Bathhouse Row Adaptive Use Program

The Quapaw Bathhouse: Technical Report 6

hot springs national park

BATHHOUSE ROW ADAPTIVE USE PROGRAM

THE QUAPAW BATHHOUSE: TECHNICAL REPORT 6

HOT SPRINGS NATIONAL PARK
Garland County, Arkansas

June 1985

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

CONTENTS

PLANS AND FIGURES

TABLES

INTRODUCTION

The National Park Service is proposing to offer vacant bathhouses within the Bathhouse Row historic district at Hot Springs National Park for adaptive use. The leasing of historic properties was authorized by Congress in 1980 by amending Section 111 of the National Historic Preservation Act. The National Park Service has established procedures for the program in "Leases and Exchanges of Historic Property" (36 CFR 18) and the "Historic Property Leasing Guideline" (NPS-38). Proposed uses that would provide accommodations, facilities, or services to a substantial number of park visitors would be accomplished through concession contracts under the authorities of the Concessions Policy Act of 1965.

The purpose of the adaptive use program at Hot Springs is to preserve the historic bathhouses through compatible use and maintenance of the buildings by private businesses or individuals. The National Park Service also intends that such use will help restore the traditional levels of visitor activity along Bathhouse Row to maintain the historic scene and to contribute to the revitalization of downtown Hot Springs. Additional information on the park, Bathhouse Row, and National Park Service management proposals for the area is contained in the draft General Management Plan/Development Concept Plan which is available at the address below.

This report is number six in a series of seven technical reports (listed below) prepared by the NPS Denver Service Center to provide technical information for use in the development of proposals by prospective lessees or concessioners and in the evaluation of proposals by the National Park Service. The reports describe the Bathhouse Row landscape and structures and provide detailed information on historical development, significance, and present conditions of the landscape and each vacant bathhouse.

Bathhouse Row Adaptive Use Program
Technical Report Series

The Bathhouse Row Landscape: Technical Report 1

The Superior Bathhouse: Technical Report 2

The Hale Bathhouse: Technical Report 3

The Maurice Bathhouse: Technical Report 4

The Fordyce Bathhouse: Technical Report 5

The Quapaw Bathhouse: Technical Report 6

The Ozark Bathhouse: Technical Report 7

For additional information on the Bathhouse Row Adaptive Use Program, please contact the following individuals:

Historic Property Leasing Coordinator
Southwest Regional Office
P.O. Box 728
Santa Fe, New Mexico 87501
(505) 988-6385

Superintendent
Hot Springs National Park
P.O. Box 1860
Hot Springs, Arkansas 71901-1860
(501) 624-3383

DESCRIPTION

The Quapaw Bathhouse is a two-story structure with a basement containing about 24,000 square feet of space. Designed in the Spanish Revival style, this bathhouse has a long front facade with a narrow, partial second-story topped by an elegant dome, its most impressive exterior feature (see figures 1, 2, and 3).

Two end pavillions and a center pavilion with decorated, shaped parapets are punctuated by a long series of arched windows across the front of the building. The entrance is accentuated by a wide arch, flanked by two smaller arches. This frontispiece is set between two sets of pilasters; the upper pair, topped with finials, suggest the Spanish Plateresque. The parapet is finished with a double curve; in the center is an Indian head set in a cartouche. Piers are carried up on the second floor behind this frontispiece, and they are also terminated with finials. The end pavillions are also finished with a double curve on both the fronts and the sides; in the center of each curve is a sculpin set in a shell.

The partial second story and front porch have pitched roofs covered in red-clay tile, while the rest of the building has a flat roof. That is, the clay-tile roofing covers the first floor porches, and storage rooms, and the second-floor dressing halls and writing room (see figures 4 and 5). On the northwest portion of the first-story roof, the tiles have been removed and replaced by rolled-felt roofing.

The dome is decorated with a somewhat-Byzantine mosaic design in ceramic tile (figure 6). The dome, topped with an intricate copper lantern or decorative cupola, rests on an octagonal, poured-concrete base containing a ventilator. The upper section of the dome has a five-color undulating-petal pattern of glazed tiles. The middle, and largest, section of the dome has a radiating pattern of square floral tiles superimposed on a two-color chevron pattern of tile. The base section of the dome is a multi-colored band of square tile with alternating diamond- and rectangular-shaped tile insets.

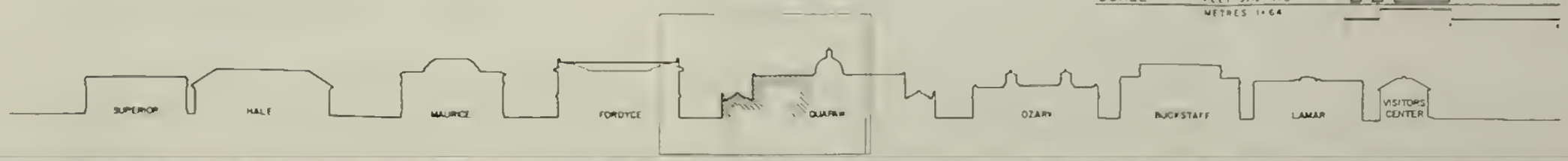
Inside the center pavilion on the first floor is the quarry-tiled lobby. On each side, sun porches reach across the front to a storage room and the men's massage rooms in the north pavilion and the women's massage room in the south pavilion. The rest of the first floor is divided unequally between the men's and women's bathing facilities, which occupy the north and south sides respectively. The men's sitting and cooling rooms (with toilets and showers) make up the north side. Directly behind the lobby are the men's bath hall and large dressing room. A smaller dressing area, storage area, and toilet are just off the main hallway on the men's side. Most of the women's facilities are concentrated along the south wall; these consist of the bath hall, sitting room, and cooling room. A small shower, storage area, and sitz bath are between the dressing room and the bath hall. The women's dressing area is reached from the main hallway.

Upstairs are two dressing halls and a writing room. The dressing halls contain extremely rusted dressing booths. Although there is no visual

Figure 1: Quapaw Bathhouse, 1984 (Source: Historic American Buildings Survey)

WEST ELEVATION

Figure 2

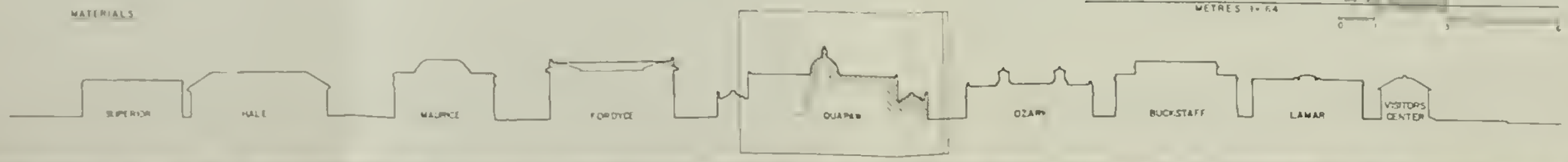


QUAPAW BATH HOUSE
GARLAND COUNTY ARKANSAS
HOT SPRINGS NATIONAL PARK
CENTRAL AVENUE HOT SPRINGS
HISTORIC AMERICAN BUILDINGS SURVEY
AR 28E
BRIAN McCORMICK 1984

Figure 3

WEST ELEVATION

SCALE FEET 3/16"=1'-0" METRES 1:64

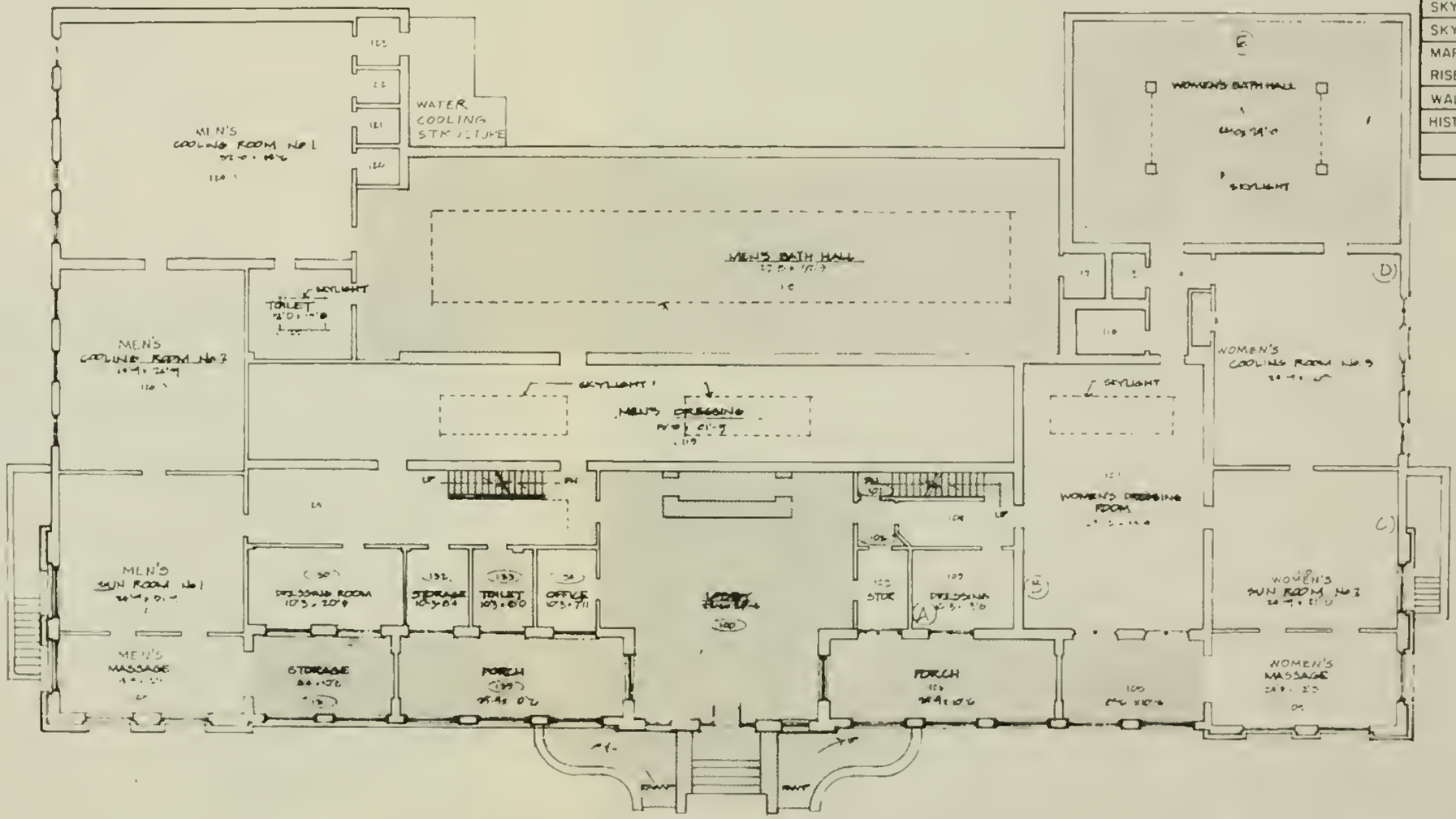


HOT SPRINGS NATIONAL PARK
CENTRAL AVENUE
HOT SPRINGS
QUAPAW BATH HOUSE
GARLAND COUNTY
ARKANSAS
HISTORIC AMERICAN BUILDINGS SURVEY
AR-28 C
DRAWN BY: BRIAN McCORMICK 1984

TYPICAL HISTORIC FEATURES

NOTE THIS SCHEDULE S NTENDED TO GIVE EXAMPLES OF TYPICAL D STINGUISHING HISTORICAL FEATURES FOR EACH BATHHOUSE THIS SCHEDULE IS NOT INCLUSIVE OF ALL DIST NCT VE BUILDING FEATURES AND/OR EXAMPLES OF HISTORIC CRAFTSMANSHIP

FEATURES	LOCAT ON
SKYLIGHT	WOMENS ORESSING - 107
SKYLIGHT	MEN'S BATH HALL - 110
SKYLIGHT	WOMEN'S BATH HALL - 113
SKYLIGHT	MENS ORESSING - 119
MARBLE TREADS, RISERS & STRINGERS	STAIRWAYS
WALL SCONCES	1st AND 2nd FLOORS
HISTORIC HARDWARE	THROUGHOUT



FIRST FLOOR PLAN

14,774.0 SQ FT

Figure 4

INDICATES DISTINGUISHING HISTORIC INTERIOR SPACE.

8 0 8 16

SCALE OF FEET

DESIGNED EXISTING
DRAWN SE/SW TEAM
TECH REVIEW THORSUN
DATE 5/85

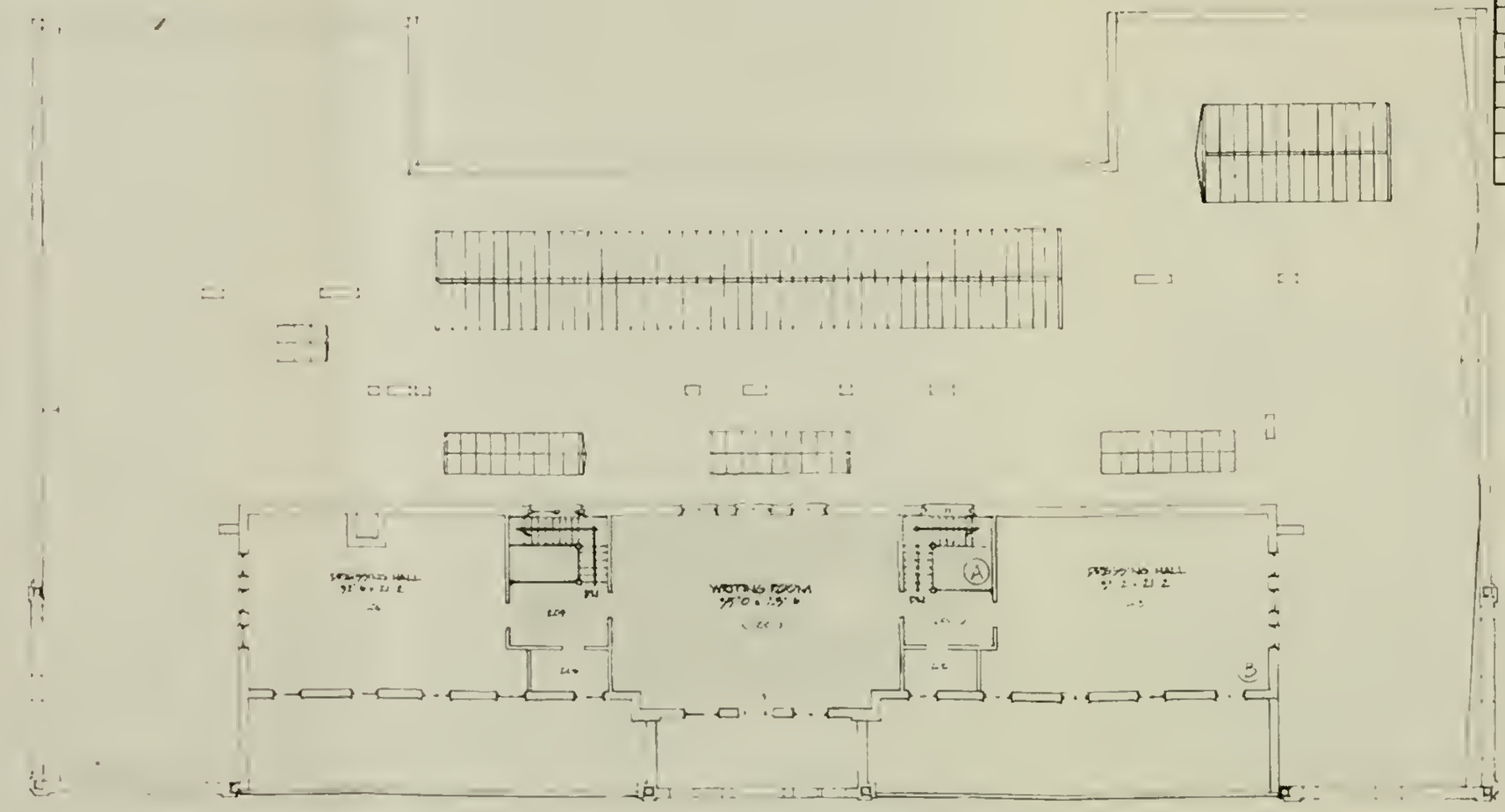
SUB SHEET #

TITLE OF SHEET
QUAPAW BATHHOUSE
FLOOR PLANS
TECHNICAL REPORT #6

DRAWING NO 128
40,016
PKG NO 172
SHEET 11 OF 14

BASE MAP 128/20,000

TYPICAL HISTORIC FEATURES	
NOTE THIS SCHEDULE S INTENDED TO GIVE EXAMPLES OF TYPICAL D STINGUISHING HISTORICAL FEATURES FOR EACH BATHHOUSE THIS SCHEDULE IS NOT INCLUSIVE OF ALL DIST NCTIVE BUILDING FEATURES AND/OR EXAMPLES OF HISTORIC CRAFTSMANSHIP	
FEATURES	LOCATION
MARBLE TREADS, RISERS & STRINGERS	STAIRWAYS
WALL SCONCES	1st AND 2nd FLOORS
HIST HARDWARE	THROUGHOUT
DETAILING OF CONC BEAMS	WRITING ROOM 200



SECOND FLOOR PLAN
2,375.3 SQ FT

Figure 5

INDICATES DISTINGUISHING HISTORIC INTERIOR SPACE.

SCALE OF FEET

DESIGNED EXISTING	SUB SHEET NO	TITLE OF SHEET QUAPAW BATHHOUSE FLOOR PLANS TECHNICAL REPORT #6	DRAWING NO 12B 40,016
DRAWN SE/SW TEAM			PKG NO 172
TECH CHKD THORSON			SHEET 12 OF 14
DATE 5/81			

Figure 6: Quapaw Bathhouse Dome, 1984 (Source: Historic American Buildings Survey)

access from the second floor to the inside of the dome, the unfinished interior of the dome can be reached through a hatch in the ceiling leading through a very low attic.

The basement, located under the front one-half of the building, contains the engineer's room and a large storage area, both on the north end (see figure 7). Immediately adjacent are two rooms--the fan room which opens south off the boiler room, and the boiler room pit which contains an intact boiler. Most of the front part of the basement is laundry facilities, while the attendant's space is on the south end. The Quapaw spring is contained in a tufa chamber in the southeast corner of the basement. This spring is accessed through a door painted with Indian symbols, representative of the earliest bathing era. Several springs drain across the floor in open channels. A thermal water reservoir is buried beneath the floor in the front third of the basement area.

The Quapaw has brick-masonry bearing walls, interior concrete columns, concrete beams, pans, and a combination of concrete joists and flat-slab construction. A full-story retaining wall makes up the rear wall of the building. This wall is of thick unreinforced concrete. The basement wall under the front part of the building is of similar construction.

HISTORICAL DEVELOPMENT

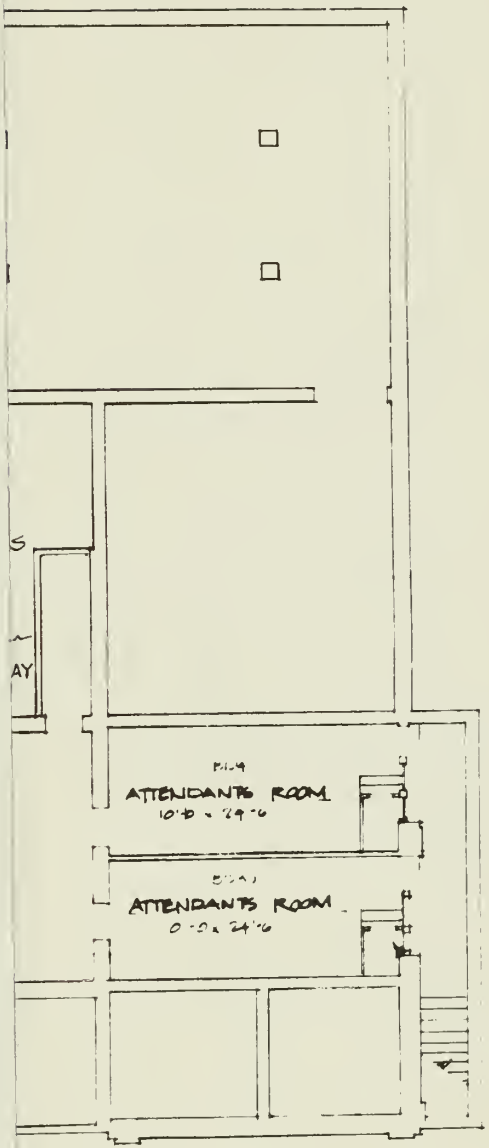
The Quapaw Bathhouse has had several names--the Platt Bathhouse, the Horseshoe-Magnesia Bathhouse, and more recently, the Health Services Bathhouse. It occupies the sites of two Victorian bathhouses, the Horseshoe and the Magnesia (see figure 8).

The Horseshoe Bathhouse site was originally leased to Frank C. Stearns in 1883. After several property transfers, the Horseshoe Bathhouse was built in 1888 at a cost of around $8,000. The bathhouse later had a number of lessees, including A.B. Gaines, C.B. Platt, L.H. Root, George H. Buckstaff, John Martin, and Morris Tombler (see figure 10).

The Magnesia Bathhouse interests were also owned by the same group of investors. The original lease was issued to George H. Buckstaff in 1883; the bathhouse was built sometime during that decade at a cost of about $8,000 (figure 9). The Magnesia drew part of its water from a spring at the southeast corner of the Old Hale Bathhouse and part from the lower reservoir.

The Horseshoe Bathhouse was closed in 1915, but demolition of the structure was postponed for some time since the Magnesia heating system was located in the Horseshoe. The Magnesia was finally razed in December of 1920, and the new Quapaw Bathhouse begun shortly thereafter, with completion early in 1922 (figure 11). The architects were George R. Mann and Eugene John Stern of Little Rock, Arkansas; the building was included as the Platt Bathhouse on their 1918 development plan for Bathhouse Row.

The Quapaw had an original capacity of 40 tubs and was expected to handle about three times as many bathers as the Hale or the Superior. It



TYPI

NOTE: TH
EXAMPLE
HISTORIC
THIS SCH
DISTINCT
EXAMPLE

FEATU

HIST. HAR

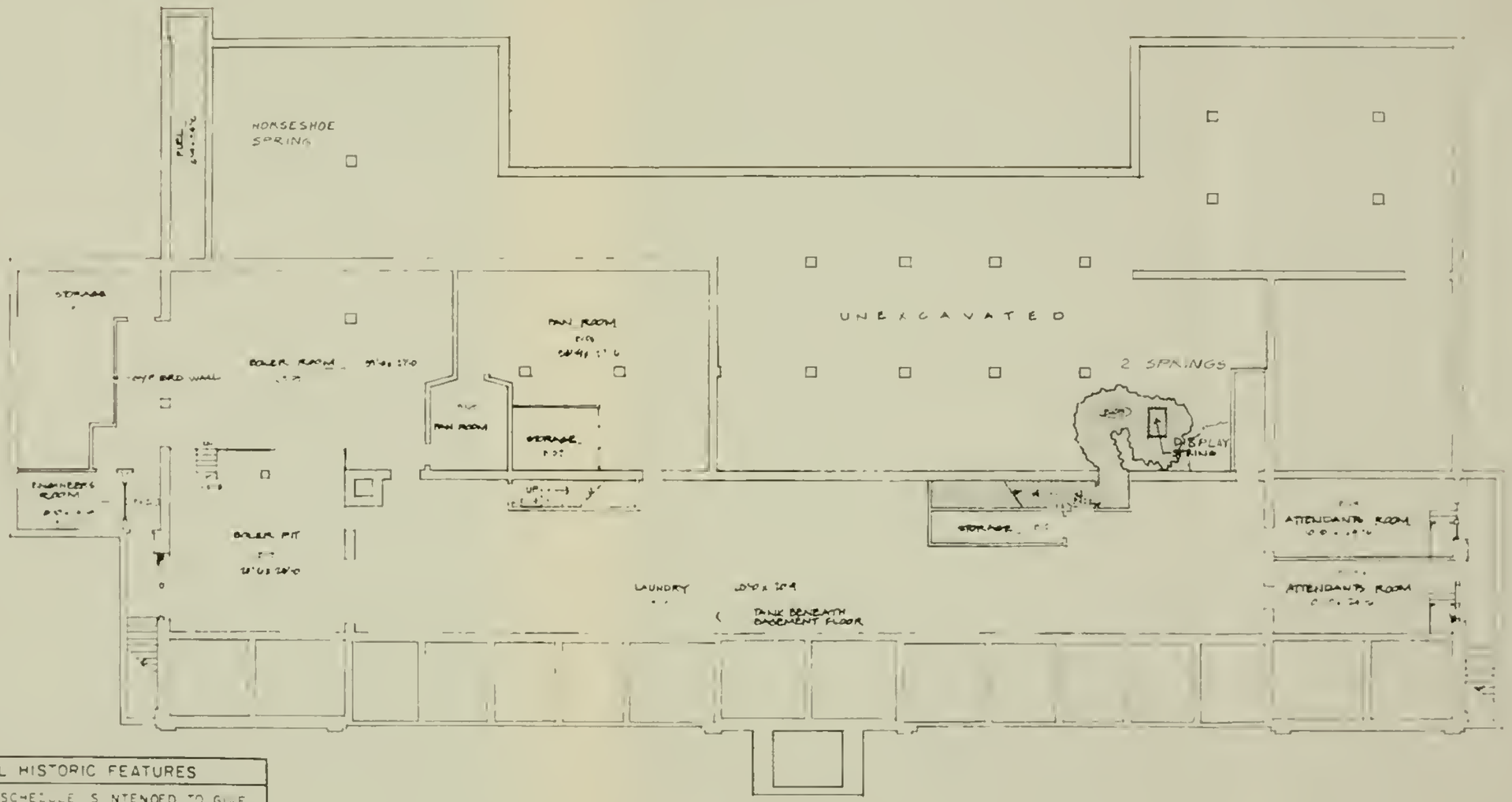
INTERCOM

Figure 7

INDICATES DISTINGUISHING HISTORIC INTERIOR SPACE.

BASIC DATA 128/26,00

DESIGNED EXISTING	SUB SHEET NO	TITLE OF SHEET QUAPAW BATHHOUSE FLOOR PLANS TECHNICAL REPORT #6	DRAWING NO 128 40,016
DRAWN SE/SW TEAM			PKG NO 172
TECH REVIEW THORSON			SHEET 10 OF 14
DATE 5/85			



BASEMENT PLAN
3,142.7 SQ FT

Figure 7

TYPICAL HISTORIC FEATURES	
NOTE THIS SCHEDULE S NTENDED TO GIVE EXAMPLES OF TYPICAL D STINGUISHING HISTORICAL FEATURES FOR EACH BATHHOUSE THIS SCHEDULE S NOT INCLUSIVE OF ALL D ST NCT VE BUILD NG FEATURES AND/OR EXAMPLES OF HISTOR C CRAFTSMANSHIP	
FEATURES	LOCAT ON
HIST HARDWARE	THROUGHOUT
INTERCOM SYSTEM	BASEMENT

INDICATES DISTINGUISHING HISTORIC INTERIOR SPACE.

SCALE OF FEET

DESIGNED EXISTING	SUB SHEET NO	QUAPAW BATHHOUSE FLOOR PLANS TECHNICAL REPORT #6	DRAWING NO 128 40,016
DRAWN SE/SW TEAM			PKG NO 172 SHEET 10 OF 14
TECH REVIEW THORSON			
DATE 5/85			

BASIC DATA 128/20,000

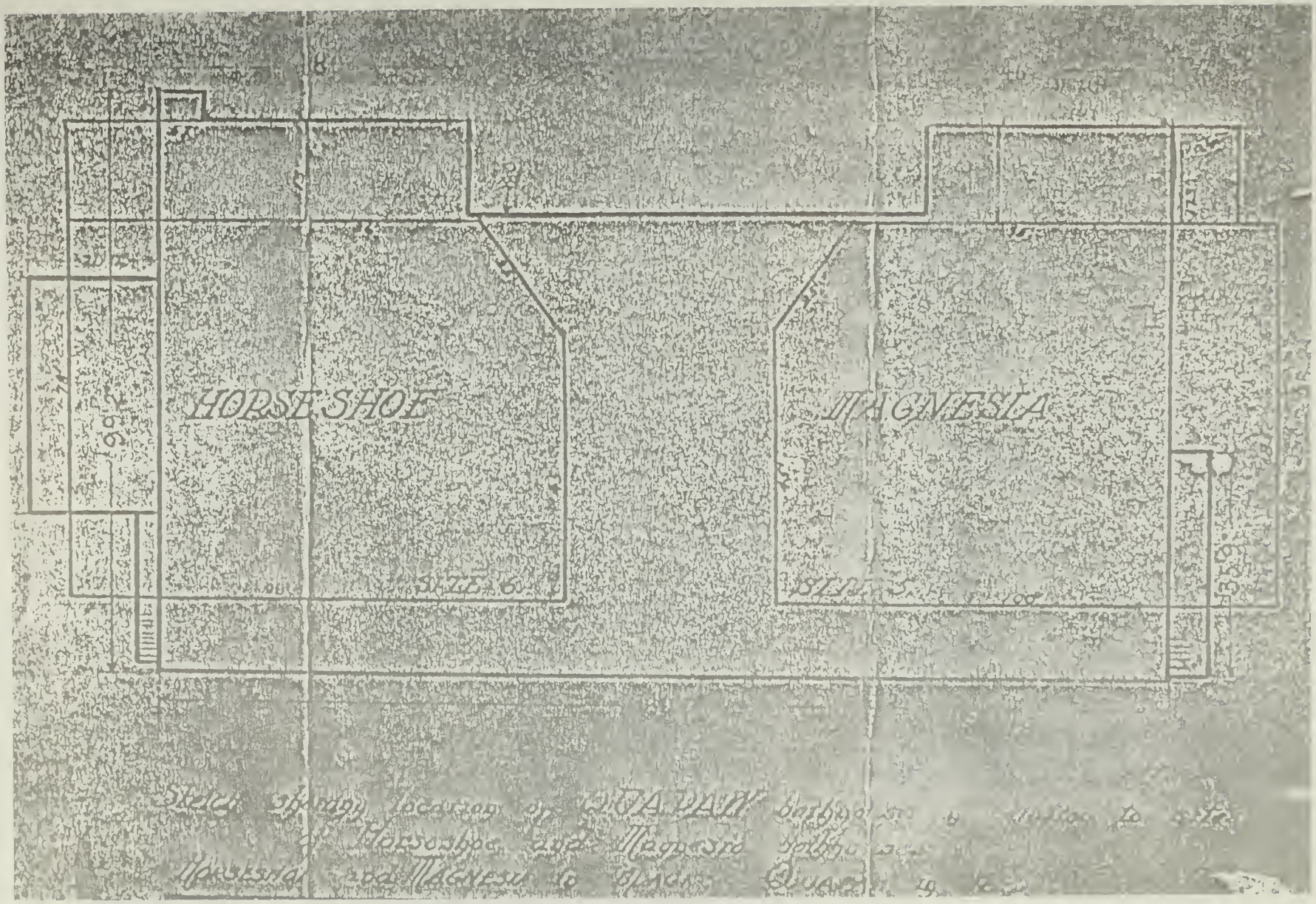


Figure 8: Sketch showing location of Quapaw Bathhouse in relation to sites of Horseshoe and Magnesia Bathhouses, date unknown (Source: Hot Springs National Park)

Figure 9: Magnesia Bathhouse, date unknown (Source: Garland County Historical Society)

Figure 10: Bathhouse Row, circa 1906 (The Horseshoe Bathhouse is on the far right, the Palace on the left. Source: Gem Souvenir)

Figure 11: Quapaw Bathhouse, 1922 (Source: Hot Springs National Park)

Figure 12: Quapaw Bathhouse Scenes, date unknown (Source: Advertising brochure entitled "Legend of the Quapaw Baths", Hot Springs National Park)

was designed to cater to the "common masses," with rates set somewhere between those of the lower-priced Superior and the luxurious Maurice. Its Spanish Revival exterior architecture was in keeping with the other bathhouses, while the interior was intended to be very plain with no elevator, individual resting rooms, beauty parlor, manicure, chiropody, music room, or parlor (figure 12). The structure contained only dressing rooms, baths, vapors, showers, cooling rooms, and the small glass-enclosed sun parlors that faced the street.

In 1927, new stuccoed-concrete cooling tanks were installed behind the Quapaw (see figure 13), and new windows were installed to winterize the porch in 1928 (figure 14). No major modifications were made to the building in the 1930s.

In 1944, the massage rooms at either end of the front veranda were expanded 18 feet into the center sun porch by pouring concrete footings at the base of the front windows and for a partition wall at either end. Over the protests of the park staff, the exterior of the building was painted a terra cotta color in 1947.

The old cooling tower and storage tanks were removed in 1953 and the basement display spring was covered with a brick-and-plate-glass enclosure in 1956 or 1957. A number of other repairs and improvements may have been made in the late 1950s, but the records are unclear.

The Quapaw changed hands in 1968 when a group of other bathhouse operators joined forces as Health Services, Inc. to run the Quapaw. The number of tubs was reduced to 20 and services were reoriented to hydrotherapy and physical therapy rather than the traditional bathing services. Some changes were made to adapt the structure, but their nature and extent were not well documented. Later, the Health Services, Inc. operation returned to conventional bathing services offered evenings, holidays, and weekends. A number of repairs were made to floors, walls, and ceilings in the 1970s, and the exterior was repainted to its original white color.

In 1973, the National Park Service contracted with a private architecture and engineering firm to assess the physical condition of all the bathhouses on Bathhouse Row and to make recommendations concerning their preservation. The resulting historic structures report by Cromwell, Neyland, Truemper, Millet and Gatchell, Inc., was completed in November, 1973 (the Cromwell report), and describes the condition of each bathhouse at that time. A summary of the Cromwell report's findings for the Quapaw is included in the Appendix.

After operating under the Health Services, Inc. banner for 15 years, the bathhouse name was changed back to the Quapaw at the park's request in late 1983, and the original bronze letters and signs were reinstalled. The plain white awnings were also replaced with more traditional striped awnings (see figures 15 and 16). The Quapaw closed in February 1984 following discovery of major damage to plaster ceilings and skylights.

All of the known remodeling and maintenance actions performed on the Quapaw between its completion in 1922 and its closing in 1984 are

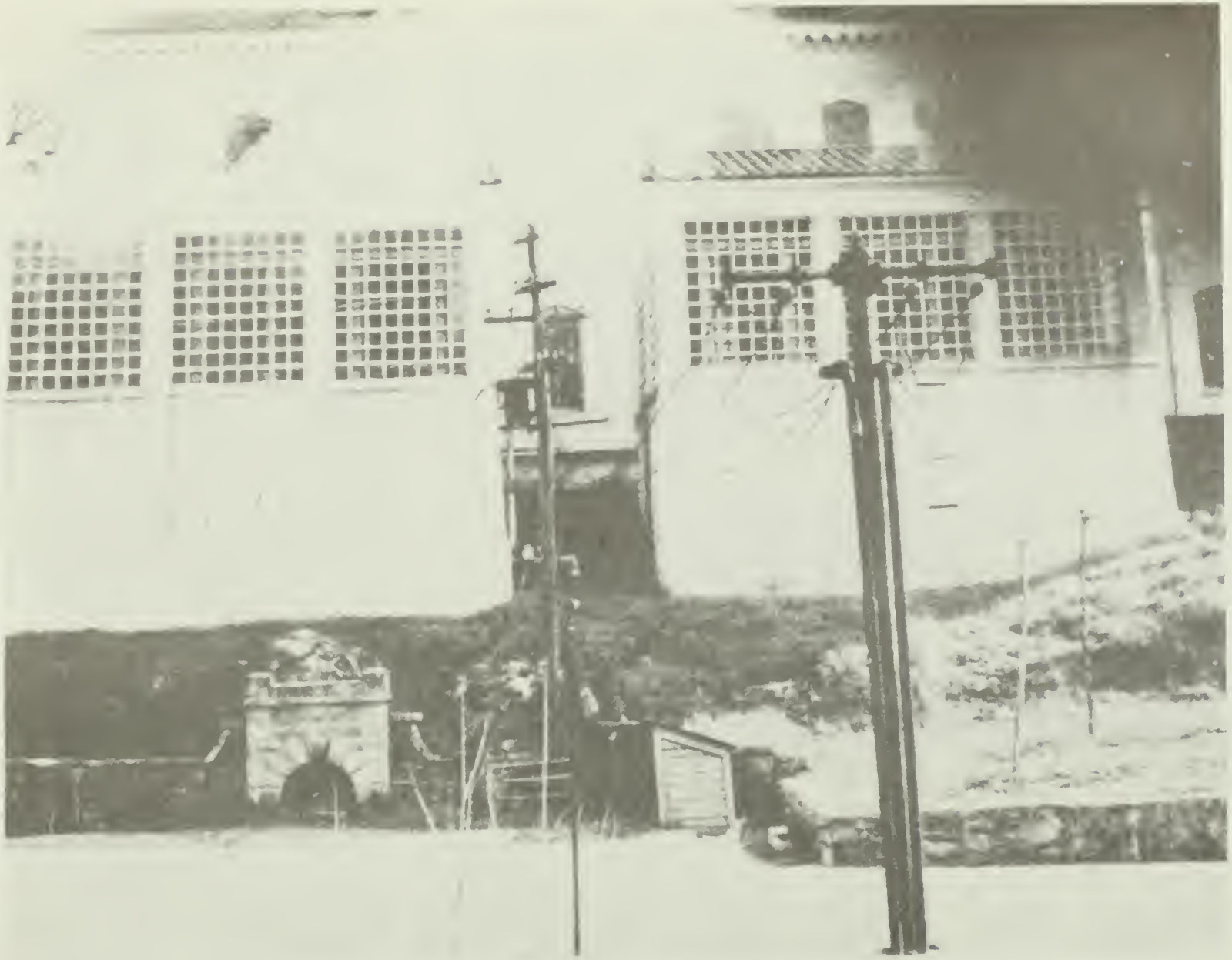


Figure 13: Quapaw and Ozark Cooling Tanks, circa 1928 (Source: Hot Springs National Park)

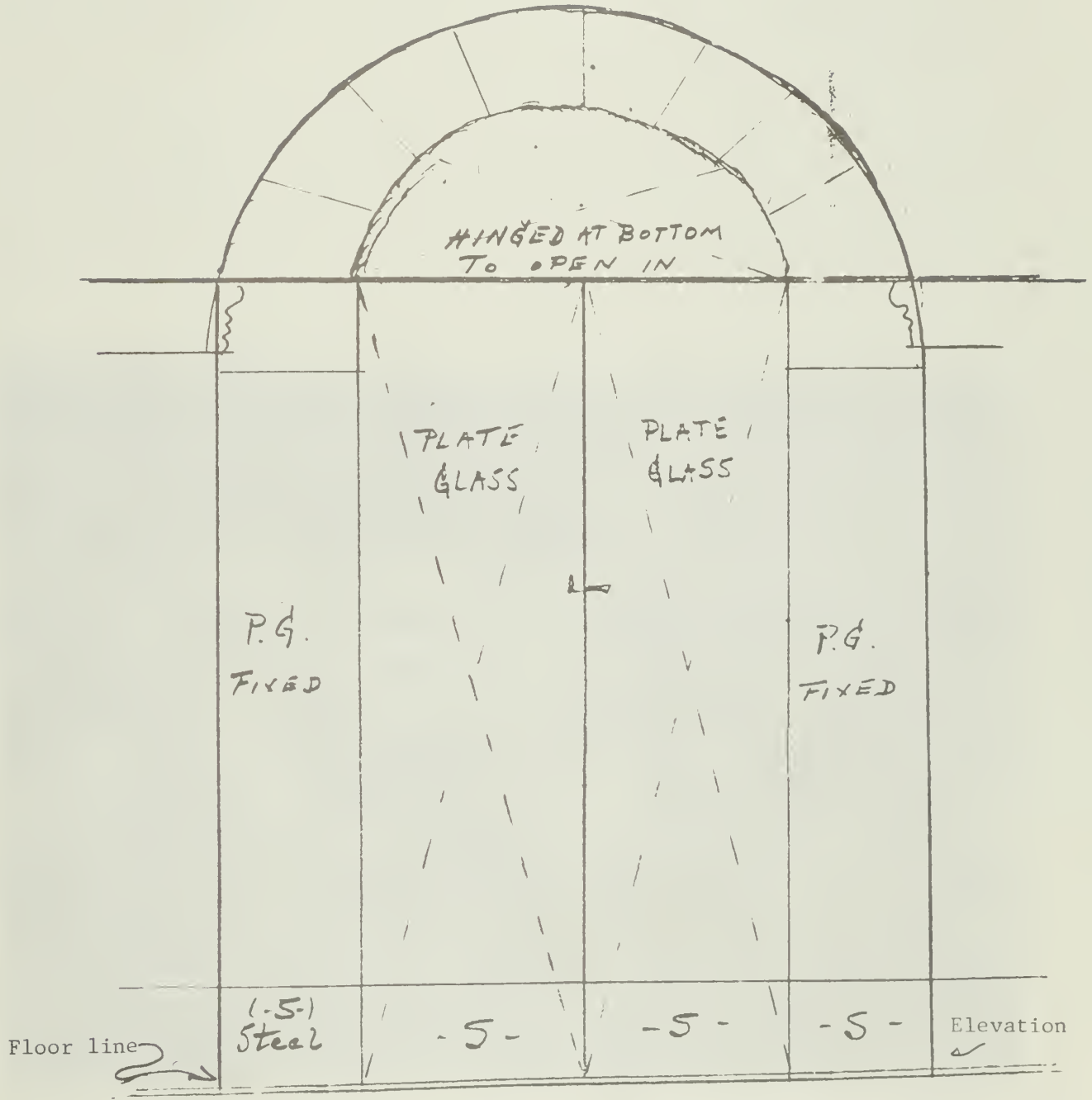


Figure 14: Sketch of Proposed Porch Enclosure for Quapaw Baths, 1928 (Source: Hot Springs National Park administrative files)

Figure 15: Quapaw Bathhouse, 1950s (Source: Hot Springs National Park)

Figure 16: Quapaw Bathhouse (Health Services Inc.), 1973 (Source: Cromwell, et. al., "Historic Structures Report, Hot Springs National Park," November 1973)

described in Table 1. Remodeling and Maintenance. The listing in the table is based primarily upon Superintendent's Reports and correspondence between the bathhouse and the superintendent. The table indicates whether projects were proposed (by the bathhouse lessee), approved or recommended (by the NPS); or known to have been completed. In most cases, the date used refers to the correspondence or report which described the proposal or project. Drawing numbers refer to microfilmed documents on file at the park and the Technical Information Center at the NPS Denver Service Center.

Partial repairs to the Quapaw roof and skylights will be completed by the National Park Service this year at an estimated cost of $40,000; additional repairs to the roof, rain gutters, and skylights are scheduled for 1986 at an estimated cost of $92,500. Also planned for 1986 are repainting of the exterior, repairing of interior plaster, and ventilating of the basement for approximately $37,000.

TABLE 1. REMODELING AND MAINTENANCE

DATE	STATUS	DESCRIPTION OF ACTION/RESULTS	IMPACT ON STRUCTURE	FIGURE/ DRAWING #
1921-1922	Completed	Initial construction, Mann and Stern, Architects.		128/60068 (1917 draft), 128/60153 (1921 final), and figure 10
19 February 1921	Completed	A 10 by 10 foot cave and hot water spring were discovered during excavation for the structure. The cave became the basis for advertising in a booklet entitled "The Legend of Quapaw Baths." A tunnel was built to provide access to the spring, also known as the "Pirates' Den Spring."		
1921	Proposed	A storage tank for hot water from the newly discovered spring was proposed for the south half of the basement		
29 April 1921	Approved?	Plans were changed so cooling tanks could be omitted from the building itself.		
25 November 1922	Approved	Construction of concrete tank for fuel oil storage in engine room of the bathhouse.		
1 March 1923	Completed	Inclined approach built to provide entrance to the porch for wheel chairs, invalids, and for afterhours access.		
2 October 1923	Proposed	Construction of ladies comfort station north of the Quapaw had created a drainage problem so the bathhouse proposed building a concrete retaining wall from the rear of the building to the front, parallel with the building. The area between the wall and the bathhouse was to be filled in and planted to flowers.		
24 October 1925	Approved	Construction of a 500 gallon tank in basement to hold crude oil. It is unclear whether this is a second tank, or merely another proposal; see 25 November 1922 entry.		
20 January 1927	Recommended	Planting shrubbery in front of the Quapaw		
November 1927	Completed	Installed stuccoed concrete cooling tank(s), 31 by 28 feet in size on a 3 foot concrete base. These replaced the old tanks belonging to the Free Bathhouse and used by the Quapaw since 1922.	Change in rear profile	128/60213, 128/60007 (drafts & detail), 128/60041, and figures 12 & 13
10 December 1928	Approved	Installation of Lemco Steel casement windows to winterize the porch	Change in facade	128/60088
4 March 1930	Completed	Installed opening in top of cooling tank to vent steam		
22 June 1933	Recommended	Correct deficiencies in wiring, switches and sockets		
6 December 1934	Approved	Replacement of two glass framed signs with bronze signs of the same size and working		
17 November 1936	Completed	Painted exterior		
29 January 1937	Approved	Removal of arbor vitae bushes in front on the building		

DATE		STATUS	DESCRIPTION OF ACTION/RESULTS	IMPACT ON STRUCTURE	FIGURE/DRAWING #
15 October	1938	Approved	Installation of acoustical tile ceiling in men's first cooling room and women's pack room.		
8 April	1939	Approved	Installation of pressure tank for cold water in showers		
September	1939	Completed	Insulated outside walls of pack room on men's side and the bathhall on the ladies side		128/8004
4 August	1941	Recommended	Replacement of overhead power line with underground line, correction of unsatisfactory drainage in furnace pit, reconditioning of skylight/replacement of glass, rehabilitating attendants' quarters, reconditioning of room upstairs previously used as a reading room (placing it back in service), and improvement of drainage in north room of basement.		
6 September	1941	Approved	Correction of seepage problems and waterproofing area in north room of basement.		
15 February	1943	Proposed	Changes in boiler room drainage		
22 February	1944	Recommended	Various general maintenance items, including correction of unsealed openings through walls and floors of building, gas leaks in appliances		
September	1944	Completed	A space of about 18 feet was partitioned off from both ends of the sun porch, leaving about 65 feet of veranda frontage. This was done to give more space for massage facilities. Concrete curbs or footings were constructed to conform with the corner rooms; these footings were of brick and concrete "splashed" to match the rest of the building. Concrete footings were extended at the base of windows numbers 3 and 4 to conform to the concrete footings at the base of windows 1 and 2.	Change in function, interior arrangement	
19 October	1945	Approved	Installation of two additional sitz baths in place of one large tub.		
5 February	1947	Completed	Repainted exterior in terra cotta color. NPS protested this choice of color.		
March	1947	Completed	Laundry equipment installed		
2 December	1947	Approved	Installation of safety features (fire doors, emergency exits, 15" stack within present chimney,) ventilation in men's toilet, laundry chute, and lift.		
26 November	1947	Proposed	Addition of two more tubs		
27 April	1953	Completed	Old cooling tower and storage tanks removed	Change in profile	
26 March	1956	Proposed	Extensive roof and exterior repairs. Nature of actual work unknown. Additional maintenance work and rehab necessitated by flooding.		
1956-1957		Completed	Display spring covered with 1/2 inch plate glass set in concrete brick		
21 March	1958	Completed?	Improvements and rehabilitation made to structure and grounds. Nature of improvements unknown		

DATE	STATUS	DESCRIPTION OF ACTION/RESULTS	IMPACT ON STRUCTURE	FIGURE/DRAWING #
23 March 1962	Recommended	Various improvements and repairs, mostly cosmetic. NPS submitted eleven page list of items to be accomplished. Major work included installation of areaways in front of ventilation openings on front foundations; construction of block wall to shield gas pipes and meter on exterior plus installation of screening plantings in this area; establishment of low-level plantings along foundation; installation of new flush ceilings in several areas; major work on electrical/intercom system, etc.	New ceilings would change interior appearance	
7 November 1961	Completed	Three stainless steel tubs and pool turbine ejectors installed		
1 July 1968	Completed	Converted to Health Services, Inc. A number of bathhouse lessees organized to run the Health Services facility, with evening and weekend service. Services were to include hydrotherapy and physical therapy rather than individualized bathing services. Some work was done on the structure to adapt it for the rehabilitation center, this is poorly documented. Known changes include removal of 20 faucets, painting exterior pink, and interior painting	Extent of changes unknown	
October 1970	Completed	Replaced plaster, Ladies' bath hall		
1 December 1972	Completed	General repair work to building and replacement of a wall outside near men's comfort station, and one inside (men's bath hall?).		
24 May 1976	Approved	Sand blast, repair and paint building white (it had been white, tan, then pink previously).		
29 July 1980	Approved	Installation of ground fault circuit interruptors for whirlpools		
May 1981	Completed	Replaced/repaired plaster, Men's dressing rooms		
October 1981	Proposed	Convert to new use, possibly health club. Not implemented.		Unnumbered plans on file Hot Springs National Park
May 1982	Completed	Rehabilitated floors, walls and ceilings. Corrected various health and safety deficiencies.		
October 1982	Completed	Repairing roof, interior walls, ceilings and floors, window sills, plumbing and electrical work, curtaining off unused showers, repainting, and construction of safety exits. Stucco was replaced on the south exterior wall, and heating ventilating defects were corrected.		
November 1982	Approved	Sealing unused stairwells to second floor to conserve heat		
Circa Dec. 1983	Completed	Bathhouse name changed back to Quapaw; bronze plaque replaced on front		
January 1984	Completed	Replaced awnings and touched up exterior		Compare figs. 2, 15 and 16
6 February 1984	Completed	Bathhouse closed and contract terminated on March 16; furnishings sold May, 1984.		

SIGNIFICANCE

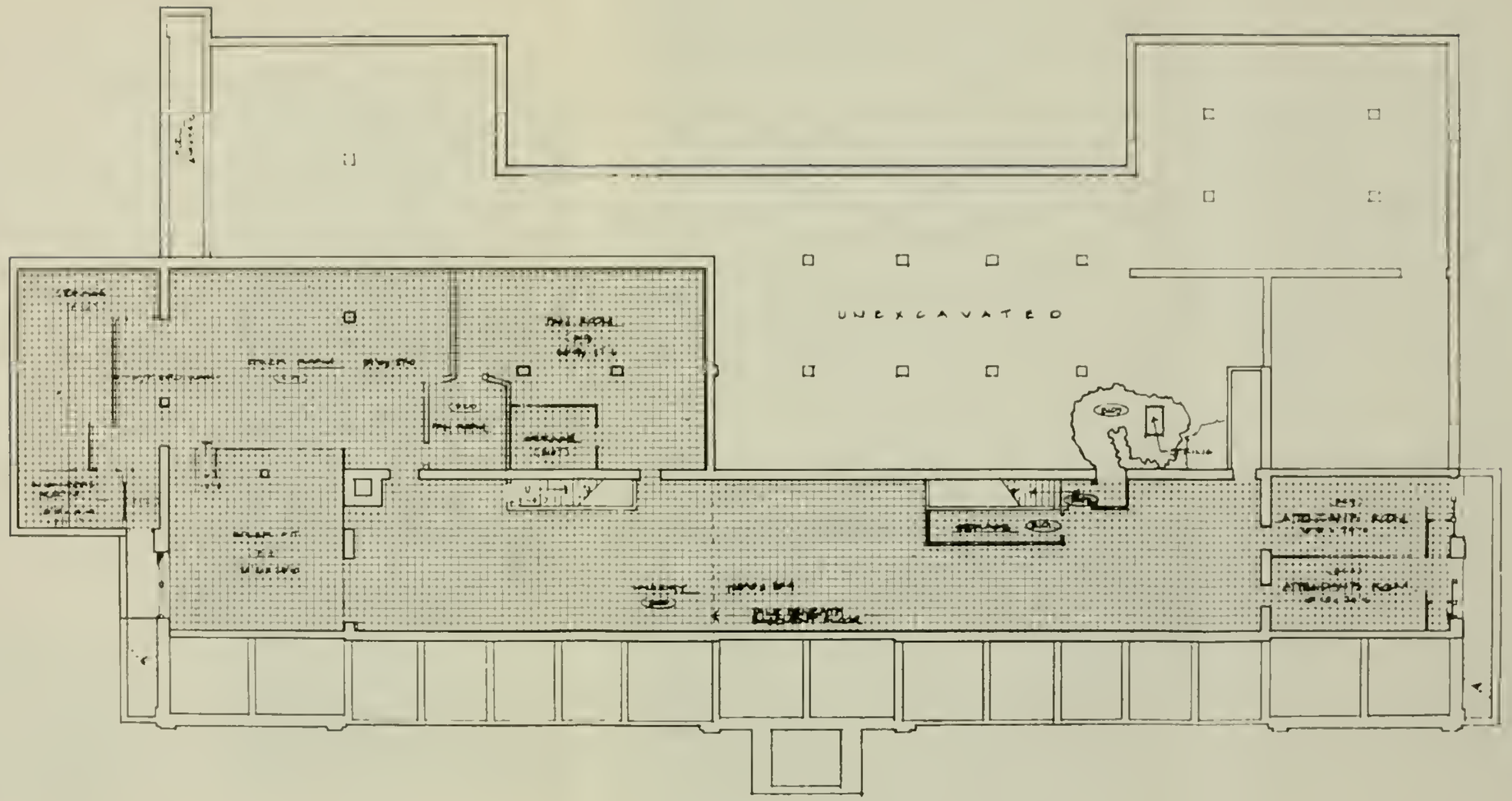
The primary significance of the Quapaw Bathhouse is related to the overall significance of the Bathhouse Row area. The entire group of structures comprises one of the few collections of historic bathhouses remaining in the United States. Together with the setting of formally landscaped grounds, Bathhouse Row provides a picturesque reminder of America's interest in hot water spas, leisure, and recreation.

Unlike the more luxurious bathhouses such as the Maurice and the Fordyce, the Quapaw was especially designed to serve the "common masses." As a moderately priced bathhouse, it filled a vital need and was an important component of the spa industry in Hot Springs. The Quapaw was equipped with an inclined entry shortly after it opened. Since bathing facilities are concentrated on the first floor, this made the bathhouse more accessible to invalids and wheelchairs than many of the other bathhouses.

The National Register form for the Bathhouse Row historic district mentions that the interior of the building is notable especially for the underground grotto in the basement from which the Quapaw Spring emerges. This spring was uncovered during construction and publicized in the small promotional brochure entitled the "Legend of the Quapaw Baths." Although the claims of special healing powers and use by Indians have been disputed, the legend was consciously cultivated by the Quapaw Bathhouse, and the cave and spring remained popular attractions for many years. The original name of the bathhouse, the Platt Bathhouse, was changed to the Quapaw, a name taken from an Indian tribe which inhabited the area at one time. The Indian motif appears on the front of the bathhouse, on the door to the cave, and in some of the advertising. For this reason, these elements of the bathhouse form a vital part of its history and development and should be recognized in any adaptive use. Other examples of typical, distinguishing historical features and spaces are depicted on the bathhouse floor plans (figures 4, 5, and 7).

EXISTING CONDITIONS

Two recent assessments have been made of the existing condition of the Quapaw Bathhouse. The National Park Service contracted with a private engineering firm in 1983 to conduct a study of the physical condition of the five bathhouses vacant at that time; when the Quapaw closed in 1984, it was added to the contract. The "Engineering Study of the Quapaw Bathhouse" (March 1985) by Pitts and Associates Engineers, P.A. (the Pitts report), focused on the structural condition of the Quapaw bathhouse. It also provides information on the condition of architectural materials, of the mosaic-tile dome, and of the clay-tile roofing, and a comparison with conditions reported in the 1973 Cromwell report. The structural capacities recommended in the Pitts report for the Quapaw Bathhouse are depicted on figures 17, 18, and 19. Engineering drawings showing structural systems and details at 1/4 scale are available at the park. The Appendix contains excerpts from the Pitts report which describe existing conditions and preliminary recommendations for repairs to the dome and roof of the Quapaw Bathhouse.



LEGEND

174 psf

Figure 17

(1/0) FOUNDATION PLAN

RECOMMENDED STRUCTURAL CAPACITIES

SCALE 1/16" = 1'-0"

Revision Date	By	Description	Fav Ltr
ENGINEERING STUDY QUAPAW BATHHOUSE CONTRACT NO CX7029300004	Prepared RSP DESIGNED DCP DRAWN RSP CHECKED MAR 1985 DATE	TITLE OF DRAWING FOUNDATION PLAN LOCATION WITHIN PARK BATHHOUSE ROW NAME OF PARK HOT SPRINGS NATIONAL PARK	Drawing No Proj No Sheet 0-1 of 3
PITTS & ASSOCIATES ENGINEERS 900 N. Rodney Parham Rd. Suite 4B Little Rock, Arkansas		SOUTHWEST REGION · GARLAND COUNTY · ARKANSAS STATE	

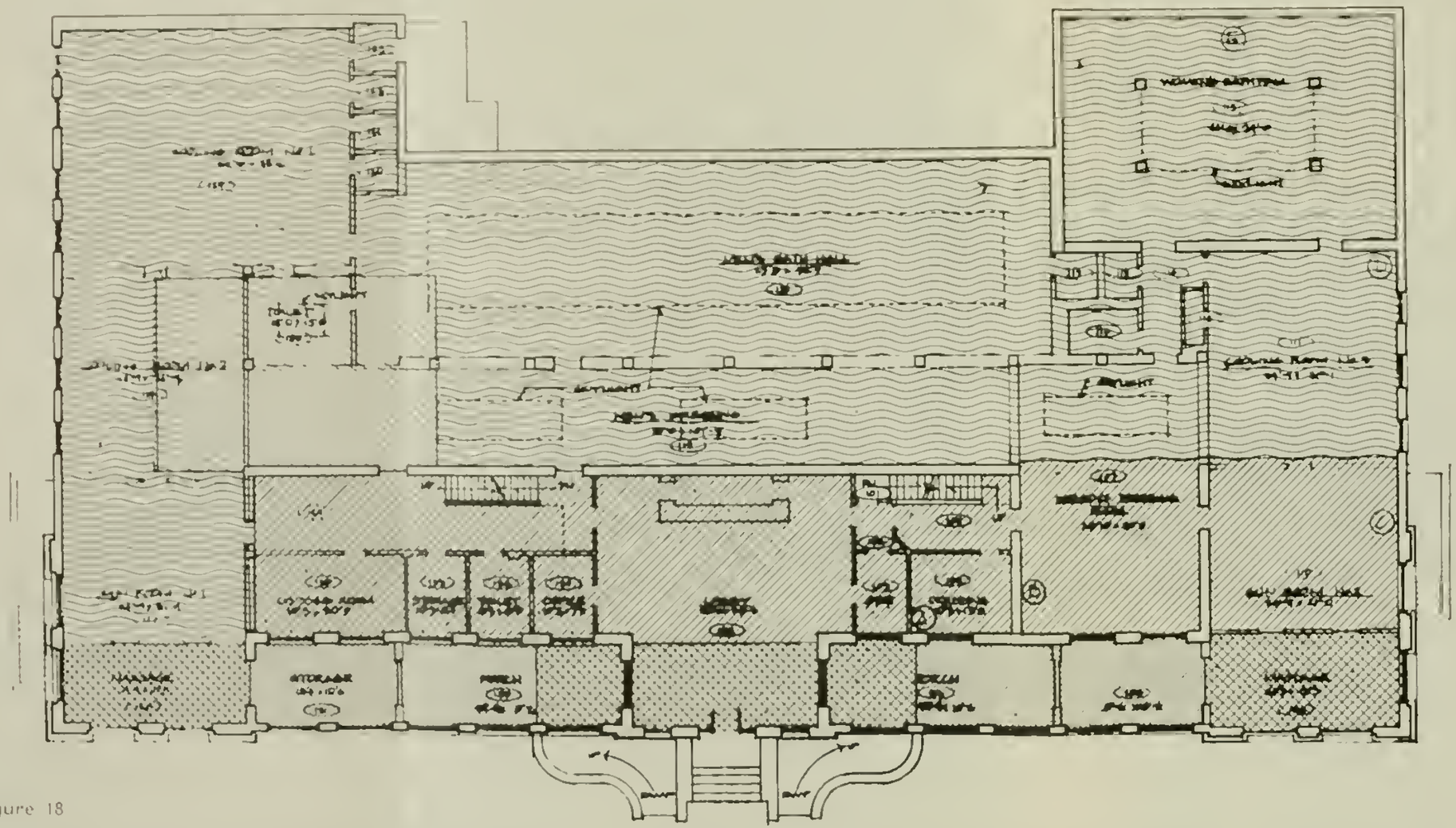


Figure 18

1st FLOOR STRUCTURAL PLAN

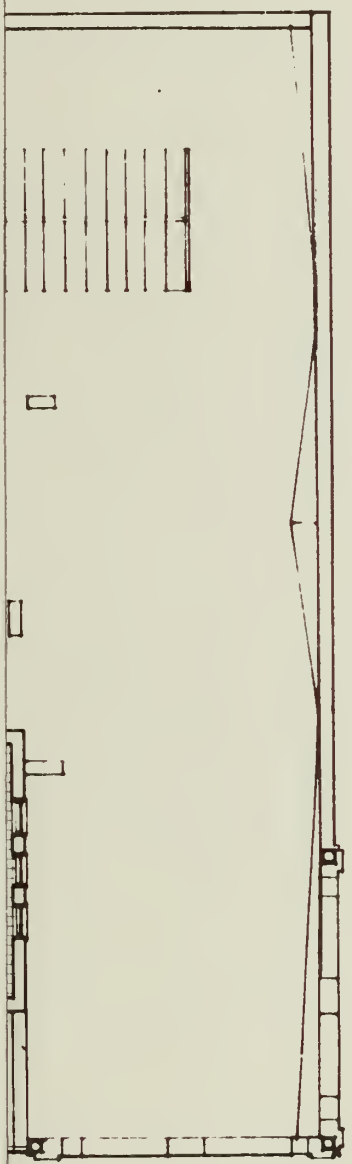
SCALE: 1/16" = 1'-0"

RECOMMENDED STRUCTURAL CAPACITIES

LEGEND

- 40 psf
- 65 psf
- 70 psf
- 80 psf
- 91 psf

Revision Date	By	Description	For Ltr
ENGINEERING STUDY QUAPAW BATHHOUSE CONTRACT NO CX7029300004	Prepared RSP DESIGNED DCK DRAWN RSP CHECKED MAR 1980 DATE	TITLE OF DRAWING 1st FLOOR STRUCTURAL PLAN LOCATION WITHIN PARK BATHHOUSE ROW NAME OF PARK HOT SPRINGS NATIONAL PARK	Drawing No
PITTS & ASSOCIATES ENGINEERS 300 N Rodney Parham Rd Suite 48 Little Rock, Arkansas	SOUTHWEST REGION / GARLAND COUNTY / ARKANSAS STATE		PKG NO — / — / — / SHEET 0-2 OF 3



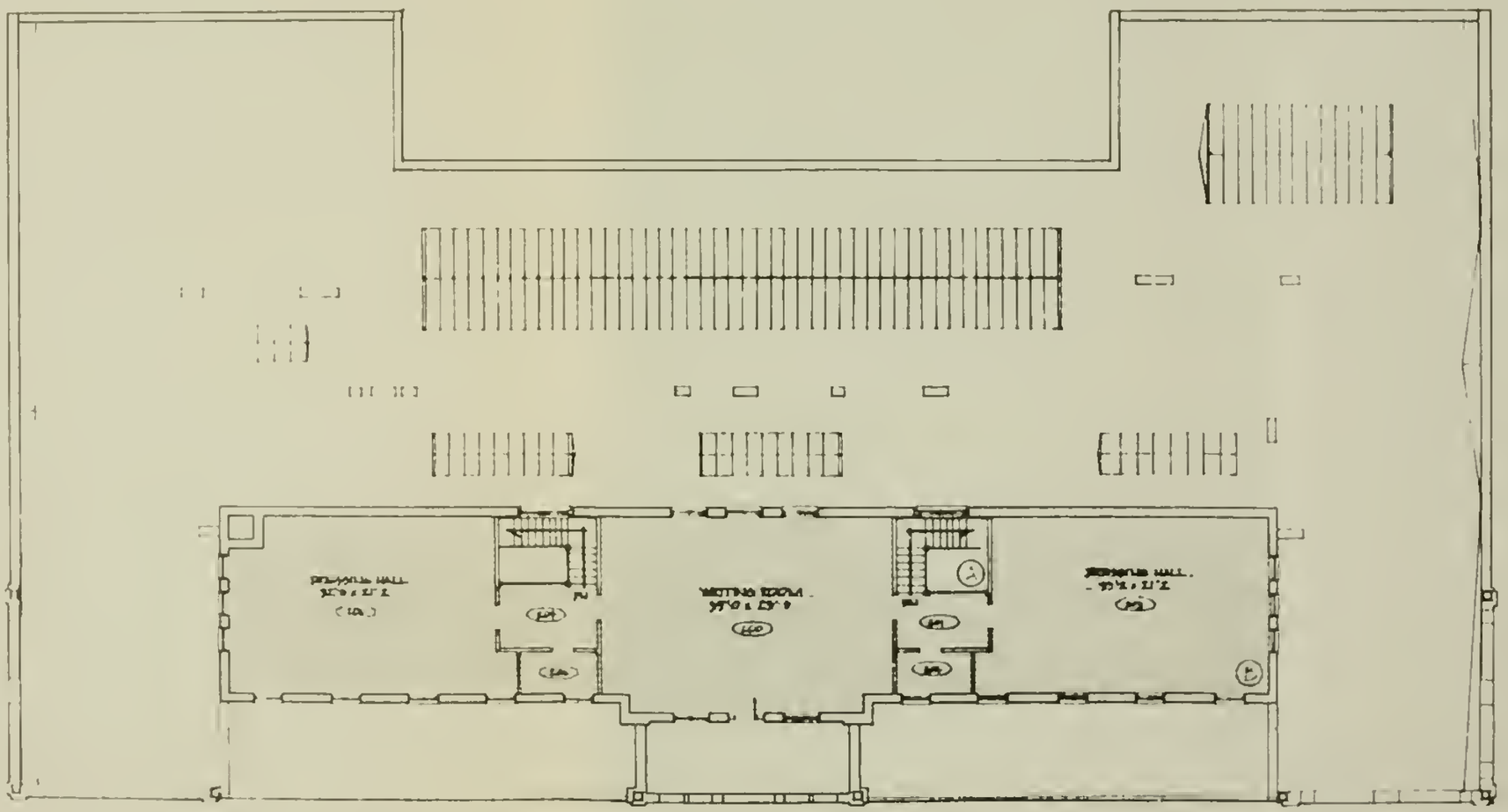
LEGEND

108 psf

Figure 19

RECOMMENDED STRUCTURAL CAPACITIES

	By	Description	Rev Ltr
EERING STUDY W BATHHOUSE NO. CX702930004	Prepared	TITLE OF DRAWING 2nd FLOOR & ROOF STRUCTURAL PLAN LOCATION WITHIN PARK BATHHOUSE ROW NAME OF PARK HOT SPRINGS NATIONAL PARK	Drawing No
SSOCIATES ENGINEERS y Parham Rd. Suite 48 Rock, Arkansas	RSP DESIGNED BCK DRAWN RSP CHECKED MAR 1985 DATE	SOUTHWEST REGION · SAR AND COUNTY · ARKANSAS STATE	Proj No. · Sheet Q-3 of 3



LEGEND

108 psf

Figure 19

1/0 2nd FLOOR & ROOF STRUCTURAL PLAN

RECOMMENDED STRUCTURAL CAPACITIES

SCALE: 1/16"=1'-0"

Revision Date	By	Description	For LTI
ENGINEERING STUDY QUAPAW BATHHOUSE CONTRACT NO CX7029300O4	Proposed	TITLE OF DRAWING 2nd FLOOR & ROOF STRUCTURAL PLAN	Drawing No
PITTS & ASSOCIATES ENGINEERS 100 N. Rodney Parham Rd. Suite 4B Little Rock, Arkansas	DESIGNED DSP DRAWN DSP CHECKED MAR 1985 DATE	LOCATION WITHIN PARK BATHHOUSE ROW NAME OF PARK HOT SPRINGS NATIONAL PARK SOUTHWEST REGION GARLAND COUNTY ARK	Q-3

During the summer of 1984, a team of architects from the Historic American Buildings Survey (HABS) completed a documentation project for the vacant bathhouses which included elevation drawings (figures 2 and 3), photographs (figures 1 and 6), and a survey of conditions for the park's list of classified structures. The survey of the Quapaw Bathhouse is summarized in Table 2. Existing Conditions.

TABLE 2. EXISTING CONDITIONS

SYSTEM/ELEMENT	MATERIAL/TYPE	DESCRIPTION/CONDITION
Exterior		
Roof		Second story and front porch are of terra cotta and Spanish tile, except on the north side of the front porch where all but front two rows have been removed and replaced with rolled roofing. Tile on the second story is in good condition with only a few cracked pieces. Porch roof is in poor shape; it has been patched with asphalt shingles. The flat single story is generally covered by tar and gravel. Visibly this is all right, but there are problems with ponding and standing water.
Flashing		Galvanized sheet metal; mostly painted. There is some flashing above the windows. Some rusting where not painted; window flashing on second floor below dome is badly bent.
Chimneys & Vents		Chimney on northeast corner of building; numerous vents on flat roof. Small cracks in chimney stucco. Vents are only slightly rusty.
Drainage		Second story tile roof drains by metal drain pipes to flat roof which is actually sloped to drains off north and south sides through metal down spouts. Porch roof drains by a channel gutter in the roof, then through wall to metal drain pipes.
Walls		Stucco over masonry. East side of second story and the back of the north and south first floor areas were left unpainted the last time the building was painted, so this area is peeling badly. Some cracks in the stucco. Large crack just below roof line on second story at southeast corner. Handicapped ramp walls in poor shape; lots of cracking and large hole in stucco. Mold growing on walls around some leaky downspouts.
Windows		First floor: center pavilion has wood casement windows with fan light above. Clear glass. End pavilion windows are wood, 5 over 4 lights, translucent glass, fan light above two upper panels of two lights each open on each of these windows. Three panes painted out in fan light of northern-most of these windows. Other front first floor windows are also arched, but metal frame casement windows, with fixed side lights and an openable half circle panel in the arch. The two most northerly and two most southerly have translucent glass. Of the first story windows, the wood windows badly need painting and some reglazing; some have cracked panes. Fanlights on all windows need some reglazing. Metal framed windows have rusted some on bottom of outside; all are completely rusted on the inside. Three of these windows have cracked panes. Second story windows: Front, all windows are wood and metal, translucent glass, jalousy type. On the north, first floor and basement are double hung, wood windows, 4/4 lights, glass painted over. Also two large windows with wood fan light above that are painted over and one partially replaced by air conditioner. The windows below have been replaced with metal translucent jalousy in good shape. The wood windows badly need painting and reglazing as well as replacement of a few cracked panes.

TABLE 2. EXISTING CONDITIONS

SYSTEM/ELEMENT	MATERIAL/TYPE	DESCRIPTION/CONDITION
Exterior (con't)		
		Southside basement and first floor are the same type as the north side except glass has not been painted on double hung windows. On the north and south sides, second floor, arched wood, 3/4 lights, clear glass, fixed windows need reglazing. East side of the second floor has double hung, wood, 3/6 lights also wood casement, 2/6 lights. Bottom half of one of these casements has been removed, probably for an air conditioning unit.
Doors		Front door: double-leaf glass and wood doors with sidelights and fan lights above, brass hardware and sheet metal kickplates. This needs painting, cleaning of hardware, and reglazing of fan light.
		South front ramp door: center metal casement panel is here replaced with single wood and glass doors, 2/6 lights, brass hardware on one, none on the other. One of these doors has a problem with warping and peeling wood at its base.
		North Basement door: temporary-looking plywood door; wood is buckling and peeling
		Second floor front, door to roof: roughly framed, plywood, no hardware. It is temporary, poorly constructed, needs painting or replacing.
Foundation		Good condition: two rough-cut 3-foot holes in foundation at either side front entrance. There are two cracks in south areaway walls (leading up to basement doors).
Site drainage		Flat to slight slope away from building except at back where back wall acts as retaining wall for hillside sloping up from it.
Site features/steps/walks/ paths		All concrete--walk to front door, steps, and two ramps. Walks to basement stairs (exterior) on either side of building. South ramp has a lot of small cracks, a few in north ramp.
Electrical		Four spotlights in front lawn; two fixtures at front door. No sockets or wiring. Electrical lines enter building on northeast corner.
Plumbing		Two spigots on front of building; two valves in holes in foundations.
Other		Indian decorative relief above front door. Gold paint flaking from face.
		Glazed tile dome. Upper portion is severely weathered; grout is eroding away, allowing water to penetrate. Subsequent freezing and thawing have broken many tiles and caused a number of tiles to delaminate. Steel plaster channel framework is slightly oxidized. The copper lantern is oxidizing; a makeshift cover over the lantern access opening is not sufficient to keep birds and rain out of the attic. There are also hairline stress cracks in the middle part of the dome. Most of the grout joints are weather eroded; all the tile surfaces are coated with humus or fecal matter.
		Skylights are all covered with tar and tarpaper except those over dressing rooms which have roof structures constructed over them. The patching is shoddy, makeshift and in very bad shape.

TABLE 2. EXISTING CONDITIONS

SYSTEM/ELEMENT	MATERIAL/TYPE	DESCRIPTION/CONDITION
Interior		
Ceilings		All plaster on metal lath except as noted. Lobby has acoustical tile placed between beams. There is some cracking, peeling paint toward front of lobby. Porches: stuccoed vaults have badly peeling paint. Cooling room no. 3 has suspended metal and fiberboard ceiling. Men's bath hall has suspended ceilings put up over skylight. Checking and surface peeling is occurring on most ceilings. Roof leaks are causing large amounts of falling plaster in massage room no. 1, and to lesser extend dressing hall no. 1. Large portions of suspended ceilings are coming loose in men's bathhall due to water entry. Water stains and damage from falling plaster is occurring to the suspended ceiling in cooling room no. 8.
Floors		The following rooms have resilient tile floors: Porch No. 2, massage room no. 2, sun rooms 1 and 2, both dressing halls, dressing rooms nos. 1 and 2, cooling room no. 2, both stair halls. All toilets, men's and women's bath halls have ceramic tile floors. Second floor stairs are of white marble. Basement stairs are wood. Basement floor is concrete. Quarry tile floor in lobby is edged in marble. All other rooms have quarry tile floors. Quarry tile is in good shape; some cracking, chipping, between cooling room nos. 1 and 2. Resilient tile is in rather poor shape; warped and generally uneven in cooling room no. 2. Some cracking of basement stairs. Lots of standing water in fan room no. 1 and boiler room, even more in boiler pit and fan room no. 2. Resilient tile is peeling up in areas, exposing quarry tile beneath.
Other		Exit signs on porch no. 1 and 4. Skylights in men's and women's dressing rooms, men's and women's bath halls, and toilet no. 1. All of these are concealed with dropped ceilings in all rooms but skylights in men's and women's dressing rooms and bathhalls and toilet no. 1. These are concealed with dropped ceilings in all rooms except toilet no. 1. See exterior problems with skylights. Both stairs to second floor have been enclosed wth 2 by 4's and dry wall construction. A door has been installed at each landing; 2 by 4's are exposed on second floor side.
Walls		All plaster walls. Lobby has marble wainscotting and decorative wood and plaster relief around lock boxes behind front counter. Porches have stuccoed walls, all downstairs (first floor) toilets and bath halls have glazed tile to 6 feet. Toilet no. 4 has fiberboard tile wainscotting. Parts of massage room no. 1, and both sun rooms have had plaster replaced with sheet rock. Basement walls: concrete and firebrick. Generally, surface checking and peeling of plaster is worse on second floor, with the following exceptions: Massage room no. 1 has an entire section of sheet rock buckling out from masonry. Stair hall no. 1, sun room no. 1, cooling room no. 2 all have lots of mold growing on walls. Cooling room no. 3 has plaster buckling in southeast corner. Porch stucco walls have badly peeling paint. In toilet no. 4 wainscotting is falling off the walls. Lots of running water coming through back basement walls (spring water).
Doors		Lobby, porches, massage rooms are glass and wood. French doors with openable fan lights, metal push bars and kick plates. Between porch no. 1 and no. 2, and between porch 3 and 4 glass has been painted over and fanlight removed for air conditioning installation. Other doors are painted wood, metal hardware, some with glazing. Two French doors have been removed from between massage room no. 1 and sun room no. 1, and replaced with plywood. One French door removed from between women's massage room (no. __) and sun room no. 2. Five other missing doors: e.g. to sitz baths (no. 2), to dressing room no. 2, to storage no. 1, to dressing halls nos. 1 and 2. North writing hall door is coming apart.

TABLE 2. EXISTING CONDITIONS

SYSTEM/ELEMENT	MATERIAL/TYPE	DESCRIPTION/CONDITION
Interior (con't)		
Electrical		Fluorescent overhead fixtures; all are functional. Smaller rooms (storage and restrooms) have overhead incandescent. Lobby has functional ceiling fan and two decorative bracket lamps. Some rusting of fixtures. No fixtures in writing room but exposed wiring. No functional fixtures on second floor.
Heating/cooling/air		Steam radiators in most rooms, metal box covers in lobby, bath halls, cooling room no. 3. Porches no. 2 and 3, massage rooms nos. 1 and 2, sun room no. 2, and the dressing rooms have no radiators. Water standing in boiler pit in basement.
Plumbing		Most plumbing is functional. All fixtures still intact. Some are slightly cracked, crazed. Porcelain fixtures--none are badly damaged.

APPENDIX

EXCERPTS ON THE EXISTING CONDITION OF THE QUAPAW BATHHOUSE FROM THE 1985 PITTS REPORT

The primary purpose of this section is to report on the structural condition of the bathhouse. Many of the structural and architectural building components serve both functions or are so soundly bonded together that it is difficult to report on the structural aspect without referring to the architectural materials. Structural deficiencies and adverse environmental conditions that affect the structure first manifest themselves as blemishes on architectural finishes. Therefore, we must report on the condition of and the conditions affecting some architectural surfaces to convey a comprehensive report.

In addition to the report on the structural condition of the bathhouse, we will report on the conditions of the mosaic tile dome and of the clay tile roofing.

The existing conditions are presented in three parts:

1. Inherent Structural Deficiencies - These conditions are primarily caused by poor design or construction practices. They probably occurred early in the life of the building and have not changed since. The environment may be a contributing factor.

2. Environmentally Caused Conditions - These conditions are primarily caused by poor maintenance, lack of use, age and the normal wearing of the elements on the building. These conditions are continuing to deteriorate. Poor design or construction practices may be a contributing factor.

3. Comparison of conditions reported in the 1973 Historic Structures Report to the conditions observed in this Engineering Study of the Quapaw Bathhouse.

1. Inherent Structural Deficiencies:

   a. Very little deterioration caused by inherent structural deficiencies can be observed in this building. Stress relief cracks can be observed at the following locations:

      (1) Exterior stucco wall, south side of Cooling Rm. No. 111.

      (2) Exterior stucco wall, north side of Cooling Rm. No. 124.

      (3) Exterior stucco wall, east side of Dressing Hall No. 203.

   b. Additional interior and exterior plaster and concrete cracking was observed, but it was very minor, showed no definite pattern, and was so obscured by deteriorating plaster that it should not cause any concern.

2. Environmentally Caused Conditions:

a. The deterioration of the interior architectural finishes of the Quapaw Bathhouse compare in severity to that observed in the Maurice Bathhouse, which was the worst one investigated in Phase Two, "INVESTIGATIVE STUDY OF FIVE BATHHOUSES". As observed in the Maurice and Ozark Bathhouses, high humidity and uncontrolled temperature are the primary causes of this deterioration. The principal source of the humidity is hot spring water. The Quapaw Bathhouse has more free flowing spring water in it than any other house observed thus far. Boiler Room B109 has a hot spring that dumps directly into it. This hot spring maintains approximately one-half inch of water on the floor of Fan Room B106, Fan Room B108, Boiler Room B109 and Boiler Pit B113. In addition to this, humidity is contributed to the building from the very wet unexcavated spaces at the west side of the building, from the Quapaw spring B105 and from the hot water storage tank below the Laundry Room B100. This relatively warm humid air condenses on the colder surfaces throughout the building and is most severe during the winter months. The condensate is particularly destructive to glass sash, plaster walls and to plaster ceilings that are adjacent to the exterior of the building. This deterioration manifests itself in peeling paint, degenerating plaster and oxidating reinforcing bars.

b. The lantern atop the dome is made of sheet copper that has been shaped, rivited and soldered together to form an intricate design. Water may be seeping into the tile setting bed through some of the broken soldered joints. The copper is oxidizing similar to that experienced on the Fordyce marquee. A makeshift cover over the lantern access opening is not adequately keeping rain and pigeons out of the attic.

c. The upper portion of the ceramic tile dome, which has less slope, is severely weathered. The grout between the tiles is eroding away, allowing water to penetrate the setting bed through the broken solder joints of the lantern. The erosion caused by this water and its subsequent freezing and thawing have broken many tiles and caused large sections of the tile to delaminate from the setting bed. This area can be identified by the five color glazed tile layed in a undulating pattern around the base of the lantern. A large sample of these tiles was easily taken. From inside the dome, water can be observed to penetrate the scratch coat on rainy days. Some of this water is collected on the tops of the two inch plaster channels and is transferred down to the top of the octagon base wall. The steel plaster channel framework is only slightly oxidized. This steel is probably protected by the basic solution created by the portland cement plaster and is no worse than might be expected if the ceramic tile were not leaking. No deterioration was observed in the metal lath, in the scratch coat or in the setbed. Sunlight does not shine through the severely damaged areas of the dome as previously reported in our "Status Report,

Evaluation of Mosaic Tile Dome, Quapaw Bathhouse," dated December 12, 1984.

d. The middle and largest section of the dome is layed with a radiating pattern of four inch (4") square floral tiles superimposed on a two-color chevron pattern of tile. The base of the dome is a band of multi-colored four inch (4") square tile. All of this tile is tightly affixed to the setting bed. It does have hairline stress relief cracks that radiate from the lantern. They occur at about twenty-two and one-half (22.5) degree intervals, which places them approximately over every other two-inch plaster channel. A lime like material can be observed to be leaching from some of the cracks in the chevron patterned area. A few tile samples were taken from this area, with difficulty.

   Most of the grout joints in all of the dome have been eroded by the weather. All of the tile surfaces are coated with what appears to be humus or fecal matter.

e. No significant damage, caused by the infiltration of water, was noted in the poured-in-place concrete base wall. Some of the corrugated metal used to form the concrete transition from the octagonal base to the spherical dome has rusted and fallen away. This is only forming material and will not affect the integrity of the wall.

f. The clay tile roofing in question covers the one-story massage parlors, storage rooms, and porches in the front. In addition, it covers the second story North and South dressing halls. These areas were inspected on a rainy day. No roof leaks were observed in the attic space over the dressing halls. There was too much condensate in the one-story front area to make a determination. These roof areas have been repaired many times. The northwest one-story roof tiles have been completely removed and replaced with a rolled felt roof. Approximately twenty percent (20%) of the roof tiles are broken or missing. Some of the roof and ridge tiles have slipped, exposing their nail holes. The mastic at the ridge tiles and parapets has lost its resilience.

3. Comparison of Conditions Reported in the 1973 Historic Structures Report to the condition observed in this Engineering Study of the Quapaw Bathhouse:

   The Quapaw Bathhouses closed in mid-year of 1984. National Park personnel have informed me that condensation and the resulting plaster damage was a problem at that time. The 1973 Historic Structures Report states that "Moisture infiltration is the worst problem with the Quapaw." The source of the moisture at that time was thought to be infiltration from the back walls and from roof and flashing leaks. These conditions may still exist and could be contributing moisture, in addition to the hot spring water described above, to the deterioration of this building.

[Note: The capital letter symbols are cross references to the bathhouse floor plans, figures 4, 5, and 7.]

Referenced Area		1973 Historic Structures Report	Engineering Study of the Quapaw Bathhouse
Basement:	A	Settlement crack	Unchanged
	B	Exposed Reinforcing @ Ceiling	Similar
	C	Mineral Water infiltration on floor	Similar, maybe somewhat worse
1st Floor:	A	Ceiling falling	Repaired
	B	Crack in wall	Minor shrinkage crack, stable
	C	Crack in wall	Wall covered with sheet-rock. Wall is deteriorating
	D	Moisture damage	The partition wall plaster and exterior wall plaster is still deteriorating from moisture. Large segments of the plastered ceiling in this room have fallen.
	E.	Cracks along wall	Minor plaster crack
2nd Floor:	A	Crack along second floor line at stairwell	Unchanged
	B	Water damage	Severe wall and ceiling plaster damage in all of second floor. Ceiling plaster has been repaired in this area.

RECOMMENDATIONS

The scope of the original contract for the "INVESTIGATIVE STUDY OF FOUR BATHHOUSES" was to investigate and report the existing conditions and to conduct a structural investigation and analysis to determine the existing floor load carrying capacities of the bathhouses. Change Order No. Four modified the scope to include recommendations for the repair and cleaning of the mosaic tile dome on the Quapaw Bathhouse. Plans and specifications for the repair and cleaning of this dome will be submitted under separate cover. To lay the groundwork for this impending set of plans and specifications, it seems appropriate to give a summary of these recommendations in this report. In addition, cursory

observations of existing roofing systems were made during this investigation, that are not within the scope of this contract. These roofing recommendations are to be used at the discretion of the agency that is responsible for the rehabilitation of this building and should not be initiated without the review and approval of a qualified professional in the discipline.

Repair and Cleaning of Mosaic Tile Dome:

a. Remove copper lantern. Clean and repair prior to reinstallation.

b. Clean entire mosaic tile dome using low to medium pressure spray equipment, stiff bristle G.I. brushes, water and detergent.

c. Remove and replace the five-color, undulating patterned, glazed tile around the base of the lantern. Use the methods and tile sources suggested by James H. Dixon of Mid State Tile Co. Appendix "F".

d. Replace loose tiles in the two-color chevron pattern. Do not attempt to replace broken tile that is tightly affixed to the setting bed.

e. Regrout all tile joints and cracks with a latex modified grout.

Existing Tile Roofing:

The existing tile roofing may not be causing a significant moisture problem for the building at this time. On the other hand, it has been in service for approximately sixty-three years; it has been extensively repaired; parts of it have been replaced with a temporary roof; and a significant number of the tiles are broken. We recommend, in the name of preservation, that the existing roof tiles be removed and reinstalled, substituting new matching tiles for the broken and missing tiles. The wood roof deck should be inspected and repaired and new felt installed at that time.

Existing Built-up Flat Roof:

There is so much internal moisture in this building that it is impossible to determine if this roofing and flashing is leaking. The existing skylights on this roof are broken and in disrepair. If this roofing is replaced, we recommend that insulation be placed between the concrete roof decks and the new roofing. If the buildings were adequately ventilated, this would help to moderate the cold ceilings and reduce the possibility of condensation. Insulation on the attic floor and at the exterior walls would also help reduce the condensation problems. Any modifications in this direction should be approved by a HVAC engineer prior to initiation.

SELECTED REFERENCES

NATIONAL PARK SERVICE, U.S. DEPARTMENT OF THE INTERIOR

1973 "Historic Structures Report, Hot Springs National Park," by Cromwell, Neyland, Truemper, Millett and Gatchell, Inc., Little Rock, AR. On file at Hot Springs National Park.

1985 "Interim Report, Phase Three, Engineering Study of the Quapaw Bathhouse," by Pitts and Associates Engineers, P.A., and Witsell and Evans, Architects - Planners, Little Rock, AR. On file at Hot Springs National Park.

1985 General Management Plan Amendment/ Development Concept Plan/ Environmental Assessment, Hot Springs National Park, Garland County, Arkansas. Denver, CO: Denver Service Center.

1985 "Historic Grounds and Structures: An Interim Report on Bathhouse Row," by Diane Rhodes, Denver Service Center, Denver, CO. On file at Hot Springs National Park.

LIST OF PREPARERS/CONSULTANTS

PREPARERS

Roger Brown, Project Coordinator, Denver Service Center (DSC)

Thomas McGrath, Historical Architect, DSC

Diane Rhodes, Researcher, DSC

Summer 1984 Recording Team, Historic American Buildings Survey (HABS), under the direction of Kenneth L. Anderson, Principal Architect

CONSULTANTS

Earl Adams, Chief, Division of Interpretation, Hot Springs National Park

Tony Crosby, Historical Architect, DSC

Diane Jung, Survey Historian, Division of History, Southwest Regional Office (SWRO)

Wilson Stiles, Architectural Historian/Arkansas State Historic Preservation Officer

Barry Sulam, Regional Historical Architect, Division of Conservation, SWRO

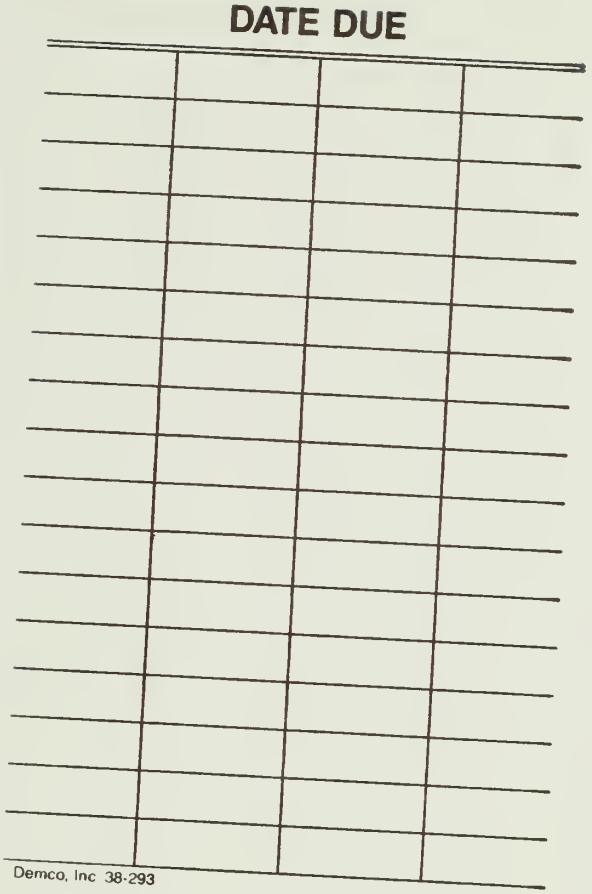
Marlys Bush Thurber, Historical Architect, Division of Conservation, SWRO

George Thorson, Project Manager for Historical Architecture, DSC

Julie Vosmik, Architectural Historian, Arkansas Historic Preservation Program

Melody Webb, Chief, Division of History, SWRO

U.S. GOVERNMENT PRINTING OFFICE: 1985—576-039/10051 REGION NO. 8



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

Publication services were provided by the graphics staff of the Denver Service Center. NPS D-47 July 1985