

HISTORIC STRUCTURES REPORT 001438

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PART III

ARCHITECTURAL DATA SECTION

ON

COUNTY JAIL

Appomattox Court House National Historical Park

National Park Service, Eastern Office, Design and
Construction, Division of Architecture

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Prepared by
Orville W. Carroll
Architect
July 1965

for

United States Department of the Interior, National Park Service
Eastern Office, Design and Construction
Division of Architecture

HISTORIC STRUCTURES REPORT

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COUNTY JAIL

Appomattox Court House National Historical Park

A P P R O V A L S H E E T

RECOMMENDED

Superintendent

Date _____

Robert G. Hall
Chief, EODC

Date 7-30-65

APPROVED

Regional Director, Southeast Region

Date _____

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I. FOREWORD

During the course of rehabilitation work no new evidence was found to shed further light upon the date of erection of the County Jail. By the same token, no new information was uncovered that would alter the opinion expressed in the Part II Report, that the construction of the Jail was started and completed in its initial building endeavor.

Orville W. Carroll
Architect
May 1965

II. ARCHITECTURAL DATA

A. Fumigation

Fumigation of the County Jail building was accomplished August 5-6, 1963 and spray treatment of the interior floor joists on all floors was completed August 7-8. Rodding of the exterior grounds and application with a prepared chlorodane solution was accomplished in March 1965. This work was done by the Orkin Exterminating Company of Lynchburg, Virginia. Termite treatment of the replaced floor joists, first floor, was done by spraying with pentachlorophenol as the job progressed.

The crawl space area under the first floor was increased, and a heavy application of pentachlorophenol was given to the ground prior to closing in the space.

B. Grading

The grade existing in 1963 on the north side of the Jail was lowered to its original level when the Richmond-Lynchburg Stage Road was restored to its original appearance in 1964. This action removed the high embankment existing north and west of the Jail, which was the result of State Highway work in the 1930's, when Route No. 24 was "improved" through the village area. Along the north and west walls a four inch terra cotta tile drain was installed, about 12 inches below the existing grade and extended south to the fence

line for a drainage outlet.

C. Masonry

Masonry work was confined to three repair jobs; under the east window opening, north wall; above and below the door opening in the south wall. Some repointing of mortar joints was done at this time. The two brick hearths on the first floor and the four brick piers under the exterior south platform were replaced. The masonry work appeared to be in reasonably good condition on the interior walls where the new plaster conceals it from view. The direct bond of the cement mortar on the brick walls in the first floor and hallways above, will tend to strengthen the old brick work in these areas.

D. Roof

The existing raised seam tin roof which is still in good condition was not removed, but repainted with Dixon's black roof paint. This work was done by George Farrer of Appomattox, Virginia. The modern gutters and downspouts were replaced with new material fabricated from galvanized metal with a double rolled bead (a bead on each side of the gutter) and strengthened with concealed straps. These were made by the Consumers Company of Lynchburg. A soldered bead was placed every 14" along its length to simulate fabrication techniques of the mid-nineteenth century. The downspouts, elbows

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and brackets were fabricated to match the original ones removed from the building and stored in the attic some years ago (See Illustration No. 1). These pieces were returned to the Jail attic to prevent them from being indiscriminately discarded.

All of the gutter pins (hangers) were replaced because of their rusted condition. However, the original spacing and location of these pins were reused.

E. First Floor

1. Hallway

The deteriorated brick floor in the hallway was removed and replaced with hand-made bricks from the Locher Brick Company. The original brick pattern was recorded prior to removal and retained when the new floor went in place. All of the useable bricks salvaged from the original floor were used for paving the closet floor under the stairway (this was always an earthen floor). The bricks were laid on edge over a bed of cement and sand.

2. Wooden Floors

After rehabilitation work started in 1964, close inspection of the floor boards and floor joists in the east and west rooms disclosed termite damage to these members far in excess of the 1963 examination. All of the floor boards and practically all of the floor joists were replaced. Many of the floor joists were

found to be replacements, probably earlier work of the Park Service. These newer members were also damaged by termites and required replacement. The new joist ends which pocketed into the brick masonry wall were protected from moisture by nailing on a 40 pound tin cap. All of the floor boards, floor joists, the surrounding masonry work and soil under the floor were heavily sprayed with pentachlorophenol.

Two pieces of original baseboard were reused. The remainder was termite damaged beyond use. These two pieces are in the west room, first floor.

3. Windows and Doors

All of the window sills (with the exception of the southeast window sill which is the only original wooden sill left) on the first floor and most of the window frames were replaced due to rot. Much of the brick moulding was replaced or spliced. The window sash are all new. The front entrance door was repaired by the J. E. Sears & Co., of Appomattox. This consisted of replacing the two side stiles, center and bottom rails and the two lower panels. About 24" of the door frame in the north door opening required splicing from the stone sill upward. The brick moulding was also spliced at the lower end.

The south door involved more work than originally thought. The door frame was originally constructed with a wooden

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door sill, long removed and replaced with bricks. This was replaced. A weak section of brick masonry wall above and below the door frame was taken out and relaid (See Illustration No. 4). A small wooden platform with two steps was constructed at the exterior of the south door.

A new board and batten door was built by J. E. Sears & Co., for the closet under the stairway, replacing a twentieth century door. The original board and batten door on the stairway was used for a pattern. Hand-forged nails for the door fabrication were obtained from Donald Streeter. Cast iron hinges matching the size and location of the original ones were found and used on the new door.

4. Hearths

New bricks were used to relay both first floor fireplace hearths. The bricks were laid dry over a cement and sand bed.

5. Lath and Plaster

Metal lath and plaster was used on all the walls and ceilings of the first floor. Metal expanded lath was nailed to the ceiling joists and "Key-mesh" wire nailed to the brick masonry walls. In addition to the "Key-mesh" the brick masonry walls were given a spray coat of "Sta-Dri Link." The plaster finish attempts to match a sample of original wall plaster intact on the closet wall, first floor. Vermiculite aggregate was used for the ceiling plaster and

cement-sand was used on the brick masonry walls. (See specifications in Section V for further details). Over the finish white coat of plaster, two coats of whitewash were applied.

F. Second Floor

It was recommended in the Architectural Data Section of the Part II Report, that the west cell remain in the condition left by the C.C.C. stabilization job of 1941, that is, with the iron grille work on the walls and the (metal reinforced) ceiling joists to be unplastered. During progress of the job it became apparent that this situation would present a daily maintenance problem with bits of mortar spalling off onto the floor. The writer recommended to the Superintendent that the entire room be plastered with the exception of a small section of wall and ceiling area which would serve to illustrate to the public the type of materials used throughout the construction of the cell rooms and the building methods employed during its erection. This effect would have to be reinforced with written material, possibly placed on a placard or by an audio station. This proposal was agreed upon as a satisfactory solution, whereupon a small section of wall and ceiling area was left unplastered in the northeast corner of the room (see Illustration No. 9).

Four window sills were replaced in the cell rooms. The existing window sash in the cell rooms were reused, however, new sash

was made for the hallway window opening.

The walls and ceilings were plastered according to the specifications included in Section V of this report.

G. Third Floor

The third floor was completely lathed and plastered. A small access door was placed in the hallway ceiling for attic inspection and to store pieces or original members removed and later replaced during the rehabilitation work.

Three window sills were replaced in the cell rooms and a new sash made for the hallway window opening. A window sill of about 1954 was reused and the original window frame retained.

H. Hardware

Three new locks were made for the board and batten cell doors. However, none of the reproduced locks operate. The sole surviving sheet iron lock (2-3/8" x 9" x 12-1/2") dating from the original construction was replaced on the door to the west cell, second floor. A padlock obtained from Colonial Williamsburg was locked to the staple nearby.

Bell Foundry of Lynchburg, Virginia, cast one pair of hinges (5" x 5-1/2") for use on the east cell door, second floor, to replace the original hinge that had broken. The foundry also cast one pair of hinges for the main entrance door, first floor, to match the size and type of the original hinges.

New sash pins were made for securing the windows on the first floor. These are fastened to a leather strap which in turn is tacked to the window frame. Other hardware reproduced for use at the Jail included the gutter pins, lock staples, closed and open pintels for door bars. Four locks have been unobtainable; two cast iron rim locks for the doors to the east and west rooms on the first floor and two stock locks (wooden cases with metal works) for use on the stairway board and batten doors. The lock sizes can be determined by the outline left on the door, so it becomes a matter of searching for the proper sizes to match the existing evidence.

I. Carpentry

The carpentry work was done by George Page, aided by Hampton Hunter, both from Appomattox County. This work included nailing on of metal lath, the "Key-mesh," penciling of the brick joints, and the carpentry work of repairing doors, windows, floors, etc. The white-washing of the finish plastered walls and ceilings was also part of this work.

J. Plastering

The plaster job was done by Lewis Brown of Madison Heights, Virginia. A small section of original plaster left under the first floor stairway was used as an example to follow in applying the final whitecoat finish.

K. Painting

Painting was limited to the exterior wooden window and door frames (originally whitewashed) and the gable verge boards. The interior plaster walls and ceilings were whitewashed, while the vertical boards enclosing the stairway were given two coats of "whitewash paint." The exterior surface of the brick walls on the south and west sides were given one spray coat of "Hydrozo." The east wall was sprayed one coat up to the gable end (pediment). Cold weather prevented spraying the north wall, but the brick work is in good condition and will not need this treatment.

The brick mortar joints were penciled with a one-quarter inch wide white lead stripe, both vertical and horizontal directions. Illustration No. 6 shows the original penciling that remained on the west wall.

L. Utilities

1. Water

There is no water supplied to the building and it is unnecessary to make this facility available.

2. Heat

It is not required that the County Jail be heated. It is recommended after further study that the two cast iron stoves be eliminated on the second floor, as cited in Part II Report. Insufficient evidence exists to prove that the stoves were part of the

original plans. The one flue chimney would lead one to believe that the one fireplace on the first floor was the only source of heat for the building in the original plans.

3. Electrical

Underground electrical service was installed into the Jail at the same time as the main underground electrical and telephone lines were installed under a contract awarded in 1964. The New River Electric Co. of Roanoke, Virginia did the ditching and placing of the underground cable into the jail from the 50 KVA transformer, located about 25 feet south of the Jail. The installation of the load center and wiring of the first and second floors was done by Aubrey Ranson of Evergreen, Virginia. Two floor outlets were placed in the first floor rooms and one convenience outlet in the west wall of the east cell, second floor and one outlet in the closet under the stairway, first floor hallway. The third floor has no electrical outlets.

An electric light was recessed into the ceiling above the winder steps leading from the first floor hallway to the second floor. The daily use of the light may be all that is required to call attention to the low headroom at this point.

If in the future an audio station is desired for the first floor of the Jail, the tape recorder can be placed in the

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closet under the stairway, and the low voltage wiring run through the electrical conduit into the east or west room where a speaker can be placed behind the partly open door.

ILLUSTRATION NO. 1

The original downspouts, brackets and elbows from the existing County Jail, which were removed and stored in the attic, furnished the dimensions and information needed to fabricate the new pieces.

Photo: National Park Service
Shearer Robertson, June 1963

Neg. on file at Park

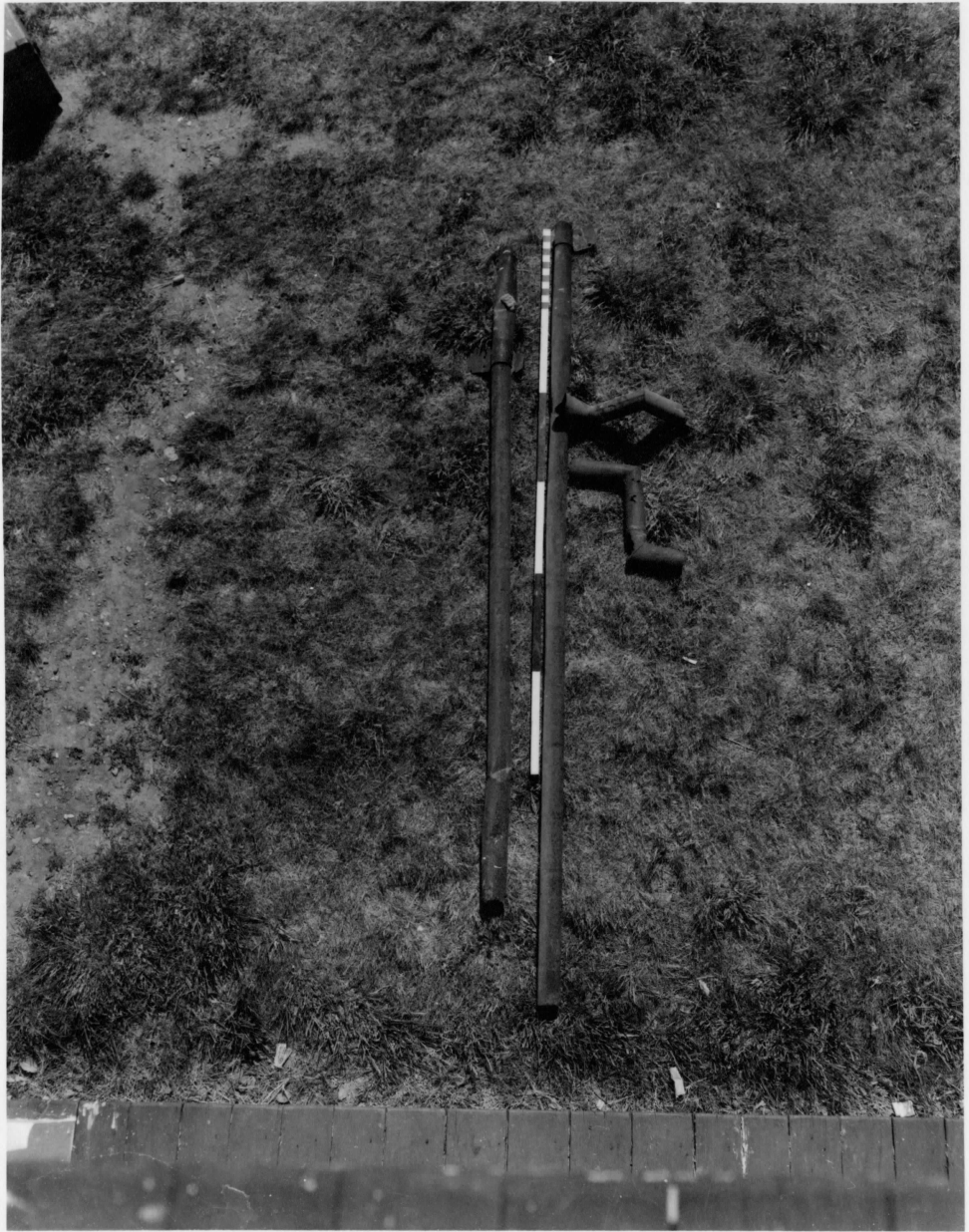


ILLUSTRATION NO. 2

Fumigation of the building was accomplished August 7 & 8. All of the window and door openings were sealed from the exterior and the gas remained in the structure 24 hours. This view shows the Jail before the Stage Road was lowered to its original grade in 1964.

Photo: National Park Service
Edward Benner, August 1963

Neg. on file at Park



ILLUSTRATION NO. 3

Interior view of the east room, first floor, after the removal of the floor boards. Like the floor boards, most of the floor joists were replaced because of termite damage.

Photo: National Park Service
Orville W. Carroll, July 1964

Neg. on file at Park

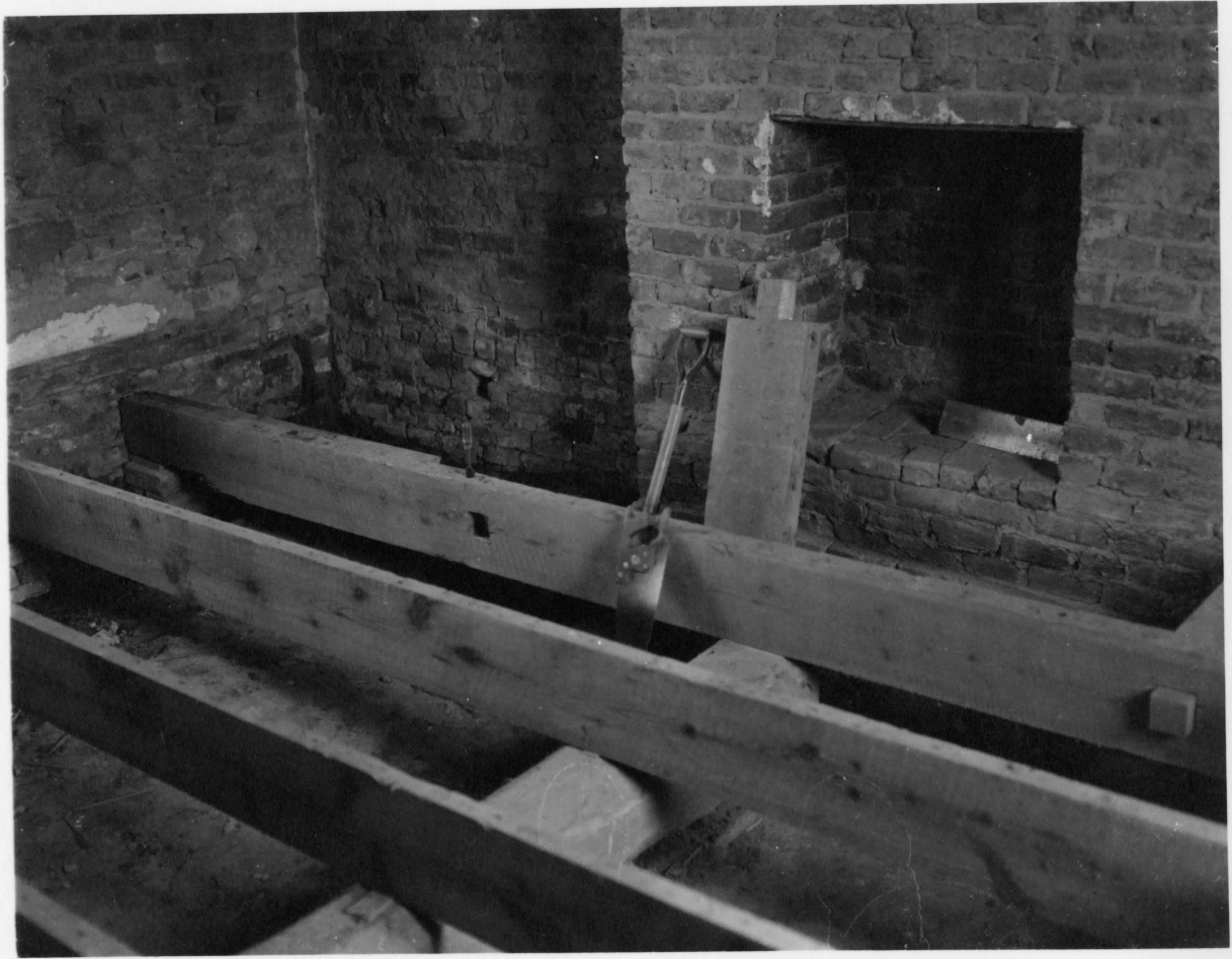


ILLUSTRATION NO. 4

Replacing the wooden door sill, south wall, first floor. The small brick section above and below the door frame was removed but replaced in the manner found. Carpenter, George Page, left, and helper, Hampton Hunter.

Photo: National Park Service
Orville W. Carroll, September 1964

Neg. on file at Park



ILLUSTRATION NO. 5

The workmen are penciling the brick mortar joints on the west wall. Scaffolding was rented from a Lynchburg company to do this job. "Hydrozo" waterproofing was sprayed over the entire surface of the south and west walls.

Photo: National Park Service
Orville W. Carroll, October 1964

Neg. on file at Park



ILLUSTRATION NO. 6

Good evidence remaining from the original penciling job on the west wall. No straight edge was used to stripe the joints. The use of pencil work over the brick joints achieved a "dressed-up" look with the use of a 1/4" wide stripe applied to the horizontal and vertical joint. The top three mortar joints were penciled the same day the photograph was taken, October 27.

Photo: National Park Service
Orville W. Carroll, October 1964

Neg. on file at Park

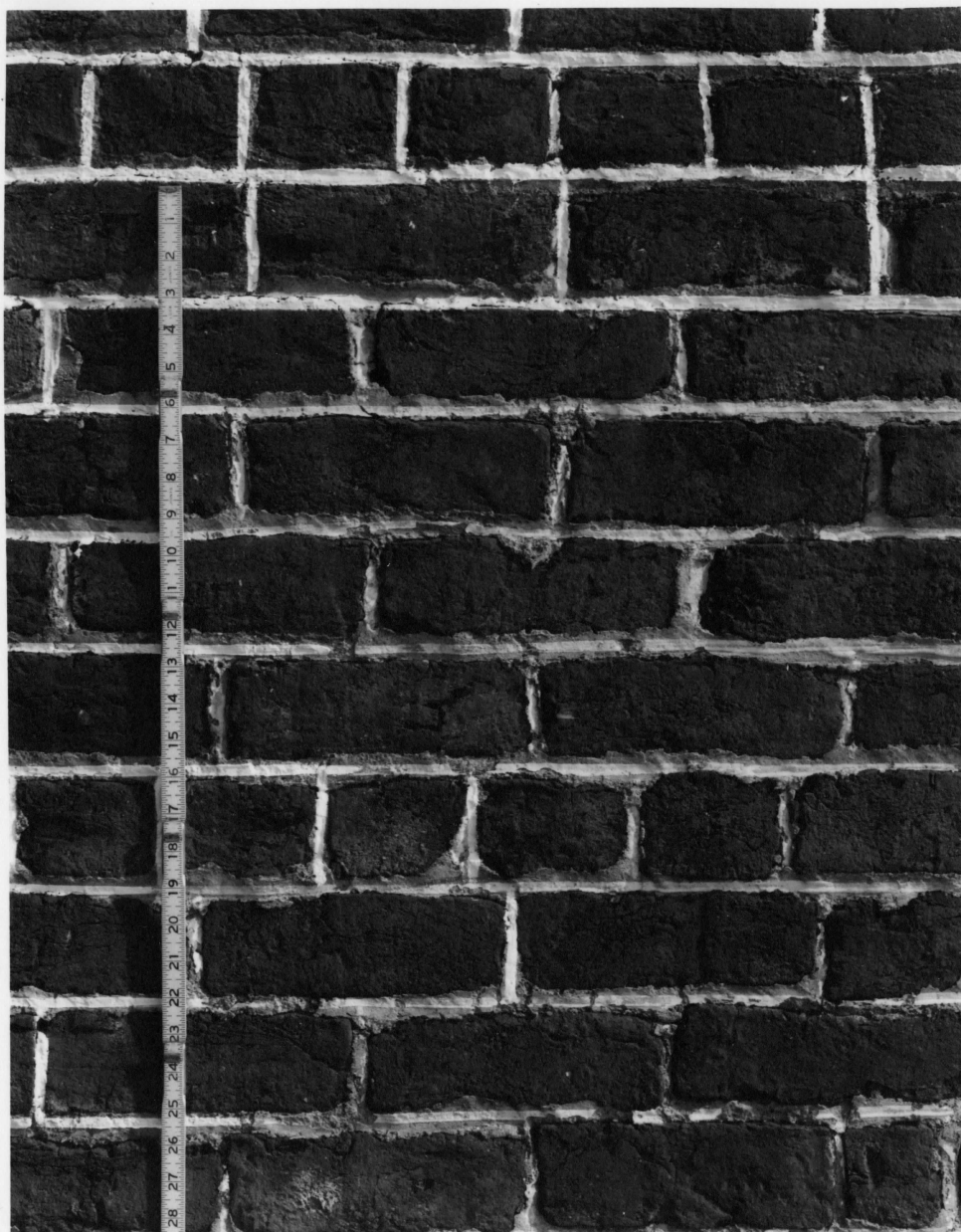


ILLUSTRATION NO. 7

Hallway, first floor, looking south. The floor was replaced as shown with new hand-made bricks. The salvaged bricks from the original floor were used for paving the floor of the closet. Closet door is new.

Photo: National Park Service
Orville W. Carroll, March 1965

Neg. on file at Park

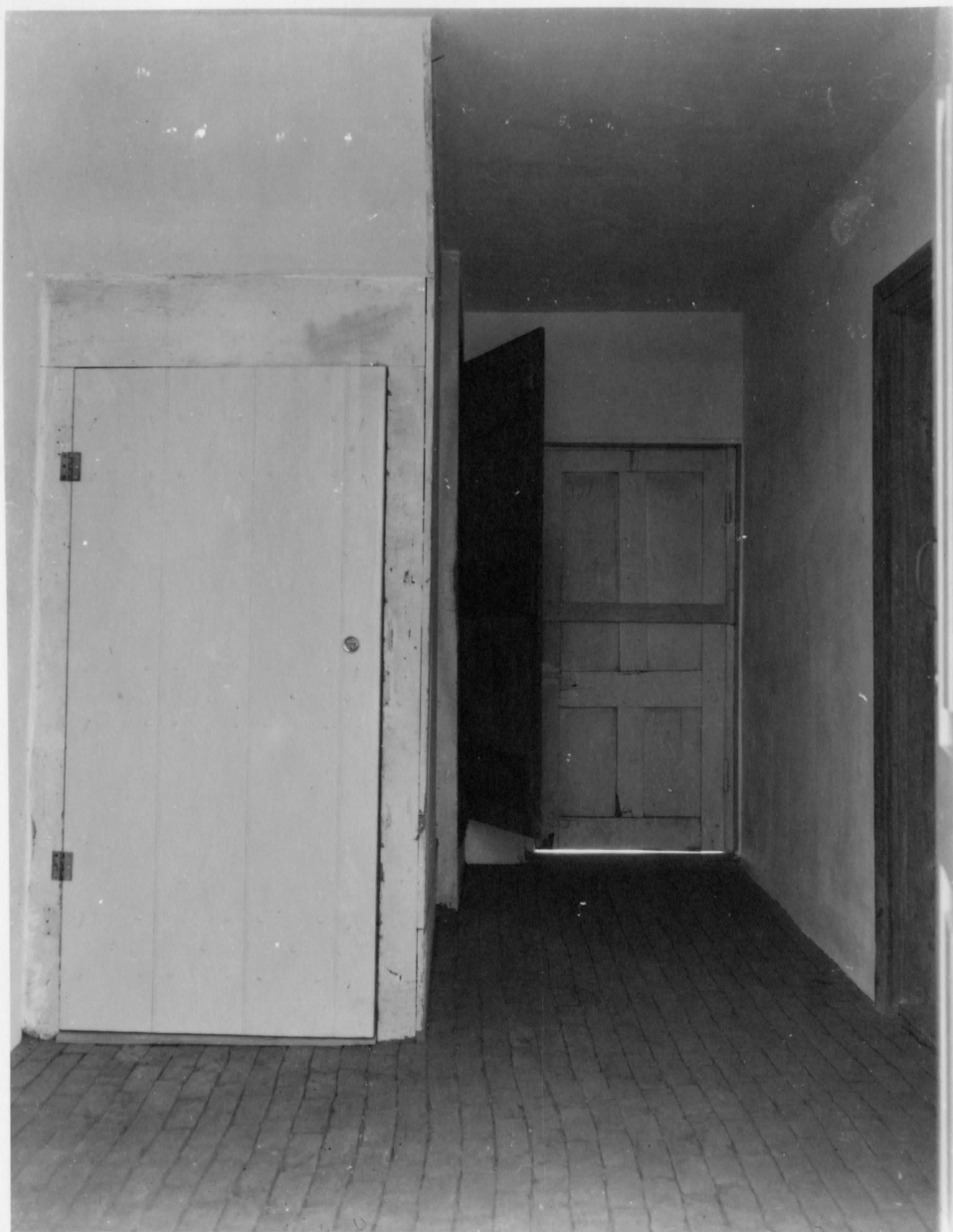


ILLUSTRATION NO. 8

East room, first floor, after the
hearth, plaster walls and ceiling and floor
boards were replaced.

Photo: National Park Service
Orville W. Carroll, March 1965

Neg. on file at Park

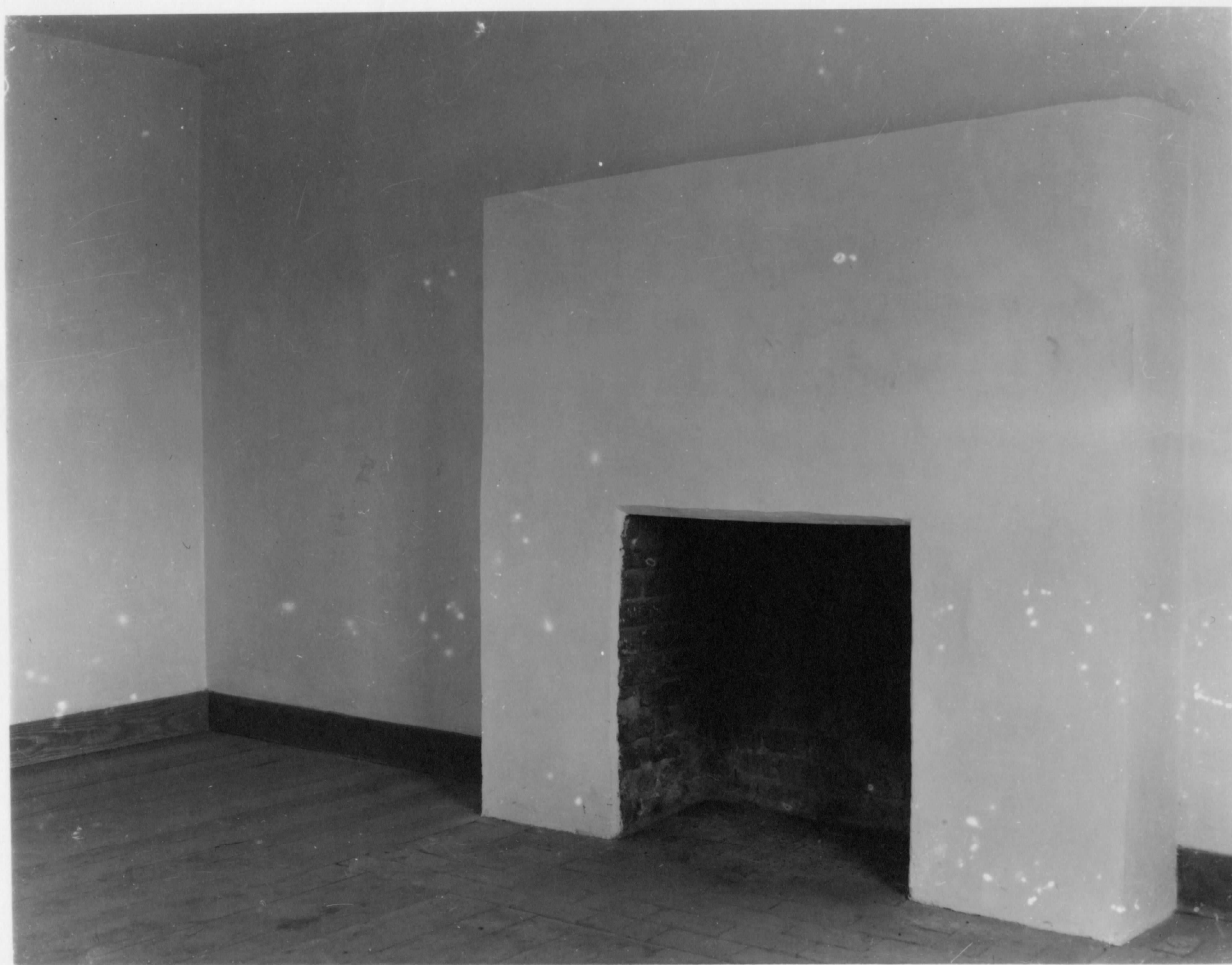


ILLUSTRATION NO. 9

West cell room, second floor, where a section of the iron work, sheathing the wall, was left exposed to view. A portion of the ceiling structure was also left visible to help interpret the Jail story.

Photo: National Park Service
Shearer Robertson, March 1965

Neg. on file at Park

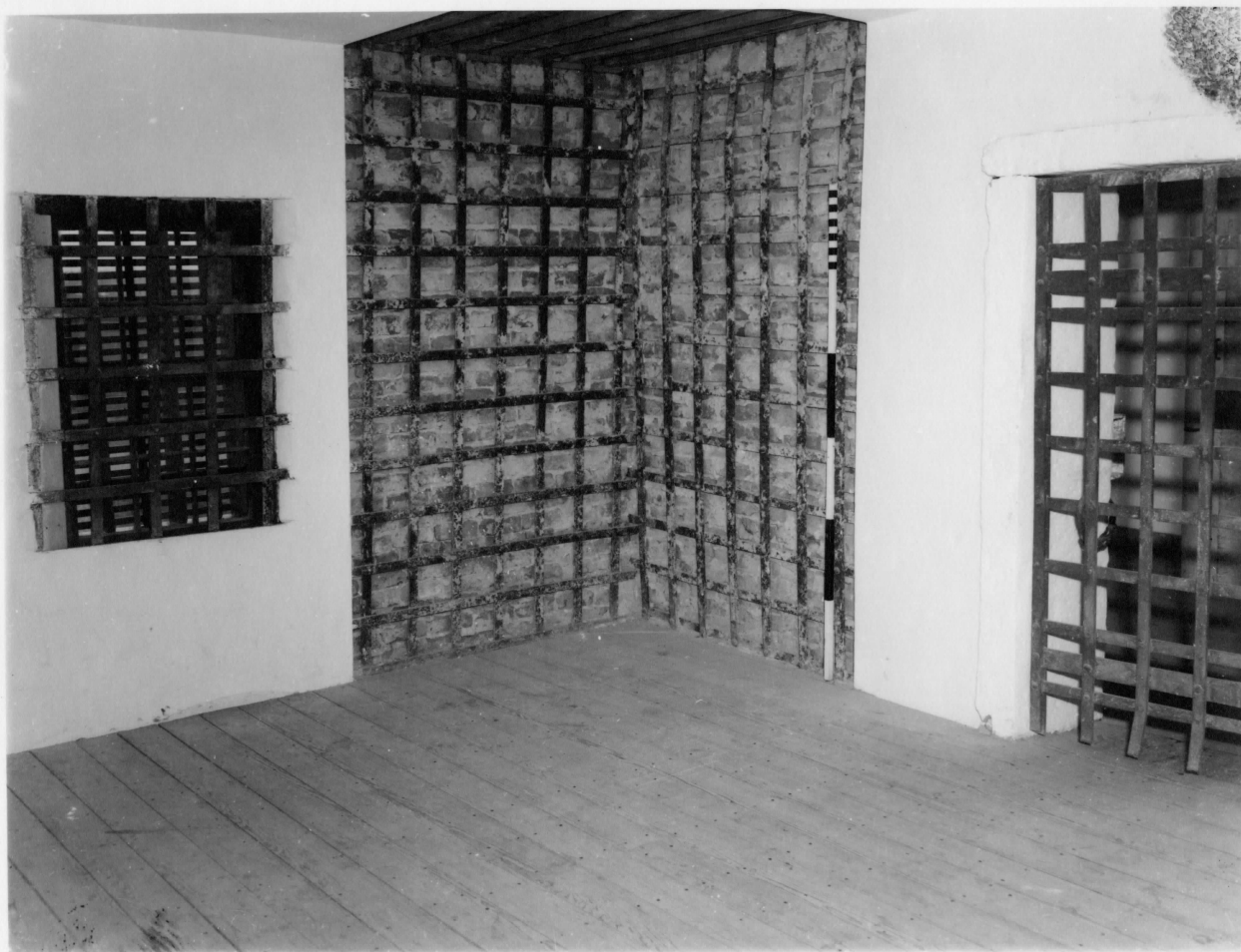


ILLUSTRATION NO. 10

South elevation of the Jail after
rehabilitation work was completed.

Photo: National Park Service
Orville W. Carroll, March 1965

Neg. on file at Park



ILLUSTRATION NO. 11

View from northwest showing the completed building after the stage road was lowered to its original grade.

Photo: National Park Service
Orville W. Carroll, March 1965

Neg. on file at Park



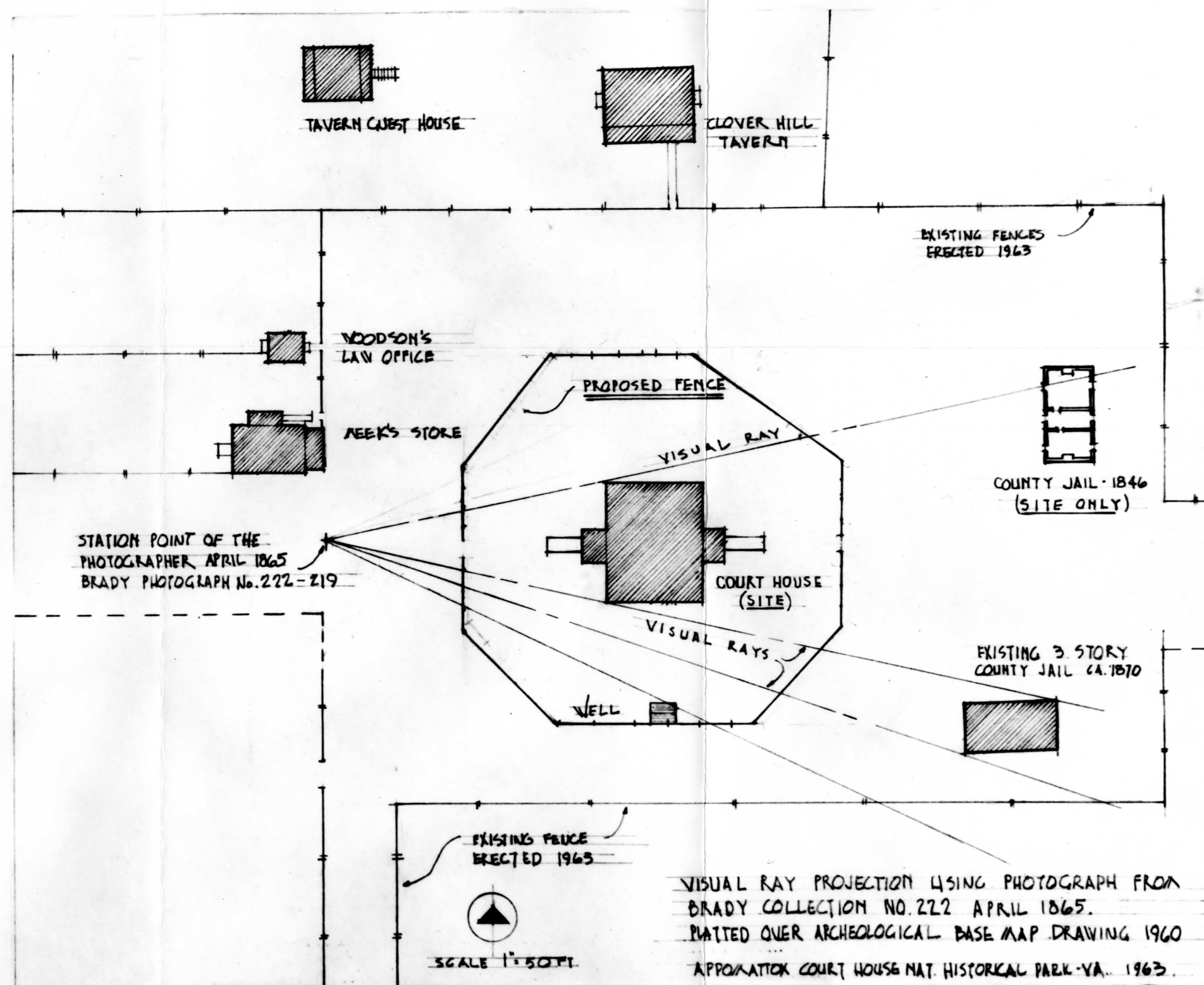
ILLUSTRATION NO. 12

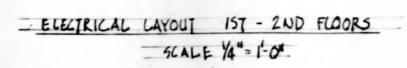
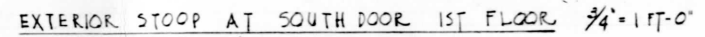
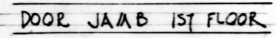
View of Jail from the northwest corner
of the "Village Green" with the reconstructed
Court House (1963-64) to the right and the
Bocock-Isbell House in the background.

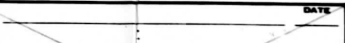
Photo: National Park Service
Orville W. Carroll, March 1965

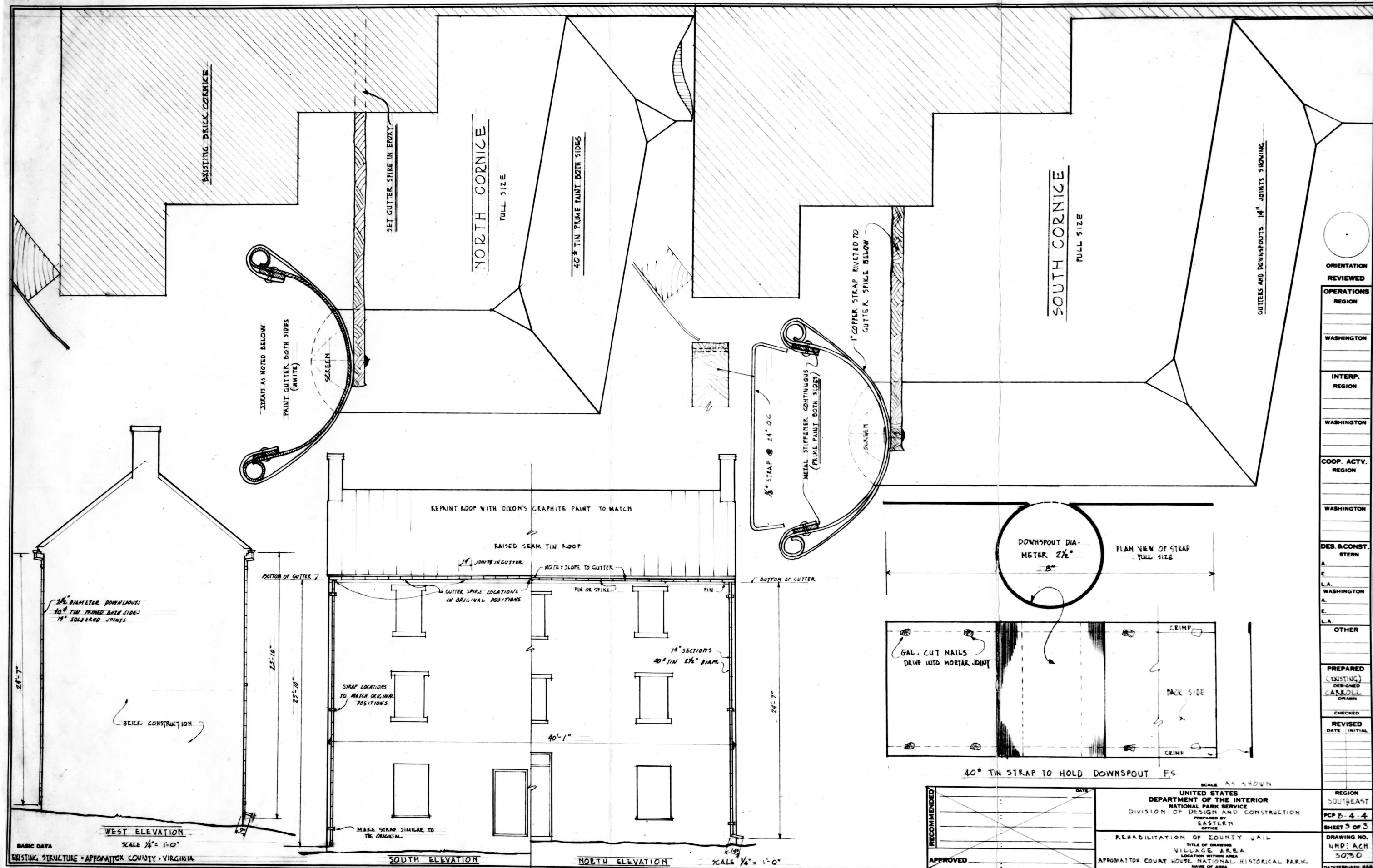
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RECOMMENDED		DATE	SCALE AS SHOWN UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE DIVISION OF DESIGN AND CONSTRUCTION REGIONAL OFFICE EASTERN	REGION SOUTHEAST PCP 8-4-4 SHEET 2 OF 3
		APPROVED	REHABILITATION OF COUNTY JAIL TITLE OF DRAWING VILLAGE AREA LOCATION WITHIN AREA APPROPRIATE COURT HOUSE NATIONAL HISTORICAL PARK NAME OF AREA	DRAWING NO. NHP-ACN 3030 DATE



SPECIFICATIONS

Lathing - Plastering of the County Jail

1. LOCATION OF WORK: The work is to be done at the old County Jail building, located on the grounds of the Appomattox Court House National Historical Park, Appomattox, Virginia.
2. SCOPE OF WORK: The work to be done includes the furnishing of all labor, transportation, tools, materials, equipment and incidentals necessary to complete the plastering of the old County Jail as specified herein and according to the directions given by the Resident Architect.
3. CONTRACTOR TO BE PRESENT: The Contractor shall at all times be personally present upon the job or be represented thereon by a responsible agent, to be designated by the Contractor, who shall have full authority to act for him in all cases and to carry out any instructions relative to the work which may be given by the Contracting Officer or his authorized representative. The Contractor shall inspect the building prior bidding to familiarize himself with the job.
4. MATERIALS: Materials used throughout this job shall be new. All scaffolding shall be furnished by the Contractor. Materials shall meet the following requirements:

Sand	ASTM C-35
Special Finishing Hydrated Lime	ASTM C-206
Gypsum Plaster	ASTM C-28
Portland Cement	ASTM C-150
Keene's Cement Plaster	ASTM C-61
Water	Potable

5. LATHING: Lathing, where required, will not be part of this contract. The bidder shall use the following lathing schedule for bidding purposes in figuring plaster work:
 - a. All ceilings, 1st, 2nd, 3rd floor (with the exception of the west room ceiling, 2nd floor) shall have 3/8" rib lath, 3.4 lbs. per sq. yd. with paper backing. Minimum ground thickness shall be 1".
 - b. All cell room walls, 2nd and 3rd floors (with the exception of the west room walls, 2nd floor) shall have galvanized expanded metal lath, 3.4 lbs. per sq. yd. tied directly to the existing flat iron grillage.

6. PLASTER WORK: Masonry walls (brick): Before applying scratch coat to masonry walls, apply a bonding material to the brick, plaster to masonry, such as "Euco Plaster Bond", "Unigrip", "Sta-Dri Link", "Epoxy Bond", "Duraweld", or equal.

All masonry walls shall be plastered with a Portland cement lime plaster prepared on the job using the following proportions:

a. Scratch Coat: 1/4-inch thick - consisting of 1 bag of Portland cement, 2 bags of "MORTASEAL" lime (or two cubic feet of lime putty) and 7-1/2 cubic feet of sand (or approximately 45 No. 2 shovels of sand). Apply sufficient pressure to form a good bond. Cross-rake surface and damp-cure after set, not less than 48 hours.

b. Brown Coat: Dampen scratch coat with a fine water spray before applying brown coat. Apply 1/4-inch thick using the following proportions: 1 bag of Portland cement, 2 bags of U.S.G. "Mortaseal" lime (or two cubic feet of lime putty) and 9 cubic feet of sand (or approximately 54 No. 2 shovels of sand). Apply sufficient pressure to form a good bond. Lightly cross-rake surface to receive finish coat. After set, damp-cure for at least 48 hours before applying third or finish coat. Damp-curing of each coat shall be accomplished by using a fine, fog water spray as is readily absorbed, depending upon weather conditions.

c. Finish Coat: A smooth troweled white coat shall be applied over brown coat 1/16-inch thick, consisting of proportions by volume, 1 part lime putty, 1-1/2 parts Keene's cement, Type 1, regular. Apply over a cured base coat which has been evenly wetted with water by brushing or spraying. Permit finish to draw a few minutes, then trowel to a smooth finish, free from blemishes and joining marks.

7. PLASTERING ON ALL METAL LATH: All plaster shall be gypsum similar to "Red Top" as manufactured by the U. S. Gypsum Company or an approved equal. Plastering shall consist of a three-coat job (not less than 3/4" thickness) as follows:

a. Scratch Coat: 100 lbs. of gypsum fibered plaster to 2 cu. ft. of vermiculite applied with sufficient pressure to completely embed lath on back side and face and scored to provide bond for next coat.

b. Brown Coat: 100 lbs. of gypsum fibered plaster to 3 cu. ft. of vermiculite with a coarse float surface. Lightly scratch surface.

c. Finish White Coat: Consisting of 80% lime putty with approximately 20% gauging plaster (Plaster-of-Paris). In addition, add at least 50# of fine silica sand per 100# of gauging plaster. It is not intended that the plaster finish be built out to produce a plumb wall line. Rather, the existing wall contours should be followed more or less to produce the effect of the original plaster wall found under the 1st-floor stairway.

All plaster shall be mechanically mixed. Water and electricity is available to the Contractor at the Courthouse building across the road. The Contractor shall furnish his own electrical lines and water hose for hook-up. Sand shall be clean and sharp and meet requirements of ASTM C-35.

8. WORKMANSHIP: All lathers and plasterers used on this job shall be trained and qualified workmen. Plaster shall be brought to a tight line against the existing wood and stone trim.

9. REQUIREMENTS: Room temperature shall be kept above 50°F. prior to and after application of plaster. No plaster work shall be done if temperature falls below 50°F. After plaster has set, provide free circulation of air.

All floors shall be protected by covering with a moisture-proof paper. Protect all windows, doors and wooden trim from plaster marks. Keep area clean at all times.

10. EXECUTION OF WORK: All work shall commence upon the notification to proceed and the Contractor shall so prosecute the job until it is completed without unnecessary delays. Plasterers shall be no less than two-years experienced in this trade.

11. PAYMENT: The Contractor shall be paid in one lump sum, upon the submission of proper invoices and acceptance of the work by the Contracting Officer.