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HISTORIC STRUCTURES REPORT - PART I

RUINS OF ARSENAL BUILDINGS

HARPERS FERRY NATIONAL MONUMENT

November 1959, Snell

001277

Historic Structures (Ruins) Report,

Part I,

for

The Large and Small Arsenal Buildings

Harpers Ferry
National Monument

Prepared by:

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APPROVAL SHEET

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Recommended: _____
Chief, EODC

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Superintendent

Harpers Ferry National Monument

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PART I - ADMINISTRATIVE DATA

A. NAME

Historic Structures (Ruins) Report for the Large and Small Arsenal Buildings.

B. PROPOSED USE OF AREA

The obliteration of Bldg. No. 26, the restoration of the historic ground level, the stabilization of the foundations of the Arsenal Buildings and reconstruction of a portion of brick wall as well as the rest of Historian Snell's recommendations, all of which were concurred in by Chief Archeologist Dr. Corbett and Regional Archeologist Dr. Cotter upon the occasion of their recent visit to Harpers Ferry National Monument, are approved by this office. We also agree that the complete reconstruction of the two buildings would be difficult to justify now or in the foreseeable future.

When completed this exhibit will serve as a very popular additional attraction for the visitor to Harpers Ferry National Monument.

C. PROVISION FOR OPERATION OF AREA

Altho no special provisions are provided for the operation of this improvement, funds for its maintenance will be requested in subsequent preliminary estimates.

D. PRELIMINARY ESTIMATE OF COST FOR STABILIZATION AND EXHIBITION OF ARSENAL RUINS

A Class C Project Construction Program Proposal Form prepared with Dr. Cotter's assistance is being submitted for this entire project. The estimated total cost is $37,500.

PART II - HISTORICAL DATA SECTION

INTRODUCTION: As Philip R. Smith, Jr.'s, "History of the Large and and Small Arsenals, 1796-1869, Block A, Lots 2 to 7, Shenandoah Street," dated April 20, 1959, 49 pages, presents in detail all documentary evidence, as well as many historic maps, prints, and photographs, relating to the two Arsenal buildings, the writer, in this Historic Structure Report, will merely summarize the results of Mr. Smith's research report. This data will also be supplemented by some of the evidence uncovered by Archeologist Edward McM. Larrabee in his dig on the Arsenal Square during the summer of 1959. Mr. Larrabee's report is still in the process of preparation at this date.

1. THE LARGE ARSENAL. The Large Arsenal was erected by the War Department in 1799-1800.[1] Mr. Larrabee is of the opinion that the great stone foundations for the structure, five feet deep, were laid the first year and that the brick superstructure was erected during the second year.[2]

The Large Arsenal was a two story brick building, roofed with oak shingles, and had dimensions of 125 by 32 feet. The structure did not have a cellar.[3] Mr. Larrabee's dig also revealed the fact that a center stone wall, running the entire length of the building, had been erected

1. P. R. Smith, Jr., "Report," pp.5-6.

2. Verbal statement of Mr. Larrabee to the writer.

3. Smith, Report, pp.7, 10. The dimensions were confirmed by the archeological work.

in 1799 for the purpose of supporting the beams of the first floor of the structure.

Based on early prints and photographs, it would appear that the central section of this arsenal projected outwards one or two feet on the north side in the center of the structure; the projecting section running about one-third of the length of the building.[4] This projection thus divided the Large Arsenal into three section; a center, with two wings of equal size on either side. Each section contained three arched windows on the upper floor of the north side, or a total of nine windows on the second floor on that side. The three first floor sections each had one door, flanked by one arched window on either side, thus making a total in the first story of three doors and six windows on the north face of the Large Arsenal.[5] The west end or elevation of the arsenal apparently contained a total of five windows, with one small window under the peak of the roof, and below, two arched windows on each floor.[6] The east end of the building also contained five windows arranged in the same fashion as the west end.[7] The arrangement of door and window openings on the south elevation of the Large Arsenal is unknown, but was probably composed of nine arched windows on each floor, or a total of 18 windows on the south side.

4. Smith, Report, page 9-see HF-21, 1806 print; also HF-66; HF-533 in Appendix I of this report. The archeologists were not able to check out fulley the existance of this projection because a large tree covered this critical sector.

5. Smith, Report, page 9-print HF-21; page 10, HF-66 and HF-533 in Appendix I of this report.

6. Smith, Report, page 9, print HF-21.

7. See Print HF-491A in Appendix I of this report.

It also appears, as originally constructed, the Large Arsenal contained a large pediment over the central section, with three dormer windows in the roof of each of the two wings on either side, on the north face of the building.[8] The dormers and pediment, however, had been removed from the structure by 1859.[9] This change was probably effected in 1825, when the roof of the Large Arsenal was slated for the first time.[10]

The Large Arsenal was unheated, in order to lessen the danger of fire, and the building was painted for the first time in 1819.[11] The structure was designed and used for the storage of small arms from 1801 until 1852 or 1853. By that latter date, the Armory Officials had become seriously concerned over the poor structural condition of the Large Arsenal, and, indeed, unsuccessfully requested funds to replace it by a new building.[12] By 1859, due to the poor condition of the structure, the Large Arsenal was no longer used for the storage of arms. At the time of the John Brown Raid, in October, 1859, the first floor of the Large Arsenal was vacant and the second floor contained only miscellaneous supplies. As a result of the John Brown Raid, Federal troops were sent to guard the Armory, and they were quartered on the first floor of the building from November, 1859, until April, 1860, and again from February, 1861,

8. Smith, Report, page 9, 1806 print, HF-21.

9. See Photographs HF-66, HF-491A in Appendix I of this report.

10. Smith, Report, page 10.

11. Smith, Report, Page 10.

12. Smith, Report, pages 22-26.

until April 18, 1861.[13]

The Large and Small Arsenals were held by the John Brown Raiders on October 16 and 17, 1859. On April 18, 1861, Lieutenant Roger Jones, in command of the 45 Federal soldiers stationed at Harpers Ferry to guard the Armory property - learning of the approach of the several thousand Virginia militia who intended to seize the armory - set fire to the Large Arsenal and destroyed its contents.[14] The brick walls of the structure, however, remained standing after the fire.[15] The walls were apparently reduced to one story in height and the structure was then reroofed, and used as possibly a warehouse, troops quarters, or slaughter house, by Union troops from 1862 to 1865.[16] The walls of the Large Arsenal were deliberately levelled after the Civil War, probably in the fall of 1865 or 1866.

2. SMALL ARSENAL. The Small Arsenal was erected by the War Department in 1806 and 1807.[17] The structure was a two story brick building, with a cellar, dimensions of 68 by 36 feet, and had a wood shingle, probably cypress, roof. The Small Arsenal was unheated and had stone columns in the cellar to give further support to the first story floor. The upper brick walls were two feet thick.[18]

13. Smith, Report, page 26.

14. Smith, Report, page 27.

15. See print HF-533 in this report; also Smith, Report, page 47, 1861 print HF-4.

16. Smith, Report, page 47, 1862 photo HF-377; page 52, 1865 print HF-52. Mr. Larrabee found that following the fire, the floor of the Large Arsenal had been carefully sanded, indicating use; also portions of a stone foundation wall erected at the east end, inside the structure, probably to petition off a portion of the Arsenal; and many animal bones. Above these strata was the brick debris from when the walls were deliberately levelled.

The building was first painted in 1819 and the roof was slated in 1825.[19] Lightning arresters were installed on the two arsenal buildings in 1851.[20] Archeological work has added considerably to our structural knowledge of the Small Arsenal. Surviving evidence indicates that there were two cellar windows on the south end of the building, probably two more on the north or Shenandoah Street end of the structure (only one of these remains), and three such cellar windows on the west side. The east cellar wall still contains the cellar steps, located near the southeast corner. The rest of the east wall, which is missing, may have contained one or two cellar windows, probably only one. Each of these cellar windows was originally fitted with a strong iron grill. Photographic evidence shows that the east wall contained the door to the Small Arsenal, located in the center on the first floor and that this door was flanked on either side by one window. The second floor level on the east side had three windows. The north or Shenandoah Street wall was pierced by only one small window, which was located high up near the peak of the roof.[21] No prints have been found that shows the window arrangements on the south and west sides, but it is likely that the south end contained one window high up,

17. Specifications for the building, dated April 7, 1806, will be found in Smith, Report, pages 7-8.

18. Smith, Report, page 8. Dimensions and cellar also confirmed by archeological work.

19. Smith, Report, page 10.

20. Glass fragments of these were discovered by Mr. Larrabee in the Small Arsenal dig.

21. Photograph HF-90 and print HF-533 in Appendix I of this report.

and that the west side had a total of six windows, three on each floor, lined up over the three cellar windows on the west side.

The Small Arsenal was designed and used for the storage of small arms from 1807 until 1861.[22] The John Brown Raiders held the Large and Small Arsenals on October 16 and 17, 1859. In 1861, 15,000 muskets and rifles were stored in the Small Arsenal. On April 18, 1861, Lieutenant Roger Jones, U. S. Army, burned the Small Arsenal, with the guns, to prevent these weapons from falling into the hands of approaching Virginia troops.[23] The archeological dig has revealed that the fire in the Small Arsenal was very intense and the molten and fused gun barrels fell into the cellar of the structure. The archeological evidence is also clear that many floods struck the town and deposited four or five feet of flood silt over the remains of these guns before the walls of the Small Arsenal were deliberately levelled.[24] The ruined walls were demolished, probably in late 1864.[25]

3. SUPERINTENDENT'S OLD OFFICE. This building stood in the northeast corner of the Arsenal Square. The foundations of the structure are now partially situated under Potomac Street and the site was, therefore, not investigated by Mr. Larrabee this past summer. The Superintendent's Old

22. Smith, Report, pages 8, 10-12, 27.

23. Smith, Report, pages 27-28.

24. Historical research now in progress on the Civil War History of Harpers Ferry has revealed that a total of 17 floods struck the town between 1861 and the end of 1865.

25. Smith, Report, page 52, print HF-224, published in March 11, 1865, shows that the walls of the Small Arsenal have been levelled by that date.

Office had been erected prior to 1832 by the United States as a dwelling house for one of the Armory workmen. In 1832 the structure was converted into an office for the Superintendent of the Armory and used for that purpose until 1848. The house was then used as a school from 1848 until 1854. From that date until 1861, it was leased from the U. S. Government by the town of Harpers Ferry. In 1859, the offices of the Mayor and Tow Corporation were probably located in this structure. In 1865, the house was being used as a United States Post Office.

The Superintendent's Old Office was a one story brick building with a slate roof and measured 28 by 21 feet in size.[26]

4. ARSENAL GROUNDS. The Arsenal Square was fenced on the east, along Wager Ferry Lots No. 2, 4 and 5, by a high stone wall that had been erected in 1825-26.[27] A gate in that wall led out into Potomac Street, crossing over Wager Lot No. 3 to reach the street. The Square was walled in on the south side, along the Winchester and Potomac Railroad tracks, by a high stone wall that had been erected in 1856-57. In 1857 the Square was enclosed on the north or Shenandoah Street side by a brick pier and iron palling fence.[28]

A wood palling fence enclosed the Arsenal Square on the west side, extending from the rear of the Small Arsenal to the railroad embankment. The Arsenal grounds were planted in grass and six or seven shade trees

26. Smith, Philip R., Jr., "History of the Superintendent's Old Office, 1833-1869, Arsenal Square, Block A, Lot 1, Shenandoah Street," dated April 29, 1959, 14 pages.

27. Smith, Arsenal Report, page 13.

28. Smith, Arsenal Report, pages 26-27.

were situated within the square in 1859. McAdamized walks, first laid down in 1834, probably led up to the Arsenal buildings. Underground pipes conveyed water from the U. S. Canal, located in the Musket Factory Yard, to the Arsenal Square for fire-fighting purposes.[29]

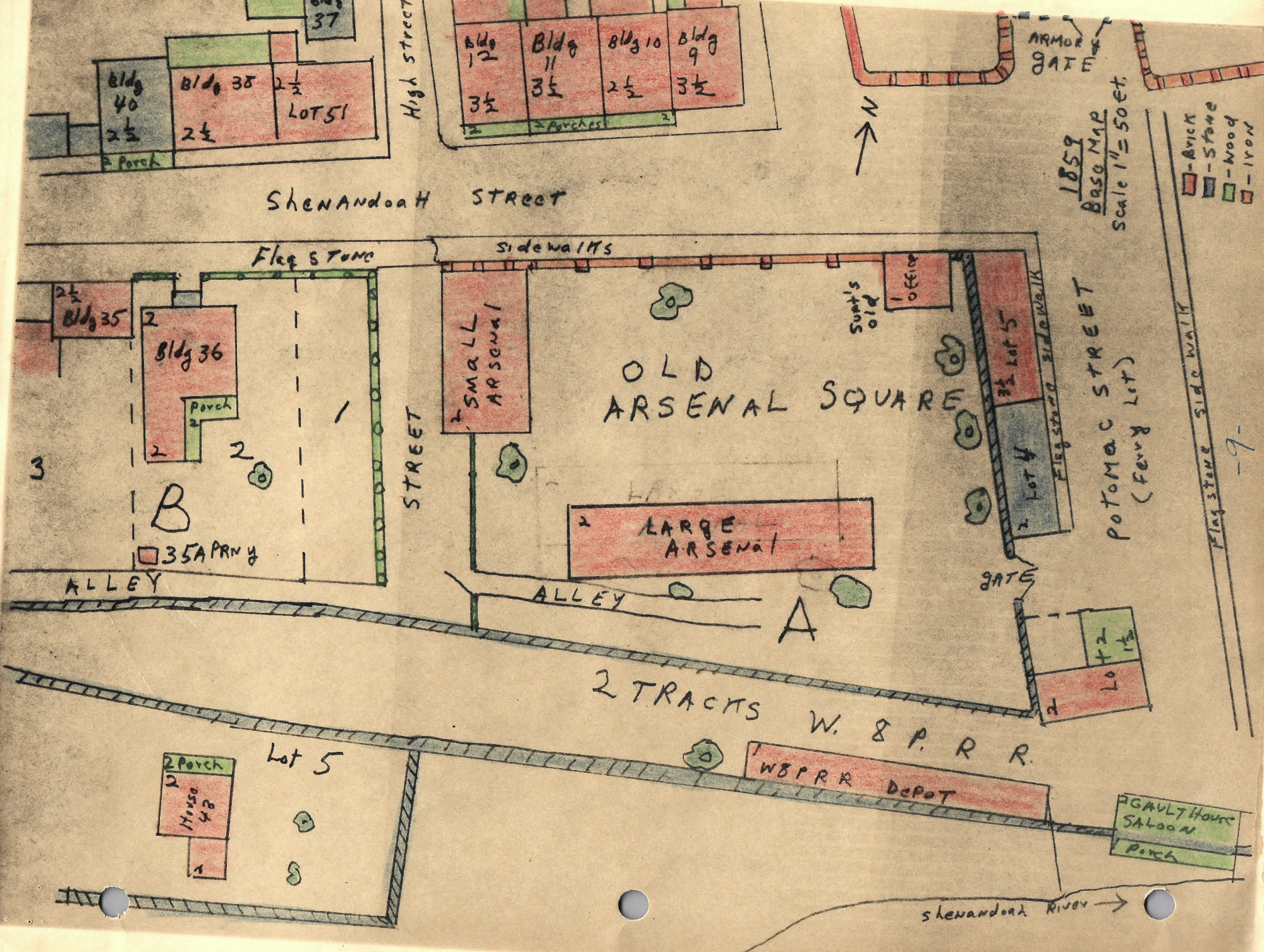
The Arsenal Square, as it appeared in 1859, may be seen by glancing at the tracing made from the 1859 Historical Base Map of Harpers Ferry that will be found on the following page of this report.

5. HISTORICAL PLANS OF THE BUILDINGS. An extensive search of the National Archives has failed to turn up any plans of the Arsenal Square buildings and it is highly doubtful if any plans of these structures will ever be found. Numerous historical maps showing the size and location of the two Arsenals will be found in Philip R. Smith, Jr.'s, "History of the Large and Small Arsenals, 1796-1869."

6. HISTORICAL PRINTS AND PHOTOGRAPHS. Six prints and photographs showing the Arsenal buildings will be found in Smith's "History of the Large and Small Arsenals," page 9 and 45 to 52. Four photographs or prints of these structures will be found in Appendix I of this report.

7. HISTORICAL IMPORTANCE OF THE ARSENAL SQUARE. The land and ruins of historic structures embraced within the limits of the Old Arsenal Square are, in this writer's opinion, the most historically valuable of all the lands and buildings included within the boundaries of Harpers Ferry National Monument. Two important events closely connected with reasons for the extablishment of the Park as a National Monument occurred in or near the Old Arsenal Square. An important factor in John Brown's decision to

29. Smith, Arsenal Report, page 34.


Bldg 40
Bldg 38
LOT 51
2 Porch
High Street
Bldg 12
Bldg 11
Bldg 10
Bldg 9
2 Porches
ARMOR GATE
N
1859
Base Map
Scale 1" = 50 ft.
-Brick
-Stone
-Wood
-Iron
SHENANDOAH STREET
Flag Stone
Sidewalks
Bldg 35
Bldg 36
Porch
SMALL ARSENAL
OLD ARSENAL SQUARE
Sentry Box
1 Office
Flagstone Sidewalk
POTOMAC STREET
(Ferry Lt)
Flag Stone Sidewalk
-9-
STREET
LARGE ARSENAL
ALLEY
GATE
35A PRNY
ALLEY
2 TRACKS W. & P. R. R.
Lot 5
House
W&PRR DEPOT
GAULT House SALOON
Porch
Shenandoah River

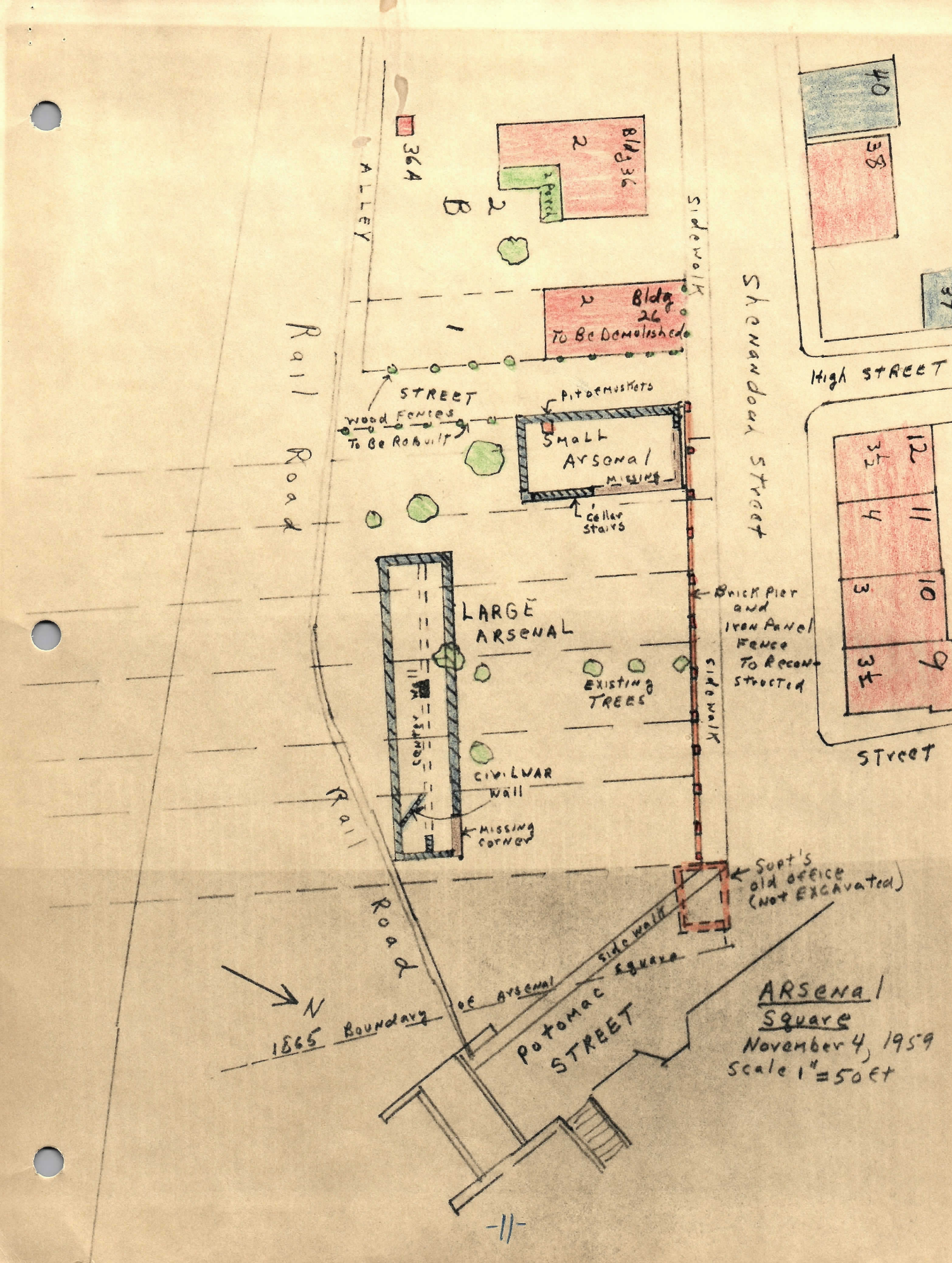
seize Harpers Ferry was the fact that he knew the Arsenal buildings contained thousands of arms with which Brown hoped to arm the slaves. Thus Brown's men did seize and hold the two Arsenals on October 16 and 17, 1859.

The second historically important event took place on April 18, 1861, when Virginia troops attempted to seize by force the 15,000 arms then stored in the Small Arsenal, as well as, with more success, the machinery of the United States Musket and Rifle Factories at Harpers Ferry. Arsenal Square is thus intimately connected with both the John Brown Raid and the beginning of the Civil War. The Square is, therefore, a focal point in the interpretation of the Harpers Ferry Story and also a most important part of the historic scene that is now in the process of being restored by the National Park Service at this Monument.

8. CONCLUSIONS AND RECOMMENDATIONS. On the following page of this report will be found a map that illustrates existing conditions in the Arsenal Square as of November 4, 1959. The remains of the Large and Small Arsenals, as uncovered by Archeologists Edward McM. Larrabee and William Hershey in July and August of 1959, are shown on this map.

Actually, it appears to this writer that enough evidence has been assembled from documentary, photographic, and archeological sources, to permit the detailed and accurate exterior reconstruction of both the Large and Small Arsenals, if it is so desired. Due to ever present danger of flooding, however, the writer recommends that reconstruction of these two buildings not be considered until effective flood control measures have been instituted.

1. To return the scene more nearly to its appearance in the 1859-65 period, it is recommended that non-historic Bldg. No. 26, a two story brick structure, be demolished.


ALLEY
364
Bldg 36
2 Porch
2
B
2
1
Bldg 26
To Be Demolished
STREET
Wood Fences
To Be Rebuilt
Pit of Muskets
SMALL ARSENAL
MISSING
Cellar Stairs
Rail Road
Sidewalk
Shenandoah Street
LARGE ARSENAL
Brick Pier and Iron Panel Fence To Reconstructed
EXISTING TREES
Sidewalk
CIVIL WAR Wall
MISSING CORNER
Rail Road
Supt's old office (Not Excavated)
Side Walk
Square
N
1865 Boundary of Arsenal
Potomac STREET
40
38
High STREET
12
11
10
9
STreet
ARSENAL Square
November 4, 1959
Scale 1" = 50 ft

2. It is suggested that present grade of the Arsenal Square be reduced to its 1861 level.

3. That the original foundations or footings of the two Arsenal buildings be stabilized and that a portion of the brick walls of the buildings be reconstructed for exhibit purposes.

4. That the historic brick pier and iron palling fence be reconstructed along the Shenandoah Street front of Arsenal Square. A wood palling fence should also be rebuilt along the west end of the square.

5. It is recommended that the area be seeded, drained, and planted with trees, following the 1859 photographs.

6. It is recommended that a trailside exhibit be situated at the Arsenal Square to assist in the proper interpretation of that area.

Charles W. Snell

Charles W. Snell
Historian (Park Supervisory

APPENDIX I

Historical Prints and Photographs

(Four)

"View of Harper's Ferry, Jefferson Co., Virginia, and Surrounding Country-From a Sketch by our Artist," 1859.

From Frank Leslie's Illustrated Newspaper, November 19, 1859, page 395.
Harpers Ferry Negative No. HF-491A.

This view made from Maryland Heights is the finest and most accurate in detail of all the general sketches of the town that were published in 1859 as a result of the John Brown Raid.

Just beyond the Y in the Potomac River Bridge can be seen the Large Arsenal (with five windows in the east end) running parallel to the Shenandoah River. Beyond and to the right of the Large Arsenal stands the Small Arsenal. Note to the right, just across Shenandoah Street, Bldgs. No. 10, 11, and 12 with their two story covered porches.



VIEW OF HARPER'S FERRY, JEFFERSON CO., VIRGINIA, AND SURROUNDING COUNTRY.—FROM A SKETCH BY OUR SPECIAL ARTIST.

"Harper's Ferry from Camp Hill, 1859"

Harpers Ferry Negative No. HF-66.

Looking to the right of the photograph, just to the left of the wooden shed, is the second and part of the first story of the Large Arsenal. Note the arched windows and slate roof. This view shows most of the central section (note the projection) and the east wing of the Large Arsenal.



Gate to the Armory Yard, 1859

Harpers Ferry Negative No. HF-90.

This view is taken from just within the entrance of the Musket Factory yard and looking south across Shenandoah Street into Arsenal Square. The large 3½ story brick building to the right of the photo is Bldg. No. 9.

Across the Shenandoah Street and just to the left of Bldg. No. 9 stands the Small Arsenal. Note the three windows in the second story on the east side, and also two windows and a door on the first floor (door partially hidden by the tree). In the north wall, one window may be seen. A fine brick pier and iron panel fence encloses the street front of the Arsenal Square, and to the left of the Small Arsenal is to be see a portion of the wood palling fence that enclosed the yard on the west side.

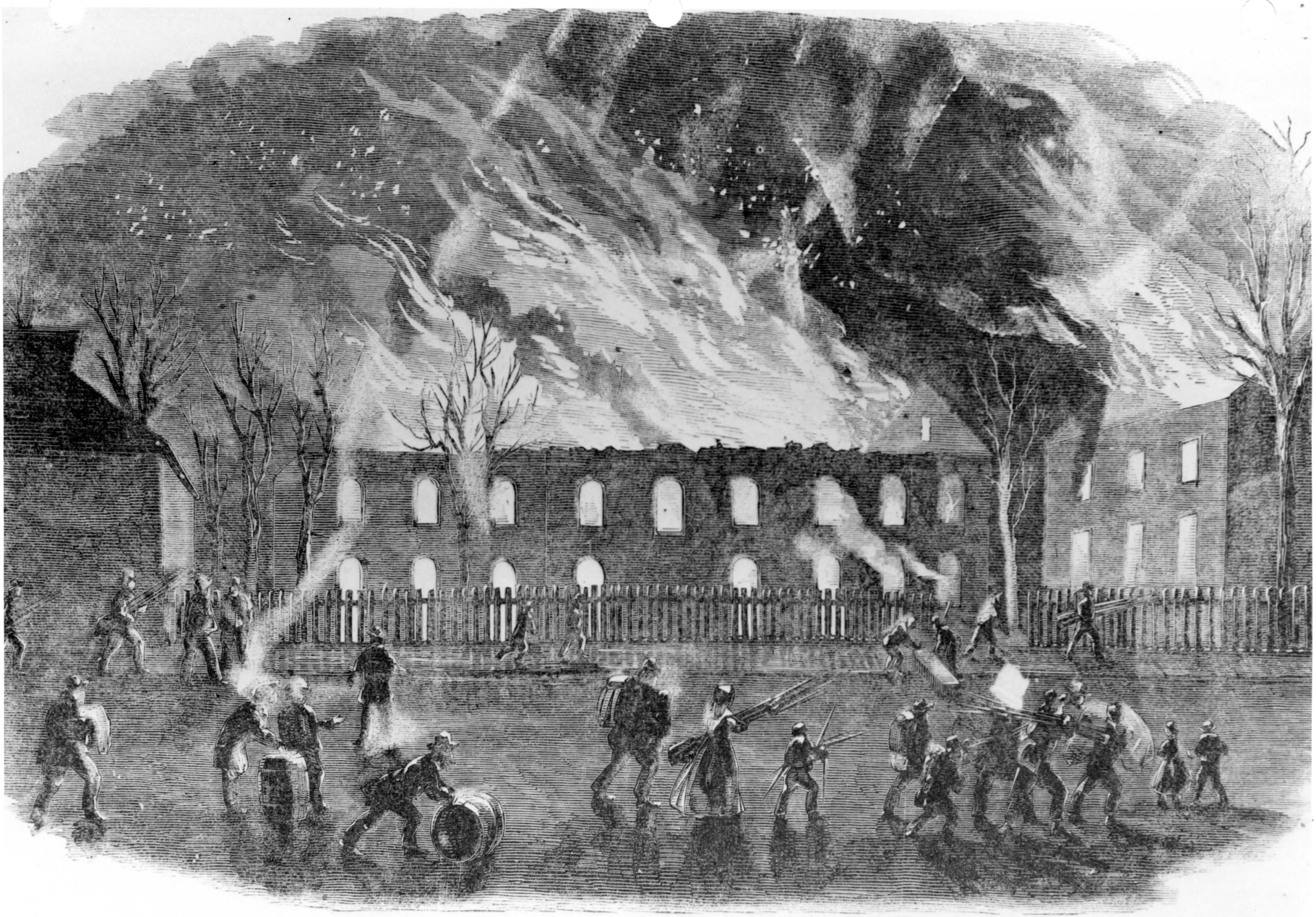


"The Burning of the United States Arsenal
at Harper's Ferry, 10 P.M. April 18, 1861.
(Sketched by D. H. Strother).

From Harper's Weekly, May 11, 1861, page 293.
Harpers Ferry Negative No. HF-533.

The building, brick, one story, to the left of the sketch, is the Superintendent's Old Office; the structure in the center is the Large Arsenal, and that to the right is the Small Arsenal.

Note the location of doors and windows in the Large Arsenal, also what seems to be a projection in the center of the structure (beginning just beyond the third window from the left and ending at the sixth window from the left on the second floor). The sketch seems to be quite accurate in detail except for the fence that runs along the street front (compare with HF-90, page 16 of this report).



THE BURNING OF THE UNITED STATES ARSENAL AT HARPER'S FERRY, 10 P.M. APRIL 18, 1861.—[SKETCHED BY D. H. STROTHER.]

Part III

Archeological Data Section for Historic Structures (Ruins) Report, Park I, Arsenal Building, Harpers Ferry NM

By
John L. Cotter

During July and August 1959, Mr. Edward McM. Larrabee, graduate student in history at Columbia University and Mr. Wm. Hershey, graduate student of history at Cornell, who acted as his assistant, undertook the exploration and identification of the foundations of the arsenal buildings at Harpers Ferry.

This exploration located the complete outline of the walls of the arsenal building under debris and flood wash which occurred in observable stratified deposits. These observations will provide a basis for estimating the original grade level at the time of the arsenal's use during the early 1860's prior to its destruction in the Civil War. No excavation was made under the street in front of the arsenal nor is it known whether one will be made at this time. The excavation for a sewer line made in the street in front of the headquarters building (Shenandoah Street) indicated that the original surface of the ground prior to the destruction of buildings during the Civil War presently occurs at an elevation of 270.2' above sea level or 1 7/10' below the top of the present pavement and 1 4/10' above undisturbed earth. By analogy, the level of the undisturbed stratum can be estimated in front of the arsenal as ranging in the neighborhood of 272' above sea level or roughly 1 1/2' below the pavement at that spot. It should be noted, however, that this has not been tested by observation on the section of Shenandoah Street opposite the arsenal building and is based on observations made half a block away.

The arsenal walls were found to be composed of limestone rocks set in cement so as to form a secure footing for the brick walls. All of the bricks appear to have been salvaged or removed from the top of the rock foundations and quantities of bricks and brick fragments, together with mortar and other debris, were observed in the fill above and around the present walls. A test in the debris within the walls of the arsenal indicated that a basement underlay the first floor and has been completely filled with the detritus of the wrecked building. Five musket barrels were observed and it is possible that considerable additional quantities of musket parts may yet be found if the excavation is continued.

The purpose of this exploration was to identify the location of the arsenal walls and test the interior to determine the presence of a cellar. A further purpose was to indicate the elevation of the original grade. These observations have been accomplished.