

historic structure report architectural data section volume 2: appendixes

june 1985

PUBLIC DOCUMENTS DEPOSITORY ITEM

SEP . 185

CLEMSON LIBRARY

# MARTIN VAN BUREN

NATIONAL HISTORIC SITE / NEW YORK





#### APPENDIXES

#### HISTORIC STRUCTURE REPORT

#### Architectural Data Section

#### LINDENWALD

## MARTIN VAN BUREN NATIONAL HISTORIC SITE

### Kinderhook, New York

by William W. Howell

U.S. Department of the Interior / National Park Service

Digitized by the Internet Archive in 2012 with funding from LYRASIS Members and Sloan Foundation

http://archive.org/details/historicstructur00vol2

# CONTENTS

A:	Historical Photographs	•	•			•			1
B:	Inspection Photographs		•					•	85
C:	Upjohn Specification								165
D:	Upjohn Plan Book .					•	•		169
E:	Site Plan								173
F:	1938 Measured Drawings						•		175
G:	Evolution Sketches .					•	•		179
H:	Proposed Work			•		•		٠	231
1:	Smith Thompson Van Buren-Richard Upjohn								
	Correspondence .	•		•	•	•		•	261
J:	1977 Waite Report .			•		•	•	٠	277
K:	Paint Study Worksheets	and	Photo	ograp	hs	•	•	٠	285
L:	Wallpaper Study Workshe	ets		•		•	•	•	287
M:	Coffin Handpainted Walls	Stu	ıdy			•	•	٠	309
N:	Man Labs Report .		•			•	•		329
0:	Mortar and Plaster Samp	les							339

C. Charlin

#### APPENDIX A: HISTORICAL PHOTOGRAPHS

Included in this group of historical photographs are four images of Lindenwald in other graphic media. This is not intended to be an exhaustive presentation of all the images of Lindenwald produced over the years. It is, rather, a selective presentation of the images that because of their clarity, point of view, or date provide the most information for this report.

HP1. Survey Map of Property



"Residence of Martin Van Buren." This print shows Lindenwald as it have appeared prior to the ca. 1850 addition. According to Nan Rickey, the style of clothing shown indicates a date in the range ca. 1854 to ca. 1860. Obviously, an artist could have executed the work after ca. 1860 with the intent of representing an earlier time, but it could not have been sufficient similarities between the two (especially the inaccuracies) to indicate report. A copy of this print was found at the Boston Athenaeum with the done before ca. 1854. Therefore, the image of the house must be based on such a relationship. The inaccuracies are discussed in section III of this an earlier image and not a recent visit to the site. That earlier image may have been the same one from which HP3 was derived. There are certainly notation "Acquired at the A.S. Mason Sale, November 10, 1905." might HP2.



not predate ca. 1854, it seems more likely that both HP2 and HP3 are NPS staff, but there is no other information about its source. The 1847 date of the prototype is consistent with our documentary evidence than HP2. It may be derivative of HP2; however, given that HP2 does that Lindenwald had wings prior to October 1843 which were demolished derived from another image. This print was found at Lindenwald by The caption suggests that this print The print shows a narrower view of Lindenwald, lacks the foreground figures, and is less clearly delineated in order to build the ca. 1849 addition. "From a print about 1847." is a derivative of an earlier one. HP3.



From a print about 1847

HP4. Ca. 1849 Watercolor Rendering of Lindenwald by Richard Upjohn and Co. The original is located at Avery Library, Columbia University.



The the This photograph of the south and sides is dated ca. 1890-1900 on the basis of recollections of donor, Hazel Whitbeck, a long-time resident in the vicinity. Lindenwald, ca. 1890-1900. following details should be noted: HP5. east

The chimney base and cap are a dark tone--either dark paint or unpainted brick. There is a return at the south end of the south dormer sill box.

Boards cover the east balustrade on the tower.

been The southeast corner of the foundation appears to have repointed.

Lightning rods are present.

wood The brick flat arches over ca. 1797 windows are painted dark. The roof covering on the ca. 1797 part of the house is shingles.

bell pull knob on the south architrave of the front ð There is dour. The basement windows on the east side are the present size and are painted a light color.

There is no chimney over room 112.

rustic Visible lawn furniture consists of a cast iron-bench, a chair, a tripod trellis, and a hitching post.

The small tree in the foreground (directly in front of the trellis) is considerably smaller here than in HP6.



approximate because it is based on the growth of the small tree in the compared to its size in HP5. The following details should date of this photograph is The 1900. Ca. Lindenwald, foreground be noted: HP6.

The dormer sill return is missing.

There is no tie rod on the porch.

Boards still cover the tower balustrade.

There is no chimney over room 112.

The south chimney seems to be painted to match the body of the house. The brick flat arches over ca. 1797 windows are painted to match the surrounding brickwork

Lightning rods are present.

constitute the visible items of lawn furniture. The tripod trellis tree in the A rustic chair on the front porch, a glider, and a hitching post seen in HP5 may be hidden behind the small foreground.

There is a row of small bushes or ferns along the cheek of the front porch (not present in HP5).

Basement window frames are painted a dark tone.



HP7. The Wagoners in Front of Lindenwald. This photograph probably predates 1917 because the subjects are Mr. and Mrs. Wagoner. Note the detail of the cast-iron bench and the expanse of lawn.



ca. 1910-1917 on the basis of the growth of the small foreground tree compared to HP6 and the presence of lightning rods compared to HPI8. Lindenwald, ca. 1910-1917. This photograph is dated Note also the following details: HP8.

The foundation has been painted so that repointing at the southeast corner is no longer visible. The shutters, window frames, porch, and foundation are a dark tone. The bricks and cornice are painted a lighter tone.

The roof is wood shingle. Lightning rods are present.

A tie rod has been installed on the front porch.

Hydrangeas have been planted in front of the piers between windows 001 and 002 and between windows 005 and 006.

The tower balustrade is no longer covered by boards.

Lawn furniture consists of the cast-iron bench, the glider, flower a new ladder-type trellis, and the hitching post, now with weathered paint. pots,

Some of the bricks are loose in the flat arch over window 127



based on The assigned date is similarities with HP8. The following details are noteworthy: Lindenwald, ca. 1910-1917. HP9.

The foundation, window frames, shutters, and front porch seem to ŋ The bricks and cornice are painted be painted a dark tone. lighter tone.

Lightning rods are present.

There is a tie rod across the front porch.

Hydrangeas seem slightly larger than in HP8.

The cast-iron bench and flower pots are the only visible items of lawn furniture.

There are ferns planted along the north foundation wall.

northwest and northeast seen in the can be Stone corbels chimneys.

Five risers can be seen leading to the north porch.



visible on the glass plate, but not included in this print, are the farm office, partially visible at the extreme left (south) side, an adjacent fence, the hitching post, the glider, a cauldron (cast iron?) at the This photograph is from the New York State Archives, glass plate number 82, negative number 10643. The glass plate is dated 1913. The print presented here is an enlargement of the central part of the glass plate. Landscape features base of the south pine tree, another cast-iron bench near the south an outbuilding northwest of the house, and an extensive awn with trees and shrubs. Within the area of this print, the Lindenwald, East Elevation, ca. 1913. following details should be noted: pine tree, HP10.

Lightning rods and conductors are present.

There is a tie rod on the front porch.

a cast-iron bench There are two rustic chairs on the porch and under the north pine tree. The north hydrangea appears to be 6' to 7' tall and the south one 4' to 5' tall. The foundation, window frames, shutters, and front porch seem to be painted a dark tone. Sash, bricks, and cornice appear to be painted a lighter tone.

The dark area at the base of the north foundation may be the ferns present in HP9.

The north end of the north The south dormer sill box is askew. dormer sill box is detached.

the Sheet-metal gutters have been added to the level eaves of south dormer.



The on similarities with HP10, the fact that the hydrangeas are slightly This date is based larger, the state of deterioration of the dormer sill boxes, continued presence of lightning rods, and the wood shingle roof. East Elevation, ca. 1913-1917. following details should be noted: Lindenwald, HP11.

to be painted a darker tone. Sash, bricks, and cornice appear to The foundation window frames, shutters, and front porch appear be painted a lighter tone.

This statement cannot be made with certainty because of the deep The tie rod seems to have been removed from the front porch. shadow in that area.

Two rustic chairs and a wicker rocker can be seen on the front porch. Two cast-iron benches are placed in the shade of the north and south pine trees. A row of potted plants lines a A cluster of similar potted plants is to the east of this line and on axis with the front door. What may be a cast-iron cauldron appears in the The north hydrangea is 7' to 8' tall and the south one 4' to 5' path or drive parallel to the front of the house. left foreground under the south pine tree. tall.

There is a rainwater diverter at the east end of the north gable capping board.



HP12. Mrs. Bascom Birney at Lindenwald, after 1917. This photograph was probably taken after the Birneys' acquisition of Lindenwald in 1917. The following details should be noted:

The foundation and trim appear to be painted a dark tone. Brickwork has been painted a light tone but is now quite weathered. Window frames are painted a lighter color.

The replacement cornice on the door pediment is in place.

The steps to the back door (door 112) consist of a large landing stone at grade and one stone step leading up to the door sill.

The downspout appears to be a replacement consisting of lengths of stock corrugated pipe and a wooden board and trough to direct rainwater away from the foundation.

There is a grate over window well 011.



was taken early in the period of their ownership. On the basis of a comparison with HP16 and HP17, this photograph is considered to HP17 but not present in this photograph. The following details are wall, which is not present in HP16, and the floor heater, present in photograph was donated to the National Park Service by the DeProsse They state that it predate 1924. The comparative features are the wire along the south This 1917-1924. Interior of Room 105, Looking West, ca. family and is considered to date from 1917 or later. worthy of note: HP13.

historic carpeting

chandelier with frosted glass shades and clear chimneys

bell hanger in casing of door 130 and possibly a wire leading to it

wallpaper patch at south end of west wall at elevation of ca. 1797 door entablature

scenic wallpaper

apparent absence of grille for floor heater



HP14. West Slope of ca. 1797 Roof, ca. 1918-1920. This photograph shows Dr. Bascom Birney removing wood shingles in preparation for the slate roof. Family tradition dates this event to the early years of their ownership of Lindenwald, probably before 1920. Note the following details:

condition of sheathing boards

missing and broken plaster keys over room 307

square-butted shingles

valley flashing

sheet-metal ridge roll



Note HP15. This photograph again shows Dr. Bascom Birney in the process of removing shingles from the west slope of the ca. 1797 roof. Note the roofing bracket near the top right corner of the photograph.


HP16. South Wall of Room 105, ca. 1924. This photograph was published in 1924 in <u>Historic</u> <u>Wallpapers from their</u> <u>inception to the introduction</u> of <u>Machinery</u>, by Nancy V. McClelland. Note particularly the glass shades on the kerosene chandelier and the absence of the bell pull wire that appears in HP13.



published opposite HP16 in Nancy V. McClelland's <u>Historic</u> <u>Wallpapers</u> from their inception to the Introduction of <u>Machinery</u>. Note the corner of the grille for the floor heater and the circular control box on the baseboard. Also note the wallpaper in room 101. North Wall of Room 105, ca. 1924. This photograph was HP17.



is still in progress). It is considered to predate 1925 because the tie rod is still in place on the front porch, and shutters are still in place This rods are missing from the front of the house and because roofing brackets and a plank are still attached to the roof (indicating that roofing work on the Venetian window (see HP22). This photograph was taken by photograph is considered to postdate 1917 because the lightning South and East Facades of Lindenwald, ca. 1917-1925. Rowles Studios. The following details should be noted: HP18.

There is new flashing over south gable capping board and on the south chimney. (the earliest photographic chimney over room 112 ຫ evidence). There is

The return for the sill at the north dormer is missing

Brickwork, oriel window, and cornice seem to be painted a light tone. Window frames, shutters, foundations, and front porch seem a dark tone. On the addition, window frames are a light tone and hoods and roof are a dark tone. to be painted

Bricks are loose in the flat arch over window 127.

Hydrangea north of front porch is 8' to 9' tall. Ferns are growing along the north and south cheeks of the front porch. Small trees are present in the ell south of the ca. 1797 house. A rustic chair and a rocking chair are on the front porch. A cast-iron bench is under the south pine tree.

Eight balusters are present on east side of belvedere.

Sheet-metal gutters have been added to the south dormer.



HP19. This photograph is a detail of HP18.



photograph is associated with HP18 and assigned the same range of Because of the absence of front lightning rods and the presence of roofing brackets and planks, the tie rod on the front porch, and the shutters on the Venetian window, this The following details should be noted: Lindenwald, ca. 1917-1925. dates. HP20.

The front board of the sill box under the south dormer is missing

There are eight balusters on the east side of the belvedere.

The brickwork, cornice, and sash seem to be painted a lighter Window frames, foundation, and front porch are painted a darker tone. Shutters seem to be painted an even darker tone. tone.

Sheet-metal gutters have been added to the south dormer.

There is a clump of vegetation in the foreground on axis with the year from HP18, but the similarity of size suggests the same year The hydrangeas are in bloom and the one north of the porch is approximately the same size as in HP18. Ferns are growing along the north and south cheeks of the front porch. The cast-iron berich may be present in the shadows southeast of the porch. front door. The hydrangea blooms indicate a different time of or one within two or three years. A small rainwater diverter has been installed on the porch roof at the juncture of the gable with the south level eave section.



HP21. Clementine Birney and William DeProsse in Room 104, 1925. This photograph was taken at the time of their wedding in 1925. The background is the south wall of the room and door 102. Note the white-painted woodwork, the historic Brussels carpeting, the historic wallpaper, and the bed.



on the occasion of the Birney-DeProsse wedding. The following details East Elevation of Lindenwald, 1925. This photograph was taken should be noted: HP22.

There are no shutters on the Venetian window.

The tie rod is not present on the front porch.

The northeast lightning rod is missing.

Brickwork, cornice, sash, and window frame reveals are painted a light tone. Foundations, front porch, and exterior faces of window Shutters are painted an even painted a dark tone. frames are darker tone. Large blocks of wood have been wedged under the sheet-metal roof of the porch at the south juncture of the gable and the level eave to divert rainwater into the gutter.

There is a white-painted wooden screen door.

to 9' tall The south tall and the north one is 8' Ferns are growing along both sides of the front porch. hydrangea is about 6<sup>r</sup> (comparable to HP18).



was taken by Melvin Weig, National Park Service historian, on August 3, 1936. This date is documented in the captions of all the photographs in his report "Lindenwald," the President Martin Van South and East Sides of Lindenwald, 1936. This photograph Buren Homestead, near Kinderhook, New York" dated November 3, 1936. The following details should be noted: HP23.

Some bricks are missing from the cap of the south chimney.

Both hydrangeas are about 9' tail, and the ferns beside the front A vine is growing up to the cornice on the south side of the porch. porch are about 2' high.

tone. Foundations, window frames, and the front porch are The light paint on the brickwork is very weathered and most brick courses on the south elevation can be seen. Sash has also been painted a light tone, but now the cornice appears to be a dark Shutters appear to be painted an even a dark tone. darker tone. painted

There is a lightning rod on the tower.



HP24. Lindenwald, East Elevation, 1936. This photograph was taken on August 3, 1936, by Melvin Weig. This date is also documented in his report, "'Lindenwald,' the President Martin Van Buren Homestead, near Kinderhook, New York." The following details should be noted:

Some bricks are missing from the cap of the south chimney.

Both hydrangeas are about 9' tall and the ferns beside the front porch are about 2' high. A vine is growing up to the cornice on the south side of the porch.

been painted a light tone, but now the cornice appears to be a dark tone. Foundations, window frames, and the front porch are The light paint on the brickwork is very weathered, and most brick courses on the east elevation are discernible. Sash has also dark tone. Shutters appear to be painted an even darker tone. painted a

A lightning rod can be seen on the tower.

The plumbing vent can be seen between the north dormer and chimney An electrical service wire crosses the field of view from top center to middle left side. A rainwater diverter is present on the east end of the north raking cornice.



HP25. Ca. 1850 Front Porch, 1936. This photograph was taken by Melvin Weig on August 3, 1936. The following details should be noted:

pattern of seams in sheet-metal roofing

shims under sheet metal at juncture of level and raking eaves

"drip-catcher" at north corner

separation of treads from south stringer

rustic chairs

vine on south side of porch



North Side of Lindenwald, 1936. This photograph was taken by Melvin Weig on August 3, 1936. The following details should be noted: HP26.

σ There is new flashing on the north gable capping board and rainwater diverter at east end.

There is a splashblock(?) at base of northeast downspout.

The paint scheme is the same as that observed in HP23.

There is a plumbing vent pipe near the ridge at the north end of the east roof slope. The brick coursing on northeast and northwest chimneys above the stone water table consists of five courses to the tops of the stone corbels (ledges), twelve straight courses, and a five-course corbeled cap.

The ferns adjacent to the north wall are 3' to 3' 6" high.



HP27. West End of the North Elevation of Lindenwald, 1936. This photograph was taken by Melvin Weig on August 3, 1936. The following details should be noted:

There is a white-painted screen door at door 109.

There is a rainwater diverter at the end of the cornice capping board.

The belvedere windows are missing lights.

The lower section of the downspout is stock corrugated sheet metal (replacement).



HP28. Lindenwald, West Elevation, 1936. This photograph was taken by Melvin Weig on August 3, 1936. The following details should be noted:

An early 20th century porch is attached to rooms II2 and II4.

spigot drain pipe at the base of the south downspout (compare There are stock corrugated sheet-metal downspouts with bell and full-length north downspout with HPI2). The bulkhead has no cover except for the overhang of the porch roof.

The paint is very weathered, and the paint scheme corresponds with other photographs of this date.

There are modillions on the skylight cornice.

There are steps at door 112.



Melvin Weig on August 3, 1936. The following details should be noted: HP29. Lindenwald from the Southwest, 1936. This view was taken by

outbuilding in deep shade at left side of photograph

chimneys, gutters, and roof surfaces

paint scheme and condition

farming equipment at right side of photograph

clothes-drying rack



HP30. East Wall of Room 106, 1936. This photograph was taken by Melvin Weig on August 3, 1936. The following details should be noted:

Brussels carpeting

pier mirror

walipaper

draperies

woodwork

astragal on wall above ogee arch

furniture

condition of plaster ceiling



HP31. Fireplace and Part of the South Wall of Room 106, 1936. This photograph was taken by Melvin Weig on August 3, 1936. The following details should be noted:

Brussels carpeting

marble hearth and mantel

woodwork

wallpaper

draperies

furniture



This HP32. Fireplace and Part of South Wall of Room 209, 1936. photograph was taken on August 3, 1936, by Melvin Weig. following details should be noted:

The wallpaper is probably not historic.

The fireboard has a stag hunt scene with a foliate border.

The floor covering seems to consist of oriental rugs.



HP33. Lindenwald, 1937. This and the three following photographs were taken by Historic American Buildings Survey photographer Nelson E. Baldwin in January 1937. The following details should be noted:

electrical wire (separated from insulator on tree trunk)

trellis (compare HP8)

8' hydrangeas

Weig's Melvin to condition (comparable and paint scheme photographs)

slate roof and sheet-metal ridge roll

loose bricks over window 127

half screens on windows 124, 215, 216, and 217

lack of shutters on Venetian window

twelve brick courses above the stone water table on the south chimney and a five-course corbeled cap


This photograph was taken should be by Nelson Baldwin in January 1937. The following details East Elevation, 1937. HP34. Lindenwald, noted: There are a slate roof and sheet-metal ridge rolls, new flashing on gable capping boards, and a rainwater diverter on the north capping board.

Half-round sheet-metal gutters have been added to the dormers.

There are half screens on windows 105, 201, 203, 205, 206, and 207. The northeast chimney brick coursing above the stone water table then consists of five courses to the tops of the corbels (ledges), thirteen courses and a corbeled cap of five courses. The main cornice crown molding is deteriorating at the joints.

There are rustic chairs on the front porch.

The porch roofing is wedged up on both sides at the junction of A jerry-built "drip-catcher" the front gable, with level eaves. redirects errant rainwater.

There is a plumbing vent stack near the ridge at the north end of the east slope.



HP35. Front Door of Lindenwald (Door 101), 1937. This photograph was taken by Nelson Baldwin in January 1937. The following details should be noted:

The front door is painted an even darker tone. The porch rafters and ceiling (sheathing boards) appear to match the brickwork. The sash are painted a lighter tone than the brickwork. Door and window trim and the porch elements are painted a darker tone.

Light is passing through the joint between the porch roof and brick wall.

There are rustic chairs on the porch.

There is a door knocker.

There are stuccoed areas over windows 103 and 104.

Vines are growing on the south side of the porch.



North Elevation of Lindenwald, 1937. This photograph was taken by Nelson Baldwin in January 1937. The following details should be noted: HP36.

The paint scheme is the same as in HP33.

Half screens are present at windows 109, 113, 208, and 209. There is a screen door at door 109.

brownstone corbels (ledges), then thirteen courses and a five-course corbeled cap. Brick coursing on the northwest chimney appears to consist of five courses from the top of the Brick coursing on the northeast chimney appears to consist of five courses from the top of the bluestone water table to the top of the bluestone water table to the top of the brownstone corbels a five-course corbeled cap. (ledges), then twelve courses and

There are modillions on the skylight cornice.

Remnants of ferns are present at the east end of the north foundation wall.

There is a cover over window 007.



after HP37 by the new paint on window and door frames and by the date this the photograph after 1936. The size of the bush in the middle of the The advancing deterioration of several wooden elements confirms that this provides further evidence of this sequence. HP41 is conclusively dated repainting to 1946 (W.N. Jackson, "Oral History Report," September 5, 1979). Thus, a date of ca. 1942-1946 is assigned. The evidence for north wall suggests that the photograph was made at least 3 to 5 years (therefore suggesting a date of ca. 1942). The hydrangea photograph postdates HP36 and predates HP41. The wire (probably a radio antenna) stretched between the south chimney and the north chimney in this photograph and in HP41, but not in HP34 or HP36, This is no documented date for the photograph so we must assign an approximate date based on comparisons with other photographs. The presence of an electrical supply wire, faintly visible at the left side, definitively dates must have been pruned after 1937 and before this photograph. North and East Facades of Lindenwald, ca. 1942-1946. There DeProsse family recollections photograph is from the Rowles Studio Collection. the latter date is discussed in conjunction with HP41. absence of dormer scrolls. after HP36 HP37.

The following details should also be noted:

The chimney brick coursing matches that described in HP36.

There is a splashblock at the northeast corner.



these photographs taken with flash. The DeProsse family association means 1957. The identical positions of the black object (statuette) and chairs in HP39 and HP40 suggest that they were taken during the same session The presence of an electrical convenience outlet in HP40 and an electric lamp in HP39 positively dates the photographs after the installation of This photograph and the two that follow may have been taken at the same time. All three were donated to the National Park Service by the DeProsse family. All are color these photographs predate the sale of Lindenwald to Ken Campbell in and, by extension, suggests that HP38 was also taken at the same time. DeProsse family recollections date The following details should be noted: Ruom 104, ca. 1936-1957. photographs to the 1930s. electricity, ca. 1936. HP38.

wallpaper

woodwork

marble mantel and hearth

fireboard

carpeting (Red-orange color is reported by DeProsse family to be incorrect rendition -- true color is green.)



HP39. Room 106, ca. 1936-1957. This photograph is associated with HP38 and HP40 and assigned a date of ca. 1936-1957 on the basis of circumstantial evidence presented with HP38. The following details should be noted:

pier mirror

woodwork

draperies

wallpaper

carpeting

furniture

electric lamp



HP40. Room 106, ca. 1936-1957. This photograph is associated with HP38 and HP39 and assigned a date of ca. 1936-1957 on the basis of circumstantial evidence presented with HP38. The following details should be noted:

wallpaper

carpeting

woodwork

astragal molding on wall above ogee arch

electrical convenience outlet adjacent to card table



The The ca. 1946 and ca. 1950 on the basis of two DeProsse family recollections (W.N. Jackson, "Oral History Report," September 5, 1979). The painting of windows and doors is reported to have been done in 1946. The front porch is reported to have been removed in 1950. The This color photograph of the south and east facades of Lindenwald was donated to the National Park Service by the DeProsse family. It has been assigned a date between HP41. Lindenwald, ca. 1946-1950. following details should be noted:

repairs to tower roof

tumbledown cap of south chimney

sheet-metal coping on roof between south chimney and dormer

excavation to south of house

half screens on windows 106, 203, 205, 206, 215, 216, and 217; screen on ground below window 128

missing scrolls on north dormer

condition of porch roof

vines at southeast corner

north hydrangea (6' to 7' tall)

radio antenna stretched between south chimney and northeast chimney

trellis (matches one in HP8)



## APPENDIX B: INSPECTION PHOTOGRAPHS



IP001, N002-04. Ca. 1797 foundation below door 101.



IP002, N012-14. Closure pattern at east corner of north wall.



IP003, N039-01. Main roof, northwest corner looking northwest. Note hatch infill in foreground.



IP004, N039-07. Main roof, northwest corner looking northeast. Note shingle shims.



IP005, N002-11. Kingposts above ca. 1849 ceiling. Note plaster on end wall.



IP006 (microfilm card). Elevation of typical truss-like configuration of ca. 1797 roof rafters.



IP007, N039-14. Gable sheathing.



IP008, N-44026. Dormer windows for C.H. Russell's House, Newport, Rhode Island. Richard Upjohn and Co., Architects.



IP009, N004-19. Exterior view of door 010, probable entrance to cold storage area.



IP010, N019-14. Window well 012-13.



IP011, N016-12. Room 015. Note bricked-in coal chute opening.



IP012, N012-08. Window 127, typical ca. 1797 window with ca. 1840 sash and shutter blinds.



IP013, N013-05. Window 204, ca. 1797 "Gothick" sash above ca. 1840 six-light sash.



IP014, N012-05. Window 124, typical ca. 1850 sash.



IP015, N052-02. Front door knocker.



IP016. Gutter liner, rake capping board, and downspout at northwest corner, main roof.



IP017, N014-17. Monitor skylight.



IP018, N008-37. Unidentified feature in floor of room 002.



IP019, N011-14. Room 003A, west wall, south end, window 026.



IP020, N010-19. Room 004, window 002 with iron bars.



IP021, N007-30. Room 004, northeast corner. Note barrels on rack and porch pieces on floor.



IP022, N009-12. Room 007, fireplace.



IP023, N \_\_\_\_. "W. & B. Douglas" force pump mounted on grained plank.



IP024, N016-08. Room 013 looking west to door 010.



IP025, N040-12. Door 105, closet.



IP026, N022-29. Room 104, south wall and door 102. Note register opening in southwest corner.


IP027, N017-32. Former basement stair opening in floor of room 105.



IP028, N022-18. Room 105, door 102.



IP029, N022-12. Door 130 ca. 1849 alteration to room 105. Note patch in west wall about 8" above bracket.



IP030, N023-24. Room 106, east wall. Note historic wallpaper revealed by removal of mirror between windows 101 and 102.



IP031, N023-37. Room 106, west wall, door 133 and ogee arch.



IP032, N044-19. "Bookcase for Mrs. Packer's Library June 12th, 1853. Richard Upjohn Arch't, Trinity Building, N.Y."



IP033, N044-24. "Design for Bookcase for Mr. C.H. Russell, Newport, R.I., Richard Upjohn & Co., Architects, N.Y. October 21, 1853."



IP034, N023-29. Room 111, south wall, windows 122 and 123. Note arched window heads.



IP035, N025-35. Room 113, north wall. Note board partition and door 121.



IP036, N025-33. Room 113, southwest corner.



IP037, N021-01. Room 114, southeast corner, fireplace. Note mantel and oculus window (W131).



IP038, N018-21. Room 115, water closet.



IP039, N021-14. Room 119, looking north to door 109.



IP040, N021-15. Room 119, looking south to door 118, door 115 to the right and door 108 to the left. Note skylight opening above.



IP041, N023-02. Room 121. Note similarity to water closet (IP034).



IP042, N030-37. Room 201 west wall. Note shelves in former window opening.



IP043, N030-31. Room 205, south and west walls. Note outline of former door opening (door 219) on south wall and ventilation opening above.



IP044, N030-23. Room 208, northwest corner. Note faint outline of former door opening (door 219) on north wall below ventilation opening and patch of chair rail across door opening.



IP045, N029-36. Room 206, west and north walls. Note window 213 and balustrade.



IP046, N030-03. Room 206, looking east into rooms 207 and 208 through doors 218 and 202. Note vertical line at former location of south wall near right edge.



IP047, N030-15. Room 209, south and west walls. Note door 216 and its former location.



IP048, N030-28. Room 208, east wall, windows 205, 204, and 203 (from left to right).



IP049, N030-29. Room 208, west wall, door 202.



IP050, N030-17. Room 209 north and east walls, door 201 and window 202.



1P051, N029-34. Rooms 206 and 110, looking west down stair.



IP052, N030-11. Room 210 north and east walls, doors 215 and 216.



IP053, N030-10. Room 210, east and south walls, door 216, and windows 215 and 216.



IP054, N031-12. Room 211, looking south.



IP055, N031-17. Room 212, detail of tower stairs.



IP056, N031-24. Room 213, looking southeast, with monitor skylight framing on left, brick tower on right, and east roof truss across view.



IP057, N031-26. Room 213, over room 112. Note brick chimney and window 214.



IP058, N031-27. Brownstone splashblock reused in tower masonry at floor level of room 213.



IP059, N006-32. Room 301, looking north to plastered gable end, with knee braces to the left. Note T-head wrought nails in nearest knee brace.



IP060, N008-08. Room 302, looking north past door 305 on the right and 306 on the left to window 305. The faint outline of the former stair opening can be seen near door 305. Note also the floor register and the hatch opening to the ridge space.



IP061, N008-11. Room 303, looking north. Curve at left was made to provide light from window 305 to room 302. Faint outline of former window 304 can be seen on north wall.



IP062, N008-15. Room 303 eastward dormer extension and window 303.



IP063, N008-17. Room 304, looking east into gable extension and window 302.



IP064, N032-6.	
looking south	
past d	oor 309
to window 315.	

Room 307,

IP065, N032-09. Room 307, looking east up stairs to door 307.



IP066, N006-08. Room 311, looking northwest. Note reused lengths of fluted moldings and discarded remnant of grass matting (now in park collection).



IP007, N032-02. Belvedere (room 501), deck.



IP068, N032-02. Room 501, balusters in belvedere railing.



IP069, N002-07. Rafter ends room 301.



IP070, N031-22. Chimney and lower stud wall. Upjohn attic (room 213).



IP071, N031-08. Room 201/203 floor framing and notched joists.



IP072, N028-35. Window 011. Note water penetration and dislodged masonry at lower left corner.



IP073, N041-12. Typical condition of cantilever joist wedged into masonry pocket.



IP074, N041-05. Tower stair construction at a landing, looking up and slightly south. Note that joist running across photograph is continuous between two brick walls of tower. Stub joist to support stair stringer is vertical member mortised through main joist and pulled tight by wedge.



IP075, N041-06. Same area as IP069 (above), looking northwest and slightly up. Note stair stringers at top of picture. Horizontal joist is cantilevered from east wall. Tenon of previously mentioned stub joist appears at west end of cantilever above stair stringer.



IP076, N015-16. Exterior cover for fresh-air intake duct.



IP077, N015-17. Exterior cover in open position.



IP078, N023-19. Fireplace, room 109, with part of fresh-air heating apparatus in place.



IP079, N023-21. Detail of IP073 (above) showing horizontal heat distribution duct and inlet from heating chamber.



IP080, N018-06. East wall of furnace enclosure.



IP081, N010-05. North wall of furnace enclosure. Note inscription on door.



IP082, N010-07. Boynton's patent cast-iron furnace.



IP083, N010-04. Cast-iron fuel door with patent data.



IP084, N010-10. Cast-iron ash cleanout door.



IP085, N022-22. Culver's patent register and marble frame, room 105, north wall.



IP086, N031-11. Circular "sunflower" type register and frame, room 205.



IP087, N017-22. Cook stove, room 006, north wall.



IP088, N017-23. Manufacturers label on hood over cook stove.



IP089, N017-26. Cooking surface.



IP090, N017-28. Ovens.



IP091, N038-01. Probable water supply to force pump, room 006, southwest corner at floor level.



IP092, N001-08. Laundry room, room 007, sink.



IP093, N001-09. Hand pump for laundry sink, room 007. Note hole in wall for drain.



IP094, N018-17. Water tank, room 115, filler and overflow pipes.


IP095, N018-18. Water tank, room 115, stopper lever and vacuum breaker pipe.



IP096, N018-16. Water tank, room 115, stopper lever.



IP097, N018-20. Room 115 water closet and enclosure.



IP098, N036-03. Water closet with top removed.



IP099, N007-26. Historic bathtub and case. Note dovetailed joints.



IP100, N009-18. Room 009, brick platform at southeast corner and stovepipe hole above.



IP101, N009-20. Room 009, northeast corner. Note remains of wooden pipe chase.



IP102, N031-36. Copper point attached to spiral fluted iron lightning rod.



IP103, N050-12. Detail of iron lightning rod.



1P104, N034-9. Detail of more recent sheet copper spiral fluted rod with brass connectors marked "RHCO."



IP105, N037-24. Plate-type stock lock on door 301.



IP106, N036-19. Lock X02.



IP107, N038-05. Lock 210.



IP108, N038-06. Lock 210.



IP109, N037-07. Lock 217.



IP110, N037-10. Lock 217.



IP111, N038-08. Lock 217.



IP112, N038-11. Lock 217.



IP113, N026-37. Lock 131.



IP114, N037-04. Lock 206.



IP115, N037-18. Lock 216.



IP116, N036-17. Lock 105.



IP117, N027-31. Lock 121.



IP118, N037-12. Lock 202.



IP119, N037-16. Lock 202.



IP120, N017-18. Lock 101.



IP121, N017-19. Escutcheon for lock 101.



IP122, N037-32. Lock 136.



IP123, N037-33. Lock 136, with tumbler removed.



IP124, N016-18. Lock 133.



IP125, N016-21. Lock 133, with cover removed.



IP126, N026-34. Lock 113.



IP127, N027-25. Wrought-iron strap hinge typical for ca. 1797 basement board-and-batten doors.



IP128, N036-36. Wrought-iron H hinge for ca. 1797 interior shutters.



IP129, N030-06. Door 210, typical mounting of HL hinges on ca. 1797 door.



IP130, N037-28. 4" by 4" five-knuckle, eight-hole cast-iron butt hinge.



IP131, N037-27. 5" by 3" five-knuckle, ten-hole cast-iron butt hinge.



P132, N036-28. Ca. 1840 sash lock.



IP133, N036-40. Ca. 1840 sash lock.



IP134, N036-27. Ca. 1850 sash lock.



IP135, N036-26. Ca. 1850 sash lock.



IP136, N033-16. Wrought-iron hinge for exterior shutter blind.



IP137, N034-04. Wrought-iron pintle for exterior shutter blinds.



IP138, N033-17. Fastener for exterior shutter blinds.



IP139, N033-19. Post for above fastener.



IP140, N033-18. Spring-type shutter holdback.



(P14), N034-03. Propeller-type shutter holdback.



IP142, N036-31. Ring pull for ca. 1797 interior shutters.



IP143, N036-34. Bar hardware for ca. 1797 interior shutters.



IP144 N036-32. Detail of catch for shutter bar.

## APPENDIX C: UPJOHN SPECIFICATION

RICHARD UPJOHN AND RICHARD M. UPJOHN PAPERS, BOX 18, CONTRACTS, NEW YORK PUBLIC LIBRARY

Specifications of Carpenters work to be executed in the addition proposed to be built to Ex President Van Buren's house Kinderhook

The floor timbers to be as follows for the wash room Kitchen lower passages and all other places that is not floored with brick paving to have sleepers of locust cedar or Chesnut wood hewn on the upper side Straight and sufficiently smooth to lay a floor well upon them - placed 20 inches from centres - to average 5 inches diameter.

Floor timbers of the first floor to be 2 in thick 12 inches from centres & 12 in deep - or 3 in thick 14 in from centres and 12 in deep. hewing have bridging well nailed and fitted to be fixed to all the naked floors - This floor to be deafened [dentened] perfectly.

Floor over the new Library whole of the new bur The floor of the wine stores to be of joists of the above sizes placed 4 inches farther apart, all hung to the rafters each joist to each rafter and well nailed

All necessary cutting away fixing for stairways passages  $\hat{\alpha}$  from the new part of the old building to be done all the trimmers repaired or any other timber work in the old building in each and every room thereof

The floors to be good  $1 \frac{1}{4}$  in pine matched well and double nailed no two heading joists to be together. The floors to be well cleaned up and laid close to the brick work

Grounds for plastering fixed throughout. And strips nailed to receive the base and the plastering to the floor

Rafters to be 4x5 a purline 6x8 and studs and braces over the partition to support the flat or roof also to support the purline on the slope of the same.

The finish of the different rooms door ways windows stairs Chinney pieces &c to [ ] made according to the several plans and designs therefor of the best materials and workmanship.

The roof to be covered with  $1 \frac{1}{4}$  in matched plk well laid and the outer covering to be 1X leaded tin and the slope of the roof to be ribbed with  $1 \frac{1}{4} \times 1 \frac{3}{4}$  pine ribs rounded thus  $12 \frac{2 \cdot 0}{2}$  and placed 2.0 ft from centres. The gutters to be lined with tin the whole to be made tight and well painted 3 coats of such color as shall be directed by the architect. -

If there are any doors architraves in the wings of the at present building that the owner thinks may be used they may be placed in the basement.

Leaders from the different roofs to be placed where necessary to carry off the water. A cistern to be made and fixed in a suitable place for water.

## APPENDIX D: UPJOHN PLANBOOK EXCERPTS

Excerpts from Manuscript, Richard Upjohn Plan Book, Avery Library, Columbia University:

May 1849

• •	•	• •	
May 30	ŞT	Van Buren [p. 68]	Taken by Barney Maguire [sic] Ground Plan 2 <sup></sup> and attic stories also basement N E S & West Elevations I/8 Section through ash pit Ground and basement plans stairway from tower to attic plans and sections Section of flues to I/2 in Skylight, Dormer Windows, plan, elevation and section 2 <sup></sup> story bay window, plan Inside and outside elevation 2 sections Double window of bed room, Plan inside, and outside, elevations and sections, Small windows in tower, Plan inside and outside elevations, and sections, Bay window in Library inside and outside elevations, section, and return of cornice, Single windows of Library etc inside and outside elevation Plan, and section, Window E & W Gables outside elevations of all chimnies [sic], Back porch, plan, elevation and section, Inside door Elevation, and section, Inside door Elevation, and section, and section, all to size of new building, Cornices of hall, nursery bed room and bath room Details of dormer window " " 2 <sup></sup> story bay window " " skylight window,
		[p. 69]	jamb, sill, base and architrave of rooms Window cap and bracket Details of back porch and north door all full size

	•	
July 25 S T Van Buren [p. 73]		Plan hall stairway I/2 in scale and Bracket to support architrave full size
• • • • •	٠	
Sept 3 <sup>rd</sup> Smith T Van Buren [p. 76]		Plan of Mr Van Burens house viz Library door jamb of tower doors to I in scale and full size
	٠	
October 19 Smith T Van Buren [p. 78]		Plan of door to I in scale and full size
	•	
November 13 T B Van Slyck [p. 80]		A newell for Tower als <b>o</b> baluster full bracket full size
	٠	
January 1850 7 Martin Van Buren [p. 83]		Plan for Bath Case to I in scale and Detail full size
	•	
July		Plans of front ponch
Albany [p. 96]		1/2 in scale 2 elevations, 2 plan 3 sections, & all the details full size
Insert in above:		
August [1849] 10 Barney McGuire [p. 74]		4 Elevations of Martin Van Buren's house sent by the barge Wyoming

## APPENDIX E: SITE PLAN








BRAVE FROM ACTULL MEASUREMENTS AT DELETING BY VICTUR & TR PATTS F. APT T SHE AND A TO Lingunyang Bo 1938.

## APPENDIX G: EVOLUTION SKETCHES





0 GPO 1077 781 788













# GPO 1827 181 788







\* 670 / 1977 777-346





6 GPO: 1077 777-340











# GPO: 1977 777-349































CR0 1010 101 101 100



e GPO 1977 78 788










e GPO 1977 751 784





LEGEND

BELL WIKE PIVOT 8

BELL ON HANGER









NOTE: WHEN READING DRAWINGS, REFER TO'LEGEND'AND DESCRIPTIVE DATA" BELOW:

## BASEMENT PLAN

- () PRAIN IN SOUTH WALL
- (2) SUPPLY FIPE RECEIVING CONNECTION OF LARGE FORCE PUMP IN ROOM 007
- 3 SUPPLY AND DRAIN PIPES FOR LAUNDRY ROOM SINK
- OPENING, AT CEILING HEIGHT, BETWEEN ROOMS OOG AND OOB THROUGH WHICH PIPES MAY HAVE PASSED.
- (3) WEST WALL ROOM 008. HORIZONTAL BOARD, AT CEILING HEIGHT, PROB-ADLY REMNANTS OF PIPE CASING. IN WALL BETWEEN 008 AND 010 ARE THREE (3) PIPES THAT HAVE BEEN OUT OFF. THESE PIPES RUN UP TO THE WATER TANK IN ROOM 115
- (6) THREE (3) INCH CIRCULAR HOLE INTO WHICH SOILPIPE FROM W.C. DRAINED
- (7) THREE (3) INCH LEAP PIPE FROM W.C. SOILPIPE TO CESSPOOL
- (B) LEAD STRAP, WOODEN SUPPORTS, VERTICAL BOARD IN U.E. CORNER SUG-GEST THAT THE DRAIN PIPE FROM THE BATHTUB RAN ALONG THE NORTH WALL OF ROOM 009, AT CEILING HEIGHT, DOWN THE NE CORNER OFTHIS ROOM AND INTO THE CESSPOOL.
- (9) BRICK OVERFLOW DRAIN FROM CESSPOOL
- 10 WROUGHT IRON PIPE HANGERS
- (1) UNIPENTIFIED PRAIN LEADING TO CESSPOOL

### FIRST FLOOR PLAN

(12) THREE (3) PIPES FROM BASEMENT THAT RUN INTO WATER TANK

(3) SUPPLY PIPE FROM WATER TANK TO SINK (PIPE STILL IN PLACE)

(1) SUPPLY PIPE FROM WATER TANK TO BATHTUB. THIS PIPE RUNS OUT OF THE LONER WEST SIDE OF THE WATER TANK. IT HAS BEEN CUT OFF PIPE CLIPS AT HOLE IN THE WALL BETWEEN ROOMS 114 AND 116, AND A PAINT ANALYSIS INDICATES THE ROUTE OF THE PIPE.













TOWER ROOF



는 GPO 1977 777-349





## TOWER ROOF PLAN SCALE 1/4" + 1'-0"

ROOF HATCH		
 	·	



PREPARED	DRAWING NO.		
SES	460		
DESIGNED	28	A000	
DRAWN	PCIP PKG	SHEET	
MMH		91	
CHECKED			
DATE		OF 25	
	+ GPO	1977 777-548	







# LEVATION





			DENVER SERVICE CENTER NATH ATLANTIC TEAM BRANCH OI HIGTORIC REGERVATION
ARCH BEAM CALENT MO. ID			VAN BUREN NATIONAL HISTORIC SITE PORCH HISTORIC ELEMENTS
			MARTIN UPJOHN
TYP. PRONT ARCH BEAM PROFILE FULL DIZE Decale; 11/2"=11-0" 1 2	4FTr	PREPARED SES DESIGNED SES DRAWN CHECKED BATE	DRAWING NO. 460 28,000A PCIP PKG 102 0F //2 0F //2



		CENER BRNCE CENTER NETH ATANTC TEAN NEANCH I HIGTAR	
		HISTORIC SITE	
uppour of the second seco		VAN BUREN NATIONAL PORCH ELEVATIONS	
		MARTIN UPJOHN	
	PREPARED S.E.S DESIGNED SES DRAWN ,/ ,/ CHECKED IO/15/80 DATE	DRAWING NO. 460 28,000A PCIP PKG 102 0F 212 0F 212	

DF 2.5





+ GPO: 1977 777-349



## APPENDIX H: PROPOSED WORK



	SHEET NUMBER 1 2 3 4 5 6 7 7	DEX TO DRAWING SHEET TITLE CARE SHEET; MARD, LEGENTO, INDEX 70 DRAWIN PLAND ELEVATIOND REVITION REVI	DEMER CERVICE CENTER NETH ATLANTIC TEAN REASON - HISTORIC RESERVATION
		ment Akchi Denny Jeja b	L HISTORIC SITE
VALD			IN NATIONA
PORCHATION	ABBREVIATIONS	A B     ANCHOR BOLT     JT     JOINT       APPROX     APPROXIMATE     MAX     MAXIMUM       BD     BOARD     MET     METAL       BLDG     BUILDING     MIN     MINIMUM       BL     BLOCK     MO     MASONRY OPENING       CMU     CONCRETE     MASONRY OPENING     NOT IN CONTRACT       UNIT     NO     NUMBER       COL     COLUMN     NOM     NOMINAL       CON     CONSTRUCTION     OC     ON CENTER       CONT     CONSTRUCTION     OC     ON CENTER       CONT     CONTINUOUS     OPP     OPPOSITE       CSK     COUNTERSINK     ORIG     ORIGINAL       DIA     DIAMETER     RM     ROOM       DWG     DRAWING     SECT     SECTION       EXIST     EXISTING     STL     STEEL       EXP     EXPANSION     T&B     TOP AND BOTTOM       EXT EXTERIOR     T &B     TONGUE AND GR       FH     FLAT     HEAD     TYP       FIN FINISH     WD     WOOD       FL/FLR     FLOOR     WI     WROUGHT IRON       FS     FULL     SIZE     GA       GALVANIZE     HISTORC     HORIZ       HORIZ     HORIX	MARTIN VAN BURF UPJOHN PORCH C
CONSTRUCTION DRAWINGS UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE DENVER SERVICE CENTER	PRE PA	RED TITLE OF DRAWING S. UPJOHN PORCH RESTORATION NED LOCATION WITHIN PARK S. MARTIN VAN BUREN N.H.S. NAME OF PARK MARTIN VAN BUREN N.H.S. ED MORTH ATLANTIC COLUMBIA NEW YORK E REGION COUNTY STATE	DRAWING NO 460 25,001 PKG NO SHEET 102 0F 10

0 BPB - 10 10,



AND	IN	DF	X TO DRAWINGS	¥
	SHEET	SHEE		- LAND
	1	COV PL	ER SHEET; MAPS, LEGENCE, INDEX 7 PRAVINGS	N N N N N N N N N N N N N N N N N N N
	3	E.E SE	svatiand Tions	AF
and the second second	5	Fa Fla	INDATON PLANE DETAILS DR FRAMING PLANE DETAILS	NA HINA
	7	80 92	PF FRAMING PLAN & DETALD HEQULE & PORCH ELEMENTS & PROFILES	<u>R 588</u>
And	9	FRO	AT ARCH BRAM DETALD	
بع عد المقل المعالية بالمعاد المعاد				
				E
				I
				CI
				RO
				L
				SI
	ļ			HE _
				ゴ団
- State of the sta		-		<b>N</b> E
				<b>OH</b>
				E~
				NE
D				
LD				CE
RCH		AB	ANCHOR BOLT JT JOINT	R
		BD BLDG	DY APPROXIMATE MAX MAXIMUN BOARD NET METAL BUILDING MIN NINIMUN	BU
UN	Ň	BLK CMU	BLOCK MO MASONRY OPENING CONCRETE MASONRY NIC NOT IN CONTRACT UNIT NO NUMBER	
	I0	COL CONC CONN	COLUMN NON NONINAL CONCRETE NPS NATIONAL PARK CONNECTION SERVICE	A N OHO
	AT	CONST	CONSTRUCTION OC ON CENTER CONTINUOUS OPIG OPENING COURSE(S) OPP OPPOSITE	$\mathbf{P}_{\mathbf{V}}$
	L/	CSK DTL	COUNTERSINK ORIG ORIGINAL DETAIL REQ'O REQUIRED DIALETER PM ROOM	ZZ
		OWG	DRAWING SECT SECTION EACH SHT SHEET	II
	R	E Q EXIST EXP	EQUAL SIM SINILAR Existing Stl Steel Exposure Struct Structural	JO
	3B	EXP EXT FH	EXPANSION TAB TOP AND BOTTON Exterior tbg tongue and groove Flat head typ typical	J.P.
	AF	FIN FL/FL FS	FINISH WD WOOD R FLOOR WI WROUGHT IRON FULL SIZE	
		GA GALV HIST	GAUOE GALVANIZE HISTORIC	
		HORIZ	HORIZONTAL HIGH POINT	
CONSTRUCTION DRAWINGS	PREPA	REO s	UPJOHN PORCH RESTORATION	DRAWING NO
UNITED STATES OEPARTMENT OF THE INTERIOR	DESIG	NED S	LOCATION WITHIN PARK MARTIN VAN BUREN N.H.S.	25, ODI PKG SHEET
	CHECK	ED	MARTIN VAN BUREN N.H.S.	102
-	10/15/	E	NORTH ATLANTIC COLUNBIA NEW YORK	OF_10


























OF 10





Image: Second	Image: State of the second s	1     0     0     0     0       1     322 (ANT, ALLED-LANTHATED DEAN, ST, 9     1       1     322 (ANT, ALLED-LANTHATED DEAN, ST, 9       1     322 (ANT, ALLED-LANTHATED DEAN, ST, 17       2     32 (ANT, ALLED-LANTHATED DEAN, ST, 17       2     3       2     3       2     3       3     4       1     32       2     3       32     3       32     3       32     3       32     3       32     3       33     3       34     1       32     3       34     1       35     3 </th <th>Image: State of the state o</th> <th>Image: Second Second</th> <th>TOTAL</th> <th>NO. SALVAGE ABLE</th> <th>REMARKS</th> <th>NO, FABRICATED</th>	Image: State of the state o	Image: Second	TOTAL	NO. SALVAGE ABLE	REMARKS	NO, FABRICATED
1     ATE CANT, ALLED - LAMPANTED DEAN, SHT, 1       1     ATE CANT, ALLED - LAMPANTED DEAN, SHT, 1       1     ATE CANT, ALLED - LAMPANTED DEAN, SHT, 1       1     ATE CANT, ALLED - LAMPANTED DEAN, SHT, 1       1     ATE CANT, ALLED - LAMPANTED DEAN, SHT, 1       2 <t< td=""><td>1         1</td><td>1         320 GAT, ALLO, LAMPATED EXAMPLET           1         320 GAT, ALLO, LAMPATED EXAMPLET           2         3           2         3           2         3           3         320 GAT, ALLO, ALLO,</td><td>Image: Construction of the series o</td><td>1     32     32     31     32     32     31       1     32     32     31     32     31     31       1     32     32     31     32     31     31       1     32     32     31     32     31     31       1     32     32     31     32     31     31       2     32     32     31     32     31     31       2     3     32     32     31     31     31       2     3     32     32     31     31     31       2     3     32     32     31     31     31       2     3     32     32     31     31     31       2     3     32     32     31     31     31       2     3     32     32     31     31     31       2     3     32     32     31     31     31       2     3     32     32     31     31     31       2     3     32     32     31     31     31       2     3     32     31     31     31     31       2     3</td><td>*</td><td>-</td><td>APP CANT (42 PPD-1 AND APPT) PRAMA ANT A</td><td>ELEMENTS HEUT</td></t<>	1         1	1         320 GAT, ALLO, LAMPATED EXAMPLET           2         3           2         3           2         3           3         320 GAT, ALLO,	Image: Construction of the series o	1     32     32     31     32     32     31       1     32     32     31     32     31     31       1     32     32     31     32     31     31       1     32     32     31     32     31     31       1     32     32     31     32     31     31       2     32     32     31     32     31     31       2     3     32     32     31     31     31       2     3     32     32     31     31     31       2     3     32     32     31     31     31       2     3     32     32     31     31     31       2     3     32     32     31     31     31       2     3     32     32     31     31     31       2     3     32     32     31     31     31       2     3     32     32     31     31     31       2     3     32     32     31     31     31       2     3     32     31     31     31     31       2     3	*	-	APP CANT (42 PPD-1 AND APPT) PRAMA ANT A	ELEMENTS HEUT
1     2     2     2       1     3     2     2     3       1     3     3     3     3       1     3     3     3     3       1     3     3     3     3       1     3     3     3     3       1     3     3     3     3       2     3     3     3     3       2     3     3     3     3       2     3     3     3     3       2     3     3     3     3       2     3     3     3     3       2     3     3     3     3       2     3     3     3     3       2     3     3     3     3       2     3     3     3     3       2     3     3     3     3       2     3     3     3     3       2     3     3     3     3       2     3     3     3     3       2     3     3     3     3       2     3     3     3     3       3     3     3     3     3 <td>1    </td> <td>1     2     2     2     1       1    </td> <td>1     20     20     20       1    </td> <td>1     20     20       1     20     20       1     20     20       2     1     10       2     10     10       2     10     10       2     10     10       2     10     10       2     10     10       3</td> <td></td> <td></td> <td></td> <td></td>	1	1     2     2     2     1       1	1     20     20     20       1	1     20     20       1     20     20       1     20     20       2     1     10       2     10     10       2     10     10       2     10     10       2     10     10       2     10     10       3				
1	1     PEC CAPT, GULED - LANAMED BENG ST. []       1     PEC CAPT, GULED - LANAMED BENG ST. []       1     PEC CAPT, GULED - LANAMED BENG ST. []       2     I       3     I       2     I       2     I       3     I       2     I       3     I       2     I       3     I       4     I       1     I	1     HARE     THE CAPIC CLAMPARTED DEAN 3-1[-1]       1     HARE     THE CAPIC CLED - LAMPARTED DEAN 3-1[-1]       1     HARE     THE CAPIC CLED - LAMPARTED DEAN 3-1[-1]       2     HARE     THE CAPIC CLED - LAMPARTED DEAN 3-1[-1]       2     HARE     THE CAPIC CLED - LAMPARTED DEAN 3-1[-1]       2     HARE     THE CAPIC CLED - LAMPARTED DEAN 3-1[-1]       2     HARE     THE CAPIC CLED - LAMPARTED DEAN 3-1[-1]       2     HARE     THE CAPIC CLED - LAMPARTED DEAN 3-1[-1]       2     1     HARE       2     0     HARE       3     0     HARE       4     1       1     HARE       2     0       2     0       2     1       3     0       3     0	1     HARC     THE CARL CLUED - LAMPARTED BEARD STIT       1     HARC     THE CARL CLUED - LAMPARTED BEARD STIT       1     HARC     THE CARL CLUED - LAMPARTED BEARD STIT       2     H     HARC       2     H     H       2     H     H       3     H       4     H       5     H       4     H <td>1    </td> <td></td> <td></td> <td>see carry, awar - Langer and - 54, 9</td> <td></td>	1			see carry, awar - Langer and - 54, 9	
1	1     MARE     The CAPI, GULED - LAMINATED GEAM, SHIT       1     MC CAPI, GULED - LAMINATED GEAM, SHIT       2     MC RABARADO, SEE SHIT       2     I       3     I       2     I       3     I       4     I       5     I       2     I       3     I       4     I       5     I       1     I <td>1     MARE     TEE CAPI, GUED - LAMINATED CEAM, STIT       1     XE GAT, GUED - LAMINATED CEAM, STIT       2     I       3     I       4     I       1     I       2     I       3</td> <td>1     MARE     Ref Carl, Subb - Languarto Barg, Str.[]       1     Ref Refuerce - Languarto Barg, Str.[]       2        3        4        1     <td< td=""><td>1     MARE     Ref Carl, Guiler - Langharter Bard, Str. []       1     Ref Ref Suiter - Langharter Bard, Str. []       2        3        2        3        3</td><td>1</td><td></td><td>SEE CONT. GLUED- LAMPINED DOM SITT</td><td>++</td></td<></td>	1     MARE     TEE CAPI, GUED - LAMINATED CEAM, STIT       1     XE GAT, GUED - LAMINATED CEAM, STIT       2     I       3     I       4     I       1     I       2     I       3	1     MARE     Ref Carl, Subb - Languarto Barg, Str.[]       1     Ref Refuerce - Languarto Barg, Str.[]       2        3        4        1 <td< td=""><td>1     MARE     Ref Carl, Guiler - Langharter Bard, Str. []       1     Ref Ref Suiter - Langharter Bard, Str. []       2        3        2        3        3</td><td>1</td><td></td><td>SEE CONT. GLUED- LAMPINED DOM SITT</td><td>++</td></td<>	1     MARE     Ref Carl, Guiler - Langharter Bard, Str. []       1     Ref Ref Suiter - Langharter Bard, Str. []       2        3        2        3        3	1		SEE CONT. GLUED- LAMPINED DOM SITT	++
1 72 247 247 247 247 247 247 247 247 247	1     72 CANE CANE CUED-LANIMATED BEND, ST. 1       2     NMT REDURED, SEE ST. 1       2     1       2     2       2     1       2     0       2     0       2     1       2     0       2     0       2     1       2     0       2     1       2     0       2     1       2     0       2     1       2     0       2     1       3     1       4     1       5     1       6     1       7     1 <tr< td=""><td>1     722     247[     2487[     347[     347[       2     NoT     RESOLARD)     322     37[.9]     322       2     1     22     322     37[.9]       2     1     22     322     37[.9]       2     1     322     37[.9]       2     1     322     37[.9]       2     1     322     347[.9]       2     1     322     34       2     0     34     34       2     0     34     34       2     0     34     34       2     0     34     34       2     0     34     34       2     0     34     34       2     0     34     34       2     0     34     34       2     0     34     34       2     0     34     34       3     0     325     34       3     0     34     34</td><td>1 72 CAT CLUEP LATINGTED CAP. 31.1 2 Not REPORTED 22 37.9 2 2 2 1 2 1 2 1 2 1 2 1 2 1 2 1</td><td>1     700     2047     <td< td=""><td>1</td><td>-NANE</td><td>SEE CONT. GLIED - LAMINATED DEAM , ST. 9</td><td>1</td></td<></td></tr<>	1     722     247[     2487[     347[     347[       2     NoT     RESOLARD)     322     37[.9]     322       2     1     22     322     37[.9]       2     1     22     322     37[.9]       2     1     322     37[.9]       2     1     322     37[.9]       2     1     322     347[.9]       2     1     322     34       2     0     34     34       2     0     34     34       2     0     34     34       2     0     34     34       2     0     34     34       2     0     34     34       2     0     34     34       2     0     34     34       2     0     34     34       2     0     34     34       3     0     325     34       3     0     34     34	1 72 CAT CLUEP LATINGTED CAP. 31.1 2 Not REPORTED 22 37.9 2 2 2 1 2 1 2 1 2 1 2 1 2 1 2 1	1     700     2047 <td< td=""><td>1</td><td>-NANE</td><td>SEE CONT. GLIED - LAMINATED DEAM , ST. 9</td><td>1</td></td<>	1	-NANE	SEE CONT. GLIED - LAMINATED DEAM , ST. 9	1
2     INCT REPURCED SEE STIP       2     2       2     2       2     1       2     1       2     0 <td>2     Image: Set of the set o</td> <td>2  </td> <td>2   APT REALEROD SEE SHT 9 2 2 2 2 2 1 2 1 2 1 2 1 2 0 2 0 2 0 2 0 2 0 2 0 2 0 2 1 2 0 2 1 2 0 2 0 2 1 2 0 2 2 2 1 2 0 2 0 2 0 2 0 2 0 2 0 2 0 2 0</td> <td>2     Implementation     Mathematical sets styles       2     2       2     1       2     1       2     0       3     0       2     0       3     0       <t< td=""><td>1</td><td></td><td>SE CANT GLUED-LAMINATED BEAM, SHT.9</td><td></td></t<></td>	2     Image: Set of the set o	2	2   APT REALEROD SEE SHT 9 2 2 2 2 2 1 2 1 2 1 2 1 2 0 2 0 2 0 2 0 2 0 2 0 2 0 2 1 2 0 2 1 2 0 2 0 2 1 2 0 2 2 2 1 2 0 2 0 2 0 2 0 2 0 2 0 2 0 2 0	2     Implementation     Mathematical sets styles       2     2       2     1       2     1       2     0       3     0       2     0       3     0 <t< td=""><td>1</td><td></td><td>SE CANT GLUED-LAMINATED BEAM, SHT.9</td><td></td></t<>	1		SE CANT GLUED-LAMINATED BEAM, SHT.9	
2     .1     HE CANT. GUIED-LANIMATED DEANINATED DEANINATION DEANINATINATION DEANINATINATION DEANINATION DEANINATI	2     .1     SEE CATE GUED-LANTINGTED GEAT 1.5TE 9     1       2     1	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	2	2	2		NOT REPURED, SEE SHILLY	
2     2       2     1       2     0       2     0       2     0       2     0       2     0       2     0       2     0       4     1       2     0       2     0       2     0       2     0       2     0       2     0       2     0       2     0       2     0       2     0       2     0       2     0       2     0       2     0       2     0       2     0       2     0       2     0       2     0       3     0       2     0       3     0       2     0       3     0       2     0       3     0       2     0       3     0       2     0       3     0       2     0       3     0       3     0       3     0       4       4 <t< td=""><td>2     2       2     1       2     0       2     0       2     0       2     0       2     0       2     1       20     0       2     1       20     0       2     1       20     0       2     1       3     1       4     1       1     1       2     1       1     1       2     1       2     1       4</td><td><math display="block"> \begin{array}{c ccccccccccccccccccccccccccccccccccc</math></td><td><math display="block"> \begin{array}{c ccccccccccccccccccccccccccccccccccc</math></td><td><math display="block"> \begin{array}{c ccccccccccccccccccccccccccccccccccc</math></td><td>2</td><td></td><td>SEE CANT. GLUED-LAMINATED BEAM, SIT.9</td><td></td></t<>	2     2       2     1       2     0       2     0       2     0       2     0       2     0       2     1       20     0       2     1       20     0       2     1       20     0       2     1       3     1       4     1       1     1       2     1       1     1       2     1       2     1       4	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	2		SEE CANT. GLUED-LAMINATED BEAM, SIT.9	
2 1 2 1 2 0 2 0 2 2 2 1 2 1 2 2 2 1 2 2 2 1 2 0 2 2 2 2 4 1 2 2 2 2 4 1 2 2 2 2 4 1 2 2 2 2 2 0 2 0 2 0 2 0 2 0 2 0	2       1         2       0         0	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	2	2		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	2 1 2 0 2 2 2 1 2 1 2 1 2 0 2 2 2 1 2 1 2 0 2 2 4 1 2 2 2 0 2 0 2 0 2 0 2 0 2 0 2 0	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2	1		
2 0 2 2 2 1 2 1 2 0 4 1 2 2 4 1 2 2 2 2 4 1 2 2 2 2 2 0 2 0 2 0 2 0 2 0 2 0	2 0 2 2 2 1 2 1 20 6 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	2 0 2 2 2 2 2 1 2 1 2 1 2 0 4 1 2 2 2 2 4 1 2 2 2 2 4 1 2 2 2 2 2 0 2 2 2 0 2 2 2 0 2 0	2	1		
2 0 2 2 2 1 2 1 2 0 6 3 2 2 4 1 2 2 4 1 2 0 2 0 2 0 2 0 2 0 2 0 2 0 2 0	2 0 2 1 2 1 2 1 2 1 2 0 2 2 2 2 2 2 2 2 2 2 2 0 2 0	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2 0 2 1 2 1 20 6 	2	0		
2 2 2 1 20 6 2 0 2 2 4 1 2 2 2 0 2 0 2 0 2 0 2 0 2 0 2 0	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	2	0		
2 1 20 6 - 0 6 3 2 2 2 2 4 1 2 2 2 2 2 2 2 2 2 2 2 2 2	2 1 20 6 2 7 4 1 2 7 2 7 2 7 2 7 2 7 2 7 2 7 2 7	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c} 2 & 1 \\ 20 & 6 \\ - & 0 \\ 2 & 2 \\ 2 & 2 \\ 4 & 1 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 2$	2	2		
20       6         2       2         2       2         4       1         2       2         2       2         2       2         2       2         2       2         2       2         2       2         2       2         2       2         2       2         2       2         2       2         2       2         2       2         2       2         2       2         2       3         2       3         2       3         3       3         4       1         2       3         3       3         4       3         5       3         4       3         5       3         4       3         5       3         4       3         5       3         6       3         7       3         6       3	20     6       2     2       4     1       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       3     3       2     3       3     3       4     1       2     4       4     1       2     1       3     3       4     1       2     1       4     1       5     1       4     1       5     1       4     1       5     1       6     1       7     1       1     1       1     1       1     1       1     1       1     1       1 </td <td>20     6       -     0       6     5       2     2       4     1       2     -       2     -       2     -       2     -       2     -       2     -       2     -       2     -       2     -       2     -       2     -       2     -       2     -       2     -       2     -       2     -       2     -       0     -       2     -       0     -       2     -       0     -       2     -       0     -       2     -       0     -       2     -       0     -       2     -       0     -       2     -       0     -       2     -       0     -       2     -       0     -       2     -       0     -       2     -       2     -       2<!--</td--><td><math display="block"> \begin{array}{c ccccccccccccccccccccccccccccccccccc</math></td><td><math display="block">\begin{array}{c c} \hline c \\ c \\</math></td><td>2</td><td></td><td>-</td><td>1</td></td>	20     6       -     0       6     5       2     2       4     1       2     -       2     -       2     -       2     -       2     -       2     -       2     -       2     -       2     -       2     -       2     -       2     -       2     -       2     -       2     -       2     -       2     -       0     -       2     -       0     -       2     -       0     -       2     -       0     -       2     -       0     -       2     -       0     -       2     -       0     -       2     -       0     -       2     -       0     -       2     -       0     -       2     -       0     -       2     -       2     -       2 </td <td><math display="block"> \begin{array}{c ccccccccccccccccccccccccccccccccccc</math></td> <td><math display="block">\begin{array}{c c} \hline c \\ c \\</math></td> <td>2</td> <td></td> <td>-</td> <td>1</td>	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c c} \hline c \\ c \\$	2		-	1
	2 0 6 3 2 2 2 4 1 2 2 2 0 2 0 2 0 2 0 2 0 2 0 2 0	$ \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \end{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} $ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array}  \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array}  \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array}  \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array}  \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array}  \end{array} \\ \end{array}   \end{array} \\ \end{array} \\ \end{array}   \end{array} \\ \end{array} \\ \end{array}   } \\ \end{array} \\ \end{array} \\ \end{array}   } \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array}   } \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array}   } \\ \end{array} \\ \end{array}   } \\ \end{array} \\ \end{array}   } \\ \end{array} \\ \end{array} \\ \end{array}   } \\ \end{array}   } \\ \end{array} \\ \end{array}   } \\  } \\ \end{array}   } \\  } \\ \end{array}   } \\ } \\  } \\  } \\  } \\  } \\  } \\  } \\  } \\  } \\  } \\ } \\  } \\ } \\  } \\ } \\  } \\ } \\  } \\ } \\ } \\  } \\ }  } \\ }	$ \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \end{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} $ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array}  \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array}  \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array}  \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array}  \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array}  \end{array} \\ \end{array}   \end{array} \\ \end{array}   \end{array} \\ \end{array} \\ \end{array}   \end{array} \\ \end{array} \\ \end{array}   \end{array} \\ \end{array}   } \\ \end{array} \\ \end{array}   } \\ \end{array} \\ \end{array}   } \\ \end{array} \\ \end{array} \\ \end{array}   } \\ \end{array} \\ \end{array}   } \\ \end{array} \\ \end{array}   } \\ \end{array} \\ \end{array} \\ \end{array}   } \\ \end{array}   } \\ \end{array} \\ \end{array}   } \\ } \\  } \\  } \\  } \\  } \\ } \\  } \\ } \\  } \\ } \\  } \\ } \\  } \\ } \\ }  } \\ } \\ }  } \\ }  } \\ }  } \\ }  } \\ }  }	$ \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \end{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} $ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array}  \end{array} \\ \end{array} \\ \end{array} \\ \end{array}   } \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array}   } \\ \end{array}	20		-	-
6     3       2     2       4     1       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     3       2     3       2     3       3     3       2     3       3     3       4     3       3     3       4     3       3     3       3     3       4     3       4     3       5     3       4     3       5     3       6     3       70     3       70     3       70     3       70     3       70     3       70     3       70     3       <	2     2       4     1       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       3     2       2     2       3     2       4     1       2     2       3     2       4     1       2     2       4     1       2     3       3     3       4     1       5     3       4     1       5     3       6     3       7     10       10     10       10     10       10     10       10     10       10     10       10     10       10     10       10     10	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \end{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} $ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array}   \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array}   \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array}   \end{array} \\ \end{array} \\ \end{array}   \end{array} \\ \end{array} \end{array} \\ \end{array} } \\ } \\ } \\  } \\  } \\ } \\  } \\ } \\  } \\ } \\  } \\  } \\ } \\  } \\  } \\ } \\  } \\ } \\  } \\  } \\ } \\  } \\ } \\  } \\  } \\  } \\ } \\  } \\ } \\  }	$ \begin{array}{c} c \\ c \\$		0		
0     0       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     0       2     0       2     0       2     0       2     0       2     0       2     0       2     0       2     0       2     0       2     0       2     0       2     0       2     0       2     0       2     0       2     0       2     0       3     10       4     1       4     1       5     10       4     1       5     10       4     1       5     10       6     10       6     10       6     10       <	2     2       3     2       4     1       2     2       3     2       4     1       2     2       3     2       4     1       2     2       3     2       4     1       2     2       3     2       4     1       5     2       4     1       5     2       5     2       6       5 <t< td=""><td><math display="block">\begin{array}{c c} 0 &amp; 0 \\ \hline 2 &amp; 2 \\ \hline 4 &amp; 1 \\ \hline 2 \hline</math></td><td><math display="block">\begin{array}{c c c c c c c c c c c c c c c c c c c </math></td><td><math display="block"> \begin{array}{c ccccccccccccccccccccccccccccccccccc</math></td><td>-</td><td></td><td></td><td></td></t<>	$\begin{array}{c c} 0 & 0 \\ \hline 2 & 2 \\ \hline 4 & 1 \\ \hline 2 \hline$	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	-			
2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     2       2     0       2 <td>2 2 2 2 2 0 2 0 2 0 2 0 2 0 2 0</td> <td><math display="block">\begin{array}{c c} 2 \\ \hline 4 \\ \hline 1 \\ \hline 2 \\ \hline 0 \\ \hline 0 \\ \hline 2 \\ \hline 0 \\ \hline 0 \\ \hline 2 \\ \hline 0 \\ \hline 0 \\ \hline 1 \\ \hline 0 \\ \hline 0 \\ \hline 1 \\ \hline 0 \\ \hline 0 \\ \hline 1 \\ \hline 1 \\ \hline 0 \\ \hline 1 \hline</math></td> <td><math display="block">\begin{array}{c c} 2 \\ 4 \\ 1 \\ \hline 2 \\ 2 \\ \hline 2 \\ 2 \\</math></td> <td><math display="block"> \begin{array}{c ccccccccccccccccccccccccccccccccccc</math></td> <td>6</td> <td></td> <td></td> <td></td>	2 2 2 2 2 0 2 0 2 0 2 0 2 0 2 0	$\begin{array}{c c} 2 \\ \hline 4 \\ \hline 1 \\ \hline 2 \\ \hline 0 \\ \hline 0 \\ \hline 2 \\ \hline 0 \\ \hline 0 \\ \hline 2 \\ \hline 0 \\ \hline 0 \\ \hline 1 \\ \hline 0 \\ \hline 0 \\ \hline 1 \\ \hline 0 \\ \hline 0 \\ \hline 1 \\ \hline 1 \\ \hline 0 \\ \hline 1 \hline$	$\begin{array}{c c} 2 \\ 4 \\ 1 \\ \hline 2 \\ 2 \\ \hline 2 \\ 2 \\$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	6			
4     1       2     2       2     0       3     0       2     0       3     0       2     0       3     0       2     0       3     0       3     0       3     0       4     0       4       5 <t< td=""><td>1       2       3       2       3       2       3       3</td><td><math display="block">\begin{array}{c c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \end{array} \\ \end{array} </math></td><td><math display="block"> \begin{array}{c ccccccccccccccccccccccccccccccccccc</math></td><td><math display="block"> \begin{array}{c ccccccccccccccccccccccccccccccccccc</math></td><td>- 2</td><td><u> </u></td><td></td><td></td></t<>	1       2       3       2       3       2       3       3	$\begin{array}{c c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \end{array} \\ \end{array} $	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	- 2	<u> </u>		
2 2 2 2 2 2 2 2 2 2 2 2 2 2	2 2 2 2 2 2 2 2 2 2 2 2 2 2	$ \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \end{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\$	$ \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \end{array}{c} \end{array}{c} \end{array} \\ \begin{array}{c} \end{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} $ } \\ \end{array}   } \\ \end{array}  } \\ \end{array}  } \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array}  } \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array}  } \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array}  } \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\  \\ } \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array}  } \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\  } \\ \end{array}	$ \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \begin{array}{c} \end{array}{c} \end{array}{c} \end{array} \\ \begin{array}{c} \end{array}{c} \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \begin{array}{c} \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} \\ \end{array} $ } \\ \end{array}	4	1		
2 2 2 2 2 2 2 2 2 2 2 2 2 2	2 2 2 2 2 2 2 2 2 2 2 2 2 2	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		2			
2 7 0 2 2 2 2 2 2 2 2 2 2 2 2 2	2 2 2 2 2 2 2 2 2 2 2 2 2 2	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	2			
2 2 2 2 2 2 2 2 2 2 2 2 2 2	2 2 2 2 2 2 2 2 2 2 2 2 2 2	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	2			
2 2 2 2 2 2 2 2 2 2 2 2 2 2	2 2 2 2 2 2 2 2 2 2 2 2 2 2	$\frac{2}{2}$ $\frac{2}$	2 $2$ $2$ $2$ $2$ $2$ $2$ $2$ $2$ $2$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	2	0		
225 7L. (2) 325 7L. (2) 32 0 2 0 0 225 7L. (2) 0 225 7L. (2) 70 LN. FT. 70 LN. FT. 10 LN. FT.	2     PARTIAL       2     0 <t< td=""><td><math display="block">\begin{array}{c ccccccccccccccccccccccccccccccccccc</math></td><td>2 PACILAL 2 O 0 2EE OTL. (2) 0 2EE OTL. (2) 0 2EE OTL. (2) 0 2EE OTL. (2) 10 LN. PT. 10 LN. PT.</td><td></td><td>2</td><td></td><td></td><td></td></t<>	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	2 PACILAL 2 O 0 2EE OTL. (2) 0 2EE OTL. (2) 0 2EE OTL. (2) 0 2EE OTL. (2) 10 LN. PT. 10 LN. PT.		2			
2         PRE[LAL         10 LN. FT.           2         0         70 LN. FT.           0         200         70 LN. FT.           0         200         70 LN. FT.           0         200         70 LN. FT.	2         PMGIAL           2         0           2         0           0         225           0         225           0         225           0         225           0         225           0         225           0         225           0         225           0         225           0         225           0         225           0         225           0         225           0         225           0         225           0         225           0         225           0         225           0         235	2     PRE[LAL     10 LN. PT.       2     0     20     70 LN. FT.       0     200     200     70 LN. FT.	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	and the second		SEE OTLIG	BLIN, PT.
2 PARTINE 2 0 0 20E DTL (2) 0 20E DTL (2) 10 LN. FT. 10 LN. FT. 10 LN. FT. 10 LN. FT.	2 2 0 2 0 2 0 2 0 2 0 2 2 0 2 2 0 2 2 0 2 2 0 2 2 0 2 2 0 2 2 0 2 2 0 1 1 1 1 1 1 1 1 1 1 1 1 1			$\frac{2}{2}$ $\frac{1}{2}$ $\frac{1}$	$\geq$		see on.	IO UN. FT.
					2	PARTIAL		
					2	0		
					521	0	SEE OIL AD	TOLN, FT.
					$\leq$	0	SEE DTL A	TOLIN FT.
								+
								-
								1
			2				12	
		12	12					
							51	

# EN PLAN MERVICE MERVICE DENVER NATH A DENVEH

# SITE ND PROFIL VAN BUREN NATIONAL PORCH SCHEDULE A MARTIN

DESIGNED S.E.S DRAWN (,) (,) (,) (,) CHECKED INTE DATE

PREPARED

FRONT ELEVATION

OF\_10

DRAWING NO.

460 25,001

PCIP PKG SHEET 102 8



![](_page_255_Figure_0.jpeg)

![](_page_255_Figure_2.jpeg)

PORCH FRAMING ISOMETRIC sale safritio	MARTIN VAN BUREN NATIONAL HISTORIC SITE DENVER SERVICE CENTER UPJOHN PORCH PRESERVATION	
PREPARED S ELIZABETH SASSER DESKONED S ELIZABETH S ELIZABETH DRAWN WILLIAM W HORELL CHECKED 3/10/82 DATE	DRAWING NO. 460 25,001 PCIP PKG 102 0F 10 10 10 10 10 10 10 10 10 10	

![](_page_257_Picture_0.jpeg)

![](_page_258_Figure_0.jpeg)

![](_page_259_Picture_0.jpeg)

# LEGEND

![](_page_259_Picture_2.jpeg)

FLOOK DONKOS TO BE REMOVED TO PEONIT STRUCTURAL REIN-FORGING , DISTS,

	CTION DRAWINGS FOR DAY LABOR-NOT EXECUTED	IN VAN BUREN NATIONAL HISTORIC SITE DERVERTER SERVICE CENTER S' BEARING REINFORCEMENT	
¥ 216	CONSTRUCTIO	MARTIN JOISTS' B	
EET 1/4*: 1'-D"	PREPARED DESIGNED DRAWN CHECKED DATE	DRAWING NO. 400 20,002 PKG SHEET 1 0F 2 CPO 1974 678 710	

![](_page_260_Figure_0.jpeg)

![](_page_260_Figure_1.jpeg)

0F\_2

EXISTING SUMMER BEAM-MORTISE IN EXISTING SUMMER BEAM. \_DIST TENON OF EXISTING JOIST 2"x 4" LEDGER W/B-160 NAILS-2'x 4"x 8" SCAB a SIDE W/ S-163 NAILS EXISTING 3% TO S" X B" JOISTS @ 22"0.C-

![](_page_261_Figure_1.jpeg)

![](_page_261_Figure_2.jpeg)

- - 2" × 4" LEDGER

![](_page_261_Figure_4.jpeg)

![](_page_261_Figure_5.jpeg)

**ROOM 207** 

![](_page_261_Figure_7.jpeg)

![](_page_261_Figure_13.jpeg)

![](_page_261_Picture_14.jpeg)

![](_page_261_Figure_15.jpeg)

GENERAL NOTES: ", ALL NAILS SHALL BE 164 COMMON OR BOX NAILS, AND LOCATED IN THE APPROXIMATE AREAS AS SHOWN BY DRAWINGS.

2.ALL LEPGERS AND SCABS SHALL BE OF SOUTHERN PINE OR DOUGLAS FIR, CONSTRUCTION GRADE.

3.14 4.312" LAG BOLTS MAY BE SUB-STITUTED FOR NAILS - SAME NUM-BER AND SPACING

4 SCABS ON JOIST IN ROOM 207 MAY BE BOLTED TO EXISTING DEAM AS SCABS ARE IN ROOM 206

![](_page_261_Picture_20.jpeg)

![](_page_261_Figure_22.jpeg)

![](_page_262_Figure_0.jpeg)

![](_page_263_Figure_0.jpeg)

![](_page_264_Figure_0.jpeg)

![](_page_265_Figure_0.jpeg)

# APPENDIX I: SMITH THOMPSON VAN BUREN CORRESPONDENCE

# LIST OF SMITH T. VAN BUREN CORRESPONDENCE

# BETWEEN 1839-1850

As Transcribed by Historian William N. Jackson

July 31, 1839 - STVB (New York) to MVB Jr. (Washington) "The (old) man has just gone to Schenectady and intends to bring up at the United States Hotel, Saratoga, tomorrow...We had a very pleasant time since I last wrote you. At Kinderhook we spent a day and dined at the Van Ness place--(Kleirood) no more! We had a capital dinner of fricassee and him, washed down with champagne. We tried hard to get up a good name; but it is very tough work. The present favorite is "The Locusts" of which there are a great number about. The only objection is that the same name is used by Cooper in the "Spy" for one of his places. Among the distinguished guests were (James?) John from Albany and Aunt Catherine from Ghent. Here we have been feasted most sumptuously by the Judge young Patroon and Gov. Marcy..."

# July 21, 1841 - STVB (Lindenwald)

I received your obliging letter here. I don't know whether you will be able to recognize the place by its new name, but you will understand that it is the retreat of a certain Ex-P, and a charming retreat it is two-infinitely preferable, I should say, with its shade and breezes, its guiet and its independence, to the White House, or the dusty Metropolis in which you are luxguriating.

Your representation of affairs at Washington correspond with all the appearances at this instance, and still more nearly with all that we had a right to expect from the motley gathering at the extraodinary reception. I begin to to think that there is a special providence in the confusion (work?) confoundes which attend the building of the new \_\_\_\_\_\_ and which I trust may prevent its completion. If it does the advent of whiggery to power may ultimately prove to have been a good thing. A visitation carrying with it the sweet uses of adversiry--teaching patience, wisdom, patriotism, virture to the mass, purifying the moral atmosphere of politics, and in point of fact advancing the cause of equal rights.

Have you read prof. Cowen's paper? We here in New York think it a great affair, quite refreshing, in the way of state papers, since the era of roman-nobled inaugurals and federal homilies on the duty of obedience to Great Britain.

Nothing is more generally noticed, or more gratifying to our friend, than the infinite superiority of our representation, over the agents of the speculators in Congress. The best that can be said of both sides is that each is respectively worthy of its cause, and that is (multin-is parvo).

I have not yet heard from Dimitry--unless his letter may be in New York--where I shall go in a day or two. I see by the debates that Preston has been lecturing your honorable board. He says that you expire officially in September: I thought it was December. Can you let me know which is right; and whether claims presented by or before the loth of August will be in time for consideration. The delay arises 'rom the translators. My father desires to be remembered to you and to me. Mr. and Mrs. Wright and Blair and Marcy.

# April 13, 1849 - STVB (Albany)

I shall not be able to get to New York on Saturday! If you expect to leave town, on Tuesday you can write me a line which I will received Sunday morning, I will, then be down Monday morning: If I don't hear from you I shall be down Tuesday morning.

# April 20, 1850 - STVB (Lindenwlad)

Not knowing Barneys address, I enclose his letter to you. By reading it you will understand all that I have to say \_\_\_\_\_ except that I promised him to say to you that the wash-room flue is at length cured having experienced the reverse of the natural rule, viz, being smoked before it was cured and well smoked it was. You will take his receipt on giving him the check. You see what I say about the chimnies on the north side. I think these will have to be opened at the top also, by and by. Pray hurry on the library and handrail. Did I understand that they were to be done by the same hard? I saw a library designed for Mr. Barnard in Albany which pleased me and only cost \$200. It was black walnut and plain \_\_\_\_\_ but was much prettier than Mr. \_\_\_\_\_'s (in 14th st.) as Kelly's was before Barnards. Let me hear from you whenever you have come to any conclusion.

# May 13, 1850 - STVB (Lindenwald)

Will you please send me immediate answers to these questions: (as the carpenters stand with their tools in their hands, waiting the word). 1. Are the caps and base of the baluster which you sent me square or round? They have been turned round--which is thought by one of the workmen (the only one good for anything to be wrong.

2. Is there to be wainscoting inside the tower or behind the balusters as appears to be the intention by the drawing of this section! This is claimed to be the case by the carpenters but I do not think it can be so. There does not seem to be any necessity for enclosing the place anymore than would be done by the balusters and it seems to me that the wainscoting would destroy the effect of the balusters, as seem from outside and that the expense of the wainscoting might be avoided, unless there is a necessity for it. please decide these points.

The estimates for the library differ so much that I must submitt the matter to your discretion. If you know and can rely upon the person who offers to do the work for \$300, of course you will give it to him. Please let me know in your reply, whether you have so determined. The sooner it is completed the better, altho I suppose the contraction will have sufficient inducement for despath on his account. My father complains that I have made his hall dark, by my improvements. For this reason I should like to get the glass door made as soon as possible, before he gets the idea so fastened that he will not give it up after the remedy is applied. There is a good workman here who claims to be able to make the door well if he had the drawing.

P.S. How many feet of wire work did you say? I can not make out your fiqure. Please tell me also if you can find out about what the glass for the glass door will cost.

# May 17, 1850 - STVB (Lindenwald)

I have \_\_\_\_\_\_ on the 14th. The balusters are up. I got so tired of the carpenter that I told them to put up the work, and I would take it down if it was not right. The wainscoting it not on. What you say of the library is alright: I have no doubt the contractor will answer, and be somewhat puzzled by the explaination of you letter, referring to the comparison as the cost of my and your work. To know whether preparation and calculations on the subject will agree with your own or not. The only way however to ascertain, is to tell you frankly what mine have been and are, and to ask you to do the same by me in return.

When I first spoke to you on the subject I mentioned the sum which I wished to expend in the proposed improvements of \$5000: and with the understanding the plans were offered to masonry and carpentry for estimates. The offer of Barney's, at \$2492; for the mason work was accepted, which sufficiently established that part of the work.

The estimate of the carpentry (I figured their cost at \$2850: and considered the cost favorable, and also have been accepted, but for an

on my part that I could get the work cheaper by employing Van Slyck to do the work. When I deceided to make this trial, I remarked to you that my aim (as I expected it to be), by this arrangement ought not be and should not by your cost, but that as between us we could take the estimates above referred to as if they had been both accepted.

Of course I have considered this equity as mutual in its operation, and have not supposed that because my expectation have been satisfied and the work has cost more than the estimate, instead of less that I should

incur a perportionate increase of expense for the supervision. I state all the detail here, because I cannot infer from the terms of your letter how much of it conforms to your own views, or the reverse, and because it would take me some time to get at the sum of Van Slyck accounts, if that should prove to be necessary. Of course the work for which drawings have been made since the main plan was settled, such as the porch and library, and which are the subjects of separate contracts do not come within the application of the arrangement which I understood to have been made except for the original drawings and \_\_\_\_\_.

If I am correct in assuming these views as the basis of our account, you will find it stated on the other side, as correctly as the nature of the case will admit. Please let me hear from you as soon as possible on the subject as is reflected to both, as it is my wish. It is desireable to dispose of and satisfactorily. I enclose a check for the bal. I've given as a statement.

Estimate of mason's work	\$ 2,492
Carpenter	2,850
Library (including wire work)	340
Porch	500
Supposed cost of handrail to be made by the	50
contractor, or other person	
subtotal	\$ 6,232
5% cost	5_
	\$ 311.60
Deduct heretofore paid	150.00
	161.60

To this should be added the black walnut door and the caps for tower chimney, the latter cost about \$15. The former I do not know. I have added on the check \$75.00 being 5% of it.

# May 5, 1850 - STVB (Lindenwald)

I rec'd yours of the 29th of April at Albany, only yesterday. Please direct to me hereafter under cover to my father, at Kinderhook, where I shall be the greater part of the time. The plans etc enclosed are all right. As to the library you seem to have forgotten our arrangement: which was that you should have the plan (when completed), estimated upon by one or two competent persons at New York and then let me know the result, and that the person taking that Job might also put up the handrail on the tower stairs: and include that in his estimate.

The estimate should be for the whole expense including expenses of traveling, frieght and board while here (which is 18/per week and everything else \_\_\_\_\_ no extra charge whatever: and should be for completing everything as described or drawn in the plans; and perhaps a limit might be agreed upon as to time, altho if the workman pays his own board and time, I suppose there will be no unecessary delay.

Will you oblige me by sending me the estimate as soon as possible. I am going to providence on to visit to Mr. Duncan, the last week of this month May, say the 25th and he will probably return for a few days with me, say about the 1st of June, and I should like him to have the library finished at that time--if it is practicable. You may send me at your

# June 6, 1850 - STVB (Lindenwald) to ?

I enclose the letter for Wisngham, which please forward to him as soon as practicable. I found that the plan for the porch had been delivered in Albany to the place where I have usually received communication from your father.

## June 20, 1850 - STVB (Lindenwald)

I have had a visit from Mr. Hanrenbeck, who promised to be here with his book-case about the 15th of July. I wish you would let me have the drawings for the porch, complete large and small with much specification as may be necessary to have the work estimated on at that date; July 15th. I mean to get an estimate from Mr. H. when he comes, and would like to have them a day or so before.

If you have the drawing for the glass door you may sent it to me, and I will get it made.

I wish you would say to Barney McGuire that his bill for extra-work includes two charges which require to be reconsidered at cost. 1. The charge of \$15. for iron work over the area. These area's with the iron grating was laid down in the original plan: but his could not cost \$15.

2. The cistern your father wrote me that the change (sixty odd dollars) was high and that the price of making a cistern 8' by 8' was between \$30 or \$40: but that Barney thought mine was 8' by 13". I have had it ma-

Its capacity however, (that is the space below the waste pipe) is Just about 8' by 8' you will see that measures to the top, however, it is over 3' less than his recollection of it.

His work although, in the main well done enough, that in some respects given me constant trouble. In altering the top of the chimney-stock his men left so much mortar and rubbish on the roof that the leader, from the gutters became cloged, and some of them had to be taken down and new ones instituted. The laundry flue continue to smoke as badly as ever--rendering the use of the room impossible. Frequently, and always more or less uncomfortable: and I have had a major fire almost all the time finishing up some of his rough work, and tinkering on the flue. Under these circumstances a charge of extra-work is not very palatable, but I am willing nevertheless to pay his bill when it is corrected in respect to the two items I have mentioned.

# July 29, 1850 - STVB (Lindenwald)

I enclose Barney's account with the deduction for area, included in the original estimate. I have also enclosed a check payable to his order for the balance due him. Tell him I have received his letter and although there is a good deal to be said in answer to some things mentioned by him, yet I prefer to have no further discussion, and I'm willing to consider our business closed to our mutal satisfaction and will always say so at his request.

I enclose the check to you as I wish to remind you that the library man will be here on Monday, and that I am without the porch plan, on which

I wished to have his estimate. I have retained the plan for the door also for his examination. I think an ordinary door case (painted white like the other wood work in the hall instead of black walnut will answer, with the glass of white plate containing 4 large panes and a border only such as you have drawn of stained glass. What do you think of that. Please let me hear about the porch immediately, as I do not know whether Mr. Hollenbeck will be here over a day or two.

# November 22, 1850 - STVB (Lindenwald)

Mr. Van Slyck, requests us to say that he will be ready for McGuire the last of next week. I have also to say that he omitted to make the change at the foot of the tower stair-case by my advice. When I saw you in Albany a month or six weeks ago I understood that the first flight would be taken down at once and at the expense of the carpenter, to make it accord with the plan. The next time I came here I found that they had not been done; although it was to be attended to. There being work enough to do to get the house enclosed and to make it habitable, I at once determined that I would suffer the inconvenience of a barron space at the foot of the stairs, rather than give even to slight an increase for further delay, and that nothing ahead completed than to be distributed. I told him therefore to despence with a part, and to carry the handrail around the top of the lower step as it was.

If you had been here since McGuire left I am sure you would have seen enough to satisfy you of the Justice of my complaint. The flue from the wash-room: bedroom and bathroom have smoked so badly that the walls are intirely black, and the ceiling also of the bedroom destroyed. If

the mantel peices should have arrived, according to promise, I'm not able to decide whether in the present condition of the flues and walls they ought to be put up. I am at a lose to account for his course. He promised me to cut holes through the walls for the plumber, and yet they tell me that he decieded it as no part of his business, and left them to cut for themselves, at the risk also of breaking into the flues, the location of which no one but himself understood. The window on the back side at the attic and one which you directed to be made longer, to light the passage next to my brother's bedroom, have been left, although there was time enough to have done all these small things while he was waiting for the flagging. I said also, on digging around the cess-pool to mount pipes, that the walls of it are round paving stones, of single thickness, depending upon sand walls outside to hold them up. The plumber thinks it will fall down as soon as water gets to it--if not therefore, and crush the lead pipe which empties into it. It is moreover covered with plank, and we no longer would have let a horse or an ox into it.

I need not repeat to you that all these things, coupled with intolerable of the carpenter have disappointed us all very much. We have been obliged to give up the idea of living in the house this winter, and shall be obliged to stop all the work, when it maybe in for tonight, from yesterdays report. If anything is to be sent up from N.Y. it should be done immediately, especially some plan to close the top of the tower against the weather should be determined on and put in hand. There are some little things omitted by McGuire which I have not mentioned because I suppose he intended to bring them along on his return; such as cement

for the cistern, and iron-bars for the area and windows. But how are the flues to be repaired, and all the damage they have caused? I return to Albany tonight, where I should be glad to hear from you.

# APPENDIX J: 1977 WAITE REPORT

# THE PRESERVATION/DESIGN GROUP

388 BROADWAY ALBANY, NEW YORK 12207 518 463-2276

# THE TIN PLATE ROOF AT LINDENNILD, KINDERHOOK, NEW YORK

On Hay 4, 1977, I inspected the tin plate roof and relat areas at <u>Lindenwald</u> with Douglas Clinton and members of the site staff. The inspection was made at the request of the architectural staff of the Korth Atlantic Regional Office of the National Park Service. The tin plate roof, over the one story rear wing of the house, is believed to be original to the 1849 alterations designed by architect Richard Upjohn. During the inspection, the entire surface of the tin plate roof was examined as was the roof framing and sheathing which was visible in the attic below. The following observations and recommendations are the result of the inspection.

# OBSERVATIONS

# BATTEN ROOF

# Description

The batten roof consists of nine sloping sections of tin plat roofing. Each section is made of tin or tin and lead (terne) plated iron sheets,  $14 \times 20$  inches, fastened together with flat lock seams. An unusual feature of the roof is the use of wood battens every 24 inches to give a vertical emphasis to the roof and to help control expansion and contraction. The battens were covered with the tin roofing. The tin plate roofing pans were most likely imported from England, as this was a common practice during the ninetcenth century. Although most early nineteenth century tin roofs consisted of  $10 \times 14$ inch pans, technological changes in the manufacture of tin plate during the 1830's permitted the use of  $14 \times 20$  inch pans by the 1870's a third size,  $20 \times 26$  inches, was widely used.

The nine sections of batten roofing contain three valleys, four hips, and two ridges. Two chimneys penetrate the sloping

roofs and there are intersections with the flat roof and the brick walls of the house. Around the perimeter of the sloping roofs, except for the two gables, is a built-in wood cornice gutter with a tin plate liner. All of the connections between the batten roofing sections and flashings, flat roof, and gutter liners are made with flat lock seams.

# Condition

Even of the batten roofing is in remarkably good condition. In the five sections at the west end, there are approximately 35 punctures caused by slate and brick falling from the tower onto the tin roofs. These punctures have been patched with liberal amounts of asphalt roofing cement. In some places the tin plate roofing has split along the battens. In other areas the tin over the battens is badly corroded. The tin gutter liners have all deteriorated and much of the wood cornice has rotted out along with some of the tail rafters. All of the flashings have deteriorated and have been patched with excessive amounts of asphalt cement.

The flashing between the batten roofing and the brick walls consists of tin plate brought up and over a wood batten located along the brick wall. The upper part of the tin plate is let into a reglet in the wall to form a base flashing. There is no cap flashing.

The surface of the roof contains many coatings including what appears to be tinner's red paint, coal tar roofing compound and asphalt cement.

The valleys have apparently leaked over the years and have been patched with asphalt coatings. Part of the deterioration of the valleys may have been caused by scouring from particles of slate from the upper roofs which have washed down over the tin plate.

The use of asphalt and tar roofing compounds is especially unfortunate because they have accelerated the deterioration of the tin plated iron pans by forming sulphuric acid when combined with moisture. This acid has attacked the metal pans.

### Conclusions

From all indications, based on available historical research and physical evidence, the existing tin plate roof is original to the 1849 Upjohn modifications of <u>Lindenwald</u>. For this reason, and because it is one of the few known remaining mid-nineteenth century batten tin plate roofs in the United States, the roof is of great cultural significance. Its associations with Martin Van Buren and Richard Upjohn make its preservation highly desirable, if technically possible.

The present condition of the roofing pans indicates that it is still possible to preserve and stabilize all of the sections of batten roofing, if proper conservation measures are applied immediately. The flashings, valleys, ridges, an some of the batten areas require repair. All of the asphalt and tar compounds must be removed.

# FLAT ROOF

# Description

Like the sloping batten roof sections, the flat roof consists of  $14 \times 20$  inch tin plate pans with flat lock seams. However, there are no battens and the entire roof is almost level.

There are approximately 52 linear feet of flashing between the flat roof and the brick walls of the house and tower. In the center of the flat roof, along the brick wall of the house, is a wood skylight enclosure with approximately 25 linear feet of flashing with the flat roof.

# Condition

Unlike the batten roof sections, the flat roof is seriously deteriorated. The surface has been mopped repeatedly with asphalt roofing cement, which has deteriorated and become separated from the tin plate pans because of the different rates of expansion and contraction between the two materials. The decayed roofing compound has acted as a sponge trapping water against the tin plate. This water, as well as the sulphuric acid formed by the asphalt, has badly corroded the tin plated iron to the extent that much of it has completely rusted through. There are several active leaks in the flat roof.

The flashings along the brick walls and skylight were constructed without cap flashings. The flashings have failed and have been coated with excessive amounts of asphalt cement There is a serious active leak at the west corner of the towe between the flashing and the masonry wall.

# Conclusions

The flat roof area is badly deteriorated. In places, the tin plate has completely corroded through. Much of the corrosion appears to have occurred from the underside. Unfortunately, there appears to be no alternative other than the complete replacement of the flat section. Perhaps if the roof were properly treated twenty years ago before the asphalt coatings were applied, it would still be salvageable.

# SHEATHING AND FRAMING

The sheathing and roof framing are remarkably sound, considering the number of leaks that have occurred in the roof over the years. Although the sheathing and framing are waterstained, there is little evidence of serious decay. Around the skylight enclosure and at the west end of the tower, there is localized rotting of the sheathing. The valley rafter, located southwest of the tower, has rotted at the bottom and dropped approximately 1<sup>1</sup>/<sub>4</sub> inches. However both the sheathing and rafter can be stabilized in situ.

# SKYLIGHT ROOF AND FLASHINGS

The skylight roof is also of flat seam tin plate pans. Although it is corroded, it appears that it can be salvaged. The original flashings have been replaced with higher, terne plate sheets. These have deteriorated and have pulled away from the wall.

# MAIN ROOF

The main roof of the house consists of slate installed during the twentieth century. Both the original quality of the material and the workmanship were inferior with the result that pieces of slate are continuously breaking loose and falling on the tin plate roof below. The flashings and ridges have also deteriorated.

# TOJER ROOF

The original tower roof reportedly was composed of batten sections of tin plate. The present roof is slate similar to the main roof. This roof is also deteriorated and pieces of slate from it are also falling on the tin plate roof.

# RECOMMENDATIONS

# GENERAL

As stated above, the batten roof sections are salvageable and of great cultural significance. They should be preserved and stabilized in situ. Unfortunately the flat section has deteriorated to the point where it is no longer salvageable and must be replaced.

# INPLEMENTATION OF RESTORATION

Because of the unique significance of the roof and the unusua techniques required for its stabilization, it is recommended that a negotiated contract be let for the restoration of the entire tin plate roof. This contract should be a complete package and consist of both architectural and construction components. Because of the cultural value of the roof, all work should be carefully recorded. The architectural work should be carried out in close coordination with the construction work. Some of the investigation will have to occur as the restoration occurs and plans and specifications drafted accordingly. A performance specification should be prepared for the work based on the items listed below.

The construction work requires the services of experienced building conservation specialists. In my opinion, ordinary roofing contractors would not have sufficient experience or historic preservation aptitude to execute the specialized
work required to stabilize and restore this roof. The actual preservation work is more of a conservation problem than a roof construction job. The craftsmen must use the most modern preservation theory and technology available. Naturally, they must have had previous experience preserving as well as restoring historic metal roofs. They must also be conversant with contemporary preservation objectives as well as historic construction processes.

The following components should be included in the roof restoration contract. It must be noted that the following listings form a scope of the work to be included and are not technical specifications.

### 1. Architectural Component

- a. Correcting, updating and supplementing the existing measured drawings to include sections, framing details, framing plans, sheathing plans, and roof covering plans.
- b. Preparation of mini historic structure report on the roof.
- c. Restoration plans and technical specifications.
- d. Inspection of construction work.
- e. Preparation of maintenance manual.

### 2 Construction Component

- a. Batten Roofs
  - 1. Remove all coatings.
  - 2. Repair all punctures.
  - 3. Repair and consolidate tin plate over and adjacent to battens and in valleys.
  - 4. Treat tin plate with approved rust inhibitor.
  - 5. Replace rotted wood cornices and rafter tails. Replace missing bricks behind cornice.
  - 6. Install new tin plate gutter liners and leaders.
  - Install new flashings around chimneys and adjacent to masonry walls including cap and base flashings.
  - 8. Paint all tin plate with approved paint.
  - 9. Repair rotted sheathing and framing.

### b. Flat Roof

 Carefully remove and salvage flat section so that it can be reassembled in study collection.

- Install new tin plate pans matching exactly configuration, pattern and composition of original.
- 3. Replace flashings as above.
- 4. Repair rotted sheathing and framing.
- c. Skylight and Window Hood Roofs

These roofs should be conserved in place using same techniques as used for batten roofs. The wood skylight structure should be restored.

d. Main and Tower Roofs

The slate roofs are badly deteriorated and should be replaced with historically accurate roofs. Much of the physical evidence for earlier roofs undoubtedly exists beneath the slate. The slate roofs pose a distinct threat to the tin plate roof. If it is not possible to replace the slate before the tin plate roofs are restored, the newly restored tin plate roofs should be protected by plywood until the upper roofs are restored.

> John G. Waite May 5, 1977

### APPENDIX K: PAINT STUDY WORKSHEETS AND PHOTOGRAPHS

There are two sets of originals of this material. One is on file at the Denver Service Center, Technical Information Center, and one is at the North Atlantic Historic Preservation Center. It was not cost-effective to reproduce these pages for publication. Interested readers may consult the originals in one of the two repositories cited above.



# APPENDIX L: WALLPAPER STUDY WORKSHEETS

Sample No: MAVA 01 WP001 Location: Room 005 (west wall) Substrate: Plaster



Physical Characteristics	Wallpaper	Border
Pattern and Date:	Floral stripe, ca. 1840?	
Sample Size:	Full wall	
Principal Colors:	Orange and green on a white background	
Paper Type:	Rag	
Paint Type:	Distemper	
Method of Paper Manufacture:	Machine	
Paper Texture:	Smooth	
Printing Technique:	Probably machinepaper is too badly deteriorated to positively identify	

Comments: This wallpaper hangs in the servants' dining room. It was the only wallpaper found in the basement. The moisture of the basement has caused the paper to deteriorate significantly so that it crumbles when an attempt is made to remove it from the walls.

Sample No: MAVA 01 WP002 Location: Room 104 (east wall) Substrate: Plaster



Physical Characteristics	Wallpaper	Border
Pattern and Date:	Geometric, ca. 1840	No border
Sample Size:	3" × 4"	
Principal Colors:	Green on white ground	
Paper Type:	Rag	
Paint Type:	Distemper	
Method of Paper Manufacture:	Machine	
Paper Texture:	Smooth	
Printing Technique:	Block	

Comments: This paper was used as a lining paper throughout the ca. 1797 rooms of Lindenwald when Van Buren redecorated the house in 1843. It lined all of Room 105 where the Zuber scenic wallpaper was hung. In the other rooms it was used to line the areas where the chair rail was removed. It was also used to cover one of the fireboards.

Sample No: MAVA 01 WP003 Location: Room 104 (east wall) Substrate: Plaster



Physical Characteristics	Wallpaper	Border
Pattern and Date:	Star, ca. 1840	No border found
Sample Size:	2" × 3"	same border as on
Principal Colors:	Gray, black	the 1936 Weig
Paper Type:	Rag	star wallpaper is
Paint Type:	Distemper	having a green
Method of Paper Manufacture:	Machine	border
Paper Texture:	Smooth	
Printing Technique:	Block	

Comments: A full panel of this wallpaper was found on the east wall of room 104 when the pier mirror between the windows were removed. The wallpaper is lined with the green print lining paper used in room 105.

Sample No: MAVA 01 WP004 Location: Room 106 Substrate: Plaster



Physical Characteristics	Wallpaper	Border
Pattern and Date:	Floral, ca. 1797	Swag and garland
Sample Size:	2" × 3"	2" × 5"
Principal Colors:	Red, blue, green, black, white	Blue, black, pink, white
Paper Type:	Rag	Rag
Paint Type:	Distemper	Distemper
Method of Paper Manufacture:	Hand	Hand
Paper Texture:	Smooth	Smooth
Printing Technique:	Block	Block

Comments: This paper was found on the east wall of room 106, behind the pier mirror that hung between the windows. It was covered by two later layers of wallpaper before the pier mirror was hung. The wallpaper does not extend across the chair rail area. The border ran down the sides of the windows as well as at the cornice. The paper has horizontal seams, indicating that it was handmade. A portion of this wallpaper is still on the walls and should be conserved.



Physical Characteristics	Wallpaper	Border
Pattern and Date:	Floral, ca. 1810	No border
Sample Size:	8" × 3"	
Principal Colors:	Light gray, dark gray, white	
Paper Type:	Rag	
Paint Type:	Distempter	
Method of Paper Manufacture:	Hand	
Paper Texture:	Smooth	
Printing Technique:	Block	

Comments: This is the second layer of wallpaper (counting up from the plaster) found under the pier mirror in room 106. It does not extend across the area from which the chair rail was removed, indicating that it predates Van Buren. Part of a strip of this wallpaper is still on the walls and should be conserved.

Sample No: MAVA 01 WP006 Location: Room 106 (east wall) Substrate: Plaster



Physical Characteristics	Wallpaper	Border
Pattern and Date:	Striped with floral background, ca. 1840	Geometric, ca. 1840
Sample Size:	10" × 12"	$1-3/4^{11} \times 4^{11}$
Principal Colors:	Gold and gray on a white ground	Brown, black, and gold on a white ground
Paper Type:	Rag	Rag
Paint Type:	Distempergold stripe is not water-soluble	Flockedvarnish and rag distemper
Method of Paper Manufacture:	Machine	Machine
Paper Texture:	Rough, diamond- shaped, waffled	Smooth
Printing Technique:	Block	Block and flock

Comments: This is the third layer of wallpaper (counting up from the plaster) found under the pier mirrow in room 106. It extends across the area from which the chair rail was removed. It is directly on top of the green lining paper that was placed over the chair rail area, indicating that it is very likely a Van Buren wallpaper. Nearly a full panel of this wallpaper still hangs in room 106. It should be removed from the walls and conserved. The border is the same border found on the fireboard of room 109.

Sample No: MAVA 01 WP007 Location: Room 106 (east wall above pier mirror) Substrate: Plaster



Physical Characteristics	Wallpaper	Border
Pattern and Date:	Rococo, ca. 1860-70	Rococo, ca. 1860-70
Sample Size:	$4'' \times 6_{2}^{1''}$	4 <sup>1</sup> <sub>2</sub> " × 5 <sup>1</sup> <sub>2</sub> "
Principal Colors:	Brown, gray, gold	Brown, green, gold, black
Paper Type:	Rag	Rag
Paint Type:	Distempervery small areas of flock	Flocked, varnish and sheared rag
Method of Paper Manufacture:	Machine	Machine
Paper Texture:	Smooth	Smooth
Printing Technique:	Machine	Flocked

Comments: This is probably the 4th wallpaper and border hung in room 106.

Sample No: MAVA 01 WP008 Location: Room 106 Substrate: Plaster



Physical Characteristics	Wallpaper	Border
Pattern and Date:	Floral, AWP MA 14C7, ca. 1890	Floral, ca. 1890
Sample Size:	9" × 12"	5" × 5"
Principal Colors:	Gold, beige, cream	Brown, gold, green
Paper Type:	Chemical wood	Chemical wood
Paint Type:	gold ground, oil; remaining colors distemper	Distemper
Method of Paper Manufacture:	Machine	Machine
Paper Texture:	Smooth	Smooth
Printing Technique:	Machine	Machine

**Comments:** This is probably the fifth wallpaper to be used in this room. The paper was also used to cover the scenic fireboard. A sample of this wallpaper is in the Cooper-Hewitt Collection, #1970-26-4BG.

Sample No: MAVA 01 WP009 Location: Room 109 (north wall under stair platform) Substrate: Plaster



Physical Characteristics	Wallpaper	Border
Pattern and Date:	Geometric (Eastlake?), ca. 1840	No border - may be the same border as on the fireboard
Sample Size:	1" × 3"	
Principal Colors:	Brown, yellow, black	
Paper Type:	Rag	
Paint Type:	Distemper	
Method of Paper Manufacture:	Machine	
Paper Texture:	Smooth	
Printing Technique:	Block	

Comments: This sample was found under the stair platform of room 109. It was loose and therefore cannot be positively identified as having come from this room. The fragment is too small to be used as the basis for a reproduction wallpaper.

Sample No: MAVA 01 WP010 Location: Room 111 (under casing of door 127) Substrate: Plaster



Physical Characteristics	Wallpaper	Border
Pattern and Date:	Geometric, ca. 1870?	No border
Sample Size:	1/2" × 3"	
Principal Colors:	Green, black, maroon	
Paper Type:	Rag	
Paint Type:	Distemper	
Method of Paper Manufacture:	Machine	
Paper Texture:	Smooth	
Printing Technique:	Machine?	

Comments: This small fragment was found behind the casing of door 117. It was on top of the brown layer of paint on the plaster walls. Physical evidence--paint, moldings--suggests that the alterations to this door were made during Van Buren's residency (see full description of room 111). This wallpaper may therefore date to Van Buren. The fragment is too small to be used as the basis for a reproduction wallpaper.



Physical Characteristics	Wallpaper	Border
Pattern and Date:	Striped, ca. 1850	No border
Sample Size:	5" × 26"	
Principal Colors:	Beige and pink stripes on a white ground	
Paper Type:	Rag	
Paint Type:	Distemper	
Method of Paper Manufacture:	Machine	
Paper Texture:	Smooth	
Printing Technique:	Machine	

Comments: This sample is the first layer of wallpaper (counting up from the plaster) found under the casing of door 124. It is most likely the first wallpaper that Van Buren had hung in this room.

Sample No: MAVA 01 WP012 Location: Room 112 (behind door 124 casing) Substrate: Plaster



Physical Characteristics	Wallpaper	Border
Pattern and Date:	Floral with diamond- shaped background, ca. 1860-1870	no border
Sample Size:	5" × 25"	
Principal Colors:	Blue, white	
Paper Type:	Rag	
Paint Type:	Distemper	
Method of Paper Manufacture:	Machine	
Paper Texture:	Smooth	
Printing Technique:	Machine	

**Comments:** This sample is the second layer of wallpaper (counting up from the plaster) found under the casing of door 124.

Sample No: MAVA 01 WP013 Location: Room 112 (behind door 124 casing) Substrate: Plaster



Physical Characteristics	Wallpaper	Border
Pattern and Date:	Striped rococo, ca. 1880	
Sample Size:	5" × 25"	
Principal Colors:	Green, gold, tan, brown	
Paper Type:	Rag	
Paint Type:	Distemper	
Method of Paper Manufacture:	Machine	
Paper Texture:	Smooth	
Printina Technique:	Machine	

Comments: This sample is the third layer of wallpaper (counting up from the plaster) found under the casing of door 124.

Sample No: MAVA 01 WP014 Location: Room 118 - behind door 116 casing) Substrate: Plaster



Physical Characteristics	Wallpaper	Border
Pattern and Date:	Diamond, ca. 1850	
Sample Size:	3" × 11"	
Principal Colors:	Blue, gold, green, pink	
Paper Type:	Rag	
Paint Type:	Distemper	
Method of Paper Manufacture:	Machine	
Paper Texture:	Smooth	
Printing Technique:	Machine	

Comments: This wallpaper sample was found under the casing of door 116. Physical evidence found in rooms 114 and 118 indicate that this alteration was made in the latter part of the 19th century.

Sample No: MAVA 01 WP015 Location: Room 206 (north wall) Substrate: Plaster



Physical Characteristics	Wallpaper	Border
Pattern and Date:	Diamond and striped, ca. 1840	No border
Sample Size:	8" × 12"	
Principal Colors:	Yellow, green, red on white ground	
Paper Type:	Rag	
Paint Type:	Distemper	
Method of Paper Manufacture:	Machine	
Paper Texture:	Smooth	
Printing Technique:	Machine	

Comments: This wallpaper was found on the north wall of room 206. It has also been found in rooms 108, 207, and 208. It is the first layer of wallpaper (counting up from the plaster) in these rooms. Prior to this papering these rooms appear to have been painted. This wallpaper has been dated to Van Buren ca. 1843.

Sample No: MAVA 01 WP016 Location: Room 206 (behind door 209 casing) Substrate: Plaster



Physical Characteristics	Wallpaper	Border
Pattern and Date:	Japanese, ca. 1880	No border
Sample Size:	3" × 9"	
Principal Colors:	Yellow, maroon, brown	
Paper Type:	Rag	
Paint Type:	Distemper	
Method of Paper Manufacture:	Machine	
Paper Texture:	Smooth	
Printing Technique:	Machine	

Comments: This wallpaper sample was taken from behind a casing near door 209 in room 206. It has also been found in rooms 108, 207, and 208. It is the second layer of wallpaper (counting from the plaster up) in these rooms.

Sample No: MAVA 01 WP017 Location: Room 201 Substrate: Plaster



Physical Characteristics	Wallpaper (s	<u>Border</u> ame as on fireboard)
Pattern and Date:	Floral, ca. 1840	Floralflocked, ca. 1840
Sample Size:	(Taken from fire- boardfull repeat)	4" wide (full repeat)
Principal Colors:	Pink, yellow, gray on a white ground	Gray, blue, pink, green
Paper Type:	Rag	Rag
Paint Type:	Distemper	Distemper, varni <mark>sh</mark> for flock
Method of Paper Manufacture:	Machine	Machine
Paper Texture:	Smooth	Smooth
Printing Technique:	Machine	Machine

Comments: A small fragment of this wallpaper was found under the casing of the cupboard that has been built into window 212 in room 201. This sample confirmed that the wallpaper had been used on the walls as well as on the fireboard. The photo above is taken from the fireboard.

Sample No: MAVA 01 WP018 Location: Room 205 (behind door 206 casing) Substrate: Plaster



Physical Characteristics	Wallpaper	Border
Pattern and Date:	Floral	Floral
Sample Size:	3 <sup>1</sup> <sub>2</sub> " × 10"	
Principal Colors:	Yellow, green, brown on a white ground	Green, blue
Paper Type:	Rag	Rag
Paint Type:	Distemper	Distemper
Method of Paper Manufacture:	Machine	Machine
Paper Texture:	Smooth	Smooth
Printing Technique:	Block	Flock and block

Comments: This sample was found behind the casing of door 206 in room 205. This door was moved roughly 2' to the north of its original location ca. 1850 (see description of room 205). A second sample of this paper was found in room 105, sandwiched between the green lining paper and the Zuber scenic. The Zuber scenic was hung in 1841.

Sample No: MAVA 01 WP018A Location: Room 209 (fireboard) Substrate: Plaster

Physical Characteristics	Wallpaper	Border
Pattern, and Date:	Geometric, ca. 1840	Greek key, ca. 1840
Sample Size:	3" × 4"	
Principal Colors:	Green on white ground	Gray, black
Paper Type:	Rag	Rag
Paint Type:	Distemper	Distemper
Method of Paper Manufacture:	Machine	Machine
Paper Texture:	Smooth	Smooth
Printing Technique:	Block	Block

Comments: This wallpaper and border are on the fireboard from room 209.

Sample No: MAVA 01 WP019 Location: Room 210 (fireboard) Substrate: Canvas



Physical Characteristics	Wallpaper	Border
Pattern and Date:	Floral, ca. 1840	Geometric
Sample Size:	Full firescreen	2-3/4" wide × 4"
Principal Colors:	Green and white on white ground	Green and black on white ground
Paper Type:	Rag	Rag
Paint Type:	Distemper	Varnish and sheared rag
Method of Paper Manufacture:	Machine	Machine
	Maerinie	
Paper Texture:	Smooth	Smooth
Printing Technique:	Block	Flock

Comments: It has been assumed that the wallpaper found on the fireboard in this room was also used on the walls, as was the case in room 201.

## APPENDIX M: COFFIN HANDPAINTED WALLS STUDY

Study of Freehand Juinted Walls Martin Van Buren Historic Site : Comparisons-Attribution Margaret Coffin

Land 70 VAN WORMERVILLE DLEY OGLENS (now West Fort Ann) FALLS 1)ermont. New ONDRTHFIELD BERNARDSTON ALBANY DEFREESTVILLE 50/HOAG'S CORNERS SRichmond Massachusetts OMUITZESKILL KINDERHOOK O HUDSON Places Involved in Study of Freehand - Fainted Walls MVBHS - home of Peter Van Nesa - 1797 1 2. Van aletyne House - mid 1700's 3 Schermer horn / Huyn House - mic Schermethorn Huyn House - mid 1700's 4 nicholas Kittle House - 1760 Turnet House - late 1700's 6 John E. Van Alen House - 1770 7 Jacob Van Wortemer House - 1780's - 90's welling place of Jessup"cousins" I Home of Jared Jessup citca 1900 311

Kinderhook, N.Y. March, 1981

I have seen freehand-painted walls in five houses in this vicinity and have photographs from a sixth besides the walls at Martin Van Buren Historic Site. I am sure that the walls in four of the houses were painted by the MVBHS painter. Others quite possibly were. There is similar painting in houses in western Massachusetts and in southwestern Vermont.

Margaret Coffin

VAN ALSTYNE HOUSE now owned by the Harold Roths, just south of Kinderhook Village on Rte. 9. There is painting on unpainted plaster in a cellarway which was once part of the front hall. Black, white and vermilion brush-stroke motifs spaced at random in an all-over pattern are almost identical with Design D at MVBHS. A scroll design at the bottom of the wall is like that at Stratton Tavern in Northfield, Massachusetts. The Roths date their house as earlier than 1790.



JOHN E. VAN ALEN HOUSE now owned by the Sam Swansons is in DeFreestville, N.Y. Painting was discovered when a large mantel was removed to uncover an earlier mantel. Paint has now been scraped to find additional design throughout this second floor bedchamber. The wall has a brown paint background. Designs uncovered are borders: one resembles MVBHS Design B although painting does not look as professional. The second design, a brush-stroke border, for some reason appears technically better, and resembles brush-stroke borders at MVBHS. This home was built circa 1770.

VAN ALEN

### TURNER/

ZULLO HOUSE (Owners, the William Zullos) Turner Hill Road, Hoag's Corners, N.Y. Wall painting is in an upper hall. Background paint is light grey. The pattern is intricate and reaches from ceiling to chair rail. There are white curving stems covered with brush-stroke leaves and flowers in great variety. Overstrokes give shape and add realism to flowers. There are borders of black and white brush strokes, some identical with those at MVEHS. There is an additional stylized flower border. All-over pattern is cleverly adapted to available space. The frieze, made up of festoons, was partially covered when the ceiling was lowered. Colors are the familiar black, white and vermilion. This house was built during the last half of the 18th century.





NICHOLAS KITTLE HOUSE, Muitzeskill, N.Y. now owned by Mrs. Doris Culver. Wall painting is in a parlor. This an all-over brush-stroke pattern, with motifs placed at random on a blue background; this resembles Design D. MVBHS. The brush-stroke border around lines of construction is black and white and like MVBHS borders. This house was built in the mid-18th century by Nicholas Kittle who died in 1781 leaving the home to his son Johannes who resided there until his death in 1826.



SCHEMERHORN/PRUYN HOUSE, Kinderhook, is now owned by Roderick Blackburn. A remnant of plaster from an early chimney breast which shows painting has been preserved. The background paint is brown, the shade used in the Van Alen house. The portion which has been saved is a frieze largely made up of brush-stroke motifs in the same colors as those at MVBHS with the additional use of light brown. A flower somewhat like the shell-like flower in Design A, MVBHS, is a part of a central motif. A brush-stroke border is the same as the one which is a part of Design F, MVBHS. The house was probably built in the mid-1700's.





Motil in Design A is ver -milion with thin white over strokes.

314

JACOB VAN WORMER HOUSE, West Port Ann, N.Y. (This site is furthest away, above Glens Falls.) The building has been taken down and may be purchased by New York State to be reërected in the State Museum. Fainting here was found in two rooms on the main floor. In one room diamonds have been marked off with brush-stroke borders. Each diamond has a different motif in its center, often a flower or a spray of leaves. There is a brush-stroke border and a frieze with festoons and tassels. The background was off-white and is today quite yellowed from the residue of wallpaper paste. In the parlor the background is blue-green paint. The pattern there combines elements from MVBHS Design D with the design used at the Zullo home. A frieze has stylized tulips. Jacob Van Wormer was a Revolutionary War soldier who migrated to Washington County and built his house soon after the war.









STRATTON TAVERN, Northfield, Massachusetts. (Present owner is Old Sturbridge Village, Inc. The building eventually will be moved.) An upper chamber here has a well-preserved wall with brush-stroke motifs within diamonds like the (2) Van Wormer house; brush-stroke borders; a scroll design on the lower wall, (4) and a frieze with brush-stroke swags. The scroll design is like that at the Van Alstyne House. The workmanship is excellent and obviously the hand of the MVBHS painter. The tavern was built in the early 1760's.



Freehand walls exist or are known to have existed in Maine, Massachusetts, Connecticut, Vermont, and on Long Island as well as along the eastern boundary of New York State. (Philip Parr, from Cazenovia in western New York, who for years has collected stenciled wall patterns and studied early wall decoration in central and western New York, says that he has found <u>no</u> evidence of freehand painting before the Victorian period in that area.)

One of the few names of freehand painters that is known is that of Jared Jessup. Early 19th century wall painting in Massachusetts and Connecticut has been attributed to this artisan. Photographs of work attributed to him have led me to appraise his work as less expert than the work of the MVBHS painter. However, I begin to wonder if our local walls should be attributed to him since discovering that for the period when such wall painting appears to have been done, Jared Jessup resided in Richmond, Massachusetts, a little community between Queechy Lake and Lenox, only a few miles from here. I have, to date, no proof that Jessup was the MVBHS decorator or that Jessup was not the MVBHS decorator. My attempt to prove attribution will be ongoing. I hope to be able to add to this portion of the report.

MARTIN VAN BUREN NAT'L HISTORIC SITE Margaret Coffin STUDY OF Freehand-Painted Walls March 1981

------ partition apparently removed ...... chairrail removed Scale: Jinch=lfoot




Room 109 Designs D, E



E N W Cellarway 108 Design D



W Stairway - 110 Design D







Room 207 Design G





<u>Walls</u> Whitewashed	<u>Woodwork</u> Unfinished	Ceiling and Cornice Unfinished	<u>Floors</u> Unfinished
Whitewashed	Unfinished	Whitewashed	Unfinished
Whitewashed	Munsell 5Y 9/2 Benjamin Moore GB-60	Whitewashed	Unfinished
Wallpaper WP001	Munsell 5Y 9/2 Benjamin Moore GB-60	Whitewashed	Unfinished
Whitewashed	Munsell 10YR 8/2 Benjamin Moore CB-35	Whitewashed	Unfinished
To be determined during restoration	Munsell 5Y 9/2	Calcimine	Unfinished
Whitewashed	Munsell 5Y 9/2 Benjamin Moore GB-60	Calcimine	Unfinished
Wallpaper WP003 Border from fireboard 002	Munsell 5Y 9/2 Benjamin Moore GB-60	Calcimine	Unfinished
Zuber scenic and balustrade	Munsell 5Y 9/2 Benjamin Moore GB-60	Calcimine	Unfinished
Wallpaper WP006 and its border	Munsell 5Y 9/2 Benjamin Moore G <b>B-6</b> 0	Calcimine	Unfinished
Whitewashed?	Munsell 5Y 9/2 Benjamin Moore G <b>B-6</b> 0	Calcimine	Unfinished
To be determined during restoration	Munsell 5Y 9/2 Benjamin Moore GB-60	Calcimine	Unfinished
Wallpaper WP015 No border	Munsell 5Y 9/2 Benjamin Moore GB-60	Calcimine	Treads and risers of stairs Munsell 5Y 9/2 Benjamin Moore GB-60
Munsell 10YR 6/4 Benjamin Moore CB-9	Munsell 10YR 8/2 Benjamin Moore CB-35	Calcimine	Unfinished
Wallpaper WP011 No border	Munsell 10YR 8/2 Benjamin Moore CB-35	Calcimine	Unfinished
To be determined during restoration	Munsell 10YR 8/2 Benjamin Moore CB-46	Calcimine	Floor unfinished Stair treads and risers Munsell 10YR 6/2, Benjamin Moore ET-45

Lindenwald Finishes Schedule - Interior Rooms

and Cornice Floors	Unfinished	Unfinished	Unfinished	Unfinished	Unfinished	Unfinished	Unfinished	e Unfinished	Unfinished	eUnfinished	e Unfinished	Unfinished	Unfinished	Unfinished	Unfinished		Unfinished	ched Unfinished Unfinished shed
	al Calcimine	Calcimine 46	Calcimine 30	Calcimine 30	30 Calcimine	30 Calcimine	Calcimine 30	Calcimine 35	Calcimine 35	Calcimine 60	Calcimine 60	Calcimine 68	Cafcimine 60	Calcimine 60	Calcimine	60	60 Whitewash	60 Whitewash 46 Whitewash 33 Whitewash
Woodwork	Will require a specia match	Munsell 10YR 8/2 Benjamin Moore CB-	Munsell 2.5Y 9/2 Benjamin Moore GB-	Munsell 10YR 8/2 Benjamin Moore GB-	Munsell 10YR 8/2 Benjamin Moore CB-	Munsell 10YR 8/2 Benjamin Moore CB-	Munsell 5Y 9/2 Benjamin Moore GB-	Munsell 5Y 9/2 Benjamin Moore GB-	Munsell 10YR 9/1 Benjamin Moore OW-	Munsell 5Y 9/2 Benjamin Moore GB-	Munsell 5Y 9/2 Benjamin Moore GB-	Munsell 5Y 9/2 Benismin Moore GB-	םבוולקוווו שחחוב הח	Munsell 10YR 8/2 Benjamin Moore CB-	Munsell 10YR 8/2 Benjamin Moore CB- Munsell 5YR 6/1 Benjamin Moore GN-			
Walls	Closest to 5Y 9/1 with dispersed blue pigment particles Benjamin Moore OW-68	To be determined during restoration	Wallpaper WP014 No border	To be determined during restoration	Whitewashed	Whitewashed	Whitewashed	Whitewashed	To be determined during restoration	Wallpaper WP017 Border fireboard 005	Whitewashed	To be determined during restoration	Wallpaper WP015 No border	To be determined during restoration	Wallpaper WP019	alla Ito geoliteti in pol del	whitewashed	whitewashed Whitewashed
Room	114, 115, 116	117	118	119	120	121	122	122	123	201	202, 203, 204	205	206, 207, 208	209	210		211	211 302, 303, 304, 305

Element to be Painted	Color Notation	Paint Type
Brick body	Munsell 10YR 8/4 Benjamin Moore GB-4	PVA latex Benjamin Moore's "Moorgard"
Vindow blinds		Long oil alkyd "Moore's House Paint"
Vood trim	Munsell 2.5YR 4/2 Benjamin Moore GN-49	Long oil alkyd "Moore's House Paint"
<sup>z</sup> oundation and Upjohn borch		PVA late× Benjamin Moore's "Moorgard"*
Vindow sash	Munsell 2.5Y 9/2 Benjamin Moore OW-14	Long oil alkyd "Moore's House Paint"
Aetal roof	Munsell 7.5YR 5/2 Baniawin Maara 30.54	Primer - Moore's Ironclad 15400 zinc chromate primer
	(old numbering system)	Finish - alkyd Moore's "Impervo High Gloss Enamel"

Lindenwald Finishes Scheduled - Exterior Paint Sample for Color Matching

\*This paint will require special mixing to get the correct sand-finish.

## APPENDIX N: MAN LABS REPORT

.



## May 20, 1979

North Atlantic Historic Preservation Center Charlestown Navy Yard, Bldg. 28 Boston, Mass. 02129

Attn: M. Fadar Re: P.O. PX 16000-9-0297

## SERVICE REPORT

A large metal plate marked "TOP #3, Sep. 27 '78" was received with one surface covered with tar and grit while the opposite side was weathered but relatively clean. Sections of the plate were then washed in trichlorethylene, dried and examined in a SEM with an attached EDAX detector. The only sample preparation was a slight polish on the cut edge to remove the obvious lead smear across that edge.

A typical region was examined using the SEM mode of the instrument and then an EDAX spectrum obtained from that area. The spectra were obtained from three types of regions of the plate:

51979:	001 and	002	These data are from the edge of the plate.
51979:	101 and	102	These data are from the top or weathered
			surface of the plate.
51979:	201 and	202	These data are from the under or tar
			coated surface of the plate. It was
			also noted that this surface contained
			regions covered with rust.
51979:	301 and	302	These data are from a 60% Lead-40% Tin
			solder used as the standard for the
			comparisons.
51979:	401 and	402	These data are from a sample of 1024
			cold rolled steel plate used as a standard.
			The small amount of manganese, phosphorous
			and sulfur in such steel is not detected
			under these conditions. The carbon is
			beyond the range of this EDAX detector.

The data have been obtained using 20KV, 75 microamps, a 40° tilt and an 18 mm working distance with a spot size of 6 and a magnification of 900X. All spectra have been taken using

a 100 second time period with the area being examined held constant by adjustment of a cursor field in the SEM scope. The EDAX spectrum analyzer was pre-set so that the following elements would be detected in pre-set channels:

#0

Total Counts in the 100 Second Period

#1	33450ev	Tin	Lα	
#2	1500	Aluminum	Kα	
#3	700	Tin	М	
#4	10550	Lead	$L\alpha$	
#5	1750	Silicon	Kα	
#6	2350	Lead	М	
#7	5400	Chromium	Κα	(Pre-set windows not used)
#8	1300	Magnesium	Κα	(Pre-set windows not used)
#9	6400	Tron	Kα	

The data obtained from the various regions of the plate and the standards used for comparison are summarized in Table I.

The information presented in the table show that the center core within the plate is most likely a low carbon steel. The average counts obtained for iron from the core are within experimental error of the counts obtained from a specimen of cold-rolled steel. Thus the core is about 97-98% iron.

The under surface of the plate shows some tin and lead coating but the coating is covered with a significant layer of rust. It is difficult to estimate the composition of the coating on the surface that had been in contact with the tar and hence most likely the surface attached to the roof support members.

The top surface of the sample is mostly tin and lead with some possible traces of silicon, aluminum and magnesium. The composition of the coating, obtained by a comparison to a 60-40 Lead-Tin solder is about 60% lead and 17-18% tin.

E.P.Warekois

Chan. #	301-302 60% Pb 40% SN	401-402 Low Carbon Steel	001-002 Edge	100-102 Top Surface	201-202 Under Surface
0 Total	179952 170431	121840 131113	119446 131708	135940 129971	72147 68017
#1 SN L	22552 222 <u>22</u> 22387	1979 2166	3164 2756 2960	9898 10355 10126	4389 4754 4571
#2 A1 K	2601 244 <u>7</u> 2524	1064 1185	1194 1348	2524 2211	1507 1209
#3 SN M	1026 99 <u>0</u> 1008	270 263	291 312	897 823 860	235 247
#4 Pb L	4537 4130 4333	506 558	497 557	3492 343 <u>4</u> <u>3463</u>	606 728
#5 Si K	4088 3752 <u>3920</u>	1453 1548	2070 19 <u>74</u> 2022	4544 391 <u>9</u> 4231	4443 290 <u>2</u> 3672
#6 Pb M	24877 22470 23623	1798 1999	2196 2192 2194	22554 243 <u>34</u> 23444	5291 4458 4875
#7 Cr K	2349 2267 2308	1568 1798	1469 1687	2014 1926	1134 984
#8 Mg K	1637 1450 1543	605 671	697 804	1384 1329	1312 845
#9 Fe K	2220 2072 2146	55198 59307	50037 57424 53730	1979 183 <u>3</u> 1906	11408 11807 116072

TABLE I

-

0 100510119444184 1492-04500V 164187	0 1005EC131708INT VS:5000 HS: 50EV/CH
2. 1500FV (19418) 2. 200FV (19418)	
- 4 10550EV - 4971N1 5 1750EV - 207010	
6 2750FV 21261HT 7 5400EV 14691HT	
8, 1000EA, 200751N1 5, 0400EA, 200751N1	
laa las ka ke laa	
51979 101 EDAX	00  05  10  15  20  51979 102 EDAX



.)		1005£6 .450EV. 	121700101 2256101 1	
	, , , ,	2001 V 10550EV 1750EV	.1.183 557183 1473783	
		2350EV 5400EV	-2192347 -168 - 447	
	9.	1200EV 6400EV	004101 57424101	
4	<b>9</b> 0 519	<b> 05  1</b> 79 102	0  15  2 Edax	0



1 12月15日12 12日2日11月1 1日	0 1005E01200241N1 2
2 1500EV 2524IN1 .	アルビート コード すたり長葉 イコント ちかまねる 一
700EV 0971N1	2 1 1500EV 12211141
4 10550EV 34921NT	, , 70,0 E,∀. 8201 N 1 ·
5 1750EV 45441N3	4 10550EV 3434INT
□ 12 100 [禁止 24] 444 45 10 10	5 1750EV 3919INI
7 5400EV 20141NE	6 [2350EV 22554INT
8 1000EV 1384INI	7 5400EV 19261NV
9 6400EV 1979INT	化二乙二丁基乙二丁二甲基甲基二乙二甲基甲基二乙二甲基甲基二乙二乙二甲基甲基
	· · · · · · · · · · · · · · · · · · ·
00 <u>, 05</u> 10 15 120	
51979 101 EDAX	
	51979 102 EDAX



and the state	- C.C. E.H. 2. E.R. E		6,0	- 1005li ou	00171N1
· 같는 하늘만[₩*]			1	450EV - 4	754184
.2 1500EV	1507181	- -	2	1500EV 1	209184
)	205TN I			700EV.	247181
10550EV	6061NI		-1	10550EV	720181
5 1750EV	4 4 403 1 84 1 👘 🖉		<b>!</b>	-17501V - 2	11.66.11.8.78.8
6 2.50EV	5291143				450181
2 54004 V	11.4141			540018	0.04144
8 1300EV	1312181		8	1300EV (	845181
9 6400EV	11408181		9	6400ÊV° J1	807181
		2			
		1		i	
00 05 1	8 15 20		0 0	05 10	15 20
5197.9 201	EDAX		519	79 202	EDAX



n ~1005LC1799521N1   1 .450LV 225521N1   2 1500EV 26011NT   2 1500EV 26011NT   2 700EV 10261N3   4 10550EV 45071N3   5 1756EV 248771N3   7 5400EV 23491N3   8 1260EV 16371N3	n 1005101704.1101   1 14506V 22220101   2 1500EV 2447101   2 1500EV 2447101   3 700EV 990101   4 10550EV 41.0101   5 1750EV 3752101   6 2350EV 2267101   7 5400EV 1450101
8 100EV 1637INT	6 1300EV 1450TNT
9 6400EV 2220INT	9 6400EV 2072TNT
00  05  10  15  20	00  05  10  15  20
51979 301 EDAX	51979 302 EDAX





00 05 10 15 20 51979 401 Edax	<b>60 05 10 15 20</b>
a equate 22138101	9 0400EV: 59207184
0 1 001V 605184	B I HOFY A. LINI
7 5400EV 1491141	2 NADOFY ISCRIDE
6° 2350EV 1798TAI	
5 1750EV 14521NT .	
4 10550EV - 5061A1	4 10550EV 555181
C. 700EV 2631H1	
2 1 1 0 0 0 1 V 1 0 0 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	i i i i i i i i i i i i i i i i i i i
	1 4506V 2166181
0 1005101218401441	· # 1005101 111 181
in some to take a second	· · /



## APPENDIX O: MORTAR AND PLASTER SAMPLES

The original sheets for this appendix consist of labeled squares of sand, fines, and fiber binder (if any) from all of the tested mortar and plaster samples. Since it is not possible to reproduce this material, two original sets are on file at the Denver Service Center, Technical Information Center, and the North Atlantic Historic Preservation Center.

As the nation's principal conservation agency, the Department of the Interior has basic responsibilities to protect and conserve our land and water, energy and minerals, fish and wildlife, parks and recreation areas, and to ensure the wise use of all these resources. The department also has major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

Publication services were provided by the graphics staff of the Denver Service Center. NPS D-8





.