Cornelia and George Kinkead. (Courtesy of Gretchen Rendes)

Problems and Recommendations for Repair

Exterior

Maple Grove, 1998, after the installation of the asphalt shingle roof.

General Comments

As a definitive programmatic goal for Maple Grove has yet to be determined, the existing conditions evaluation of the building contained herein will be followed by general recommendations for the stabilization of the house and the restoration of its significant historic features evident in 1891. Also of primary consideration is the adaptation of the house for use in the 21st century, addressing the requirements of the New York State Building Code, the Americans with Disabilities Act, as well as concerns with climate, comfort and energy.

Although Maple Grove was not occupied except for special occasions for most of the second half of the twentieth century, the house is in remarkably good condition considering it had been partially open to the weather subsequent to suffering a major fire in 1985. The condition of the house can be attributed to the fine materials and construction techniques employed, coupled with the additional protection afforded by the modern, if not unsightly, asphalt shingle roof. The watertight condition afforded by the composition roof saved much of the interior from decay.

Historic photograph of west facade, c. 1895. Note what appears to be a wood shingle roof. (Courtesy of Gretchen Rendes)

Roofs

The roofs were destroyed in the 1985 fire. They were rebuilt using photographs and recollections as construction guides.

It is very difficult to determine the original material of Maple Grove's main roof in the earliest illustrations of the house. However, the variegated appearance of the roof and the absence of seams reveals that the house was probably covered with wood shingles after its initial construction (see photograph on previous page). The roof may have been wood shingled into the first quarter of the twentieth century, when a diamond patterned composition shingle roof was installed. After the 1985 fire in the service wing, a modern asphalt shingle roof was installed over the entire roof surface. Interestingly, the lower porches each had a terne- or tin-coated iron roof. The original metal roofing on the front (west) verandah survives to this day, with only some repair work found along the juncture of the main house at the top of the roof.

The composition shingles on the main roof of the house appear to be in good condition, yet the installation was a temporary measure to protect the building as exhibited by the use of very few nails to anchor the shingles. High winds readily blow off the shingles leaving the interior open to the elements. While it may be desirable to

Terne- or tin-coated roof of west verandah. Peeling paint leaves the metal vulnerable to the elements allowing for deterioration.

eventually replace the existing asphalt roof shingles with wood shingles (if it is found that wood shingles were, indeed, the original material on these roofs), funding priorities and its relatively good condition does not warrant its replacement at this time. The roof should, however, be repaired to the degree where it keeps water infiltration to a minimum. Flashings around the chimneys and roof intersections should be replaced and the reglets cleaned and reused. The reglet cuts should be studied for evidence of historic flashing as in 1850 flashing was not applied using reglets.

Ghost of verandah roof on the south wall of the service wing (Laundry) reveals a concave curve similar to that of the west verandah.

Similarly, the metal roof over the west verandah is in surprisingly good condition. It should be stripped of all paint and repainted. The roof owes its longevity to the paint coatings it has continuously received, and it is expected that new paint will protect the roof into the foreseeable future.The built-in gutter along the eaves should be replaced, if possible, without disturbing the remainder of the roof.

As it was originally constructed, Maple Grove had two smaller verandahs on the house: one running along the south wall of the southeast service wing, which survived until the 1985 fire and the other, in the northeast off the Grandparent's Parlor. The latter verandah does not appear in any photographs, but ghosts of its construction are evident on the exterior walls. Both of the verandahs had metal roofs that likely matched the surviving roof on the west verandah. It is recommended that only the southeast verandah be reconstructed in its 1891 configuration and adapted for handicap access to the building. When it is, the new roof should match the existing west verandah roof, but since terne-coated iron is no longer available, the roof should be covered with painted terne-coated stainless steel.

Biological growth and rust are enemies to the roof of the north bay window. It is constructed of the same material as the west verandah roof, therefore, the metal should be carefully brushed and repainted.

The metal roof of the bay window on the north end of the north wing is in good condition. However, significant biological growth and rust will compromise the roofing material if it is not repaired. The roof should be stripped of all paint, rust and algae and repainted. Care must be taken, when removing paint, not to scratch or abrade the tin coating protecting the iron.

Leader traversing the rear wall of north wing carries water from the roof of the north wing to a common exit point. The leader should be re-routed directly down the wall of the north wing and the water issued away from the house. After the brick masonry is repaired, the house should be painted as well as the leaders.

As part of the roofing system, the gutters and leaders should be examined for defects and repaired or replaced as necessary. All of the downspouts on the main roof and the west verandah roof are badly deteriorated and require replacement. They should be replaced with similarly sized pipes at the same locations, however, the pipes should be painted terne-coated stainless steel. For the near future, the pipes can continue to issue water out at grade away from the house, however, the best long term solution would be to install a sub-grade drain system for the roof water. The extension of the system will keep roof water from entering the basement.

Masonry

The foundation walls of the house are constructed of fieldstone below grade and cut stone above grade to the watertable. The watertable itself is cut brownstone, which matches the brownstone door and window lintels throughout the house. The brownstone appears to be Portland stone, from Portland, Connecticut. The main walls of the house are constructed of sand-struck brick. Virtually all of the exterior walls of the house are laid with a cavity within the wall, which can be easily seen around the openings that have been damaged by the fire. This type of "cavity wall" construction was fairly new in 1850, but not uncommon. A.J. Davis, who worked in the area, used the technique widely. It was likely employed to save material costs and add an insulating layer of air to improve heat retention in the house. Although the cost savings may have been important, parsimonious efforts did not affect the quality of the work. The stone and brick walls of the house are very well laid, and today there are very few areas of cracking or displacement.

Date of original construction on cornerstone at northwest corner of house. Note the drafted edge fieldstone used for the foundation and cut brownstone watertable course. Minimal repair is needed in most areas.

Although the condition of the brick and stone masonry is remarkably good, there has clearly been some damage to the masonry where it was scorched by fire in 1985. These areas can be cleaned and repointed without the wholesale replacement of original brickwork. While the reconstructed areas of brickwork on the servant's wing do not precisely match the original, this inconsistency will disappear once it is painted. In addition, when the original brickwork is repointed, it is important to use lime mortar, a soft mortar that is compatible with the soft, clay-fired bricks of the period. In several areas where reconstruction took place on the service wing, the result is inconsistent with the historic documentation of the building. The rear entry off the southeast verandah originally had small windows flanking the door. The door opening was moved and only one window is in evidence today. The windows on the south elevation of the service wing were replaced during the reconstruction phase in the 1980s, and steel lintels were used. If at all possible, the brownstone lintels that match those on the north side of the wing should be reinstated. After the 1920s addition of the sleeping porch above the southeast verandah, the window had been changed into a door for entry from the chamber. The window on the southeast corner of the south wing should be re-sized to match the others on the wing.

There are two areas that require a substantial amount of masonry repair before the house can be used by the public. The first is on the east side of the house, where there is a small box-like room between the service wing and the main body of the house. The east wall of the one-story room is pushing inward and must be reconstructed. It is likely that the entire east wall of the room will require disassembly before the foundation wall is reconstructed.

Similarly, the retaining walls at the south areaway to the cellar are collapsing along the south. The wall must be disassembled and reconstructed as well. Several courses of stone have raised the retaining wall to accommodate the higher grade around the house, and may have contributed to the problems found at this location. Handicap access will be facilitated via the southeast porch as the walkway will be graded up to the deck level.

View of the service winf from the north (the Pantry is the small one-story structure to the front of the grouping). The existing leader system allows water to seep into the basement. The walls of the one-story room are dilapidated and must be dismantled and rebuilt. Note the charred brick around the window and door openings.

The main entrance doors of house were once flanked by windows placed symmetrically on the facade. The north window and door were relocated during 1891 renovations to better serve the interior house plan. The location is an excellent example of 19th century brick masonry repair and should be emulated in the other areas of the restoration project.

Smaller amounts of masonry reconstruction work will be required around the remainder of the house. Spot re-pointing is required at numerous areas around the full perimeter of the stone foundation and at the brick walls themselves. Brick masonry repair is particularly needed at the window and door locations in the service wing. The brick piers that support the west verandah will require partial reconstruction and full re-pointing. The northeast verandah was removed during the 1891 alterations. New piers must be built at the northeast side of the house if the verandah is reconstructed at this location, although such a course is not recommended. Additionally, the electrical conduit should be removed from the brick masonry and appropriately patched.

Many of the brownstone lintels and watertable stones are cracked, chipped or missing and should be restored. The quarry for the brownstone has now reopened and is in operation, therefore the stone for Dutchman repair would be available. If it cannot be obtained, it is recommended that a synthetic stone repair compound be used in the repair work matching the color and texture of the original stone. Repair work of this type has improved in recent years, and it is less costly than using real brownstone and Dutchman repairs.

The brickwork at the intersection of the service wing and south wing was reconstructed after the 1985 fire. Note the difference in the bricks used, the position of the door and the lack of brownstone lintels on the second floor of the wing.

The restoration of the masonry portions of the house must include work at the chimneys. The condition of the interior of the chimneys is unknown, but at least two chimneys, the north chimney on the north wing and the northwest chimney on the main block, are noticeably leaning. The north chimney is false, corbelled out above the circular window in the gable to create a symmetrical appearance on the exterior. Strangely, the two chimneys lean in opposing directions, so there is no obvious answer as to what caused their present condition. Since photographs from the 1940s reveal these chimneys were leaning at that date, it is unlikely that they pose any threat to the fabric of the house. However, if any major restoration campaign is undertaken, the stability of these and other chimneys should be checked and disassembly and reconstruction may be required at the two chimneys mentioned.

Paint

The house has been painted since its initial construction, and it is fairly easy to discern which areas of brickwork have been modified over the intervening years by the presence or absence of the underlying gray/white primer originally used on the house. The exterior paint on the brickwork over the entire masonry envelope has failed completely. All of the paint must be completely removed using the gentlest means possible so as not to damage the soft brick surface. Lead paint removal is best achieved using chemical strippers, which are the

most thorough and the safest to use from an environmental perspective. The brick masonry should then be primed and repainted. Paint analysis should be undertaken to determine the 1891 color of the building prior to stripping.

Collapsing walls of the south areaway. The southeast verandah, when reconstructed will only partially cover the areaway. For the safety of the public, it should be covered.

Brownstone lintel on the south facade chipped during the heat of the 1985 fire. Either Dutchman or synthetic stone repair would be appropriate techniques for restoration.

Chimney at north wing. The tilt is quite obvious as is the failed flashing.

Main Cornice

Over the past decade, much effort and expense has been directed at reinstating and restoring the main cornice (and the several smaller cornices) around the perimeter of the house. Owing to these efforts, the main cornice is in very good condition, although there are now several areas that require repair. Since the main cornice work was completed, no further paint has been applied to the woodwork, and it is now time to repaint the cornice to prevent damage to the wood substrate. When the main cornice is painted, sealants should be applied to those areas that have opened in the woodwork, allowing water to infiltrate into the substrate. These areas include all miters, joints between soffit boards, and at the junctures between the brackets and the soffit boards.

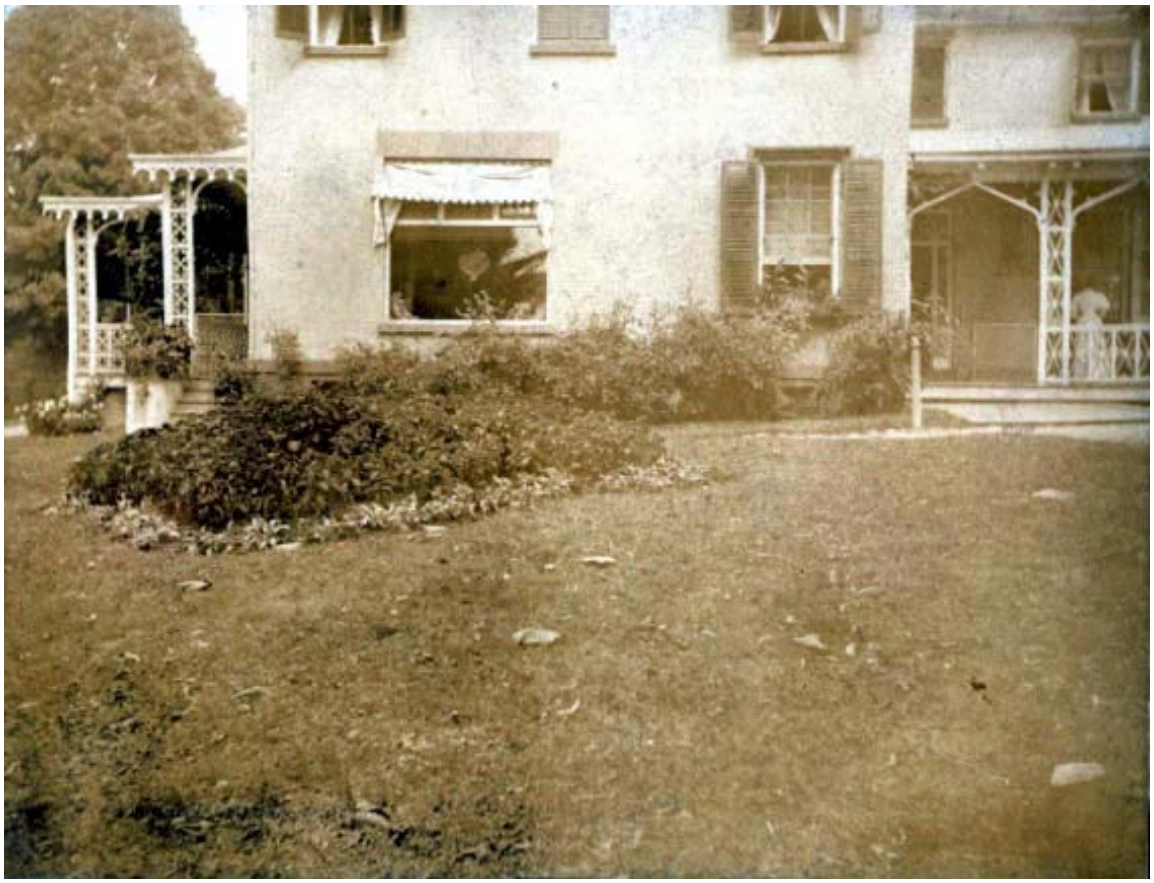
In several areas where roof leader pipes extend through the cornice, the flashing around the pipes has failed allowing water

The main cornice was restored in the 1990s and is still in good condition. Above: cornice of main block; left: north wing.

Deterioration of wood at south-west corner of main block due to poorly flashed gutter/drainpipe connection. Note the peeling paint on the brick masonry below the cornice boards.

to penetrate into the surrounding roof deck. These areas are easily discerned because the paint has failed around the pipes. Moreover, the pipes themselves have pulled away at their connections, allowing water to flow down the surface of the house. One of the first items of work that must be performed on the house is the repair to the roof deck at all pipe penetrations, re-flashing the areas around the pipes and reassembling the pipes to prevent any further leaking.

West verandah with leaning bluestone paving slab. The delicate Gothic fretwork is reminiscent of A.J. Davis' work in the area adding a graceful and light quality to the otherwise solid masonry house block. The verandah should be restored meticulously as it is possibly the most significant feature on the exterior of the house. The metal roof, the pedestals flanking the steps,and the latticework beneath the deck should be restored as well..



Late 19th century view of south facade. Note the large window of the Dining Room and the one-story verandah to the right. The post-1891 arrangement illustrated in the photograph above is the desired goal for the current Maple Grove restoration effort. (Courtesy of the St. Simeon Foundation)

Details of the intricate fretwork and drop finials on west verandah. The fretwork is in danger of further deterioration should it not be addressed in the immediate future.

Verandahs

One of the most distinctive features of Maple Grove is the delicate fretwork that forms the graceful "Carpenter Gothic" verandahs. Upon measuring the only surviving verandah at the west, it was found that several proportional "tricks" were employed by the carpenters while laying it out in order to overcome the asymmetrical plan. The paneling within the porch railings and pilasters were constructed based on approximately a 12" grid. There are fewer panels on the south elevation of the verandah than the north, and as a result the accompanying arch between the pilasters is narrower. A great deal of thought went into the design and construction of the west verandah in an effort to make the house look symmetrical.

Considering the fact that the west verandah has been virtually neglected for the past several decades, much of the original fabric survives and is in relatively good condition. The condition of the verandah can be attributed to the dense wood employed in its construction, as well as the watertight roof. The floor of the verandah was protected by a layer of painted canvas, which is now well beyond its useful life. The present canvas found on the verandah floor no doubt replaced a similar earlier canvas. While it is uncertain as to whether the earlier canvas dates to the original construction of the porch, it was certainly very early. The absence of paint beneath the canvas floor covering lends credence to the likelihood that a canvas floor covering always protected the deck boards of the verandah.

Although the condition of the verandah is surprisingly good, there is no question that it should be restored as soon as possible to prevent a permanent loss of much of the original fabric. The delicate woodwork on the west verandah is now without much of its protective paint, and parts of the delicate dropped-finial tracery around the eaves is missing. Immediate restoration efforts should include repairing or reconstructing the tracery and the brick piers below the verandah, repair to the structural armature beneath the floor, reinstatement of missing elements such as steps and pedestal walls flanking the steps (See historic photo of Jennie and Elise on the front porch for detailed evidence of the cheek walls.), and stripping and repainting the entire verandah. In addition, a lattice panel from the south end of the verandah was inadvertently installed on the north end. The panels should be repaired and installed in their proper location. The restoration of the verandah must also include the reinstatement of the painted canvas floor covering and the reinstallation of the large bluestone slabs at the base of the north and south steps.

Initial restoration efforts should be directed toward the restoration of the west (front) façade. Such an approach will insure that the west verandah survives, and has the added benefit of providing the public with a powerful and memorable impression of the house. Later restoration efforts should be directed toward the reinstatement of the missing verandah on the southeast corner of the house. The southeast verandah was originally a single story high, with sloping curved roofs similar to the west verandah. However, as the accompanying historic illustrations show, the decorative fretwork was somewhat less delicate and more geometric than the fretwork on the west verandah. Sometime later a second story was added to the southeast verandah, and the design of the upper story mimicked the original portions below.

The entire southeast verandah was destroyed in the fire, yet the ghost marks left on the walls of the house clearly reveal the size and configuration of the pilasters and the roof of the original design. This information, coupled with the historic photographs, will allow for the accurate restoration of the verandah with no uncertainty. Of course, when the southeast verandah is reinstalled, its configuration may be somewhat altered from the original to allow the handicapped entrance to the house. Minimal change to the original appearance can be achieved to incorporate ramps allowing access for these individuals.

While no photographs exist of the northeast verandah, ghosts on the walls of the house also reveal its precise dimensions and roof profile. The verandah was removed in the 1891 renovations. It can be safely assumed that the detailing within the northeast verandah matched the southeast verandah, and it is therefore a simple exercise to reinstate this verandah in a similar way, although this option is not recommended.

It is recommended that the new verandahs be restored using a rot-resistant old growth wood, such as longleaf heart pine (recycled old growth wood, readily available today) or Central American mahogany. Like the west verandah, the floors should be protected by installing painted canvas.

Southeast verandah. Note the geometric fretwork and bluestone walkway. (Courtesy of Gretchen Rendes)

Th delicate fretwork of the west verandah is in desperate need of restoration. The drop finial tracery is missing in some areas and should be replaced.

Windows

All of the historic illustrations, surviving drawings and physical evidence found about the house reveal that the fenestration at Maple Grove has been significantly altered over the years. Only one photograph survives that illustrates the original window configuration on the west facade, and that was taken from quite a distance from the house. While the original fenestration design is fascinating in that it helps to reveal the original floor plan for the house, there is no thought to restore the windows to that arrangement. The academic exercise to understand the original configuration was undertaken to gain a deeper understanding of the house. More importantly, the windows that do survive are in varying states of decay. As with the masonry, the high quality of the original construction has allowed the sash and frames to survive with little or no paint.

Most of the original first floor windows were sash door windows that allowed residents to walk directly out to the verandahs from the rooms within. The windows had a center mullion that divided the openings into two distinct sash doors, each closing against the mullion. In a similar manner, the upper windows were also divided into two double-hung sashes. The configuration still survives at the second floor blind window at the center of the west façade. All of the windows were changed to their present configuration in the late 19th century.

Dutchman repair in the sill of the drawing room window shows the location for a mullion that divided the sash doors in the original design of Maple Grove.

Several windows were destroyed in or near the area of the fire. Others in the attic have been replaced with temporary sash. All missing and damaged windows should be reinstated. It may be that portions of the damaged windows survive in storage within the service wing of the house.

A qualified window restoration carpenter will be essential in the window restoration program. He or she will be able to reproduce damaged window features, obtain comparable historic glass and repair the window function apparatus. Virtually all of the windows in the house must be stripped of all paint as it has completely failed in most cases, taking care to properly dispose of the lead paint, and repainted. Every window must be reglazed, and special efforts should be made to insure that the original glass is reused.

The window restoration program should include the restoration of the accompanying exterior blinds at each of the windows that had them. For the most part, the original blinds survive on the west elevation and it will be possible to restore them by taking them apart, re-pinning and gluing the joints, and stripping and repainting them. The blind hardware must be taken off the frames and blinds, bead blasted, painted and reinstalled. The window restoration program should also include servicing the window hardware, which includes the window weights and pulleys. For the most part, the sash cord has been replaced with common clothes line cord, and this type of cord should be discarded and replaced with smaller weight cord.

Detail of a window opening shows paint failure as well as shutter hardware that must be restored.

The blind window on the second floor of the west facade shows the center mullion that divided the original paired double-hung windows. Similar label molds are found on the north and south facades.

Circular window illustrates typical deterioration of the frame and sash elements in many of the existing windows.

Miscellaneous Items

Several items must be attended to in order to complete the restoration of the exterior of the house. The most obvious is the replacement of the doors to the cellar areaways. Since any new stair within the house will extend to the cellar, the outside entrances must be functional, even if minimally used. There is no evidence that the stone areaway steps at the southeast entrance to the cellar ever had an early covering, yet it is prudent to install doors over the areaway in the interest of public safety and to minimize the amount of water entering the cellar. The design of any new doors should appear to date to the original construction or to the late 19th century, and they should be of rot-resistant wood such as longleaf heart pine with hold-open hardware. The runoff from the roof of the storeroom at the back of the house has caused the east areaway doors to deteriorate, and the runoff from the kitchen wing roof has caused the southeast areaway to collapse. Therefore, the gutter system of the roof should be changed to redirect the water away from the house.

Local lore recalls a skylight in the northeast slope of the main roof that provided daylight for the laylight in the Stair Hall. As the roof of the main block was severely damaged during the 1985 fire, no evidence remains as proof of its existence. The window added in 1891 reduced the necessity for the skylight, but if funds allow its reconstruction along with the laylight, much of the quality of the Stair Hall would be regained. The skylight was, more than likely, built of wood and its replacement should be in keeping with the character of the house. The central roundel of opalescent glass is all that survives of the laylight. A photograph of the southeast porch shows another skylight over the rooms in the south wing-- this might be a good model for the new skylight on the main block of the house.

Structure of laylight in attic of main block. A skylight is said to have been located above it to allow daylight to penetrate into the stairwell.

According to Elise Kinkead's recollections from an interview, bluestone walkways were installed some time prior to 1870 by the interim owners between Macy and Hamilton. They led from the south verandah to the back kitchen door and from the driveway to the east entrance to the house. The walkways should be re-laid to create smooth pathways for easy access.

The issue of exterior lighting must eventually be addressed. At one time, there were two wall-mounted fixtures adjacent to the east (rear) door, but evidence for other fixtures around the house is scarce. New lighting should be installed on the verandahs and near all exterior doors. The wiring for these fixtures should be concealed and in conduit, and the fixtures should obviously appear to date from the late 19th or early 20th centuries and should be matched closely to those in the photographs.

Hanging lanterns on west verandah probably date from the late 19th or early 20th century.

Edith Kinkead with her dogs. (Courtesy of Gretchen Rendes)

Problems and Recommendations for Repair

Interior

Colonial Revival Library Hall designed by William R. Walker & Sons Architects of Providence, Rhode Island, in 1891. Elegant finishes were standard on the main floor and should be restored to their former glory. (From the Architectural Portfolio. Courtesy of Rhode Island Historical Society)

General Comments

Evidence found within the house and in historic documents reveals that significant changes were made to the floorplans since the house was constructed in 1850. Indeed, it appears that only the Reception Room, the Drawing Room and the Grandparents' Parlor were left untouched during the late 19th century remodeling on the first floor. It is curious to note that the overall design of the exterior of the house is quite pleasing and accomplished with a great deal of skill. By contrast, the unresolved nature of the interior layout seems indicative of amateur endeavors. It may be that the exterior of the house was inspired by a pattern book or illustration while the interior was "filled in" by the owner and/or builder. The center partition dividing the Passage from the Drawing Room (running east-west) is actually a brick bearing wall that has never been modified. The wall is situated on the centerline of the main axis of the house, directly in alignment with the original front door location. As the original floorplan shows (printed in the History section), the odd arrangement created a cramped space just within the front door. The curved north wall of the Drawing Room was necessary to allow the front door to open.

The following evaluation of existing conditions and recommendations for repair of the interior is arranged according to construction systems, rather than on a room-by-room basis. It should be noted that because the end-use of Maple Grove has not been determined, the recommendations attend to the building fabric and are predicated on the future adaptive-use for the building. Certainly the Secretary of the Interior's Guidelines should be followed for "restoration" and conservation of the historic features of main floor and "rehabilitation" of the second floor and service wing.

As the first floor of the main house is in fair condition with many of the finishes and spaces intact from the 1891 alterations, this area of the house should be restored and the details conserved. According to photographs from the architect's portfolio, the walls of the Dining Room and Grandparent's Parlor were wallpapered. Large areas of wallpaper in the Dining Room survive. The wallpapers should be reinstated in the 1891 fashion after the walls have been repaired. Historic photographs and wallpaper analysis will determine the selection. Damaged plaster walls in the Library and Passages should be repaired. Painted surfaces that are deteriorated should be stripped with the gentlest means possible, primed and repainted. The walls and ceilings of both the Library and Drawing Room were finished with distemper paints. The ceilings should be washed to remove the layers of paint and distempered. If oil-based paint was used to overpaint the wall surfaces, it should be stripped, finish coated and distempered. Restoration of the first floor would capture the charm of and fine craftsmanship in evidence at Maple Grove and provide a window into late 19th century life in the Hudson Valley.

The brickwork of the kitchen interior is interrupted by wood nailers used to affix shelving or paneling to the masonry surfaces. The opening dates from the 1850 plan of the house, which led to the east yard.. The opening was sealed up during the 1891 alterations when a new opening into the Laundry was made. The photographs is illustrative of the basic soundness of the building and the various states of disrepair.

Rehabilitation of the second floor and service wing should retain as many of the historic features as possible in making the areas compatible with their new uses. Many money-saving options are available for the second floor as fewer very fine finishes remain (the exception being the Upper Stair Hall nd Mrs. Kinkead's suite): the reconfiguration of the rooms in the south wing, the creation of a stair to access the attic rooms (the ghost of the stairs is visible on the brick masonry wall and it is documented in the 1891 Walker plans), the reparation of the walls using modern means and carpeting the floors are all ways to save money and put the building back into use.

Plaster Finishes

Even a casual stroll through the house reveals that a significant amount of plaster restoration is required in the building. Water damage caused by the fire, the lack of heat throughout the years and overall neglect has taken its toll, and it is now estimated that one third of the plaster in the house must be replaced. There is scarcely a room in the house that has its entire plaster ceiling intact, and in those that do, the ceilings are badly cracked.

Fortunately, most of the plaster within the house is simple flat plaster, which is easily repaired. There are two recommended ways of performing the repair work to the ceilings. The first is to simply remove large portions of un-keyed plaster, install wire lath over the existing wood lath (if it is found that the nails are loose in the existing lath the lath must be removed also) and install new plaster at these locations. The second method is to remove the plaster and install "blue-board", which is a type of gypsum drywall covered with a skim coat of plaster. The "blue-board" system is less costly than conventional plaster. Since many rooms on the second floor have lost their plaster ceilings almost entirely, the prudent and recommended approach is to replace the them with the "blue-board" system, and repair the mostly intact ceilings on the first floor with conventional plastering methods. Of course, the ceilings on the first floor that are entirely missing (such as in the ceiling in the Dining Room) should be replaced with the "blue-board" system. It is assumed that the modern service rooms (toilets, etc.) within the service wing will be finished with drywall.

Mrs. Kinkead's morning room on the second floor in the southwest corner of the main block. The plaster on the ceiling and walls is almost entirely missing and should be replaced using the blueboard system.

All run moldings will require in-situ repairs or replacement using conventional plastering methods. The run molding around the skylight at the second floor requires complete replacement. The profile of the small surviving portion may be used to replicate the remainder of the molding.

The walls within the house have fared better than the ceilings, yet there are substantial areas of missing and damaged plaster throughout the house. Since it is historically responsible and most economical to repair the existing plaster on the walls rather than replace it, it is recommended that conventional plaster replacement and

repairs be employed on the walls. Exceptions to the plan are areas that are later to be covered over with wood paneling, such as in the large Library and Hall and the Dining Room, and the rooms of the second floor and Kitchen that are missing plaster entirely.

There are several small areas of decorative plaster ornamentation that are damaged or missing. They are mostly found at the chandelier roundels. Missing areas of decorative plaster can be replaced by taking silicone molds of the surviving elements and replicating the missing portions in new plaster. The missing element is then simply adhered or fastened to the ceiling. Run plaster moldings should be reproduced after damaged areas are removed.

Before plaster work is performed in the house, evidence found on the walls of earlier fitments and finishes should be carefully recorded including paint samples from every room, fragments of wallpapers (as large as possible) and recording items such as the outline of the original shelving within the Butler's Pantry. The information will be essential for any restoration efforts and, at the very least, it will be of interest to future scholars interested in the architecture of the mid- to late-19th century in the Hudson Valley.

Plaster medallion in Grandparents' Parlor. Note the pervasive cracks in the ceiling due to temperature and humidity changes.

Once all evidence has been gleaned from the plaster surfaces, all loose and deteriorated paint must be removed before plaster repairs occur. Obviously, new surfaces that will receive paint or wallpaper must be feathered smooth. Many of the walls and ceilings were painted with distemper. Some of them have been overpainted with oil and latex paints. Preparation of the walls and ceilings should include the removal of the brightly colored paint and washing the remaining distemper off the plaster before repainting. While several of the rooms on the second floor were wallpapered in the 19th century, it is not necessary that they be decorated in the same fashion now in light of funding restrictions and potential use.

Run plaster molding in need of repair in Mrs.Kinkead's rooms on the second floor. The ceiling should be replaced using the blue-board system and the run moldings repaired in-situ.

Like the ceilings, the walls of the service wing can be fitted with drywall if the wing is to be used for service rooms. At this time there is no compelling reason to replace the plaster ceilings within the cellar spaces. However, when a new boiler room is installed within the house, it will require at least a one-hour rated wall and ceiling assembly, which can be accomplished by installing drywall on non-masonry surfaces and installing a fire rated door and frame assembly.

Floors

A large percentage of the finished flooring within the house is narrow tongue-and-groove hardwood flooring, indicating that these floors were installed sometime late in the 19th century, possibly during the 1891project. The earlier wood flooring is made up of wider softwood stock and was out of vogue in the period the house was remodeled and, consequently covered over.

The parquet flooring in Mrs. Kinkead's Morning Room was installed in 1891 over the wider softwood floors. The hearth is at the level of the original floor, approximately 3/4" below the narrow boards.

Within the main block of the first floor, the wood flooring appears to be in fair condition, yet salvageable. Simply lightly sanding and refinishing the floors with varnish is all that is required to retrieve their luster. The hardwood flooring on the second floor can be similarly treated, except in those rooms to the south that were effected by the fire. Special care should be taken of the parquet hearth surround in Mrs. Kinkead's bedroom and elsewhere in the house. The softwood floors should have the paint or varnish removed and be repainted or carpeted. If the upstairs rooms are to be turned into office spaces, the floors may be carpeted, ameliorating the need to restore the floor surfaces. The decorative flooring within the Dining Room is very badly damaged and cupped. While it may be possible to salvage the floor, it will most likely be necessary to replace it with new flooring matching the existing.

Wood flooring within the service wing will have resilient flooring, carpeting or tile, and it is, therefore, recommended that a second layer of plywood flooring be installed to accept these finishes.

Interior Woodwork

Most of the significant interior woodwork within the house has survived admirably well. The most extraordinary woodwork can be found in the main Stair Hall, where the exquisitely detailed Colonial Revival woodwork extends up the stair to the second floor Stair Hall. Unfortunately, some of the turned, twisted balusters and other elements are missing. Any restoration of the interior of the house must reinstate the missing woodwork at the stair, but the job is made somewhat easier as some of the balusters are in storage within the house. The

Curved bearing wall of drawing room allowed the front door to open prior to the 1891 alterations. The dog-eared architraves, baseboard molding and chair rail are Greek Revival in style, but the Colonial Revival cornice on the door was added later.

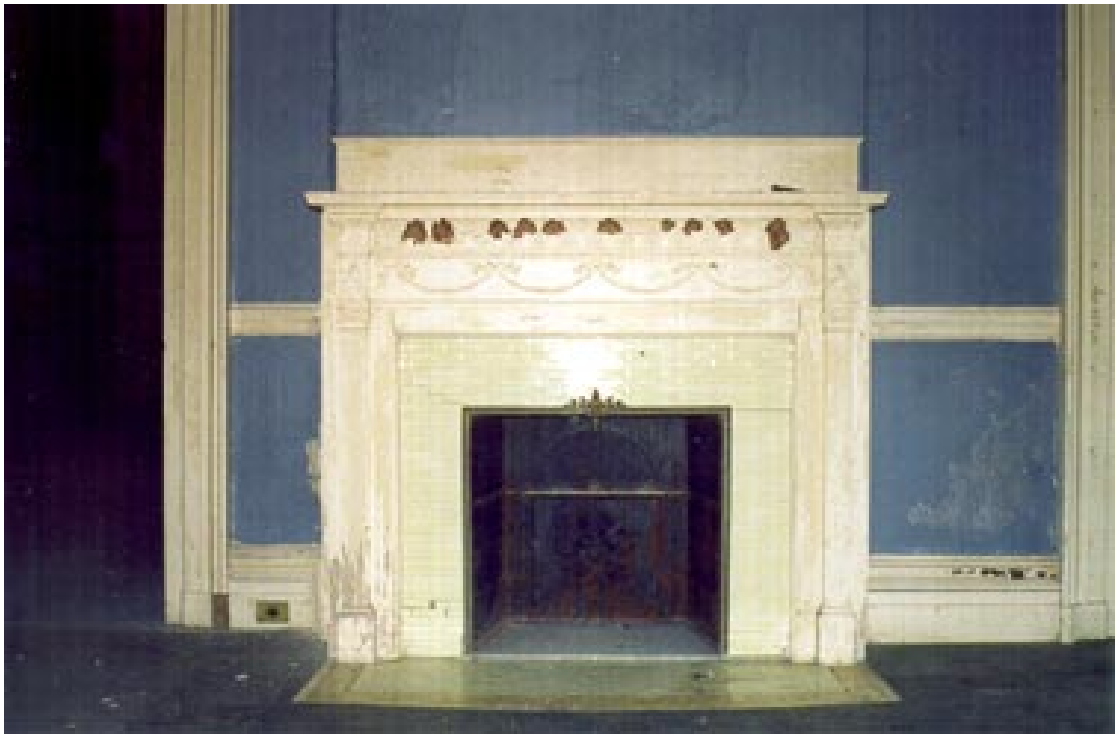
entire stair has been painted since it was installed, and the paint is failing at several locations. It will be necessary to remove all loose and deteriorated paint before repainting the stair. Scraped areas of paint will need to be feathered back to the surrounding surfaces before repainting can occur. The treads and open risers should be chemically stripped to reduce the lead paint risk.

In the Library and Stair Hall at the first floor, woodwork damaged by the fire can be seen just to the east side of the fireplace. The woodwork should be replicated and reinstalled against new studs. It was interesting to discover that all of the Colonial Revival shelving along the east wall of the room was inserted over a Colonial Revival wainscot. Upon inspection, it was found that the shelving was installed nearly at the same time as the wainscoting, and it can only be surmised that the owner decided to install the shelving shortly after the room was finished.

The woodwork in the rest of the house is an amalgam of the two different periods of construction activity. The first and most obvious is the late Greek Revival woodwork from the original 1850 construction period of the house. Much of this survives within the Grandparent's Parlor, the Reception Room and the Drawing Room. It is unclear if the entablatures over the doors in the rooms date from the original construction or a later period, but the latter is more likely. The mantle in the Drawing Room dates from the late 19th century as it is Colonial Revival in style, and the panels beneath the windows also date from the later period when the sash doors were changed to windows.

Perhaps the most interesting room in the house is the "Walker" Dining Room (the Grandparents' Bedroom of the south wing in the 1850 configuration). The room was approximately 16" narrower as late as the 1880s, and appears to have been remodeled within a decade. Evidence for the changes can be seen in the southeast

corner of the room, where 1880s wallpaper was found beneath a later stud and plaster wall. The wallpaper and the ghost of a stud wall clearly show that there was once a wall approximately 16" to the west of the present Dining Room east wall. Since the remainder of the room was finished (complete with wallpaper) at its



Drawing Room fireplace and mantle are excellent examples of Colonial Revival Style.

present dimensions, the evidence reveals the room was decorated in the 1880s and remodeled in the 1890s. Virtually all of its finishes, including the flooring, dates from the second period.

The oak woodwork in the Dining Room is as significant and beautiful as that in the Library and Stair Hall. While the varnished coating on the paneling must be renewed, it is in very good condition, particularly over the decorative mantle. The Dining Room ranks with some of the best Colonial Revival rooms of the period, and all efforts should be made to restore it to its former grandeur. The woodwork is most likely finished in shellac which is easy to remove and reapply.

Other woodwork in the house is in good condition. It is generally intact, yet failed paint must be removed before the woodwork can be re-painted. There are several doors from the house that survive in storage in the Kitchen. The doors should be matched to their original openings, restored and reinstated. Funds must be set aside for the restoration of the existing hardware as well as the replacement of missing hardware.

Miscellaneous Items

Fireplaces: The services of an experienced tile and stone setter will be required at each of the fireplaces, where the hearths and mantlepieces are somewhat damaged. The marble mantlepiece in the Reception Room

Missing balusters mar the sweep of the once-grand Colonial Revival staircase. Delicately turned, twisted balusters and intermediate newel posts punctuate the the route of the four-run staircase. Missing elements should be replaced during the conservation efforts.

Stair landing balcony in the Library and Stair Hall designed by the Walker firm from Providence, Rhode Island. Note the coffered ceiling and paneling.

Grandparents' Parlor was once quite lush in its decoration. Historic photographs reveal rich floral wallpaper and dark-stained crown moldings. The woodwork has been painted, but remains in good condition.

The Dining Room paneling is quite fine and should be restored along with the plaster ceiling and wallpapered walls.

The detail shown to the right of the 1891 corner fireplace in the Dining Room reveals only the tile surrounds and oak mantelpiece. Above the chimneybreast is an open shelf on which two beveled mirrors are situated that line the walls leaving a large open shelf. The mirrors are set into carved oak frames with a decorative cornice.

Fine woodwork and plasterwork can be found in most rooms in the house. The example in the photograph is from Mrs. Kinkead's Bedroom on the second floor off the Upper Stair Hall. Note the marble mantlepiece and wood panels beneath the windows. The ceiling was heavily damaged as are the run plaster moldings.

The Colonial Revival fireplace in Library designed by William R. Walker & Sons Architects. The delicate details recall the Adam style popular in the late 18th century. In 1850, the Kitchen was accessed to the left of the fireplace. In 1891, the opening was blocked off and library shelving installed.

Location of wall change in Dining Room. The wallpaper to the left is quite close to the masonry wall, while a second wallpaper to the right is just behind the 1891 lath. The jog in the wall reflects the changes prior to the 1891 alterations.

Remnant of 1891 wallpaper gives insight into the style of wallpaper used in the period.

is original to the 1850s house as is the one in the Grandparent's Parlor. Its side panels are broken and the west side is missing a portion of the panel. The panel piece for the east side is next to the fireplace and should be re-affixed in place.

The mantlepiece and tile hearth in the Drawing Room date from the late 19th century and several loose tiles must be reset around the firebox. The remainder of the fireplace is in excellent condition. Similar repairs are required at the large Library Colonial Revival fireplace, which is otherwise in excellent condition.

The fireplace in the late 19th century Dining Room has been carefully protected with a plywood shell, and this act has kept the fireplace in excellent condition. No apparent work is required with the exception of careful cleaning. Similarly, the fireplace in the Grandparent's Parlor (1850) is in good condition and no work is required. The fireplaces upstairs simply require cleaning.

Skylight and laylight: It is believed that the plaster skylight well over the present day stair remains from the 1850s construction period. The original plan included earlier in the report illustrates its juxtaposition to a possible historic stair layout. The skylight would have provided some light to the original stair. Yet even with this top light, the lack of window openings onto the original stairway at both floors would have made for the dark conditions mentioned to the Kinkead daughters by their aunt (recalled by Elise Kinkead in her conversation with Kenneth Toole. See Bibliography for reference). If her recollection is accurate, the skylight was retained during the late 19th century remodeling and a new leaded-glass laylight was created using fragments of the 1850s leaded-glass laylight. It is recommended that the leaded-glass laylight be reinstated during any major restoration activity.

The opalescent glass center of the laylight was in the keeping of Gretchen Rendes. The new laylight should be designed around the remaining piece.

Heating, Air Conditioning and Mechanicals: The type and level of heating, air conditioning, electrical, plumbing and security systems to be planned for Maple Grove is entirely dependent on the eventual activities that will take place within its walls. Clearly, every system historically within the house is now useless, and new systems must be installed throughout. The systems will consume a substantial portion of the construction budget, and the various options will have an impact on the cost.

While the actual design of these systems is outside the scope of the Historic Structure Report, certain guidelines should be followed when introducing such systems into Maple Grove. The first and foremost of the guidelines is the recognition that HVAC, plumbing and electrical systems generally have a relatively short life-span compared to that of the house, and therefore, the systems should be designed to minimize the consumption of historic fabric as well as being as reversible as possible. Since there are many areas that are available to run electrical, plumbing and HVAC lines, the issue should be minimal at Maple Grove. However, all efforts should be made to conceal grilles and other unsightly elements connected to the systems, so as to retain the highest degree of historic integrity in the house. Finally, no system should be installed the performance of which will endanger the long-term stability of the building fabric. For example, excessive air conditioning of the house will cause condensation to form on the window sash; eventually causing them to deteriorate. Moreover, the excessive infusion of humidity in the winter months will allow condensation to form within the cavity of the brickwall construction, which in turn will freeze and destroy the brickwork. Any system must be carefully evaluated in terms of creature comfort and its impact on the building fabric.

Problems and Recommendations for Repair

Structure

Brick Masonry System

As it has been stated in the Exterior portion of the study, the exterior brick walls of the house are generally in good condition. The analysis that follows evaluates the masonry from a structural standpoint. Exceptions to the statement can be found in those areas affected by the 1985 fire near the kitchen wing. Clearly, the brick openings around the windows in the Butler's Pantry require reconstruction, as does the small square space that served as a passage and pantry between the 1850 dining room and kitchen.

Similarly, there are areas on the exterior walls of the Kitchen that still require work, even though these walls were "restored" after the fire. Once again, there are several areas around the door opening to the south, adjacent to the windows, that require masonry repair and stabilization. An opening was created through the brick wall between the Kitchen and Laundry in 1891. However, the opening was never stabilized, and if it is deemed necessary, the jambs and head should be properly finished by a qualified mason in a manner similar to the other arched openings in the house.

Opening cut through the back wall of Kitchen into the Laundry must be stabilized using either a steel lintel or a brick arch as in the other masonry openings in the house.

It must be noted that nearly all brick houses constructed before the twentieth century were laid up with clay-fired bricks set in lime mortar. The system had been in use since the Roman Empire, and was not changed until the late 19th century with the advent of Portland Cement mortars and modern hard-fired bricks. Portland Cement mortars work well with hard shale bricks, and lime mortars work well with soft bricks, but the two systems should not be mixed. The mason who reconstructed the exterior walls of the service wing after the fire had little or no understanding of the difference between the two systems, which is why the old and new masonry do not match well. The saving grace on the exterior walls of the service wing is that it appears that all rebuilding was done using modern materials, while few areas of the softer bricks were repointed with modern mortar. Coupled with the fact that the entire house was, originally, and will in the future, be painted, the necessity of reconstructing these walls is negated, and it is likely that few, if any, new problems will arise in the future.

All further repairs to the original masonry should be performed using sand-struck, soft common bricks and pure lime mortar with no Portland Cement whatsoever. Use of the old method is particularly important for any repointing work. If a Portland Cement based mortar is used to repoint the soft clay-fired bricks, it is likely that the hard Portland Cement will eventually damage them. Only lime putty paste should be used in the mortar, not the hydrated bagged lime.

Ghost of the service stair in the rear entry hall between the Kitchen and Butler's Pantry. Note its steepness. The passage to the second floor chamber, "George's Bedroom", is visible at the upper right. The service stair was destroyed in the 1985 fire that left much of the south end of Maple Grove severely damaged. Many doors and pieces of the structure may be found stored in the basement of the house.

The opening into the 1890s bathroom was covered over during the alterations with plaster and lath. It is believed to have led from the service stairs into a second floor servant's pantry.

The interior wall of Kitchen shows fire damage the the wood members and the masonry techniques used in the 19th century.

Ghost of the attic stair in the south wing. Nailers, the pieces of wood inserted between the bricks, were used to fasten elements like baseboard molding, paneling and shelves to plastered masonry walls. In the 19th century, the plaster was applied directly to the brickwork.

Wood Framing

It is difficult to inspect a large portion of the structural framing members within the house owing to the fact that they are concealed by plaster or other finishes, yet there does not appear to be any significant deflection or failure anywhere in the house where it has not been reconstructed. There are areas in the house, however, that are accessible and these provide a great deal of insight into what may be inferred about framing members elsewhere. Non-structural framing members can be found in localized areas within the house that do require replacement. One such example is at the south wall of the Library , where members were nearly destroyed by the fire, but were not repaired during the recent stabilization work. For the most part, this type of work is minimal and appears to be limited to those areas affected by the fire.

It is evident that the structure beneath the entire Kitchen floor is in very poor condition and in dire need of replacement. Indeed, the floor is now so unsafe upon which to walk that anyone entering the building should keep out of the area. In at least one location, the floor joists have completely cracked and failed. Regardless of the ultimate use of this area, the floor joists will need to be replaced or, at best, sistered beneath the kitchen floor and a plywood subfloor installed to allow access to the space.

Basement kitchen is severely damaged from water damage during the 1985 fire. Note the kitchen hearth, beehive oven and cabinets. The area should be cleaned and historic features retained.

Before any work is performed within the cellar areas of the house, it will be necessary to remove all debris. Removal should be done under the direct supervision of someone familiar with the value of the fabric being taken away. There may be several items original to the house that are worth saving for future generations such as cabinets, early water distribution apparatus, molding profiles and light fixtures. Special care should be exercised at the Cellar Kitchen area where the original bee hive oven survives with its iron door.

It is recommended that all lath and plaster ceilings within the cellar spaces be removed to allow for a full scale inspection of the structure. As all of the ceilings are heavily damaged or missing entirely, this will not consume

any significant original building fabric *The modern fiber board above the boiler appears to be asbestos; this, as well as other asbestos elements, must be removed by a qualified professional before other work in the cellar occurs*.

While some surface deterioration of the remainder of the floor joists (forming the cellar ceiling) exists, most of the remaining joists appear to be in good condition. A possible exception to this statement can be found in the northeast corner of the main block of the house, where several joists may require sistering.

There are few wood partitions within the Cellar area, but those that do exist are at the south side of the Cellar in the kitchen area. The stair that served the Cellar Kitchen was completely destroyed in the 1985 fire. A new fire-rated stairway leading from the basement to the second floor will likely be installed in the area of the Butler's Pantry along with an elevator to accommodate the handicapped. (See proposed plans in Appendix.) If the partitions do not interfere with the installation of the fire stair, they might be preserved for interpretive purposes.