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HISTORIC STRUCTURES REPORT, PART III

ARCHITECTURAL DATA SECTION

RESTORATION OF THE

ARCHER HOUSE

Yorktown, Virginia

November, 1960

by

Lee H. Nelson, Architect

Colonial National Historical Park

Yorktown, Virginia

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Prepared by: Lee H. Nelson Date Nov., 1960
Architect

Approval Recommended; /s/ Henry A. Judd Date Dec. 23, 1960
Acting Supervising Architect

Approval Recommended: /s/ Eugene R. De Silets Date Dec. 23, 1960
Acting Chief, EODC

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APPROVED: (Sgd) Elbert Cox Date MAR 7 1961
Regional Director

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I. COPY OF A MIMEOGRAPHED STATEMENT

THE ARCHER HOUSE

Restoration of A Typical Dock-side Building

in Colonial Yorktown

Colonial National Historical Park, Yorktown, Virginia

This little frame house is the only surviving above ground structure along Colonial Yorktown's once busy waterfront area. During the Siege of 1781, some 45 buildings were crowded together along the beach, serving the port's needs - shops, store-houses, warehouses, ordinaries, etc. Most were typical waterfront or dock-side structures, that is, small buildings, shacks, bake-ovens and lean-tos, architecturally quite plain, occupying public land known as "The Commons," but in the main, devoted to private use. The heaviest concentration was in the general area of the Archer House, between present Comte de Grasse and Read Streets.

Abraham and Thomas Archer, brothers, owned several such buildings "under the hill," this house among them. They continued in the occupancy, business and use established by their grandfather Abraham in 1729 and taken in due course by their father, Thomas. This structure probably was a "store-house" a building with a dual function. The river end may have served as a shop and loft, unplastered and unheated, while the other half served as a dwelling.

The original house was probably built in the mid-18th century but, except for most of its sturdy stone cellar walls and its chimney stack, was destroyed in the "great fire" of 1814, which also swept away other buildings along the waterfront. The stone foundation walls and the brick chimney survived and are preserved here.

About 1820 the present frame house was built atop the old foundations, using the old chimney. Leveling courses of brick were laid over the stone walls to correct settlement caused by the sandy sub-soil. The restoration faithfully follows the early 19th century fabric, which was probably similar to the colonial building that originally rested on these old foundations. The clues to later construction are the use of early 19th century cut nails and of early 19th century profiles and mouldings in door and window trim. The early 19th century framing has been preserved, being replaced in part where the original was rotted or destroyed. However, the pegged-braced frame follows the 18th century mode of construction. Contrary to the modern concept of rugged pioneer construction, this building was not well built. Details mark the house as architecturally second-rate. The variable spacing of the weatherboarding, the unconventional use of mouldings in the cornice may be noted. Close study has revealed that the carpenter's moulding-planes were worn and that repeated sharpening left him with tools that were inadequate for producing the crisp profiles usually encountered in 18th and early 19th

century details. The naïveté of these mouldings has been carefully reproduced.

Measured drawings and photographs have been made to record conditions existing before restoration was begun. Suitable interior alterations and adjustments were made to adapt this building for residential use. The house will be privately occupied and not open for public inspection.

This exterior restoration is interesting because it preserves the appearance of a plain building as compared with the more elegant and refined architectural examples which by virtue of their substance and better construction, more often survive to the present day.

The colonial foundation is interesting for its use of "ballast stone", stones cast off by masters of incoming ships. The latter were frequently laden with finished goods, thus requiring a ballast, whereas outbound ships were usually loaded with heavier raw materials. Befouling of the harbors with ballast rock led to laws which prohibited ship masters from dumping ballast into the harbor, under penalty of fine. Later, ships brought more useful building materials as ballast, to be sold at dockside. The small quantities of brick thus brought, however, made no appreciable impact on the local building scene and most building materials continued to be locally manufactured.

Among the stone types noted are foreign river rock, granite of several varieties, coral, slate, and local marlstone. This house is the only local example that utilizes such ballast stone.

The original chimney retains its old "bonnet," which was intended to eliminate possible downdraft. The chimney is interesting for

its several brick sizes, especially the larger, which are similar in size to those found in the Sessions House, still standing along Main Street and visible up the "Greate Valley" from this house.

The roof is covered with cedar shingles matching examples of original shingles found sealed in the plastered walls, where they had been used as shims in the framework. It may be noted that the shingles are "swirled" in the dormer "valleys," a colonial practice which eliminated the need for flashing. The exterior white-washing follows that found on existing examples of the original weatherboarding. Doors and windows are painted iron-oxide red, known in colonial times as Spanish Brown.

To visualize this house in its waterfront environment, one must imagine many such structures, closely crowded upon each other, with narrow alleys between, in a scene of apparent confusion, busy with the activity of merchants, keepers of ordinaries, sea-faring men, and mechanics of all trades, with the public wharf close by as a focal point of this activity.

Fire, time, and town decline have all combined to change that scene. Even the shoreline has changed to some extent as the waters of York River have encroached on it. This building remains to remind us that Yorktown was once a busy port.

.....

Lee H. Nelson
May 13, 1960

II. FOREWORD

All previous historical, archeological and architectural reports are cited in the Historic Structures Report (Architectural Data), Part II, prepared by the writer in June 1959.

Architect Lee Nelson and Buildings Restoration Specialist Gordie Whittington arrived in Yorktown to begin restoration work on February 16, 1959. Prior to that time, the Archer House had been stripped of its lath and plaster, modern partitions, front porch, and modern chimney, under the supervision of architect George F. Bennett.

III. NARRATIVE OF THE RESTORATION

A. Excavation of the Cellar and Foundation Walls

On February 24, 1959, two laborers were hired. We started cleaning of the house and grounds, followed by a detailed inspection of the fabric. The biggest problem at hand was stabilization and partial reconstruction of the "ballast" stone foundation walls.

These walls in part, were of 18th century construction and had survived the fire of 1814. They were reused when the present house was built about 1820. The original foundations were laid upon the sandy shore of York River, a situation which has caused conspicuous settlement resulting in noticeable mortar failures. The problem has been further aggravated by frequent flooding from the nearby river.

During the last century, the river has encroached several feet upon the shores of Yorktown, so that the present mean high tide is nearly level with the lower extremities of the Archer House stone foundations. The 1933 hurricane completely demolished the above grade stonework along two walls and did material damage to other parts of the masonry. A combination of erosion and flooding had deposited several feet of sandy fill into the cellar area, and had to be removed prior to effecting structural repairs to the stonework. During excavation of the cellar fill, we made an interesting discovery relating to an early use of the site. Just below the cellar floor level, a

quantity of salt glazed pottery fragments were turned up, mixed with a surprising amount of sagger fragments.

An 18th century sagger was a tall container made of highly fired clay, designed to contain and protect pottery during the firing process. Although pottery and sagger fragments constantly turn up on Yorktown excavations, such a concentration is unusual. Sagger fragments are evidence of pottery manufacture, and this cache would seem to indicate that while we did not actually find a pottery kiln, there must have been one nearby. In the same area, we found about three cubic feet of man-deposited clay, perfectly acceptable for pottery use, and geologically foreign to the otherwise undisturbed sandy sub-soil. All of the objects were sent to Jamestown for cleaning, identification and accessioning by the Colonial National Historical Park Curatorial Laboratory.

B. The "Bake Oven"

An equally interesting discovery was made while excavating the exterior surfaces of the stone foundation wall. At a point about five feet from the north corner, along the northwest wall, we encountered the remains of a bake oven of rather generous proportions. Since the oven platform was contiguous with the Archer House, we surmised that it might have been related to an early "shop-keeping" function of the building. However, further excavation revealed that the oven was part of an adjoining structure.

No above ground traces of that building survive, but by exposing the foundations, we learned much about the immediate environment of the Archer House. The adjacent building: (1) was located at right angles to the Archer House, (2) was built with a foundation of brick and marl, complete with cellar and outside cellar entrance, (3) was like the Archer House in that it had a chimney at one end, (4) was nearly similar in size and proportion to the Archer House, (5) accommodated a brick beehive type of bake oven, built on grade behind the chimney, with access only from the cellar, and (6) the bake oven actually abutted the stone foundation walls of the Archer House; such was the congestion of the waterfront area.

The existence and location of this structure is indicated on the 1781 Berthier plan of Yorktown.¹ The bake oven was examined by Regional Archeologist John Griffin on March 10, 1959, and photographed by the writer on the same day. The artifacts from this limited excavation were sent to the Curatorial Laboratory at Jamestown.

1. Captain Louis-Alexandre Berthier, "Plan d'York-Town pour Sevir a l'Establissement du Quartier d'hyver du Regiment Soissonnois; et des Grenadiers et Chasseurs de St. Onge le 12 g.^{bre} 1781". Papers of Louis-Alexander Berthier, document no. 29, Manuscripts Division, Princeton University Library.

The writer has prepared an Historic Base Map (NHP-COL-3158) of the Archer House Area, which locates the bake oven together with nearby foundations previously excavated by Archeologist Griffin. In addition, the bake oven appears in more detail on an HABS drawing prepared by the writer. Both drawings are appended to this report.

C. Foundation Repairs

Following excavation and cleaning of the interior and exterior surfaces of the stone foundation, the below grade masonry was repaired, repointed and parged with one inch of waterproof cement on the exterior. This was completed on March 25. Concurrent with the repair work was the introduction of pipe sleeves through the below grade stone walls so as to provide access for utility lines, i.e., water, electricity, sewerage, etc.

We then commenced removal of the above grade stone and brick patchwork resulting from the 1933 storm damage. In view of future storm damage and frequent high tides, we constructed a concrete foundation along the river end of the house, designed to receive a stone veneer so as to match the older masonry. That concrete wall was reinforced with steel so as to resist the buffeting waves in times of high water, and the ramming effect of floating timbers which did so much damage in 1933.

Before the concrete wall could be built, the entire river end of the house was shored up with sheet plywood trusses, nailed to the first floor studs. This method of shoring is very simple, spanning 20 feet in this case, and allowed us to reuse the plywood at a later date. By April 8, the formwork, placement of rebar, and pouring of concrete completed the work for a new river end foundation wall.

Throughout much of this early work, architectural investigation continued including measuring of the fabric and preparation of the working drawings.

On April 10, shoring of the front wall was started and the entire house brought back to level. Natural forces and storm damage had created a maximum settlement of eight inches at the east corner of the house. The north and south corners had settled about three inches, while the west corner remained undisturbed and served as reference point for the leveling operation.

During the latter part of April and most of May, repair and replacement of the above ground stonework was effected. This involved removal of the modern brick patchwork, salvaging of the old stone, removal of mortar, and relaying of the salvaged stone.

The uniqueness of the foundation, that is, the use of imported ballast stone, caused unexpected difficulties. No stone or river rock of a similar character was available, which left us no alternative but to salvage the original stone for reuse by removing the old mortar. This was accomplished by immersing the stones in a very strong solution of muriatic acid, and subjecting them to continuous brushing and scraping. This method succeeding in completely removing the old mortar, but it was a slow process.

The original stone thus salvaged was insufficient to rebuild the above-ground foundation walls, but the shortage was covered by obtaining a small quantity of similar ballast rock still lying on the nearby river bottom, where it had been discharged in the 18th century. This was accomplished one day during an unusually low tide.

By the first week of June, all masonry work had been completed, including brick leveling courses over the stone, and repair work to the cellar bulkhead. The original mortar color and texture was reproduced by using the following mixture (by volume):

- 4 parts Richmond yellow sand
- 1 part white cement
- 1 part white masons lime
- 1/4 part crushed oyster shells

D. Structural Repairs to Framing

While the above work was in process, the carpenters had removed the rotted sills, weatherboarding, window frames, etc., and thereupon engaged in the reproduction of exterior trim, door and window frames, and weatherboarding, using new materials. Arkansas yellow pine was almost exclusively used for that purpose. Exceptions were: white pine for dormer cheek boards (because of the unusual width required), and Douglas fir for parts requiring a cross sectional area, unobtainable in other species.

Sills were replaced with three 2 x 8's, nailed together, and anchor bolted to the foundation.

On June 8, all sills had been replaced, followed by structural repairs to the wall studding, corner posts, wind bracing, etc. Most of those original parts needed only splicing or strengthening with supplementary members. Incidentally, all new materials were dated using a set of steel dies.

Since the first floor joists would require a span of 20 feet, the ensuing deflection and springiness was counteracted by installing a center longitudinal sill (3-2 x 6's) supported by two brick piers (instead of concrete as shown on the working drawings).

E. Chimney Stabilization

Although the chimney appeared structurally unsound, and the writer recommended its reconstruction in the Part II Report, we decided upon closer inspection that the chimney could be saved by careful repointing. Most of the mortar had lost its strength to a depth of about two inches, and was removed without difficulty. The upper section of the chimney, having walls only four inches thick, was structurally precarious, and called for considerable caution. Only the chimney bonnet required reconstruction. By the 17th of July, all chimney repair work was complete, including fireplaces and hearths, using the same mortar mixture previously cited. The chimney and hearths were also flashed against termites. A damper was later installed in the first floor fireplace, and the upper fireplace was sealed off and made inoperable.

In the meantime the rotted first floor joists had been replaced. The second floor plate on the river end was also replaced as it was in an advanced state of decay. All new window frames were installed; the exterior walls were sheathed with $\frac{1}{4}$ " plywood, and the floors were sublaidd with $\frac{3}{4}$ " plywood. Handplaning of the weatherboarding was also finished during the period of masonry repairs, followed by face and back priming of the dressed siding.

The original second floor joists were sound, but had developed 1" - 1½" of sag, and their springiness spelled trouble in terms of a good plaster job. The sag was removed by splicing the old joists with 2 x 8's.

F. Exterior Carpentry

On July 17, re-siding of the entire house commenced. A contract for making the new window sash was awarded on July 20. By August 11, all siding was finished, including new cornices, corner boards, verge boards, dormer cheek boards, and dormer gable boards.

Reshingling of the house started on August 18. We used a 24" red cedar shingle, matching one found in the walls, used as a shim in such a way that it had to be coterminus with the original fabric. The existing roof sheathing, installed 1932, was found to be in good condition and left in place, except to install "kicker" blocks for the cornice. From the dormer ridges to the main roof ridge, the solid sheathing was changed to lathing, to allow for ventilation in the attic space.

Other work in August included "roughing in" of interior partitions, knee wall repairs, installation of first and second floor bridging, flashing of roof ridges and valleys, and fabrication of cellar bulkhead doors.

During early September, the sash were fitted to the frames, primed and glazed. The exterior doors were also finished and installed.

By mid-September, most of the programmed funds had been spent and the job shut down for a month. During this interval, the writer turned his attention to the Dudley Digges (West) House, and started the architectural study of that building. Only Buildings Restoration Specialist Whittington remained on the job, finishing the exterior steps and the loading dock. The general design of the loading dock was suggested by Supervising Architect Charles E. Peterson (during his visit September 23) as appropriate to the 18th century "shop" function of the building.

After October 20, interior improvements commenced with rough electrical wiring and plumbing. Framing of interior partitions was finished, stair treads were replaced, interior doors were cased, new base boards were installed and the kitchen ceiling was furred down.

G. Heating - Cooling System

By the end of November, the house had been prepared for the installation of heating-cooling equipment, and the working drawings finished preparatory to issuing bid invitations. The plan to house the heat

pump in a colonial style well house was modified to use a necessary-house, or privy. This change was made because of the difficulty in keeping the incoming fresh air separate from the air discharge and to prevent a short-circuit of air between those two points. Louvers on each side of the privy provide sufficient air intake to prevent a static load on the fan. The intake area was further supplemented by notching the sills and allowing air to enter below the weatherboarding. The privy "cleanout" door was designed to act as a discharge for spent air. The privy was also planned to accommodate all major electrical switch boxes and meters.

Construction work was suspended at the Archer House during the month of December, pending final design of the heat pump enclosure and duct layout system. Attention was transferred once again to the Dudley Digges House during that interim period. Drawings, Specifications, and Invitations to Bid for the heating-cooling installation were issued in early January, with bid opening date set for January 27, 1960.

We started erecting the heat-pump outbuilding on January 6, 1960, and proceeded with that work during the bid invitation period. Low bidder was Nichols Plumbing and Heating Co., Newport News, Va., with a price of \$2245. That figure included labor and materials for furnishing and installing a General Electric Heat Pump, split system, with a cooling capacity of three tons, complete with foundations, duct work, electrical controls, interconnecting refrigerant

lines, etc. The contract was let on January 27, and the unit was ready for operation by February 29.

H. Interior Improvements

During that period, the privy was completed, all underground wiring installed, interior wiring finished; and the house was insulated, using aluminum-faced fibreglass batts as follows: 4" thick in walls, 6" thick (Kraft faced) in attic, and 2" thick under the first floor.

Nelson Lewis, a Williamsburg plasterer, turned in a low bid of \$1,175 for lathing and plastering. He commenced lathing on March 3, 1960.

Lathing consisted of 3/8" metal rib lath with metal corners used throughout. The three-coat plaster job was carried out during the two coldest weeks of the winter, March 8 - 18.

Because of the cold weather, we experienced some difficulty in drying the plaster. By keeping the windows open and the heat pump working continuously, the moisture slowly escaped the house without damage due to freezing.

Completion of the house progressed rapidly after plastering. Hollow-core interior doors were made, owing to the inability to purchase stock doors for the odd-size openings. Light fixtures were installed, and the plumbing fixtures set in place. The kitchen cabinets, fabricated in Newport News, were installed on April 1. The flooring contractor, after several delays, did not finish his work

until the end of April. First floor covering consisted of Vinyl-asbestos tile over a layer of 15 lb. saturated felt. Asphalt tile was used on the second floor.

1. Exterior Finishes

During the floor covering delay, the exterior weatherboarding, exterior steps, loading dock, cellar entrance doors, and chimney were whitewashed.

There was considerable evidence that the siding had never had any other finish except whitewash. The simplicity of application and the natural tendency to quickly weather, were the determining factors in whitewashing, besides its authenticity and appropriateness to such a simple dockside building.

The exterior doors and window sash were painted Spanish Brown, a colonial color of iron oxide with a linseed oil vehicle. Traces of that color were observed on the trim, but the advanced state of rot and weathering rendered that aspect of the color scheme rather conjectural.

The heat-pump outbuilding was left unpainted with the intention of letting it weather to a natural gray color, and was, therefore, treated with Hydrozo, a clear water-proofing agent.

Interior painting was completed during the first week of May. The premises were cleaned; the evidences of construction removed, and the house was ready for occupancy on May 6.

The Park Superintendent scheduled a public "open house" for Friday, May 13, 3-5 p.m. The writer prepared a mimeographed account of the Archer House and its restoration, for distribution at that time.

The house was occupied as employer quarters on May 20, 1960.

IV. ILLUSTRATIONS. 17 PHOTOGRAPHS

ILLUSTRATION NO. 1

Front (southeast) elevation showing condition
of house during initial stages of restoration.

Photo: Thomas L. Williams, March 27, 1959
Copy neg. on file Colonial NHP



ILLUSTRATION NO. 2

Front (southeast) elevation after restoration.

Photo: Thomas L. Williams, May 9, 1960
Copy neg. on file Colonial NHP



ILLUSTRATION NO. 3

Southwest elevation showing condition during
initial stages of restoration.

Photo: L. H. Nelson, March 24, 1959
Copy neg. on file Colonial NHP



ILLUSTRATION NO. 4

Southwest elevation after restoration. Out-building for heat-pump is located to the left. White-washing of chimney to corbel was a fairly common practice in the 18th century.

Photo: Thomas L. Williams, May 9, 1960
Copy neg. on file Colonial NHP



ILLUSTRATION NO. 5

Front elevation, with shoring in place, ready
for rebuilding of above grade masonry.

Photo: Thomas L. Williams, May 11, 1959
Copy neg. on file Colonial NHP



ILLUSTRATION NO. 6

Stone cleaning process. Old lime mortar was removed by immersing stones in a strong solution of muriatic acid. Note carboy of acid at right. Agitation and brushing accelerated the process. After removal of the mortar, the stones were immersed in water to remove any residual traces of acid. The stones were then graded as to size and ready for use.

Photo: Thomas L. Williams, May 11, 1959
Copy neg. on file Colonial NHP



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ILLUSTRATION NO. 7

Remains of cellar bulkhead and brick entrance steps before restoration. Brick curb around steps was repaired and the steps relaid using the original brick. Step nosings of aromatic cedar were used in the restored steps, thereby matching a fragment unearthed in place. Cedar has especially good resistance to rot.

Photo: Thomas L. Williams, May 11, 1959
Copy neg. on file Colonial NHP



ILLUSTRATION NO. 8

Rebuilding of the storm damaged walls. The two walls visible in this photo had been completely rebuilt of brick rubble and concrete following the 1933 hurricane. Much of the old stone still lay about the grounds or in the cellar and was reused in the rebuilding. See Illustration No. 6 for the method used in removing the old lime mortar. Note the concrete wall used along the river end of the house, intended to resist future storm damage. John Hedgebeth, Williamsburg mason, is shown here.

Photo: L. H. Nelson, May 28, 1959
Copy neg. on file Colonial NHP



ILLUSTRATION NO. 9

View of repaired structure leveled and resting upon the rebuilt foundation walls. With several exceptions, the framework was preserved intact. Wood sills, first floor joists, and a second floor plate had to be replaced because of advanced decay and termite damage. Most of the studding, corner posts and corner braces were repaired for reuse. The attic structure was in good condition. Several new window frames are visible here.

Photo: L. H. Nelson, June 24, 1959
Copy neg. on file Colonial NHP



ILLUSTRATION NO. 10

Southwest elevation showing chimney repair work. Dead mortar and frost damaged bricks were removed. Bricks were replaced, using fireplace bricks which saved the expense of hand made reproductions. The chimney was repointed with mortar matching the original as to color and texture.

Photo: L. H. Nelson, June 24, 1959
Copy neg. on file Colonial NHP



ILLUSTRATION NO. 11

View of chimney bonnet. The sealed bonnet ends are certainly unconventional. The smoke was not intended to come out the ends as is usual with a bonnet, but rather out the top through reduced flue openings. The sealed bonnet ends utilize brick similar in size and color to the main chimney. The mortar is similar and exhibited the same exterior fire damage (1814) as the entire chimney. Furthermore, the brick partition walls between the three flues extended to the bonnet top and were bonded in place. Altogether, there was no evidence to indicate that the bonnet was an addition or had been altered in detail. Due to its high unstable condition, the bonnet was removed and rebuilt.

Photo: L. H. Nelson, June 26, 1959
Copy neg, on file Colonial NHP



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ILLUSTRATION NO. 12

Original window frames from the Archer House.

At left is a typical frame from the first floor, and a second floor window frame is at the right. The advanced state of rot was evident throughout, especially in the sills. Buildings Restoration Specialist Whittington, shown here, reproduced most of the original parts which were beyond reuse.

Photo: L. H. Nelson; taken at the Dudley Digges (West) House, May 17, 1960
Copy neg. on file Colonial NHP

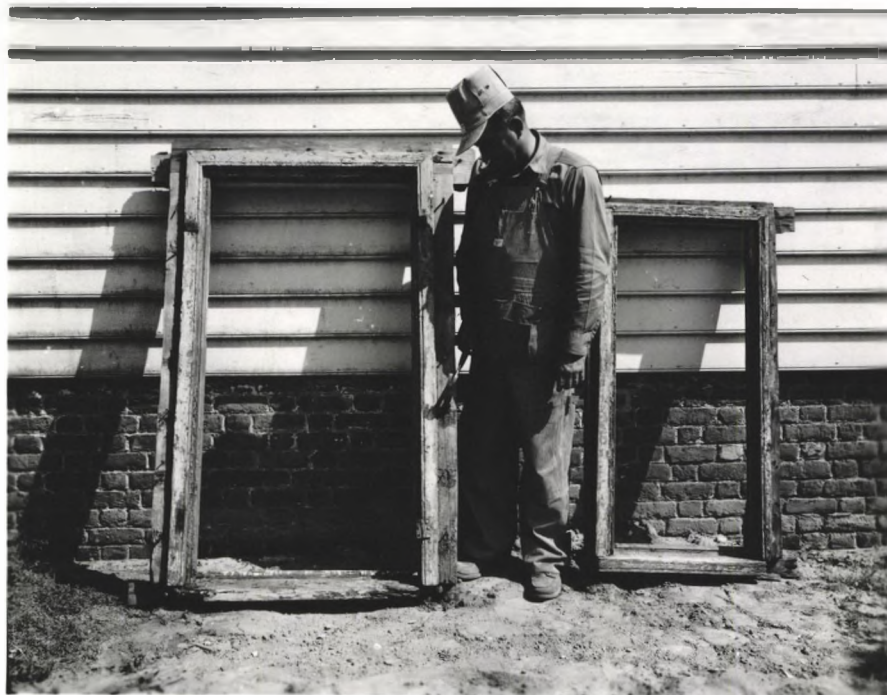


ILLUSTRATION NO. 13

Buildings Restoration Specialist Gordie
Whittington, shown here with window frames reproduced
to match those shown in Illustration No. 12. Archer
House in background.

Photo: Thomas L. Williams, May 11, 1959
Copy neg. on file Colonial NHP



ILLUSTRATION NO. 14

Indoor section of three-ton capacity heat pump. Note refrigeration and utility lines which enter cellar via pipe sleeves. Duct work is insulated with one inch of Kraft-faced fiberglass. Refrigeration lines are insulated with $1\frac{1}{2}$ " of foam rubber. Sump pump ejects accumulation of condensate water. Aluminum-faced fiberglass insulation is visible between floor joists. Brick pier at right supports new center sill.

To reduce costs, the heat pump was supported with steel instead of the concrete shown on working drawings. The concrete cellar floor was omitted because of the water table encountered several inches below the floor line, and the static pressure caused by high tides.

Photo: Thomas L. Williams, April 8, 1960
Copy neg. on file Colonial NHP

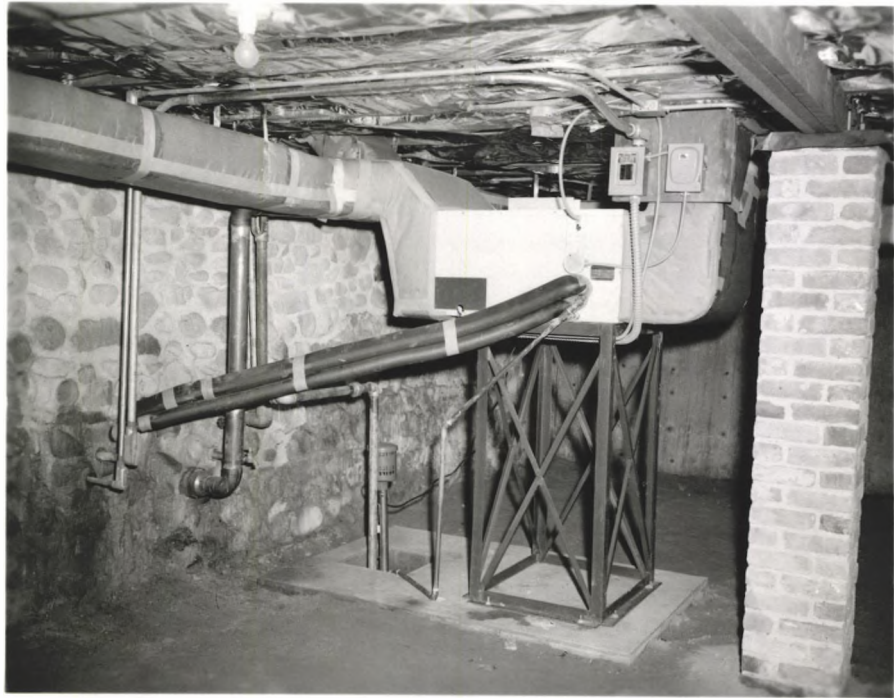


ILLUSTRATION NO. 15

Outdoor section of heat-pump shown housed in colonial type outbuilding, before application of weatherboarding. Fresh air enters side louvers. Discharged air is ducted to "cleanout" door opening. Duct work was removed for this photo so as to show heat pump. All electrical entrance switch boxes and meters are also housed in outbuilding.

Photo: Thomas L. Williams, April 8, 1960
Copy neg. on file Colonial NHP



ILLUSTRATION NO. 16

Outbuilding for heat-pump installation completed. Air is discharged through "cleanout" door, permanently fixed in the position shown here.

Photo: Thomas L. Williams, April 8, 1960
Copy neg. on file Colonial NHP

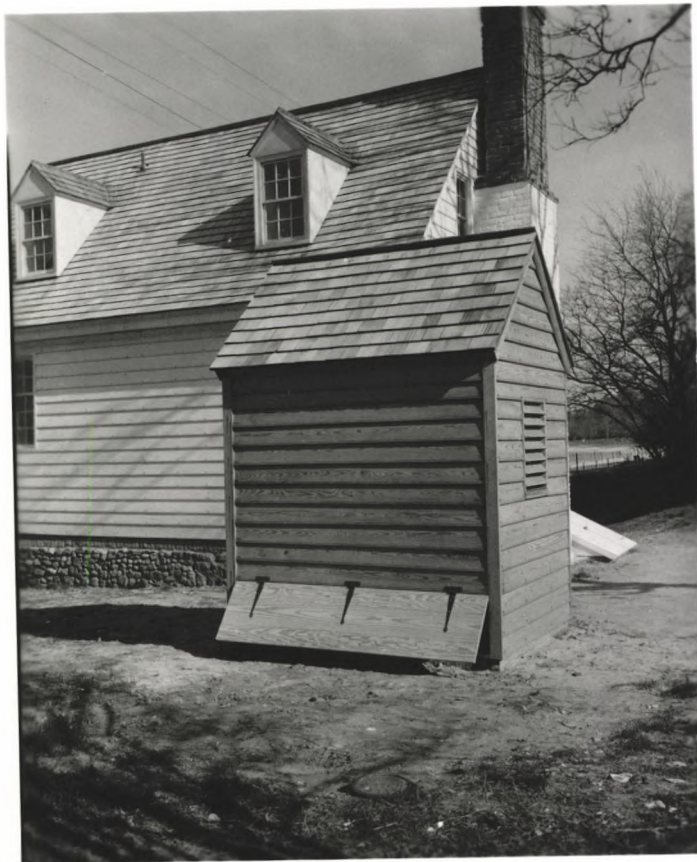


ILLUSTRATION NO. 17

Northeast end of house (facing the river) showing "loading dock". The early existence of this feature is problematical. Since there was some evidence that the river end of the building had been used as a shop, access to that portion posed a problem, as the nature of the "business" is unknown.

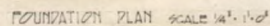
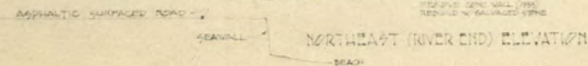
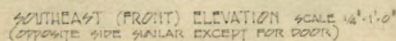
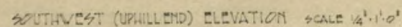
The present "loading dock" was suggested by Charles E. Peterson, Supervising Architect, Historic Structures, as a possible solution to the problem. Since 18th century prototypes for such platforms have not survived to the present day, the design is conjectural.

Photo: L. H. Nelson, September 16, 1960
Copy neg. on file Colonial NHP

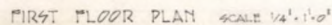


V. WORKING DRAWINGS

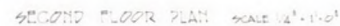
1. Drawing No. NHP-COL-3155, 2 sheets,
submitted with Part II Report.
2. Drawing No. NHP-COL-3156, 1 sheet,
window sash details.
3. Drawing No. NHP-COL-3157, 1 sheet,
exterior doors.
4. Drawing No. NHP-COL-3160, 1 sheet,
exterior steps.
5. Drawing No. NHP-COL-3161, 2 sheets,
heating-cooling installation.



LOCATE FIRST FLOOR JOISTS TO ALLOW FOR FLOOR GRILLES UNDER WINDOWS.
INSTALL 3 CASTIRON FLOOR GRILLES IN SLAB TO REDUCE STATIC PRESSURE
FROM RIVER. SLOPE SLAB TO SUMP PUMP.



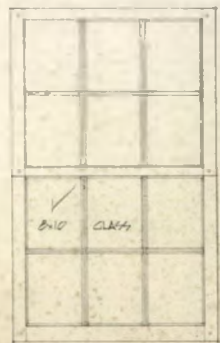
40'10" LINES INDICATE EXISTING WALLS.
LIVING ROOM: REPLASTER WALLS & CEILING. 8 1/2" x 9 1/2" CORUX TILE OVER 1" PLY. SUB FLOOR.
DINING ROOM: WALLS TO BE BEADED BOARD PANELS. RETAIN OPEN BEAM CEILING, PAINT.
FLOOR 8 1/2" x 9 1/2" CORUX TILE OVER 1" PLYWOOD SUB FLOOR.
KITCHEN: CEILING PURRED DOWN TO 8'. REPLASTER WALLS, CEILING.
FLOOR-VINYL PLASTIC TILE.



REUSE 2ND FLOOR JOISTS, STUDS, RAFTERS, TIE BEAMS & ROOF SHEATHING.

WORKING DRAWINGS

SCALE: AS SHOWN		MARK	DESCRIPTION OF REVISION	DATE	REVISION
SUPERINTENDENT		DATA	UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE	REGION	0715
REGIONAL DIRECTOR <i>10/1/88</i>			DIVISION OF DESIGN AND CONSTRUCTION	PCD NO.	
CHIEF OF DESIGNS <i>10/1/88</i>			EASTERN	SHEET # OF	
DATE: 10/1/88			CONVERSION: LARGER HOUSE	DRAWING NO.	2199
APPROVED: DIRECTOR			LET 101 WATER STREET - YORKTOWN, VIRGINIA	DATE	10/1/88
			COLUMBIA NATIONAL HISTORICAL PARK		



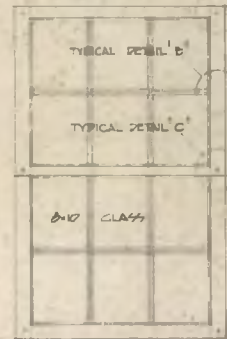
SECOND FLOOR SASH - DOWNERS
4 REQ SCALE 1/4" = 1'-0"



SECOND FLOOR SASH - UPHILL END
2 REQ SCALE 1/4" = 1'-0"



FIRST FLOOR SASH
4 REQ SCALE 1/4" = 1'-0"



SECOND FLOOR SASH - RIVER END
1 REQ SCALE 1/4" = 1'-0"

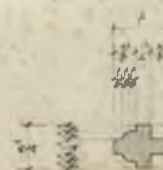
TYPICAL DETAIL 'A'

TYPICAL DETAIL 'B'

TYPICAL DETAIL 'C'



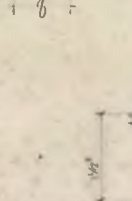
DETAIL 'A'
DO NOT SCALE



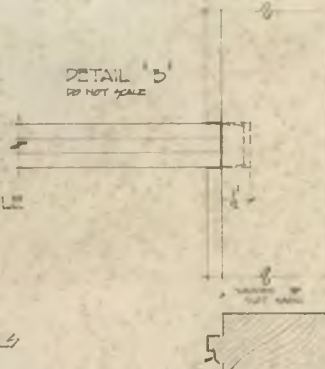
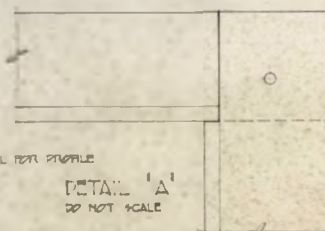
DETAIL 'B'
DO NOT SCALE



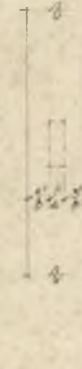
MEETING RAIL
FULL SCALE



MEETING RAIL PROFILE
FULL SCALE



DETAIL 'C'
DO NOT SCALE -
USE DIMENSIONS

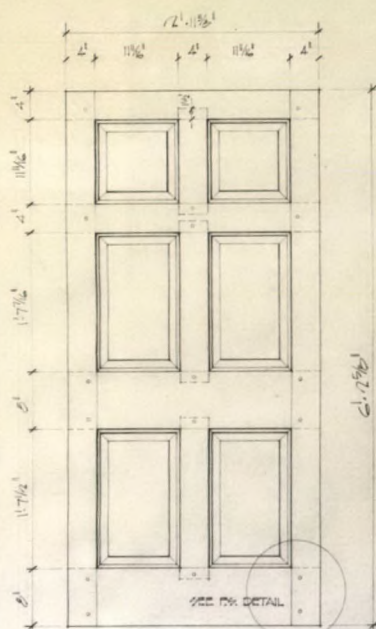
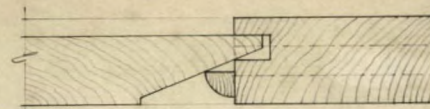
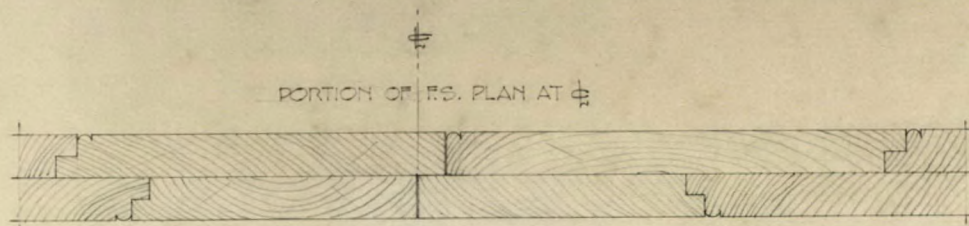


NOTES:
ALL MATERIALS MUST BE STRAIGHT.
SASH SHOWN ON THIS DRAWING ARE
VIEWED FROM EXTERIOR OF HOUSE.
ALL MATERIAL TO BE DRY-SEASONED CLEAR,
ATLANTIC YELLOW PINE OR 100%
WHITE PINE - BORN AND GROWN IN THE
U.S.A. NOT TO BE FURNISHED OR INSTALLED
BY BIDDER.

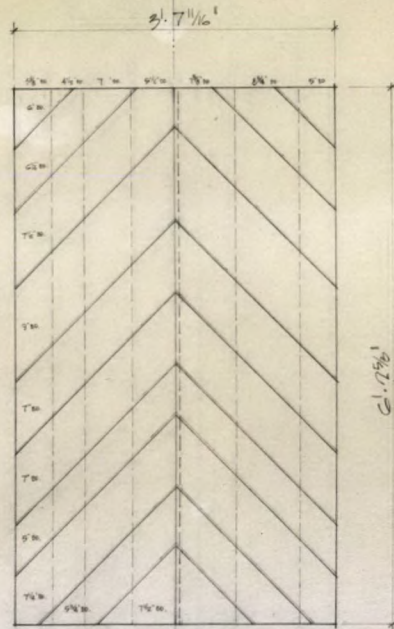
SCALE AS SHOWN

MARK	DESCRIPTION OF REVISION
	UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE DIVISION OF DESIGN AND CONSTRUCTION
	REVISIONS
	WINDOW SASH DETAILS - CONVERSION ARCHER HOUSE LOT 107 - WATER STREET - YONKERS, N.Y. COLONIAL NATIONAL HISTORICAL PARK

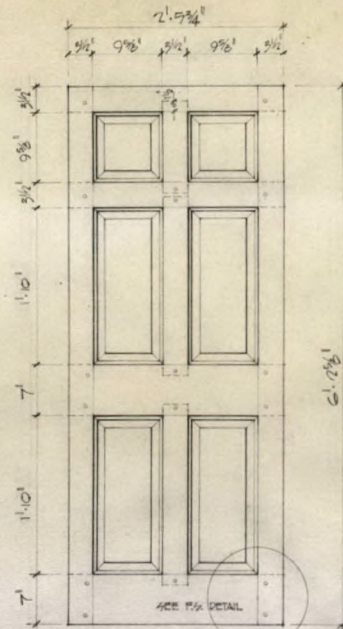
ORIENTATION	PREPARED J. D. SON REVIEWED J. D. SON DATE 10/1/54 BY J. D. SON CHECKED J. D. SON DATE 10/1/54 BY J. D. SON
-------------	--



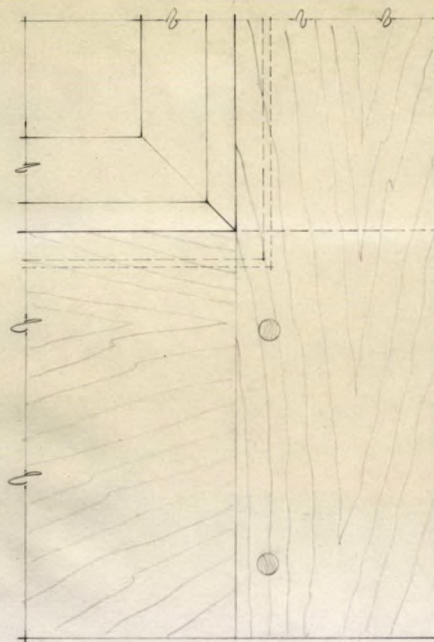
FRONT DOOR
1 REQ SCALE 1/8"=1'-0"



RIVER END DOORS
MAKE 1 PR AS SHOWN SCALE 1/8"=1'-0"



UPHILL DOOR
1 REQ SCALE 1/8"=1'-0"



D. S. DETAIL TYPICAL CONSTRUCTION

SCALE AS NOTED		MARK	DESCRIPTION OF REVISION	DATE	INITIAL
RECOMMENDED	DATE		UNITED STATES		
			DEPARTMENT OF THE INTERIOR		
			NATIONAL PARK SERVICE		
			DIVISION OF DESIGN AND CONSTRUCTION		
APPROVED			DESIGNED BY		
			DRIVEN BY		
			EXTENSION DESIGN, CONSTRUCTION "ANCHOR HOUSE"		
			LOT 107 WATER STREET, WILLIAMSBURG, VA		
			LOCALITY, NATIONAL PARK		
			STATE OF VA		

ORIENTATION

PREPARED
DESIGNED
DRAWN

CHECKED

DATE

REVISION

REGION

ONE

PCF NO.

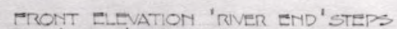
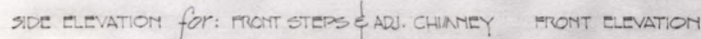
SHEET 1 OF 1

DRAWING NO.

N.H.R. COL

5157

DATE 12-21-99

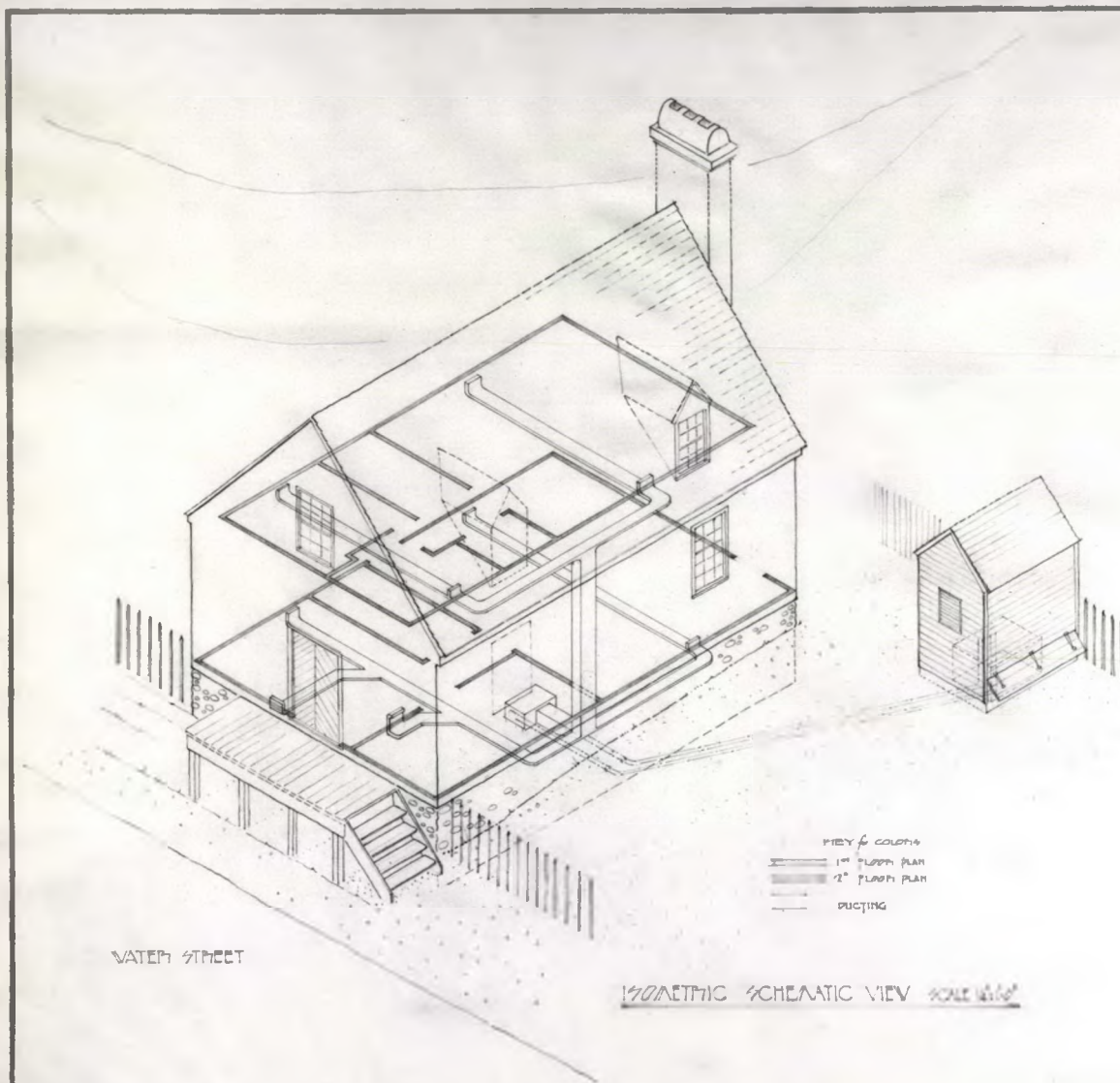


NOTE: RIVER-END STEPS NOT BUILT AS SHOWN.
SEE "LOADING DOCK" OR PLATFORM AS BUILT (NOT DETAILED)
SCALE $1\frac{1}{2}'' = 1'-0''$

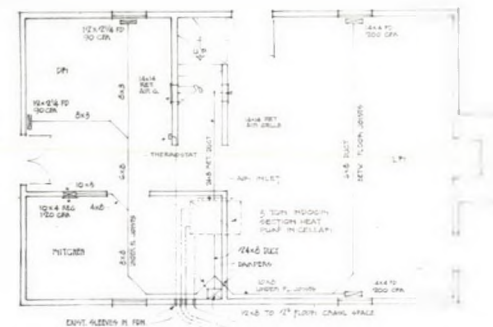
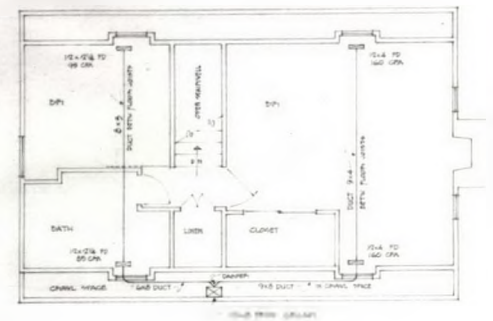
SCALE 1 1/2" = 1'

RECOMMENDED	SCALE	1/2" = 1'-0"	MARK	DESCRIPTION OF REVISION	DATE	INITIAL	
					REVISED		
	DRAWN			UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE DIVISION OF DESIGN AND CONSTRUCTION EASTERN EXTERIOR ENTRANCE: STEPS DETAILS ALSO: HOUSE RECONSTRUCTION - NORTHEASTERN AVE. ORIGINAL: NATIONAL HISTORICAL PARK JUNE OF 1962	REASON CME		
	APPROVED				PCP NO.		
					SHEET	OF	
					DRAWING NO.		
					NHSP-CDL		
					3-27		

BASIC DATA STEP DESIGN AS DEVELOPED BY GADONAL VILLANUBURG



PIED & COLON
1st FLOOR PLAN
2nd FLOOR PLAN
DUCTING



ORIENTATION

PREPARED	DATE
DESIGNED	
DRAWN	
CHECKED	
APPROVED	
DATE	
REVISION	
NO.	
DATE	
REVISION	
NO.	
DATE	
REVISION	
NO.	
DATE	

SCALE	DATE	DESCRIPTION OF REVISION	DATE	REVISION
1" = 16'-0"				
APPROVED				

APPENDIX I

LIST OF ARCHITECTURAL SPECIMENS PRESERVED AT THE COLONIAL NATIONAL HISTORICAL PARK CURATORIAL LABORATORY, JAMESTOWN.

Note: All wooden parts are marked with aluminum tags, numbered with steel-stamped figures, corresponding with this list.

1. Segment of floor joist - first floor - Pine.
2. Bottom end of first floor stud - Red gum.
3. Lower end of first floor stud - Poplar.
4. Fragment of corner board - Pine.
5. Segment of bed moulding in cornice - Pine.
6. Piece of cornice soffet - Pine.
7. Fascia of cornice - Pine.
- 8 & 9. Fragment of clapboards - Pine.
10. Shingle used as shim in original construction - Red cedar.
11. Cheek board from dormer - Pine.
12. Dormer gable end boards - Pine.
13. Window frame from river end on rear of house - Poplar jamb with sill and all trim pine.
14. Second floor window frame from southeast side of chimney - All parts being pine.
15. Original floor board - Pine.
16. Chair rail from living room rear wall - Pine.
17. Baseboard first floor - Pine with all paint colors intact.
18. Baseboard second floor - Pine.
19. Fragments of door jamb first floor - Pine.
20. Door trim (interior) - Pine.

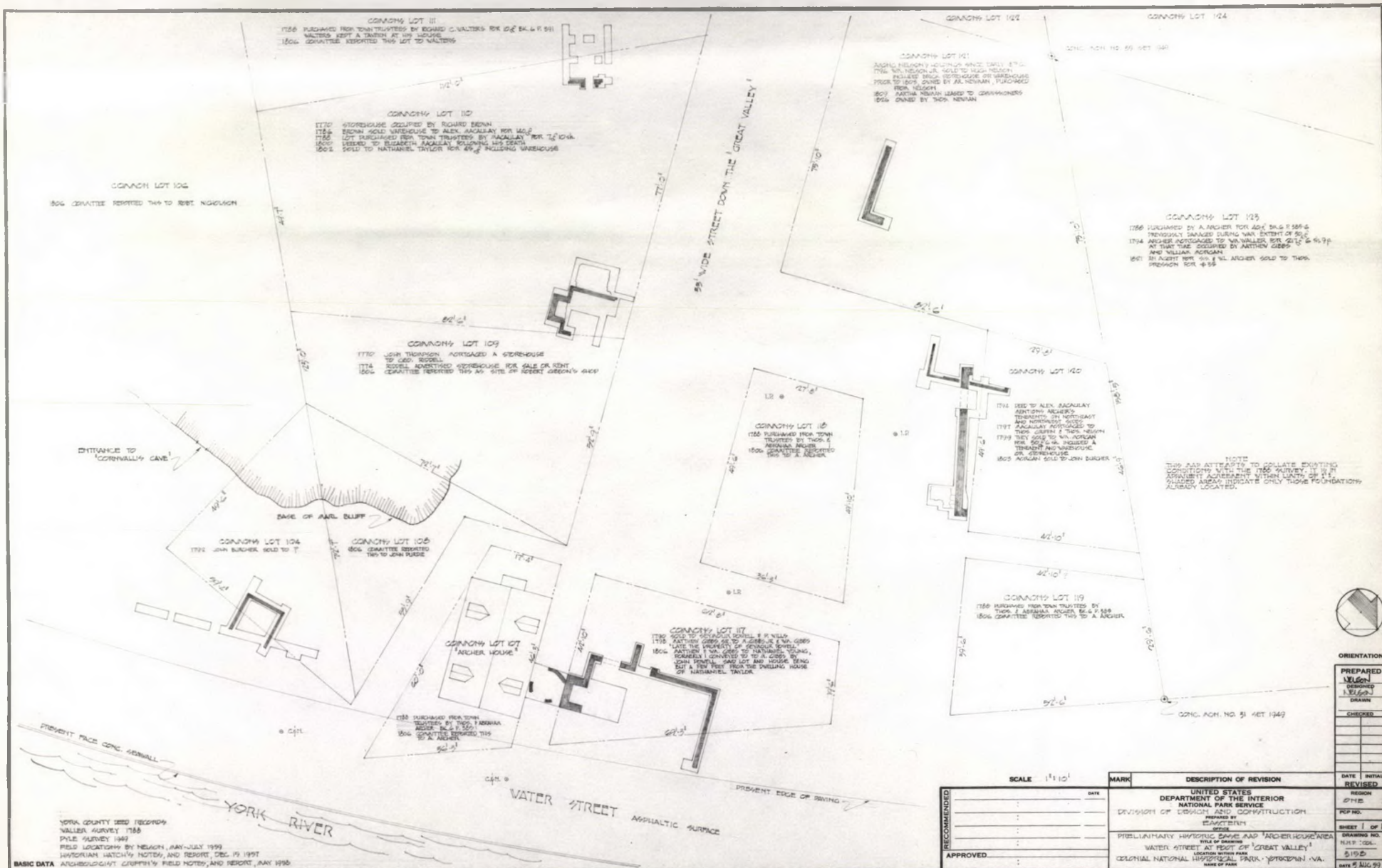
21. Plaster cornerboard second floor rafters near dormers - Pine.
22. Backband moulding - Pine.
23. Dormer windows stool - Pine.
24. First floor window stool - Pine.
25. Bricks from chimney -
26. Mortar samples - 12 bags labeled
27. Plaster fragments from face of chimney first floor -
28. Brick from fill in second floor fireplace hearth.
29. HL hinge found loose in building -

May 31, 1960

Lee H. Nelson
Resident Architect

APPENDIX II

Historic Base Map Drawing No. NHP-COL-3158, 1 sheet.



APPENDIX III

HABS Drawing of Bake Oven

LINE OF STONE FOUNDATION
OF THE "ARCHER HOUSE"

THIS SEGMENT - TWO COURSES
ABOVE PLATFORM

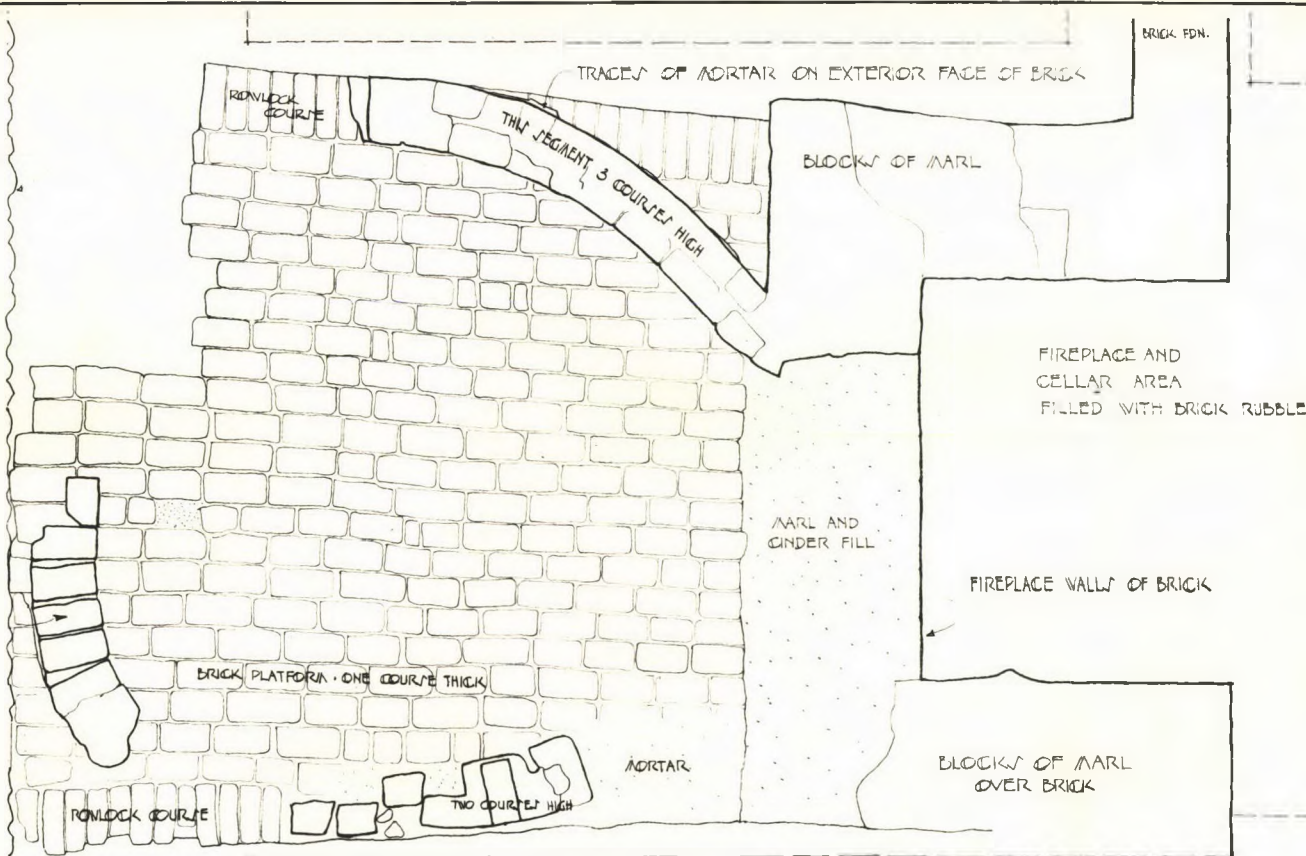
PLAN OF BAKE OVEN

SCALE 1"=1'-0"

(EXCAVATED MARCH-APRIL 1959)

CORNER OF ARCHER HOUSE

LEE A. NELSON - DEL. 1960



SITE PLAN

SCALE 1"=10'

ARCHER HOUSE
ON LOT 107

OUTBUILDING FOR
HEATING EQUIPMENT

WATER BOX

UNDERGROUND UTILITY CONDUITS INSTALLED
AFTER EXCAVATION OF BAKE OVEN

(CELLAR AREA)

FIREPLACE

BAKE OVEN

ELEC. POWER POLE

EDGE OF PAVING

LIMITS OF EXCAVATION

LIMITS OF EXCAVATION

WATER STREET

0 1 2 3 4 5 6 7 8 9 10 FEET 1/4"=1'-0" 0 1 2 3 4 5 6 7 8 9 10 FEET 1/4"=1'-0"

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE
COMPLETION REPORT OF CONSTRUCTION PROJECT

REGION One	AREA Colonial National Historical Park	COUNTY York	STATE Virginia
PROJECT OR JOB TITLE Restoration of Archer House			PCP NO. B-92
LOCATION IN AREA Water Street, Yorktown		MASTER PLAN NO.	BUILDING NO. 59
WORKING DRAWING NO. AND TITLE NHP - COL - 3155, 3156, 3157, 3158, 3160 & 3161, "Conversion of Archer House"			
APPROPRIATION TITLE AND SYMBOL 14X1035 - Construction, NPS			WORK ORDER NO. 331.11
CONTRACT NO. Various purchase orders and small contracts		DATE WORK STARTED January, 1958	DATE WORK COMPLETED October, 1960
NAME OF CONTRACTOR		ADDRESS	

COST ANALYSIS

CONSTRUCTION ITEMS	QTY.	UNIT COST IN PLACE	TOTAL COST IN PLACE
<i>PCP</i> 16,021.03 - 1 Personal services 517.00 - 2 Equipment 4,640.35 - 3 Mat + Supplies 5,603.20 - 4 P&S 4,108.10 - 5 Contract work 418.78 - 6 Equipment operation 272.31 - 7 Depreciation of Equip 6,022.43 - 8 Other <i>TOT.</i> 37,603.20 ✓	1380	2700/yr	
TOTAL			37,603.20

Finance Office Clearance:

signed

Gustav W. Mushlenhaupt, Administrative Officer

SUMMARY OF EXPENDITURES

PERSONAL SERVICES 16,021.03	EQUIPMENT 517.00	MATERIALS AND SUPPLIES 4,640.35	P&S 5,603.20
OTHER Contract Work 4,108.10	Equipment Operation 418.78	Depreciation of Equipment 272.31	Other 6,022.43

CHANGE ORDERS			
ORIGINAL CONTRACT AMOUNT	FIRST	SECOND	THIRD
FINAL CONTRACT AMOUNT	FOURTH	FIFTH	SIXTH

THIS PROJECT OR JOB HAS BEEN COMPLETED IN ACCORDANCE WITH
APPROVED DRAWINGS, SPECIFICATIONS, AUTHORIZED CHANGES

SUBMITTED BY (Name and title) signed Turner L. Robinette, Park Engineer	DATE February 6, 1961
APPROVED BY (Name and title) signed Stanley W. Abbott, Superintendent	DATE February 6, 1961

(ATTACH NARRATIVE STATEMENT, PHOTOGRAPHS, AND "AS BUILT" DRAWINGS TO THIS FORM)