HISTORIC STRUCTURES REPORT

PART II, PORTION, ROOF

FIRST BANK OF THE UNITED STATES

INDEPENDENCE NATIONAL HISTORICAL PARK
**STATUS OF HISTORIC STRUCTURES REPORT**

**THE FIRST BANK OF THE U. S.**

**STRUCTURE/BUILDING #**

**INDEPENDENCE PARK**

**PROJECT:** Restoration of Roof

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**SECTIONS:**

**Admin.**
- Called for: 7/28/64
- Due: 8/28/64
- Rec'd

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- Due: 8/28/64
- Rec'd

**Architecture**
- Called for: ____________
- Due: ____________
- Rec'd: 7/17/64

 **DISTRIBUTED**
- Park: ____________
- EODC: ____________
- Region: ____________
- WASO: ____________

**REVIEWED**
- Park: ____________
- EODC: ____________
- Region: ____________
- WASO: ____________

**APPROVED:**
- Region: ____________
- WASO: ____________
Memorandum

To: Regional Director, Northeast
From: Assistant Director, Design and Construction

Subject: Historic Structures Report, Part II (Portion), Roof, First Bank of the United States, Independence

The interested divisions have reviewed the subject report and concur with the recommendations stated in Carlisle Crouch's December memorandum, particularly that Alternative #2, temporary repair of the skylight, should be the course of action adopted. I have approved the report this date.

We note that this repair and the restoration of the roof which will eventually follow will allow the 1901 glass dome and Rotunda to remain. The Part I Report approved October 6, 1964 does not make specific recommendations on the treatment of the interior of the building. We believe that the overall rehabilitation and restoration plans should be based on the retention of the 1901 interior remodelling by John H. Windrim, except for the elevator. Beside helping to express the continuing use of the building through a long span of years, the present interior treatment has aesthetic charm in its own right.

cc:
Chief, EODC (2)
Supt., Independence

J. E. N. Jensen
Memorandum

To: Director

From: Acting Regional Director, Northeast Region

Subject: Historic Structures Report, Part II (Portion), Roof, First Bank of the United States, Independence NHP

We recommend approval of the subject report.

Please note, that of the four alternatives listed on pp. 1 and 8 of the Architectural Data Section of the report for correcting the deterioration of the existing skylight, Alternative #2, temporary repair of the skylight, is recommended by the Park, the EODC, and this office.

[Signature]

Enclosure

cc:
Chief, EODC
Superintendent, Independence
Programs (Attn: Mr. Monteleone)
HISTORIC STRUCTURES REPORT, PART II (PORTION), ROOF, FIRST BANK OF THE UNITED STATES, INDEPENDENCE NHP

REVIEW SHEET

1. Mr. Lukens

J. C. 11/4

2. Mr. Golub

Ock 91 10/29

3. Dr. Nelligan

- PK examines <*> daylight through light through upper left corner 2015-12-02

11/5/64 - Hill & Finkel

Golub R personally

10/29
MEMORANDUM

To: Regional Director, Northeast Region

From: Chief Architect, EODC

Subject: Historic Structures Report, Part II (Portion); Roof of the First Bank of the United States, Independence

The subject report has been reviewed by the interested personnel of this office. In the Architectural Data Section, recommended by Acting Chief DeSilvets on July 15, four alternate proposals were given for the roof repairs ranging from emergency repairs to the 1901 skylight to a complete restoration of the roof including the cornices, balustrades and chimneys. The Administrative Data Section calls for the proposal limited to the repair of the non-historic skylight.

The Administrative Data Section with the above proposal and the Historic Data Section are recommended for approval by Chief Hall this date. We wish to point out, however, that other work will be needed in the near future on the cornice, balustrade, chimneys and roof covering even though a decision might be made not to restore the roof to its historic contours. Sheet metal work in the cornice and balustrade installed in 1901 is now in a very disintegrated condition. Even though the present decision to repair only the skylight is the cheapest of the four proposals, it may not prove to be the most economical over a period of years.

Robert E. Smith

cc: Assistant Director, Design and Construction
Superintendent, Independence
Memorandum

To: Chief, ROBD
From: Acting Regional Director, Northeast Region

Subject: Historic Structures Report, Part II (Portion), Administrative and Historical Data Sections on the Roof of the First Bank of the United States, Independence NH

Enclosed are the Administrative and Historical Data Sections of the subject report, to be combined with the Architectural Data Section.

Please let us have your comments on the complete report as soon as possible.

George A. Palmer

Enclosure

cc: Superintendent, Independence
Mr. Whitcraft

GM
Frank
General
Daily
Area
Memorandum

To:    Regional Director, Northeast Region

From:  Acting Superintendent, Independence

Subject: Historic Structures Report, Part II (Portion), Administrative and Historical Data Sections on the Roof of the First Bank of the United States

In accordance with your memorandum of July 29, we are submitting for your review and distribution three copies of the Administrative and Historical Data Sections on the Roof of the First Bank of the United States, Historic Structures Report, Part II (Portion).

Enclosures (3)
MEMORANDUM

TO: Superintendant, Independence

FROM: Regional Director, Northeast Region

SUBJECT: Historic Structures Report, Part II (Portion), Architectural Data Section, Restoration of Roof, The First Bank of the United States, IHMP

Enclosed is a copy of the Part II Architectural Data Section (Portion), for the Restoration of the Roof, The First Bank of the United States.

Please prepare the Part II Administrative and Historical Data Sections as outlined in the Historic and Prehistoric Structures Handbook, and forward three copies to this office.

Since the Part I Historical Data Section for The First Bank was so complete in detail, the Part II Historical Data Section need only consist of a brief statement incorporating any additional information which may have come to light since that section was originally prepared.

(Sgd.) Ronald F. Lee

EMELOURE

CC:
Chief, ESHC
GMFraney
General / Daily / Area
Memorandum

To: Regional Director, Northeast Region

From: Chief Architect, EODC

Subject: Historic Structures Report, Architectural Data Section, Part II (Portion), The First Bank of the United States, Restoration of Roof, Independence

Enclosed for your review and distribution are three copies of the subject report which was recommended by Acting Chief Eugene R. DeSilets July 15. A copy has been retained by this office.

Four alternate proposals for work on the roof of the First Bank are contained in this report. Two are of a temporary nature at estimated costs of $17,000.00 and $20,000.00, which would be lost in a final restoration and are therefore not recommended. The full restoration is preferred and the cost will be approximately $175,000.00. This would be cheaper in overall cost than a restoration done in portions, the alternate for the partial restoration of about $50,000.00 could be retained in the final phase of the restoration.

Robert E. Smith

Enclosure

cc: Assistant Director, Design and Construction Superintendent, Independence
Memorandum

To: Regional Director, Northeast Region

From: Chief, EODC

Subject: Rehabilitation of Roof, First Bank of U. S., Independence

At the request of Superintendent Anderson, we inspected the skylight on the roof of the First Bank with Park Engineer Crawford and found this structure in a state of disrepair. There is evidence of numerous small leaks and several large leaks, resulting from deterioration of the skylight framing members. The skylight is in such serious corrosive condition that corrective action should be taken as soon as possible in order to avoid major damage to the structure. It appears that repairs to the skylight may be extensive and it is possible that replacement of the entire unit may be required. The cost of this work is estimated to be between $15,000 and $20,000.

With the proposal for the expenditure of such a large amount for repairs and the possibility that the First Bank may be programmed for restoration in the near future, we recommend that consideration be given at this time to the removal of the skylight and to the restoration of the roof to the original lines. The cost, in our opinion, will be in line with the cost of repairing or replacing the skylight.

Robert G. Hall
By: Robert E. Smith, Acting

cc:
Assistant Director, Design and Construction
Superintendent, Independence
SIGNATURE SHEET

RECOMMENDED

Dennis C. Kintner
Superintendent
Date 8/26/64

Ronald F. Lee
Regional Director
Date 11/30/64

Robert E. Hall
Chief, Eastern Office, Division of Design & Construction
Date 10/14/64

APPROVED

J. C. M. Jensen
Date 11/6/65

and Director, Des Co. Coor.
HISTORIC STRUCTURES REPORT

PART II, PORTION, ROOF

FIRST BANK OF THE UNITED STATES

INDEPENDENCE NATIONAL HISTORICAL PARK

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*  

Prepared by

Staff

Independence National Historical Park

Philadelphia, Pennsylvania

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*  
*  

August 1964
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CHAPTER I

ADMINISTRATIVE DATA

Prepared by Superintendent M. O. Anderson
First Bank of the United States, Building No. 11.
The structure’s 1901 skylight is in hazardous condition. Its exterior metalwork has rusted and water seeps through the glass panels. It is potentially in danger of collapsing. Repair of the glass skylight is very urgent.
PROVISIONS FOR OPERATING BUILDING

It is proposed to operate the building as part of the Independence National Historical Park.
PRELIMINARY ESTIMATE
OF COST

Repair of the existing glass skylight  $ 17,000.00
CHAPTER II
HISTORICAL DATA

Prepared by Historian Pearl Hillman
The structure which housed the First Bank of the United States was completed in 1797. Its roof was covered with copper.

As early as November 24, 1795 the Bank's Board of Directors ordered that "1500 sheets of Copper 48 x 24 inches each sheet [sic] weighing 8 pounds ..." and "a sufficient quantity of Nails suitable for fixing the Copper upon the Roof" be procured from England.¹

The Traveller's Directory or A Pocket Companion for the year 1802 which gives one of the earliest written descriptions of the structure notes that "the roof is covered with copper."²

Additional information on the original roof structure is provided by contemporary views. The simple hip construction of the copper roof is shown for the first time on a commemorative medal dated 1795. (See Illustration No. 1.) The 1799 Birch engraving of the First Bank of the United States shows the classic balustrade and the lightning rod on the southeast chimney. (Illustration No. 2.) The building had eight chimneys. Three were located at the north and south sides and two at the west side. The three chimneys on the south side appear in this Birch engraving.

In 1817 major alterations were undertaken at the First Bank of the United States. Jacob Keighler was paid $195.70 for supplying 323 pounds of copper sheeting.³ The work was done by G. and F. Harley.
The voucher for this work notes, "to repairing 42 places in the copper roof of [the] banking house...."4

Further alterations to the roof were carried out in 1826. A bill for "72 Days work preparing [the] roof for Slating...."5 totaling ninety dollars was submitted by James Clark, a carpenter. Although it appears that a new roof was furnished at this time, the materials employed are not described in available vouchers and bills.

No changes are known to have been made to the roof until the drastic exterior alterations of 1901-1902. The 1826 roof was removed and replaced with an asphalt-covered hipped roof with a skylight covering the glass dome of the rotunda and an elevator penthouse. (See Illustrations Nos. 3 and 4.) The roof construction over the portico was repaired but not removed. The copper roofing over this portion is considered to be original.

A cornice and balustrade of galvanized iron "similar in detail to that...on the south side" of the building replaced the old wooden cornice and balustrade of the south, west, and north walls. (See Illustration No. 5.)

All eight original chimneys were removed during the 1901-1902 restoration. Only three of them were rebuilt. (See Illustrations Nos. 4 and 5.)

The 1901-1902 remodeling of the roof under the supervision of architect John H. Windrim is essentially that which exists today.
The asphalt-covered hipped roof is non-historic. An accurate restoration would necessitate the restoration of a copper roof and the removal of the existing skylight and elevator housing. Five chimneys need to be replaced since only three of the original eight were rebuilt during the Windrim restoration. The balustrade and cornice on the north, south, and west walls which were also provided in 1901-1902, were designed to duplicate the wooden cornice and balustrade which then existed on the east facade. However, they were completed in galvanized iron rather than wood, the original composition.

Since 1902 no further alterations have been made to the roof structure of the First Bank of the United States.


"Bank of the United States," 1799 Birch engraving shows balustrade, chimneys, and a lightning rod on the roof of the building. Independence National Historical Park photograph.
First Bank of the United States as it appeared after the 1901-1902 remodeling with the asphalt roofing and the skylight. Note unaltered portico roof. Independence National Historical Park photograph (1962).
View of the First Bank of the United States looking east. Note the elevator housing, skylight, balustrade, and three chimneys constructed during the major alterations of 1901-1902. Independence National Historical Park photograph (1952).
HISTORIC STRUCTURES REPORT

PART II (PORTION)

ARCHITECTURAL DATA SECTION

ON

THE FIRST BANK OF THE UNITED STATES

RESTORATION OF ROOF

Independence National Historical Park

Prepared by
Norman M. Souder
Architect
July 1964

for

United States Department of the Interior, National Park Service
Eastern Office, Design and Construction
Division of Architecture
HISTORIC STRUCTURES REPORT
PART II (PORTION)
ARCHITECTURAL DATA SECTION
ON
THE FIRST BANK OF THE UNITED STATES
RESTORATION OF ROOF
Independence National Historical Park

APPROVAL SHEET
RECOMMENDED

Superintendent

Date

Chief, EODC, Acting

Date 7/5/64

Regional Director, Northeast Region

Date

APPROVED

Director

Date
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SKETCHES
  2 sheets

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I. FOREWORD

The restoration of the First Bank of the United States is to be accomplished in separate portions. This portion of the Part II, Architectural Data Section of the Historic Structures Report, deals only with the proposed restoration of the roof.

The project for which this report is intended, is to provide only for the removal of the 1901 skylight and for the continuation of the roof in the area occupied by the skylight.

Investigation of the roof shows that the proposal would not provide a resemblance of the original roof slope. This report, together with the accompanying sketches and illustrations is intended to explain the differences between the original and the present roof structures.

An administrative decision will be required on which of the courses are to be followed:

(1) Complete restoration of the roof structure including new steel framing, wood balustrades and cornices, and restoration of the eight original chimneys.

(2) An interim repair of the skylight until funds are made available for the roof restoration.

(3) An interim roof repair including removal of the skylight and replacing the area with a temporary roof until such time as the existing roof structure can be completely re-
moved and restored.

(4) The construction of a false roof over the existing roof. The false roof would have the same lines as the original. Two slopes of the present roof could be utilized. The restoration of the remainder of the roof could be done in stages, using this method.

The Part I, Architectural Data Section of the Historic Structures Report was submitted for approval by EODC on June 29, 1964.

Norman M. Souder
Architect
July 1964
II. EXISTING CONDITIONS

A. Roof Structure

The present roof structure of the main building dates from the 1901 alteration, designed by the Philadelphia Architect, James Windrim. At that time the original timber framing was removed to the walls on the main portion. However, the original framing and roofing over the portico was allowed to remain.

With the complete re-design of the interior, the roof pitches were altered on the new roof to form a thirty-five foot square base on which the glass covered skylight was placed to provide light for the glass-domed rotunda. The rotunda was the central feature of the interior alterations.

The forming of the roof hip to adjust from the rectangular shaped building to the square skylight base caused the roof pitches to change from a constant in the original to four (4) inches to the foot on the east and west slopes and approximately two and five-eighths inches on the north and south slopes.

The framing for the roof is constructed of steel. The main members are 15 inch I beams covered with terra cotta and plastered.

Intermediate framing consists of fireproofed six inch steel purlins. The sheathing is concrete covered with asphalt. The present covering is roll roofing applied over the old asphalt roofing.
B. Skylight

The existing skylight is 35 feet square, constructed in steel, with wire glass set in galvanized iron sash in the roof portion and wire glass in pivoted sash on the four sides. In addition to the operating sash there are circular louvers on the north and south gables of the skylight.

Two trusses span the interior of the skylight over the eastern and western columns. In turn the trusses are fitted with a system of straps suspended from pairs of 12 inch channels for the support of the top of the dome structure below.

The present condition of the skylight is poor. Much of the metal work is rusted on the exterior and water is admitted around the glass panels.

C. Balustrade, Cornice and Gutters

The present moulded, galvanized balustrade is presumably a copy of the wooden original. A note on the Windrim drawing states "New Galv. iron balustrade and cornice exactly similar to balustrade and cornice now on south Side." The galvanized cornice is a direct copy of the old wood cornice which remains on the portico.

The galvanized cornice on the east facade had deteriorated and was replaced in 1961 with a carved wood copy of the original. The metal cornice on the north, west and east sides was repaired and repainted at the same time.
D. Chimneys

The building originally had eight chimneys. Three were located on each of the north and south walls and two on the west wall. All of the chimneys were removed at the time of the structural change to the roof in 1901. Only three of the eight were rebuilt, two on the south and one on the west side.

The flues for all of the chimneys are an integral part of the brick walls causing the chimneys to rest directly on the wall. See illustration for the location of the earlier chimneys.

E. Elevator Penthouse

The elevator installed in 1901 was an elaborate, open, wire-cage type as indicated on the Windrim drawings. At a later date a modern push-button operated car was installed in a brick enclosed shaftway. A brick penthouse, 8'-10-1/2" wide by 12'-6" long extends above the roof, west of the skylight, to house the machine room of the existing elevator.

F. Portico Roof

The roof of the portico is original. The area under the portico roof was separated from the third floor of the main structure by a brick fire wall and metal covered fire door installed in 1901. The original wood framing of the portico roof has remained. Copper roofing remains on the portico, a portion of which is believed to be original.
III. ORIGINAL ROOF STRUCTURE

A. Roof

The original roof as designed by Blodgett was a simple hip with a ridge extending in a north-south direction. Apparently the four slopes of the hip had the same slope of approximately four inches to the foot, which resulted in the ridge as shown on the early views. The basis for the four inch pitch is the remaining portico roof which has a four in twelve pitch.

Originally the roof was covered with copper. As has been noted copper still remains on the portico roof. Records\(^1\) exist for the purchase of 405 pounds of copper for roof of bank in 1817 and for repairing roof of bank in 1820. Copper apparently was used as the roofing until 1901 when the old roof structure was removed and the present roof applied. The original roof framing was of timber construction. Nothing remains to indicate the framing method except the remains of the interior of the portico roof.

B. Chimneys

The old chimneys were similar in size and shape to the chimneys now on the building. The old prints and early photographs show them to be located on the north and south sides as the existing chimneys are now, but with an additional chimney between the second and third windows from Third Street. There was also a chimney on

\(^{1}\)Girard College, Girard Papers, Receipt Book 1817, and Receipt Book 1820 and 1821, pg. 84.
the rear (west) near the northwest corner which balanced the existing one on that elevation near the southwest corner.

C. Balustrades

The original roof balustrades were made of wood in a design of panels and turned balusters similar to the galvanized railing now on the building. The variation from the existing balustrade sections will occur at the north and west sides where the old chimneys are now missing.

D. Cornices

The original cornice on the First Bank was of wood with carved moldings and brackets. The original carved cornice remains on the portico. The cornice was restored in carved wood on the Third Street facade on either side of the portico.

The style of the building suggests that the copper gutter was, as it is now, built-in. The gutter being constructed as a part of the carved cornice.
IV. **RECOMMENDATIONS**

The current project for stabilization of the roof is for the removal of the glass skylight over the rotunda dome and the extension of the existing roof structure to cover the skylight area. In this plan, the glass dome below would be artificially lighted by the placement of fluorescent tubes under the extended roof.

As has been noted, the extension of the existing roof structure would result in a roof shape that would be architecturally awkward and not a restoration of the original roof lines. The extension of the existing structural steel framing would produce a short ridge on a $90^\circ$ angle from the original, due to the two different roof slopes. The 1901 roof was formed in this manner so as to produce a thirty-five foot square base to hold the glass skylight. This is more readily understood by the explanation that the building is a rectangle in shape and the skylight a square. In order to have the roof of the rectangle meet the square equally on all sides, two sides of the rectangle would have to be more sharply pitched than the other to meet the condition. An extension of the two pitches would result in the ridge of the hip roof running on an east-west axis instead of the original (and logical) north-south axis.

If this work were done, the entire roof would have to be removed at a later date in order to restore the originally designed hip.

The ideal restoration would include the removal of all of the entire roof structure. This would necessitate the removal of the
elevator penthouse, the restoration of the eight original chimneys, the restoration of the wood balustrade on the four faces and the restoration of the carved wood cornice on three of the faces of the building. (See sketch No. 1).

The alternate schemes would be as follows:

1. The repair of the existing glass skylight to make it watertight until the roof restoration could be done.

2. The removal of the glass skylight and the extension of the present steel framing to cover the skylight area (see sketch No. 1).

It should be noted that both schemes one and two would be temporary measures. Eventually the roof would have to be completely removed for a more accurate restoration of the original.

3. A possible solution to avoid the costly removal of the existing steel roof framing, the following method of restoration is suggested:

A false roof to be erected over the existing north and south slopes at a four inch pitch, matching the east and west slopes. The resulting ridge line would then follow the original. The present steel roof structure is sound and the weight of the false roof structure should not affect it. Under this scheme the elevator penthouse could remain until the whole roof is covered with copper and the features such as the balustrades, cornices and chimneys are restored (see sketch No. 1).
V. ESTIMATED COSTS

1. The removal of the existing roof, framing, balustrades and the restoration of the roof structure including a copper roof, wood balustrades and cornice to effect a thorough restoration

$175,000.00

2. The temporary repair of the existing glass skylight

$17,000.00

3. The removal of the skylight and extension of the present roof framing to cover the dome area. A temporary measure also and esthetically wrong.

$20,000.00

4. The erection of a false roof over the existing roof structure following the lines of the original. The immediate work would eliminate the skylight and provide a temporary roofing material pending the application of a copper roof. This method would be the first step in the roof restoration and would be in lieu of estimate No. 1.

$50,000.00
ISOMETRIC SKETCH SHOWING AREAS
OF FALSE ROOF OVER EXISTING ROOF

FIRST BANK OF THE
UNITED STATES
ILLUSTRATION NO. 1

The earliest of the prints depicting the First Bank of the United States, apparently made shortly after its completion in 1799. Some of the details are missing, but the pattern of the railing and placement of the south chimneys are shown.

Print owned by Penn Mutual Insurance Co.

Neg. No. IND 519B
ILLUSTRATION NO. 2

The First Bank as it appeared in 1829 according to a print delineated by George Strickland and engraved by G. Childs. The railings and cornice appear much as they do today. Four of the eight chimneys are visible on this print.

Neg. No. IND 532
GUARDS BANK.

LATE UNITED STATES BANK.
This reprint of a Talbotype shows the original roof. The seams of the copper roofing can be noted as well as the north-south ridge line.

Talbotype c. 1850
Neg. No. IND 2118
At the right of this photograph, taken in 1869, can be seen the First Bank with its original roof and chimneys. Note that the roof appears to be a constant slope. The three chimneys also are in place on the south side. The original ridge line and the three chimneys on the north side are shown here.

Print Collection - Free Library of Pennsylvania
Neg. No. IND 2018
ILLUSTRATION NO. 5

Aerial view of the First Bank taken from the northwest before the surrounding buildings were demolished. This photograph shows clearly the existing roof conditions which have not changed. Note the two roof pitches, the glass skylight and the elevator penthouse. The original roof had no superstructures. Note that only three of the original chimneys have been retained.

Photo: Knickerbocker Photo Service, 1952

Neg. No. IND 2071