork concerns include peeling paint, infestations, rot and deterioration. These conditions can be avoided with a regular maintenance. In most cases, selective repair, replacement of damaged sections, and implementation of a regular maintenance program is sufficient.

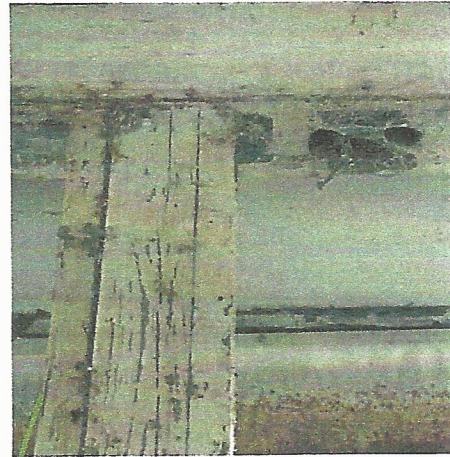
The porch is one of the most visible elements of the Salmen House, encompassing the entire west elevation. It plays a significant role in the appearance of the building and protects the front doors from direct exposure to the elements and provides a protective exterior space for people to congregate.

Replacement wood should have the same appearance as the original wood in size, profile, and visual characteristics. Selection of appropriate wood is key to obtaining good quality in-kind material. In general, porch maintenance and repairs should follow the same guidelines as listed in Exterior Woodwork general conditions.

Porch Ceiling- Bead board intact



Porch Post- Chamfered posts with mortise and tenon joints. An open mortise where one of the posts has been replaced improperly



Porch Floor- Rotted and missing tongue and groove boards.



Porch Post- Rotted base

CONDITIONS AND RECCOMENDED ACTION

MATERIALS/ ELEMENTS CURRENT CONDITION

RECOMMENDATIONS

Porch Ceiling	Beadboard wood- no covers for attic access, paint in fair condition (no peeling)	Measure the two openings and build attic access cover out to inclose building envelope. Material should be beadboard. Hatch constructed with hinges to be opened and closed as needed provide access to the attic space .Repaint ceiling.
Porch Ceiling Beams	Appear to be in good condition	Repaint beams with high quality paint appropriate for the wood substrate in accordance with the manufacturer's recommendations.
Porch Post	6 Chamfered posts with mortise and tenon joints. One open mortise where a posts has been replaced. Some base rot and peeling paint	Replace all exiting posts with pressure treated chamfered post to match the original post. Posts shall be installed symmetrically across the front
Porch Joist	Overall appear to be in good condition. May need minor replacement or sintering to ensure stability.	Further assessment of condition of joist may be necessary to determine replacement. Joist should be solid enough to secure porch post, porch floor and apron. If replacement is necessary, replace with in-kind treated material.
Balustrade	Non-existent	Install stainless steel cable rails around porch and on new front steps to meet current IBC requirements.
Apron	Typical wood- water damaged, rot, missing elements	Replace entire apron w/ in-kind pressure treated 1x wooden material. Paint with appropriate paint as described above.
Porch Floor	Typical tongue-and-groove wood boards. Wood rot in sections.	Ensure structural components of porch are either replaced or in good condition before securing new floor boards. Verify porch slope. Replace rotted boards w/ in kind material. Repaint floor as described above.
Porch Steps	Missing	Rebuild our of treated wood according to design documents to meet current IBC requirements.



Apron- rotted and missing

CAMP SALMEN Technical Guidelines for Reconstruction

CONDITIONS AND RECOMMENDED ACTION

EXTERIOR MASONRY

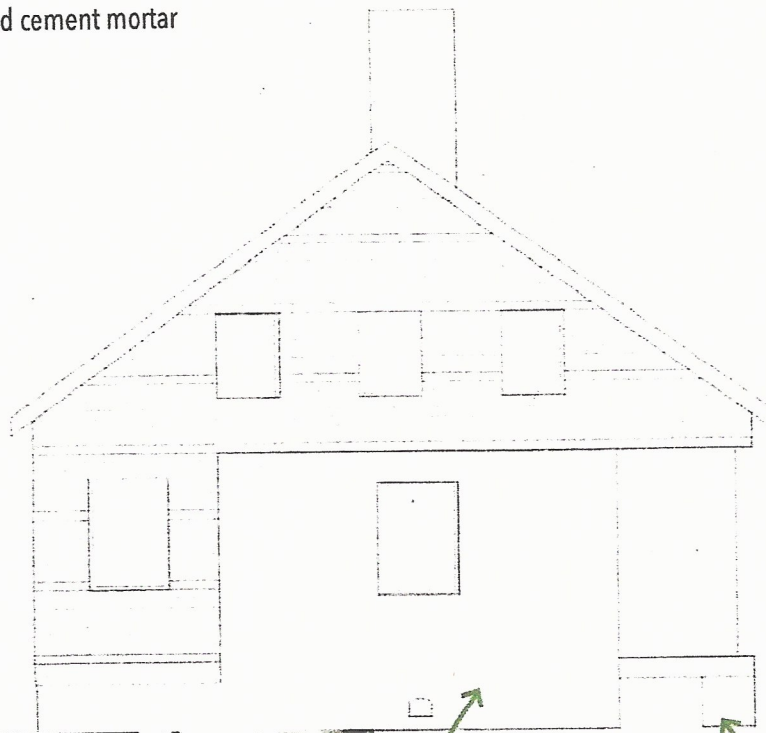
The masonry walls and foundation of the structure are made from red lake brick. Lime and portland cement mortars were used between the bricks, and then the facades were covered in 4 layers of stucco and Portland cement.

The Portland cement has proven to be detrimental. It has caused water to become trapped forcing a separation of stucco from the brick walls. There are numerous places where stucco loss has occurred to such an extent that the brick is entirely exposed. The exposure of the brick also reveals the mortar loss that has occurred.

In order for the site to move forward, any places where the brick is exposed should see a removal of previous portland cement and lime mortars. A 4-inch blade should be used to remove the mortars. However, if the mortar does not come off easily, it should not be forced to prevent further damage to the brick walls. Hydraulic lime mortar 2 should be used for repointing. A breathable stucco should be placed onto the exposed brick to prevent further brick damage. In places where the Portland cement remains in place, it should not be removed due to the damage that could be caused by the removal process.



Portland cement mortar



EXPOSED BRICK FOUNDATION



BRICK FOUNDATIONAL PIER

CONDITIONS AND RECCOMENDED ACTION

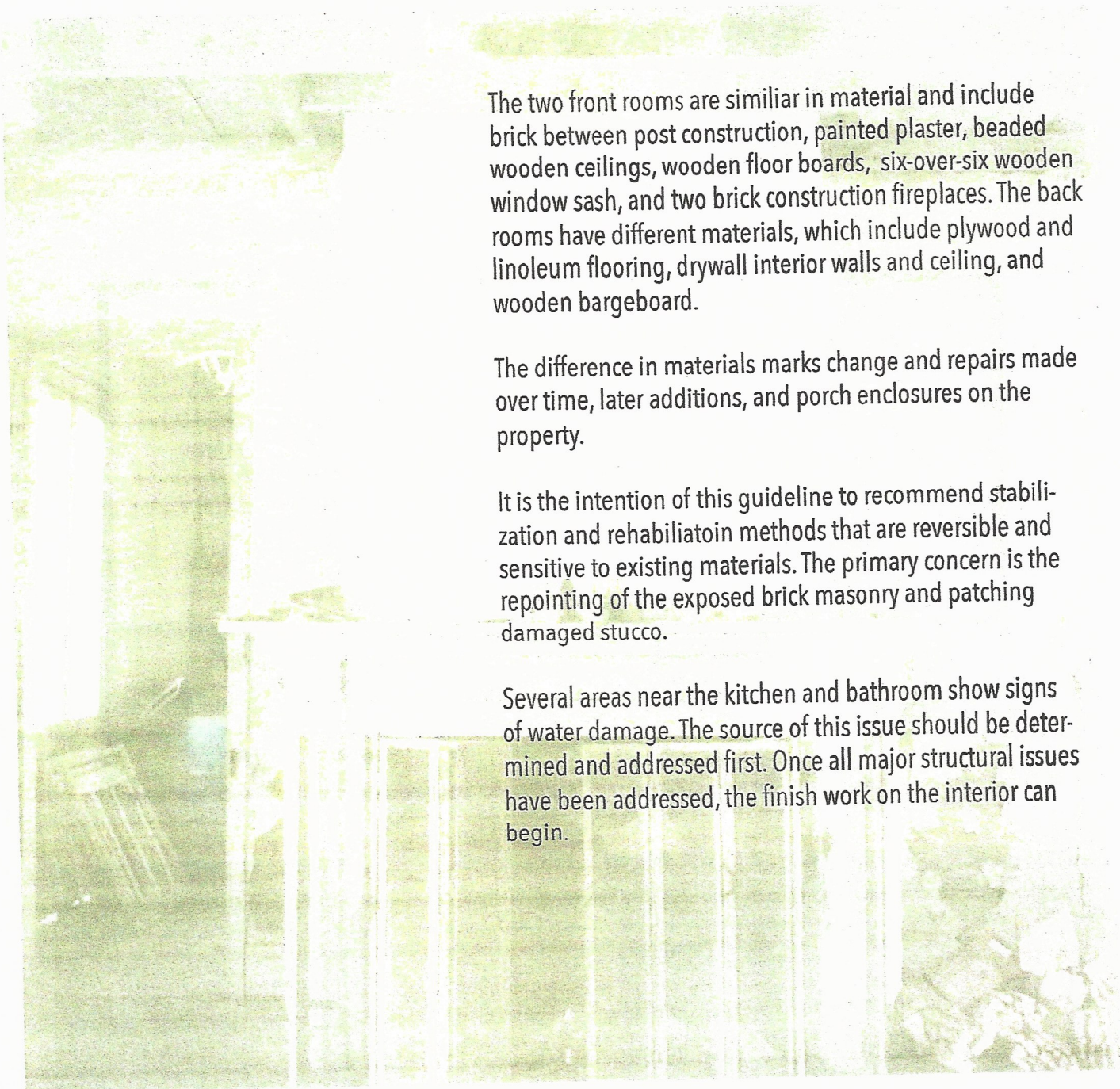
MATERIALS	CURRENT CONDITION OBSERVATIONS	RECOMMENDATIONS
Exterior Masonry Walls	Appears to be decent condition structurally. Delamination of stucco due to trapping of moisture behind a layer of portland cement, which has caused loss of stucco and paint, exposing brick in numerous placesr. Mortar has also degsinigrated.	Where brick is exposed, the portland cement and lime mortars should be removed using a grinder wiht a 4-inch blade. Do no force the removal of any Portland cement, at risk of futher damaging the bricks. The brick should be repointed with hyrdrolic lime mortar two. Carfully remove any delaminating stucco and surface exiting stucco and bricks with new base coat followed by stucco.
Foundation	Brick foundation, appears to be in good condition, some mortar loss, some biogrowth, spider webs	The mortar of the foundation should be repointed in the same manner as the exterior walls. The foundation should also be carefully cleaned to remove biogrowth and spiderwebs.
Foundation Piers	Brick piers appear to be in decent condition. Some mortar loss.	The mortar of the foundation piers should be re-pointed in the same manner as the exterior walls.



PAINT AND STUCCO LOSS

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CONDITIONS AND RECOMMENDED ACTION INTERIOR FINISHES



The two front rooms are similar in material and include brick between post construction, painted plaster, beaded wooden ceilings, wooden floor boards, six-over-six wooden window sash, and two brick construction fireplaces. The back rooms have different materials, which include plywood and linoleum flooring, drywall interior walls and ceiling, and wooden bargeboard.

The difference in materials marks change and repairs made over time, later additions, and porch enclosures on the property.

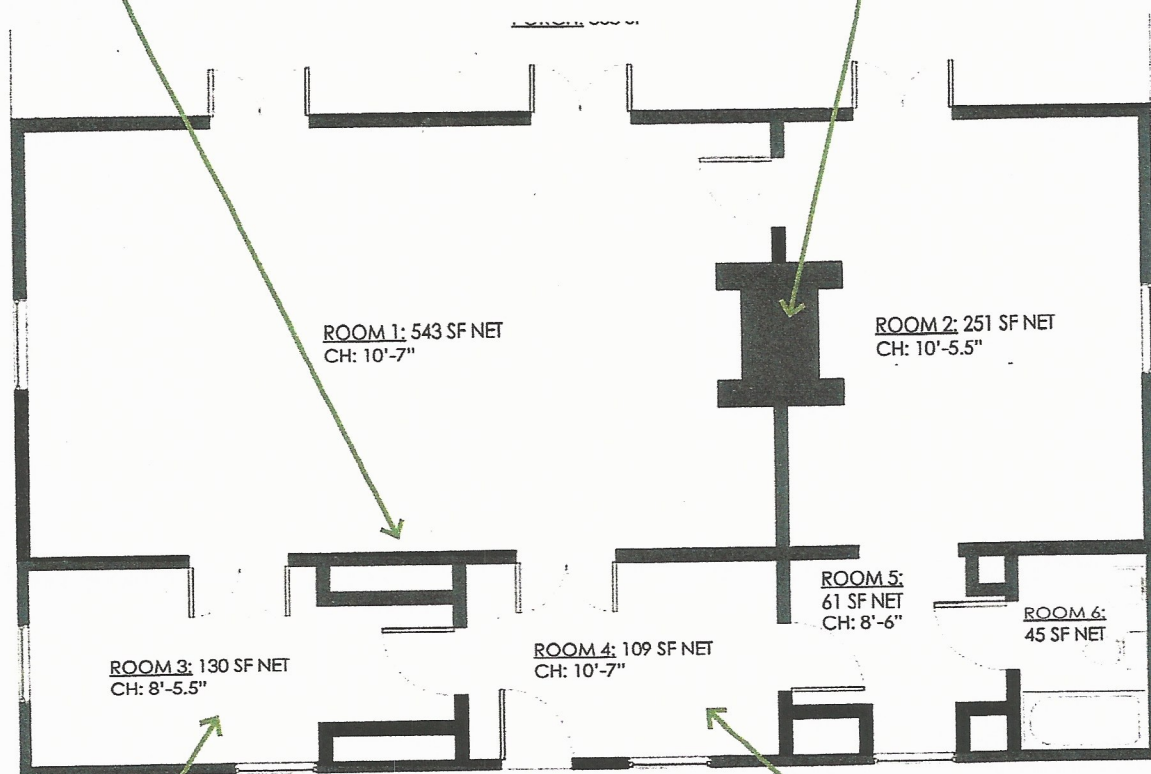
It is the intention of this guideline to recommend stabilization and rehabilitation methods that are reversible and sensitive to existing materials. The primary concern is the repointing of the exposed brick masonry and patching damaged stucco.

Several areas near the kitchen and bathroom show signs of water damage. The source of this issue should be determined and addressed first. Once all major structural issues have been addressed, the finish work on the interior can begin.

Main Room Plaster



Mortar Deterioration



Kitchen Floor Plywood and Linoleum Tile



Rear Center Hall Ceiling and Plaster

CONDITIONS AND RECCOMENDED ACTION

MATERIALS / ELEMENTS

CURRENT CONDITION

RECOMMENDATIONS

Brick and Mortar

Some of the plaster is lost and exposing the brick between post. Where exposed, some of the mortar joints are deteriorating.

Identify mortar joints which are deteriorated and need to be repointed. Test mortar for lime/sand/aggregate make-up to identify and replicate hardness and vapor permeability. Remove degraded mortar joints at a depth of at least two times the width of the joint with either hand chisels or an angle grinder. Repoint prepared joints with appropriate mortar which is softer and more vapor permeable than the brick.

Flooring - Wooden

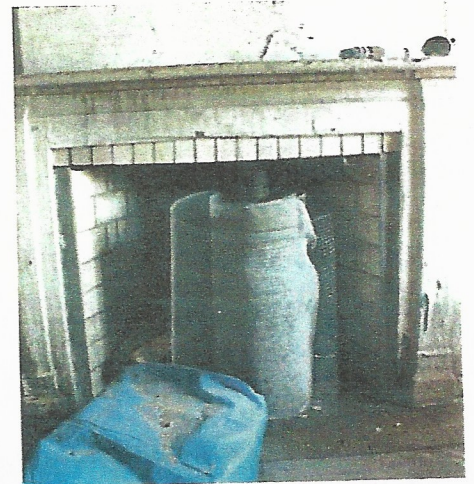
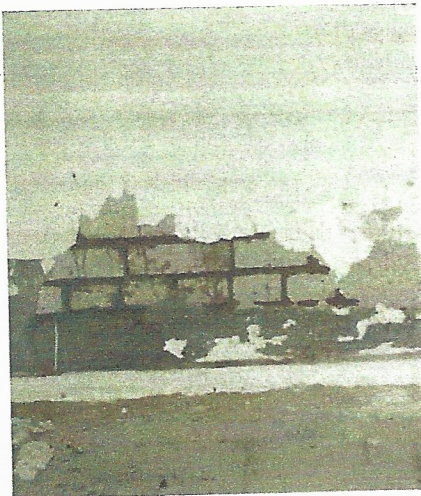
Main Room: The floor boards are in good condition, with no loss or signs of significant damage.
Rear Center Hall: Floor is slanted downward away from the house. Appears to be in good condition.
Side Room: Appears to be in good condition.

Clean and make any minor repairs necessary to finish.

Fireplaces

Main Room: Missing/damaged fireplace detailing on the bottom left pilaster detail. Damage to the top shelf of the mantle in the center. Paint cracking and loss present. Brick loss and damage in the center of the hearth.
Side Room: Wood appears to be in good condition with only minimal surface damage and paint deterioration. The brick structure on the left side of the fireplace is exposed near the upper section with portland cement/stucco on the bottom. Where the brick is exposed the mortar is deteriorating. Limited brick exposure on the right side of the fireplace.

Main Room: Remake fireplace detail in the same type of wood as the rest of the detailing. Remove loose paint from surface, clean and prepare surface and repaint all wood elements of the fireplace. Repair or replace damaged bricks within the hearth using proper mortar and brick materials. See Masonry material recommendations for details.
Side Room: Repair and repoint degraded mortar according to previously mentioned specifications. Replaster over brick using proper lime/plaster material.



**MATERIALS /
ELEMENTS**

CURRENT CONDITION

RECOMMENDATIONS

Stucco/ Plaster

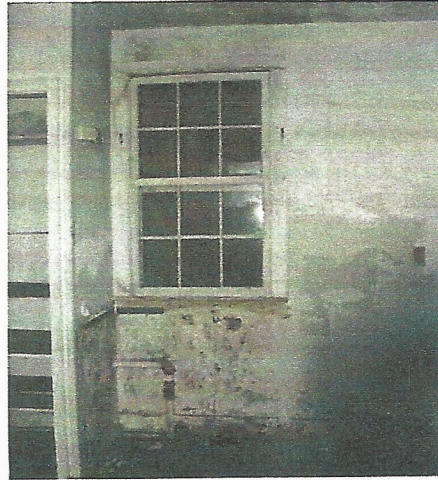
Main Room: The plaster is cracked on the north wall adjacent to the attic and chimney as well as on the south wall in line with the window. In some places the plaster is lost and exposing the brick between post wall structure. This is seen to the right and the left of the fireplace, with the post exposed on the right and the brick and mortar exposed on the left bottom section between the door and the fireplace. Portland cement was applied just above the baseboard in some sections of the wall which appears to be an effort to patch previous stucco/plaster failure. Kitchen: Much of the stucco is degraded or lost near the baseboards. Where the bricks and mortar are exposed, the mortar, which is a soft, clay based mortar is deteriorating due to rising damp. Side Room: The plaster is cracked and lost in some sections exposing the brick and mortar. The mortar is deteriorating where exposed. Some evidence of portland cement near the baseboards in some areas of the walls where surface plaster has been lost. The plaster is cracking primarily on the walls adjacent to the fireplace, which is similar to the main room.

Stress cracks in the plaster can be repaired by opening the crack slightly with a crack widener and filled with a layer of joint compound and then adhering fiberglass mesh tape to close gap followed by another layer joint compound. Where there are large sections of plaster/stucco missing it will be necessary to repair the holes by filling them in with the appropriate lime/plaster replacement material.

Drywall

Kitchen: The interior walls of the kitchen are drywall material. Some poorly patched areas visible. Bathroom: The ceiling of the bathroom is drywall. Ceiling is severely water damaged with large sections of loss of the drywall exposing the attic flooring and joists.

The walls in the kitchen can be replaced due to unsightly patches of the existing walls. The bathroom ceiling should be totally removed and the source of the water damage identified. Once this is sourced it should be addressed first. Once addressed, an appropriate ceiling can be installed.



MATERIALS / ELEMENTS

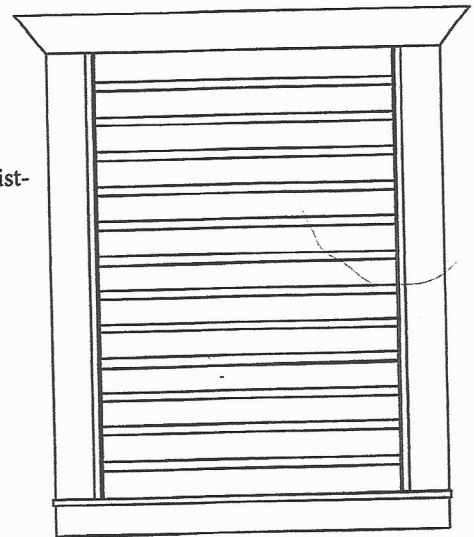
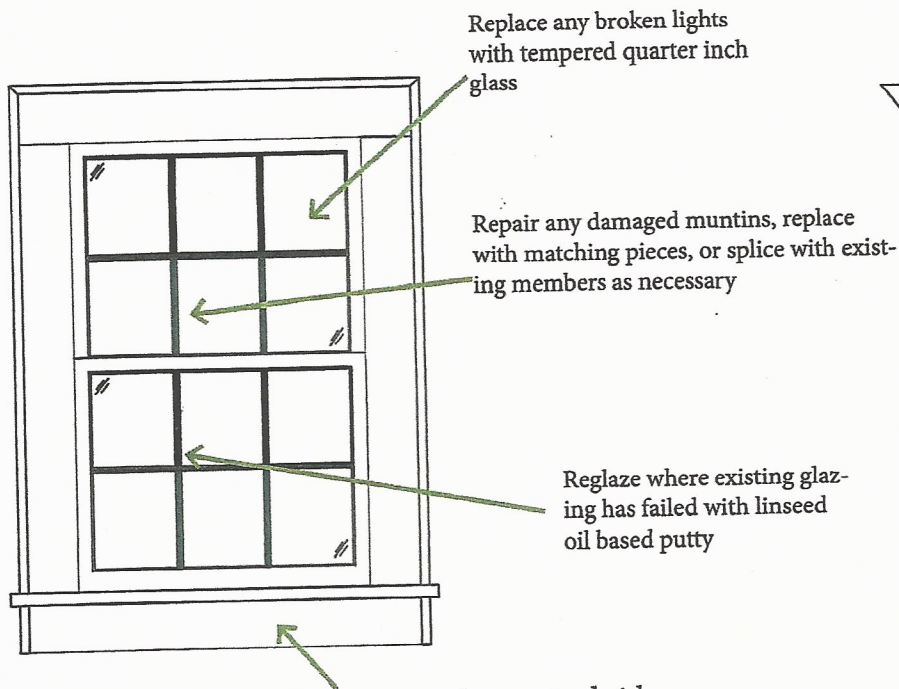
CURRENT CONDITION

RECOMMENDATIONS

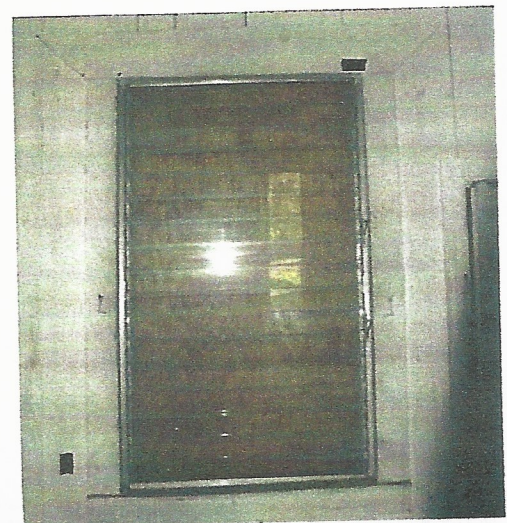
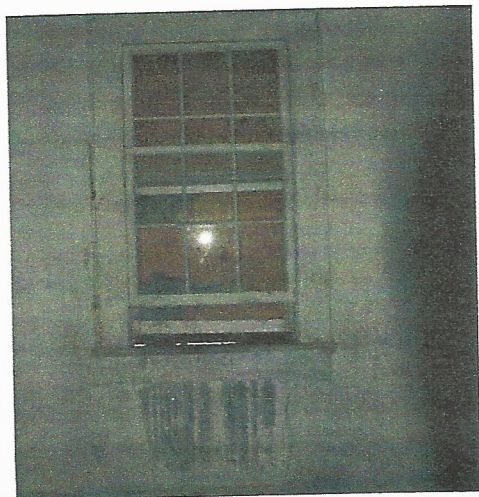
Windows

The window in the side room is in disrepair with severely degraded or missing glazing compound. The windows in the other rooms are in relatively good condition with limited damage such as cracked glass and damaged muntins.

The windows should be restored according to the National Park's Secretary of the Interior's Preservation Briefs. Determine what level of intervention each window will need based on the level of deterioration. Each one will need routine maintenance as outlined in the briefs but may also require stabilization or splices and parts replacement for damaged muntins or broken panes of glass.



Rotten or damaged wood sections can be repaired either through dutchman repairs or through a combination of semirigid consolidant and epoxy to build up surface. Once sanded this can then be primed and painted.



CONDITIONS AND RECCOMENDED ACTION

MATERIALS / ELEMENTS	CURRENT CONDITION	RECOMMENDATIONS
Walls - Vertical Barge Board	Appears to be in good condition	Clean wood, prepare surface by removing loose paint with a scraping tool, sand, and repaint.
Flooring - Bathroom and Kitchen	Kitchen: Most of the linoleum is compromised or completely lost, exposing the plywood sub-floor. Bathroom: Floors show signs of water damage and deterioration.	Remove linoleum tileing and assess condition of plywood flooring. Replace with desired flooring according to adaptive reuse specifications.
Ceiling - Beaded boards	Main Room: Some paint peeling on the beams. Mold growth around the attic opening. An unusued mortise joint in a ceiling joist is visible, which may indicate that something was removed at some point. Rear Center Hall: Mold present on the ceiling. Two openings in the ceiling for attic access. Side Room: Some evidence of water damage near the bathroom entrance. Mold growth on the beams.	Remove any water damaged sections of the ceiling and determine the source of the water. Once the cause of the water damage is known, this issue should be addressed first. Once this is addressed replacement beaded beams should be sourced or milled to match the existing ceiling and installed.



