The WARM SPRINGS BATH HOUSE

An Historic Structures Report

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EXIT
NO
SWIMMING

The WARM SPRINGS BATH HOUSE

"The warm springs, from whence I date this letter, are five miles from the hot springs; here is, perhaps, the largest and most elegant bath in the world."

— JOHN EDWARDS CALDWELL, 1808

"First, you are struck with the unrivalled beauty of the water, which is so enchantingly pellucid, that you think you never saw any water so diaphanous before, not even the waters of the Rhone where they issue from the Lake of Geneva…."

— GEORGE FEATHERSTONHAUGH, 1834

"I cannot describe to you the luxury of bathing in these springs. They seem to be the waters of Eden, clear, soft, transparent, mild, healthful, and full of delight…"

— MR. OTIS, 1835

"I took a bath, certainly the most delightful one, I have ever before enjoyed."

— BLAIR BOLLING, 1838

"All who have described this noble fountain, write with enthusiasm; nor is it indeed to be wondered at, for the world may well be challenged for its equal. Its temperature, buoyancy, refractive power, transparency – all invest it with indescribable luxury to the feelings and to the sight."

— DR. WILLIAM BURKE, 1842

"Luxury of all luxuries! It is worth a pilgrimage of many miles to bathe in the delightful stream."

— MARK PENCIL, 1839

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INTRODUCTION

The pools and related buildings at Warm Springs, owned and operated by the Omni Homestead, have been an essential part of the history of the Warm Springs Valley for more than 250 years and part of the Homestead hydrotherapy program since 1925. What makes the buildings at Warm Springs so interesting to both visitors and historians is at the same time is greatest challenge: the unavoidable juxtaposition of water and wood. The buildings at Warm Springs are at the same time remarkably durable and yet peculiarly vulnerable to moisture-based deterioration. These delicate framed structures are exposed year-around to damaging water-, humidity-, and temperature-related cycles. They are positioned directly over the water-permeated springhead on minimal footings and foundations. Until recently the approach to maintenance followed by the Homestead has been extremely sensitive to both the fragility and the historic ambience of the historic bath buildings.

Management of the Homestead for many years recognized the value of the buildings as documents of the past, conserved their structural and functional simplicity, and, following clear guidance from the hotel's owners, performed only those repairs which were necessary to ensure their ongoing preservation. As a result of this careful stewardship, the buildings at Warm Springs are virtual time-capsules of late-eighteenth-century and nineteenth-century resort life, unique in their unchanged character and the insight they provide into past approaches to medical treatment and social life. The baths have much greater potential as generators of tourism, both historical and spa-related, than they exhibit today.

The baths are currently in poor condition. Maintenance has been long deferred. The wood shingle roofing is completely missing in many places. The nuanced levels of intervention provided by the Homestead's maintenance staff during the twentieth century consisted of the replacement of individual boards, footings or roofing members as required and the painting or whitewashing of the interior and exterior surfaces at regular intervals. The porosity of the buildings' fabric permitted it to breathe and the light hand in making changes resulted in dramatically extended longevity.

When the sills of the Octagonal Bath House were found to be beyond repair in the third quarter of the twentieth century, only those sections that were compromised were replaced in kind and new vertical members were simply stubbed into the historic fabric rather than performing wholesale replacement. Similarly, in the Ladies' Bath, the original mortise-and-tenon structure was reinforced with a ring of compatible new framing members applied to its inner surface. The pools were regularly cleaned and mildew was not permitted to grow for long on the stone or wood surfaces.

All of the buildings at Warm Springs, including the historic cottages north of the baths, are in poor to fair condition. Significant repairs should not be made until the buildings are assessed and documented and a plan for stabilization and restoration is put in place, in order to avoid irreversible damage to the historic materials.

I. BACKGROUND: THE EUROPEAN AND AMERICAN BATHING TRADITIONS

A | Thermal Waters

The culture of bathing and healing associated in the west with thermal springs is several thousand years old. Thermal springs of various degrees of temperature are found around the world. Water from aquifers near the surface filters down far enough below the surface to encounter geothermally heated rock, after which it is forced up under pressure through faults to emerge on the surface. Heated water is able to hold a greater proportion of minerals in suspension than cold water, and the mineral properties of thermal springs were thought to contribute to the healing properties of the water.

The Romans developed a harmoniously balanced approach to the medical and social use of water.[1] They invented an elaborate technology for heating water for baths in the absence of geothermal springs, but naturally heated water held a special place in Roman bathing culture. The ancient bathing tradition survived remarkably long, and, while little direct evidence is available, it seems likely that some ancient thermal bath structures continued in use into the Middle Ages.[2] Baths are well documented in the medieval period, when single-sex and sometimes mixed nude bathing was practiced. While many public baths used ordinary water from springs, wells, or streams, natural thermal springs were an important focus of travel and local medical treatment. The church supported bathing at many of the larger, formerly Roman, thermal springs, which often took the form of open, walled pools providing little privacy for the bathers.

Prior to the Renaissance, the use of mineral water for healing was largely the province of the Church and local authorities. Renaissance Italian students of the classical tradition failed to completely understand and successfully interpret the Vitruvian balneological (bath-related) texts. The recreation of classical baths attempted by Palladio and others was largely imaginative, based on limited data about the functions of the various rooms in the great thermae and their use, abetted by ambiguous language in Vitruvius' descriptions of bathing.[3] The Vitruvianists' vision of Roman bathing was dependent on the bathing traditions with which they were familiar. Renaissance understanding of classical bath architecture was also conflated with the settings and theology of Christian baptism as it was manifested in the larger centers of the early church, where groups of catechumens were immersed in ornately enclosed octagonal pools.

Medicine, like architecture, underwent a transformation as the influence of the church faded before a rediscovery of classical texts. The Renaissance doctrine which held that truth lay in nature, reason, and tradition as elucidated by the ancients did not allow physicians to embrace bathing as therapy until the late sixteenth century, by which time it had become apparent that it was one of the rational arts understood by the Romans and capable of restoration in the modern era.[4] After the mid-seventeenth century, science was increasingly called upon to support the published claims of healing at mineral springs

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[1] Roy Porter, foreword, The Medical History of Waters and Spas. ed. Roy Porter. London: Wellcome Inst. for the History of Medicine, 1990, viii.

[2] Ralph Jackson, "Waters and Spas in the Classical World," Medical History of Waters. 1.

[3] Gustina Scaglia, "A Vitruvianist's 'thermae' plan and the Vitruvianists in Rome and Sienna," Arte Lombarda 84-85 (1988): 85-101.

[4] Richard Palmer, "'In This Our Lightye and Learned Tyme': Italian Baths in the Era of the Renaissance." Medical History of Waters.14-22.

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and physicians attempted to dominate the medical use of water.[5] Use of medicinal springs in ancient and medieval times was generally restricted to bathing, although there was certainly ritual drinking of spring water. Not until the 17th century was drinking generally included among the methods of cure. After that time, water cure practices consisted of drinking, bathing, sweat baths, showers (including water directed from a bucket onto affected parts of the body), and the application, of hot volcanic mud at Italian Spring.[6]

Fig. 1. The famous baths at Bourbon l'Archambault in France dated to Roman times. Bathing was in the open in post-medieval times.

The poor, who were cared for in special hospitals, local bathers, and the mobile wealthy, were the chief patrons at continental spas in the sixteenth and seventeenth centuries. The baths of France were controlled by the church or the nobility, who did not allow large-scale development of the resources. The baths of Renaissance Italy were rustic, poorly furnished, and small.[7] In England, only Bath can claim development in the pre-Reformation era.[8]

The different conditions after the Reformation and, later, the Glorious Revolution, made it possible for Bath and its British rivals to outstrip their Continental relatives.[9] As the seventeenth century drew to an end, the numbers of British medicinal resorts began to multiply. At the major watering places of Britain and at those of Spa in the Spanish Netherlands, now Belgium, fashion and court life began to focus attention on a regular season of attendance not necessarily connected with chronic illness.

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[5] Hamlin, Christopher, "Chemistry. Medicine, and the Legitimization of the English Spas," The Medical History of Waters and Spas. 67-81.

[6] Palmer 16-18.

[7] Michael Grenhaulgh, The Survival of Roman Antiquities into the Middle Ages. London: Gerald Duckworth, 1989, 20.1.

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Fig. 2. Isaac Robert Cruikshank (1789-1856). "Public Bathing at Bath or Stewing Alive."

The social aspects of the mineral springs has been the focus of a majority of the studies of English mineral waters. It, however, would appear that the use of water continued to have a broad appeal as witnessed in the previous eras, when free water and hospitals for the poor were provided at many thermal springs. The use by the poor and ordinary citizens was merely marginalized and restricted, but often, as at Bath and other springs, all comers were guaranteed access by the corporation or the terms of the will of the founder. In Britain, bath facilities remained very primitive well into the eighteenth century: open pools little changed from the Middle Ages, with curious spectators and minimal accommodations for privacy.

[8] Peter J. Neville Havins, The Spas of England. London: Robert Hale and Co.. 1976, 20.

[9] Porter, Foreword ix.

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B | European Bath Buildings

New baths were not built at French spas until the late eighteenth century, at about the same time the first private bathing facilities were finally built at Bath.[10] At that period, plans for new bathing establishments in France centered on grand, square basins surrounded by private bathing compartments. Unexecuted designs at the Academy and the Ecole des Beaux-Arts include baths and other vast public buildings inspired by classical models. In the early nineteenth century, the central common baths were no longer proposed, and private bathing compartments alone became the rule at new facilities in both France and England. [11]

The most immediate model for the treatment regimen and the architectural forms at the Warm Springs is to be found at Bath in England. Known as Aquae Sulis, or "the waters of Sulis," the site was used by the ancient Celts before the Roman invasion. The Romans built a temple to the goddess Sulis/Minerva next to the springs by 70 AD and the bathing complex was gradually built up over the next 300 years. Roman engineers drove oak piles into the mud that surrounded the spring to make an irregular stone enclosure lined with lead. After a period of disuse, the baths were reinstituted in the eleventh century and increased in popularity through the beginning of the nineteenth, by which time Bath had become the most fashionable resort in Britain.

Fig 3. Section of the Hot Bath at Bath, England, by John Wood the Younger

[10] Henri Ronot, "Les Establissements thermaux du XVI au XVIII siecle," Monuments Historiques de la France 1 (1978): 17-20.

[11] Lise Grenier, "Apparat et Scenes d'Interieur, " Villes d'equx en France. ed. Lise Grenier, Paris: Editions Institut Francais d'Architecture, 1985, 69.

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John Wood the Elder proposed enclosing springs at Bath in 1727, 1738, and 1745, but these designs, now lost, were not funded by the corporation of Bath.[11] From 1775 to 1778 the Hot Bath was enclosed in an elegant building designed by John Wood, Junior. The new bath rationalized the irregularly shaped medieval pool and resolved the intersection of private and social bathing in a new manner (Fig 3). In 1831, the building was altered and extended by architect G. P. Manners, but its form remains intact and it has recently been returned to use. Corner entrances gave access to four pairs of heated dressing rooms (Fig 34), each of which were connected to private bathing slips which opened into an unroofed, central octagonal pool. This involved refiguring the medieval basin.[12]

Fig. 4. Interior of the Hot Bath, Bath, England, 1792. British Library. This shows a fountain in one of the four entrance lobbies, into which a partition has been introduced (not shown in the plan) to provide a counter for the attendants. Drinking and bathing were closely associated here.

While the plan may owe much to the Villa Rotonda tradition of Palladianism it is not dissimilar to a plan for a cold bath shown in Robert Morris' *Select Architecture* of 1755 (Fig.37).[13] Both Morris and Wood may have based their designs on Palladio's readily available drawing of the supposed Baptistry of Constantine. This octagonal spring-fed pool adjoining the Lateran Palace in Rome was enclosed by Pope Sixtus III in AD 430 (Fig. 36). Vaulted wings to each side may have suggested the eight private entrances shown in Morris plan (Fig.37).

[11] Charles Brownell, "John Wood the Elder and John Wood the Younger: Architects of Bath," diss., Columbia U, 1975, 135-139.

[12] Brownell 148, note 25.

[13] Robert Morris, Select Architecture: Being Regular Designs of Plans and Elevations Well Suited to both Town and Country. 1757; New York: Da Capo Press, 1973, plate 47.

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C | The American Development of the Bathing Tradition

American use of medicinal springs probably began with the earliest discovery of sources of mineral water. The iron and sulphur spring at Lynn, Massachusetts, was noted for its curative properties as early as 1669, although it was not developed as a resort until 1811.[14] The Tidewater region very likely lost sight of the English bathing tradition during the early years because of a lack of free springs in lowland areas. The earliest commercial mineral water cures in the mid-Atlantic states were in Pennsylvania, and it is to this source that the American springs tradition owes its development. As early as 1750, the springs in and around Philadelphia were in commercial use, including Yellow (now Chester) Springs, in Chester County, and Bath Springs, near Bristol, both known as early as 1720.[15] The strong English tradition of the Philadelphia area is clear from the selection of the names Bath, Bristol, and later, Harrogate, for springs resorts around that city, and from the English flavor of the resort life.

At about the same time (the mid-eighteenth century), springs in the western part of Virginia began to become known and utilized. All the evidence suggests that these early healing resorts were national in character, as diverse as were the settlers in the western Virginia area, coming from Pennsylvania, Maryland, and the entire eastern seaboard as well as eastern Virginia, as confirmed by contemporary literature.[16]

The first of the great Virginia Springs was known as Warm Springs, Medicinal Springs, and (later) Berkeley Springs. It was located about 150 miles west of Philadelphia and 90 miles west of Baltimore. Sharing its name with the Warm Springs in Augusta County has confused historians ever since. As early as 1748 it was regarded by George Washington as "celebrated".[17] In 1769 Washington and a group of wealthy Tidewater Virginians spent as much as a month at Berkeley Springs, where about 600 people congregated at one time. Like the springs nearer Philadelphia, Berkeley Springs provided an impressive colonial imitation of the social and cultural life of the English spas in addition to a bath in the healing waters. Washington housed himself and his family in a tent and marquee rented in Winchester. In 1775 the bath at Berkeley Springs consisted of a hollow of about six by four feet screened by boughs, used alternately by the two sexes.[18] The late eighteenth century saw a change: five bath houses with dressing rooms were advertised in 1784.[19]

By 1792, one of the first professional commentators on the Virginia springs left the now-fading Berkeley Springs out of a list of the most important waters. These consisted of the Sweet Springs, the Sweet Chalybeate Springs, the White Sulphur Springs, and the "Thermals"—the Warm and Hot springs in Bath County. The writer, John Rouelle MD, a French emigre, compared the medicinal waters favorably with the springs at Aix-la-Chappelle, Spa, and Plombieres-les-Bains, indicating that some of the influence on the Virginia springs operators and designers came from Continental as well as British sources.[20]

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[14] Alonzo Lewis and James R. Newhall, History of Lynn, Essex County, Massachusetts: 1629-1864. Lynn: George C Herbert, 1890, 257.

[15] F. H. Shelton, "Springs and Spas of Old-Time Philadelphians," The Pennsylvania Magazine of History and Biography 47 (1923): 196-237.

[16] Dorothy Gilchrist , "The Virginia Springs : A Mirror of Antebellum Society," M. A. thesis, U of Virginia. 1943, 11.

[17] Gilchrist 5.

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Jean Rouelle was a nephew of the great French chemists Guillaume-Francois and Hilaire-Marin Rouelle, who gave popular lectures in Paris attended by many of the most prominent thinkers of the French Enlightenment. He succeeded his uncle Hillaire-Marin as apothecary to the Duc d'Orleans and was engaged in 1788 by the short-lived Richmond Academy of Arts and Sciences as chief mineralogist and professor of natural history, chemistry, and botany. As professor, he was to make trips to collect materials for a cabinet of natural history and samples of "productions of every sort which Nature shall offer of a specially desirable kind in these vast countries" such as grains, trees, shrubs, animals, and shellfish. He undertook an extended trip to the springs and published an influential tract on the mineral waters of Virginia in 1792. He returned to France in 1797 with an important collection of plants, minerals, and animals [Julien Pierre Mystère sur l'enseignement d'un Rouelle. Bordeaux. *Revue d'Histoire de la Pharmacie* 66:236 (1978) 66].

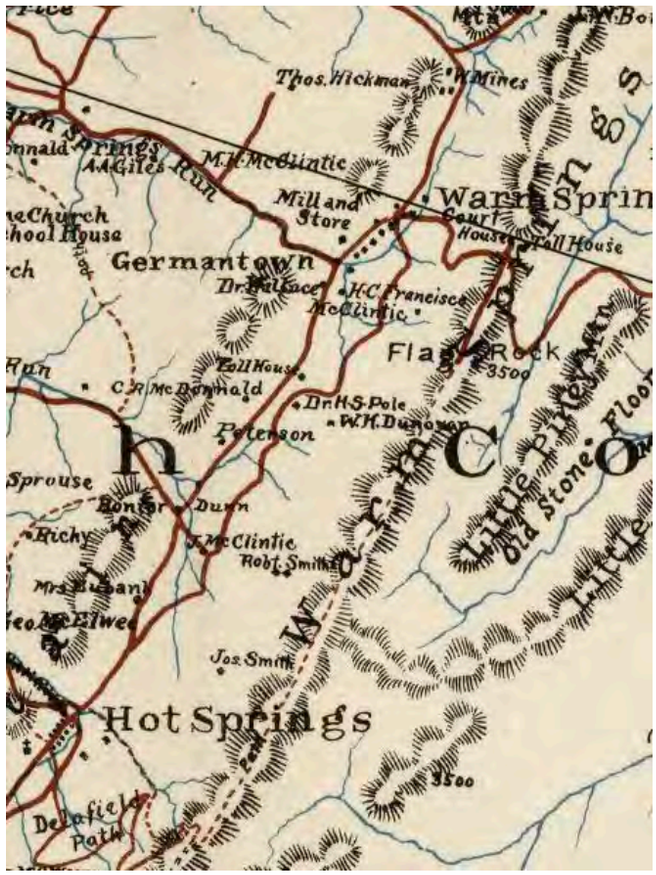

Fig. 5. Detail, Map of the Warm Springs Valley, Healing, Hot, and Warm Springs, Staunton VA: Jed. Hotchkiss, 1895. The early turnpike ran through the valley along the northwest side of Warm Springs Run in front of the Warm Spring Hotel.

[18] Gilchrist 10.

[19] Gilcrest 15.

[20] John A. Rouelle, Complete Treatise on the Mineral Waters of Virginia. Philadelphia: Charles Cist, 1792, 64.

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D | Bathing in Virginia's Warm Springs Valley

An important group of thermally heated waters are found in a line along the western edge of the Virginia/West Virginia line. As many as 100 springs are recognized as being warmer than the average temperature of the air (around 48-54°F). These include the historic springs known as the Hot (104 degrees), the Warm (98 degrees), the Healing (86 degrees), the New River White Sulphur (85 degrees), the Red Sweet (78 degrees), and the Sweet (74 degrees). The water derives from rainfall that seeps down to areas of rock that are naturally warmed by residual heat from the earth's formation and from the decay of radi active elements. According to a study of the springs, the gradiant of heat relative to depth varies with location, but averages 1.5°F for every 100 feet of depth in western Virginia. The water, which takes about twenty years to complete its cycle, is thought to issue from what are described as "limestone formations. . . brought to the surface by anticlinal folding."[21]

The geothermally heated waters of the Warm Springs Valley, recognized as the Warm, the Hot, the Healing, and the Falling springs, are collectively the hottest in the region. The Warm and the Hot springs were recognized early as centers for healing. Explorer Dr. Thomas Walker had found six invalids at the Hot Springs in 1750.[22]

Bathing at most resorts remained primitive for many years. In 1792, bathing at the Hot Springs, the Sweet Chalybeate Springs, and the Sweet Springs was conducted in unenclosed holes in the ground, while the cold-water White Sulphur had an adequate bath house, of which little is known.[23] Accommodations and support buildings at all the springs were built of logs, said by one visitor in 1805 to be "the universal fashion of this country."[24] John Bell in 1832 regretted the lack of a suitable bathing accommodation of heated water at the White Sulphur.[25]

E | The Site

According to geologists, there are actually four springs that emerge at Warm Springs — a group of three springs within about 30 meters of each other and a fourth about 250 meters to the southwest.[26] Originally the area where the springs arose was a wetland. The area around the springs has been partially filled to create parking lots, but retains a marshy topography in the area between the springs and Warm Springs Run, the stream that runs through the valley. George Featherstonhaugh in 1834 observed that the ground in which the springs rose were very marshy and would make possible the addition of other bath buildings:

> "The marshy ground in which these baths are situated, contains in the three or four acres which it comprehends, a prodigious variety of springs, differing perhaps in nothing but their temperature, which varies a little. Myriads of bubbles are rising in every part of the brook, which will no doubt be enclosed at some future day to increase the number of baths."

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[21] John K. Costain, Geological and Geophysical Study of the Origin of the Warm Springs in Bath County, Virginia. Department of Geological Sciences, Virginia Polytechnic Institute and State University, June 1, 1975--April 30, 1976.

[22] Gilcrest 6-7.

[23] Rouelle 29-55.

[24] John Baylor, Letter to John Baylor [Jr.]. 5 Aug 1805, Acc. no. 2257. Box 1. Baylor Papers, Alderman Library, U of Virginia, Charlottesville, Virginia.

The site was described in 1804 as "a rude uncultivated spot; occupied chiefly by Weeds and Woods, rocks and rubbish, Hogs, and Dogs."[27]

Scottish commentator Alexander Dick described the site in 1806:

> "This is a very Singular looking place—It is Situated in a deep hollow Surrounded on all Sides by high Mountains—There is a tavern with a number of log huts & Cabins all round it for the accomodation [sic] of the Compy—There is also a Court House & Goal. -The Spring is a most Copious one indeed. It forces itself up with great Violence by different issues which Cover a Considerable Span of ground & the run from which when Collected is Sufficient to turn a Grist Mill—The bason of the principal Spring is 50 feet in diameter & 5 or 6 feet deep in the Center—The Water is very clear & transparent, but has a bluish Cast & a pretty Strong Sulpherous Smell. The temperature when it issues from the earth is 96 degrees & in the Morning when the Air is Cool a Steam rises from it all along in the Valley as from boiling Water—It is a very great Curiosity indeed."

F | The Town of "Bathville"

The territory in which the thermal springs were situated was slowly settled and subdivided during the eighteenth century. Bath County was created from parts of Augusta, Botetourt, and Greenbriar counties in 1790. Warm Springs became the county seat. Warm Springs served as the principal settlement in the valley for many years and served as the county seat. Landowners in undeveloped areas sometimes tried to stimulate economic development by treating the springs as a shared public resource. Lord Fairfax had taken that route at Berkeley Springs and both the Warm and the Hot springs made use of the same model.

Fig. 6. Undated plat of 44 ½-acre lots in the Town at Warm Springs arranged into blocks of four. The only lots assigned to owners are labelled as T. Mays's (3), the two lots purchased by Christian Smith (11 and 12), the Warm Springs Tavern lots belonging to Thomas Lewis, which are labelled Store House (13), Tavern (14), Kitchen (15), a Spring Lot serving the tavern (16) and an entire square devoted to use as the tavern garden (25-28). It can be seen how the cross street between lots 16 and 17 was adapted to serve as the point where the turnpike road from Warm Springs Mountain intersected the main street.

[25] John Bell, On Baths and Mineral Waters (Philadelphia: Henry H. Porter, 1831) 429.

[26] Costain.

[27] William Cox to Rosanna Owens Cox, 29 Aug. 1804, Virginia Historical Society. Quoted in Lewis 29.

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Thomas Lewis (1718-1789) and his son John acquired the 140-acre Warm Springs tract in 1751. In order to make the most of his land holdings in the valley and his investment in the mineral springs, John Lewis laid out a town in 1786. He laid out the lots for a town on 25 acres of land "round and adjacent to the great Warm Springs on the tract of land on which the said Lewis then resided." Lewis was thought by some to have intended that the springs would be a resource for anyone who bought a lot and chose to make an improvement within a prescribed period of time. A key lot tract in the town's short history is made up of two lots, nos. 11 and 12. The lots were purchased by Valentine White, who assigned them to William Bowyer in 1788. William Bowyer, Anthony Mustoe and William Chambers opened a tavern in a stone house on lot 12, directly opposite the bath, in 1803. successors to the Lewis's claimed to exercise a monopoly.[28] Lawsuits, however, from 1794 until as late as 1833, sought to challenge their sole right to access.

The town was situated on either side of Warm Springs Run on each side of a main street that corresponded to the existing road through the valley along the uphill side of a twelve-acre tract containing the "great Warm Springs." A second tier of lots occupied an adjacent area of the same size as the spring tract. The tavern and its support buildings occupied the best lots along the main road. When Warm Springs was selected as the county seat of Bath County in 1792, the court first met in the home of Margaret Lewis and then made use of four lots to form a public square overlooking the spring tract from the east.

Although the date of the subdivision is not known, Thomas Lewis made lots available to purchasers well before his untimely death in 1788 ended his drive to have the town recognized by the Virginia General Assembly. In 1792, his son John petitioned the state to recognize the town.[29] A substantial number of local residents also petitioned for the establishment of the town, which they proposed to name "Bathville." Although in the following year the Virginia legislature authorized the county to lay out a town at the nearby Hot Springs, Bathville seems to have died in committee.[30] In spite of the lack of official recognition, the lots sold by Thomas Lewis gave form to local development. Margaret Lewis sold the spring and some of the lots to John Brockenbrough in 1815, but she retained other lots which she continued to sell from time to time as late as 1819, when she sold the "old store house lot" to merchants Richard Ludwell and Jacob Grouse, who operated the store next to the tavern.[31] In the following year, the store on their lot in Warm Springs was worth a substantial $2,500.[32]

The Plat of George Mayse's lot at Warm Springs (Fig. 7) shows "Mays' Brick House" at A and "Mays's Stone House" at B with an "Old Kitchen" and "Old Smokehouse" to the rear. His lots are separated from the former Lewis lots, now Dr. John Brockenbrough's, by an alley. These contain the former site of "John White's Old Store House," with one brick cabin and two log cabins to the rear, and the former site of the "Old Warm Springs Tavern" at G. None of these are large buildings and the store and tavern were probably demolished by Brockenbrough.[33]

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[28] Bowyer, Mustoe, and Chambers vs Margaret Lewis, 1794, quoted in Bath County Chancery Court Case, Mayes vs Brockenbrough, 1833. Library of Virginia, Reel 22, 185.

[29] Annual Reports of Officers, A-1541, 195.

[30] Joseph Thompson McAllister. Historical Sketches of Virginia, Hot Springs, Warm Sulphur Springs and Bath County, Virginia. Salem, VA: Salem Printing and Publishing Co., 1908.

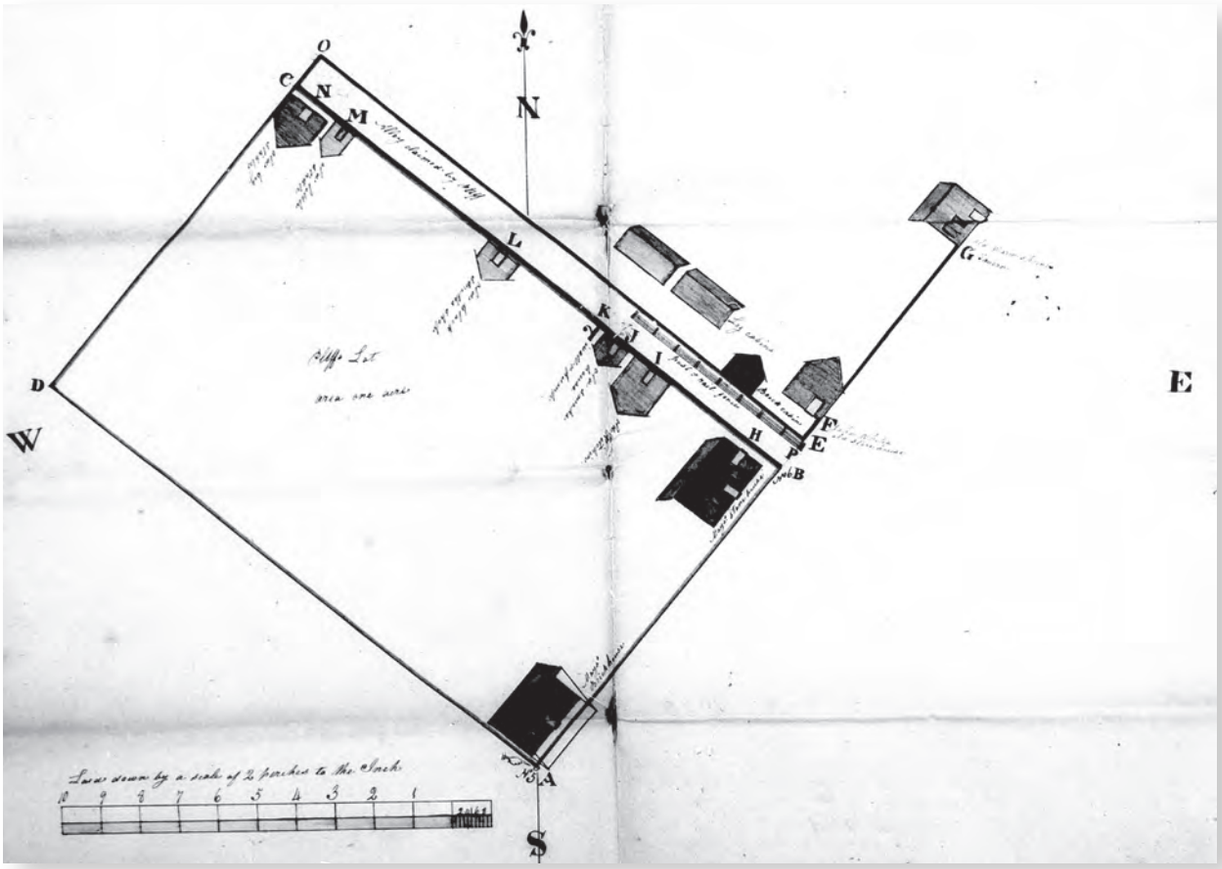

Fig. 7. Plat of George Mayse's one-acre tract showijng how the area looked before it was acquired by Dr. John Brockenbrough. consisting of lots 11 and 12 of the town plat in 1833. From Bath County Chancery Court Case, Mayes vs Brockenbrough, 1833.

Fig. 8. Bath County Courthouse, Warm Springs, c 1908. Virginia. Library of Virginia. Built on the site of the first courthouse about 1842. Converted to an inn after the court functions were relocated to the nearby community of Germantown in 1907.

[31] Bath County Chancery Court Case, Mayse vs Brockenbrough, 1833. Library of Virginia, Reel 22, 185.

[32] Bath County Land Books.

[33] Plat of the lot of George Mayse, in Bath County Chancery Court Case, Mayes vs Brockenbrough, 1833. Library of Virginia, Reel 22, 185

The planned lot and street layout gave a shape to the area around the springs that persists to this day. The relationship between the courthouse, on one side of the valley, and the tavern on the other gave the character of a public square to the marshy "tract" containing the spring that lay between them. William Burke acknowledged this now-hidden landscape structure when he wrote in 1846 that "the natural scenery is beautiful, but the place was laid out for a village, the public road passing by the court house and the hotel prevents a judicious or tasteful arrangement of the grounds about it. The square containing the Spring and Baths is, however, in the process of improvement," and in 1851 he added that "the grounds are broken in upon by the public road, which renders an ornamental and appropriate arrangement of them impractical." Eventually the town lots were absorbed by purchase into the Warm Springs resort property.

G | Getting There

During the eighteenth and early nineteenth century, the government felt the need to support public works in the western part of the state, to encourage its growth and industry during a time when there was insufficient capital in the region. In addition to support of turnpike roads, in the settlement period the state even extended itself to capitalize buildings at mineral springs.

The tract containing the source at Berkeley Springs was dedicated to public use in perpetuity by legislation enacted at the first session of the Virginia General Assembly in 1776, which provided for the appointment of trustees. It remains the property of the state of West Virginia today.[34] One scholar has pointed out how interest in the potential of the mineral springs west of the Alleghanies led to repeated proposals for better roads.[35] A group of Fredericksburg businessmen advertised a lottery in 1768 for "raising the sum of nine hundred pounds, to make a road over the mountain to the warm and hot springs in Augusta county." In 1770, prominent citizens in Albemarle, Augusta, Botetourt, and Hanover counties petitioned the House of Burgesses, not only for a public road, but for buildings to shelter the patients who used the springs:

> "that the Warm Springs in the Counties of Augusta and Botetourt had been found to be very salutary to the Diseased and Infirm, who had drank of their Waters, but that it is very difficult for the Persons who most want that Relief to procure it, there being no good Roads to those places; and that great Advantages would be derived to the Country by opening and clearing such Roads thither, and proposing that a Sum of Money, sufficient for the Purpose, may be allowed by the Public, to open a safe and good Road from the Warm Springs to Jenning's Gap; that a Turnpike be established at the pass of the Warm Springs Mountains, with a reasonable Toll for keeping the Road in Repair, and that Trustees be appointed to receive Subscriptions, as well for keeping the Road in Repair, as for building Houses for the Reception and Security of the poor Sick who resort to the Springs, and to see the Public and private Money appropriated, for the Purposes aforesaid, faithfully applied."[36]

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[34] Virgil Anson Lewis. History and Government of West Virginia. American Book Company, 1904, 211.

[35] Christopher E. Hendricks. Backcountry Towns of Colonial Virginia. U Tenn Press, 2006.

[36] Henry Read McIlwaine. Journals of the House of Burgesses of Virginia, 1619-1658/59, Volume 12. Colonial Press, 1906, 167.

The government passed a resolution authorizing the new turnpike and houses for the sick. Although nothing is known about the proposed accommodations, the new road was finished the same year and vastly improved travel from Staunton." It shows up on the 1828 Public Works Map as the "old road" (see Fig. 39).

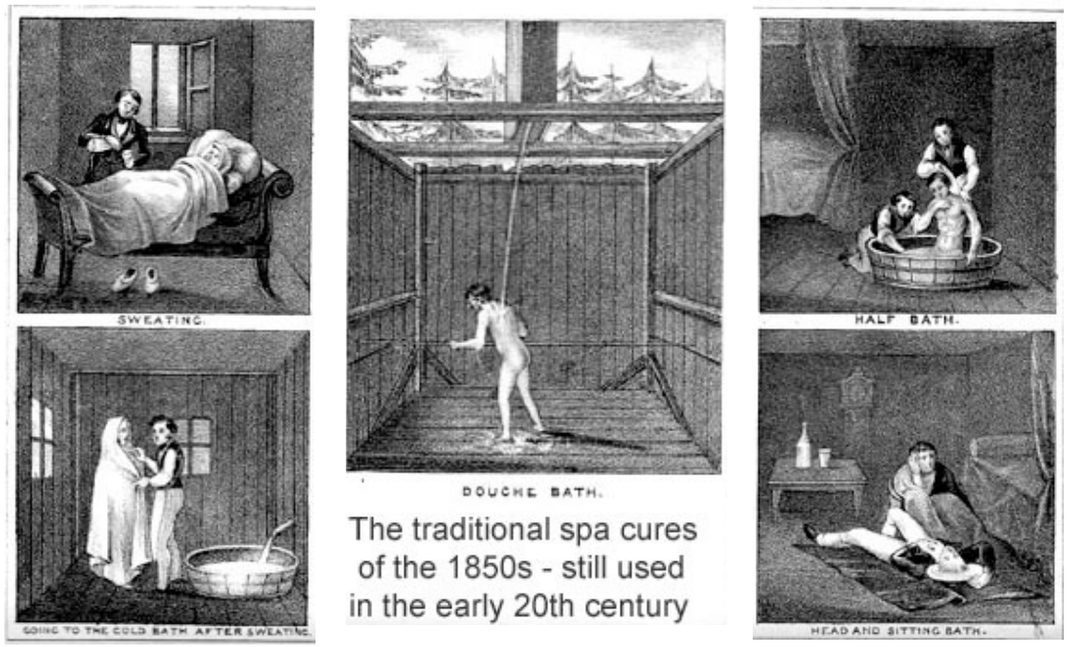

Fig. 9. English illustration of some water treatments in mid-nineteenth-century Britain.

I. BACKGROUND: THE EUROPEAN AND AMERICAN BATHING TRADITIONS

H | The Regimen

Treatments at the springs were often prescribed by doctors at home. The major springs, including the Warm, had resident doctors to advise the use of the water as well. Drinking the water at regular intervals during the day was prescribed at all of the springs, regardless of mineral content. Patients would carefully observe their internal reactions to the water in order to deduce if they were regaining their health. Bathing was thought good for the healing of the body of a variety of ailments, as the gases and minerals were absorbed through the pores and inhaled into the lungs.

Cost for using the water at the Virginia Springs became fairly standardized over time. According to Dorothy Gilchrist, "by the time the nineteenth century had reached the middle of the third decade, fees for the use of the bath were the established custom.... In general, at the different Springs, single tickets varied from twelve and a half to fifty cents, bathing for pain or bathing for pleasure being the determining factor. Warm Springs offered a season ticket for two dollars and a half, with half prices for child and servant. It even offered a life ticket, (price omitted in *Cowan's Guide*), which 'entitled the purchaser and his immediate family to the use of the bath during the life of such a purchaser, with the addition of fifty cents per annum from each individual to the bathkeeper."

The treatment was closely based on English bathing traditions centered on the celebrated healing waters of Bath, with deviations occasioned by specifically American conditions. Bathing in a large thermal pool stood at the base of the English therapeutic regime. Besides the general immersion of the body in very hot water, thermal water could be applied by force to the skin, under the supposition that the benefits would be better received by the affected part without overheating the rest of the body. In the Elizabethan era, water was dashed from buckets at the bather. From the mid-seventeenth century on, hand pumps were installed on the edge of baths to permit the patients to be sprayed. In time these were replaced by hoses supplying jets of mineral water pumped by steam engines. At the same time, vapor baths, often consisting of enclosures elevated over the water, were employed to induce sweating.[37] In the 1770s, as we have seen, the Hot Bath (see Fig. 25) at Bath incorporated small pump rooms and vapor baths or sweat rooms.

The managers of the local springs exploited romantic associations with Native American bathing traditions to promote their medical treatments. One travel writer attributed a popular tale to the Warm Springs bath keeper; a legend of an Indian brave whose strength was renewed by lying in the water. The management at the Hot Springs presented supposed archeological evidence as well: John Edwards Caldwell in 1808 "was shewn the remains of an Indian sweating house, and was informed it was supplied with a large fire and a number of stones, which, when made hot, were sprinkled with water, and the patient, after being drenched in vapour, leaped into a cold bath, but came out instantly, and was then enveloped in blankets until perspiration had its full effect."

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[37] Roger Rolls. The Hospital of the Nation: The Story of Spa Medicine and the Mineral Hospital at Bath. Bath: Bird Publications, 1988.

I. BACKGROUND: THE EUROPEAN AND AMERICAN BATHING TRADITIONS

Berkeley Springs, Warm Springs and Hot Springs made the thermal waters the base of their programs, but other major springs, including the White Sulphur, the Red Sweet, and Sweet, incorporated mineral water bathing at an early date (the Red Sweet, at about 78 degrees, was warmer than the others). Sweet Springs had separate 20' x 20' baths for men and women by 1831, separated, according to Burke, by a brick partition and provided with dressing rooms with fireplaces. The Red Sweet Springs was thought better taken as a bath than ingested. There were two adjoining pools within a building about forty feet square, each provided with dressing rooms.[38]

Due to the large demand, bathers at the resorts visited them three or even four times a day in short intervals from early morning to late at night. Bathers were advised to stay warm after a time in the water. Where heated water was available, the bath was often followed by a sweat of some sort, either in the bather's own room or in a room attached to the bath. At the Hot Springs, Caldwell described in 1808 how "the patient, on coming out of the two [hottest baths], is wrapped up in blankets, and lies stewing in the sweating room adjoining the bath, until the perspiration has freely spent itself from every pore of the body." This traditional use of the baths at both the Hot and the Warm Springs continued unchanged until the late nineteenth century, when European hydrotherapy techniques at the Hot Springs' new bath house of 1892 augmented the old-fashioned treatments.

According to Charlene Lewis, "blanket sweats" were part of the regimen at Berkeley Springs as early as 1792, when they were mentioned in the diary of Fernando Fairfax. The bather stayed in the water until drops of sweat appeared on the forehead. In the sweat room, the bather would be wrapped in five or six blankets for from thirty to ninety minutes, sweating freely. Sarah Rutherfoord enjoyed a "blanket sweat" at the Warm in 1839 [39]. "At the Hot Springs, baths called the Boiler and the Spout both had private rooms which accommodate sweats. Peregrine Prolix noted in 1836 that:

> "The Boiler is enclosed within a large wooden house which excludes the external air, and in which are ten or twelve little rooms, each containing a cot and mattress whereon to lie and perspire after leaving the bath. . . . When you have sweat enough, you call to the attendant, who comes, and removes one blanket, and at intervals of five minutes, the others one by one. You are thus gradually cooled, and rise and dress, without the least danger of taking cold."

At the Warm Springs, many went to their own cabins to cool down: Peregrine Prolix advised visitors how to handle the Warm Springs bath in 1836. "Stay in the bath fifteen minutes, using very little exercise whilst in the water. As soon as you come out, hurry to your cabin, wrap yourself in a dry night-gown, go to bed, cover up warm, go to sleep, get into a fine perspiration, grow cool by degrees, wake up in half an hour, dress and go to dinner with what appetite you have."

Ferndinand-Marie Bayard visited Berkeley Springs (Bath) in 1791, where the waters met the official des-

[38] William Burke. The Mineral Springs of Virginia with Remarks on Their Use. Richmond: Morris and Brother, 1851.

[39] Charlene M. Boyer Lewis. Ladies and Gentlemen on Display: Planter Society at the Virginia Springs, 1790-1860. U of Virginia Press, 2001, 83.

ignation of "tepid." He found individual baths already in operation, probably in order to capture some of the customers who were drawn by the higher temperatures of the Warm and the Hot. According to Bayard, "Bath has two public buildings, the theater and the bath house." The bath house was "a plain and large frame structure, divided into eight small rooms made of badly joined boards where the bathers go in the morning. There is a staircase in each small room so that when the bather wishes he can gradually change the water line." By 1815, Berkeley Springs had substantial brick "Roman baths" in which cold or artificially heated water filled small private baths, each with its own dressing room. The most extensive of these kinds of private baths was the brick structure built at state expense at Capon Springs in 1850, which consisted of as many as thirty-two private baths, some of which were heated, in long wings to each side of a reception building. The Boiler at the Hot Springs probably represented an attempt to provide the same kind of private experience in the context of a large pool at a prolific natural spring.

More unconventional practices appeared in the period leading up to the Civil War. Dr. Alexis Martin, a Frenchman who claimed to have served as a surgeon in Napoleon's army, brought a continental treatment to the Blue Sulphur Springs in the early 1840s. He had operated his baths in Staunton from 1826 to 1840, where he provided two hydropathic remedies, a "LeRoy Bath" and a "vapor sulphur bath," which included water baths, steam baths (with steam generated in his laboratory), and cooling rooms.[40] The appearance of his "tartarean ovens" at Blue Sulphur Springs, where water was heated for the vapor, hot water, and mud baths, was mocked by Dr. Burke in 1843, but Burke later acknowledged Martin's "many years' experience in their application."[41] The resort closed soon after his death in the late 1850s.

Bath Attendants

The baths at Warm Springs have been maintained and visitors attended by a long line of related African-American bath attendants. The best known were Frances Martin Sheppard and her husband William Henry Sheppard, who together cared for the baths for thirty years. She is said to have taught Bath County girls to swim by tying a sheet around their waist and tossing them into the pool. She had been in charge of the Ladies' Bath for about 30 years in 1900. She lived in "her own tidy little cottage" with her husband, "who is a barber in comfortable circumstances. "That cottage was the former Reception Building adjacent to the Ladies' Bath. Her son, who attended Hampton Institute, became a "well-known missionary to Africa," the Rev. William Henry Sheppard, Jr.[42]

[40] Charles Culbertson, The illiterate Staunton 'surgeon' who claimed many cures. Staunton News Leader, 25 Sept. 2015.

[41] Burke, 1851.

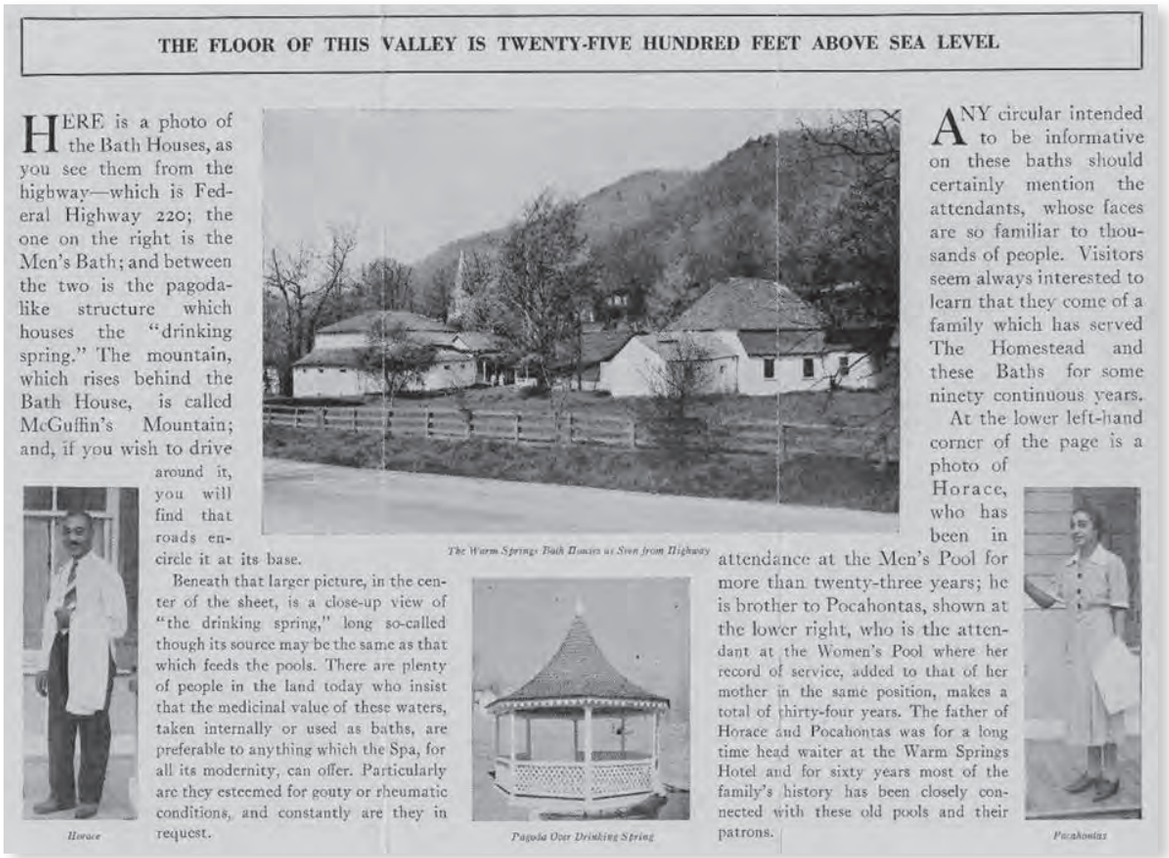
[42] "The Mother of a Famous Missionary." Southern Workman. Hampton Institute Press, 1900.

Fig. 10. (Above) Mrs. Frances Sheppard or "Aunt Fanny," was the longtime ladies' bath attendant at the Warm Springs. Note the brick hotel annex behind and the neat gravel walk.

Fig. 11. (Top Right) Fanny Sheppard and her son, the Rev. Dr. William Henry Sheppard, Jr. [Bath Co. Historical Society].

Fig. 12. (Right) Fanny Sheppard (right) with friend Mary Dickerson, early 20th c. on the porch of the Reception House. Collection of John T. Reddick.

I. BACKGROUND: THE EUROPEAN AND AMERICAN BATHING TRADITIONS



THE FLOOR OF THIS VALLEY IS TWENTY-FIVE HUNDRED FEET ABOVE SEA LEVEL

HERE is a photo of the Bath Houses, as you see them from the highway—which is Federal Highway 220; the one on the right is the Men's Bath; and between the two is the pagoda-like structure which houses the "drinking spring." The mountain, which rises behind the Bath House, is called McGuffin's Mountain; and, if you wish to drive around it, you will find that roads encircle it at its base.

The Warm Springs Bath Houses as Seen from Highway

ANY circular intended to be informative on these baths should certainly mention the attendants, whose faces are so familiar to thousands of people. Visitors seem always interested to learn that they come of a family which has served The Homestead and these Baths for some ninety continuous years.

At the lower left-hand corner of the page is a photo of Horace, who has been in attendance at the Men's Pool for more than twenty-three years; he is brother to Pocahontas, shown at the lower right, who is the attendant at the Women's Pool where her record of service, added to that of her mother in the same position, makes a total of thirty-four years. The father of Horace and Pocahontas was for a long time head waiter at the Warm Springs Hotel and for sixty years most of the family's history has been closely connected with these old pools and their patrons.

Horace

Beneath that larger picture, in the center of the sheet, is a close-up view of "the drinking spring," long so-called though its source may be the same as that which feeds the pools. There are plenty of people in the land today who insist that the medicinal value of these waters, taken internally or used as baths, are preferable to anything which the Spa, for all its modernity, can offer. Particularly are they esteemed for gouty or rheumatic conditions, and constantly are they in request.

Pagoda Over Drinking Spring

Pocahontas

Fig. 13. Warm Springs baths brochure from 1950s. Collection of John T. Reddick.

Members of the prominent Tonsler family of Charlottesville were employed at the Warm Springs for over ninety years. Horace Tonsler (1892-1953) was the attendant at the Mens' Pool from 1919 until his death. His sister Pocahontas (1894-1984) was the attendant at the Ladies' Bath until the early forties. Their father, Horace Tonsler (1857-1938), had been the headwaiter at the hotel before the turn of the 20th century. Their mother, also Pocahontas (1867-1932), had been the ladies' bath attendant. Horace Tonsler, Jr's wife, Estelle, was the attendant at the Ladies' Pool from the 1940s until her death in 1983. She was also related by marriage to "Aunt Fanny" Sheppard on her father's side.

Like the Sheppards, the Tonslers lived in the Reception House next to the baths, which appears to have been expanded to serve as a year-round dwelling after the closing of the hotel. Her nephew, John T. Reddick, recalled visiting her there. He recalled that "the little suits that the women wore, the little kind of bloomers, she made those and that was an added charge. And that added charge was something she could take home that was separate from her salary at the pools. I think it kind of gave them a kind of position that allowed them some ways of making extra resources and having certain kinds of privileges that maybe not everyone had at the time."[43]

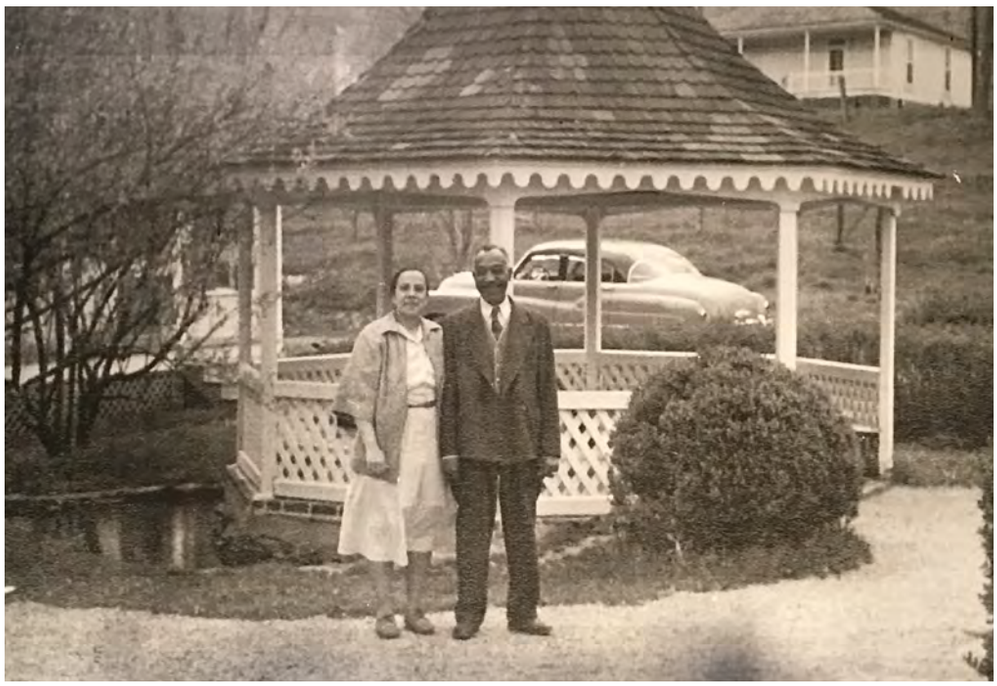


Fig. 14. Estelle Tonsler and Horace Tonsler Jr. in the early 1950s. Collection of John T. Reddick.

Fig. 15. Detail of Warm Springs by David Hunter Strother. Harper's New Monthly Magazine, vol. 10, no.57, Feb. 1855.

[43] Reddick, 2015.

Warm Springs History Narrative

II. WARM SPRINGS HISTORY NARRATIVE

A | The Lewis Family (1751-1815)

INNKEEPERS: William Banks, Robert and George Turner

Sons and grandsons of Augusta County pioneer leader John Lewis were involved in the development of three of the earliest of the western Virginia Springs: the Hot, which was opened on land belonging to his sons Thomas and Andrew; the Sweet, which was owned by another son William Lewis, and, in 1751, son Thomas Lewis (1718-1790) also patented the 140-acre Warm Springs tract in his and his young son's name. That son, Capt. John Lewis (1749-1788), a veteran of the Revolutionary War, settled there and with his father developed the resort. By 1786, he had laid out the lots for an adjacent town.

The early developers of the thermal springs, anxious to encourage settlement in this remote section of Virginia, supported unrestricted public use of the water. At Berkeley Springs, the proprietor had laid out a town and donated the public square containing the springs to the state in perpetuity. At the Hot Springs, brothers Thomas and Andrew Lewis and their partner Thomas Bullitt made an agreement in 1763 that access to the source would "be free to all" and that they would share in the expense of the building of the "bathhouses [that] shall be erected. . . . and other necessary and convenient houses for the entertainment of the sick persons who should choose to visit." They agreed that if they should decide, instead, to split their grant into two separate portions, as they did in 1766, the dividing line would go through the center of the spring and would continue to be free of access.[44] The organization of the town at Warm Springs was similar, in that there appears to have been an understanding in the 1780s that lots sold in the town came with free access to the springs. Beginning, however, in the 1790s, the Lewises and their successors were successful in maintaining that public access was not attached to lots that had been sold.

The Lewises had constructed the great octagonal bath, a small tavern, a store, and log and brick cabins before the start of the American Revolution. Captain John Lewis was granted a license to keep an ordinary at Warm Springs in 1783 in company with innkeeper William Banks. He died unexpectedly, however, in 1788 and left the Warm Springs tract to his wife, Margaret Frogge Lewis. She raised their family there, managed the property, and was still living there well after 1815, when the lots containing the springs and tavern were sold. The acreage associated with the Warm Springs increased from 140 in 1751 to 350 in 1791. By 1807 it had increased to 508 acres, which remained constant until 1815, when it was expanded to 580 acres.

John Lewis directed that, after his wife's death, the property should go to their son, Thomas Lynn Lewis.[45] The loss of the guiding hand and capital of John Lewis seems to have slowed the momentum of investment at the Warm Springs for the next few decades. The village that grew up around the spring, even though it was chosen to be the county seat, failed to fulfill its promise. The problem was under-

[44] Indenture between Thomas Bullitt and Thomas and Andrew Lewis, 1766, Chamberlayne Papers, Virginia Historical Society.

[45] Warren Skidmore and Donna Kaminsky. Lord Dunmore's Little War of 1774. Heritage Books, 2002, 114.

[46] Bath County Petition, 5 Oct. 1792. Virginia State Archives.

scored in a 1792 petition to the state, submitted by local residents for legal recognition of the town, that explained that the springs property, being managed for minor children, could only be rented out, "and that at so extraordinary a rate, and under such restrictions as nearly forbid population altogether.[46]

The tavern and baths at Warm Springs were, in fact, leased for twenty-six years to inn-keepers. As we have seen, documentary evidence shows that at least one other tavern was operated there in the first years of the nineteenth century in the "stone house" on a lot not far from Warm Springs Tavern. The proprietor believed that his patrons should be able to share in the use of the water, although public use had not been spelled out in the deeds for any of the town lots. He and his partners unsuccessfully sued Margaret Lewis for access to the waters.[47]

John Lewis's son Thomas Lynn Lewis and his siblings granted a lease of the Warm Springs tract to Robert Turner of Richmond in 1804.[48] Robert Turner and George Turner also leased the Sweet Springs in 1807.[49] The Turners were the only innkeepers licensed by the county in 1806. The tavern at Warm Springs was open year-round because it also served guests when the Bath County Court was in session. This was true as late as 1867, when it was advertised that "unlike the other springs, the place is always open and prepared to receive visitors... as it is the seat of Bath County, where the monthly County and half-yearly Circuit courts are held."[50] In 1811, depositions in a legal case were taken at what was called the tavern of Robert Turner and Charles Lewis in Warm Springs.[51] On November 12, of the same year, depositions were taken in another lawsuit at "Turner's Tavern, at the Warm Springs."[52] Robert and George continued to receive tavern licenses each year until the property was purchased by the Warm Springs Company in 1815.[53]

The tavern and cabins made up a modest assemblage of buildings. The "Old Warm Springs Tavern," shown on the historical map of 1833, was a conventional three-bay log or frame house, possibly of two stories in height. It was demolished well before the map was prepared for a suit between attorney George Mayse and John Brockenbrough, filed in the continuing controversy over public access to the water. It shows the lots occupied by George Mayse as they appeared several decades earlier and the adjacent "Old Warm Springs Tavern," in more or less the same position as the later brick Colonnade Building.[54]

[47] Bowyer, Mustoe, and Chambers vs Margaret Lewis, Bath County Chancery Court Case, 185

[48] Jean Bruns. Abstracts of the Wills and Inventories of Bath County, Virginia 1791-1842, Genealogical Publishing Co., 1995, 38-39.

[49] Barbara Ruth Kidd. The History of Sweet Springs, Monroe County, WVa. http://lynnside.org/sweet%20springs%20story.html

[50] Jed. Hotchkiss, Warm Springs and Attached Plantations with View and Maps, 1867. Brochure. Virginia Historical Society.

II. WARM SPRINGS HISTORY NARRATIVE

B | Dr. John Brockenbrough and the Warm Springs Company (1815-1859)

INNKEEPERS: John Fry, George Mayse

The Warm Springs was purchased in 1815 from John Lewis's heirs by the Warm Springs Company, which was headed by Dr. John Brockenbrough (1772-1852) of Richmond. Brockenbrough, a prominent banker and civic leader in Richmond, had received a medical degree from the University of Edinburgh in 1792. He was joined by two investors to form what they called "the Warm Springs Company." Brockenbrough subsequently bought out his partners' interests and was sole owner. At some point he was joined by "Patton of Richmond" and George Taylor, "the legal luminary of Chesterfield county." Warm Springs took its enduring form under Brockenbrough's period of active ownership. Although the Brockenbroughs maintained a summer residence at Warm Springs, the resort was managed under the terms of a lease to John Fry (1775-1844) during this time. After Fry's death in 1844, a new proprietor, George Mayse (b. c 1790), was installed, the same individual who had earlier sued Brockenbrough. He operated the hotel and baths until he and some investors were able to purchase them outright in 1858 for a reported $50,000.[55]

Throughout the first quarter of the nineteenth century, the Warm Springs enjoyed a considerably larger visitation than the Hot, based on the rates paid for tavern licenses each year. John Fry and Hezekiah Daggs, the innkeeper at the Hot Springs, paid from one-third more to twice as much each year to the county for the privilege of operating an ordinary, as other ordinary-keepers. Both of the local thermal resorts bent the law to make ends meet in the short season allotted to them. In 1817, Fry, the proprietor of the tavern at the Warm Springs, was fined for charging twice the amount set by the county court for whiskey, while Hezakiah Daggs was convicted of over-charging for meals.[56]

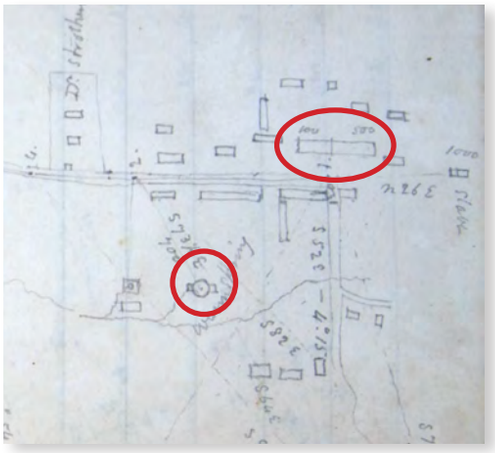


Fig. 16. Detail, Field Notes for the Huntersville and Warm Springs Turnpike. Records of the Virginia Board of Public Works, 1833, Library of Virginia. Here we can see the plan of the long rectangular hotel mentioned by so many visitors from 1830-to 1851. Circles show the expanded Warm Springs Tavern and the Octagonal Bath.

As we have seen, the Lewises had built "a tavern with a number of log huts & Cabins all round it" to serve the guests well before 1806, according to one report.[57] Tradition says that a larger building was built around 1811, but it seems just as likely, instead, that John Brockenbrough would have added the expensive new brick tavern at the Warm Springs (the term hotel was just gaining currency at this time). It was later incorporated as part of the extended Warm Springs Hotel.

[51] William Tidd vs Robert Morris, Administrator of William Morris. Microfilm, Bath County Chancery Records, Index # 1830-003.

[52] Staunton Republican Farmer, 4:8. (25 October 1811) 1.

[53] Virginia Returns for Licenses for Ordinaries, Stores, and Peddlers, Bath County. Library of Virginia.

[54] Bath County Chancery Court Case, 1833, 185.

II. WARM SPRINGS HISTORY NARRATIVE

Examining a detail of a road map in the Virginia Board of Public Works field notes from 1833 (Fig. 16), we can start to see how the tavern/hotel evolved over time. Notice how the long building is centered on the turnpike where it crosses the Warm Springs Run. It is clearly the central part of the hotel shown by Beyer and Porte Crayon in the 1850s. This is not the same building as the one identified as the Colonnade in historic photographs, which was located to the south, closer to the baths. According to later owner Fay Ingalls, this building contained only sleeping rooms, although he assumed it had been altered. This brick structure, with gable-end parapet walls and columned front portico, was probably built as an annex to the hotel c 1840.

Fig. 17. The Colonnade, a two-story building consisting of a line of double hotel rooms. Collection of John T. Reddick.

Fig. 18. c 1920 postcard of the Warm Springs Hotel, showing brick Main Hotel of the 1830s with the raised colonnade across the front and the added Dining Room wing of the 1850s to the right.

[55] "Echoes from the Springs." 1878, 1.

[56] McAllister 1908.

The evolution of the main building is complex. One part of the building is very likely the brick tavern mentioned previously. Dr. Brockenbrough slowly expanded that building. By 1833 it was an impressive hotel with a unified exterior, a grand colonnade, and a rooftop cupola. Whether or not Brockenbrough's original tavern had a porch across the front, by the second quarter of the nineteenth century, a portico was the main building's most noticeable feature.

Fig. 19. Image of porch at the Warm Springs Hotel, Collection of John T. Reddick.

Looking at the 1833 turnpike field notes above, it appears that the building consists of two parts. Since the extension permitted it to stand on axis with the turnpike, it seems that the northern section may have been the addition. Thus, Brockenbrough appears to have more than doubled the length of his main building, the entire front of which was shaded by a tall narrow colonnade. This served a double purpose, to provide an outdoor room for gathering and walking and to unify the disparate parts of his structure (the irregularity of the chimneys can been seen in Fig. 18). The building had taken this form by the time it was painted by Eliza Burd in 1842 (Fig. 20).

According to William Burke in 1846, the Hotel was "150 feet in length, built of brick, with a piaza 15 feet wide; the lodging chambers are large and the fare good. The accommodations we should think sufficiently extensive for 100 persons." Burke raised this number to 130 in his edition of 1851.[58] Most springs hostelries at this time, other than the monumental brick hotel at the Sweet Springs, were of frame construction and equipped with long porches and nearby rows of cabins. Except that the second Warm

[57] Sir Alexander Dick, Journal of Alexander Dick in America 1806-1809 [edited by] Helen Beall Lewis, Master's Thesis, University of Virginia, 1984.

[58] Burke 1851, 236.

Springs Tavern or Hotel was of superior brick construction, it compared well with the accommodations at most springs, including the Hot Springs.[59]

A map of the resort grounds in 1900 (Fig 78), helps in understanding the hotel's evolution. It shows an asymmetrical plan for the center section. A music room, library, and parlor flank an off-center passage to the left of the center. This grouping may well represent the domestic-scaled tavern that is typical at resorts during this period, possibly built by Brockenbrough soon after he acquired the resort. The large lobby, office, and adjoining writing room to the right probably make up the first addition, representing an expansion of the number of reception rooms. No building corresponding to the Colonnade appears on the turnpike maps of 1833. The two-story brick building to the south of the hotel with a small pediment at the center shown in Porte Crayon's drawing may have been the "elegant" home of the Brockenbroughs.[60] The building was later identified as "Carolina" on the map of 1900.

In 1835, a Bostonian named Otis thought highly of the resort's accommodations:

> "The entrance to this little village is delightful. As you wind around the descending path, you catch glimpses of the white colonnade running the entire length of the hotel, from which the residents, in their turn, watch the approaching carriage or calvacade. Arriving, you experience a most gentlemanly and cordial reception from the very polite host, who accommodates his guests to the extent of his house, in the first place, and afterwards fills up, in succession the several rows of wooden and brick cabins, that are built in different parts of his grounds- being files of small sleeping rooms about eight feet high, and as many wide. The table is of the very best description, far surpassing, I am forewarned, any thing that can be obtained farther on." [61]

Fig. 20. Painting of Warm Springs by Eliza Burd, 1842. Photo, Library of Virginia. This shows the center part of the hotel, the Colonnade, and the courthouse. The hotel already features the central cupola and the double stair to the portico.

[59] Burke 1851, 237-38.

[60] Burke 1851, 214.

[61] Otis 1838.

II. WARM SPRINGS HISTORY NARRATIVE

In 1838, English journalist George Featherstonhaugh noted a divergent opinion. Clearly the expanded hotel was not entirely successful on the interior, although the colonnaded portico served a useful purpose:

> The house is an awkward, ill-finished, ill-furnished building, with all the pretension of a well-established hotel in an old settled country. . . . There is a long dining-room with a low ceiling, a small public parlour not capable of containing one-fourth of the company, and a few moderate-sized bed-rooms, in which families are accommodated indifferently enough. Wood cabins, out of the house, are provided for single people. . . . The portico is the greatest comfort about the place, being long and roomy, and affording a comfortable walk for invalids and ladies in the evening.[62]

Tracking building dates through the land tax books can be a useful way of dating buildings. These record the value of buildings apart from land, but not beginning until 1820. A researcher can attempt to associate increases in assessed value with specific building campaigns, although it is not always possible to make the necessary connection. At Warm Springs, a narrative emerges from the records that matches the physical fabric visible in extant buildings and historic images over time.

In 1816, John Brockenbrough, together with investors Thomas Tayloe and John Patterson, owned 580 acres at Warm Springs, including the courthouse building. In 1820, the 580-acre Warm Springs tract owned by Brockenbrough included improvements valued at $9,000, representing a substantial investment in buildings, probably including the valuable bath, the first section of the brick tavern, and a number of cottage rows or "cabins." That value rose by $200 in 1824 "on account of building." That value could correspond to the building of the plainly detailed octagonal bath building. The value stayed the same until 1832, when it rose by $1,200 to a total of $11,400, which probably represents the extension of the main building and the addition of the colonnade across its front. In 1840, it rose again, this time to $13,000, which may reflect $1,600 invested in the brick annex known as the Colonnade and the bath improvements mentioned by Burke. It stayed the same until 1850.[63]

Fig. 21. Warm Springs Hotel's north wing from the golf links to the northwest, no date. Library of Virginia.

[62] Featherstonhaugh, George. Excursion through the Slave States: Washington on the Potomac to the Frontier of Mexico; with of popular manners and geological notices. New York: Harper and Sons, 1844.

[63] Bath County Land Books.

II. WARM SPRINGS HISTORY NARRATIVE

C | Estate of Dr. John Brockenbrough: An Expanded Hotel (1852-1859)

Brockenbrough died in 1852. As we will see, tax records show a dramatic injection of $17,500 in capital beginning in 1851 and ending in 1854. This is chiefly associated with the further expansion of the main building employing more elegant architectural forms than had previously been used. These improvements were built at roughly the same date as the impressive frame hotel at the White Sulphur Springs and the smaller brick Healing Springs Hotel, but the Warm Springs Hotel had become one of the most impressive Virginia springs hotels of its day, on a par with the brick buildings at the Sweet and Bath Alum springs. It brought the capacity of the resort up to 300.

The new hotel answered many of the objections of critics like Dr. Burke and George Featherstonhaugh. However, like the Caldwell heirs at White Sulphur, the heirs of John Brockenbrough at Warm Springs seem to have struggled with indebtedness. The hotel probably never repaid the cost of construction, and by 1859 the resort was in the hands of a new partnership headed by the former manager, George Mayse. Damage or neglect during the Civil War caused the Warm to lose 1/3 of its improvement value, and the resort limped into the postwar period under the new management of Col. John Eubank.

Fay Ingalls (1883-1957) recalled that the hotel as he knew it at the turn of the twentieth century was of three stories, "in the shape of an E with the center projection left off. Between the ells was a porch about fifteen feet above the ground level. The southern ell, at the porch level, was a good classical Virginia ballroom, with a balcony for musicians and ceiling two stories in height. The northern ell housed the kitchen and dining room." Looking back, Ingalls found fault with the plumbing, but for its time it was probably one of the most elegant hotels on the springs circuit. "There was only one bath tub in the building and two large public toilets. . . . The construction of the hotel, Colonnade which he said was thought to be the original hotel of c 1811), and some of the cottages of soft local brick laid in lime mortar was the reason for their final dissolution. . . . The building eventually became a hazard and was torn down completely in 1925."[64]

Fig. 22. Detail of Warm Springs by David Hunter Strother. Harper's New Monthly Magazine, vol. 10, no.57, Feb. 1855. Note the parapet around the oculus of the octagonal bath and the four dressing room wings, as well as the domed Drinking Spring and the small First Ladies' Bath. Note also the clump of trees next to the bath, probably the grove of elms mentioned by Mark Pencil in 1839. The drawing is so similar to Beyer's lithograph published in 1857 that it suggests that Porte Crayon's drawing was used as a model by Beyer. The building to the right of the bath is the Brockenbrough Cottage, used by the Robert E. Lee family after the Civil War.

Fig. 23. Edward Beyer, Warm Springs in 1854-56, From the Album of Virginia, 1857.

Fig. 24. Full size drawing and detail of Jed. Hotchkiss, Warm Springs and Attached Plantations with View and Maps, 1867. Although based on the Beyer and Porte Crayon. views, it has been extensively corrected and shows more detail, particularly about the smaller bath buildings and the Drinking Spring. Library of Virginia.

[64] Fay Ingalls. The Valley Road: The Story of Virginia Hot Springs. Cleveland and New York: The World Publishing Co., 1949, 29.

In 1851 the taxable value of improvements at the Warm Springs property began to rise sharply, beginning with an additional $2,000, bringing the total to $15,000. In 1852, $5,000 more was added on account of new building to the land now held by the estate of John Brockenbrough. In 1853 and 1854 it rose by another $6,000 and $4,500 respectively on account of building for a new total of $30,500. These three expenditures would appear to represent the injection of new capital after the death of owner John Brockenbrough in 1852, including construction of large brick cross wings at each end of the main building. The value was, however, reduced without explanation by $500 in 1857.[65]

Fig. 25. Warm Springs Hotel, postcard, no date. Library of Virginia.

The new hotel wings, combined, were probably as large as the central section. They transformed the resort, substituting a new ballroom with a high ceiling and a musicians' gallery for the inadequate old one described by previous visitors with disdain. A generous new dining room and a kitchen occupied the first floor of the north wing and new heated bedrooms were found in the upper floor of both wings. Unfortunately, no visitors' accounts from the 1850s have emerged to add detail to this picture.

[65] Bath County Land Books.

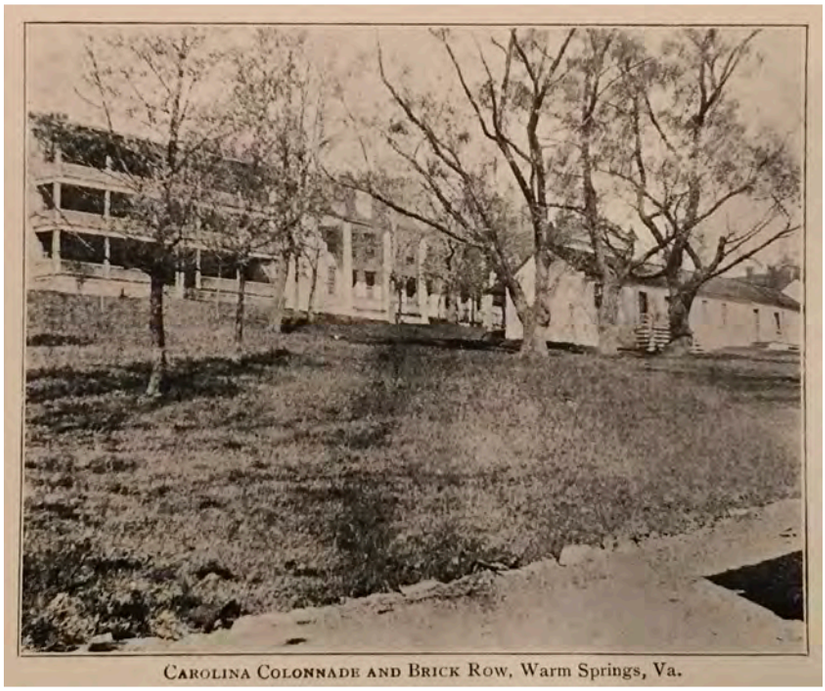


Fig. 24b. Carolina and the Colonnade at Warm Springs, with the Brick Row to the right, as seen from the Ladies' Bath House. Postcard, no date. Library of Virginia.

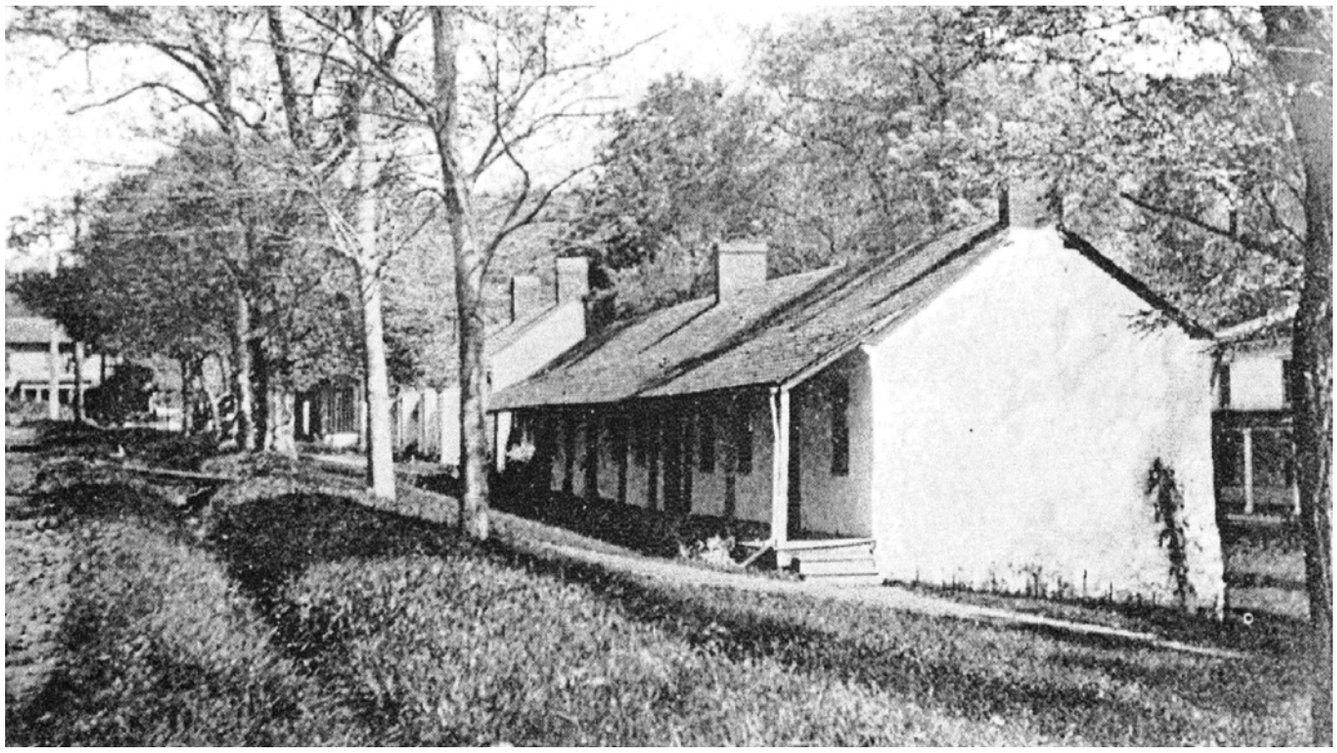


Fig. 25b. Brick Row, Warm Springs, no date, Bath County Historical Society.

II. WARM SPRINGS HISTORY NARRATIVE

D | D. G. Wise, Charles L. Francisco, and George Mayse (1859-1871)

INNKEEPER: George Mayse

The value of $30,000 for buildings held steady until the end of the Civil War, at which time the improvements at the Hot Springs (owned by the estate of Thomas Goode) and Healing Springs (owned by McDaniels) were comparable in value, at $30,000 and $25,000 respectively. Warm Springs lost $10,000 of its value at the end of the war, "deducted on account of injured buildings." The hotel had been used as a hospital during the war and may have suffered damage and neglect. The owners after 1859 were D. G. Wise, local merchant and court clerk Charles C. Francisco, and George Mayse, who had served as the innkeeper since the early 1840s.[66]

In 1861 the Warm Springs served as a Confederate Hospital from as early as July of 1861 until as late as June of 1863. There were ten officers and 350 enlisted men there on 12 October 1861. According to one account, there were 48 deaths there between July and December of that year.[67] While the Warm Springs Valley saw little action during the Civil War, the county seat was raided and almost burned by Union soldiers under General David Hunter, whose chief of staff was David H. Strother, the illustrator who, as "Porte Crayon," had visited and drawn the resort, He described the visit in his diary:

> "This place is the most elegantly improved watering place in Virginia. The soldiers were plundering generally or rather seeking plunder as there was little to be found here. Chairs, bedstands, mattresses, and crockery were all they found here except some spoiled sauces and some claret. The owner had run off and hid himself. Some Negro women gave us towels and water for a good wash, which we much needed. I found my way to the bath house but found the pool dirty with a green ooze and full of soldiers.In the ladies' pool, which was less crowded, I took a swim." [68]

E | Eubank, Reynolds and Co. (1871-1874) and Eubank (1875-1889)

The post-war period was difficult at most of the Virginia springs. Warm Springs was acquired by an enterprising former Confederate officer who made some needed improvements. According to a contemporary account:"

> "Mr. Mayse kept the Springs until 1871. when he disposed of them to Messrs. Eubank, Reynolds & Co., who conducted them jointly, with Col. John L. Eubank as managing proprietor, until 1874, when the property was sold at auction under a decree of the court, and was purchased by Col. Eubank for ?50,000 cash, or its equivalent. The Colonel has conducted and managed these Springs to the satisfaction and commendation of the public, as the crowd of visitors to the Warm annually will bear testimony to. He is widely known in your section of the country, and particularly in Lynchburg and Richmond as a legislator, merchant and Springs manager. He is ably aided in the management of the Warm by his right add left bowers, E. N. and H. Carter Eubank, his brother and son; while his sister, Mrs. M. J. Lee, of Lynchburg, performs the agreeable duty of superintending the domestic department of the hotel and matronizing the young ladies; and, in fact, keeping *us all* straight."

---

[66] Warm Springs Day Book, 1841-42, Library of Virginia.

[67] Timothy Sedore, An Illustrated Guide to Virginia's Confederate Monuments. SIU Press, 2011.

[68] Cecil B. Eby, Jr. A Virginia Yankee in the Civil War: The Diaries of David Hunter Strother. Chapel Hill: U of NC Press, 1961, 271.

During the Eubank ownership the hotel capitalized on the popularity of the baths by constructing a new 22-sided Ladies Bath. It was built by 1875 followed by a small frame Reception House in about 1880. Col. Eubank was injured in a fall from a horse while inspecting his property on 13 June 1888. He was treated by the hotel's physician, but died on the 20th. His widow ran the hotel for that season and for many seasons thereafter.[69]

Fig. 26. J. G. Pangborn, Picturesque B. and O.: Historical and Descriptive. Chicago: Knight and Leonard, 1883, 177.

F | The Warm Springs Valley Company, Southern Improvement Company, and the Virginia Hot Springs Company (1889-1993)

In 1889, the Warm Springs Valley Company was chartered to operate the Warm, Hot, and Healing Springs. The list of seven directors was headed by M. E. Ingalls. Since that time the Warm Springs has been operated under the same ownership as the Hot Springs. After plans for a new bath house at Warm Springs (Fig 77) in 1896 failed to materialize, Mrs. Eubank continued to operate the old-fashioned facilities at the Warm Springs for many years under a lease. She was followed by other operators for a few years before it was demolished in 1925.

Fig. 27. Detail, Drawing of Warm Sulphur Springs, c. 1889, Bath County Historical Society.

[69] Charles Ellis to Powhatan Ellis. Letters of 13 and 20 June 1888, Powhatan Ellis Papers, Virginia Historical Society.

Fig. 28. Portico of the Warm Springs Hotel in the early twentieth century, no date, Valentine Museum.

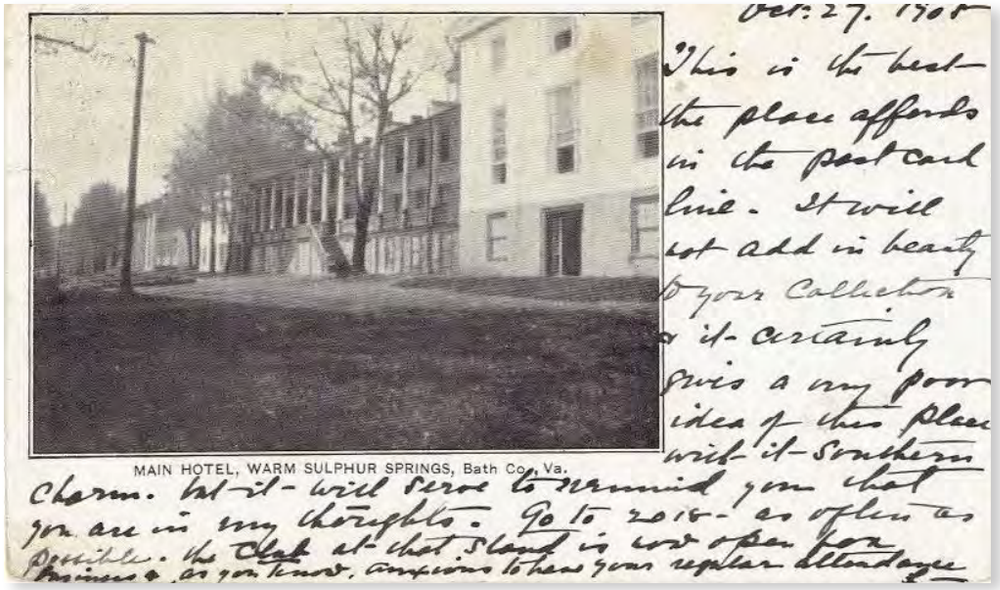


Fig. 29. Postcard of the Hotel at Warm Springs, 1905 [Ebay].

II. WARM SPRINGS HISTORY NARRATIVE

A plan of the resort as it appeared in 1900 can be compared with the previous description of Faye Ingalls from about the same period.[70] It shows a front drive extending from an entry gate on the new "county pike" that runs in front of the courthouse. This ends in a circular drive directly in front of the hotel, centered on a fountain. Most historic photographs from the period show a board fence that defines the front edge of the property, placed on the west side of Warm Springs Branch. The fence consists of six horizontal boards spanning between posts. The spacing between the boards increases from the bottom to the top.

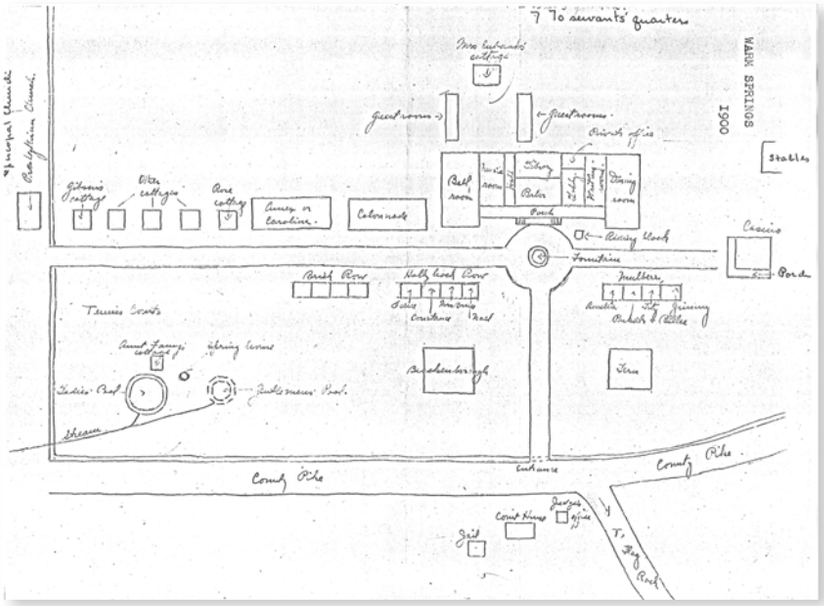


Fig. 30. Plan of Warm Springs about 1900.

Fig. 31. Warm Springs, fence and bridge near the baths, early 20th c. Collection of John T. Reddick.

[70] Ingalls 1949, 29.

Fig. 32. Warm Springs. Early 20th-century postcard of the gate and flanking decorative fences at the entry to Warm Springs.

Matching cottage pavilions called Brockenbrough and Fern flanked the entry drive in front of two corresponding four-room cottage rows that face the hotel from across the old main road. Another four-room brick cottage row was located farther to the left, across from the "Colonnade" and "Annex" buildings aligned with the front of the hotel wings. Interestingly, the three sets of cottage rows are closely aligned with the placement of the squares on the original town plat of 1786.

Several frame four-room cottages still stand to the far left, dating from the late nineteenth century These terminate in Gibson Cottage, which also survived the demolition of the hotel in 1925. The Gibson Cottage, a two-room brick resort "cabin" dating from the second quarter of the nineteenth century, was later enlarged with a two-room frame extension. Two more cottage rows, now vanished, formed a small forecourt on each side of Mrs. Eubanks' cottage at the rear of the hotel. A small building with porches on two sides was called the casino. A stable stood nearby.

II. WARM SPRINGS HISTORY NARRATIVE

During the twentieth century, the special qualities of the Warm Springs Baths enjoyed an ongoing popularity with an established customer base. The Ingalls family, owners of the Hot Springs Company and custodians of the baths, made sure the baths were open and tried to keep their old-fashioned character. The bath buildings were maintained irregularly over the years by the hotel staff. Fay Ingalls observed of the Warm Springs buildings in 1949: "Probably every timber in both baths has been renewed in the course of over a century's exposure to the weather without and the steam from the pools within, but the structures have not been changed other than to put a new board in when one gave way" [70a]

[70a] Ingalls 1949, 25.

Historic Resources Narrative

III. HISTORIC RESOURCES NARRATIVE

A | The Great Bath

Fig. 33. Warm Springs, Great (later Gentlemen's) Bath, National Register of Historic Places, Virginia Department of Historic Resources, 1969. The Cold Plunge extends to the left of the main building.

1. The Octagonal Basin (1760s)

In contrast, the bathing facility at Warm Springs was an exception among its contemporaries. One of the earliest and most famous of this remote group on the western frontier, it was originally known by one of several names — the Medical Springs, Augusta Springs, or the Warm Sulphur Springs — to distinguish it from an earlier Warm Springs, the original name for Berkeley Springs. The spring, which welled up in a marshy valley floor, is traditionally said to have been enclosed by the Lewises within octagonal stone walls in 1761. The earliest mention of the octagonal pool, however, is found in a January, 1776 entry in Philip Vickers Fithian's journal: "the Place of bathing is enclosed with a strong Stone Wall I think thirty Feet diameter, in an octagonal Form; the Water is between three & four Feet deep, which makes a commodious Place for bathing. Its chief Uses are for Sores & Pains!"[71]

[71] Philip Vickers Fithian quoted in Harold B. Gill, Jr., "Taking the Cure: Colonial Spas, Baths, and Fountains of Health," Colonial Williamsburg Journal, Summer 2002.

According to Dr. John Rouelle in 1792, who was the earliest published commentator on the Virginia Springs, the pool remained open to the air, except for a low wall for privacy. He suggested in that year the need for dressing rooms with separate entrances as would be appropriate for rheumatic patients (similar to those that were instituted at the Hot Springs) as well as the provision of an adjoining cold bath.[72]

> "... this famous spring [is] contained in a large bason built in Stone, of which the diameter may be twenty four feet, and of an octogonal Shape: the place is not covered, there is only a wall to keep the bathers out of sight.
>
> The situation of this bath is one of the most agreeable in these mountains, and it is more easy to find in its neighbourhood, necessary provisions for to be well accommodated. The air is very good there. It would require but little repair to render it one of the most agreeable spots for spending the whole summer; but improvements can not so soon take place. The bath might be divided, so as to have cool water when necessary, and each patient might have his room and a bath close by, which would particularly suit the convenience of rheumatic persons. . . ."

It would be many years before the bath's owners would implement the changes recommended by Rouelle.

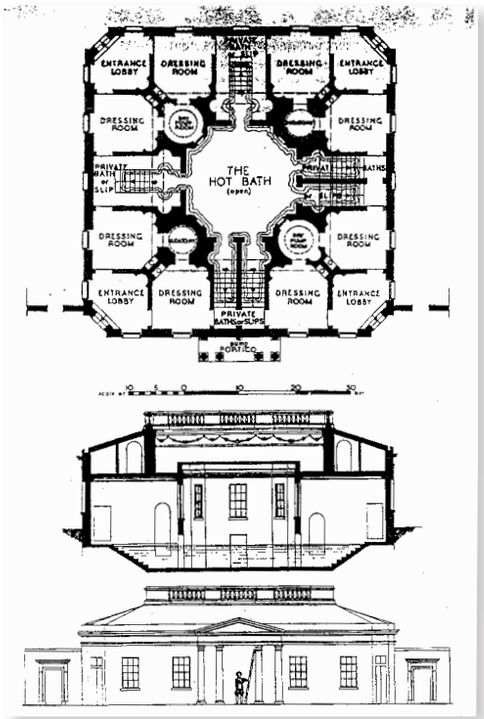


Fig. 34. The Hot Bath, Bath, England, Designed by John Wood the Younger, from Ison, p. 56. The Hot Bath was intended to be resemble a miniature Roman Bath. Note the four small circular rooms—two are 'Dry Pump Rooms," the equivalent of the Warm Springs' Spout Bath, and the other two- called "sudatoriums" or sweat rooms, are for the application of heat to cause sweat, similar to the blanket sweats at the Hot and the Warm springs.

[72] Rouelle 45.

Fig. 35. The Hot Bath at Bath, England, by John Wood the Younger, adapted by G. P. Manners in 1831, as it appears today, and as it appeared in 1827.

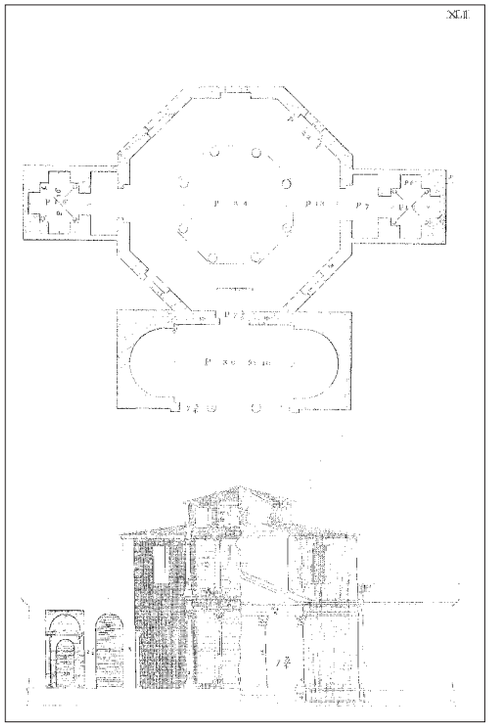


Fig. 36. Plate 42. "The Baptistry of Constantine," from Andrea Palladio, The Four Books of Architecture. London: Isaac Ware, 1738, reprinted by Dover Publications, 1965.

2. European Precedents

The bath at Warm Springs assumed an octagonal form at about the same time the Hot Bath at the English spa was given that shape by John Wood the Younger, and some years after the form became available to American designers in Plate 47 of Morris' Select Architecture. The Warm Springs bath house as completed bears a close resemblance to both structures, particularly in the separate entrances to private dressing rooms. Research suggests that the octagonal form, as assumed by the original pool, was inspired by European models and employed later at the Hot and White Sulphur springs.

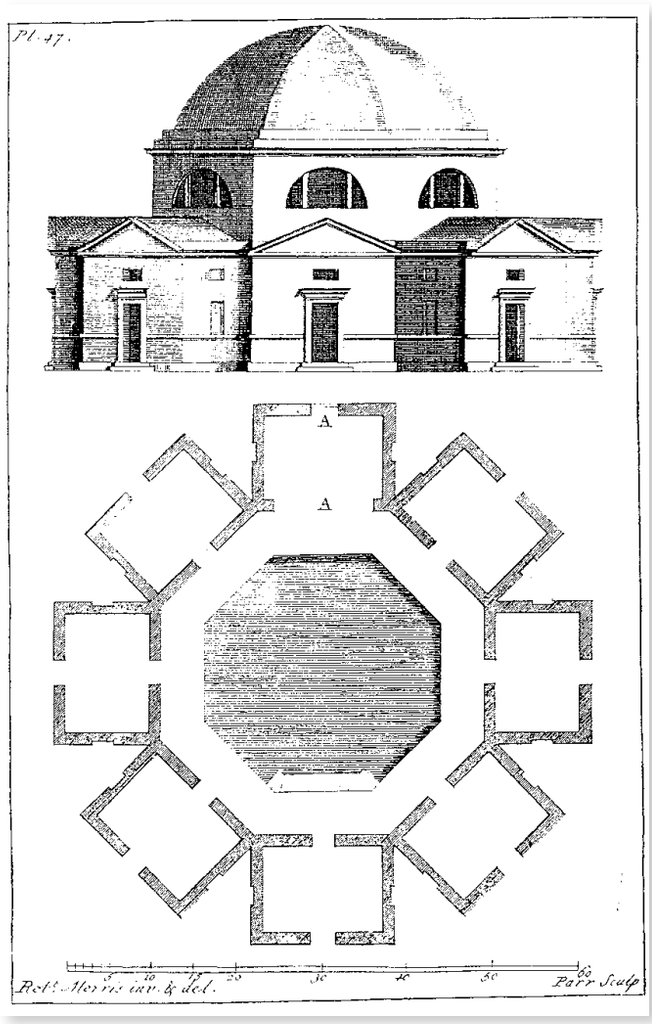


Fig. 37. Plate 41 from Robert Morris' Select Architecture: Regular Designs of Plans and Elevations Well Suited to Both Town and Country. 1757, illustrating a cold bath.

The octagonal form was probably suggested to the British Palladians by thermal pools in Palladio's reconstructions and were conveyed to the American colonists by British publications of Palladio and the inventive work of Robert Morris in that tradition. The octagonal Hot Baths by Wood may have been an indirect inspiration for the individual heated dressing rooms and the later women's bath through an intermediate source, a doctor familiar with them or an as-yet unrecognized bath structure, perhaps in the Philadelphia area.

III. HISTORIC RESOURCES NARRATIVE

3. The Octagonal Bath House (1820s)

The date of the bath house itself has long remained elusive, as does its exact form. The constant addition of new features to highly specialized buildings at often undercapitalized resorts to satisfy changes in fashion, social order, and customer expectations resulted in a hard-to-pin-down cycle of building campaigns. John Howell Briggs told his journal in 1804 that it was "most luxurious" but there was no mention of a building.[73] Another description of the bath in 1808 as "perhaps, the largest and most elegant in the world" by another visitor is pure hyperbole, but he made no mention of a covering.[74] Eventually the bath was covered with an octagonal frame building open to the sky in the center, but there is no mention of it in accounts until 1831, when it was described by John Bell:

> "The basin has over it a wooden top, and is provided, on both sides, with small rooms, heated, when occasion requires it, by fires. . . . It is here the bathers undress and dress, and here an attendant is always in waiting."

In its earliest form the bath house was adapted to the shape of the much older octagonal "Great Bath." The framing, which is especially spaced to align with the walls and doors of the wings only on the corresponding sides, seems to indicate that it possessed four identical dressing room wings from the start. However, both documentary and cartographic sources agree that there were only two wings in 1834.

One of the most useful images of the structure enclosing the "great bath" is an 1832 watercolor drawing by John H. B. Latrobe, son of the architect Benjamin Henry Latrobe (Fig. 38). Although the size and form of the building is somewhat distorted, it shows an octagonal building closely resembling the existing bath house, with an elaborate braced roof support structure and identical stone stair. It indicates that the bath in 1832 could only be entered through dressing rooms to the north and south by means of the two extant corresponding stone stairs. When the deck was added later around the interior periphery to reach the added dressing rooms, the structure had to be changed to a central support similar to the present arrangement.

The building "having a large opening in the middle of the roof to admit light and air" was first mentioned in 1831 and 1834, at which time there was "a small room to each side of the bath with a little fire, to undress and redress by." There were "stone steps leading from these rooms to the bottom of the bath."[75] The Latrobe drawing of 1832 confirms that there was no interior deck for moving around the building as there is at present, but that the only access to the pool was directly from the dressing rooms.

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[73] John Howell Briggs, "Journal of a Trip to the Sweet Springs," First Resorts Richmond: Virginia Historical Society, 1987.

[74] John Edwards Caldwell, A Tour Through Part of Virginia in the Summer of 1808. ed. William M. E. Rachal. 1809. Richmond: Dietz Press, 1951, 32.

[75] Prolix 1834: 20 and Blair Bolling, " 'Trip to the Virginia Springs': An Extract from the Diary of Blair Bolling," ed. E. Lee Shepard, Virginia Magazine of History and Biography 96 (1988): 193-212.

Fig. 38. J. H. B. Latrobe. Bath at Warm Springs [usually misidentified as the "Women's Bathhouse"], 1832. Maryland Historical Society, Baltimore. Note the roof support structure and the projecting ledge of the stone basin wall, as well as the bathkeeper waiting in the door of the changing room.

By 1835 the bath house did not impress a visitor from New England:

> "A little below the house is the Bath; being a wooden shed, covering a basin five feet in depth, and nearly forty feet wide. The water is perfectly pellucid, and constantly throws off as it obtains the depth described. This water is about 98 degrees above Fahrenheit, and is not affected by the weather. The whole lot of ground in the center of which this pool rises, is filled with these little bubbling springs, and an area of many similar diameters could be easily formed, if desired, on the spot. At present, the bath is covered by a miserable hovel. . . . It was fortunate, too, that my leisure hour was the only one during the morning when I could have the large bath to myself. From four in the morning this bath was appropriated every alternate two hours to the two sexes. I was told that sometimes twenty women would be in it altogether, and fine fun no doubt they had, if one might judge from the laughter and noise that proceeded from the place at such times. The men, too, are not less gregarious, and thus convert the most delicate of luxuries into a state of things almost as bad, I should suppose, as that in the Penitentiary. Old sick men, young boys, husbands of charming wives, fathers of beautiful daughters, all in the same pickle together, mingling with the most extraordinary looking tobacco-chewing, expectorating, and villainous looking nondescripts. Where are the waters that could undefile a man after coming out of such a polluted liquid!"[76]

A map of 1828 may provide a graphic terminus ante quem, or date before which the bath building was constructed. The 1828 Map of the Warm Springs Mountain Turnpike, based on notes made the previous year, appears to show the circular shape of the bath house rather than just the unenclosed pool.

Fig. 39. Wilson M. C. Fairfax. Map of the Warm Springs Mt. Turnpike. Virginia Department of Public Works, 1828, Library of Virginia. The octagonal bath is visible. The rectangular structure seen to its side probably represents the smaller bath for the infirm and children mentioned by Bell in 1831 and by Featherstonhaugh in 1834.

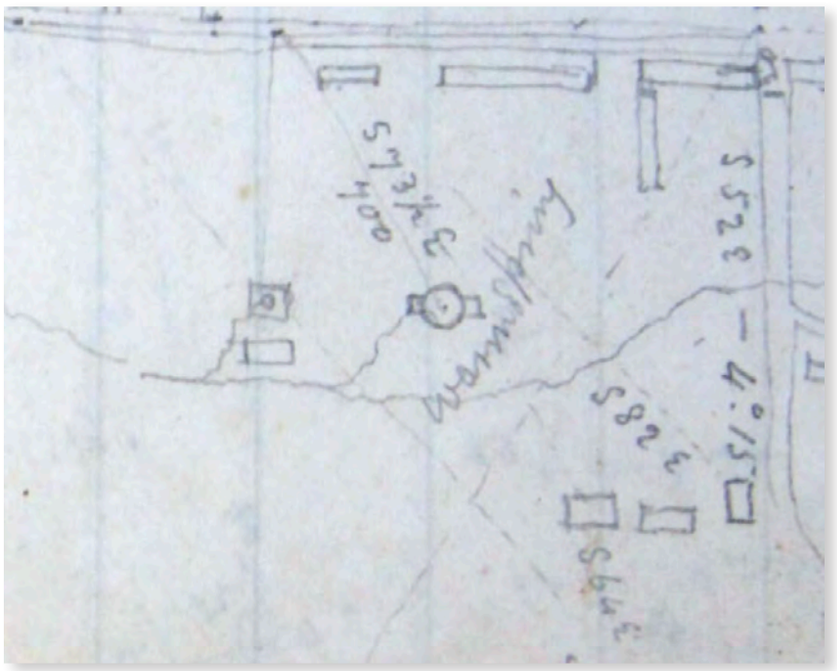

Fig. 40. Detail, Field Notes for the Huntersville and Warm Springs Turnpike. Files of the Virginia Board of Public Works, 1833, Library of Virginia. Two structures are shown west of the great bath. One is probably the bath for the aged and infirm mentioned by Bell in 1831 and equipped with four private baths according to Sophie DuPont c 1837. It appears to occupy the same location as the present Ladies' Bath.

[76] Otis, Journal of a Trip to the Mountains, Caves and Springs of Virginia. Chapter II, Southern Literary Messenger 4:3 (March 1838).

4. Added Wings (1830s)

The Warm Springs Bath House was gradually augmented as time passed. As we have seen, the building appears to have incorporated two dressing rooms (at the north and south) from the start although the wall framing suggests that a total four symmetrically placed wings were planned from the start. The 1833 Field Notes for the Huntersville and Warm Springs Turnpike included a detailed sketch map of the entire complex. It shows only two dressing rooms attached to the octagonal bath house, similar to the mention of dressing rooms to each side in 1831 by John Bell.[77] It seems possible that the heated dressing rooms at the octagonal bath and the four dressing rooms in the adjacent smaller bath were initially intended to provide private entrances to rooms for blanket sweats from the exterior and from there into the pool. In practice, they served for quick changes of clothes and rubdowns.

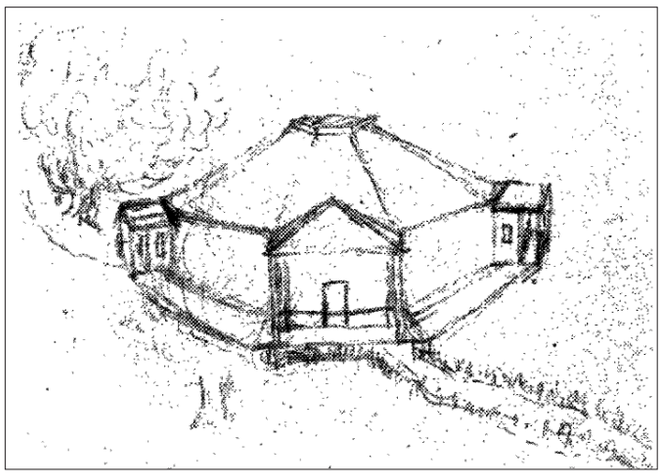

Fig. 41. The earliest representation of the octagonal bath is this sketch made by Sophie DuPont, daughter of gunpowder manufacturer. E I. DuPont, c 1837 [Hagley Museum and Library, Wilmington DE]. Her doctor sent her to the springs to help with a persistent back pain.

By 1837, two more dressing rooms had been added, as confirmed by a sketch made by Sophie DuPont. Looking from the south, her drawing shows a low crest around the oculus and three of the four changing rooms that were used by men and women in alternating time slots. Looking closely, it is possible to make out slender porch posts on each wing and a railing on the south wing where it overhangs the overflow. It also appears from her drawing that there was a deck around the exterior to permit bathers and the bath attendant to move easily between changing rooms.[78] Another visitor in 1838 described the full complement of wings.

> "There are four small dressing rooms around and attached to this bath, in which everything is provided that is necessary for adjusting the apparel, etc. a servant stands ready the moment you ascend the steps from the water with a towel in his hand, with which he gives you a hasty and rather severe rubbing down, about this he is sometimes compelled to be in a hurry as he is much in demand. there are hours appointed to ladies during which a white handkerchief or flag is suspended on a pole at the Bath house and when that is not waving in the air, it is at all times accessible for gentlemen. . . .[79]

Fig. 42. The earliest photograph of the bath buildings, made before the addition of the Reception House. Note the rectangular building to the right, probably the first Ladies' Bath, early 1870s (?). Bath County Historical Society.

Fig. 43. Detail of the above photograph showing the Gentlemen's Bath, made before the addition of the Reception House next to the Ladies' Bath. Bath County Historical Society. Note the corona around the oculus and the deck around the exterior. The porch posts are missing.

Fig. 44. Bath Buildings, 1930s (?), Bath County Historical Society. Note the claim that the bath houses were "built in 1836," fairly accurate for the octagonal bath. Also note the enclosed deck along the southwest side of the octagon, probably added in the 1930s.

[77] Huntersville and Warm Springs Turnpike. Field Notes, Virginia Board of Public Works, 1833, Library of Virginia.

[78] Sophie DuPont. Sketch, Warm Springs Bath, c 1837. Hagley Museum and Library, Wilmington DE.

[79] Blair Bolling. "'Trip to the Virginia Springs': an extract from the Diary of Blair Bolling." Ed. E. Lee Shepard. Virginia Magazine of History Biography 96 (1988): 193-212.

5. Spout Bath Addition (1840s)

According to Burke in 1851, at Warm Springs "there is now also a 'Spout Bath,'" which was only being planned at the time of his 1846 edition. It seems likely that Dr. Brockenbrough added a new, more intense, spout bath to the great bath in the late 1840s, at the same time that he added the cold plunge. It appears that he emulated the manager of the Red Sweet Springs in using the outfall of the bathing pool to project the full power of the water to envelop the body. This is confirmed by Burke's description of the spout bath at the Red Sweet:

> "The water is conveyed by trunks to the reservoirs, and, by reducing the depth of the basin to four feet, it affords the finest spout imaginable. After swimming about for two or three minutes, it was my custom to place myself under this noble stream, and let it fall on the chest and shoulders. I never was tempted to remain *longer* than five minutes; I then got onto the platform, took in hand a towel and dried the head and neck, while a servant was engaged in rubbing the body with all his might. In two minutes, when the water is likely to suit, the skin becomes as red as crimson under this operation, and the person feels as if he could jump over the moon.

Adding the spout bath at the Warm Springs involved making the little shed on the east side of the south dressing room containing a stair to the area of the outflow channel just beside the pool. According to an article in the Staunton Sentinel in 1871, "attached to the warm baths are douche or spout baths and cold water plunge or shower baths so any one here can pursue the Russian plan, although miles away from St. Petersburg and Moscow, and the so called 'Russian baths' of the city wash tubs.""

At some point in the later nineteenth century, a similar, but more gentle, spout bath to the one in the octagonal bath was added in a brick tank located in a former dressing room in the circular Ladies' Bath.

Fig. 44. Warm Springs Men's Bath, interior of cold plunge looking east, Virginia State Library, 1963.

III. HISTORIC RESOURCES NARRATIVE

6. Cold Plunge (1840s)

The eastern dressing room wing was apparently removed in the late 1840s in order to add a larger wing holding a cold plunge, removed in the 1980s:

> "Dr. Brockenbrough is entitled to the entire credit of another addition to the bathing advantages of this establishment. Alongside the gentlemen's bath, and as a wing to the building, he has erected a room containing a cold plunging bath, which is plentifully supplied with spring water from the neighboring hills. This enables the bather to use the Russian plan. After spending some 15 or 20 minutes in the warm pool, enjoying a luxury similar to that so eloquently described by Dr. Granville, the bather ascends a flight of steps and plunges into the cold reservoir, of a temperature ranging from 60 to 70 [degrees]. As may be supposed, the shock is great, but the reaction is prompt, energetic, and decided."[80]

A similar cold plunge was added to the Ladies' Bath at mid-century. In 1867, the sale handbill for the Warm Springs asserted that there were, "besides the warm baths, two cold plunges, alongside of the others, plentifully supplied with pure spring water from the neighboring mountain."[81]

7. Additional Dressing Rooms (1840s-1880s)

Additional shed-roofed dressing rooms were made on two of the remaining sides. The southeast addition probably dates from the 1840s. Based on physical evidence, the northeast addition likely dates from the 1880s. An historic photo (figure 44), shows that there was an unroofed enclosure along the southwest side of the building by the second quarter of the twentieth century, apparently accessed by the single batten door that remains today.

Fig. 45. The octagonal bath in the mid-1930s. Historic American Building Survey, mid-1930s. Library of Virginia.

The photo shows the south wing to the left (with the addition containing the spout bath to the side), the shed addition containing three dressing rooms, and the cold plunge wing to the right. Note the remnants of whitewash on the bare wood walls and the asphalt roof roofing on the south wing.

[80] Burke, 1851.

[81] Jed. Hotchkiss, Map, Warm Springs and Attached Plantations with View and Maps, 1867. Brochure. Virginia Historical Society.

Fig. 46. Horses roamed the unkempt grounds in the years before the hotel was torn down in 1925. Collection of John T. Reddick. Note the lack of a door on the southwest face of the building.

Fig. 47. The Gentlemen's Bath and the grounds in the 1930s were unkempt compared to the conditions at mid-century. Collection of John T. Reddick. The fence along the creek was missing entirely.

Fig. 48. Drawing by Franklin Glover of the Octagonal Bath in 1948, showing a lattice-topped, open-roofed enclosure on the southwest side added in the 20th century. Collection of John T. Reddick.

Three of the four gabled dressing rooms survive intact today, with nearly iidentical exterior trim and small cantilevered stoops sheltering exterior doors on each gable end. The north and south dressing rooms are sheathed on the interior with beaded boards, while the west one, used as the main entry today, has plain interior sheathing. Evidence of a stovepipe hole and part of a stovepipe survive in the ceiling of the room within the north wing, confirming the reports of "heated dressing rooms."

Fig. 49. Gentlemen's Bath in the 1940s with Horace Tonsler Jr., looking toward the east wing and the cold plunge. Collection of John T. Reddick. The structure is largely intact.

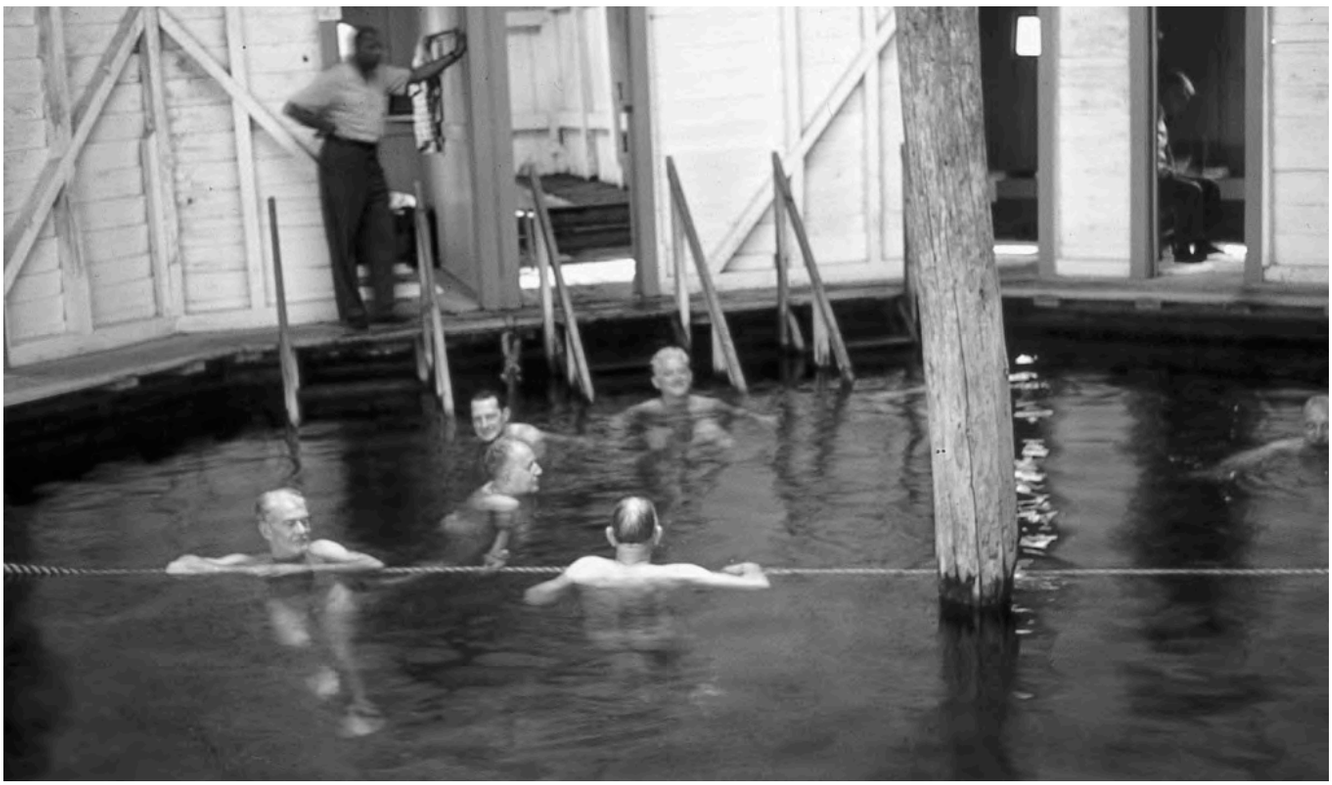

Fig. 50. The Gentlemen's Bath in 1955. Note that the replacement of the sill had not yet been done.

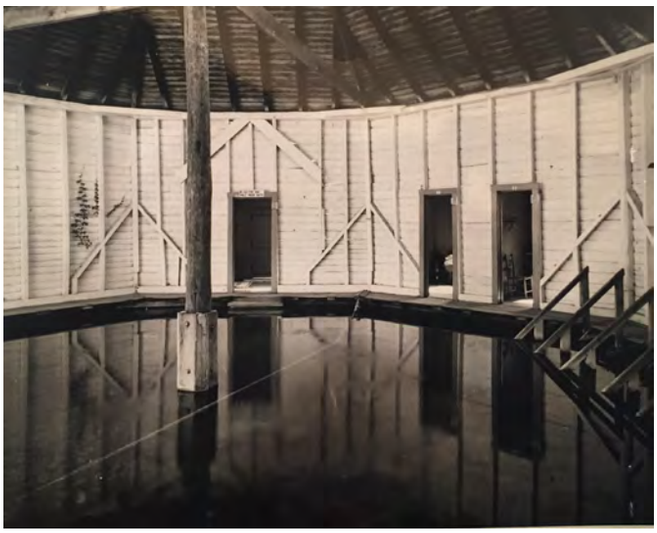

Fig. 51. Warm Springs Gentlemen's Bath interior looking north, Virginia State Library, 1963.

Fig. 52. Warm Springs Gentlemen's Bath interior looking east, Virginia State Library, 1963.

B | Secondary Bath Buildings (no longer standing)

Fig. 53. Detail showing bath complex at the Warm Springs from Beyer's lithograph of 1850.

Fig. 54. Detail of Jed. Hotchkiss, Warm Springs and Attached Plantations with View and Maps, 1867.
Although based on the Beyer and Porte Crayon views, it has been extensively corrected and shown greater detail.

Fig. 55. Detail of Jed. Hotchkiss, Map, Warm Springs and Attached Plantations with View and Maps, 1867. The attached text indicates that there are "now five Warm Baths varying in temperature from 96 to 98 degrees Fahrenheit. The large Gentlemen's Bath is an octagon 38 feet in diameter….The Ladies' Bath is of the same depth. Two of them are spout baths and the other is for children. There are, besides the warm baths, two cold plunges, alongside of the others, plentifully supplied with pure spring water from the neighboring mountain….The Drinking Spring lies between the two large baths, and is beautifully improved."

The Jed Hotchkiss drawing and map of 1867 (above), as well as the related Beyer and Porte Crayon versions of the same view, are useful for understanding the bath layout during the antebellum period under the administration of John Brockenbrough. The octagonal Great Bath stands in a grove. Columns supporting the east dressing room and the parapet around the oculus are clearly visible in the Hotchkiss drawing, as is a diagonal exterior walkway around at least part of the bath, both of which were also visible in Sophie DuPont's sketch (Fig. 41). Note also the square Ladies' Bath with an oculus on the site of the current Ladies' Bath and the two other structures nearby, the Drinking Spring and the Children's Spring, with its own small oculus. The pyramidal-roofed cottage at the upper right is Brockenbrough Cottage, where Robert and Mary Custis Lee stayed regularly after the Civil War.

III. HISTORIC RESOURCES NARRATIVE

B | Secondary Bath Buildings (no longer standing)

1. Small Warm Bath/Spout Bath/Ladies' Bath (1820s-1870s)

Contemporary references in the 1830s and 40s seldom mention more than two bath buildings, plus the Drinking Spring. The Small Bath, Spout Bath, and Ladies' Bath referred to by various writers probably represent the same or successive versions of a building at the same location as the current Ladies' Bath, because there were never more than three springheads available for enclosure.

On both the 1828 and 1833 road drawings (Figs. 39 and 40), and in the Porte Crayon and Beyer images (Figs. 22 & 53) from the mid-1850s, a second frame structure is shown nearby, along the run, south of the main bath.This is likely the more modest bath adjacent to the large one mentioned by Bell in 1831 as close by the drinking and chalybeate springs: "Near to these is a warm bath similar in temperature and other properties to the first, but of small dimensions, and principally intended for the use of the more aged and infirm, and for children." It was favored by another visitor in 1835: "When I was not so fortunate as to find the public bath vacant, I used to secure a more modest bath adjacent to the large one, in a very nice, and not a very small private place, where you are privileged to be alone."[82]

Sophie DuPont later described and drew (Fig. 56) the interior of one of the four dressing rooms in this smaller bath house, which by that date (c 1837) had been fitted up as a spout bath with a hose containing spring water under pressure:

> "Another bath house contains four small baths, into one of which a spout is arranged for the benefit of those who are recommended to take *douches*. I have tried this at Dr. Horner's request & think it of service to me, as well as the bathing."[83]

Both the Red Sweet and the Hot Springs, as well as the Sweet and the Warm, had spout baths, in which the bather could focus the water on a particular part of the body. Although it had probably been used previously, the first record of the spout bath is in 1831, when Dr. Thomas Goode was prescribing it for his patients at the Hot Springs.[84] By 1834 the renovated Hot Springs spout baths had dressing rooms attached to them and featured 103 degree water falling from a height of five or six feet into a pool.[85] As we have seen, Warm Springs had a spout bath with a hose by c 1837, when it was sketched by Sophie DuPont (Fig. 56). According to one authority "these baths are particularly resorted to by persons afflicted with gout, rheumatism, eruptions of the skin, and other disorders enumerated in the printed accounts of the Springs." At the Hot Springs "there are two baths in which the water may be taken at six feet fall on any part of the body; the column of water is three by four inches, and when taken at the whole height of the fall, must prove beneficial to rheumatic patients and others where the douche is required."[86]

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[82] Otis, 1838.

[83] Sophie DuPont. Sketch, Spout Bath at the Warm Springs, c 1837. Hagley Museum and Library, Wilmington DE.

[84] Peregrine Prolix [Phillip Holbrook Nicklin]. Letters Descriptive of the Virginia Springs (1834); Austin: AAR/Tantalus. 1978.

[85] Prolix, 1834.

Fig. 56. Sophie DuPont, Spout Bath at Warm Springs, c 1837, Hagley Museum and Library, Wilmington DE.

The interior of a changing room in the smaller warm bath with a glimpse of the adjoining private bath at Warm Springs is shown in a sketch of c 1837 by Sophie DuPont (Fig. 41). Also visible is a kind of litter chair in which bathers could be carried to their rooms. The water is applied by means of a flexible hose held by a servant. The spout bath in this building predates the spout bath in the Ladies' Bath by some years. The current spout bath in the Ladies' Bath House beside the overflow has a parged brick tank that was added at some point in what was clearly built as a dressing room. Before that was built, Dr. Brockenbrough had devised a powerful spout bath to be used by both sexes in the outflow from the octagonal pool.

William Burke in 1846 mentioned that "besides the large octagonal bath, there has lately been erected a "Lady's Bath," neatly furnished and of equal depth," and in 1851 he added that in addition to the Ladies' Bath "there is now also a 'Spout Bath.' The 'Drinking Spring' is also beautifully improved and inviting. It is situated between the two great 'Baths.' I regret to perceive that the Chalybeate Spring, which formerly was seen here, has disappeared."[87]

[86] Henry Huntt and Thomas Handasyd Perkins. A Visit to the Red Sulphur Spring of Virginia: During the Summer of 1837: with Observations on the Waters. Dutton and Wentworth, printers, 1839.

[87] Burke 1846, 1851.

[88] Huntt and Perkins 1839.

The date often given for the construction of the current Ladies' Bath is 1836. However, Dr. Burke and other writers in the 1830's and after never mentioned its impressive scale in comparison with the octagonal bath, which still got most of the attention. He, however, did refer to the "two great baths" at that time, in referring to the octagonal bath and the other somewhat smaller warm bath. In 1837, Henry Huntt and Thomas H. Perkins mentioned a "Ladies Bath," which is probably the same structure. They described "the avenues by which you reach the baths, and particularly the ladies bath, are bad, and even dangerous to persons in feeble health; but the keeper of the house assured me that this shall be corrected."[88]

The White Sulphur Papers or Life at the Springs of Western Virginia Springs, was published in 1839 by the travel writer, Mary M. Hagner, using the pseudonym Mark Pencil. She visited Warm Springs and enjoyed a bath in the octagonal pool. She did not mention a Ladies' Bath at all. No travel account mentions the current Ladies' Bath, including the very detailed account by J. Milton Mackie in his travel book of 1864. He makes it clear that there was only one large bath at the Warm Springs when he says that "one of these fountains used for bathing is protected by an amphitheatre, having a circular opening in the roof, for light and ventilation."[89] Edward Pollard, in his rather peremptory and derivative description of the baths at Warm Springs in 1870, describes only the forty-foot pool as "believed to be the largest warm bath in the world."[91]

2. Children's Spring

A small building shown on Jed Hotchkiss's 1867 view next to the Drinking Spring is probably the building referred to in the text as the Children's Spring (Fig. 39). In the 1860 view, it appears to have been square building with a pyramidal roof and a cupola or oculus to vent the water vapor. Today, the open section of water formed by the outflow from the Drinking Spring, located not far from the building shown on Hotchkiss map, is known as the Children's Spring.

3. Drinking Spring (1820s, 1850s, 1870s)

The smallest of the three principal springs that emerge near each other at Warm Springs was probably harnessed at an early date to provide thermal water for drinking. Its covering building changed several times over time, but the provision of benches appears to have been a constant. Often presented as a freak of nature, a cold iron-bearing spring once rose near it. The 1833 road survey (Fig. 31) shows three springs structures, the octagonal bath, a rectangular structure that is probably the smaller bath, and a square basin in a larger square enclosure from which a small stream issues, that is probably the Drinking Spring.[92] This spring was described c 1837 by Sophie DuPont: "There are several other springs of the same kind in the meadow—round one a platform is built with benches under shady trees, for those who drink the water, which not withstanding its odour of half-spoiled eggs & its warmth, is not very nauseous to the taste—"[93]

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[89] J. Milton Mackie. From Cape Cod to Dixie and the Tropics. New York: G.P. Putnam, 1864, 46.

[91] Edward Pollard. The Virginia Tourist: Sketches of the Springs and the Mountains, Philadelphia, J. B. Lippincott 1870.

[92] Huntersville and Warm Springs Turnpike, 1833.

[93] DuPont, Spout Bath.

Dr. John Bell had, in 1831, indicated that "lower down the meadow, in which is the chief Spring which supplies the bath just described, is another warm one, the water of which is reserved for internal use. Close to it is a hydrant, from which cold chalybeate [iron] water is procured.[94] George Featherstonhaugh in 1834 also mentioned the Drinking Spring: "near to the modest bath a spring has been enclosed, which is called the 'Drinking Spring:' this has been rudely fitted up for the visitors to resort to, and is said to be used medicinally with success."[95]

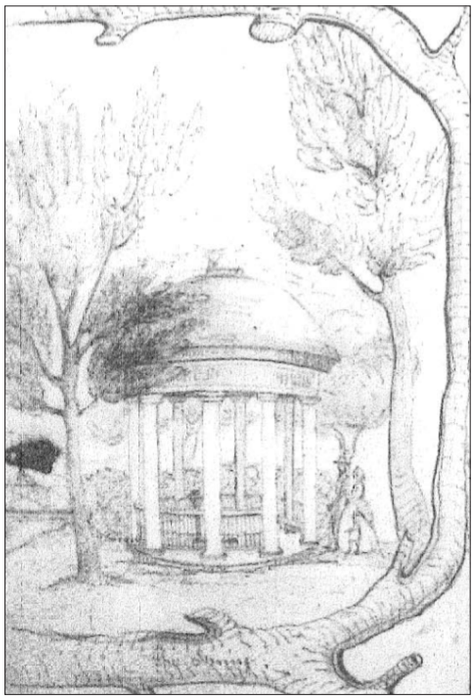

Fig. 57. "The Spring," from drawing of the Warm Sulphur Springs, c 1889, Bath County Historical Society. This shows the domed form of the spring before it was replaced in the late nineteenth century with the current structure.

The diarist Blair Bolling in 1838 noticed the poor condition of the bath house and the Drinking Spring: "the grounds and enclosures are very much neglected and the latter are in a state of delapidation. The spring used for drinking is small 'tho bold it is covered by an old and decayed shelter supported by some six or eight posts framed into sills upon which the floor is layed."[96]

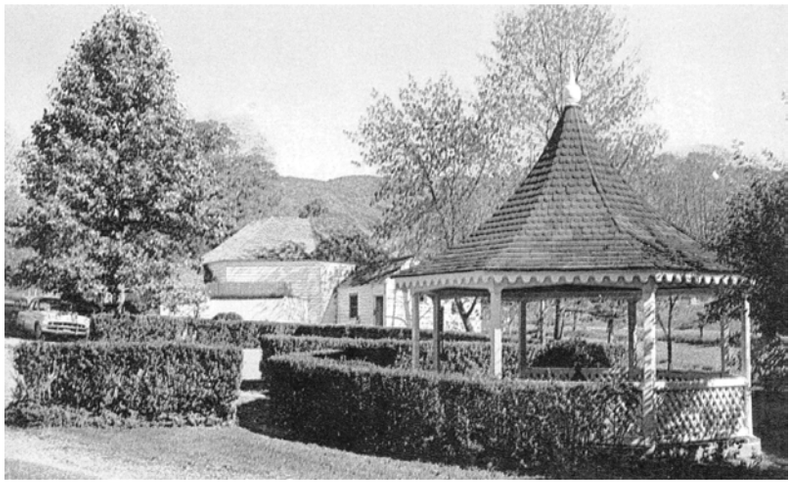

Fig. 58. Warm Springs Springhouse and Gentlemen's Bath, 1950s, Bath County Historical Society. Note the enclosure on the southwest side of the bath.

[94] Bell, 1831.

[95] Featherstonhaugh 1844.

[96] Bolling, 193-212.

The earliest descriptions are vague, but it appears to have been a simple square shelter. In the representations from the 1850's and 1860's by Porte Crayon, Beyer, and Hotchkiss it was covered by a domed temple, but today it has a low, scooped pyramidal roof, probably dating from the 1870s. The only detailed image of the domed temple is a sketch from c 1889 (Fig. 42). Historic photographs show that the entrance to the building, called a pagoda in a mid-20th-century brochure, had its entrance in the northwest bay facing the hotel. At some point in the mid-20th century, the entry was moved into the northern bay.

Fig. 59. Warm Springs, c. 1925. The hotel, which has lost its porch, appears to be under demolition. Note the stove chimney visible on the north dressing room roof and the lack of posts supporting its porch roof.

Fig. 60. The Small Warm Bath/Spout Bath/ Ladies' Bath (left), Children's Spring (?), and Drinking Spring.Detail of Jed. Hotchkiss, Warm Springs and Attached Plantations with View and Maps, 1867.

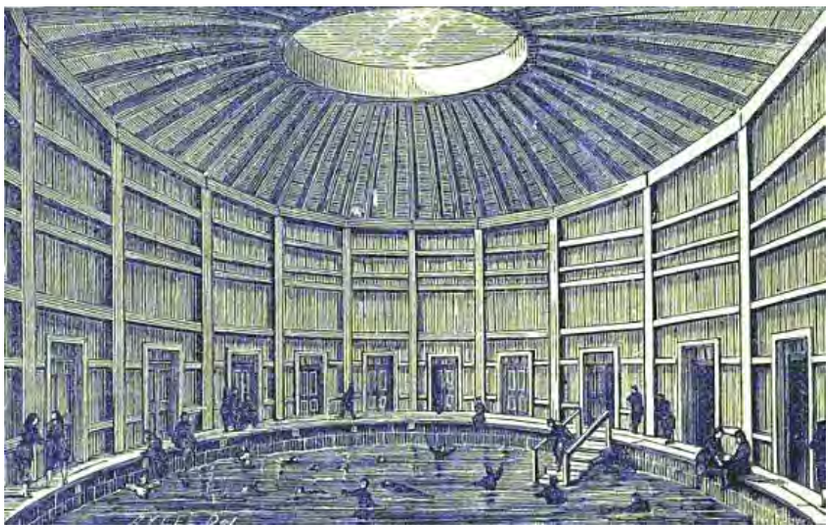

Fig. 61. Illustration from the brochure "Warm Springs, Bath County, Virginia: In New Hands and Greatly Improved. Open on the First Day of June." Gary's Steam Printing Est., 1875.

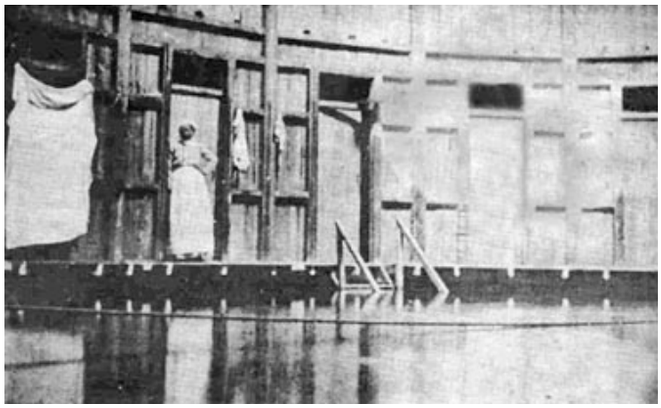

Fig. 62. Early photograph of the interior of the Ladies' Bath, date and source unknown. Note the provision of doors but no transoms at each of the dressing rooms. The curtain draped at the left may cover the entrance to the spout bath. Probably includes "Aunt Fanny" Sheppard, longtime bath attendant, in the background.

Fig. 63 Ladies Bath today, Virginia Department of Mines, Minerals and Energy

III. HISTORIC RESOURCES NARRATIVE

C | A New Ladies' Bath (c 1875)

The first confirmation of the existence of the current, polygonal Ladies' Bath is in a brochure for the season of 1875 issued by proprietor John L. Eubank. The basin is circular; the building is actually a polyhedron with twenty-two sides. As designed, there was no main entry. The tall central room was surrounded by a ring of twenty-two rooms, each of which was reached from a deck that surrounded the exterior and from a narrow deck that surrounded the pool on the interior. The lower roof had a scooped shape. The roof rose to an oculus of about the same size as its counterpart at the original bath house, which became known as the Gentlemen's Bath.

The original layout was rigorously geometrical. Twenty of the rooms in the outer ring were put to use as dressing rooms: The exact use of the remaining two is unclear. The doors of two rooms on the west side have doors that are set closely together. These may have served, as they do now, as small foyers or reception rooms. The Ladies Bath House also housed a spout and cold water bath, which were advertised as being attached to the main building: "private baths of the same temperature as the main bath-douche or spout baths, and cold-water plunge or shower baths."[97] It is clear that the number of dressing rooms were reduced in order to house the spout bath (which took the place of one) and/or the invalids' lift and tank (which took the place of two) on the opposite side. The spout bath, with its brick tank, appears older than the invalids' lift, with its concrete tank. Much later, two other dressing rooms were converted into toilet rooms.

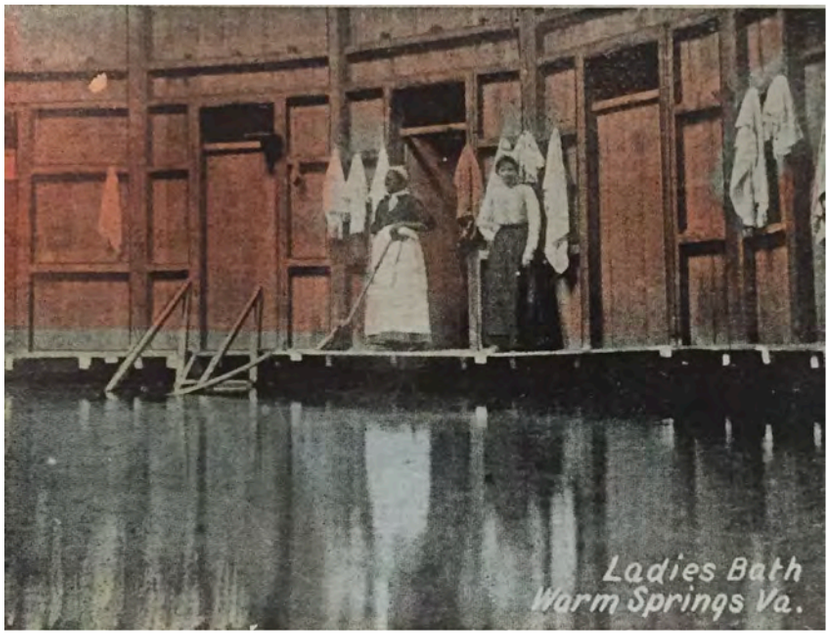

Fig. 64. Postcard, Valentine Museum, no date.

[97] Warm Springs, Bath County, Virginia: 27 In New Hands and Greatly Improved. Open on the First Day of June. Gary's Steam Printing Est., 1875 and Warm Sulphur Springs, Bath County, Virginia. Richmond: Baughman Brothers, 1884.

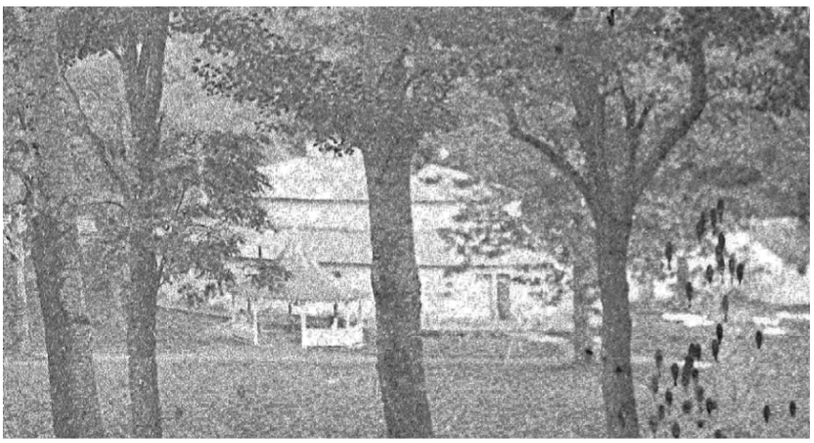

Fig. 65. Detail of Ladies' Bath, Photo of Bath Buildings, early 1880s, Bath County Historical Society. Note the perimeter deck without railing and the path leading to the current two entry doors. The Reception House, which first appears in the historic record in 1884, has not yet been built.

Fig. 66. Warm Springs, Springhouse and Ladies' Bath House, postcard mailed 1911. Note stovepipe in dressing room roof. Bath County Historical Society.

Fig. 66. Warm Springs, Springhouse and Ladies' Bath House, c 1911.Collection of James T. Reddick. The detail on the right shows an earlier appearance for the Ladies' Bath deck and the Drinking Spring.

The Ladies' Bath was celebrated in 1875 in brochures published in advertisements and again in a brochure of 1886, when they renamed the entire resort the "Warm Sulphur Springs." Both brochures use identical language to describe the facilities; "The Ladies Bath is a circular bath, fifty feet in diameter and one hundred and fifty in circumference. As a swimming pool it is very attractive and many ladies learn to swim....The cold baths attached to these warm baths enable the bather to use the Russian plan."[98]

Fig. 67. The Ladies' Bath in the mid-1930s. Historic American Building Survey, mid-1930s. Library of Virginia.

[98] Warm Springs 1884.

III. HISTORIC RESOURCES NARRATIVE

A detailed description of the Ladies' Bath in 1879 makes it clear that the bathing arrangement at that date was very similar to the present. As we have seen, there is some lack of clarity about the total number of dressing rooms. This 1879 account indicates that there were twenty two:

> "In regard to the baths, which are after all the attraction that draws together this multitude, it may be said, I think, that they are among the most luxurious in the world. A great round Pantheon-like wooden building with a low dome, having a classic round aperture at the summit, encloses the circular pool, 59 feet in diameter, which is the ladies' bath....
>
> Many remain in the bath for an hour, swimming, floating, loitering, dreaming in the enticing waters, much, I suppose, as the old Romans luxuriated in their vast thermal baths in the magnificent days of the Emperors. When any one desires to return from this soft aquatic existence to terrestrial life, the presiding genius of the place appears at the stairway of the pool, holding out a soft blanket, and the bather taking refuge in it, drops the wet bathing dress, is enfolded within its friendly expanse, and retires to one of the twenty-two dressing rooms which encircle the pool. Now, if there were a lounge in that little apartment, on which the weary invalid could dream away a happy hour, before the fatigue of dressing, nothing would remain for any to wish for, and it seems ungracious to make even this suggestion amid the real comfort and luxury of these baths. Those who like a private bath better than a social plunge can descend into a very comfortable inner pool, and any who want more vigorous contact with the healing waters may try the spout bath, near at hand."[99]

Fig. 68. Photograph of the Ladies' Bath in the early twentieth century, no date (c. 1900?), Valentine Museum.

[99] "In the Valley of Healing." By S. R. Friends' Intelligencer vol. 36. (Ninth mo. 9th, 1879) 489.

The traditional date of 1836 for the Ladies' Bath corresponds with neither the documentary data nor, as we have seen, the physical form of the building. The current Ladies' Bath was apparently constructed in the early to mid-1870s, when the Eubanks were anxious to rebuild the resort's reputation as a thermal spa. According to a brochure, those new baths had a capacity of over 1,200 baths every twelve hours, "with a separate pool and dressing-room for each bather."[100] It may have been designed to compete with the splendid new bath buildings put up at other spas in the period. At the nearby Healing Springs, "bathing houses" for both men and women were depicted in 1873 (Fig. 53).

Fig. 69. Bath houses at Healing Springs, Bath County, Virginia. From Beers, F. W. Illustrated Atlas of the City of Richmond. Beers, 1876. The ladies' bathing facilities appear to be arranged in private pools. The older-looking Gents' Bath is behind a cottage row shown at the left.

Fig. 70. "A line etching picturing the mountain resort at Hot Springs with its more modern buildings, an extensive fire having destroyed the originals." [J. G. Pangborn, Picturesque B. and O.: Historical and Descriptive. Chicago: Knight and Leonard, 1883, 179].

[100] Virginia Hot Springs, Bath County, Va, with Some Account of Their Medicinal Properties and an Analysis of the Waters. Richmond, VA: Baughman Bros., Stationers and Printers,1885.

III. HISTORIC RESOURCES NARRATIVE

In 1913, Mrs. John L. Eubank, the manager of the Warm Spring (under lease from the Virginia Hot Springs Company), gave a very unusual party in the Ladies' Bath, written up in the New York Times. According to the headline, "Water Nymphs Dine from Floating Table at Unique Function" given in the bath in honor of American novelist Cornelia Otis Skinner.[101] In the 1920's the owners of the Hot Springs Co., the Ingalls, gave an annual party in the ladies bath. A set of photos from that event document the condition of the building at that time

Fig. 71. The Ladies' Bath and Reception House in winter (1930s?). Collection of John T. Reddick. Note that the entry to the Drinking Spring is in the western bay. The parapet is missing.

Fig. 72. Ingalls family annual party at the Warm Springs in the Ladies' Pool, 1920s, Looking northwest. Note the poor condition of the framing.

[101] Hot Spring "Pool Party" A New Wrinkle In Entertainments: Water Nymphs Dine from Floating Table at Unique Function in Honor of Mrs. Otis Skinner. New York *Times* (17 August 1913).

Fig. 73. Ingalls family annual party at the Warm Springs in the Ladies' Pool, 1920s. Note the poor condition of the framing.

Fig. 74. Bathers at the Ladies' Bath in the 1930s. Collection of John T. Reddick. Many photos show the "rompers" drying on the exterior of the building.

III. HISTORIC RESOURCES NARRATIVE

1. Spout Bath (1870s)

When the new Ladies' Bath was first advertised in 1875, the announcement indicated that "it has attached a handsome reception room, twenty private dressing rooms, private baths of the same temperature at the main bath- douche or spout baths, and cold water plunge or shower baths." The current spout bath is housed in a brick tank located below floor level in the original dressing room to the south side of the spring outfall. Water is supplied by a pipe from the main bath. This tank probably served as both the private bath and the spout bath mentioned in the 1875 brochure. The adjacent room connects with it and probably served as a dressing room for it. The spout bath was, however, probably an afterthought, since it blocks the exterior door. It is not clear where the Cold Plunge was accommodated.

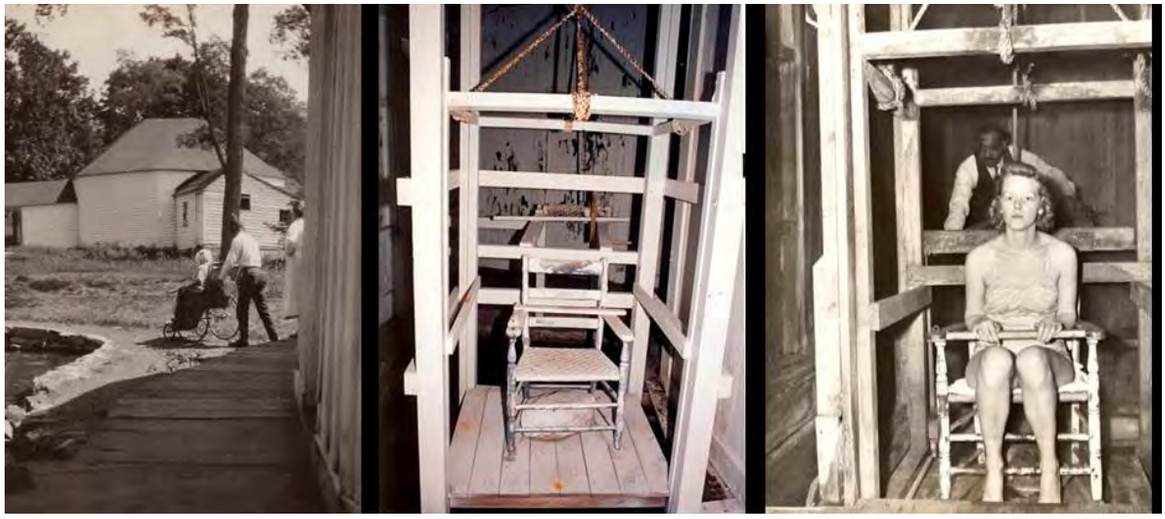

Fig. 75. Invalids' Chair in the 1950s. Horace Tonsler demonstrates the use of the original invalids' chair at right. Rebuilt invalids' chair at center. An invalid is wheeled from the bath in the mid-twentieth century on the left. Collection of John T. Reddick. The present lift is a non-working representation of the original one, replaced in the later twentieth century.

2. Invalids' Bath (1880s or later)

Chairs affixed to ropes and pulleys were used in the nineteenth century to lower invalids into the water. Mary Custis Lee, who was plagued by arthritis, visited Warm Springs occasionally in the 1850s and early 60s, but was a regular in later years. Similar chairs existed at both the Healing and Hot Springs. The Hot Springs advertised invalid chairs in 1885: "Suitable machinery has been provided, by means of which invalids, who cannot walk or stand without inconvenience, may be lowered into the bath, either in a recumbent or sitting posture."[102] The lift arrangement in the Warm Springs Ladies' Bath has been interpreted as "Mrs. Lee's chair" for many years. It is a late twentieth-century reproduction of the earlier invalids' lift, not a working survival. The original was photographed in the 1950s, when it was likely still in regular use (Fig. 54B). It appears that the small concrete tank in which it is placed was added in the place of two original dressing rooms, possibly in the later nineteenth century.

Fig. 76. Ladies' Bath, Drinking Spring, and Reception House, postcard, Library of Virginia.

D | The Reception House (1880s)

In keeping with the provision of rooms for waiting for bath appointments at other springs, a "handsome reception-room" was mentioned in brochures in both 1875 and 1884.[103] It is not clear where this reception room was located- it may refer to the two rooms in the outer ring of the Ladies' Bath that serve as entry lobbies today. The current Reception House was built somewhat later as a frame one-room structure with the entry door in the gable end. An ornate porch wrapped around the west end and the north side. The room inside was sheathed with stylish diagonally placed tongue-and-groove boards.
The building was being used to house Fanny Sheppard, the Ladies' Bath attendant, by 1900. A shed addition across the rear (south) was added in the early twentieth century, followed by an adjoining shed addition at the west end (west) at mid-century, when the building served as the year-around residence of the bath-keepers. The west addition made use of the existing trim, window, door, and siding from the original west end to help the north front of the addition blend in.

The Reception House was labelled "Aunt Fanny's House" on the map of the resort as is appeared in about 1900. John T. Reddick noted in a presentation to the Warm Springs Historical Society in 2015 that it is interesting that the bath buildings were all oriented at one point towards the west and hotel complex.[104] The Reception House appears to have been intended to appear as an entrance pavilion for the Ladies' Bath, performing much the same role that the west wing plays for the Gentlemen's Bath.

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[102] Virginia Hot Springs 1885.

[103] "Echoes from the Springs" 1878.

[104] John T. Reddick. Interview by Bonnie Ralston. The Historic Warm Springs Pools – An African American History: A Pride of Place and Race. Shenandoah Public Radio broadcast, 25 Sept. 2015.

III. HISTORIC RESOURCES NARRATIVE

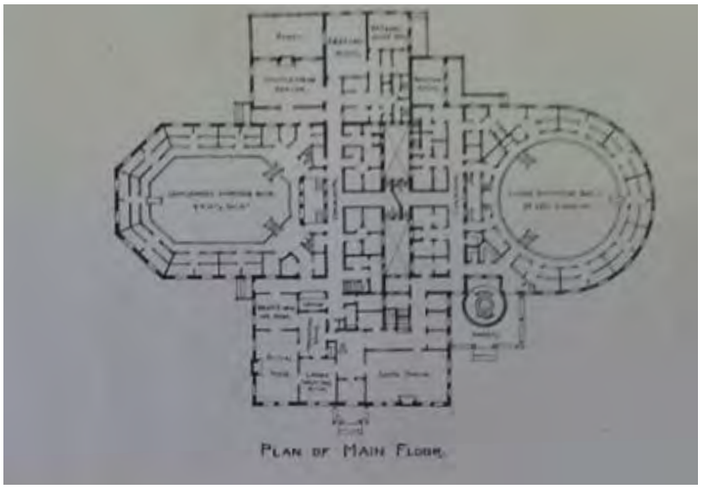


Fig. 77. Bath House for the Southern Improvement Co., Warm Springs, Va, 1896. The proposed bath house, designed by Charles H. Read, Jr., was never built. It would have replaced the three main bath buildings, incorporating the same shaped pools, including the drinking spring, in a single building, maintaining the existing bath treatment program. (north to bottom)

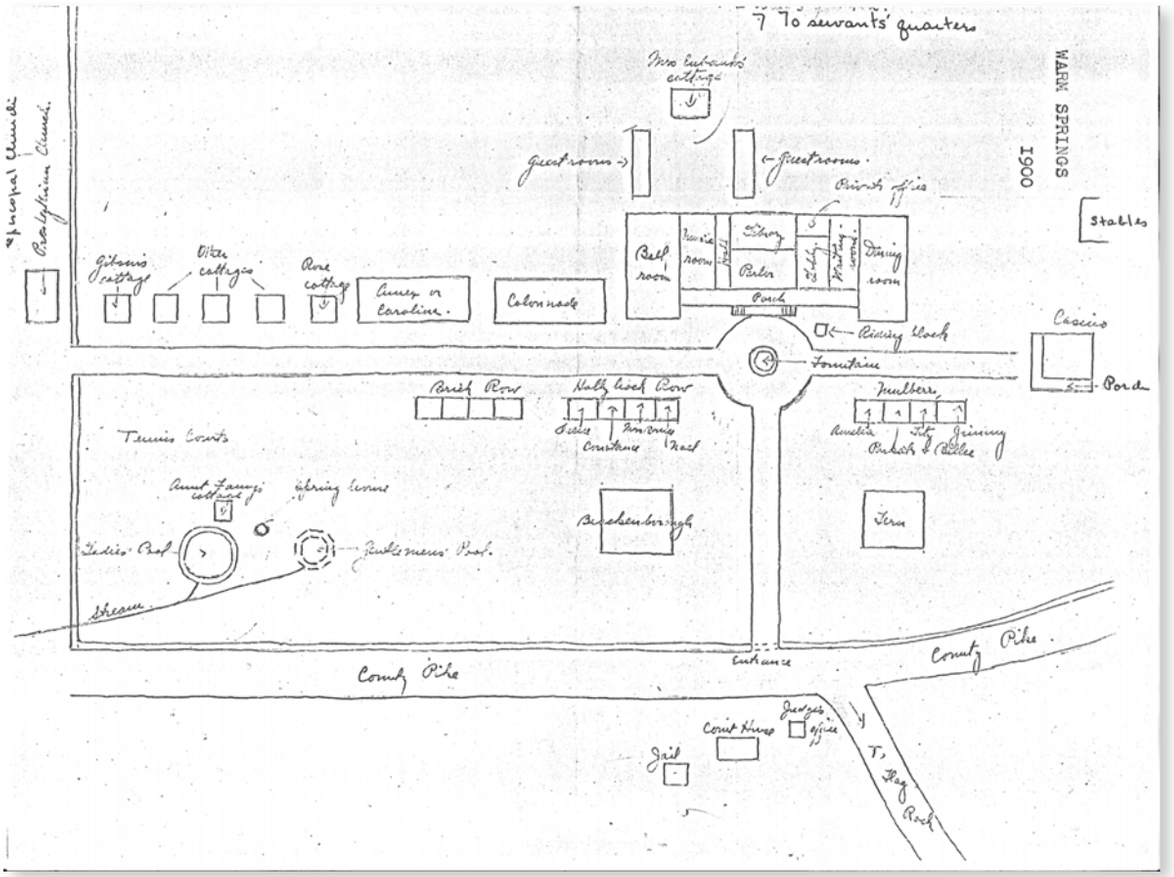


Fig. 78. Plan of the grounds of the Warm Springs c 1900.

III. HISTORIC RESOURCES NARRATIVE

E | Other Buildings

In addition to the Colonnade, the Hotel, and the baths, stables, and a bowling alley, there were numerous secondary structures associated with the hotel. These included the early cottage rows, of which little record remains. The one which does survive, the so-called Gibson Cottage, matches the description by Otis from 1835 of "wooden and brick cabins." Two other frame four-room cottages with pyramidal roofs date from the late nineteenth century.

Caroline M. Sedgwick, the New England novelist, visited Warm Springs on a trip through the mountains in 1833. She noted the, for her, unfamiliar use of cottage rows which is a typical feature of the Virginia Springs:

> They have a fashion here which is peculiar to the Virginia Springs. We are lodged in cabins about forty yards from the main building. F C and I occupy one of two apartments. I am now sitting by a door that opens upon a green field bordered by the mountain. This may be inconvenient in bad weather, but the quiet retirement is delicious, and so is the separation from all the bustle and slam-banging of a hotel like Lebanon.[105]

Faye Ingalls indicates, in his memoir of 1949, that the Casino, a bar where he would stop for a drink after a horseback ride from Hot Springs and a short bathe, was "compared to the hotel and the Colonnade, a modern affair with a wide veranda completely surrounding it.[106] The Casino stood at the end of the main road to the right of the hotel. A golf links extended up the hill not far away and the Casino may have served as a kind of golf clubhouse.

[105] Caroline M. Sedgwick. Letter to Miss K. M. Sedgwick, June 26, 1833, Mary E. Dewey, ed., The Life and Letters of Caroline M. Sedgwick. New York: Harper & Brothers, Publishers, Franklin Square, 1871.

[106] Ingalls 1949, 29.

Conditions Assessment and Recommendations

IV. CONDITIONS ASSESSMENT AND RECOMMENDATIONS

A | Landscape

Fig. 79. View of site from north

In the descriptions below, for ease of identification, cardinal directions are conventionalized—what is approximately northeast is described as north, and so forth. The pools are located in marshy ground along the bottom of the Warm Springs Valley, where several springs rise from the bedrock in close juxtaposition. When Thomas Lewis laid out his property in lots in the 1780s the thermal water sources were placed in a rectangular tract and eventually surrounded by a grove of trees. In addition to the original, octagonal pool, another large spring that issued from the ground within a hundred yards was later enclosed to make the Ladies' Bath. A smaller spring, partially enclosed, located between the two was used for drinking purposes at an early date. The springs were located on a rectangular lot reserved for that purpose, which roughly corresponds to the property now associated with the baths. The hotel and cottages were placed on the high ground to the west along the sides of the historic road that ran along the west side of Warm Springs Branch. The Bath County Courthouse was built on the opposite side of the narrow valley, facing the hotel from the east.

Fig. 80. Photo from the 1980s showing the old sign for the "Warm Springs Pools"

IV. CONDITIONS ASSESSMENT AND RECOMMENDATIONS

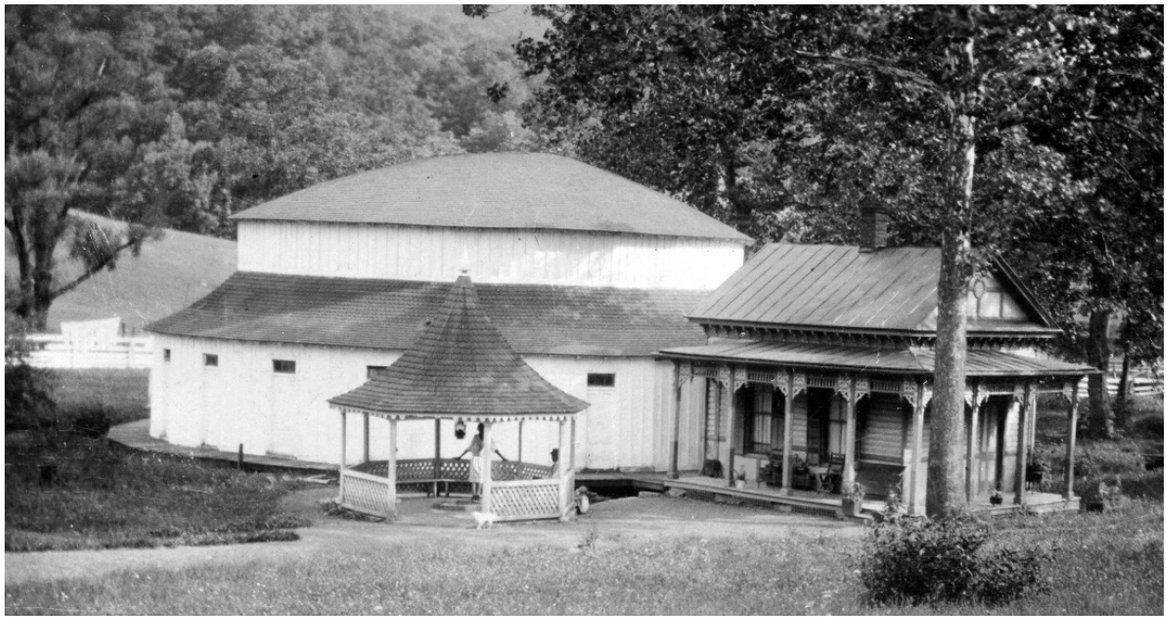


Fig. 81. Photo of the bath complex. C 1930.

According to historic images (Figures 33, 34, 55) from the mid-nineteenth to early twentieth centuries, access to the baths was by gravel paths coming across a lawn from the direction of the hotel to the northwest. The baths were located on the eastern edge of a grove of mature trees. After the hotel was demolished in 1925, access to the bath was exclusively by automobile. Visitors' cars were accommodated along the side of the highway on the east side of Warm Springs Branch, reached by a wooden footbridge over the creek. A characteristic sign in the shape of the Ladies' Bath that said "Pools" was located near the eastern end of the bridge. A driveway, connected to the original entrance drive to the hotel, was established for the bath keepers to park their car in front of the Reception House, which became their year-around home. In the mid-twentieth century, the drive to the Reception House was expanded to form a small parking lot on the west side of the lot between the Ladies' and Gentlemen's baths, although the graveled parking area along the highway still remains in place. Runoff from the sloping ground to the west, as well as water from a small branch, was channeled into a ditch along the west side of the tract which drained under the rear wing of the Reception House to join the outflow from the Drinking Spring. During much of the twentieth century, wood plank fences separated the bath lot from the
highway.

General Conditions

The site is currently characterized by unshaded grass lawns divided by swales and water courses that channel water and runoff into Warm Springs Branch. Large trees are restricted to the area along Warm Springs Branch between the baths and the highway. Water from the entry drive and the building roof is in some areas directed towards the building rather than away from them. The path and bridge from the parking area along the highway remain in place. As interest in the baths grows among patrons of the Homestead, the parking lot is often full. Cars are then parked along the driveway and on the grass. The bath buildings make an interesting

and compelling composition when seen from the highway.

General Recommendations

The parking lot is inadequate for projected traffic. The entry drive could be widened with gravel verges to allow for parking along one or both sides without damaging the lawn. Provide handicapped parking spaces near the Reception House and the South Wing of the Octagonal Bath with appropriate paths to the handicapped entrances to each building. Landscaping could be rethought, including adding a few shade and ornamental trees to recreate the character of the historic grove that stood around the baths. The drainage around the Octagonal Bath should be redesigned to direct runoff away from the building.

Lighting should be minimal and designed to enhance the historic rural ambience. Renewed wayfinding and identification signage should be provided, augmented by interpretive signage to help visitors better understand the historic context. Engagement with the ambience of the historic spa should be provided for those who are not able or interested in using the baths. This could take the form of convenient benches for resting with associated interpretive material. Access to the water, perhaps in the form of a foot bath near or as part of the Children's Spring would be a great added asset for visitors.

B | The Great Bath or Gentlemen's Bath

Fig. 82. The stone bath enclosure seen below he peripheral deck.

1. Stone Enclosure (1760s)

The Gentlemen's Bath is contained within a stone enclosure of a pool that is 36'-6" wide from side to side. It was likely built in the third quarter of the eighteenth century. The 2'-thick stone wall was set into sloping ground so as to maximize the depth of the pool. The top of the wall is nearly flush with the ground to the north and west and well above grade on the south. The rocky bottom of the bath slopes from 12"-18" inches from the northwest to the southeast. Water is drained by an opening in the eastern side of the south wall. The interior is parged with cement and the exterior, where exposed above the surface, is of coursed limestone rubble. The opening is strengthened by stone buttresses on each side. The two cement-parged stone steps that give access to the pool at the center of the north and south walls appear to be original features. They are located partially under the wood deck that extends around the perimeter and cantilevers over the water.

Fig. 83.

The pool opening is filled by a wooden sluice gate, the sort of water control device used for milennia to manage flow within millraces and canals. The sluice gate consists of timber jambs built into the stone walls and a gate that slides vertically in grooves to permit draining of the pool. The gate is made of of three vertical boards held together by metal straps on the exterior. The central board extends upwards as a paddle-shaped handle. This is pierced with a vertical line of holes by which the gate can be pegged at different heights to a similar board behind it. It appears to have been raised with the assistance of a pulley (no longer in place) hung from an iron ring that is still mounted in the underside of the top plate angle brace directly overhead. Three smaller paddles are let into the interior face of the gate. Raising them controls the amount of water that is let out through holes in the gate to control the water level and to create the spout bath located in the outfall area. The gates are similar in both the Gentlemen's and Ladies' Baths, except that the Ladies' Pool has only two secondary paddles, probably because the spout bath there is fed by a separate pipe.

Fig. 84. Seepage of water under the Southeast Dressing Room from leaks in the wall of the bath enclosure.

Condition

The stone wall is in roughly good condition, but is leaky in several places, notably on the east, southeast, and southwest sides. The escaping water flows away in muddy channels to join the main outflow, causing moisture problems for the structural underpinnings of the east and southeast wings. The stone wall on the southwest side is showing signs of dilapidation. Stones are falling out of the wall. On the interior, the sluice gate is in disrepair.

Recommendations

The exterior of the stone enclosure should be repaired and the exposed portions of the wall should be patched and repointed. The cement parging of the stone wall should be patched and repaired.

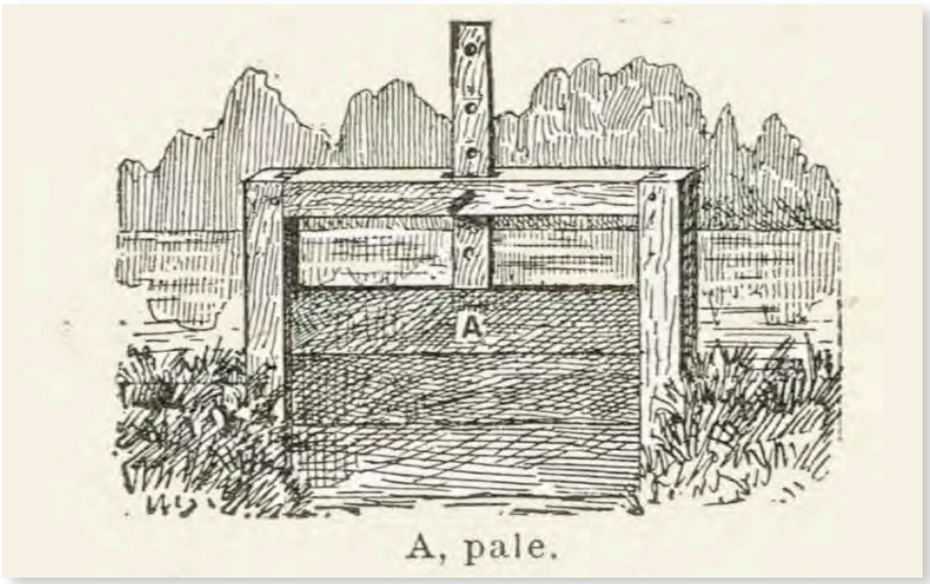


Fig. 85. Conventional eighteenth- and nineteenth-century wooden sluice gate.

2. Octagonal Main Section (mid-1820s)

The frame building enclosing the surface of the Octagonal Bath was probably built in the mid-to-late 1820s. Bathing facilities consisted at first of the main octagonal structure and the north and south dressing room wings. The matching east and west wings were added in the mid-1830s. The central portion of the building is formed around a mortise-and-tenon frame that is exposed on the interior. Each face of the building is about sixteen feet wide. It is covered and strengthened by an exterior cladding of plain weatherboards with a 6 1/4" to 6 1/2" exposure, secured with cut nails. The weatherboard surface is topped by a minimal cornice element, consisting of a five-inch-deep soffit with a plain outer edge. This is nailed to the underside of the projecting rafter ends and is trimmed below by a two-inch-tall beaded board nailed to the face of a three 1/2-inch frieze board. The cornice is the same on the three surviving dressing room wings. The soffit on the main section, which was replaced during a previous repair, probably matched the beaded soffit on the dressing room wings.

Fig. 86. Southwest wall seen from southwest

Fig. 87. Octagonal Bath from west

Fig. 88. Octagonal Bath from northeast

The weatherboards on each face are separated by a beaded corner board that is angled to receive the cladding. The weatherboard overhangs the stone foundation on each side. On the southwest side, where no dressing room was added, the original beaded corner board extends down as much as twelve inches below the lower edge of the weatherboard, suggesting that the sheathing originally extended over the stone to line up with the siding on the west wing. The polygonal hipped roof is covered with plain wood shingles. The hipped roof culminates in a large central oculus. The c. twelve-foot diameter opening, in combination with the permeable siding, permits rapid, ongoing ventilation of the damp, vapor-laden air out of the building, protecting it from moisture-related damage.

Fig. 89. Interior of the Gentlemen's Bath.

On the interior, the heavily whitewashed structure consists of eight vertically framed sections joined to form an octagonal volume. Eight 5 1/2" wide x 4 1/4" deep corner posts are mortised into a 6" tall by 8" deep top plate. Studs fill the eight intervening sections of the perimeter wall. The top plate is made structurally continuous by half-lapped, pegged joints and reinforced by eight short splice plates (4 1/2" tall by 7" deep) spanning between and mortised into the plates at each corner. Nothing remains of the original sill, which sat on the top of the stone enclosure with their exterior faces aligned. The sill, which was cut each time a new dressing room door was added, was fully replaced in the mid-twentieth century with discontinuous sections built up of three 2 x 10's.

Fig. 90. Typical splice plate

Fig. 91. North Wall

Fig. 92. East Wall

Fig. 93. South Wall

Fig. 94. West Wall

Fig. 96. Northeast Wall

Fig. 95. Southwest Wall

Fig. 98. Northwest Wall

Fig. 97. Southwest Wall

The intermediate wall structure consists of 3" wide by 4 3/4" deep studs. The studs are spaced in two different manners. The four walls that received the gabled wings on the north, south, east, and west were apparently framed to receive the wings from the beginning, even though the wings were not all built at first. In these locations, six studs were originally mortised into the framing at the top and bottom. The two inner studs were spread widely enough apart to form door posts and the next set of flanking studs were spaced to receive the side walls of the dressing, leaving less room for the outer pair of studs. Short studs, of lesser quality than the rest, were placed over the head of each dressing room door to reinforce the weatherboards. The weatherboard cladding of the octagonal structure continues behind the dressing rooms, but the weatherboards in the gables are discontinuous. The roof edges of the wings are concealed behind boards let into the outer face of the studs, except at the west wing, where the roof battens can be seen projecting into the main room.

The four remaining wall sections are made of six evenly spaced studs. The structure of all eight walls was braced by angled members extending to each side from midway up the corner posts down to the sill. All but the inner pair of studs are toenailed into each of the brace where it cuts through them.

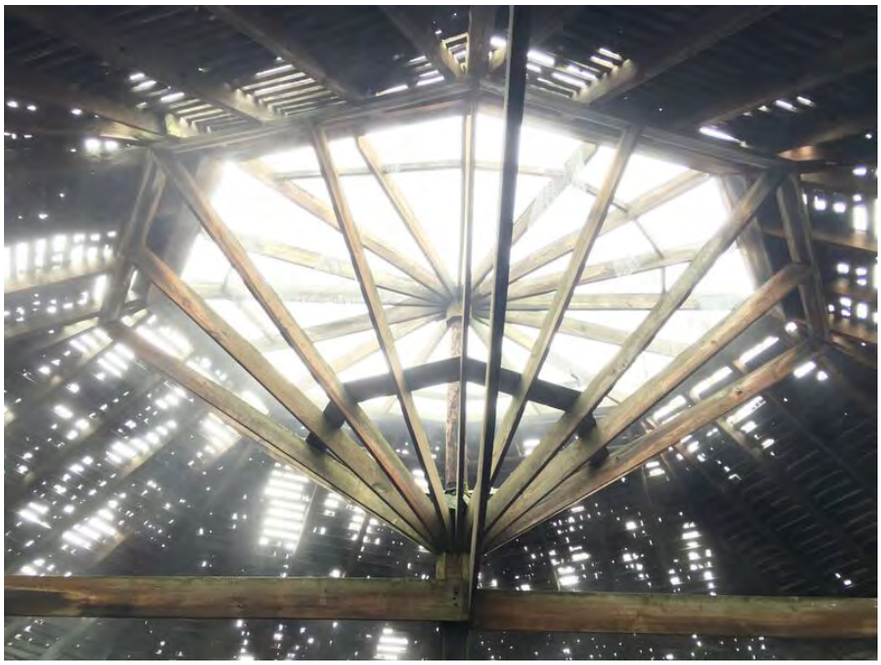


Fig. 99. Octagonal pool roof structure

The roof structure is original. The hip rafters extend to the corners of the frame of the octagonal oculus at the center of the roof. Parallel common rafters corresponding to the studs run between the hips. Each rafter is inscribed with a Roman numeral framing mark. Birdsmouths on the ends of each rafter are notched into the top of the top plate. The roofing shingles are carried on early, widely spaced battens that span between the rafters. It is not yet clear if the framing of the oculus itself is of an early date. The exterior of the oculus was originally provided with a low decorative parapet visible in early images.

IV. CONDITIONS ASSESSMENT AND RECOMMENDATIONS

3A. Alterations — Mid-twentieth Century Repairs

The building's structure has been compromised by alterations and repairs over many years. Doors giving access to the spout bath, the cold plunge, and the dressing rooms on the northeast and southeast were cut though the sill and most of the angle braces. Significant repairs in the mid-twentieth century replaced all the sections of the sill. The roof of the building was not originally supported by a center post made from a tree, but today a recycled telephone pole rises in the center to support an umbrella-like set of braces to each side of the oculus. Two 2 by 12" girts extend from the post to four equidistant corners of the building. The central support was first added in the mid-to-late nineteenth century and was replaced between 1955 and 1963 with the current structure. All the door trim was replaced in the early to mid-twentieth century.

3B. Alterations — 1980s Repairs

In the 1980s, the building was repaired by an in-house Homestead maintenance team. Simple and practical repairs were not intended to blend in or be historically appropriate. These repairs included a concrete slab floor in the dressings to the north and northeast and replacement of sills with built-up members. The east wing containing the cold plunge was truncated in the 1980s to remove the cold water pool, leaving just the portion containing two dressing rooms.

Fig. 100. Moisture damage at south wall

Fig. 101. Moisture Damage at replaced sill on east wall

IV. CONDITIONS ASSESSMENT AND RECOMMENDATIONS

General Conditions

The central section and the wings are in fair to poor condition, due to years of deferred maintenance. The trouble mostly stems from the steam emitted by the spring, from water introduced from the moist soil below the six wings, and from water admitted through the failed wood shingles on the roof. It is manifested by rotted and deteriorated structural and cladding material. Other causes of failure are the result of the removal or poorly executed replacement of key portions of the structural system.

The structural elements that were replaced in previous campaigns in the early-to-mid-twentieth century and the 1980s are the areas under the greatest pressure from ground-related moisture. Other than limited sections of structural members that have been affected by rain penetration in recent years, most of the original structural members remain sound and can continue to play their roles in the structural system.

The weatherboard and board-and-batten cladding on the entire building appears sound, though somewhat irregular, with splits, chips, and eroded ends. Visible surfaces are very weathered, suggesting that the building was left unpainted for an extended interval in the past. Areas of replaced boards are sharp and fresh looking, contrasting with original material. Some areas of weatherboard sheathing have been adversely effected by water from above, but the majority remains sound, although irregular in appearance. The direction of the prevailing winds has something to do with the condition of the siding. The weatherboard on the southwest side is more irregular in appearance (and has more sections that are rotted) than the northwest side, which is in fairly good condition. The areas of siding abutted by the roofs of the south, southeast, and west wings are in poor condition.

Air-borne Moisture

Air-borne moisture from the spring itself has been a source of deterioration since the building was first constructed. It results in moisture settling on surfaces, causing mildew, and penetrating into joints and end grain over the long term. The ventilation of the interior provided by the oculus and the permeable nature of the cladding has moderated the effects of the heated vapor. In spite of this constant assault, exacerbated by the passage of time, the natural rot-resistance of the wood and a regular program of paint or whitewash has protected the basic elements of the structure from failure.

Moisture from Roof Failure

The wood shingle roof on the main section and the wings has been failing for at least a decade. In recent years, shingles have blown off, resulting in areas where rainwater can fall onto structural elements. While most loss of shingles has been in the center of the roof around the oculus, an area on the southeast side has been exposed for several seasons to damaging water penetration. As a result the structure on the south and southeast sides of the octagonal frame has been compromised, particularly the top plates and the timber spices at their juncture.

Loss of Integrity from Building Modifications

Weakening of the structure from a loss of integrity has caused the building to lean to the northwest. Many of the angle braces that originally prevented racking and leaning were cut in order to insert new doorways and to remove rot at their lower ends. In several spots, the angles were cut and extended with vertical stubs to the sill, eliminating their bracing function.

IV. CONDITIONS ASSESSMENT AND RECOMMENDATIONS

Building Systems

Building systems are very limited in extent. Electrical, heating, and plumbing are inadequate from a safety and code standpoint. Walls are mostly open and wiring cannot be readily concealed. There is no need for heating or air conditioning in the main section.

Plumbing

The Gentlemen's Bath has been used on a yearround basis in the last decade. Electricity, lighting, and heating are minimal. A toilet is provided in the south-end of the spout bath leanto that is part of the south wing. Another toilet was previously located in the enclosed porch of the south wing.

Electrical/Telephone

The Gentlemen's Bath operates only in the daylight hours and was not historically equipped with electricity. In the nineteenth century the bath opened at 4:00am and was open as late as 10:00 PM. The 1835 interior watercolor shows what appears to be an oil lantern in the Great Bath next to one of the dressing room doors. There are a few electrical outlets and lights in the south wing, mostly in the vicinity of the room provided for the bath attendant. There is no emergency lighting. The only exit signs are non-electric. A telephone is provided in the bath attendant's room.

Heat/AC

The Gentlemen's Bath was not historically provided with heat or air conditioning. In recent years, the building has remained open in the winter. The attendant's room is, however, now equipped for comfort with a wall-mounted propane heater.

Accessibility

The Gentlemen's Bath is not handicapped accessible. Historically and until the mid-twentieth century, access for those unable to walk was provided in a room on the north side of the Ladies' Bath. A concrete tank next to the main pool was equipped with a hand-operated lift, by which disabled people could be lowered into the water. The room was reached from the exterior deck by its own exterior door.

RECOMMENDATIONS

General recommendations for the Gentlemen's Bath revolve around the structural elements that were originally designed to give it rigidity. Consideration should be given to returning the structure to a more vertical condition. Keep a central support structure similar to the present one, which was added in the mid-nineteenth century when the original roof bracing was removed to permit pedestrian circulation around the perimeter of the interior.

Pool Enclosure Recommendations

- The masonry pool enclosure should be repaired in areas where it has deteriorated and generally repointed. Repair the sluice gate and drain mechanism.

Exterior Recommendations

- The ground should be regraded to direct water away from the building.

- The piers supporting the wings should be repaired in situ or replaced with new piers built using traditional materials and construction techniques copied from the south wing.

- Regrade the exterior to direct water away from the building while keeping the floor at a minimum of 6" above grade.

- Replace roof shingles

- Add new crown around the oculus and add screening in the opening to keep out insects and birds.

- Replace damaged original siding and inappropriate added siding to match original in material and form. Clean, scrape and repaint exterior.

Interior Recommendations

- Clean, scrape, and repaint the interior

- Replace damaged areas of walkway around the interior to match existing.

Structure Recommendations

- Sills throughout should be examined and replaced or repaired as needed to provide an adequate base for the structure. All of the sills in the octagonal section should be replaced using traditional materials and techniques. Shore the structure with temporary posts and studs during repair.

- The lateral braces should be repaired to give additional rigidity to the octagonal frame, although it will not be possible to return all of them to service. Currently the braces display a mixed condition:
    - o Both west wall braces are cut and should be repaired/extended.
    - o Both southwest wall braces are intact.
    - o Both south wall braces are cut. One cannot be extended to the sill, but one should be replaced.
    - o One southeast wall brace is gone and cannot be replaced. The other is cut and should be replaced (a realignment will be required).
    - o One east wall brace is in place but shows signs of deterioration and should be replaced.
    - o Both northeast braces are cut and cannot be restored due to door placement.
    - o Both north wall braces are cut and should be repaired/extended.
    - o Both northwest braces have been cut and should be repaired/extended to the sill. The other has been cut and cannot be extended.
- Plates on the south and southeast and the splice plate linking them should be replaced using materials and techniques to match the other members. The remaining top plates and splice plates should be evaluated for decay and repaired as needed.

- Replace the central structure with more durable and historically appropriate dimensions and materials for the braces and replace the telephone pole with a more appropriate vertical member.

Building Systems

New systems should be kept to the minimum and all changes should be carefully negotiated with the local building inspector. New lighting and wiring, in particular, should not be intrusive on the interior and exterior.

Plumbing

A toilet room should continue to be provided for the use of bathers. The current placement at the end of the Spout Bath leanto of the south wing makes sense for the future. The toilet room should be treated very simply, as it is now. It should be provided with lightweight, cleanable surfaces.

Electrical/Telephone

The octagonal bath should be provided with minimal ground-fault electrical outlets and lighting/ emergency lighting required to meet codes. Exterior lighting should be accomplished from poles or standards. New electrically lit exit signs should be carefully placed where needed. Basic telephone and internet service should be provided in the attendant's room.

Heating/AC

The building should not be heated or air conditioned. There is no practical need to provide these services in the building, which should remain as open as possible to facilitate air movement. The only place where heat is useful is in the attendant's room in the south wing during cold weather. It is recommended to retain the propane heater or devise another less intrusive solution. Propane tanks should be moved to a less visible location.

Accessibility

Making the building fully handicapped accessible is not possible without adversely compromising the structure's historic integrity. The only means of access between rooms in the Gentlemen's Bath is along the narrow deck that surrounds the pool. An alternate means of safely providing handicapped access is also the way it was done historically, when each dressing room was reached by its own exterior door. The former Cold Plunge, in the portion of the South Wing which was removed in the 1980s, could be reconstructed as a fully accessible hydrotherapy pool filled with the same thermal water as the main pool. The new pool would be privately available to families and both men and women. It would be equipped with a modern lift and entered by a separate door from the exterior. The lift could be self-operated or controlled by an attendant as needed.

4. Wings

The north and south dressing rooms are the earliest of the wings. They may have been built at the same time as the main structure c. 1830. The north dressing room is the best preserved with exterior and interior material that is mostly original. The east and west dressing rooms, originally identical, were added by the mid-1830s. All four wings were nearly identical and measured about ten feet wide and fourteen feet long with a four-foot deep porch incorporated under the main roof at the outer end. There was no main entry to the building and no deck on the interior providing communication between wings- instead, each wing, connected by exterior decks, gave equal access to the bath. Each wing had a window on the left side when viewed from the end and a central door sheltered by an entrance porch on the gable end. The east dressing room was replaced in the late 1840s with a larger wing containing the cold

plunge. Because of the sloping site, the north and west wings are flush with the grade and the south and east wings are elevated as much as 3-4 feet above grade.

4A. Wings — North Wing (mid-1820s)

The foundation of the north wing is concealed below grade. The north wing is 10'- 3" wide and 10'-2" deep, not counting the porch. It is clad with plain weatherboards capped by a minimal cornice made up of beaded trim like the main building. The wing has 3" by 1 3/8" corner trim with a beaded edge. The roof at the porch is carried on extensions of the top plate of the side walls, trimmed on the exterior and bottom with boards eqipped with beads on the bottom edge. The bottom trim board is cut back at the ends of the plates to receive the caps of corner posts that were removed in the nineteenth century. These posts or columns have been missing since before the earliest photographs were taken. There is no ceiling in the porches of the north and south wings. The roof is sheathed with wide irregular boards. The gable is filled with plain weatherboards trimmed with tapered rake boards. The bottom weatherboard is beaded and aligned with the trim at the top of the side walls. Its outer ends are sawn in a decorative curved shape. A small beaded trim piece forms a cap aligned with the lower ends of the rakes. A six-over-six sash window on the east wall lights the interior. The jambs of both the door and the window are trimmed with a robust bead.

Fig. 103. Interior of North Wing looking north

The interior of the north wing is sheathed with 6-inch horizontal tongue-and-groove boards separated by 3/16" beads. The ceiling is sheathed with random width 6", 9", and 11"-wide tongue-and-groove boards nailed to the bottom of the joists, which sit on top of the wall plates. The joint between the main section and the wing is sealed by a board cut to fit the weatherboard.

The board-and-batten outer door is original. It is made of three tongue-and-groove boards with three beveled battens. The door is trimmed with a narrow beaded board that forms the door head and jambs. The door was much later divided into a Dutch door by a horizontal saw cut. It is kept shut by added wooden bars on the interior. Historic locking devices are missing. The six-over-six sash window on the east wall is untrimmed.

A tall baseboard was added in the late twentieth century to cover the junction with the added concrete slab floor poured within the framing. A late nineteenth-century cabinet in the northeast corner has a modern plywood door. Two round holes in the ceiling, covered with sheet metal, represent stovepipe holes. The stovepipe survives inside the northernmost opening. This is probably evidence of the "fires" that heated dressing rooms mentioned in early accounts, and there is no evidence of any brick flues. Early peg rails to hold clothes are located on each side wall. The plain 1 x 7 trim on the door to the central bath was installed in the mid-twentieth century.

Condition

The north wing is in fair condition. The dressing room sits on the ground, suggesting that the sill has failed. The wing is fairly level and does not appear to have slipped in relation to the main section, nor is the roof ridge at an angle. The weatherboard and trim is mostly sound, although the exterior surfaces seem to have been blasted, possibly with high-pressure water, leaving them with a rough and splintered texture apparent also on the west wing. The bottom board on the gable end has been broken on the lower edge. The weatherboard along the ground on the east and west sides have been deteriorated by a combination of rain falling from the eaves above and an accumulation of debris in the corner. The connection of the side walls and the main section has separated as much as an inch, leaving an unsightly gap on both sides. Flashing along the intersection of the roof with the main building is in rough condition.

The original door and sash window and their molded frames, both in protected locations, are in fair condition ad can be repaired. The roofing, although in poor condition, has not yet permitted much water into the interior. The interior is in good condition, with the exception of the concrete floor, which is unsightly and will probably not work well to preserve the adjoining wood wall structure over time. The modern baseboard is inappropriate.

RECOMMENDATIONS

Exterior Recommendations

- Regrade the exterior to direct water away from the wing while keeping the floor a minimum of 6 inches above grade.

- Remove the concrete slab on the interior and reconstruct the floor structure and sill using traditional materials and construction techniques copied from the south wing.

- Tighten the joint between the north wing and the weatherboard on the main section.

- Replace the roof shingles and flashing.
- Replace damaged original siding and inappropriate later siding to match original in material & form.
- Clean, repair and reglaze the sash window.
- Clean, scape and repaint the exterior.

Interior Recommendations

- Add a new tongue-and-groove floor to match that in the south wing.
- Replace the baseboard with new bottom interior sheathing boards.
- Repair and reattach loose interior sheathing boards.
- Repair the door and devise a new way of keeping it closed.
  Consider using it for a second means of egress from the building. If so, add an alarm system to discourage unlawful entry.
- Cover the stovepipe holes with sheet metal.
- Clean, scrape, and repaint the interior. Replace missing pegs.

4B. Wings — South Wing (mid-1820s)

The south wing was nearly identical to the north wing, but was altered, probably in the mid-nineteenth century, by enclosing the porch, lowering the ceiling, and walling off a portion along the east side to form a corridor to give access to the added spout bath. The original six-over-six sash window on the west side, the trim, the gable infill, and the weatherboard match the related features on the north wing. The south wing is raised off the ground on rough limestone piers on the north side and on a coursed rubble foundation wall on the east side, protecting the wing from the outflow of the pool. The opening on the south end between the stone wall and the pier at the SW corner is infilled with lattice.

Fig. 104. South wing seen from the southwest

The porch was enclosed with horizontal weatherboards. A plain batten door, reached by an open-stringer wood stair, is fitted into the west side of the porch enclosure. A small, four-light, casement window off-center in the south end lights the interior of the enclosed porch. The plain window trim retains angled slots intended to hold (missing) integral louvers for privacy.

Fig. 105. South wing interior from the north

The interior is similar to the north wing in its sheathing and trim. The original exterior batten door is intact but was reversed, probably when the porch was enclosed. The tongue-and-groove flooring is original.

The original dressing room was subdivided by an east-west partition made of plain vertical tongue-and-groove boards. A later ceiling has been added below the original one. The roofing shingles are supported on narrow battens that span between widely spaced common rafters. In this way, it is like the main roof, but unlike the north wing with its wide, irregular sheathing boards.

Condition

The south wing is in fair condition. The building sags as much as four inches toward the main section, suggesting that the support and sills have failed in that area. In spite of the slope, the floor structure appears to be mostly sound under the wing. The intermediate stone pier on the west side is in poor condition. The weatherboard and trim is mostly sound, although the exterior surfaces display significant paint buildup and painted elements in the gable end are peeling and alligatored The weatherboards in the south end are split and have slipped in a few places. The bottom board is rotten. The connection of the west side wall and the main section has separated as much as an inch, leaving an unsightly gap. Flashing along the intersection of the roof with the main building is in rough condition. The lattice infill in the south end is in fair condition.

The original door and sash window and their molded frames can be repaired. The plain batten door in the porch enclosure is deteriorated at the bottom. The roofing is in poor condition, with a large hole in the eastern slope permitting water into the interior. The interior is in fair condition, with the exception of the interior of the enclosed porch, which is unsightly. It is probably not possible or desirable to open the enclosed porch, which appears to have been added in the late 1840's in tandem with the addition of the leanto along its east side.

RECOMMENDATIONS

Exterior Recommendations

- Return the wing to a level condition, repairing the sills and augmenting or replacing the piers as needed.
- Tighten the joint between the wing and the weatherboard on the main section.
- Replace the roof shingles and flashing.
- Replace damaged original siding and inappropriate later siding to match original in material and form.
- Clean, repair and reglaze the two windows.
- Clean, scape and repaint the exterior.

Interior Recommendations

- Repair the original exterior door and the added exterior door. Provide and effective lock and alarm system to discourage unlawful entry.
- Consider using it for a second means of egress.
- Clean, scrape, and repaint the interior.

4C. Wings — Spout Bath Addition (late 1840s)

A weatherboarded leanto, probably originally supported on stone piers, was added along the east side in the late 1840s to house the spout bath that was improvised in the existing outflow area. It has been substantially repaired, with the roof structure entirely replaced with modern materials in recent years. There is an inaccessible area on the interior separating the central room from the spout bath. The wing is reached by means of a corridor in the eastern portion of the original south dressing room wing. The corridor is connected to the spout bath leanto by a door in its east wall and by an added door into the main room.

Fig. 106. Spout bath leanto from the southeast

Fig. 107. Spout bath leanto interior looking southeast

The leanto contains a wooden stair (rebuilt in recent years) to the lower area under the floor where the spout bath operates. The stair is surrounded by a modern, solid wooden railing with a wide top.
The leanto is lit by a six-over-six sash window with a roughly built frame made of reused tongue-and-groove boards. The spout bath is located within a low-ceilinged space that is contained within stuccoed stone walls. The interior sheathing, which survives on the west wall, consists of wide, random-width, plain tongue-and-groove boards. The plain, narrow sheathing on the exterior walls appears to have been replaced in the mid-twentieth century. Beyond the stair is a toilet room in the south end of the leanto. The toilet area is screened by a modern vertical board partition.The southeast corner of the leanto is supported on a stacked concrete block pier added in the mid-twentieth century. The area between the piers is enclosed with vertical boards.

Condition

The spout bath addition is in poor condition. The corner pier on which the structure rests rises out of the outflow stream and has been replaced with an inappropriate concrete-block support. The wood infill betweeen the piers is in poor repair. The wing is fairly level and does not appear to have slipped in relation to the main section, nor is the roof ridge at an angle, but the structure of the roof failed in the early 2000s and was replaced using modern materials. The weatherboard and trim is mostly sound, although it is split, broken, and eroded in places. The windows are roughly framed and the sashes are in poor condition. Flashing along the intersection of the roof with the main building is in rough shape. The roof overhang is very slight and allow water to run down the face of the east wall. The location where the spout bath leanto and the southeast dressing room addition are juxtaposed is awkward and is a nexus for deterioration from water channeled down the wall from the roof above.

The spout bath addition is under threat for deterioration because of the steam and water vapor rising from the spout bath below. The interior sheathing is warped and damaged from the high humidity and insect damage in the section. The ceiling is missing and areas of sheathing have been covered with plywood. One section of sheathing survives in good condition located on the west side and should be preserved, if possible.

IV. CONDITIONS ASSESSMENT AND RECOMMENDATIONS

RECOMMENDATIONS

Exterior Recommendations

- Rebuild the structure and the supporting piers as needed to produce a sound final product.
- Use materials and techniques designed to reproduce the original appearance of the leanto.
- Replace the damaged roof sheathing, roof shingles, and flashing.
- Replace damaged original siding and inappropriate later siding to match original in material & form.
- Clean, repair and reglaze the two windows.

Interior Recommendations

- Clean, scape and repaint the exterior.
- Repair flooring.
- Maintain the use of the spout bath.
- Rebuild the stairway, railing and toilet partition.
- Add additional railings.
- Repair and replace interior sheathing boards to match existing.
- Add new ceiling sheathing over the current replacement rafters to match the southwest shed addition.
- Clean, scrape, and repaint remaining elements of the interior, particularly salvageable boards on the east wall of the adjacent south wing.
- Refit the toilet room and its finishes using readily cleanable materials for continued public use.
- Keep the interior as open as possible for constant ventilation.
- Add ceiling and crawl space vents to aid in removal of moist air to avoid another round of repair and replacement.

4D. Wings — West Wing (mid-1830s)

The west wing was built about a decade after the north and south wings, and was deliberately built to match the earlier structures in form and detail. The exterior entrance and interior entrances have been widened, probably when the entry door was replaced in the late nineteenth century with a molded four-panel door. The porch, trim, and weatherboard all match the north and south wings, including the beaded trim on the six-over-six sash window on the north side (the muntins are missing from the lower sash). The west wing has a plain board-and-batten ceiling in the porch. The north sill still protrudes on the north side of the porch to show where it formerly supported a porch floor. A modern concrete porc floor slab has been poured against it.

Fig. 108. West wing from west.

Fig. 109. Detail of north window in west wing

Fig. 110. Interior of west wing from east

The interior of the west wing is different from the other wings. It has plain, random-width horizontal interior wall and ceiling sheathing measuring from 5" to 12". The wall between the wing and the central bath area is also made up of plain horizontal board. The butted floor boards are modern. When the door was widened in the early to mid-20th century, a section of the earlier narrow doorway was infilled at the top. The square interior window trim is 3/4" wide.

IV. CONDITIONS ASSESSMENT AND RECOMMENDATIONS

Condition

The west wing is in fair condition. The north side of the building sits on the ground, but it appears that the sill may be intact. The wing is fairly level and does not appear to have slipped in relation to the main section, nor is the roof ridge at an angle. The weatherboard and trim is mostly sound, although the exterior surfaces seem to have been blasted, possibly with high-pressure water, leaving them with a rough and splintered texture apparent also on the north wing. In contrast, the weatherboards and ceiling under the porch display a thickly built-up and alligatored paint film. Some weatherboard have slipped and cracked. The bottom weatherboard in the gable end is broken at the ends. The connection of the side walls and the main section is covered by an added vertical trim board. Flashing along the intersection of the roof with the main building is in good condition.

The altered doorframe and the added door are in fair condition. The door has been repaired, probably after damage from a forced entry, by adding a vertical board over the locking stile. The sash window and its molded frame are in fair condition although parts of the beaded exterior window stops are missing. The bottom sash has been incorrectly rebuilt with a single, undivided light. The roofing, although in poor condition, has not yet permitted much water into the interior. The interior is in good condition,

RECOMMENDATIONS

Exterior Recommendations

- Regrade the exterior to direct water away from the wing while keeping the floor a minimum of 6 inches above grade.
- Repair the sills and repair or add corner piers as needed using traditional materials and construction techniques copied from the south wing.
- Remove the added joint cover
- Tighten the joint between the wing and the weatherboard on the main section.
- Replace the roof shingles.
- Replace damaged original siding and inappropriate later siding to match original in material and form.
- Clean, repair and reglaze the upper window sash and repair the exterior trim. Add a new lower sash to match the upper sash.
- Clean, scape and repaint the exterior.

Interior Recommendations

- The main entry door should be stripped of paint and repaired.
- Install effective locking mechanism. Add an alarm system to discourage unlawful entry.
- Clean, scrape, and repaint the interior.

4E. Wings — East Wing (late 1840s)

The east wing of the octagonal bath was replaced entirely in the late 1840s to make room for the cold plunge, a small tank filled with water from a nearby cold spring. The east wing was made three feet wider than the previous wing by aligning the north side with the adjacent corner of the octagonal structure. The exterior is clad in the original board-and-batten siding on the sides and with reused vertical boards in the south end and gable. A fixed casement on the north side lights the dressing room. An old six-over-six sash lights the south side.

Fig. 111. East and Southeast wings from southeast.

It was built with exposed interior framing designed to carry vertical exterior board-and-batten sheathing. There was no interior sheathing. As can be seen in an interior photograph from 1963, framing consisted of corner posts and intermediate posts connected by a continuous top plate and sill and by a horizontal girt mortised into the posts midway between. A six-over-six sash window in the north wall was augmented at some point by skylights in the roof. A small dressing room, built at the same time, intervened between the cold plunge room and the main section, separated by a plain vertical board partition. It was lit by a six-light casement window in the north wall. The older door to the dressing room was reused as the opening to the corridor leading to the cold plunge. A new door was cut to its north to enter the added dressing room.

Fig. 112. Interior of East Wing looking north

With the removal of the cold plunge in the 1980s, all that remained of the east wing was the dressing room and the corridor beside it, which was made into another dressing room. Both interior rooms have board ceilings. Material from the demolished portion was used to infill the east gable end with vertical boards with open joints between them. The east wing is supported on concrete block piers that replaced the original stone piers. The concrete block pier at the southeast corner projects well beyond the corner.

Fig. 113. Deterioration at the junction between the East Wing and the Southeast Addition.

Condition

The east wing is in poor condition. The floor structure is suspended a short distance above the ground and shows signs of moisture-related deterioration and insect damage both in the sills and the flooring. According to the engineering report, the wing "shows both sill deterioration and overall rotation relative to the main building. As the sills crush... connections above are strained and openings created, such as the gap apparent along the main building wall." The roof and the flashing along the intersection of the roof with adjacent sections is in poor condition. The area where the east wing meets the southeast dressing room is in extremely poor condition due to years of water penetration through a failed roof.

The windows and their frames are in poor condition. The interior is in poor condition, with deteriorated sections of ceiling boards and wall sheathing. The floor is modern, probably replaced when the old boards were too damaged to be safe.

RECOMMENDATIONS

Option One: Exterior Recommendations

- Regrade the exterior to direct water away from the wing while elevating the floor a minimum of 6 inches above grade.
- Repair the sills and floor structure and repair or add corner piers as needed using traditional materials and construction techniques copied from adjoining wings.
- Repair the wall structure above and replace rotted sections of sheathing to match original material.
- Tighten the joint between the wing and the weatherboard on the main section.
- Replace the roof shingles.
- Add new battens to the east end to seal the interior.
- Clean, repair and reglaze the three windows.
- Clean, scape and repaint the exterior.

Option ONE: Interior Recommendations

• Add a new tongue-and-groove floor to match that in the south wing.

Option TWO: Exterior Recommendations

• Remove the structurally compromised east wing, which is in poor condition, and use the intact posts to rebuild the original cold plunge wing.

• Use traditional materials and construction techniques copied from adjoining wings. Add new window to reproduce historic sash windows elsewhere on the building.

Option TWO: Interior Recommendations

• Incorporate such changes as are needed to provide handicapped access to a new handicapped-accessible pool on the interior, including a new exterior door on the north side, where an original window was located.

• Recreate the interior of the cold plunge, adapted for contemporary use in keeping with ADA requirements.

Option THREE: Exterior Recommendations

• Remove existing wing.

• Restore the east wing to its original form from the 1830's duplicating the west wing closely.

Option THREE: Interior Recommendations

• Restore the interior of the east wing to contain a single dressing room.

• Trim out the interior to match the west wing.

4F. Wings — Southeast Addition (late 1840s)

The southeast addition was built as a leanto against the southeast side of the bathhouse in the antebellum era. It was very likely constructed after the adjacent spout bath to the west and before the addition of the cold plunge, because it does not align with the southeast face of the octagonal section, but was shifted to the northeast, where it overlaps the east wing, creating a complex floor plan and roof shape. Where the southeast addition meets the east wing, there is a section of the building that is inaccessible. The southeast addition is clad with vertical tongue and groove boards and supported on stone and concrete block piers. The end walls are supplied with battens as well as vertical board sheathing. The triangular area under the roof in each end is filled with board and batten siding. The three dressing rooms on the interior are lit by three-light, transom-shaped windows.

The dressing rooms are lined by vertical tongue-and-groove boards with narrow beaded joints. The joints in the ceiling boards are covered with battens. The rooms are divided by vertical tongue-and-groove board partitions with a central beveled board on the interior of the center room to stiffen the assembly. Peg rails run along both sides of each dressing room. The random width tongue-and-groove floor appears to be original.

Fig. 114. Interior of southeast wing

Condition

The southeast addition is in fair condition. The building sits one to two feet above the ground and the sill and floor structure appear to be in fair condition. Water, likely from a leak in the pool enclosure, keeps the area under the wing wet at all times. The wing is fairly level and does not appear to have slipped in relation to the main section. The under-floor structure is mostly sound, with a few possible areas of decay. The sill along the center of the outer wall has been replaced, resulting in removal of the bottoms of most of the vertical boards and the addition of a horizontal board along the bottom of most of the wall.

The sheathing and trim is mostly sound It is possible that the building was fully equipped with battens until the repair at the bottom of the long wall required their removal. There is no frieze or soffit along the eaves. Flashing along the intersection of the roof with the main building is in rough condition. The flashing at the intersection of the southeast addition with the roof of the east wing has been repaired with an inadequate section of sheet metal. The intersection of the southeast addition with the roof of the spout bath leanto collects rainwater and is an ongoing source of maintenance trouble.

The three transom-style windows and their minimal frames are in reparable condition. The roofing, which is in poor condition, has permitted water into the interior. As a result, the ceiling on the interior is in poor condition. Interior wall sheathing is in fair condition.

RECOMMENDATIONS

Exterior Recommendations

- Remove water seeping under the southeast addition by sealing the stone pool enclosure.
- Repair the floor structure as needed using traditional materials and construction techniques copied from the adjacent wings.
- Repair and rebuild the rotten areas at the junction of the southeast addition and the east wing.
- Clean, repair and reglaze the three transom-style windows.
- Replace the damaged roof sheathing, roof shingles, and flashing.

- Repair areas of damaged sheathing at bottom of the long wall and in the southern end.
- Clean, scape and repaint the exterior.

Interior Recommendations

- Repair original tongue-and-grove flooring to match existing.
- Repair and reattach loose interior sheathing boards. Replace damaged boards to match.
- Clean, scrape, and repaint the interior. Reattach and repair detached peg boards and pegs.

4G. Wings — Northeast Addition (1880s?)

Fig. 115. Northeast wing from the east. Note how the slipped roof at the top has dropped.

The leanto across the northeast face of the octagonal central section was added, probably in the 1880's, to increase the number of dressing rooms. It has a shed roof and is clad with vertical board siding. The eaves are formed by a projecting soffit supported on a short frieze. The rakes are formed by square boards angled at the bottom. It contains two dressing rooms, each lit by what were originally six-over-six sash windows with square exterior trim.

The lower sash in each window has either been replaced or lost its muntins. The walls and ceiling on the interior are sheathed with plain tongue-and-groove boards placed vertically on the walls and separated by a vertical-board partition. Each room has peg rails on each side. The floor was replaced with a concrete slab during a repair in the 1980s.

IV. CONDITIONS ASSESSMENT AND RECOMMENDATIONS

Condition

The northeast addition is in fair condition. The structure sits on the ground, As a result, the floor structure has decayed and was replaced with a concrete slab poured inside the frame walls. The walls are sound above the sill level, where there is probably extensive damage. As a result of the failure of the sill, the eastern end of the addition has dropped as much as six inches where it abuts the main section. This has resulted in the entire roof dropping at that end, pulling down the weatherboard at the top of the wall of the main section. The sheathing along the ground on all sides has been deteriorated by a combination of rain falling from the eaves above and an accumulation of debris at the base. The connection of the side walls and the main section has separated as much as an inch, leaving an unsightly gap on both sides. Flashing along the intersection of the roof with the main building is in rough condition.

The roofing, although in poor condition, has not yet permitted much water into the interior. The interior is in good condition, with the exception of the concrete floor, which is unsightly and will probably cause damage to the adjoining wood wall structure over time. The modern baseboard is inappropriate.

RECOMMENDATIONS

Exterior Recommendations

- Regrade the exterior to direct water away from the building while keeping the floor a minimum of 6 inches above grade.
- Remove the concrete slab on the interior and reconstruct the floor structure and sill using traditional materials and construction techniques copied from adjacent wings.
- Tighten the joint between the wing and the weatherboard on the main section.
- Jack the roof structure and east end wall back into position.
- Replace roof shingles, and flashing.
- Repair or replace damaged original wall sheathing to match original in material and form.
- Clean, repair and reglaze the sash windows.
- Clean, scape and repaint the exterior.

Interior Recommendations

- Add a new tongue-and-groove floor to match that in the south wing.
- Replace the baseboard with smaller appropriate element to match original base in other dressing rooms.
- Repair and reattach loose interior sheathing boards.
- Clean, scrape, and repaint the interior. Replace missing pegs.

IV. CONDITIONS ASSESSMENT AND RECOMMENDATIONS

C | The Ladies' Bath (early 1870s)

Fig. 116. Ladies' Bath from the south.

1. Stone Enclosure

The twenty-two-sided central portion of the Ladies' Bath Building stands on a circular stone wall that encloses the spring and pool. The two-foot-thick stone wall is provided with a narrow vertical opening on the southeastern side which permits the water in the pool to be fully drained. The opening is filled with a wooden sluice gate similar to the one in the octagonal bath. The opening is reinforced by buttresses on the exterior to either side. On the lower, southeastern side, the stone wall is fully exposed on the exterior, while on the east and north it is mostly below grade. A stone wall to the west of the outflow keeps water out of the area under the dressing rooms. The water flows through a shallow channel until it joins Warm Spring Branch to the southeast.

Fig. 117. Outflow from the Ladies' Bath showing stone buttress to left and brick spout bath enclosure to the right.

The water from the octagonal spring flows along the eastern side of the Ladies' Bath, partly under the outer ring of dressing rooms on that side. Another, smaller channel that drains the adjacent Drinking Spring flows around the west side of the building between it and the Reception House of c 1885. A brick tank containing the spout bath was inserted in one of the dressing rooms to the east of the outflow at some point. It may be that the previous spout bath was kept in operation for some years after the Ladies' Bath was built.

Fig. 118. Brick tank for the spout bath on interior (left) and the rebuilt invalid lift (right)

Another bath was added in two dressing rooms on the north side of the main structure, from which the dividing partition was removed. Today this is identified as the Invalid's Bath and contains a primitive lift for invalids. An historic photograph from the 1950s demonstrates how the lift was used well into the twentieth century. The current chair, with its wooden safety rail is shown. A large rock on the platform under the chair, probably helped the light-weight lift to submerge under the water (Fig. 75). Another photograph, probably from the 1930s, shows a patient in a wheelchair leaving the Ladies Pool. Comparison of the photograph of the lift with its appearance today confirms that it was rebuilt in the third quarter of the last century, only approximating its original appearance. The pool itself is made of concrete, which was probably added at an early date.

Condition

The stone wall is in roughly good condition, but is leaky in several places, notably on the east, southeast, and southwest sides. Further inspection will require partial disassembly of portions of the building. On the interior, the sluice gate is in disrepair.

RECOMMENDATIONS

The exterior of the stone enclosure should be repaired and the exposed portions of the wall should be patched and repointed. The cement parging of the stone wall should be patched and repaired as needed to prevent leakage.

2. Exterior

Fig. 119. Ladies' Bath from the south.

The main section of the Ladies' Bath consists of a framework of timbers organized between a series of twenty-two posts, one at each angle, about six inches wide and four inches deep. The four" deep by six" wide posts rise from the sill, which is placed directly on the stone spring enclosure, to support the building's top plate. This central form is surrounded and braced by a continuous outer ring of dressing rooms about eight feet deep. The roof of the outer section is given a scooped appearance or "kick" by the use of curved rafters. The twenty-two facets of the outer ring were originally supported on stone piers at the angles, spanned by wood sills. Where the piers stand in the current of the outflow from the octagonal bath, several of these piers have been replaced by wood pilings or dry-stacked concrete block supports. The supports along the north and west are not visible above grade and behind the deck that originally formed a perimeter around the entire building.

Fig. 120. Ladies' Bath from the north.

The top plate carries a faceted roof in which common rafters rise to support a central frame surrounding an oculus. The oculus was originally crowned by a dwarf board-and-batten parapet that gave a finish to the top of the building. The exterior of the central section is clad with vertical boards, the joints of which are covered by battens where they are exposed to the weather. The top of the center section, as rebuilt in recent decades, consists of a frieze of vertically placed 2 x 12s. 8" long sections of 2 x 12s resting on top of the posts. Modern 2 x 12 outriggers project from the exterior of the frieze to support the eaves, separated by short sections of 2 x 12s. The original rafters ended at the wall plate and were provided with separate decorative sawn ends on the exterior. These survive on the lower roof only. The bottom edge of the outer wall retains old sections of a beveled water table that covers the sill. The water table and the bottom of the sheathing along the eastern and southeastern sides has been replaced with a tall horizontal board. The open area under the dressing rooms is infilled on the south by old vertical boards.

Fig. 121. West side of the Ladies' Bath showing one of the entry doors.

Fig. 122. Condition of the lower wall on the northwest.

Each external facet of the outer ring was originally pierced by a two-panel door topped by a three-light transom. Most of the doorways were infilled with boards and battens in the mid-twentieth century, but the square, narrow outer frames remain and the transoms continue to light the interior. One of these doors survives on the interior on the south side. Two doors are different from the others in that they are located next to each other on each side of a corner post on the west side, where today they serve as the main entries to the bath. One door remains operable on the north giving access to the invalid pool. The three exterior doors are now equipped with plain batten doors unlike the original two-panel doors. All that remains of the outer perimeter deck that gave access to the dressing rooms is a section of replaced flooring along the north and west side. At one point in the early-to-mid-twentieth century this section was screened from the highway and the building to the north by a high wood fence. In the mid-twentieth century, the deck along the north side appears to have given access to the Ladies' Bath from the roadside parking area on the east side of Warm Springs Branch.

Fig. 123. Interior of the Ladies' Bath.

3. Interior

The interior was extensively repaired and reinforced in the mid-twentieth century and the roof structure was completely replaced in recent years. It will be useful to begin by describing the original form and then proceed to the alterations. The main posts were originally connected at the top by twenty-two plates joined in some way into a continuous member. A series of horizontal girts, approximately 3" deep and 4" tall, spanned between and were mortised into each post. The lowest of these formed the heads of the twenty-two doors placed in the center of all but two of the wall facets. A second set of horizontal members about eighteen inches above the door heads corresponded to the ceiling joists of the outer ring of dressing rooms. A series of square elements visible in early photographs on top of this member were the ends of the joists that originally tied the plate of the outer ring of dressing rooms to the frame of the main section. The wide section of plain boards above is original and corresponds to the height of the roof of the outer ring. The horizontal structure at the top of the outer roof is provided by a pair of girts spaced about 12" apart. The last section of boards that extend to the top plate were stabilized on the interior by an intermediate girt.

Fig. 124. Lower section of the interior wall (typical).

Fig. 125. View of typical inner ring wall showing mortise-and-tenon original upper structure and added face post and lower structure.

4. Changes Made in the Twentieth Century

The changes made to the building can be seen by comparing the historic photographs from the late nineteenth and early twentieth centuries to the current building. The lower portions of the structure look fairly level in the early twentieth-century postcards (Figures 64 and 66), but by the time of the Ingalls family party in the 1920s (Figures 72 and 73), the structure appears rotten and buckling. At some point between the two sets of images a set of braces were installed to link the midpoint of the angle posts to the ring of the oculus, strengthening the roof. There was as yet no central post or umbrella structure at the top. After the 1920s, the inner frame was extensively repaired. The lower half of each post was replaced and the posts reinforced by new inner set of 3 1/2" deep by 6" wide posts that were bolted through the existing posts. The horizontal girts and vertical board cladding were also replaced around the entire building below the roof of the outer ring. The horizontal framing members and board cladding was retained above the overhead joists of the dressing rooms. A central post was added with an umbrella-like structure supporting the oculus.

Fig. 126. Inner ring structure buckling and showing moisture damage.

Fig. 127. Interior of typical dressing room on south side showing former door opening.

When the frame of the main room was repaired and reinforced at mid-century, the inner dressing room doors were completely rebuilt. The form and trim appears similar to the original, but with subtle differences. The new members at the door heads and below were replaced with true 2 x 4s with the long side placed horizontally. The side posts and heads were trimmed with 1 x 4 boards on both sides, provided with a bead-like bevel on the inside edge. The new horizontal members were toenailed to new 2 x 4 vertical members. The doors were not reused and no trace of hinges remains. The door heads were lowered, so that the space between the heads and the original framing member above is larger than it was in historic photos. Two of the bays on the southwest side were renovated, probably in the 1980s, by adding unpainted diagonal boards over the framing on the interior of the main room.

Fig. 128. View from dressing room showing original upper sheathing and replaced lower sheathing on inner ring.

Fig. 129. Original material in outer dressing room ring on the south side.

IV. CONDITIONS ASSESSMENT AND RECOMMENDATIONS

General Condition

The central section and the outer ring of dressing rooms are in fair to poor condition, due to years of deferred maintenance. The trouble mostly stems from the moisture and steam emitted by the spring, from water splashing off the roofs, and from water admitted through the failed wood shingles on the roof. It is manifested by rotted and deteriorated structural and cladding material. Other causes of failure result from the removal or poorly executed replacement of key portions of the structural system.

The structural elements that were replaced in previous campaigns in the second quarter of the twentieth century and the 1980s are the areas under the greatest pressure from ground-related moisture. Other than limited sections of structural members that have been affected by rain penetration in recent years, most of the original structural members remain sound and can continue to play their roles in the structural system.

The board-and-batten cladding on the entire building appears sound, though somewhat irregular with splits, chips, and eroded ends. Visible surfaces are very weathered, suggesting that the building was left unpainted for an extended interval in the past. Most sections of siding are original, although irregular in appearance.

Air-borne Moisture

Air-borne moisture from the spring itself has been a source of deterioration since the building was first constructed. It mostly results in moisture settling on surfaces, causing mildew and penetrating into joints and end grain over the long term. The ventilation of the interior provided by the oculus and the permeable nature of the cladding has moderated the effects of the heated vapor, but the relatively small size of the oculus doesn't evacuate sufficient moisture to avoid damage. The constant assault of damp, exacerbated by the passage of time, has resulted in a need for structural interventions at approximately fifty-year intervals. The entire lower section of the inner structural was replaced in the second quarter of the twentieth century. The roof and selected structural conditions were repaired in the later twentieth century, followed by the replacement of the roof structure.

The current condition of the building is very poor. The internal structural ring, a composite form built up during repairs over time, is failing yet again. The sill is unstable. Many vertical members have dropped in place and those members that are enclosed are more liable to rot that those that can dry out. The sill appears to be severely deteriorated. The inner perimeter deck needs to be replaced.

Moisture from the Roof

Drainage and splash back from the roof has caused damage at the base of the outer ring, where the deck surrounded the entire exterior for many years. As a result of moisture damage to the lower structural elements, some of the sills of the outer ring were replaced in the mid-to-late twentieth century. The worst area is along the north side, where the external deck continues to splash water onto the wall and the lower siding boards and the sills have lost integrity.

Moisture from Roof Failure

The wood shingle roof on the main section and the wings has been failing for at least a decade. In recent years, shingles have been lost in areas where rainwater can fall onto structural elements. While most loss of shingles has been in the central area over the bath, water has penetrated directly onto interior wood elements, adding to the moisture-related damage they have sustained.

Loss of Integrity from Building Modifications

Weakening of the structure from a system-wide loss of integrity has caused the building to lean to the northeast. Unlike the nearby octagonal bath, few structural members have been cut or removed. Loss of structural stability is, instead, principally related to the failure of certain members from moisture-related deterioration. The building as constructed relied on the outer ring of dressing rooms to reinforce the central structure. In addition, the upper plate of the central section probably originally acted as a tension ring. The replacement of the plate and roof structure in the late twentieth century was not designed to resist tension. The central post was preceded by added angle braces extending from the walls to the oculus. The central post and the braces associated with it were inserted to deal with the leaning of the structure at the middle of the twentieth century. When repairs were made at that time, the bracing of the outer ring may have been compromised by the cutting off of the ends of the horizontal ties that had mechanically connected the outer wall plate with the inner intermediate plate at the same level.

Building Systems

Building systems are very limited in extent. Electrical, heating, and plumbing are inadequate from a safety and code standpoint. Walls are mostly open and wiring cannot be readily concealed. There is no need for heating or air conditioning in the main section.

Plumbing

The Ladies' Bath has been used on a year round basis in recent years. Electricity, lighting, and heating are minimal. Toilets are provided in two of the former dressing rooms on the south side of the building.

Electrical/Telephone

The Ladies' Bath originally operated only in the daylight hours and was not historically equipped with electricity. There are few electrical outlets and lights, mostly in the vicinity of the room provided for the bath attendant. There is no adequate emergency lighting or exit signs. A telephone is provided in the attendant's room.

Heat/AC

The Ladies' Bath was not historically provided with heat or air conditioning. In recent years, the building has remained open in the winter. The attendant's room is, however, now equipped for comfort with a wall-mounted propane heater.

Ventilation

Much of the wood deterioration and mildew problems that have plagued the building stem from inadequate ventilation of the moisture-laden steam from the interior.

Accessibility

The Ladies' Bath is not handicapped accessible. Historically and until the mid-twentieth century, access for those unable to walk was provided in a former dressing room on the north side. A concrete tank next to the main pool was equipped with a hand-operated lift, by which disabled people could be lowered into the water. The room was reached from the exterior deck by its own exterior door.

IV. CONDITIONS ASSESSMENT AND RECOMMENDATIONS

GENERAL RECOMMENDATIONS

General recommendations for the Ladies' Bath revolve around the structural elements that were originally designed to give it rigidity. Consideration should be given to returning the structure to a more vertical condition. Only keep a central support structure similar to the present added one if it is unavoidable.

Foundation

- The masonry pool enclosure should be repaired in areas where is has deteriorated and generally repointed. Repair the sluice gate and drain mechanism.

- The piers supporting the outer ring of dressing rooms should be repaired in situ or replaced with new piers built using the same traditional materials and construction techniques as the originals.

- Repair or replace the boards that infill the spaces between the piers on the southern side of the building.

Exterior

- Repair or replace damaged board-and-batten cladding as indicated on the drawings or as directed by the Architect.

- Remove the board-and-batten infill at the doors in the outer ring.

- Add new doors in all twenty-two of the openings of the outer rings, in part to provide better ventilation on the interior by leaving an air gap at the bottom. Repair the transom windows over each door.

- Add a new board-and-batten parapet around the oculus matching historic photographs.

- Reconstruct the exterior deck around the entire building with adequate railings.

- Remove the lattice partitions between the Ladies' Bath and the Reception House.

- Add new wood shingle roofing with adequate flashing at the top of the lower roof slope.

- Consider adding a gutter and downspouts around the bottom of the lower roof slope to keep water from splashing on the lower walls and doors.

Structure

- Sills throughout should be examined and replaced or repaired as needed to provide an adequate base for the structure. All of the sills in the central section should be replaced using treated wood. Shore the structure with temporary posts and studs during repair.

- Replace all of the inner structural ring, including the principal posts, the horizontal members, and the cladding, below the outer ring joists, as it was done in the 1920s. Dimension the members to closely resemble the original form. Use historic materials and construction techniques.

- With engineers' approval, consider redesigning and reinforcing the structural frame to permit removal of the intrusive central post if feasible.
- Repair and retain original members and cladding above the outer ring joists where they retain integrity.

- Replace the top plate and roof framing on the central structure using historic materials and techniques to match original members as closely as possible. Recreate a tension ring at the oculus.
- Repair the structure of the outer ring, replacing wood elements, boards, and trim only when they cannot be repaired or consolidated.

IV. CONDITIONS ASSESSMENT AND RECOMMENDATIONS

Interior

• Add new casing around the twenty-two inner dressing room and entry doors.

• Replace the perimeter deck on the interior with appropriate materials.

• Clean and repair the existing wooden partitions and trim in the dressing rooms.

• Replace flooring that is damaged or unsafe with new wood flooring to match.

Building Systems

New systems should be kept to the minimum and changes should be carefully negotiated with the local building inspector. New lighting and wiring, in particular, should not be intrusive on the interior and exterior. It is recommended to retain the propane heater or come up with another, less intrusive solution while relocating the propane tanks out of sight.

Plumbing

Toilet rooms should continue to be provided for the use of bathers. The current placement in former dressing rooms on the south side of the outer ring makes sense for the future. The toilet rooms should be treated very simply, as they are now. They should be provided with lightweight, cleanable surfaces.

Electrical/Telephone

The Ladies' Bath should be provided with minimal ground-fault electrical outlets and lighting/ emergency lighting required to meet codes. Exterior lighting should be accomplished from poles or standards. New electrically lit exit signs should be carefully placed where needed. Basic telephone and internet service should be provided in the attendant's room.

Heating/AC

The building should not be heated or air conditioned. There is no practical need to provide these services in the building, which should remain as open as possible to facilitate air movement. The only place where heat is useful is in the attendant's room in the south wing during cold weather.

Ventilation

Ventilation could be augmented by convection with exterior air admitted from openings in the exterior wall of the outer ring (perhaps in the doors) and exiting at the oculus.

Accessibility

Making the Ladies' Bath handicapped accessible is not possible without adversely compromising the structure's historic integrity. Provide handicapped access to the entry room for viewing of the bath interior by persons in wheelchairs. The only means of access between rooms in the Ladies' Bath is along the narrow deck that surrounds the pool. Consider creating a new handicapped pool with a lift in the east wing of the octagonal bath. The former Cold Plunge, which was removed in the 1980s, could be reconstructed as a fully accessible hydrotherapy pool filled with the same thermal water as the main pool. The new pool would be privately available to families and both men and women. It would be equipped with a modern lift and entered by a separate door from the exterior. The lift could be self-operated or controlled by an attendant as needed.

IV. CONDITIONS ASSESSMENT AND RECOMMENDATIONS

D | The Drinking Spring (1870's)

Fig. 130. Drinking Spring

The Drinking Spring is located between the Ladies' Bath and the Octagonal or Gentlemen's Bath. It is adjacent to and feeds into a shallow spring pool with rock edging known as the Children's Pool. The water flows around the west side of the Ladies' Bath before it joins the outflow from the larger pool on its opposite side.

The eight-sided pavilion over the Drinking Spring is a low, pagoda-like structure with a tall, tapered roof with a large wooden finial at the top. The building stands on a circular stone base that appears to date from the temple-form pavilion that preceded it, dating from the mid-nineteenth century. The roof is supported on eight five-sided posts linked by a beam that is trimmed with 3/4" boards on the interior and exterior. The outer board is shaped to give each opening a shallow gothic form. The edge of the roof is trimmed with a decorative scalloped verge board. The upper section of the roof is covered with decorative scalloped wood shingles, while the lower slope is covered with plain square shingles.

The roof structure consists of a complex form made of mortice-and-tenoned members. A two-by-six joist diagonally spans the building from corner to corner. Joists extending to each side complete a cross shape. A diamond-shaped central structure receives the four joists from the four remaining corners. Addition joists are framed into the sides of the eight principal joists. Two-by-four rafters shaped to form the curved roof are birdsmouthed into the top of each of the joists. These carry the widely spaced sheathing boards. A central post extends though the apex of the roof and supports the upper ends of the rafters.

Lattice rails extend between the posts to enclose the interior seating area. A central opening giving access to the spring is covered with a plywood box. A set of benches fit into the octagonal form of the pavilion interior. Most of the woodwork, including the benches, dates from the late nineteenth century. The floor is covered with an added mid-twentieth-century brick pavement.

General Condition

The Drinking Spring building is in fair condition. The wood structure and trim are in sound condition. The bottoms of the posts have lost integrity. The railings are partially disconnected and the bottom rails are deteriorated from too close contact with the brick floor. The historic benches are in poor repair. Paint throughout is chipped and alligatored. The spring is closed and the building is dirty. The building is handicapped accessible.

RECOMMENDATIONS

Repair the brick floor. The entire pavilion should be raised to stand on top of the floor and the bottoms of the posts and the rails repaired or extended to raise the rails three inches above the floor. Replace the wood shingle roof to more closely resemble its historic appearance. Repair the benches. Clean, scrape, sand, prime, and paint all painted surfaces. Restore the central springbox. Determine how to get sanitary water from the spring below for purposes of drinking. Consider adapting the Children's Pool to provide a seating area in conjunction with a shallow foot bath. These would be very popular with visitors who can only stay for a short time.

E | The Reception House (1880's)

Fig. 131. Exterior of Reception House looking south.

The Reception House, built in the late nineteenth century, was centered on the west side of the Ladies' Bath, for which it served as a waiting room. The 1875 brochure mentions a handsome reception room attached to the Ladies' Bath, but the current building was not built until well after 1875. The one-story, one-room building was given a fashionable exterior and a decorative interior. It is supported on brick piers. The building had a highly decorative porch that wrapped around the west end and along the north side. The two-bay north end contained the main entry and a window to each side of a central internal brick stove flue. The sides were each pierced by two two-over-two sash windows with louvered blinds. The patrons were able to enter the bath by means of a central door in the east end.

IV. CONDITIONS ASSESSMENT AND RECOMMENDATIONS

1. Exterior

Fig. 132. Exterior of Reception House looking north.

The exterior is sheathed with ornamental "novelty" siding above a wainscot consisting of panels filled with diagonal tongue-and-groove boards. Historic photographs indicate that the building originally incorporated a decorative paint scheme with at least three shades or colors. The standing-seam metal roof rises above a tall bracketed cornice that extends around the ends to form a pediment. The pediment is filled with a decorative central circular pierced vent surrounded by panels of diagonally placed tongue-and-groove boards.

By 1900, the building was used as the home of "Aunt Fanny" Sheppard, the ladies' bath attendant. It was enlarged in the early twentieth century to serve as the home of members of the Tonsler family, who served as bath attendants until the early 1980s. The enlargement involved two new rooms on the south side of the building. A later shed-roofed addition to the west end included a bathroom at the south end. This addition supplanted the porch on the north end. The siding, including the diagonal tongue-and-groove wainscot from the west end, was moved to the north front of the new section. A new front door was placed in the north end of the west addition along with the window relocation from the west end.

The four-bay porch features square posts with incised reeding on the upper two-thirds of each side. The porch includes a frieze with sawn decorative work at the top including a double turned spindle frieze flanked by pierced square panels, with drop finials and supported by sawn brackets. The floor consists of tongue-and-groove boards. The railing is modern. There was no railing historically. The porch is supported on replaced concrete block piers separated by lattice panels.

IV. CONDITIONS ASSESSMENT AND RECOMMENDATIONS

2. Interior

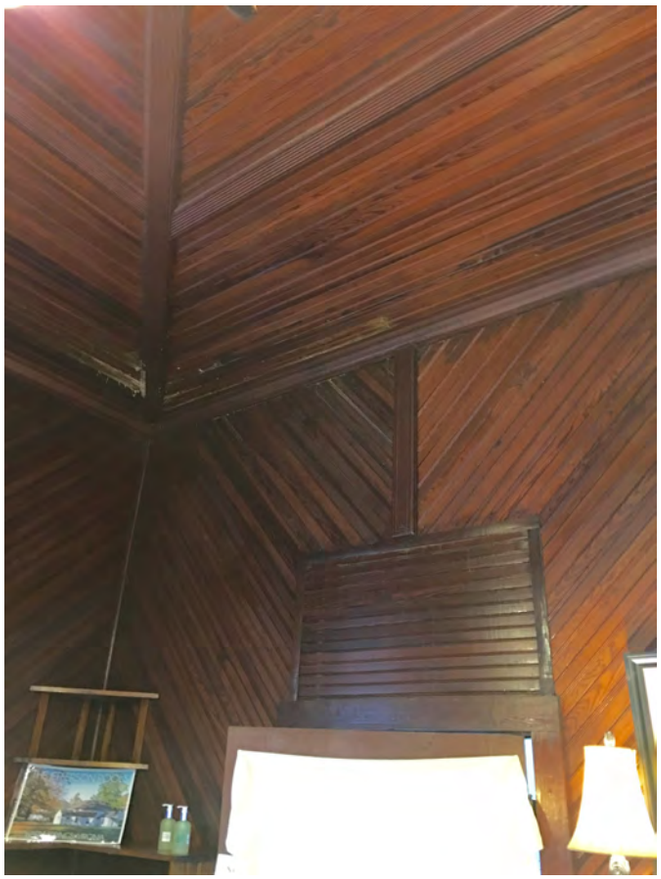


Fig. 133. Interior of Reception House looking southeast.

The interior of the original building consists of a single room. The high-ceilinged room is lined with diagonal tongue-and-groove boards arranged in decorative panels on the walls and ceiling, separated by wide applied boards with decorative reeding. The strips of wood are arranged in contrasting colors and species. There is no baseboard. The tongue-and-groove wood floor extends through the entire building.The doors and windows are provided with reeded trim with bullseye corner blocks.

The first addition contains two rooms, each entered by glass-panel doors inserted in the former window locations on the south side of the building. The second addition along the west side is finished with square trim and celotex wall sheathing with the joints covered with wood strips. The southern room in the west addition contains a bathroom.

General Condition

The Reception House is in good condition, with superficial damage to the exterior and its paint. Many of the brick piers have been replaced with concrete blocks. The roof appears intact, with peeling paint. The floor joists appear intact from below. Water runs below the rear wing of the building from the ditch along the west side of the property. The building needs extensive work on the paint finishes on its historic exterior. The interior is in very good condition. The building lacks handicapped accessibility. Not only is there no ramp to the porch, and the entry door is too narrow for wheelchair access. The modern porch railing is not appropriate for the building. The porch steps and floor are deteriorated and unsafe.

Building Systems

Building systems are very limited in extent. Electrical, heating, and plumbing are inadequate from a safety and code standpoint.

Plumbing

The Reception Building has been used on a year-round basis in recent years. Electricity, lighting, and heating are minimal. A toilet is provided in a room opening off the room in the west addition. The plumbing is inadequate and does not meet ADA requirements.

Electrical/Telephone

The Reception House is equipped with electricity. The electrical outlets, wiring, and lighting are outdated There is no emergency lighting. The only exit signs are non-electric. A telephone is provided for use by the bath attendants.

Heat/AC

The Reception House was historically heated by a wood stove. In recent years, the building has remained open in the winter. The rooms are heated by one or more wall-mounted propane heaters.

Accessibility

The Reception House is not handicapped accessible. The porch is several feet above grade and the entry door is not wide enough for wheelchair access.

RECOMMENDATIONS

Exterior

General recommendations for the Reception House include repairing the exterior wood trim and removing the paint, followed by repainting using historic paint colors. With the paint removal, it is strongly recommended that the paint layers be sampled and analyzed by a paint conservator. The brick piers should be repaired and repointed as needed. Those concrete block piers that are visible should be replaced by new brick piers designed to match the originals. The porch floor, railing, lattice infill, and porch stair should be replaced.

Windows, shutters, and doors should be repaired and repainted. Consider adding new shutters on the south wall. The roof should be repaired and repainted and the gutter and downspouts replaced. The electric service should be replaced. The propane tanks should be removed. Add a new handicapped entrance door with a short ramp on the west side of the west wing. Point and seal the stove flue.

Interior

Clean the unpainted finishes and renew the painted finishes on the interior. Sand and refinish the floors. Provide facilities for a break room and laundry equipment in the southeast room in the first addition.

Building Systems

New systems should be complete but inconspicuous.

Plumbing

Unless ADA compliant rest rooms are to be added elsewhere on site, add a new ADA-compliant handicapped toilet room in the south room in the west addition.

IV. CONDITIONS ASSESSMENT AND RECOMMENDATIONS

Electrical/Telephone

The Reception House should be provided with electrical outlets and lighting/emergency lighting as required to meet codes. Exterior lighting should be accomplished using low profile fixtures that will have a minimize their visible impact on the site and it setting. New electrically lit exit signs should be carefully placed where needed. Basic telephone and internet service should be provided for the use of the staff.

Heating/AC

The building should be fully heated and air conditioned.

Accessibility

Making the building fully handicapped accessible is important as it is the principal interface with the public. Provide a new ADA accessible doorway in the west end of the building giving access to the main room in the west addition. Provide a short ramp at this point accessed by a paved path from a nearby handicapped parking area.

V. STRATEGIC VISION

A | Owner Expectations

The Homestead management has expressed some general approaches to the project that meet the development objectives of Omni. The property is expected to serve the Homestead's larger longterm vision and provide an engaging internal destination for hotel guests, but it is to function also as a stand-alone property that will attract tourists and residents who will be able to enjoy its historic and curative features. The management has suggested that a new building be constructed that would serve as a visitor center. The new building would provide an introduction to the historic baths, in addition to comfortable changing rooms, toilets, and support facilities. The routes from the visitor center to the baths might consist of heated paths for year-around use. Controlled access to the bath complex would be gained through the visitor center, enhancing safety and mitigating liability. New parking would be provided at the entry to the complex, restoring the historic landscape around the baths.

ITEMS	QNTY	UNIT COST	TOTALS
OCTAGONAL BATH			
8/1/16			
DEMOLITION	1	12,000	12,000
SITEWORK/UTILITIES	1	22,000	22,000
SHORING/BRACING	1	38,000	38,000
MASONRY REPAIR/REPOINT	1	32,000	32,000
STRUCTURAL FRAMING REPAIR	1	75,000	75,000
FINISH CARPENTRY	1	60,000	60,000
ROOF - OCTAGON	1400	24	33,600
ROOF - PAVILIONS	1160	15	17,400
WINDOWS	13	1,500	19,500
DOORS	5	1200	6,000
OCULUS/PARAPET	1	15,000	15,000
STAIRS	1	4,500	4,500
HEATING	1	5,000	5,000
PLUMBING	1	7,500	7,500
ELECTRICAL	1	1,500	1,500
LIGHTING	1	4500	4,500
ABATEMENT	1	6500	6,500
PAINTING	1	22,000	22,000
FLOORS/DECK	1500	4.5	6,750
SIGNAGE/AWNINGS	1	6500	6,500
LIGHTNING PROTECTION	1	4,500	4,500
subtotal			399,750
CONTINGENCY	10%		39,975
CONSTRUCTION SUBTOTAL			439,725
OH+P	20%		87,945
ARCH/ENGINEER FEES			63,320
CONSTRUCTION TOTAL			**503,045**
Historic Tax Credit Reduction			
Virginia	25%		125,761
Federal	20%		100,609
TOTAL NET WITH CREDIT REDUCTIONS:			**276,675**

ITEMS	ONTY	UNIT COST	TOTALS
LADIES BATH			
8/1/16			
DEMOLITION	1	16,000	16,000
SITEWORK/UTILITIES	1	18,000	18,000
SHORING/BRACING	1	65,000	65,000
MASONRY REPAIR/REPOINT	1	58,000	58,000
STRUCTURAL FRAMING REPAIR	1	225,000	225,000
FINISH CARPENTRY	1	125,000	125,000
ROOF - HIGH	1970	24	47,280
ROOF - LOW	1330	24	31,920
WINDOWS	22	1,200	26,400
DOORS	27	1200	32,400
OCULUS/PARAPET	1	15,000	15,000
STAIRS	1	0	0
HEATING	1	5,000	5,000
PLUMBING	1	7,500	7,500
ELECTRICAL	1	2,500	2,500
LIGHTING	1	5000	5,000
ABATEMENT	1	12000	12,000
PAINTING	1	24000	24,000
FLOORS/DECK	1	16000	16,000
SIGNAGE	1	6500	6,500
LIGHTNING PROTECTION	1	4,500	4,500
subtotal			743,000
CONTINGENCY	10%		74,300
CONSTRUCTION SUBTOTAL			817,300
OH+P	20%		163,460
ARCH/ENGINEER FEES			117,691
CONSTRUCTION TOTAL			934,991
Historic Tax Credit Reduction			
Virginia	25%		233,748
Federal	20%		186,998
TOTAL NET WITH CREDIT REDUCTIONS:			514,245

ITEMS	QNTY	UNIT COST	TOTALS
DRINKING SPRING			
8/1/16			
DEMOLITION	1	1,500	1,500
SITEWORK/UTILITIES	1	4,500	4,500
SHORING/BRACING	1	1,500	1,500
MASONRY REPAIR/REPOINT	1	4,500	4,500
STRUCTURAL FRAMING REPAIR	1	2,500	2,500
FINISH CARPENTRY	1	2,500	2,500
ROOF	325	24	7,800
ELECTRICAL	1	1,500	1,500
LIGHTING	1	500	500
ABATEMENT	1	1200	1,200
PAINTING	1	750	750
SIGNAGE	1	250	250
subtotal			29,000
CONTINGENCY	10%		2,900
CONSTRUCTION SUBTOTAL			31,900
OH+P	20%		6,380
ARCH/ENGINEER FEES			4,594

CONSTRUCTION TOTAL			36,494
Historic Tax Credit Reduction			
Virginia	25%		9,123
Federal	20%		7,299
TOTAL NET WITH CREDIT REDUCTIONS:			**20,071**

ITEMS	QNTY	UNIT COST	TOTALS	
RECEPTION HOUSE				
8/1/16				
DEMOLITION	1	2,500	2,500	
SITEWORK/UTILITIES	1	10,000	10,000	
MASONRY REPAIR/REPOINT	1	12,000	12,000	
STRUCTURAL FRAMING REPAIR	1	3,500	3,500	
FINISH CARPENTRY	1	6,500	6,500	
ROOF	1150	5	5,750	
WINDOWS	6	800	4,800	
DOORS	6	750	4,500	
PORCH REPAIR	1	6,500	6,500	
HEATING	1	5,000	5,000	
PLUMBING	1	12,000	12,000	(ADA add)
ELECTRICAL	1	1,500	1,500	
LIGHTING	1	500	500	
ABATEMENT	1	0	0	
PAINTING	1	6500	6,500	
FLOORS/DECK	1200	1.5	1,800	
SIGNAGE/EXHIBITS	1	12000	12,000	
LIGHTNING PROTECTION	1	4,500	4,500	
subtotal			99,850	
CONTINGENCY	10%		9,985	
CONSTRUCTION SUBTOTAL			109,835	
OH+P	20%		21,967	
ARCH/ENGINEER FEES			15,816	
CONSTRUCTION TOTAL			125,651	
Historic Tax Credit Reduction				
Virginia	25%		31,413	
Federal	20%		25,130	
TOTAL NET WITH CREDIT REDUCTIONS:			69,108	

V. STRATEGIC VISION — PRELIMINARY COST ESTIMATES

SUMMARY OF COSTS				
	COSTS	TAX CREDITS	NET COSTS	
OCTAGONAL BATH	503,045	$226,370	$	276,674.97
LADIES BATH	934,991	$420,746	$	514,245.16
DRINKING SPRING	36,494	$16,422	$	20,071.48
RECEPTION HOUSE	125,651	$56,543	$	69,108.18
TOTALS	1,600,181	$720,082	$	880,099.79

NOTE: These estimates are focused on the restoration of the structures alone and do not include any additional work which may be included in future masterplanning for the site, its access or improved services.

APPENDIX "A" – SITE HISTORY DIAGRAMS

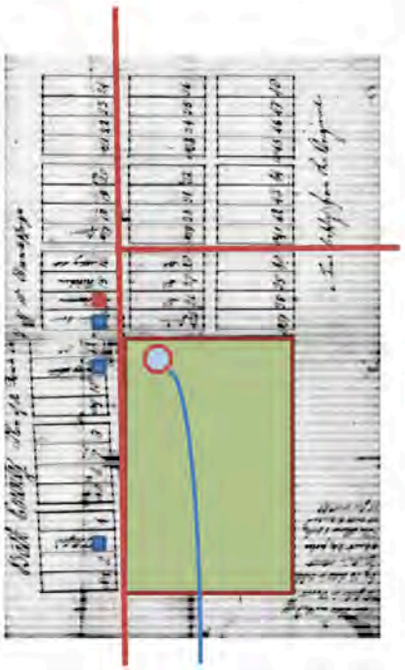
1750s-1815

- 140 a. by Thomas & John Lewis in 1751

1750s-1815

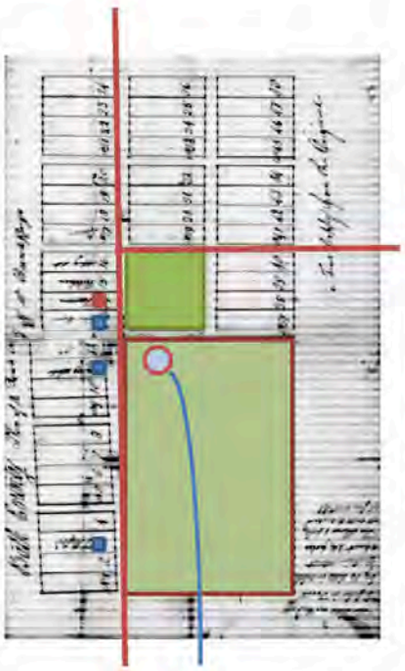
- 140 a. by Thomas & John Lewis in 1751
- Turnpike over Warm Springs Mt. in 1770s

APPENDIX "A" – SITE HISTORY DIAGRAMS



1750s-1815

- 140 a. by Thomas & John Lewis in 1751
- Turnpike over Warm Springs Mt. in 1770s
- Lewis laid out a town by 1786
- Great Spring" placed on adjacent square



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- Garden on block of lots next to spring

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1750s-1815

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- Turnpike over Warm Springs Mt. in 1770s
- Lewis laid out a town by 1786
- Great Spring" placed on adjacent square
- Garden on block of lots next to spring
- Warm Springs became county seat, 1792

1815-1860

- Warm Springs purchased by John Brockenbrough in 1815
- He added a brick tavern and cottage rows

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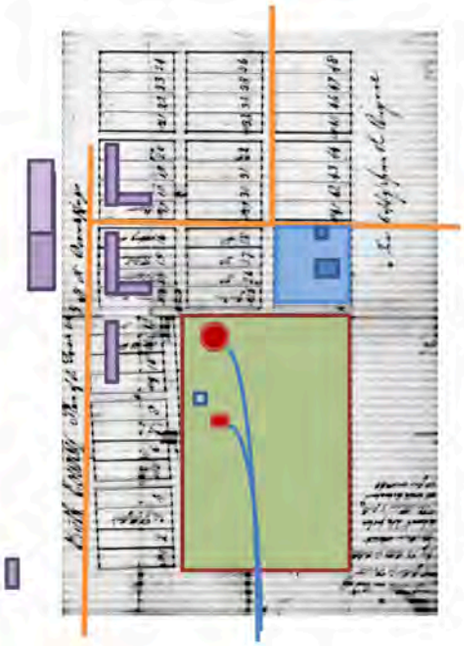
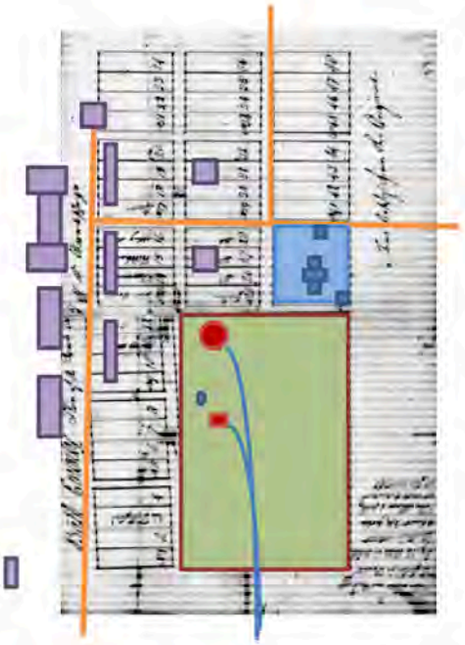


1815-1860

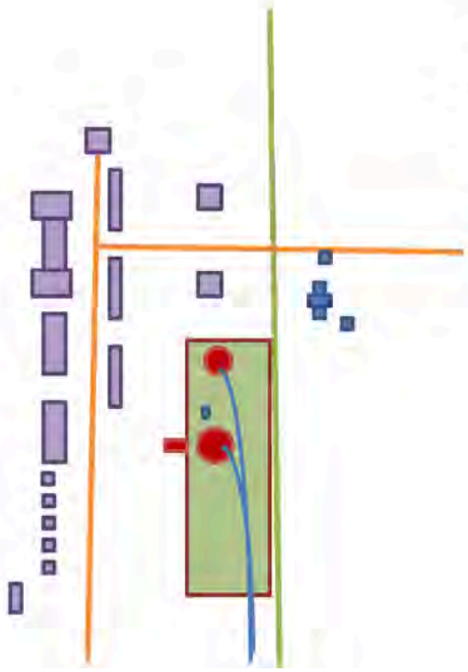
- Warm Springs purchased by John Brockenbrough in 1815
- He added a brick tavern and cottage rows
- "Great Bath" covered by late 1820s
- Tavern expanded into hotel by 1833



1815-1860

- Warm Springs purchased by John Brockenbrough in 1815
- He added a brick tavern and cottage rows
- "Great Bath" covered by late 1820s
- Tavern expanded into hotel by 1833
- New courthouse built in 1842
- Wings added to each end of hotel in 1854
- Circular temple added at Drinking Spring

APPENDIX "A" – SITE HISTORY DIAGRAMS



1870s-1925

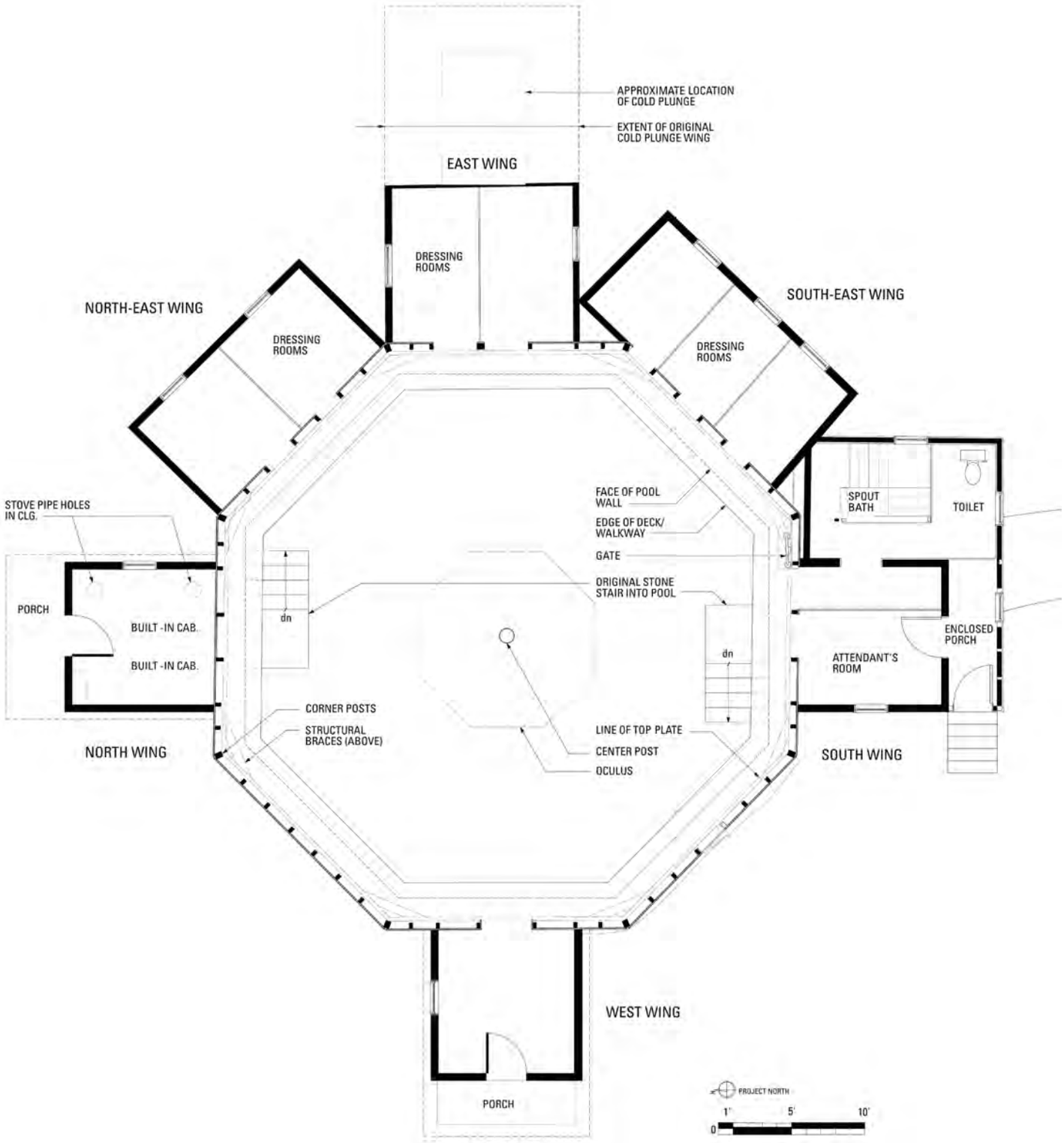
- Purchased by John L. Eubank in 1871
- Ladies' Bath built in 1875
- Reception House built by 1890
- Purchased by Warm Springs Valley Co. in 1889.

1930s to present

- Hotel demolished in 1925
- Route 220 built in the early 1930s
- Landscaped and parking added in 1950s
- Cold Plunge removed in 1970s

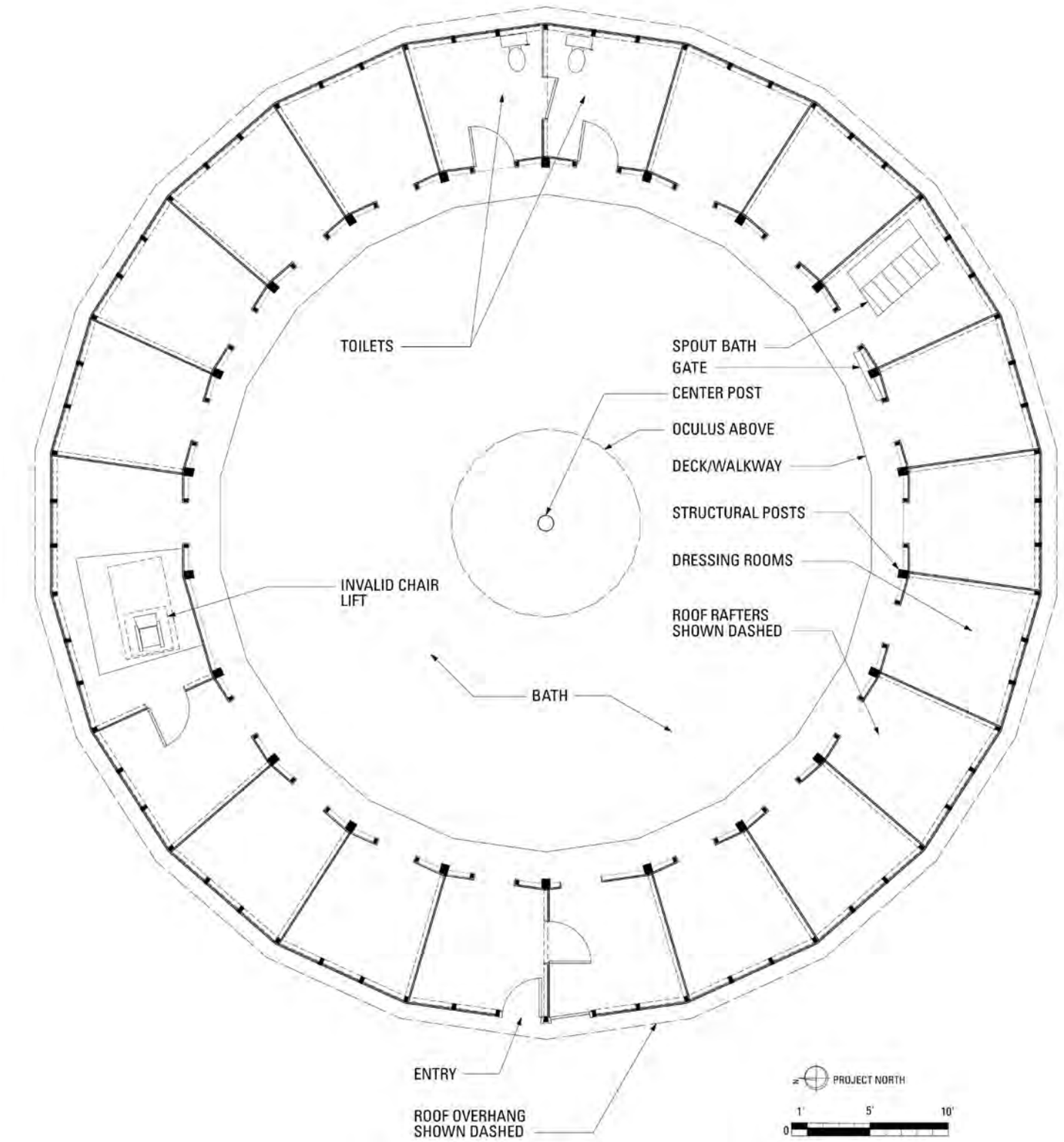
APPENDIX "B" – EXISTING FLOOR PLANS

APPENDIX "B" – EXISTING FLOOR PLANS



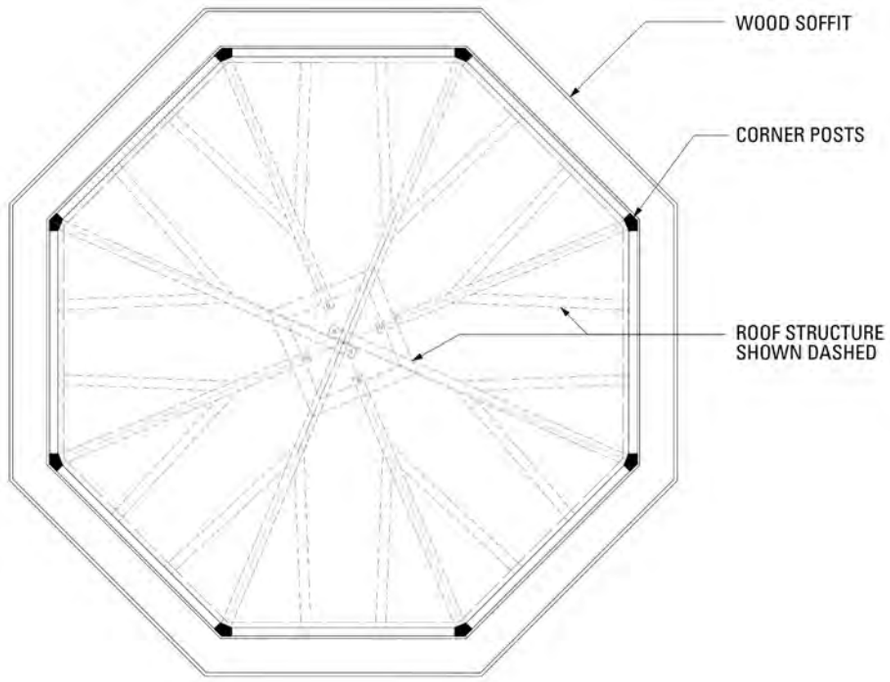
GREAT BATH FLOOR PLAN

APPENDIX "B" – EXISTING FLOOR PLANS

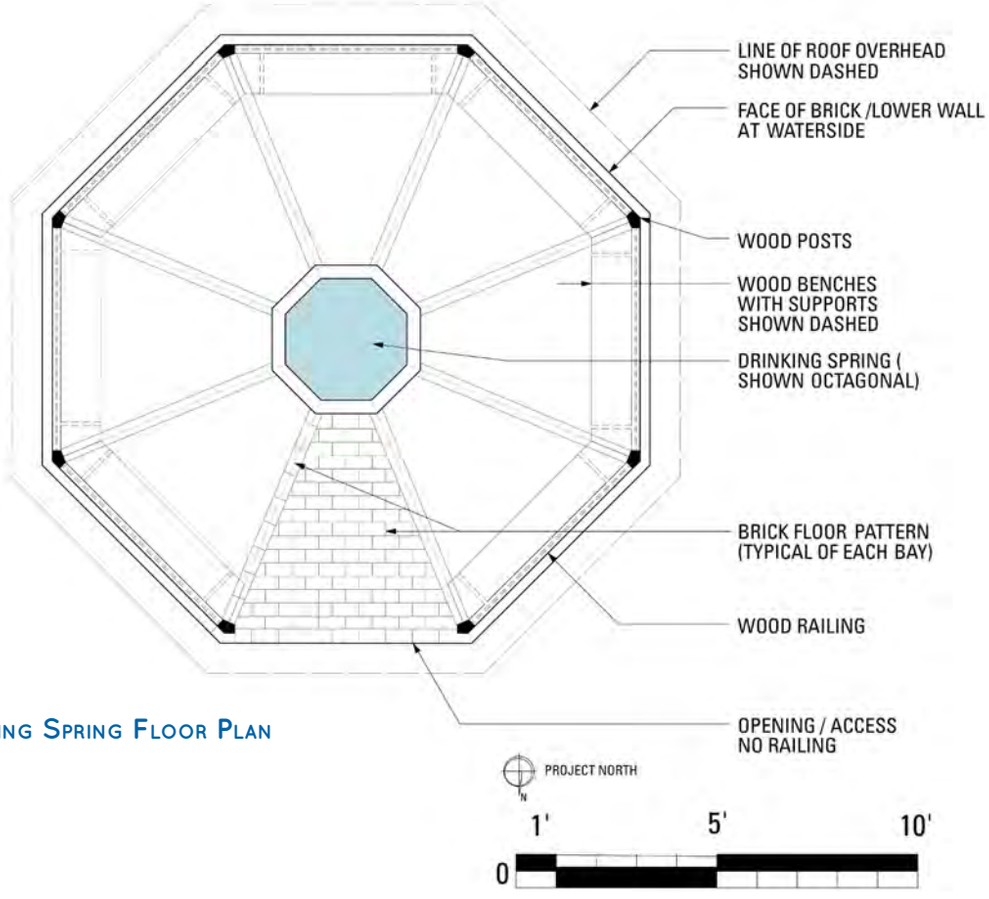


Women's Bath Floor Plan

APPENDIX "B" – EXISTING FLOOR PLANS

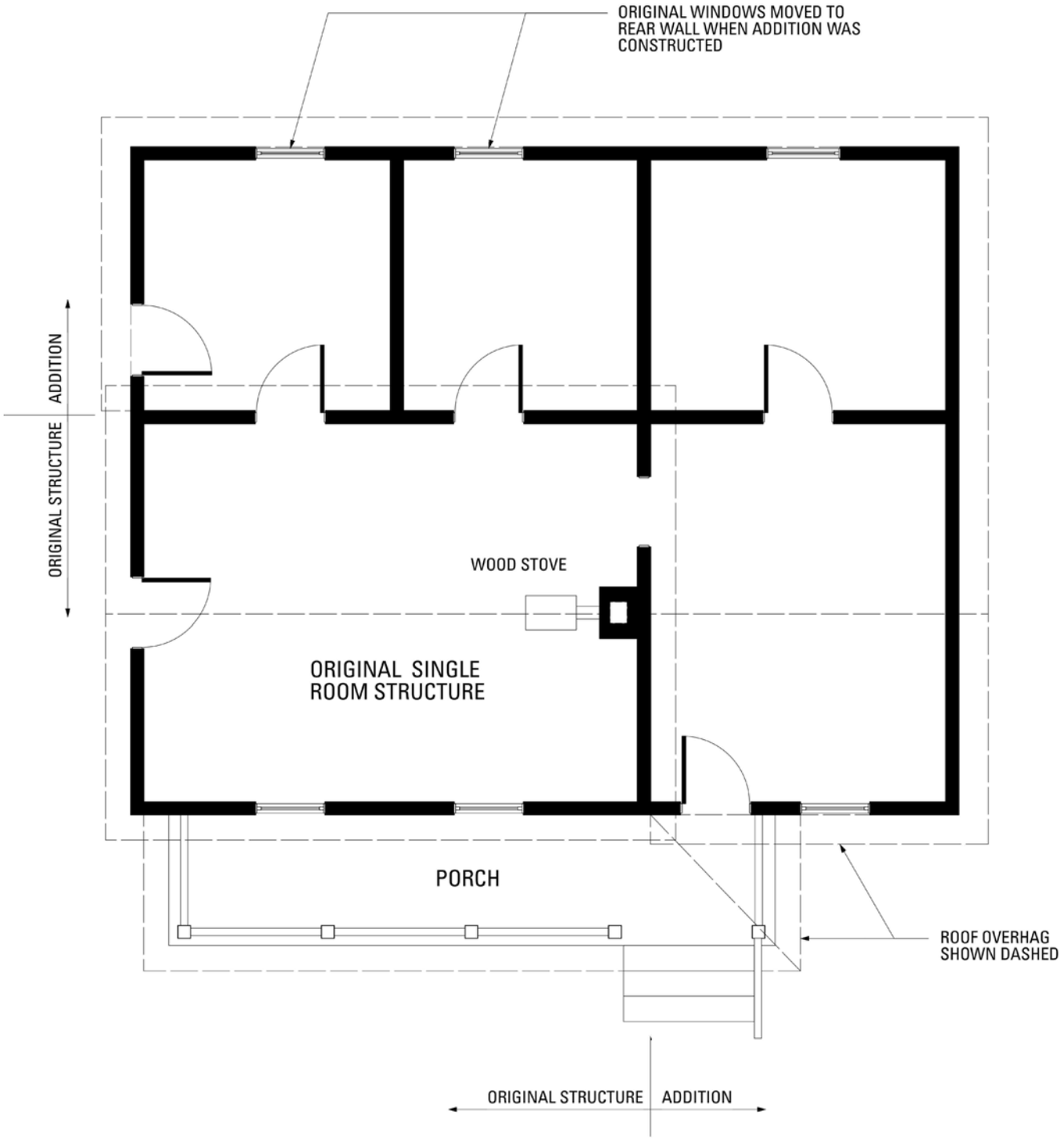


DRINKING SPRING REFLECTED CEILING PLAN



DRINKING SPRING FLOOR PLAN

APPENDIX "B" – EXISTING FLOOR PLANS



Reception House Floor Plan

APPENDIX "C" – STRUCTURAL CONDITIONS ASSESSMENT

ROBERT SILMAN ASSOCIATES
STRUCTURAL ENGINEERS

Warm Springs Bathhouses:

Structural Conditions Assessment

RSA PROJECT NO. W2821

July 22, 2012

PREPARED FOR:

The Homestead
P.O. Box 2000
Hot Springs, VA 24445
Attn: Peter L. Faraone, Vice President and General Manager

By:
Robert Silman Associates, PLLC
1053 31st Street NW
Washington, DC 20007

Introduction & Project Scope

The Warm Springs Bathhouses are listed on both the Virginia Landmarks Register (1968) and The National Register of Historic Places (1969). The Men's Bath House was built in 1761 and the Women's Bath House followed in 1836. Robert Silman Associates (RSA) was contracted by The Homestead to perform a structural conditions assessment of the two bathhouse structures. In addition, the report provides some commentary on the Visitor Cottage. This assessment is based primarily upon visual observations and direct measurement of framing members on site, with some preliminary structural analysis to provide understanding of overall behavior, as a guide for recommendations for structural repairs. John Matteo, PE, of RSA visited the site on June 19, 2012. Also present on site were Roger Waldeck of The Homestead, maintenance personnel, members of The Friends of the Pools, and some attending visitors. RSA's survey was performed prior to the opening of the Pools and during normal operations.

Figure 1: Warm Springs, VA @ the Bathhouses

The site is located in Warm Springs, VA, in Bath County, approximately 50 miles west of Staunton, VA. The Bathhouses are situated along the west side of Route 220, which is generally running north-south and will be referenced as such in this report (Figure 1).


Figure 2: WBH exterior

Women's Bathhouse (WBH) (1836)

The Women's Bathhouse (WBH) is a circular-planned, wood-framed structure, with central bath area defined by 22 perimeter wood posts and wall panels, surrounded by a ring of lower height rooms and entrance. A central post bears on the rocky pool bed and rises within the space to support radiating wood framing around a central oculus (Figures 2 & 3). Appendix A includes the following structural drawings:

- SSK-1: Roof Framing Plan
- SSK-2: Building Section
- SSK-3: Details


Figure 3: WBH interior

Exterior Structural Systems & Conditions

The foundations of the WBH consist of stone and brick masonry walls as the primary wall support around the central bath space, with masonry piers supporting the posts of the outside perimeter. The inner foundation wall also provides resistance to the lateral pressure of the bath waters contained within.

- The inner foundation wall appeared in stable condition, with areas of mortar loss or decomposition; this condition is to be expected, given the age of foundations and relatively inaccessible areas depicted in Figure 4.
- The perimeter piers appear to be a mixed assembly of masonry, including dry-stacked concrete masonry units (cmu), with additional brick or wood shims. Some piers appear to have settled unevenly and are currently out of plumb. The pier in Figure 4 is both out of plumb and has built up levels of shimming.
- Some of the perimeter piers show a structural history of timber piles, now rotted at their bearings, and subsequently replaced with cmu (Figure 5).

Figure 4: Foundations and Floor Framing

Figure 5: Timber Piles replaced with masonry piers

The wood deck walkway along the eastern portion of the structure is in poor condition. The structural system consists of wood edge beams spanning between the perimeter piers of the WBH and corresponding piers, arranged radially, at its outer edge.

- Figure 6 depicts significant displacement along the interface between the walkway and the WBH, likely the result of failing connections and/or deteriorating wood members. The magnitude of movement indicates that little support remains in this section, and presents both a tripping hazard and the potential for a failure with further movement if subjected to pedestrian loads. The area was appropriately roped off at the time of our observations.
- Figure 7 shows that in addition to framing member support, there are areas of deck plank

Figure 6: Deck Walk Deterioration

deterioration, again significant enough to potentially lead to a localized failure under foot traffic.

It is apparent that the overall geometry of the WBH is not currently plumb, with some north-east lean visible in the exterior walls, and some separation of framing at the upper sill level along the southeast face.

- As depicted in Figure 8, retrofit structural cables have been installed at the upper sill level, wrapping around the full perimeter at this height. The cables appear to be tightened with a turnbuckle system.
- In addition, exterior channel end plates are present to receive the connection for three internal tie rods.
- Figure 8 also shows a highly uneven edge of wood roof shingles. In general, the roofing shingles appear to be in moderate to poor condition, with a number of penetrations apparent.

Figure 7: Deck Walk Deterioration

Figure 8: Retrofit cables and tie rods

Interior Structural Systems & Conditions

The central post and high perimeter wall support a radiating, umbrella-like, wood roof structure. Immediately framing into the central post is a series of upper and lower struts, forming a diamond-like core that supports a faceted wooden ring around the oculus (Figure 9). The upper and lower struts could work in two primary ways to support the oculus ring.

Figure 9: Roof Structure

For the first option, if the upper struts were able to resist axial tension forces, in combination with compression resistance in the lower struts, the struts could provide a stable vertical support of the oculus ring without generating a horizontal thrust at the bottom of the radiating roof rafters. This scenario would be beneficial to the remainder of the structure, which would then only need to support a vertical load at the bottom of the rafters (along the upper eave of the roof structure). However, given the nature of wood connections and the clear need to resist outward, horizontal thrust at the upper eave, as

evidenced by the retrofit tension cable and tie rods, this is not how the central structure is currently working.

The second option, which is more certainly representing the current behavior, works with both the upper and lower struts resisting axial compressive forces. This essentially provides a compressive link between the upper ends of the radiating rafters. Although some vertical weight is being carried by the central post, the system generates both a vertical and horizontal force at the bottom of the radiating rafters. As such, the tendency for the umbrella roof to flatten out needs to be resisted by the surrounding structure. An effective tension ring and/or tension ties at the upper eave provide a direct way to resist this horizontal thrust. This is currently addressed by the retrofit tension cable (Figure 8) as well as by the three 5/8" diameter steel tie rods. Figure 9 depicts these tie rods, which are set approximately 3'-5" below the top of the perimeter wall and span across the space, passing alongside the central post, and tie into the perimeter posts at six locations. The retrofit steel perimeter cable and cross ties were reportedly introduced approximately 14 months prior to this site visit.

Historically, the compression link would be provided by a combination of factors, but perhaps most directly by a wood tension ring that would accommodate tension connections through dovetail detailing and wooden pegs (see detailing of Men's Bath House for reference). Reportedly the existing roof structure is approximately 30 years old, having been fully replaced but replicating the basic configuration that previously existed. A detail of that previous configuration that may have been missed is the creation of an effective tension ring.

- As depicted in Figure 10, the current connection between the top plates, which is the upper eave transition between rafters and main perimeter wall, has clear discontinuities that preclude it from resisting tension.

Another architectural component that could assist in the resistance of horizontal thrust is the surrounding structure of the perimeter changing rooms and

Figure 10: Separation at Double Top Plate at Main Perimeter Wall

Figure 11: Curved rafters and framing at low perimeter roof.

Figure 12: Chair access to the Pool from side vestibule.

vestibules. Structurally, both the shallow curved roof and interior partitions can provide thrust resistance. Figure 11 shows the curved roof rafters and horizontal ties. The dividing partition walls generally consist of 1 x 6 tongue and groove boards. One of the perimeter vestibules is depicted in Figure 12, which serves as the historic chair access to the Pool.

- The curved rafters are toe-nailed to the upper ledger and have a small birdsmouth at the lower bearing. The horizontal ties at the lower rafter support are nailed into the side of the rafter bearing.
- A number of the dividing partitions were flexible out of plane when leaned upon.
- The hung structure of the chair access vestibule appeared relatively intact, however the steel mechanisms were severely corroded.

Material conditions varied widely throughout the structure. In general, the use of wood framing set above the natural warm pools presents an inherent challenge of material conservation. Samples of what appeared to be the oldest wood framing in both the WBH and MBH were taken by RSA to determine the wood species. As reported in Appendix B, laboratory testing by Quirk Consulting found both samples (one from each structure) to be Eastern White Pine. This wood is native to North America and was widely used during the Colonial period for ship masts. The heartwood is moderately rot resistant and the sapwood relatively low rot resistance.

- Figure 13 depicts ongoing insect activity that is likely concurrent with moisture collection and areas of wood rot.
- Figure 14 shows an area of wood sill deterioration directly above the spillway. The increased moisture presence has likely contributed to this condition. Vertical settlement of the wood post above this beam appears to be associated with localized crushing of the rotting wood.
- Figure 15 depicts a rotting post base as an example of localized wood deterioration observed at various areas within the structure.

The majority of the main posts were observed to be

Figure 13: Active presence of insects in side vestibule.

Figure 14: Rotting sill beam over spillway

Figure 15: Rotting post base

out of plumb. Magnitudes of lateral displacement, from platform level to the level of the internal tie rods, were estimated based upon the use of plumb bobs and tape measures, as depicted in Figure 16a & 16b and documented in drawing SSK-1 in Appendix A.

- One post, on the north end, was measured to be close to 12 inches out of plumb.
- Posts on the south side were closer to 0" to 2" out of plumb.
- The direction of the lean favored the north, to north-east, potentially corresponding to observed areas of pier displacement and prior rebuilding.

The lateral displacement of the posts, as observed, is consistent with two primary physical behaviors. The first, as described earlier, is lateral displacement due to weakness in outward thrust resistance. Resistance to the outward thrust of the radiating roof rafters would be efficiently achieved with a perimeter tension ring. The lack of an effective tension ring at the upper level eave had, apparently at one point, resulted in an outward push upon the lower roof and partition walls of the low perimeter rooms. This thrust again could be resisted most efficiently by a tension ring at the lower eave, or, by in-plane stiffness in the dividing partition walls of the perimeter rooms.

Figure 16a & 16b: Lateral displacement of posts

- Figure 17 depicts a separation of the top plate at the outermost building perimeter. Unlike the top plate of the upper eave, here the top plate includes longitudinal splice plates to connect the top plates at each facet of the nearly circular plan. In Figure 17, the splice plate connectors have failed and the abutting top plates have pulled apart by approximately 1 inch.
- Figure 18 shows in-plane wracking of the perimeter room partitions, consistent with an outward, radial push at the top of the wall.

Figure 17: Separation of splice at outer-most wall top plate.

The problem of thrust resistance has temporarily been addressed with the retrofit tension cable and tie rods. In addition to displacement associated with insufficient thrust resistance, it appears that a more global wracking has occurred, resulting in leaning that favors the north to northeast directions. This may well be associated with foundation and pier

settlements or rotations, or with an extreme lateral load event.

Preliminary Structural Analysis

RSA performed a preliminary structural analysis following the visit to the site, based upon the geometry and member sizes measured on site. This preliminary study did not include verification of individual member capacities, but focused on gaining better understanding of overall structural behavior and developing a sense of the relative importance of structural components in the resistance of lateral loads. The creation of this model does provide a good stepping stone for future evaluation and repair designs.

Figure 18: In-plane wracking of tongue and groove partition walls

Figure 19 depicts the basic geometry of the timber frame of the WBH. Figure 20 shows a basic distribution of gravity loads, which include the self-weight of the structure and its finishes, along with snow load. Figure 21 depicts a lateral wind load, based upon current code requirements.

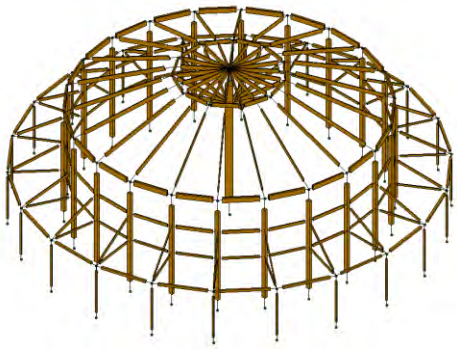


Figure 19: WBH - Framing

The analysis of the basic timber frame when subjected to a load combination including lateral wind loads, showed the structure to be stabile but with excessive lateral movements. Two subsequent analyses were then performed to assess the influence of the side boards. The side boards are typically 1" x 6" tongue and groove, oriented vertically and fastened to internal cross members spanning between the primary vertical posts. The joints are covered at the exterior exposure areas with wood battons.

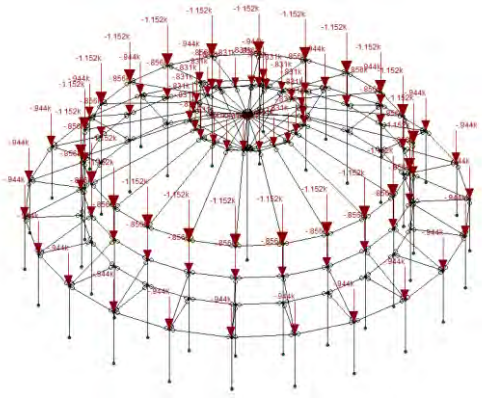


Figure 20: WBH – Gravity Loads

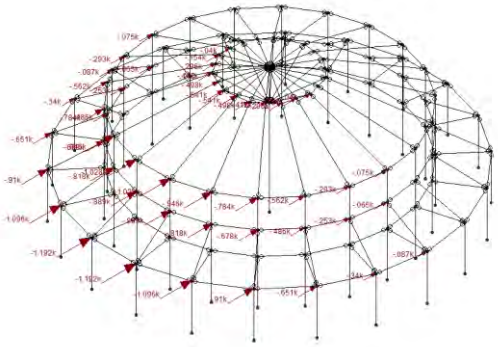


Figure 21: WBH – Wind Loads

Figure 22 represents the addition of wall boards, providing a diaphragm effect between the framing members. For the main interior wall, only every other bay was included, to represent the reduction of wall sheathing due to door openings. Only one such bay was removed for the outermost wall, to allow for the entrance door opening. Structural analysis found the net affect of wall sheathing to reduce lateral displacements by a factor of approximately 15, with magnitude results much more in-keeping with expected values.

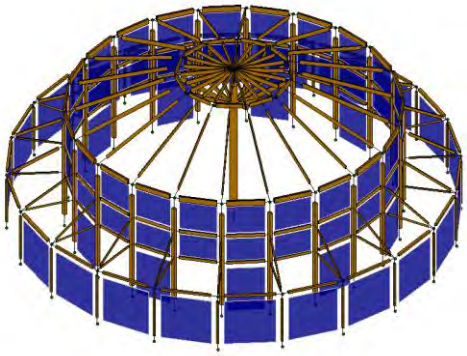


Figure 22: WBH – Wall Sheathing

In Figure 23, the analysis model was further changed to include sheathing at the low, perimeter roof. This resulted in a further reduction of lateral displacements, approximately 10% less than those of the model with wall sheathing only.

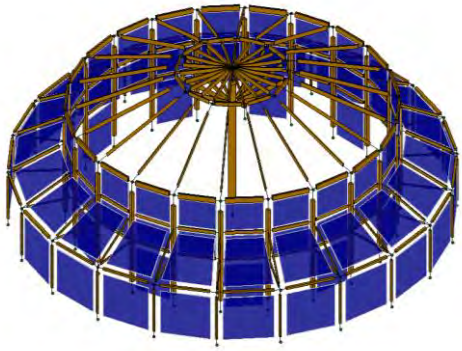


Figure 23: WBH – Wall and Side Roof Sheathing

A clear determination of the preliminary analysis is the significant influence of wall sheathing on the lateral resistance of the WBH structure. This will likely be an important consideration in developing future repair and/or strengthening schemes.

Men's Bathhouse (MBH) (1761)

The Men's Bathhouse (MBH) is an octagonally planned, wood-framed structure, with central bath area defined by 8 perimeter wood posts and diagonally braced wall panels; the main space is surrounded by 5 lower height rooms and an entrance vestibule on the west side. A central post bears on the rocky pool bed and rises within the space to support radiating wood framing around a central oculus, similar in configuration to the WBH (Figures 24 & 25).

Figure 24: MBH West Elevation

Appendix A includes the following structural drawings developed by RSA:

- SSK-4: Roof Framing Plan
- SSK-5: Fold-Out Wall Elevations

Figure 25: MBH Interior

Exterior Structural Systems & Conditions

The perimeter vestibule structures are gabled along the primary directions (north, south, east and west), while the northeast and southeast rooms have a shed roof structure. In addition to variations in approach to roof structure, the north, south and west vestibules match the main building octagon in the use of horizontally oriented wood siding. The perimeter vestibule structures on the eastern half differ in that they employ board and batton siding.

- Wood sill deterioration is a consistent condition around the building perimeter, exacerbated as the wood gets closer or in contact with the surrounding soil. Figure 26 depicts such deterioration along the south face of the entrance vestibule. This is particularly apparent at its east end where water travels along the interface between vestibule and main building wall, and is directed to this corner at grade below. Note increased water staining and biological growth in these areas.
- Both Figures 26 and 27 show the problem of the grade that surrounds the building sometimes sloping toward the building instead of away. This directs water toward the foundations and perimeter sills. The sill plate of Figure 27, taken at the northeast vestibule, is severely rotted as it is embedded in the surrounding soils.
- The east vestibule shows both sill deterioration and overall rotation relative to the main building (Figure 28). As the sills crush due to the sustained of building load while the material loses its integrity, connections above are strained and openings created, such as the gap apparent along the main building wall.
- Figure 29 shows how this gap has been addressed over time along the roofline, with layers of metal flashing that have apparently failed repeatedly due to continued movement.
- Figures 28 and 29 show extensive areas of roof shingle deterioration, which is generally consistent for the entire main building and vestibule roofs.
- Figure 30 is taken along the south side of the east

Figure 26: Entrance Vestibule - South

Figure 27: Perimeter Sill Deterioration

Figure 28: East Vestibule Rotation

Figure 29: East Vestibule Flashing

vestibule. Although the sill is not embedded in soil, the spanning beam has suffered deterioration due to moisture and insect damage. Current activity of insects in this area could not be confirmed.

- Where observed, the foundation walls and appears were of masonry construction. Although appearing largely stabile, areas of open joints and masonry shifting were also observed.

Figure 30: Sill Beam Deterioration

Interior Structural Systems & Conditions

The roof structure of the MBH appears similar in nature to that of the WBH, however there are some significant differences that affect structural behavior. Like the WBH, the octagonal oculus is supported by a central post and diamond-like strut system (Figure 31). Internal cross-ties are provided by (4) 2x12 wood members that are connected at the central post. Rising from each post at the corners of the octagonal plan are (8) hip rafters framing the roof. The radiating 3" x 6" rafters, spaced at approximately 28" on center, rise from the perimeter top plate and are supported at their upper end by the octagonal oculus ring and the hip rafters themselves.

Figure 31: Framing & Penetrations

- Figure 31 shows widespread penetrations in the roofing, as many shingles have deteriorated and/or shifted out of place. Roofing penetrations leads to increased moisture along the rafters and down to the perimeter wall. The sustained presence of moisture at the wood interfaces can lead to material decomposition over time.

Figure 32: Framer's Mark on Rafter

A historic framer's marking was observed near the end of one rafter, shown in Figure 32. The figure also shows the general roofing system, including spaced boards over the rafters with shingles directly attached to these boards. This approach, common in historic wood-framed roofs, has the benefit of maintaining ample airflow around the framing members, helping reduce moisture entrapment along structural members. Rafters bear on the top plate and transfer thrust through a combination of toe nails and a birds mouth that is engaged in a notch at the top face of the top

Figure 33: Top Plate Rafter Bearing

plate (Figure 33).

Thrust resistance from the roof framing is more effectively addressed in the historic structure of the MBH. As depicted in Figures 34 and 35, the 6" x 8" top plate serves as an effective tension ring through multiple means. First, the abutting top plate connections are half-lapped and pegged with wood dowels. Second, a cornering splice plate, measured at one location to be 4 ½" x 7", connects the top plates with a dovetail lap that is also pegged with wood dowels.

Figure 34: Top Plate Tension Ring

Also different from the WBH is the means of overall lateral load resistance. Whereas the vertical tongue and groove side boards attached to cross-struts between the main posts provides the majority of lateral stiffness, lateral stability at the MBH is achieved through in-plane braces within the main walls.

Figure 35: Top Plate Splice Detail

SSK-5 in Appendix A is a hypothetical a fold-out view showing the internal elevations of the 8 side walls, each of which show some form of diagonal bracing. In general, the existing wall bracing is somewhat erratically arranged and has been apparently modified on multiple occasions.

- Figure 36 an area along the north side of the structure where the bottoms of both wall studs and diagonal braces have been cut and reconnected with vertical stub members. The discontinuity of the bracing members significantly reduces the effectiveness of these components in providing lateral stability. The modification may have been implemented to repair rotting bases of the members as they connect to the sill. That this was only observed on the northern side may be correlated to the presence of exterior grade so close to the sill plate, allowing for a prior history of wood deterioration.
- Figures 37 and 38 show sill deterioration ongoing, again likely the result of sustained moisture.
- Figure 39 shows an area of wall brace deterioration.

Figure 36: Stud & Brace Modifications

Figure 37: Sill Deterioration

Figure 38: Sill Deterioration

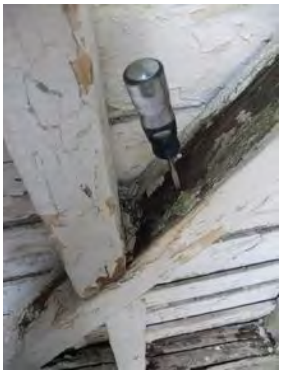


Figure 39: Wall Brace Deterioration

- Like the WBH, some out-of-plumbness was documented within the MBH structure. Figures 40a and 40b demonstrate the lean of one post. As indicated in SSK-4 of Appendix A, the overall magnitudes of lean are smaller than those documented in the WBH. However, similarly, there appears to be a generally tendency to lean towards the north.

Figure 40a & 40b: Corner Post Plumbness

Visitor Cottage

Structural Systems & Conditions

The Visitor Cottage appears in sound structural condition. The first floor framing is raised well above grade on a mixture of brick masonry and cmu piers. Primary beams run east-west while floor joists generally run north-south. Although a complete survey was not undertaken from within the crawl space, the structure that was observed appeared in good condition with no signs of moisture collection or wood deterioration (Figures 41 and 42).

Figure 43 depicts the framing of the north porch.

- Although the primary rafters appeared to be in good structural condition, the paint on the underside of the roof boards has deteriorated and localized areas of deterioration were observed.

Historic photos within the cottage showed an earlier view where the north porch wrapped around the west side (Figure 44).

- The photo makes it clear that since then, an addition was made on the west side, with modifications to the roofline and to the ornamental woodwork on the north porch.

Figure 41: Visitor Cottage Elevation

Figure 42: First Floor Framing

Figure 43: North Porch Roof Framing

Figure 44: Historic Porch Configuration

Recommendations

General

1. Preliminary Cost Estimate: this report may serve as the basis for a preliminary cost estimate, to be developed by an estimator or contractor experienced with historic preservation construction projects. RSA will be available to review details of the recommendations described herein.

2. Monitoring: we recommend that temporary survey targets be placed on the perimeter of both the WBH and MBH to document the current geometry, which would then serve for comparison in the upcoming months. A monthly survey for the next year, while the next phases of study and repair design are beginning, is recommended. A one-year period of monitoring will assure that we see the buildings in their full seasonal cycle and will help distinguish minor movements due to temperature change from any larger scale displacements. RSA can provide further specifications for monitoring upon request.

3. Structural Engineering Analysis: a detailed structural analysis of both bathhouse structures should be performed to evaluate load capacities for both gravity and lateral loads, setting the stage for the design of repairs and strengthening, as needed. Given the significant out-of-plumbness of some of the main posts in the WBH, we recommend that this work be initiated as soon as possible to assure that no temporary measures for stability will be required.
    a. We recommend that engineering analysis be accompanied by a program of resistance drilling and visual grading provided by a wood scientist. Resistance drilling is a means of detecting interior variations in density in wood framing members, and in particular can locate areas of interior rot that are not visually apparent, and which nevertheless significantly affect structural capacity. This work can be done in coordination with a Historic Structures Report, as noted below.
    b. A program of selective test pits is recommended to confirm the size and depth of existing footings. Some limited hand-testing of soils could be performed by a geotechnical engineer. Soils information will assist in developing final repair documents.

4. Historic Structures Report (HSR): this should be researched and written to establish the preservation goals of the site, prior to implementation of significant repairs or modifications. A preservation philosophy appropriate to the site should be developed, particularly given the apparent replacement of historic building materials over time, with the use of wood in a highly moist environment. Existing historic resources could be assembled. Of particular use for future assessments and repairs will be any existing drawings. It is likely that the HSR will include the development of new measured drawings as a current record of conditions. Given the integral nature of structure and materials conservation to the architectural and social significance of the site, we recommend that a structural engineer experienced with historic building systems be a part of the report team to take the next steps as described below.

5. Construction Documents: repair, strengthening or restoration documents, as appropriate, should be developed by a design team consisting of an architect with engineering consultants, each experienced with design and repair within the context of historic building systems.

Structural Recommendations for each Building

The recommendations summarized below are broken into three areas – Stabilization Recommendations (to be implemented within 6 months); Short-Term Needs (to be implemented within 3 to 5 years); Long-Term Needs and/or Maintenance (to be implemented after 5 years, at appropriate increments). Preliminary quantity estimates are provided for initial cost estimating, to be performed by others.

Building Recommendations	**Preliminary Quantity Estimates**
Women's Bathhouse (WBH)	
Stabilization Recommendations:	
• Initiate Monitoring Program. • Engage structural engineer for detailed analysis and stabilization or repair recommendations. This is likely best accomplished within the context of a Historic Structures Report so that architectural considerations are balanced with structural needs. • Maintain restricted access to exterior walkways exhibiting displacement and deck board deterioration.	
Short-Term Needs:	
• Perimeter Pier Foundations. East side piers should be rebuilt on new concrete footings, set at an appropriate distance below grade to be below frost depth. • Following a more detailed structural investigation, it may be most prudent to address the overall building displacements with a repair scheme that restores a more plumb condition, in combination with connection reinforcement of framing	• (8) Piers, 12" sq. by 4 feet high, on an 18" sq. by 12" thick concrete footing. Bottom of footings set 1'-6" below grade.

members and wall boards. The following preliminary sequence is suggested:
- Install adjustable lateral bracing system;
- Remove or loosen selective side boards to facilitate jacking to restore more upright position;
- Perform foundation work as noted above
- Install permanent framing reinforcement:
  - Reinforced connections at oculus ring;
  - New tension ring at upper eave;
  - Hurricane tie-down connectors, or historic equivalent, at high roof rafters;
  - Reinforced connections at perimeter roof rafters;
  - Replace rotted wood members
- Reinstall or tighten side boards removed or loosened above
- Shingle replacement with nailer board replacement between rafters
- Repaint interior and exterior

- Adjustable lateral bracing system around full perimeter
- Assume inner wall boards disconnected above doorways while structure is braced;
- Assume 50% total side boards, inner and outer walls, removed and reset in a carefully staged repair operation;
- High roof rafter connections – approximately 88 total rafters;
- Perimeter roof rafter connections – approximately 88 total rafters;
- Assume (3) double 3 ½" x 6" posts replaced with some transition connection detailing such as scarf joints;
- Shingle replacement for full roof – see SSK-1 for area;
- Assume 50% nailer board replacement;

Long-Term Needs and/or Maintenance:

- Masonry Foundations. Foundation wall repointing and possible localized rebuilding are required at regular intervals;
- Painting and wood treatment with preservative;
- Shingle / Roofing Maintenance

Men's Bathhouse

Stabilization Recommendations:

- Initiate Monitoring Program.
- Engage structural engineer for detailed analysis and stabilization or repair recommendations. This is likely best accomplished within the context of a Historic Structures Report so that architectural considerations are balanced with structural needs.

Short-Term Needs:

- Perimeter sill repair / replacement. Removal of lower roof boards around perimeter to expose sill and assess quantities for repair or replacement.
- Lateral brace repair / restoration at main walls of octagonal space;
- Main (octagonal) wall sill repair;
- Partial wood siding replacement;
- Roof shingle replacement with nailer board replacement between rafters;
- Repaint interior and exterior;

Long-Term Needs and/or Maintenance:

- Masonry foundation repairs. Repointing and localized rebuilding.
- Painting and wood treatment with preservative
- Shingle / Roofing Maintenance

- Assume 75% exterior sill replacement;
- Regrading around building perimeter to direct water away;
- Assume (10) new 3" x 5" wood braces with mortise and tenon connections to post and plates (average length 8 feet);
- 16 linear feet of main (octagonal) wall sill repair; Assume 6" x 8" timber lapped with existing sills and connected to studs and posts above; Assume temporary shoring of studs / posts required during work;
- Assume 10% wood siding replacement;
- Shingle replacement – see plan SSK-4 for approximate areas;
- Assume 80% nailer board replacement;

Visitor Cottage

Short-Term Needs:

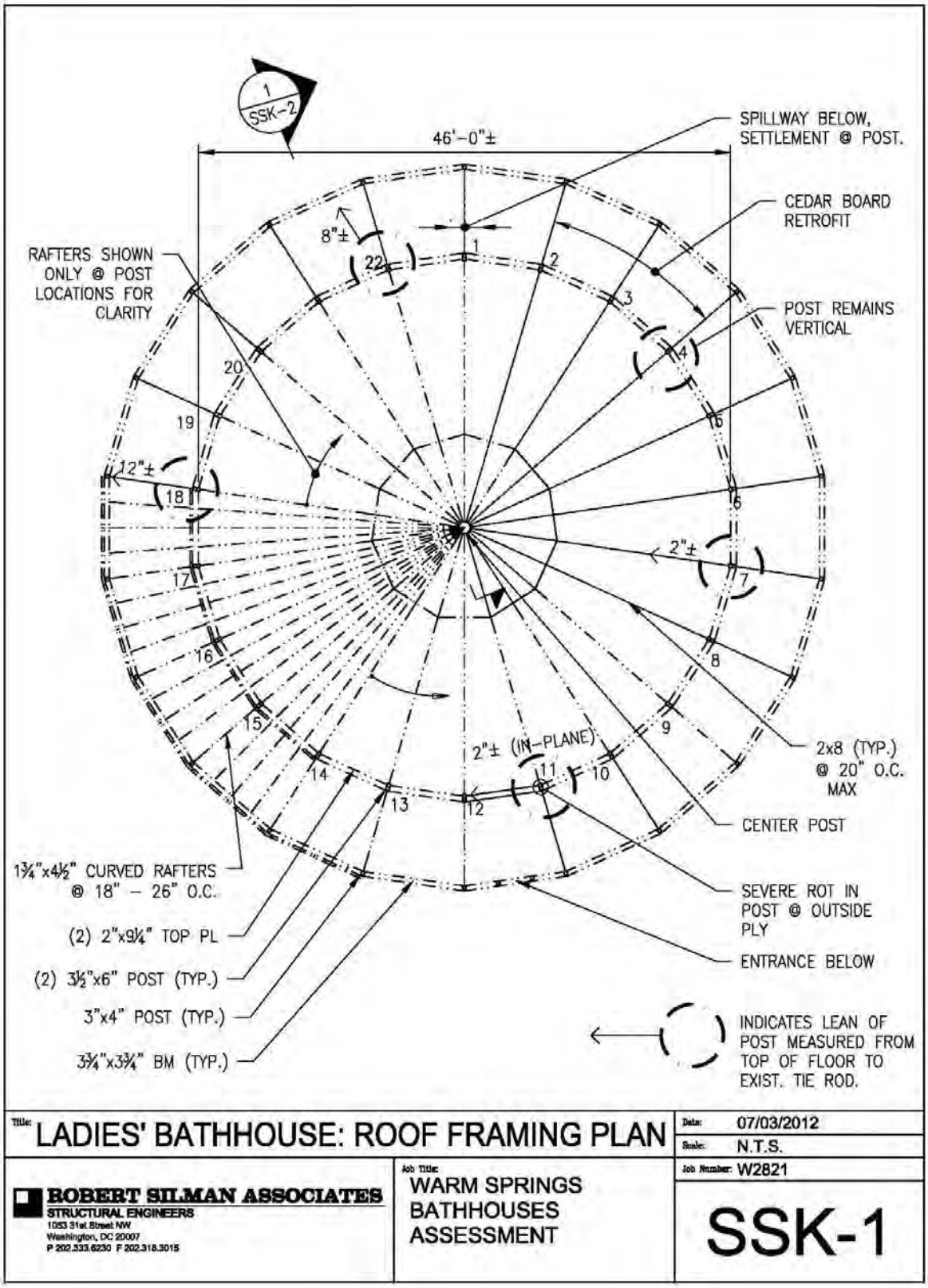
- North porch limited roof board repair and repainting;

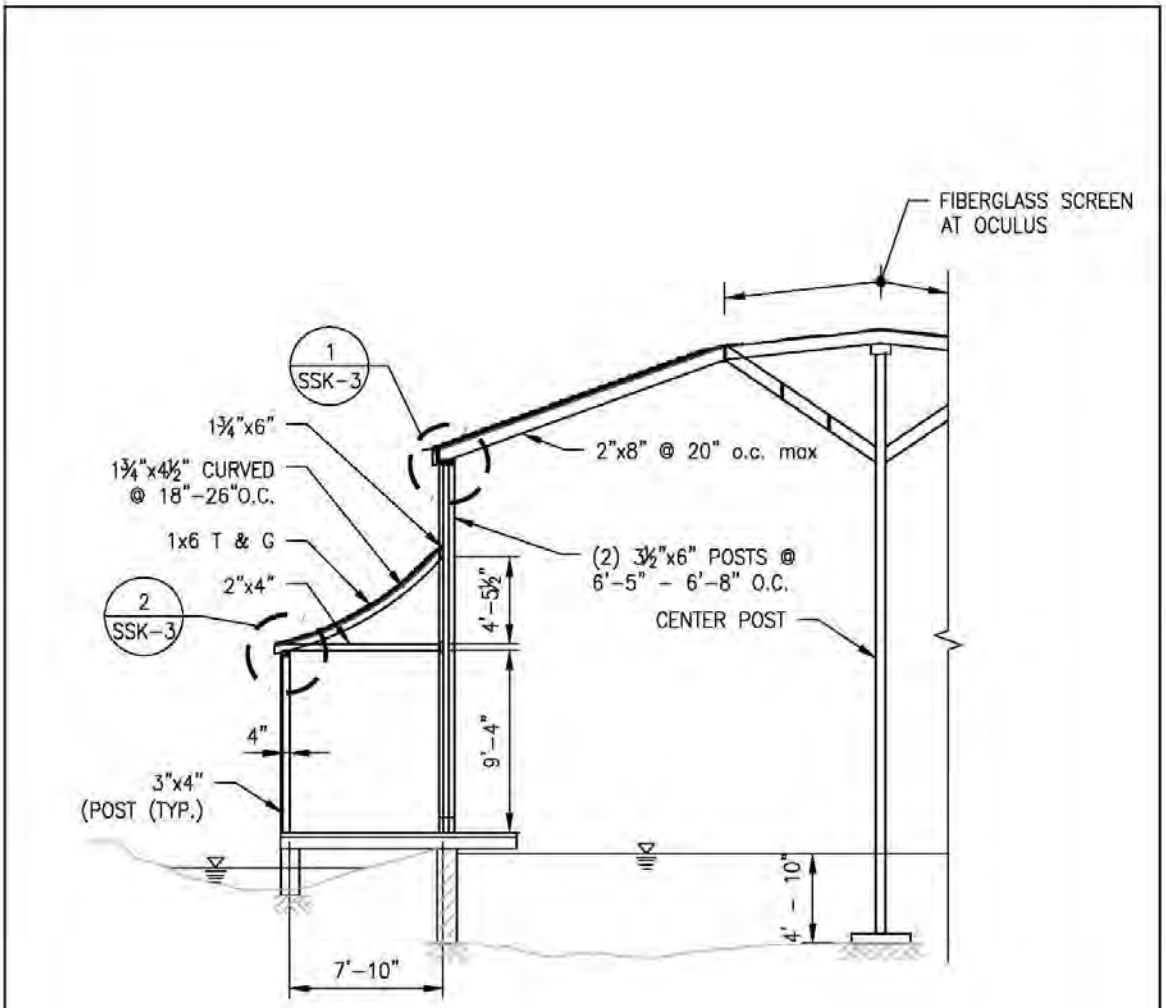
Long-Term Needs and/or Maintenance:

- Masonry foundation repairs. Repointing and localized rebuilding.
- Painting and wood treatment with preservative

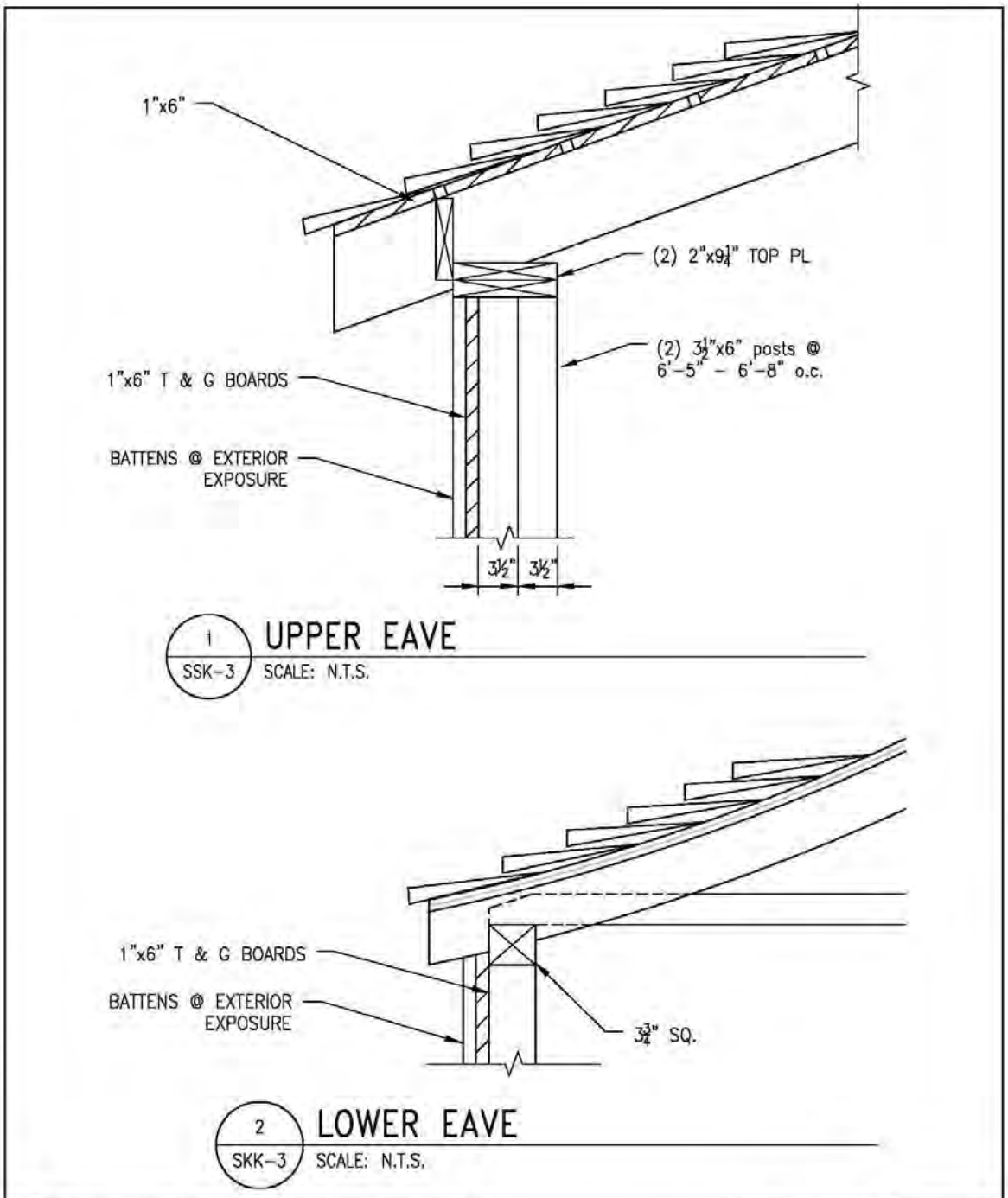
APPENDIX A:

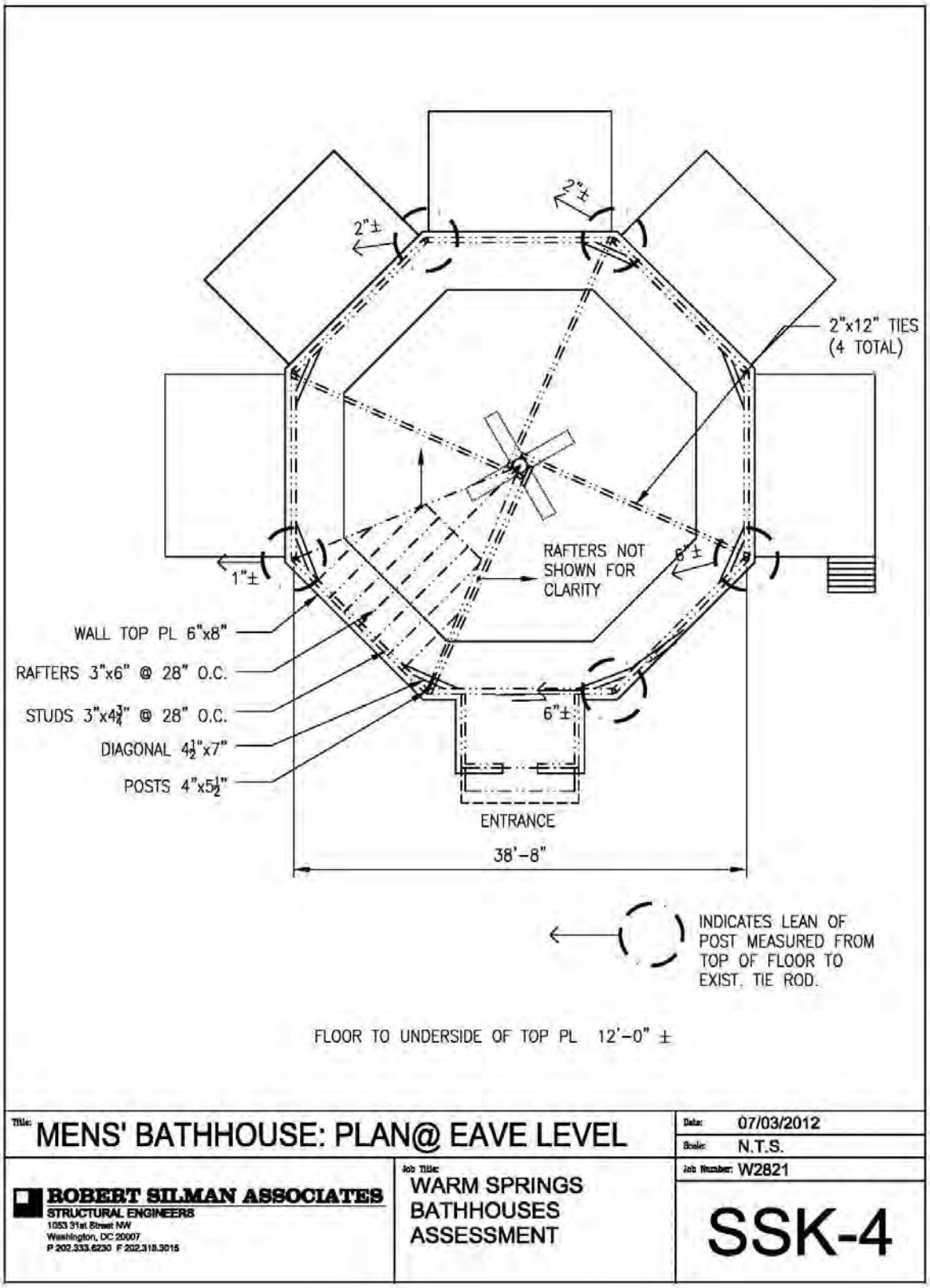
DRAWINGS

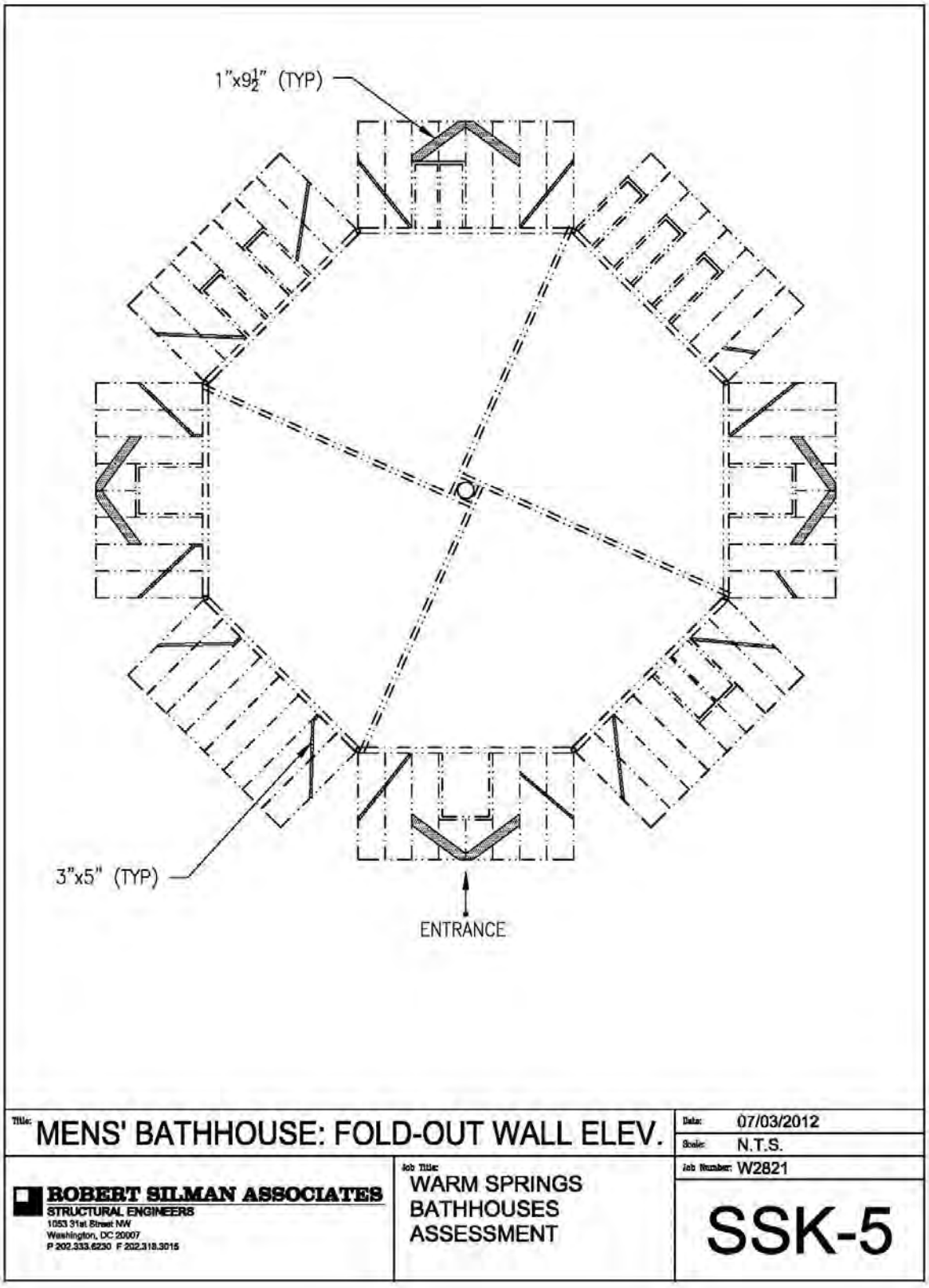

1
SSK-2
46'-0"±
SPILLWAY BELOW, SETTLEMENT @ POST.
CEDAR BOARD RETROFIT
POST REMAINS VERTICAL
RAFTERS SHOWN ONLY @ POST LOCATIONS FOR CLARITY
8"±
12"±
2"±
2"± (IN-PLANE)
2x8 (TYP.) @ 20" O.C. MAX
CENTER POST
SEVERE ROT IN POST @ OUTSIDE PLY
ENTRANCE BELOW
1¾"x4½" CURVED RAFTERS @ 18" – 26" O.C.
(2) 2"x9¼" TOP PL
(2) 3½"x6" POST (TYP.)
3"x4" POST (TYP.)
3¾"x3¾" BM (TYP.)
INDICATES LEAN OF POST MEASURED FROM TOP OF FLOOR TO EXIST. TIE ROD.
Title: LADIES' BATHHOUSE: ROOF FRAMING PLAN
Date: 07/03/2012
Scale: N.T.S.
Job Number: W2821
ROBERT SILMAN ASSOCIATES
STRUCTURAL ENGINEERS
1053 31st Street NW
Washington, DC 20007
P 202.333.6230 F 202.318.3015
Job Title: WARM SPRINGS BATHHOUSES ASSESSMENT
SSK-1



Title: LADIES' BATHHOUSE: SECTION	Date: 07/03/2012
	Scale: N.T.S.
ROBERT SILMAN ASSOCIATES STRUCTURAL ENGINEERS 1053 31st Street NW Washington, DC 20007 P 202.333.6230 F 202.318.3015	Job Title: WARM SPRINGS BATHHOUSES ASSESSMENT
	Job Number: W2821
	SSK-2


1"x6"
(2) 2"x9¼" TOP PL
(2) 3½"x6" posts @ 6'-5" - 6'-8" o.c.
1"x6" T & G BOARDS
BATTENS @ EXTERIOR EXPOSURE
3½"
3½"
1
SSK-3
UPPER EAVE
SCALE: N.T.S.
1"x6" T & G BOARDS
BATTENS @ EXTERIOR EXPOSURE
3¾" SQ.
2
SKK-3
LOWER EAVE
SCALE: N.T.S.
Title: LADIES' BATHHOUSE: DETAILS
Date: 07/03/2012
Scale: N.T.S.
Job Number: W2821
ROBERT SILMAN ASSOCIATES
STRUCTURAL ENGINEERS
1053 31st Street NW
Washington, DC 20007
P 202.333.6230 F 202.318.3015
Job Title:
WARM SPRINGS BATHHOUSES ASSESSMENT
SSK-3


2"±
2"±
2"x12" TIES
(4 TOTAL)
RAFTERS NOT
SHOWN FOR
CLARITY
1"±
8"±
WALL TOP PL 6"x8"
RAFTERS 3"x6" @ 28" O.C.
STUDS 3"x4¾" @ 28" O.C.
DIAGONAL 4½"x7"
POSTS 4"x5½"
6"±
ENTRANCE
38'-8"
INDICATES LEAN OF
POST MEASURED FROM
TOP OF FLOOR TO
EXIST. TIE ROD.
FLOOR TO UNDERSIDE OF TOP PL 12'-0" ±
Title: MENS' BATHHOUSE: PLAN@ EAVE LEVEL
Date: 07/03/2012
Scale: N.T.S.
Job Number: W2821
ROBERT SILMAN ASSOCIATES
STRUCTURAL ENGINEERS
1053 31st Street NW
Washington, DC 20007
P 202.333.6230 F 202.318.3015
Job Title:
WARM SPRINGS
BATHHOUSES
ASSESSMENT
SSK-4


1"x9½" (TYP)
3"x5" (TYP)
ENTRANCE
Title: MENS' BATHHOUSE: FOLD-OUT WALL ELEV.
Date: 07/03/2012
Scale: N.T.S.
Job Number: W2821
ROBERT SILMAN ASSOCIATES
STRUCTURAL ENGINEERS
1053 31st Street NW
Washington, DC 20007
P 202.333.6230 F 202.318.3015
Job Title:
WARM SPRINGS
BATHHOUSES
ASSESSMENT
SSK-5

APPENDIX B:

MATERIALS TESTING

06/28/2007 10:50 6082382225 PAGE 04

QUIRK CONSULTING
Wood Identification and Problem Analysis
J. Thomas Quirk, Ph.D.

June 27, 2012

ATTN. Mike Kostick
Robert Silman Associates
1053 31st Street NW
Washington DC 20007

RSA project W2821

Dear Mr. Kostick,
The 2 wood samples that you sent to me for identification both are Eastern White Pine **(Pinus strobus).**

Thank you for the opportunity to be of assistance.

Regards,

J. Thomas Quirk, Ph.D.
Wood Technologist.

Enclosure - invoice # 1728

117 N. Franklin Avenue • Madison, WI 53705 • Phone/Fax (608) 238-2225

06/28/2007 10:50 6082382225 PAGE 05

Quirk Consulting Service

J. Thomas Quirk, Ph.D., Wood Technologist.

Federal ID# 39-1538482

Invoice #1728

June 27, 2012

ATTN. Mike Kostick
Robert Silman Associates
1053 31st Street NW
Washington DC 20007

Wood identifications

Pool samples –eastern white pine

2 samples @ $30.00/sample = $60.00

Remit to: J. Thomas Quirk, Ph.D.
117 N. Franklin Avenue
Madison, WI 53705

Terms: payment in full required in 30 days.

Phone/FAX (608) 238-2225 E-mail TANDBQUIRK@AOL.COM