

GLENN DALE HOSPITAL HISTORIC DISTRICT

Field Observations Report

prepared for
M-NCPPC
Prince George's County
Department of Parks
& Recreation

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GLENN DALE HOSPITAL HISTORIC DISTRICT FIELD OBSERVATIONS REPORT

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1 SCOPE AND PURPOSE OF INITIAL SURVEY

1.1 INTRODUCTION

The former Glenn Dale Tuberculosis Hospital and Sanatorium site now referred to as the Glenn Dale Hospital Historic District is located in a predominantly suburban and residential area at 5201 Glenn Dale Road in Prince George's County, Maryland. It is comprised of several parcels for a total of approximately 206 acres as part of parcels 153 and 124 (Figure 1.1-1). This evaluation focuses solely on the 60-acre developed core of the historic district (Figure 1.1-2).

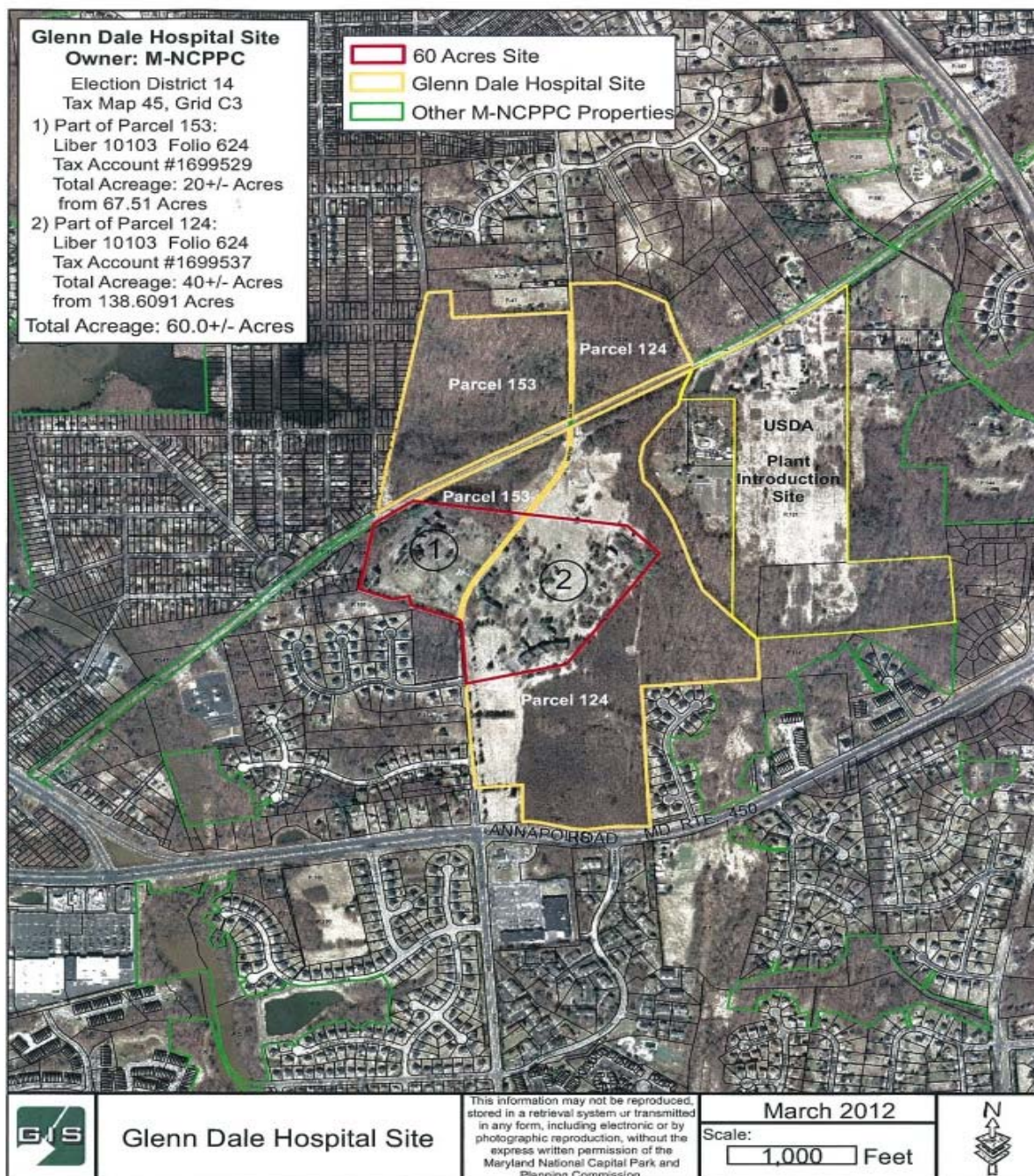


Figure 1.1- 1 Glenn Dale hospital site with parcel identification



Figure 1.1- 2 Area plan of the site. Inset: Site plan of the Glenn Dale Historic District (source: Google Earth)

2 OVERVIEW OF THE HISTORIC DISTRICT

2.1 BACKGROUND HISTORY

The Glenn Dale Hospital Historic District is a site of approximately 206 acres located in a predominantly suburban and residential area at 5201 Glenn Dale Road in Prince George's County, Maryland.

The historic district is listed on both the National Register of Historic Places, (#11000822) and the Maryland Inventory of Historic Properties (P.G. #70-50), organizations that recognize properties worthy of cultural preservation. Built predominantly in the Colonial Revival Style between 1933 and 1960, the hospital complex was built for the in-patient treatment of tuberculosis patients from Washington, D.C. and the surrounding areas.

The historic district as a whole retains evidence of its original circulation system, including interconnecting roadways and pedestrian paths, topography, and plantings. It possesses overall integrity of location, design, setting, materials, feeling and association as an early twentieth century campus designed specifically for the care and treatment of tuberculosis patients. Glenn Dale Hospital was opened to persons with chronic illnesses other than tuberculosis from January 1960 until January 1982, and was administered by the District of Columbia at that time. The hospital was closed in January 1982 and subsequently sold to the Maryland-National Capital Park and Planning Commission (M-NCPPC) in 1995.ⁱ



Figure 2.1- 1 Aerial View of the Adult Hospital



Figure 2.1- 2 Annotated Site Plan

On November 11, 2011, the Glenn Dale Hospital Historic District was listed on the National Register of Historic Places as a Historic District under Criteria A and C.

The National Register of Historic Places is the official federal list of districts, sites, buildings, structures, and objects significant in American history, architecture, archeology, engineering, and culture. National Register properties have significance to the history of their community, state, or the nation. A professional review board in each state considers each property proposed for listing and makes a recommendation on its eligibility. Listing in the National Register of Historic Places provides formal recognition of a property's historical, architectural, or archeological significance based on national standards used by every state.ⁱⁱ

Listing on the National Register also confers certain opportunities for preservation incentives such as:

- Federal preservation grants for planning and rehabilitation.
- Federal investment tax credits.
- Preservation easements to nonprofit organizations.
- International Building Code fire and life safety code alternatives.
- Possible state tax benefit and grant opportunities.
- Involvement from the Advisory Council on Historic Preservation when a federal agency project may affect historic property.ⁱⁱⁱ

From the federal perspective (the National Register of Historic Places is part of the National Park Service), a property owner can do whatever they want with their property as long as there are no federal monies attached to the property. However, there may be state or local preservation laws of which they should be aware before they undertake a project with a historic property^{iv}.

In the case of the Glenn Dale Hospital Historic District, there may be historic easements with the Maryland Historical Trust, the state-level agency responsible for historic preservation. Likewise, properties within Prince George's County classified as Historic Sites in the 2010 Approved Historic Sites and Districts Plan require a Historic Area Work Permit (HAWP). Subtitle 29 of the Prince George's County Code authorizes the County Historic Preservation Commission to "issue, deny, or issue with conditions" Historic Area Work Permits. This Historic Area Work Permit process does not apply to work that falls under the definition of Ordinary Maintenance.

The following citation from the National Register Bulletin of the U.S. Department of the Interior, National Park Service, defines Criteria A and C as:

CRITERION A: EVENT

Properties may be eligible for the National Register if they are associated with the events that have made a significant contribution to the broad patterns of our history.

CRITERION C: DESIGN / CONSTRUCTION

Properties may be eligible for the National Register if they embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.^v

The buildings identified on the National Register Nomination can be lumped into two categories: Contributing and Non-Contributing. Contributing buildings are those that were built during the Period of Significance as noted in the National Register nomination, in this case, 1933 – 1959, and contribute to the historic and cultural nature of the site. Non-contributing buildings are those built after the Period of Significance, and do not contribute to the historic and cultural nature of the site (Figure 2.1-3).

A large variation in the dates of construction were found between three key documents during the preparation of this report-- the c.1975 Building Inventory available in Appendix I of the Glenn Dale Hospital file PG:70-50, Maryland Inventory of Historic Properties, the 2011 National Register of Historic Places nomination, and the site plan illustration from the 2011 National Register of Historic Places Nomination (Figure 2.1-4). All dates of construction need to be verified in the following phase.

NUMBER	NAME	c. 1975 INVENTORY DATE ^{vi}	NR NARRATIVE DATE ^{vii}	NR MAP DATE (See Figure 2.1-4) ^{viii}	CONTRIBUTING
1a	Warehouse	1936	c.1936	c.1936	Yes
1b	Garage	1936	c.1936	c.1936	Yes
2a	Heating Plant & Smokestack	1936	1933, 1936, 1954	1933, 1936, 1954	Yes
2b	Laundry	1939	1939	c.1939	Yes
3	Pump House	1937	c.1937	c.1936	Yes
4	Water Softener House	1937	1936	c.1936	Yes
5	Apartment 1	1949	1949	1949	Yes
6	Apartment 2	1950	1950	1950	Yes
7a	Children's Hospital	1933	1933	1933	Yes
7b	Gibson Hall	1947	c.1936	1933	Yes
7c	Peabody Hall	1933	c.1936	1933	Yes
8a	Capper Hall	1933	1933	1933	Yes
8b	McCarren Hall	1935	1935	c. 1935	Yes
8c	Arcade	Not Identified	c.1936	c.1935	Yes
9	Duplex (West)	1935	1935	c.1935	Yes
10	Duplex (East)	1936	1936	c.1936	Yes
11	Finucane Hall	1938	c.1938	c.1938	Yes
12	Adult Hospital	1936	c.1936	c.1936	Yes
	Well House	Not Identified	c.1936	c.1936	Yes
	Paint Shop	1953	Not Identified	Not Identified	Not Identified
	Shed	Not Identified	c.1960	c.1960	No
	Incinerator	1960	c.1960	c.1960	No
	Water Tower	Not Identified	c.1960	c.1960	No
	Security Residence	Not Applicable	c.1990	c.1990	No
	Security Shed	Not Applicable	c.1990	c.1990	No

Figure 2.1- 3 Table of Contributing and Non-Contributing buildings and structures on the Glenn Dale Historic District site.

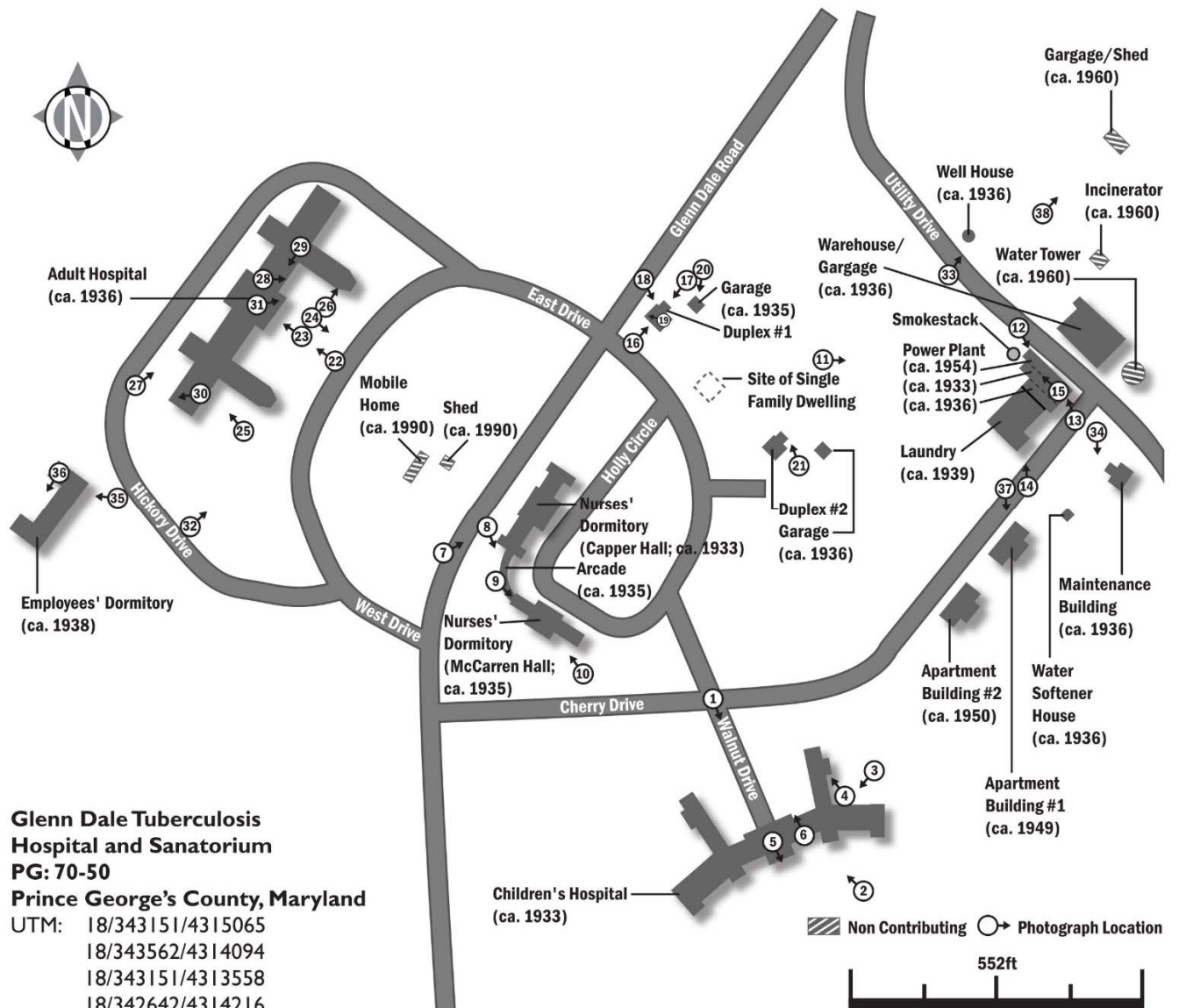


Figure 2.1- 4 Site Plan from the National Register Nomination.

2.2 CONTRIBUTING BUILDINGS

The following summary is an overview developed to set a general understanding of building materials and overall details from site observations, Maryland-National Capital Park and Planning Commission staff meetings, and excerpts from the National Register of Historic Places registration form, (#11000822). Further details on the historic district can be found in the registration form.

CHILDREN'S HOSPITAL, GIBSON HALL AND PEABODY HALL

The Children's Hospital (Building 7a), 1933, was the first building constructed on the site (Figure 2.2-1). The four-story tall Colonial Revival-style building is constructed from brick-clad reinforced concrete and features double-hung 12-over-12 wood windows, sloped slate roofs, flat membrane roofs, a brick water table, a brick belt course, and limestone window sills. Two wings of similar style, Gibson Hall (Building 7b) and Peabody Hall (Building 7c) were added sometime after 1933. (Figures 2.2-2 and 2.2-3).

Both of the wings included sleeping porches with broad, screened windows, and a flat roof deck with pergolas for activities. An open arched breezeway connects each wing to the main building.



Figure 2.2- 1 Children's Hospital (Building 7a) – c.1933



Figure 2.2- 2 Gibson Hall (Building 7b) – after 1933.



Figure 2.2 -3 Peabody Hall (Building 7c) – after 1933.

NURSE'S DORMITORIES – CAPPER HALL, MCCARREN HALL AND ARCADE

The Nurse's Dormitories, Capper Hall (Building 8a), and McCarren Hall (Building 8b), built in 1933 and 1935 respectively, housed the nurses who cared for the patients in the Children's Hospital.

Capper Hall (Building 8a) consists of a brick two-and-a-half story central block constructed from brick-clad reinforced concrete, with two, one-and-a-half story gabled wings creating an H-shaped plan. On the south elevation, two, one-story wooden porches are nestled between the wings and main block. The building features 6-over-6 wood double-hung windows, and wood-sided dormers on the gabled slate roof supported by wood framing. The Colonial Revival-style building has a brick water table, a wood pediment and trim at primary entrances, and limestone window sills (Figure 2.2-4).

McCarren Hall (Building 8b) features a different plan, and consists of a two-and-a-half story tall main block constructed from brick-clad reinforced concrete, with two-story flanking wings of similar construction. A large two-story porch on the rear of the building has fallen. The building features 6-over-6 wood double-hung windows, and wood-sided dormers on the gabled slate roof supported by steel framing. The Colonial Revival-style building has a brick water table, brick quoining, a wood pediment and trim at primary entrances, and limestone window sills (Figure 2.2-5).

A brick Arcade (Building 8c) leads from the southwest elevation of Capper Hall to the northwest elevation of McCarren Hall and was completed in 1935. The Arcade features brick arched openings with simple metal railings, a stone watertable, and a wood-framed flat roof. Arches at the ends of the Arcade are accented with stone arch details, concrete steps and simple metal railings (Figure 2.2-6).



Figure 2.2- 4 Capper Hall (Building 8a) – c.1933



Figure 2.2- 5 McCarren Hall (Building 8b) –1935 (rear)



Figure 2.2- 6 Arcade (Building 8c) – c.1936

DOCTOR'S RESIDENCES - EAST AND WEST DUPLEXES

To the northeast of the Nurse's Dormitories are two duplexes that once housed the physicians. Once a group of four buildings, only two remain. Two single-family dwellings have been lost due to fires in 1988 and 2005.

The duplexes are of simpler wood-frame construction with brick veneer, and are both two stories tall with gabled roofs. Each duplex includes a detached two-bay garage with wood-frame construction and brick veneer (Figures 2.2-7a and 2.2-7b).



Figure 2.2-7a West Duplex (Building 9) – 1935 (above)

Figure 2.2-7b East Duplex (Building 10) – 1936 (above)

ADULT HOSPITAL

When the Adult Hospital was built in 1936, the focus of the historic district shifted across Glenn Dale Road to a new site that would eventually house the Adult Hospital and Finucane Hall. A long semi-circular drive leads from the main road to the front of the five-story tall building. Like the earlier Children's Hospital, the building is constructed of reinforced concrete with red brick cladding. Limestone elements feature prominently, including a dentiled cornice, beltcourse, window sills, window keystones, and an elaborate Tuscan frontispiece with broken pediment that frames the centrally-located front doors (Figure 2.2-8).



Figure 2.2- 8 Adult Hospital (Building 12) – 1936

STAFF DORMITORY - FINUCANE HALL

To the southwest of the Adult Hospital sits the U-shaped Finucane Hall. Built c.1938 from reinforced concrete and red brick, the three-story building housed employees and completed the new Adult Hospital site west of Glenn Dale Road (Figure 2.2-9).



Figure 2.2- 9 Finucane Hall (Building 11) – c.1938

APARTMENTS 1 & 2

The other contributing buildings are located in the industrial complex to the east of the main campus and consists of a mix of building dates and functions. Two apartment buildings dating to 1949 and 1950 are located northeast of the Children's Hospital. While constructed from red brick similar to the earlier complex buildings, the apartments are much simpler at only two stories tall with a rectangular footprint. The style of the buildings also exhibits the shift from the more decorative Colonial Revival style to the spare Industrial style just gaining popularity at the time (Figures 2.2-10a and 2.2-10b).



Figure 2.2- 10a Apartment 1 (Building 5) – 1949



Figure 2.2- 10b Apartment 2 (Building 6) – 1950 (rear)

INDUSTRIAL COMPLEX BUILDINGS



Garage (Building 1b) - c.1936



Warehouse (Building 1a) - c.1936



Heating Plant and Smokestack (Building 2a) - 1933, 1936, and 1954.



Laundry (Building 2b) - 1939



Pump House (Building 3) - 1936



Water Softener House (Building 4) - 1937



Well House - c.1936

Figure 2.2- 11 Contributing buildings in the industrial complex on the east end of the campus

The remaining contributing buildings were all constructed early in the history of the complex, and date from 1933 to 1960. These buildings include the Warehouse (Building 1a), Garage (Building 1b), Heating Plant and Smokestack (Building 2a), Laundry (Building 2b), Pump House (Building 3), Water Softener House (Building 4), and Well House (Figures 2.2-11 and 2.2-12).



Figure 2.2- 12 Contributing buildings (blue) in the industrial complex on the east end of the campus

2.3 NON-CONTRIBUTING BUILDINGS

There are five buildings/structures on the site that do not contribute to the historic district. All of these were built after the Period of Significance (1933-1959), and include the Shed, Incinerator, Water Tower, Security Residence and Shed (Figure 2.3-1).



Shed – c.1960



Incinerator – c.1960



Water Tower – c.1960



Security Residence and Shed – c.1990

Figure 2.3- 1 Non-Contributing buildings

ⁱ “Glenn Dale Tuberculosis Hospital and Sanatorium,” National Register of Historic Places Nomination, National Park Service, November, 18, 2011.

ⁱⁱ “National Register of Historic Places: Frequently Asked Questions,” National Park Service, accessed May 29, 2015, <http://www.nps.gov/nr/faq.htm#restrictions>

ⁱⁱⁱ “National Register of Historic Places: Fundamentals,” National Park Service, accessed May 29, 2015, http://www.nps.gov/nr/national_register_fundamentals.htm

^{iv} “National Register of Historic Places: Frequently Asked Questions,” National Park Service, accessed May 29, 2015, <http://www.nps.gov/nr/faq.htm#restrictions>

^v “National Register Bulletin: How to Apply the National Register Criteria for Evaluation,” National Park Service, accessed April 27, 2015, http://www.nps.gov/nr/publications/bulletins/nrb15/nrb15_6.htm

^{vi} “Building Inventory c.1975,” Appendix I, Glenn Dale Hospital, PG:70-50, Maryland Inventory of Historic Properties.

^{vii} “Glenn Dale Tuberculosis Hospital and Sanatorium,” National Register of Historic Places Nomination, National Park Service, November, 18, 2011.

^{viii} “Site Plan - Glenn Dale Tuberculosis Hospital and Sanatorium,” National Register of Historic Places Nomination, National Park Service, November, 18, 2011.

3 METHODOLOGY OF SURVEY

3.1 METHODOLOGY

The existing conditions encountered at any given time in a historic structure are a function of the following: materials of construction; quality of workmanship; durability of the design and detailing; environmental factors, including atmospheric pollution; age and type of service of the structure; subsequent repairs and alterations; and maintenance actions over the life of the structure.

All of the above factors contributed, in differing degrees of importance, to the existing conditions found at the Glenn Dale Historic District. The existing conditions were established through qualitative analysis consisting of:

- Observation of exterior surfaces from grade
- Aerial video documenting the roof conditions
- Review of the evidence yielded by the above investigation to identify existing conditions, their extent, and the probable factors, which caused or contributed to the conditions
- Review of existing documentation materials including:
 - National Register Nomination
 - Past documentation of the buildings

The architectural field survey was performed on April 16, 2015 and consisted of a visual survey of all the exterior surfaces from grade, and an aerial survey of the flat roof conditions. Digital photographs were taken to record the conditions of various exterior elements, and video was taken of the aerial survey of the flat roofs.

The onsite evaluation consisted of visual examination, narrative, photography, and recording of critical conditions. Samples were not taken for analysis, nor were areas of the exterior envelope disturbed for examination of concealed conditions. Interiors were only reviewed as they informed the team as to the general stability of the structure. An in-depth interiors survey is not needed for mothballing the structures.

The treatment recommendations for the purpose of mothballing the buildings, landscape or site features included in this report take into account the significance of architectural elements and features and the integrity and physical condition of the structure and its elements. The governing objective is to conserve and preserve the extant historic fabric to the greatest extent possible and extend the life of the historic structures.

4 SUMMARY OF OBSERVATIONS

4.1 ARCHITECTURE

The condition of the buildings varies based on construction technique, location, and age. Generally, the reinforced concrete buildings are faring much better than the wood frame buildings.

WINDOWS AND DOORS

Most of the window glass has been broken and is not salvageable, though it appears that potentially, many of the wooden sashes, frames, and trim, and some of the metal casement windows remain in place. Many of the doors are missing, but many of the architectural elements remain, including door frames, trim, panel jambs and frontispieces. Continued exposure to the elements without adequate protection will hasten the decay of the wooden components.

- Most of the window glass has been broken.
- The wooden window frames and trim remain.
- The metal casement windows exhibit a high degree of corrosion.
- The stone sills and brick jack arches seem to be in good condition with minimal damage.
- Many doors have been removed, but they may be repairable if found within the buildings.
- Some doors are protected in place by metal gates.



Figure 4.1- 1 Various window and door conditions found at the Glenn Dale Hospital Historic District.

WALLS

The masonry is in generally good condition, except for the damaged parapets on the Children's Hospital. There is a considerable amount of brickwork across the campus (nearly every building is brick-clad) that would need attention during a mothballing project. The wooden buildings and structures, and especially the porches, are in poor condition and may need to be tagged and disassembled to ensure their survival. Invasive vegetation covers many buildings and contributes to the deterioration of the brickwork and mortar.

- Invasive vegetation covers many of the buildings.
- There are signs of efflorescence and staining on the brickwork.
- Some limited cracking in the brick veneer was observed.
- Areas of organic growth including moss and algae were observed, mostly below the watertable or in shaded areas.
- Limited areas of damaged or spalling brickwork were observed.
- Most of the structural elements seem to be intact.
- Brick parapets have been almost completely removed from the Children's Hospital in an attempt to steal the metal flashing contained within.



Figure 4.1- 2 Various wall conditions found at the Glenn Dale Hospital Historic District.

PORCHES, STAIRS, RAMPS AND RAILINGS

Most of the porches are in poor condition, especially those with wooden architectural elements. The rear porch on McCarren Hall has been lost. To ensure the further survival of the buildings and architectural elements from the porches, it may be necessary to tag and disassemble the wooden porches.

- The porch on the rear of McCarren Hall has completely collapsed, damaging the surrounding building fabric.
- The porches on the polygonal additions of the Adult Hospital wing are severely deteriorated, and may be beyond repair.
- The semi-circular ramp on the west end of the Adult Hospital is deteriorating quickly. The iron railings have been pulled apart and the brick facing is crumbling. The concrete sub-structure might be salvageable.
- The porches on Capper Hall have severe roof damage, allowing water infiltration to damage the wooden components.



Figure 4.1- 3 Various porch and railing conditions found at the Glenn Dale Hospital Historic District.

TRIM AND MILLWORK

Despite being at the mercy of the elements, many of the wooden components appear to be in fair condition. In some cases, small elements may be missing such as plinth blocks. However, in rarer cases, entire assemblages are missing, such as the frontispiece on Capper Hall, and nearly all of the wooden exterior cornices.

- All exterior elements have flaking paint, significantly shortening the lifespan of unprotected wooden elements.
- Some elements are in poor condition, but could be repairable.
- Some components missing.
- Many of the wooden cornices on the buildings are beyond repair.



Figure 4.1- 4 Various woodwork conditions found at the Glenn Dale Hospital Historic District.

STONEWORK

Most of the stonework is in good condition, especially the window sills and keystones. The areas with the most damage are all located on the Adult Hospital, where areas of spalling/cracking, chipping, and broken elements were observed.

- There are small sections of the stone frontispiece on the Adult Hospital that have chipped out. The areas are isolated and can be repaired.
- The parapet caps have been removed from Finucane Hall by thieves seeking to salvage the metal flashing, but they appear to have been carefully removed and placed on the roof of the building.
- Some areas of stone spalling were found, particularly near the foundation of the Adult Hospital.
- Isolated areas of the stone cornice and beltcourse of the Adult Hospital have chipped, but appear to be repairable.
- The stone window components, including sills and keystones, appear to be in good condition.



Figure 4.1- 5 Various stonework conditions found at the Glenn Dale Hospital Historic District.

ROOFS

The roofs, especially the gable and pyramidal roofs, are the most vulnerable area of the buildings. The slates are disconnected, especially in the valleys and hips, where they were discarded by thieves to access the valuable flashing underneath. The flat roofs on the buildings have fared much better and are surprisingly intact, except for those on the Apartment Buildings, which appear to be fully collapsed. Many of the parapets have been lost or damaged, especially those on the Children's Hospital and Finucane Hall.



Figure 4.1- 6 Various roof conditions found at the Glenn Dale Hospital Historic District.

- Much of the copper flashing, rain gutters and leaders were removed by thieves, damaging surrounding material in the removal process.
- The wooden pergola structures on Gibson and Peabody Halls are in poor condition and will likely need to be removed.
- The slate on the gable roofs of Capper Hall, McCarren Hall, and the Duplexes has been damaged and continues to fall off the building. This is largely due to the extensive damage created when the step flashing was removed by thieves. Individual slates may be salvaged and reused.
- The flat roofs of the Apartment Buildings have completely collapsed. Survival of these buildings is questionable now that the roofs are gone, allowing water to infiltrate the building envelope.
- Although many of the dormers are in poor condition, the framing might be salvageable.
- When the porch on the back of McCarren Hall collapsed, a large opening was created where the porch pulled away from the roof. This is allowing water to infiltrate the building.
- The Arcade's flat roof has begun to collapse, endangering the historic fabric below.



Figure 4.1- 7 Various roof conditions found at the Glenn Dale Hospital Historic District.

AERIAL SURVEY OF THE FLAT ROOFS

An aerial survey of the flat roofs of the Children's Hospital, Adult Hospital, and Finucane Hall was undertaken concurrently with the exterior field survey. The aerial survey helped to ascertain the condition of the flat roofs, which would not have otherwise been accessible.

- The aerial survey revealed that the flat roofs are in much better condition than expected when observed from the at-grade survey. Issues include backed-up drains and debris, and wear to the remaining membrane and flashing. Several hatch covers are missing, allowing water to infiltrate the building.
- The extent of the damage to the valleys and hips on the gables and pyramidal roofs is evident. Entire sections of slate are missing where the copper flashing was stolen.
- The stone parapet caps on Finucane Hall are visible where they have been removed and placed on the flat roof, presumably to protect them.
- The extent of the parapet damage can be seen on the Children's Hospital, where entire sections of brick parapet have been damaged or removed.



Figure 4.1- 8 Aerial view of the roof of Gibson Hall.



Figure 4.1- 9 Aerial view of the Adult Hospital.



Figure 4.1- 10 Aerial view of Finucane Hall. Note the removed stone parapet caps that have been placed on the roof.



Figure 4.1- 11 Adult Hospital pyramidal roof. Note the slates and flashing removed from the cricket.



Figure 4.1- 12 Peabody Hall flat roof. Note the debris from the pergola, parapets, and iron railings.

4 SUMMARY OF OBSERVATIONS

4.2 STRUCTURE

We visited the site on April 16, 2015 to observe the condition of the existing buildings in an attempt to determine the feasibility of having these structures mothballed to preserve their integrity. We photographed the exterior façades and walked limited areas of the buildings' interiors, where these were safe to enter. Our observations were based on the areas where the structure was visible and accessible.

Our observations were focused on gaining an understanding of the condition of the structures to support the integrity of the frame and the façade. Our comments are based solely on these observations. It is not a detailed structural condition survey of each of these buildings. Concealed and uninspected portions of the structure are not included as a part of this scope.

No analysis or specific review of the architectural finishes or systems, the roofing and waterproofing systems, or the mechanical, electrical and plumbing systems and supports have been included in the scope of this review.

The weather during our visit was sunny, with temperatures about 70 degrees Fahrenheit.

All of the buildings have been abandoned since 1982 and have been exposed to the elements. Water damage was observed in all of the buildings. Partial roof and floor collapses are evident on several of the structures. The following is our summary of our observations for each building:

CHILDREN'S HOSPITAL



Figure 4.2- 1: Front Entrance



Figure 4.2- 2: Rear Elevation



Figure 4.2- 3: Vegetation along Façade (SW Corner)



Figure 4.2- 4: Typical Interior Corridor



Figure 4.2- 5: Typical Bathroom



Figure 4.2- 6: Gibson Hall Roof Terrace



Figure 4.2- 7: Gibson Hall Elevation



Figure 4.2- 8: Peabody Hall Roof Terrace



Figure 4.2- 9: Typical Concrete Floor Slab and Ceiling Hangers

The structure for the Children's Hospital appears to consist of a pan-joint concrete slab framing to concrete beams, which in turn frame to concrete columns. It is possible that the concrete beams and columns are instead concrete-encased steel beams and columns, but we were not able to confirm this. The condition of the structure is good.

Isolated areas of corrosion of the reinforcing are evident at random locations but the extent of this damage does not appear to be widespread. Corrosion of the interior steel stairs is also evident. Treads have been lost in several of the runs.



Figure 4.2- 10: Concrete Reinforcing Corrosion



Figure 4.2- 11: Basement Steel Column



Figure 4.2- 12: Top of Elevator Shaft



Figure 4.2- 13: Portion of Remaining Parapet

The single most distinctive structural damage to the Children's Hospital is the failure/destruction of the roof parapet. Most of the roof parapet has failed or has been removed by thieves above the fourth course of brick. The failure plane is consistent along the entire perimeter, which could be an indication that the parapet was "demolished" by thieves to remove the copper flashing evident in small areas of the remaining parapet.

In many areas of the building, the parapet has fallen on one of the lower level balconies. We did not observe any significant structural damage of the soffit or the balcony slabs due to the impact of the fallen masonry. The loss of the parapet does not represent a loss of structural integrity of the building, but the loose brick and other materials should be removed to prevent damage from fallen debris.



Figure 4.2- 14: Rotted Wood Cornice and Fallen Parapet (Rear Elevation)



Figure 4.2- 15: Parapet Debris at 2nd Floor Balcony



Figure 4.2- 16: Typical Fallen Parapet



Figure 4.2- 17: Rotted Wood Cornice and Fallen Parapet



Figure 4.2- 18: Fallen Parapet



Figure 4.2- 19: Vegetation on Roof; Open Collar Joints in Parapet



Figure 4.2- 20: Typical Corrosion on Metal Stairs



Figure 4.2- 21: Corroded Stair Tread

ADULT HOSPITAL



Figure 4.2- 22: Front Entrance



Figure 4.2- 23: Rear Elevation



Figure 4.2- 24: Vegetation along Façade



Figure 4.2- 25: Areaway

The structure for this building appears to consist of a pan-joist concrete slab framing to concrete beams, which in turn frame to concrete columns. It is possible that the concrete beams and columns are instead concrete-encased steel beams and columns, but we were not able to confirm this. The condition of the structure is good. Isolated areas of corrosion of the reinforcing bars in some beams and slabs are evident at random locations, but the extent of this damage does not appear to be widespread.



Figure 4.2- 26: Typical Concrete Floor Slab and Fallen Ceiling



Figure 4.2- 27: Typical Concrete Slab and Ceiling

No significant structural damage was observed. Damage of isolated areas of the masonry parapet and the masonry at the expansion joints is evident. Several of the cast stone caps on the balconies have been removed and miscellaneous damage to the on-grade masonry walls was observed.

Corrosion of the interior steel stairs is also evident. Treads have been lost in several of the runs.



Figure 4.2- 28: Parapet Debris at Balcony



Figure 4.2- 29: Damaged Masonry at Expansion Joint



Figure 4.2- 30: Damaged Masonry at Expansion Joint



Figure 4.2- 31: Corrosion in Lintel



Figure 4.2- 32: Roof Cornice and Damaged Chimney



Figure 4.2- 33: Hole in Elevator Machine Room Roof



Figure 4.2- 34: Damaged Masonry in Chimney



Figure 4.2- 35: Ponding Water at Roof



Figure 4.2- 36: Clogged Drain



Figure 4.2- 37: North East Entrance Damage

CAPPER HALL



Figure 4.2- 38: Front Entrance



Figure 4.2- 39: Rear Elevation



Figure 4.2- 40: Side Elevation – Chimney



Figure 4.2- 41: Connection Arcade

The structure for the floors of Capper Hall appears to consist of a metal deck spanning to steel joists. It also appears that these steel joists are supported by load-bearing masonry walls (could not determine if a steel frame provides support). The roof framing consists of wood decking and wood rafters. The condition of the floor framing is fair. Many of the visible areas show evidence of corrosion of the joists. The condition of the roof framing is poor. It has failed at many locations and is allowing water to enter the building.



Figure 4.2- 42: Typical Floor Framing - Corrosion in Joists



Figure 4.2- 43: Rotted Roof Rafters



Figure 4.2- 44: Rotted Roof Decking



Figure 4.2- 45: Damaged Slate Roof

ARCADE

The connecting arcade framing consists of masonry walls and a wooden roof. A significant area of the wooden roof has failed due to water damage. If left unattended, further collapse of this roof will eliminate the top bracing of the arcade walls, which could lead to failure of these walls.



Figure 4.2- 46: Collapsed Arcade Roof



Figure 4.2- 47: Collapsed Arcade Roof

McCARREN HALL



Figure 4.2- 48: Front Entrance



Figure 4.2- 49: Rear Elevation



Figure 4.2- 50: Vegetation along Front Facade

The structure for the floors of McCarren Hall appears to consist of a pan-joint concrete slab framing to concrete beams, which in turn frame to concrete columns. It is possible that the concrete beams and columns are instead concrete-encased steel beams and columns, but we were not able to confirm this.

The condition of the concrete structure is good. Isolated areas of corrosion of the reinforcing bars in some beams and slabs are evident at random locations, but the extent of this damage does not appear to be widespread.



Figure 4.2- 51: Typical Metal Stair



Figure 4.2- 52: Basement Framing



Figure 4.2- 53: Typical Interior Corridor



Figure 4.2- 54: Underside of Roof Decking



Figure 4.2- 55: Corrosion in Stair Landings



Figure 4.2- 56: Interior of Masonry Wall



Figure 4.2- 57: Rotted Flooring



Figure 4.2- 58: Typical Concrete Framing and Ceiling Hangers

The roof framing for McCarren Hall consists of structural steel rafters that support steel purlins, which in turn support what appear to be lightweight concrete / clay roof panels and a slate roof. The roof has totally failed in many areas of the building.



Figure 4.2- 59: Collapsed Roof Rear Elevation



Figure 4.2- 60: Steel Roof Framing in Collapsed Area



Figure 4.2- 61: Collapsed Roof in Dormer Area



Figure 4.2- 62: Corroded Roof Purlin



Figure 4.2- 63: Collapsed Rear Porch

FINUCANE HALL

The structure for Finucane Hall appears to consist of a pan-joint concrete slab framing to concrete beams, which in turn frame to concrete columns. It is possible that the concrete beams and columns are instead concrete-encased steel beams and columns, but we were not able to confirm this. The condition of the structure is good. Isolated areas of corrosion of the reinforcing bars in some beams and slabs are evident at random locations, but the extent of this damage does not appear to be widespread.



Figure 4.2- 64: Front Entrance



Figure 4.2- 65: SW Rear Elevation



Figure 4.2- 66: North Side Elevation



Figure 4.2- 67: Typical Floor Framing and Ceiling Hangers



Figure 4.2- 68: Typical Interior View



Figure 4.2- 69: Typical Basement Framing

No significant structural damage was observed. Cracking of the masonry at some of the roof parapets is evident. The cast stone cap of the parapet has been removed along the entire perimeter. Significant areas of standing water are visible at the basement level and corrosion of the steel stairs is also evident. Treads have been lost in several of the runs.



Figure 4.2- 70: Open Joint in Cornice



Figure 4.2- 71: Corrosion in Window Lintels



Figure 4.2- 72: Cracked Parapet



Figure 4.2- 73: Cracked Cornice



Figure 4.2- 74: Roof with Cap Stones Removed



Figure 4.2- 75: Removed Cap Stone



Figure 4.2- 76: Standing Water in Basement Slab



Figure 4.2- 77: Water Table Course and Areaway

HEATING PLANT & SMOKESTACK

We could not access the interior of this building, but it appears to consist of a pan-joint concrete slab framing to concrete beams, which in turn frame to concrete columns. It is possible that the concrete beams and columns are instead concrete-encased steel beams and columns, but we were not able to confirm this. The condition of the structure appears to be good. No significant structural damage was observed from the outside.



Figure 4.2- 78: SE Elevation - Heating Plant

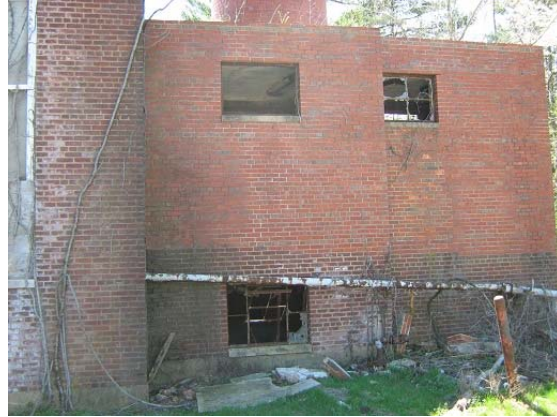


Figure 4.2- 79: NE Elevation - Heating Plant



Figure 4.2- 80: North Elevation – Stack



Figure 4.2- 81: Masonry Debris from Chimney Stack



Figure 4.2- 82: Typical Heating Plant Framing

LAUNDRY

The structure for this building appears to consist of a concrete slab supported on a structural steel frame. The condition of the structure is fair. Widespread corrosion of the structural steel beams, columns and girders is evident. Standing water is visible on the slab on grade.



Figure 4.2- 83: SE Elevation - Laundry



Figure 4.2- 84: Typical Laundry Building Framing



Figure 4.2- 85: Typical Corrosion in Laundry Building Framing



Figure 4.2- 86: Water and Mold on Laundry Slab on Grade

APARTMENTS 1 AND 2

The structures for both these buildings are in bad condition due to the partial collapse of the roof. In a few areas, the perimeter façade is cracking and at risk of falling.



Figure 4.2- 87: Apartment 1 - Front Entrance



Figure 4.2- 88: Apartment 1 - Rear Elevation



Figure 4.2- 89: Apartment 1 - Side Elevation



Figure 4.2- 90: Apartment 2 - Front Entrance



Figure 4.2- 91: Apartment 2 - Rear Elevation



Figure 4.2- 92: Apartment 2 - Side Elevation



Figure 4.2- 93: Apartment 2 - Rear Basement Access



Figure 4.2- 94: Apartment 2 - Rear Entrance



Figure 4.2- 95: Apartment 1 - Collapsed Roof/Facade Rear Roof Elevation

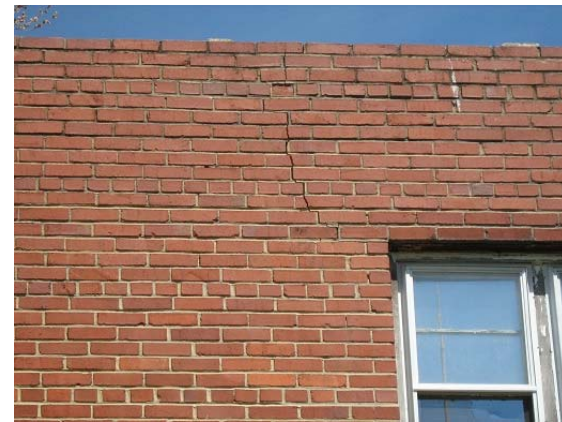


Figure 4.2- 96: Apartment 1 - Cracks in Masonry Facade Due to Collapse



Figure 4.2- 97: Apartment 1 - Collapsed Roof



Figure 4.2- 98: Apartment 2 - Moisture in Floor Joists

EAST AND WEST DUPLEXES

The structures for both these two small houses are in fair condition. The floor decking has areas where it has rotted, making any interior observations unsafe. Water damage is evident in portions of the roof.



Figure 4.2- 99: West Duplex Front Entrance



Figure 4.2- 100: West Duplex Roof Damage



Figure 4.2- 101: East Duplex Front Elevation



Figure 4.2- 102: East Duplex - Vegetation on Facade



Figure 4.2- 103: West Duplex Masonry Crack



Figure 4.2- 104: West Duplex Roof Framing



Figure 4.2- 105: West Duplex - Water Damage in Floor Framing



Figure 4.2- 106: East Duplex - Collapsed Floor Decking

WAREHOUSE AND GARAGE

The structure for this building appears to consist of a precast double-tee roof with precast beams and columns. The condition of the structure is good. Isolated areas of corrosion of the reinforcing bars in some beams and slabs are evident at random locations, but the extent of this damage does not appear to be widespread.

No significant structural damage was observed. Areas of standing water are visible at the floor.



Figure 4.2- 107: Garage Street Elevation



Figure 4.2- 108: Warehouse Street Elevation



Figure 4.2- 109: Garage Entrance



Figure 4.2- 110: Garage Precast Tee Framing



Figure 4.2- 111: Garage Precast Column/Beam



Figure 4.2- 112: Typical Warehouse Framing

PUMP HOUSE AND WATER SOFTENER HOUSE



Figure 4.2- 113: Water Softener House - Front Elevation



Figure 4.2- 114: Water Softener House - Rear Elevation



Figure 4.2- 115: Water Softener House: Side Elevation
-Crack in Masonry Due to Roof Collapse



Figure 4.2- 116: Pump House - Front Elevation



Figure 4.2- 117: Pump House - Rear Elevation



Figure 4.2- 118: Pump House – Side Elevation

The structures for both these buildings are in bad condition due to the partial collapse of the roofs. In a few areas, the perimeter façade is cracking and at risk of falling.



Figure 4.2- 119: Water Softener House - Moisture in Roof Joists - Holes in Roof



Figure 4.2- 120: Water Softener House - Collapsed Roof



Figure 4.2- 121: Water Softener House - Moisture in Roof



Figure 4.2- 122: Pump House - Roof Framing



Figure 4.2- 123: Pump House - Collapsed Roof



Figure 4.2- 124: Pump House - Holes in Roof

WELL HOUSE



Figure 4.2- 125: Well House

We were not able to access this structure but from the exterior its condition appears to be good.

4 SUMMARY OF OBSERVATIONS

4.3 LANDSCAPE AND SITE

The landscape of the Glenn Dale Hospital Historic District is a very important part of the historic context. At the time of construction, the landscape was a carefully planned feature, and was designed to accentuate the buildings and provide a park-like setting to promote healing and restfulness.

Periodic mowing and some clearing have been done. More involved landscape care has not been done for many years, with invasive vegetation overtaking many of the buildings. This could be due to funding availability. The trees are now fully mature, and provide abundant shade. However, they should be assessed by a qualified arborist to determine any necessary trimming or disease treatment. The trees should also be assessed to see if any qualify for Heritage Tree status.

Some man-made features have also survived, including lamp posts, street signs, and gates, all in fair condition.



Figure 4.3- 1 Landscape features at the Glenn Dale Hospital Historic District.

4 SUMMARY OF OBSERVATIONS

4.4 SUMMARY OF FINDINGS

The condition of each feature provided above is an initial review to guide the direction of the mothballing study. The conditions indicate that in the cases of the larger buildings, many remain as good physical candidates for mothballing and stabilization. The smaller buildings and wood frame components of larger buildings do not retain their structural integrity making stabilization and mothballing more difficult and in some cases not possible.

Planning for mothballing and stabilization requires a documentation process that reviews the condition of the building exteriors and the immediate site conditions around the buildings. The initial survey provided visual evidence that the condition of the buildings varied based on construction technique, location, and age. Generally, the larger reinforced concrete buildings are faring much better than the smaller and wood frame buildings. The biggest variable reviewed in this effort was the condition of the flat roofs on the larger buildings as they serve not only as a barrier for moisture but are also critical to the stability of the structures. The condition of the flat roofs were found to be in relative good condition from the initial visual survey.

The findings of this report provide only that mothballing and stabilization are possible for many of the buildings, structures, and landscape. The magnitude, detailed viability, and costs will be developed in subsequent phases for this project.

A significant amount of work remains to be completed for stabilization and mothballing. While few aspects of it are technically difficult, the greatest cost is due to the size of the property and of many buildings. The table below provides a very rough sf estimate as developed from sources provided to the team. These numbers are not detailed or physically validated with the current actual conditions though a dramatic deviation from these numbers is not likely. A total of nearly 450,000 sf of floor area on the 60 acre site includes a potential range of stabilization treatment and mothballing requirements. The work for stabilization of exterior walls could include repair and repointing of over 200,000 sf of masonry wall area should all buildings be stabilized and mothballed. Mothballing could include protection and secure enclosure of just over 2,000 windows and nearly 310 doors. (Figure 4.4-1)

Stabilization and mothballing work on the buildings, structures and landscape will require a more detailed survey in the sequential phase to identify detailed stabilization needs, waterproofing requirements, brick and stone reconstruction, framing reconstruction, vegetation removal, vegetation trimming, and site grading. An initial summary of the structural scopes for several of the major contributing buildings in the figure below is provided to give a sense of the scope of work that will be needed. (Figure 4.4-2)

Prioritization and phasing will be implemented to complete this initial stabilization and mothballing effort. Following this work, there will be a need for funding and labor to maintain the condition of the site until a reuse option is developed.

BUILDING #	BUILDING NAME	NUMBER OF FLOORS*	SQ. FT GROUND FLOOR*	SQ. FT BUILDING*	EXTERIOR WALL AREA	WINDOW OPENINGS	DOOR OPENINGS	ROOF AREA (FLAT)	ROOF AREA (SLOPED)
1a&b	Warehouse & Garage	1 Floor	11,500	11,500	Unavailable	14	17	Unavailable	Not Applicable
2a	Heating Plant (Excludes Smokestack)	2 Floors	5,349	6,824	9,933	26	2	4,190	Not Applicable
2b	Laundry	1 Floor	6,272	6,272	3,980	18	4	6,488	Not Applicable
3	Pump House	1 Floor	1,226	1,226	1,790	9	2	670	Not Applicable
4	Water Softener House	1 Floor	668	668	Unavailable	7	2	Unavailable	Not Applicable
5	Apartment 1	2 Floors + Basement	1,981	5,943	Unavailable	33	4	Unavailable	Not Applicable
6	Apartment 2	2 Floors + Basement	2,930	6,892	Unavailable	37	6	Unavailable	Not Applicable
7a	Children's Hospital	3 Floors + Ground Floor + Basement	Unavailable	125,000	60,562	501	18	22,635	1,500
7b	Gibson Hall	2 Floors + Basement	2,849	5,698	Unavailable	63	4	Unavailable	Not Applicable
7c	Peabody Hall	2 Floors + Basement	2,850	5,700	Unavailable	63	6	Unavailable	Not Applicable
8a	Capper Hall	2 + Basement	8,806	22,888	15,321	112	8	Not Applicable	10,650
8b	McCarren Hall	3 Floors + Basement	5,525	18,862	Unavailable	129	12	Not Applicable	Unavailable
8c	Arcade	Not Applicable	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable	Not Applicable
9	Duplex (West)	2 Floors + Basement + Garage	2,721	5,673	Unavailable	41	5	Not Applicable	Unavailable

BUILDING #	BUILDING NAME	NUMBER OF FLOORS*	SQ. FT GROUND FLOOR*	SQ. FT BUILDING*	EXTERIOR WALL AREA	WINDOW OPENINGS	DOOR OPENINGS	ROOF AREA (FLAT)	ROOF AREA (SLOPED)
10	Duplex (East)	2 Floors + Basement + Garage	2,721	5,673	Unavailable	41	5	Not Applicable	Unavailable
11	Finucane Hall	3 Floors + Basement	6,218	24,092	19,742	115	9	7,476	Not Applicable
12	Adult Hospital	5 Floors + Ground Floor + Basement	34,100	178,500	102,237	880	203	31,110	18,285
Not Identified	Well House	1 Floor	Unavailable	Unavailable	Unavailable	1	1	Not Applicable	Unavailable
Not Identified	Paint Shop	1 Floor	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable	Unavailable	Not Applicable
Estimated Totals			95,000 – 100,000 SF	450,000 – 425,000 SF	200,000 – 225,000 SF	2,000 – 2,500	300 – 325	79,000 – 85,000 SF	30,000 – 35,000 SF

Figure 4.4-1: Estimated Quantities Table

Bldg #	Building	Structural : Preliminary opinion for mothballing
7a	Children's Hospital	If the waterproofing envelope of the building is restored, the growing vegetation on the façade is removed, the standing water is dried out, and proper humidity and ventilation limits are maintained, the structure of this building can be kept from deteriorating for several years and the risk of façade damage will be low.
12	Adult Hospital	If the waterproofing envelope of the building is restored, the growing vegetation on the façade is removed, the standing water is dried out, and proper humidity and ventilation limits are maintained, the structure of this building can be kept from deteriorating for several years and the risk of façade damage will be low.
8a	Capper Hall	To preserve the integrity of this structure, the roof would need to be replaced very soon to prevent further damage and eventual partial collapse of the floors. Without this work, the risk of façade damage is high.

Bldg #	Building	Structural : Preliminary opinion for mothballing
8b	McCarren Hall	If the waterproofing envelope of the building is restored which will require partial reconstruction of the roof, the growing vegetation on the façade is removed, the standing water is dried out, and proper humidity and ventilation limits are maintained, the structure of this building can be kept from deteriorating for several years and the risk of façade damage will be low.
11	Finucane Hall	If the waterproofing envelope of the building is restored, the growing vegetation on the façade is removed, the standing water is dried out, and proper humidity and ventilation limits are maintained, the structure of this building can be kept from deteriorating for several years and the risk of façade damage will be low.
2a	Heating Plant & Smokestack	If the waterproofing envelope of the building is restored, the growing vegetation on the façade is removed, the standing water is dried out, and proper humidity and ventilation limits are maintained, the structure of this building can be kept from deteriorating for several years and the risk of façade damage will be low.
2b	Laundry	If the waterproofing envelope of the building is restored, the growing vegetation on the façade is removed, the standing water is dried out, and proper humidity and ventilation limits are maintained, the structure of this building can be kept from further deteriorating for several years and the risk of façade damage will be low.
5 & 6	Apartments 1 and 2	To preserve the integrity of this structure, the roofs would need to be replaced very soon to prevent further damage and eventual partial collapse of the floors and facades. Without this work, the risk of façade damage is high.
9 & 10	East and West Duplexes	If the roof is repaired and the waterproofing envelope of the building is restored, the growing vegetation on the façade is removed, any standing water is dried out, and proper humidity and ventilation limits are maintained, the structure of these houses can be kept from further deteriorating for several years and the risk of façade damage will be low. We anticipate that considerable reframing of the wood floor framing will be required to make these structures safe again in the future.
1a & 1b	Warehouse and Garage	If the waterproofing envelope of the building is restored, the standing water is dried out, and proper humidity and ventilation limits are maintained, the structure of this building can be kept from deteriorating for several years and the risk of façade damage will be low.
3 & 4	Pump House and Water Softener House	To preserve the integrity of this structure, the roof would need to be replaced very soon to prevent further damage and eventual partial collapse of the floors and facades. Without this work, the risk of façade damage is high.
NO #	Well House	If the waterproofing envelope of the building is restored, any standing water is dried out and proper humidity and ventilation limits are maintained, that the structure of this building can be kept from deteriorating for several years and the risk of façade damage will be low.

Figure 4.4-2 Initial Structural Scope of Work

5 MOTHBALLING METHODOLOGY

5.1 DEFINITION

Mothballing is the process of closing up a building temporarily to protect it from the weather and secure it from vandalism when all means of finding a productive use have been exhausted, or when funds are not currently available to put a deteriorating structure into useable condition. Mothballing can be a necessary and effective means of protecting the building while planning the property's future, or raising money for a preservation, rehabilitation or restoration project. If a vacant property has been declared unsafe by building officials, stabilization and mothballing may be the only way to protect it from demolition.ⁱ

The process of mothballing requires the stabilization of the exterior, properly designed security protection, (including limiting access to the buildings) generally some form of interior ventilation (either through mechanical or natural air exchange systems) and continued maintenance and surveillance monitoring. Sitework and landscaping may also be required to ensure water is properly shed and drains away from the buildings. Comprehensive mothballing programs are generally expensive and may cost 10% or more of a modest rehabilitation budget.ⁱⁱ



Figure 5.1- 1 Examples of mothballed historic buildings

A well-planned mothballing project involves three steps-- documenting the history and condition of the building; stabilizing the structure to slow down its deterioration; and finally, mothballing the structure to secure it.

DOCUMENTATION

- Document the architectural and historical significance of the building.
- Prepare a condition assessment of the building.

The first step to mothballing is documenting the historical significance and physical condition of the property. Old photographs can be helpful in identifying early or original features that might be hidden under modern materials. On a walk-through, the architect, historian, or preservation specialist should identify the architecturally significant elements of the building, both inside and out. Photographs of the exterior and interior spaces will provide an invaluable record of “as-is” conditions.

A condition assessment can provide the owner with an accurate overview of the current condition of the property. A modified condition assessment, prepared by an architect or preservation specialist and in some cases a structural engineer, will help set priorities for repairs necessary to stabilize the property for both the short-term and long-term.

A condition assessment can also help to determine significance. Architectural features of the highest priority should receive preference.

STABILIZATION

- Structurally stabilize the building, based on a professional condition assessment.
- Exterminate or control pests, including termites and rodents.
- Protect the exterior from moisture penetration.

Stabilization as part of a mothballing project involves correcting deficiencies to slow down the deterioration of the building while it is vacant. Weakened structural members that might fail altogether in the forthcoming years must be braced or reinforced, insects and other pests removed and discouraged from returning, and the building protected from moisture damage both by weatherizing the exterior envelope and by handling water run-off on the site.

MOTHBALLING

- Secure the building and its component features to reduce vandalism or break-ins.
- Provide adequate ventilation to the interior.
- Secure or modify utilities and mechanical systems.
- Develop and implement a maintenance and monitoring plan for protection.

The actual mothballing effort involves controlling the long-term deterioration of the building while it is unoccupied as well as finding methods to protect it from sudden loss by fire or vandalism. This requires securing the building from unwanted entry, providing adequate ventilation to the interior, and shutting down or modifying existing utilities. Once the building is de-activated or secured, the long-term success will depend on periodic maintenance and surveillance monitoring. A regular schedule for surveillance, maintenance, and monitoring should be established.ⁱⁱⁱ

5.2 IDENTIFICATION OF KEY ELEMENTS

While a mothballing approach largely deals with the exterior features of the building, it should also take into consideration all aspects of the building, and not just those exposed to the elements. This is especially important when considering how to ventilate the structure once it has been mothballed. A condition assessment is the first step to evaluate the age and condition of these key elements:

- Foundations
- Exterior materials
- Roofs and gutters
- Exterior porches and steps
- Structural systems
- Interior finishes
- Staircases
- Plumbing, electrical, and mechanical systems
- Special features such as chimneys
- Site drainage.^{iv}

Foundations, exterior materials, porches and steps, and roofs and gutters all deal with the exterior features that define the building. Since these elements are constantly exposed to the weather, they serve as the first line of defense, and must be in good condition and water tight before mothballing the building. Stabilizing and protecting the foundations, walls, roofs, and porches from water infiltration involves correcting deficiencies to slow down the deterioration of the building while it is vacant.

The interior spaces, and plumbing, electrical, and mechanical systems are also important features to consider, but are not as critical as the exterior envelope. However, the interior should be assessed to find any structural deficiencies, as these should be corrected before undertaking a mothballing project.

Any repairs and permanent structural changes should follow the Secretary of Interior's *Standards for Preservation*. This means, elements should only be repaired if absolutely necessary, and should be repaired or replaced "in kind" with materials of the same type, size and character. For example, if brick repointing is necessary, the historic mortar should be analyzed and matched in regards to composition, color and tooling.

Easily-reversed temporary measures can also be an acceptable solution as long as any temporary measure is fully reversible and does no damage to the historic fabric. One example of this is installing temporary roofs or structures over the damaged historic roof to protect the building until a permanent solution can be organized.

5.3 APPROACH TO ESTIMATING

The cost of mothballing a building for long-term vacancy may be 10% or more of a rehabilitation budget.^v However, once properly stabilized and protected from water infiltration, pests, and vandals, the building can be left indefinitely with regular maintenance and surveillance. The money spent on well-planned protective measures will seem small when amortized over the life of the resource.

To determine the costs of a mothballing project, a Rough Order of Magnitude (ROM) estimate should be undertaken early in the process, before the project is initiated. The main purpose of the ROM estimate is to provide decision-makers with the information necessary to make decisions about the project based on the estimated level of effort, in terms of completion time and cost. The point of the ROM estimate is to provide a “ballpark” estimate using the information available at the time.

The process starts with a professional familiar with the type and scope of work who will survey the site and note the number and types of buildings, materials used in their construction, and general condition of the buildings and grounds. Using the results of the survey and any further documentation of the site by other professionals, the necessary steps needed to get to an end result are then calculated and a value is added to give a rough estimate of cost.

5.4 ESTABLISHING PRIORITIZATION CRITERIA

Any project that involves multiple buildings and a limited budget require a creative plan for prioritizing mothballing activities.

Prioritization should be determined based on the historical significance, integrity to the site, and condition of the historic fabric. Buildings listed as “contributing” to the historical significance of the site should receive first priority. Within the list of contributing buildings, those in the most dire need of stabilization and whose survival is deemed perilous, should be moved to the front of the line.

Other features to consider are:

- Rarity within the context of the district.
- Highest reuse potential.
- Substitutability or replicability within the inventory.
- Known or active constituency or interest in the asset.

In some cases, deterioration of some building components or even entire buildings may be found to be too great and would make mothballing impractical. In that case, two options are available and can be utilized to prevent total demolition. Deconstructing the buildings for restoration in the near future, and deconstructing the buildings for long-term storage can be viable options. Deconstructing buildings is not only invasive, it also removes their historic context to the site, and therefore, should only be used as a last resort.

5.5 RECOMMENDED ONGOING INVESTMENTS AND INTERIM ACTIVITIES

Ongoing maintenance is always a concern when dealing with historic buildings, especially those that have been vacant for long periods of time. When a building is no longer used frequently, maintenance issues begin to accumulate without constant supervision.

Simple measures can be taken to prolong the life of any historic building. First and foremost is to increase surveillance measures. That could mean installing a remote detection system or exterior lighting, or increasing patrols of the site and buildings. New signage should be installed to help deter potential trespassers.

Excessive vegetation around the buildings can promote water infiltration and damage historic masonry and wood structural frames. Invasive vines on the buildings can erode the mortar and brickwork, and damage any wooden elements such as windows and door frontispieces.

Any invasive vines should be cut at the base of the plant and allowed to fully die back before removal is attempted. Since such vines can burrow into mortar and soft bricks, removing the vegetation before the plant is dead and desiccated can cause further damage to the historic fabric. Once all vines have been removed a maintenance plan should be enacted to prevent regrowth.

Lawns should be mowed frequently during the growing season. Any dead or damaged trees should also be removed, especially those in close proximity to the buildings that could damage the buildings if they fell during a storm. An arborist can be consulted to note damaged or diseased trees that should be culled.



Figure 5.5- 1 Excessive vegetation and invasive vines cover one end of Capper Hall.



Figure 5.5- 2 Debris outside of Gibson Hall.

Before any mothballing work can be done, it will be necessary to:

- Clean debris from around the buildings and roofs.
- Building materials that are too deteriorated to repair or which have become detached, such as moldings, railings, and wooden elements, and which can be used to guide later preservation work, should be photographed, tagged, labeled and saved in a safe location.
- Other debris that cannot be salvaged should be removed from the site.
- A preservation professional familiar with the architectural features should check all elements destined for the trash pile to ascertain that nothing of historic value is discarded.

5.6 RECOMMENDED NEXT STEPS

- Obtain consensus on the future stabilization strategy and criteria for prioritization in aggregate and for the individual structures.
- Secure comments and recommendations regarding the prioritization criteria from the Prince George's County Historic Preservation Commission and other stakeholders.
- Prioritize stabilization options.
- Develop more detailed cost estimates including site remediation, removal of underground storage tanks, annual maintenance, security and refining direct construction costs and soft costs for stabilization.
- Prepare conceptual designs as required.
- Identify potential private and public funding partners and sources.
- Develop an overall marketing/operating strategy for the Glenn Dale site and its individual structures.

ⁱ "Preservation Brief 31: Mothballing Historic Buildings." National Park Service, accessed May 5, 2015, <http://www.nps.gov/tps/how-to-preserve/briefs/31-mothballing.htm>

ⁱⁱ Ibid.

ⁱⁱⁱ Ibid.

^{iv} Ibid.

^v Ibid.