

NOMINATION OF THE HERRON HILL PUMPING STATION TO BE DESIGNATED AS A CITY HISTORIC LANDMARK

CITY COUNCIL REPORT



HERRON HILL PUMPING STATION - HISTORIC NOMINATION STAFF REPORT

Name of Property Herron Hill Pumping Station
Address of Property 4501 Centre Avenue
Property Owner City of Pittsburgh
Nominated by: William Peduto
Date Received: 15 May 2020
Parcel No.: 27-D-35
Ward: 5th
Zoning Classification: RM-VH
Neighborhood: North Oakland
Council District: 8 - Strassburger

FORMAL ACTION REQUIRED BY THE HISTORIC REVIEW COMMISSION:

1. Act on the Preliminary Determination of Eligibility for Historic Designation (1 July 2020)
2. Conduct a public hearing for the Historic Designation (5 Aug 2020)
3. Review the Report prepared by staff for the property in question, and make a recommendation to the City Council on the Historic Designation (5 Aug 2020)

FORMAL ACTION REQUIRED BY THE PLANNING COMMISSION:

4. Conduct a public hearing for the Historic Designation (25 Aug 2020)
5. Review the recommendations of the Historic Review Commission and make a recommendation to the City Council on the Historic Designation (15 Sept 2020)

FORMAL ACTION REQUIRED BY THE CITY COUNCIL:

6. Conduct a public hearing within 120 days of the Planning Commission vote
7. Review the recommendations of the Historic Review Commission and the City Planning Commission and take action on the Historic Designation

FACTS

1. On 15 May 2020 , the staff of the Historic Review Commission received an application for the nomination of the Herron Hill Pumping Station to be designated as a City Historic Structure.
2. **Description of the Herron Hill Pumping Station** (as *extracted from the nomination form*)

The Herron Hill Pumping Station Building contains two sections: 1) the large, two-story Pump House, which is set back approximately forty feet from Centre Avenue, and 2) the two-story, Boiler House attached on its north side and separated from the Pump House by an interior brick wall. Constructed simultaneously, this two-part arrangement represents the typical building typology for water pumping stations at the time. The Pump House, usually the largest of the two sections due to the size of the original equipment to be contained, was typically the more prominently sited component, with the Boiler House being secondary in size and sometimes of lesser architectural detailing. Pittsburgh's Mission Street Pumping Station (2117 Mission Street) demonstrates this same hierarchy of massing, though the two parts are arranged in a slightly different configuration on their site on the South Side.

The Pump House is two stories tall and consists of a double-height space above grade on the first floor with a ground floor below, exposed on its east side. It continues to serve its original function of pumping water from the Highland Park Reservoir up to the Herron Hill Reservoir for distribution throughout the city. The Boiler House is also two stories in height, though lower in overall height than the Pump House. Its function and configuration changed when the facility was converted from oil power to electricity in 1931. No longer needed, the boiler equipment was removed and a second floor was subsequently inserted into the original double-height space in 1939. Today this part of the building houses offices and storage for the Department of Public Works Paving Division and Asphalt Testing Laboratory.

Designed as one building, the Pump House and Boiler House have similar architectural details. The former is four bays wide and five bays deep; the latter three bays wide and four bays deep. Exterior walls are red brick laid in a running bond with smooth mortar joints. The bays on all sides are demarcated by Classically-derived brick pilasters with Tuscan capitals (i.e., a simplified Doric Order with no fluting). Within each bay are large arched openings that originally contained multi-lite, operable, wood sash windows. Sometime in the mid-twentieth century the openings were infilled with brick, but the stone sills and lintels remain. In the Boiler House, multi-lite industrial steel sash windows surrounded by brick infill have been inserted into the openings (mid-twentieth century) to provide light to the office spaces. The pilasters sit atop a coursed sandstone foundation with beaded mortar joints. Atop the arcades, a simple entablature encircles the building. It contains a plain frieze with brick dentils in the cornice.

The four-bay wide, symmetrical, front façade of the building exhibits a higher degree of architectural detailing. Its two middle bays project slightly and are capped by a triangular pediment with brick dentils in the raking cornices. Here, a rectangular metal grille and brick infill have replaced an original half-round louvered vent. Each pilaster's echinus (i.e., the convex projecting molding of the pilaster capital) contains egg-and-dart ornamentation. The frieze is decorated with carved stone reading "1896 Herron Hill Pumping Station DPW." The arched openings spring from smaller inset pilasters. Each arch is defined by a molded brick intrados and extrados (i.e., the lower and upper curved boundaries, respectively, of the visible face of the arch). At the base of the two middle bays are utilitarian paired steel doors with solid steel transoms (late-twentieth century). The center bay of the three-bay wide rear façade contains a similar projecting gabled pediment.

Two small additions have been made to the south end of the building over time. On the east façade is a single-story, red brick enclosed loading dock with rolling overhead door, which provides access to a pump room in a vault that extends under the front driveway; on the west façade is a single-story, red brick addition for a boiler room with infilled brick arches (both date from the mid-twentieth century). The roofs of the Pump House and Boiler House are both hipped in form and covered with silver-colored standing seam metal. Historic Sanborn Fire Insurance Company maps indicate iron truss roof construction with wooden roof deck, which was originally covered with slate.

A number of historic photographs show the exterior of the Pumping Station Building shortly after construction. From these, it can be determined that the building had wood, one-over-one, double-hung sash windows on the ground and first stories and wood, center-pivot sash windows on the second story (these would have had a mechanism to allow them to be opened and tilted inward from below); the roof of the Pump House contained two hipped dormers containing louvered ventilators on the east and west sides; the Boiler House had a massive corbeled brick chimney, which was presumably removed in the 1930s when the boilers were removed; the front driveway was gravel; and the east parking and loading area was Belgian block.

The Laboratory Building faces west, is three bays wide and five bays deep, rectangular in massing, two stories in height (basement and first floor) and covered by a hip-on-hip roof clad in the same standing seam metal as the Pumping Station Building. Because the building is cut into the hillside like the Pumping Station Building, only one story is visible on the

west façade. Its center bay contains a small porch with hipped standing seam metal roof. Materials are similar to those of the Pumping Station Building. Foundation walls are coursed sandstone originally tooled with beaded mortar joints, though many of the joints now appear smooth, having lost their original projecting shape. Rectangular window openings with bricks sills contain two-over-two metal, double-hung sash windows on the south, east and west facades of this level. Access to the ground floor is provided by a door on the south façade.

On the first story, the walls are red brick laid in a running bond with smooth mortar joints. Similar to the Pumping Station Building, the bays of the first story are demarcated by Classically-derived brick pilasters with simple Tuscan capitals. The pilasters rest on a projecting brick stringcourse that encircles the building. The two outer bays of each façade of the first story contain arched window openings, while the inner bays have rectangular openings. Today, all of these openings contain either multi-lite industrial steel sash windows with surrounding infill brick or have been entirely infilled with brick (mid-twentieth century, possibly at the same time as the fenestration changes to the Pumping Station Building). Around this same time, a large, single-lite picture window was installed on the second floor of the east façade and the openings of the three-side entry porch were bricked in and a steel entry door installed.

When originally constructed around 1897, the Laboratory Building was three stories tall, consisting of full-height exposed basement, first floor and second floor. Sometime around 1909, the second floor was removed and the roof reconstructed to its present form. The reason for this has not been determined, but is confirmed by published RFPs and historic photographs. In 1900, the Laboratory Building was described in *Popular Science Monthly* as housing laboratories for the Bureau of Water Supply and Distribution on the ground floor [basement] and first floor (for water analysis) and Bureau of Engineering on the second floor (for cement testing). The building sits largely vacant today, being used minimally for storage. Many of these testing functions were relocated to the Boiler House after it was remodeled in 1939—where some functions remain today.

3. History of the Herron Hill Pumping Station (as extracted from the nomination form)

In 1896, City Council set aside 100 thousand dollars from the sale of bonds for a new Herron Hill Pumping Station lower on the property, closer to Centre Avenue and out of harm's way. Architect William S. Fraser was selected to design the new, larger facility and the request for proposals (RFP) was first advertised on February 8, 1896.

A week later, *The Pittsburgh Press* ran a lengthy article detailing Fraser's plans for the new building. Though some minor details were obviously modified as the plans were finalized, the account offers the best description found so far of the look and function of the facility.

The department of public works has advertised for bids for the erection of the new pumping house for the water plant at Center and Bellefield Avenues [at that time, Bellefield was the designation for the street on the west edge of the property]. The new plant is to replace the one now in use, and will be erected almost in front of the old building, which is at present inadequate to meet the demands of the patrons of the city supplied from Herron Hill reservoir.

The new building is to be constructed of red stock brick with brown stone trimmings, and will be practically two stories in height. Only one of these stories, however, will be above the street level. The roof will be gabled, steep in pitch and will be covered with slate. Each of the gables will be broken by two artistically designed ventilators.

The building will have a frontage of 150 feet on Center avenue and will extend back along Bellefield Avenue for 125 feet. In the rear of the pump house and adjoining it will be the boiler house. This building will be one story in height and will be constructed after the same design as the pumping house. The interior of both buildings will be wainscoted to a height of five feet and the walls plastered with adamant plastering, which will afterwards be painted.

The immense pumps, which are now being constructed at Milwaukee, will be placed on the first story of the new building, which is below the street level. The steam ends of each of the massive engines will extend through the floor of the building and will occupy almost the entire floor space of the second story. In addition to the engines there will be a small work room for the engineers. An areaway will be constructed around the foundations, which will permit those working on the first floor to have plenty of light and ventilation.

The boiler room, which is one story in height, will, when completed, have space enough for four batteries of boilers of 200-horse-power each. It is the intention of Director [of Public Works Edward] Bigelow to only place two of the batteries in at present, as it is claimed that they will be adequate to supply all the steam needed by the two monster engines in the pump house. The boilers are now being constructed by the Edgemoore Iron Company.

The engines which are to be placed in the new building are after the triple expansion pattern, and are now being built by the Edward [P.] Allis company, of Milwaukee. They will be two in number and the pumps with which they will be connected will have a capacity of 5,000,000 gallons each per 24 hours. One of the engines, the larger of the two, will be used to force water to the Herron Hill reservoir, and will be compelled to pump against 130 pounds pressure.

It will have a 30-inch stroke. The smaller engine will be used for the Bedford Avenue reservoir, and will have to pump against a pressure of 65 pounds. This engine will have a 30-inch stroke. The contract for both engines was let several months ago, and the manufacturer is under bond to deliver one of the two engines on May 1. The combined cost will be \$51,000.

Supt. [A.B.] Sheppard, of the water department, said yesterday that the new engines when finished would be among the finest used in any water plant in the world. All of the exposed machinery will be of a highly ornamental character, and will be of bright work, which is easily kept clean and always presentable. Although the new plant will be constructed on a much larger scale, the force of employees that will be required to operate the station will not be increased. The station will be under the supervision of a chief engineer who will have two assistants and one man for general work.

The bids will be closed on February 2 [a likely typographical error given the date of the article], and work commenced on one of the buildings as soon as the weather permits.

Work proceeded at a rapid pace and the building was completed by the end of the year, with the date commemorated in the frieze above the front entrance. Concurrent with the construction of the Pumping Station Building, City Council approved the erection of the Herron Hill Laboratory Building directly behind the new Pumping Station Building. An RFP was issued March 18, 1897 and Council approved money for “furnishing and placing cases and fixtures” in the new building in late September of that year—suggesting that the building was essentially complete by the end of 1897.

While the Laboratory Building shares many similar architectural details with the Pumping Station Building, evidence has not been discovered to confirm that Fraser was also its architect, though it is highly likely. Unlike the RFP for the Pumping Station Building, which indicates that plans and specifications could be obtained from Fraser’s office, the RFP for the Laboratory Building directs respondents to the Bureau of Water Supply and Distribution. The difference in approach is likely explained by Fraser’s death on April 27, 1897. It is unlikely, one month prior, that he was in any condition to handle the details of a proposal process.

The aforementioned article on “Municipal Water Works Laboratories,” in the December 1900 issue of *Popular Science Monthly* describes the Herron Hill Laboratory Building:

Pittsburg , . . . the laboratory has been made permanent. The Department of Public Works has erected a two-story brick building, known as the Herron Hill Laboratory. The first floor and basement are used by the Bureau of Water Supply for water analysis, tests of supplies purchased and experimental work upon the filtration of water; the second floor is used by the Bureau of Engineering as a cement laboratory. In the water laboratory the floor and operating-shelves are covered with white tiles and the walls are painted with white enamel, so that the room may be washed from ceiling to floor. Steam from a neighboring boiler house is used for heating the water-baths and for distilling water. The incubators used for bacteriological work are placed in the basement, where the temperature can be kept more constant than on the floors above. The ammonia stills, sterilizers, autoclav and other apparatus are of the most modern type. A safe in the basement serves to protect the records in case of fire. One biologist, one chemist and one attendant are employed in the water laboratory, and a chemist is employed in the department of cement testing. Mr. Wm. R. Copeland is the biologist in charge.

With the new Herron Hill Pumping Station in place, water could be pumped to the Herron Hill Reservoir or to the Bedford Basins and then distributed by supply mains to tanks in residential areas in the East End. This became known as the Herron Hill Service.

In 1903, the Highland Reservoir No. 2 (not to be confused with the reservoir that became Lake Carnegie) was put into service. With a capacity of 126 million gallons, it was constructed to serve low-lying sections of the city along both rivers.

1907 marked the next major milestone in the delivery of water to the city as the first slow sand filtration plant (Ross Station) was completed on the north bank of the Allegheny River across from the Brilliant Pumping Station. By October 1908, additional filters were constructed and all of “peninsular Pittsburgh,” the area between the Allegheny and Monongahela Rivers, was receiving filtered water.

Two major additions were made to the water system with the consolidation of the City of Pittsburgh and the City of Allegheny (Northside) in 1907, and the purchase of the Monongahela Water System (Southside) in 1908. The three previously independent waterworks were merged into a greater city waterworks. The South Side received its first filtered water in February 1909 (fed directly from Highland Reservoir No. 2), and the North Side in March 1914 via the new Aspinwall Station and Lanpher Reservoir in Shaler Township. In 1912, the Mission Street Pumping Station on the Southside was placed into service, replacing an antiquated station at South 29th Street.

The benefits of filtration and chlorination of the water supply was readily apparent as water-borne illnesses decreased dramatically. For example, in 1907, with a combined population of over 535 thousand people in Pittsburgh and Allegheny, there were 5,652 cases of typhoid fever, 648 of which proved fatal. By 1911, the number of cases had dropped to less than 500 and the number of typhoid fever deaths to fewer than 100. By 1930, only four deaths were attributed to typhoid.

As mentioned, in 1909, published RFPs indicate that the Laboratory Building was significantly remodeled, which included removal of the second floor, though the reason for this has not been determined. In 1918, work was approved to convert the fuel source for the Herron Hill Pumping Station Building from gas to oil and to rebuild the brick foundations for the boilers. These projects were completed in early 1919. In 1926, initial authorization was made to convert the Herron Hill pumps from steam to electricity, with work completed in 1931.

From the initiation of filtration in 1907 until the 1950s there was no further chemical treatment performed on the water. Only the addition of chlorine for disinfection and, during periods of acid river water, soda ash to reduce the water acidity prior to filtration.

However, by the mid 1950s, the slow sand filters had aged and became less effective. Alum treatment was then introduced to enhance removal of suspended solids, but that addition could still not keep up with the demand. The requirement to continue to provide satisfactory water pointed to a need for a modern and rapid sand filtration plant.

This upgrade to the system was undertaken in two stages. The first stage involved construction of a clarifier pretreatment system, to treat the water before it reached the slow sand filters. This structure, constructed in 1962 just west of Ross Pumping Station, provided for the first time complete chemical treatment for removal of iron, manganese, tastes, odors and colors from the water. The second stage involved replacement of outmoded slow sand filters in 1969 with a dual-media, rapid sand filtration system.

In 1984, the present-day Pittsburgh Water and Sewer Authority was created. It absorbed the water department in 1995, and became the sole proprietor of the sewer system in 1999

4. Significance of the Herron Hill Pumping Station*(as extracted from the nomination form)*

The *Pittsburgh Code of Ordinances, Title 11, Historic Preservation, Chapter 1: Historic Structures, Districts, Sites and Objects* lists ten criteria, at least one of which must be met for Historic Designation. The nominator is of the opinion that the Herron Hill Pumping Station meets several of the criteria as follows.

Criterion 3. Its exemplification of an architectural type, style or design distinguished by innovation, rarity, uniqueness, or overall quality of design, detail, materials, or craftsmanship.

The Herron Hill Pumping Station is an example of the Classical Revival or Neoclassical style (popular in the Commonwealth from 1895 to 1950) successfully adapted to the specific program of a late nineteenth-century water works. Important from a design standpoint was the desire to provide large quantities of natural light and ventilation into the building along with the ability for the public to confidently view clean modern infrastructure at work inside. At this time, many municipalities and their architects turned naturally to the Romanesque Revival style (popular in Pennsylvania from 1840 to 1900) for the literal and symbolic solidity of its massive stone or brick construction and the characteristic round arches that easily lent themselves to large windows. However, William S. Fraser turned instead to Classical precedents that were becoming increasingly popular at the time. In doing so, he created a building that was more stylistically up to date, ideally suited to its prominent grassy plinth above Centre Avenue, and was lighter and airier by virtue of the way he elegantly inserted an abundance of windows into the language of the Classical arcade and entablature.

The Classical Revival style is one of the most commonly seen across Pennsylvania and around the country. It was inspired, in large part, by the World's Columbian Exposition in Chicago in 1893 (just three years before Fraser's commission for the Pumping Station), which promoted a renewed interest in Classical architectural forms. Similar to the Colonial Revival style which was popular during the same period, the Classical Revival style was more formal and monumental in its design. Relying on stylistic details of the earlier Greek Revival style, Classical Revival style buildings often have massive columns and/or pilasters with Doric, Corinthian or Ionic capitals, topped by a front facing pediment. One of the most distinctive versions of this style features a full height columned front porch topped with a classical pediment. The arrangement of windows and doors is formal and symmetrical, with the front door often flanked by pilasters or side lights and capped with a flat entablature, broken pediment or rounded fanlight. The Classical Revival style is less ornate than the Beaux Arts style which was also popular in the 1885 to 1930 period and employs similar classical details.

The Classical Revival style, with its impressive Greek temple-like form, was most often used for civic buildings such as courthouses and schools, along with banks, churches and mansions. It was never quite as popular as the Colonial Revival style for more common residential buildings. The prominent architectural firm of McKim, Meade and White designed many buildings in this style across the nation in the early years of the twentieth century. Examples of this style can be found in many Pennsylvania communities, often in the form of public buildings. One of the most outstanding examples of this style is the imposing Philadelphia Museum of Art, completed in 1928 and designed by prominent Philadelphia architects Horace Trumbauer and Julian Abele, and the firm of Zantzinger, Borie and Medary. Trumbauer and Abele also designed the nearby Philadelphia Free Library Central Building in this style in 1927. The Classical Revival style was chosen for both of these prominent buildings along the newly laid out Fairmount Parkway, a grand boulevard designed to convey a sense of the city's cultural aspirations.

In Pittsburgh, examples of the style include First Congregational Church, Oakland (now Saint Nicholas Greek Orthodox Cathedral, 1904, 419 South Dithridge Street in Oakland, designed by Thomas Hannah—a draftsman in Fraser's office at the time of his death); the former First Church of Christ, Scientist (1904, 635 Clyde Street in Shadyside, designed by Chicago architect Solon Spencer Beman); and the earliest portion of the South Side High School (1897, 900 East Carson Street, designed by Edward Stotz).

Character-defining features of the Classical Revival style that are present on the Herron Hill Pumping Station include the formal symmetrical design, full height Classical pilasters supporting an entablature; the front-facing gable/pediment; and dentiled cornice.

Criterion 4. Its identification as the work of an architect, designer, engineer, or builder whose individual work is significant in the history or development of the City of Pittsburgh, the State of Pennsylvania, the Mid-Atlantic region, or the United States.

The Herron Hill Pumping Station is significant as a skillfully-designed, surviving example of the work of late nineteenth-century Pittsburgh architect William Smith Fraser (1852 – April 27, 1897). Fraser's career was short but illustrious and his architectural output considerable and varied. In a span of only eighteen years, he earned numerous important commissions, was repeatedly published in national and international illustrated architectural journals, and became one of the most highly sought-after designers of his generation in the city. It is only his premature death from cancer at age forty-four, before his career could peak, that has kept him from being studied more by architectural historians and being better known to the general public.

W.S. Fraser (as he was known in most published accounts per nineteenth century convention) was born in 1852 in Wellsville, Ohio. Around age eighteen, he “began his professional training in the offices of various New York architects, pursuing certain courses of study at the Cooper Institute during the same time.” He then “went to England and became a pupil of William Burges, studying likewise at the Royal Academy Architectural School, and spending time on the Continent, sketching and measuring.”

No details have been found describing Fraser's tutelage under William Burges (1827-1881). However, J. Mordaunt Crook, the foremost biographer of Burges, describes an architectural office that regularly hired pupils to work alongside the master and his handful of long-term associates. Among the greatest of the Victorian art-architects, Burges sought in his work to escape from both nineteenth-century industrialization and Neoclassical architectural style and re-establish the architectural and social values of a utopian medieval England. Scholars have tended to see Burges resolutely stuck in thirteenth-century France for his inspiration with little tolerance for designs other than French Gothic. However, more recent research, like that by Crook, paints a portrait of a more inquisitive, playful, creative designer who drew on a number of sources, including the arts of the Middle Ages, the Islamic world and East Asia and who was “able to turn his hand to almost anything; from cathedrals in Brisbane, an art school for Bombay, a chimney piece for Lord Charrington, to miscellaneous furniture, lecterns, candelabra, pulpits, goblets and even bishops' mitres.”

While Fraser was clearly schooled in the Gothic Revival, as seen from his early measured drawings of French cathedrals, he would establish an architectural practice in Pittsburgh in 1879 that became adept at working in a multitude of styles—both traditional and contemporary. He would also demonstrate an ability, not unlike that of Burges, to adapt these designs to a variety of building types, including some of Pittsburgh's earliest skyscrapers and fire-proof buildings, churches, residences and utilitarian structures like warehouses and the Herron Hill Pumping Station. As *The American Architect and Building News*, affirmed: “Those who recall the designs executed by Mr. Fraser . . . will appreciate how thoroughly he was imbued with Burges's love for thirteenth-century Gothic, and how skillfully he modified it to meet the conditions of our time and civilization.”

Criterion 5. Its exemplification of important planning and urban design techniques distinguished by innovation, rarity, uniqueness, or overall quality of design or detail.

The Herron Hill Pumping Station is significant for its role in dependably providing public water to Pittsburgh's notoriously hilly neighborhoods for over a century and for allowing rapid urban development of the city's East End in the early twentieth-century.

Securing an adequate water supply for the nation's towns and cities has been a major preoccupation of local officials since the beginning of the American urban experience. Fire protection, public health, bathing, washing, cooking and sewerage are all dependent on the distribution of one of nature's most abundant—yet most precious—resources. "Without it, cities simply could not exist," wrote Nelson M. Blake in *Water for the Cities*, a history of urban water supply problems in the United States. Like many cities throughout the country in the nineteenth century, Pittsburgh faced the problem of constructing a public waterworks. As the population grew, wells, springs, river water and small initial reservoirs proved to be inadequate or became polluted.

It was not until the second half of the nineteenth century that municipal authorities recognized that, if they wished their towns and cities to grow and prosper under the impact of urbanization and industrialization, a dependable public water supply was an absolute necessity. Public health, fire protection, personal comfort, and the needs of industry all dictated good quality water be available to the community. In response to this demand, the number of public water systems grew from 136 to 3,196 between 1860 and 1890. By 1923, ninety-seven percent of the country's urban population was served by public water systems. Throughout the last century, with the rise of the environmental movement and concerns about the impact of global warming, the quality and quantity of the nation's water has remained a constant matter of public attention. The Herron Hill Pumping Station helps illustrate how one American city supplied its inhabitants with reliable water.

Following the largest annexation of surrounding communities into the City of Pittsburgh in 1868, long-term infrastructure improvements were implemented. Key among these was construction of the water distribution network known as the Herron Hill Service, where water is piped from the Highland Reservoir No. 1 to the Herron Hill Pumping Station and then pumped up to the Herron Hill Reservoir through 1,250 feet of 12-inch water main. Located on one of the highest hills in the city with an elevation of 1,261 feet, the reservoir then provides water primarily by gravity to residential neighborhoods on four lower hilltops: Herron Hill, Squirrel Hill, Garfield Hill and Heberton Hill, with a range of elevations from approximately 1,000 to 1,230 feet (see distribution map and diagram). Summarizing a century of successful water delivery, Managing Engineer of the Pittsburgh Bureau of Water, Erwin E. Lanpher, indicated in 1930, that these four communities totaled over 100 thousand people, or more than 15 percent of the city's population and represented some of the fastest growing, most desirable residential neighborhoods in the city.

Numerous accounts link the growth of Squirrel Hill directly to the development of the Herron Hill Service. While the advent of electric trolleys in 1893 and construction of the Boulevard of the Allies in 1923 are often cited and, admittedly, played significant roles, it is the presence of reliable water that ultimately made the neighborhood a desirable destination worthy of investment. In a 1911 article titled "History of Pittsburgh Water Supply" in the journal *Fire and Water Engineering*, author L.C. MacPherson discussed the challenges of Pittsburgh's topography and the significance of water being carried directly from the Herron Hill Reservoir "across the lowlands to supply the Squirrel Hill District." A 1927 article in *The Pittsburgh Press* featuring a photograph of the Herron Hill Pumping Station, explained the distribution process, and discussed the importance of the facility to "the tremendous growth in population of Squirrel Hill" (Figure 151). In 1929, Erwin E. Lanpher concluded in *A Century of the Pittsburgh Waterworks* that "the rapid development of the Squirrel Hill section forced the building of a new and larger Herron Hill pumping station at the corner of Center [sic.] Avenue and Dithridge Street. In 1930, a new pump was installed specifically to "increase the water pressure in Squirrel Hill" and shortly thereafter, when the facility was electrified, newspaper accounts cite part of the impetus for the upgrade as the need to "maintain sufficient pressure to supply water for the Squirrel Hill district."

The Herron Hill Pumping Station is an extant, working, historic resource that helps interpret the establishment of the municipal waterworks in Pittsburgh—the single largest expenditure made by the city during its first century. "The initial cost of construction constituted 40 percent of all municipal spending from 1827 to 1833. The expansion in the 1840s increased the size of expenditures, and in 1854 the Water Committee estimated the total cost of the water system as \$677,709. . . .Pittsburgh was not unusual in the extent to which waterworks costs constituted a substantial part of the total municipal budget. The building of New York's Croton Aqueduct in 1842, for instance, increased the city's debt from \$500,000 to over \$9 million and caused many citizens to predict financial disaster."

Additionally, the Pumping Station is significant for illustrating advances in technology at a typical late nineteenth-century American waterworks. The Pumping Station shows the evolution from steam power—first coal- then oil-fired—followed by electrification. With the addition of water filtration to the system in 1907, the Herron Hill Service played a pivotal role in reducing water-borne illness in the city.

Lastly, the Herron Hill Laboratory Building is significant as a historic site that encouraged the application of rigorous scientific standards to urban design and planning projects. Civil engineer and sanitary microbiologist George C. Whipple helps establish historic context and significance for water analysis facilities like those in the Laboratory Building in the previously mentioned *Popular Science Monthly* article "Municipal Water-Works Laboratories:"

The laboratory idea is fast taking hold of our municipalities. It is the natural result of modern science and American practicality. More and more our civilization is making use of the great forces of nature, and more and more is it becoming necessary that nature's laws should be understood: hence the need for the precise data of the expert and the long-continued observations of the specialist. This is emphatically true in the domain of sanitary science, where the advances in chemistry, microscopy and bacteriology have wrought revolutionary changes. The microscope is no longer a toy, it is a tool; the microscopic world is no longer a world apart, it is vitally connected with our own. The acceptance of the germ-theory of disease has placed new responsibilities upon health authorities and has at the same time indicated the measures necessary to be taken for the protection of the public health. With the knowledge that certain diseases are caused by living organisms and that these may be transmitted by drinking-water has come the need of careful supervision of public water supplies, which has resulted in the establishment of many laboratories devoted to water analysis.

The work of supplying water to a community is . . . an engineering problem. . . . Accordingly, there has been developed in this country during the last decade an interesting group of water-works laboratories devoted to sanitary supervision and to experiments upon water purification.

The [Herron Hill] Laboratory is well equipped with facilities for making both chemical and physical tests of various materials. The mechanical installation includes a 300,000-pound Universal machine for tensile and compression tests; a standard brick rattle; a complete equipment for the physical testing of rubber materials; ductility and penetration machines for asphalt, and other equipment and apparatus.

At this laboratory not only these materials used by the Department of Public Works are inspected and tested, but also materials purchased and used by other bureaus and departments. Among the materials which are tested in the ordinary course of business of the laboratory, are the following: Portland cement, paving and sewer brick, refined asphalt and flux, asphalt wearing surface (samples taken from pavements being laid under contract), wood block, creosote oil, water-proofing materials, bridge timber, concrete, sand, gravel, coal, soap, lubricating oil, brass, bearing metal, fire, street and filtration hose, and other materials. Tests are made to determine not only the physical and chemical qualities of the materials, but also to determine the value for payment.

Research work is also carried on by the Laboratory and some interesting experiments and research work have been done upon paving materials, particularly relating to asphalt and wood block. Data and information regarding materials for the preparation of specifications are also supplied to the various bureaus and departments. A valuable feature of the laboratory is in the records which are kept showing the life and relative good or poor qualities of materials used in construction work, particularly those used in street paving and wearing surface. These records show the analyses of materials used and their performance during a term of years. Tests are made at the laboratory and where necessary, as in the case of wood block treatment, at the point of origin.

The Herron Hill Pumping Station, consisting of the Pumping Station Building and Laboratory Building, represent important examples of late nineteenth-century municipal commitment to providing state-of-the-art technological and scientific advancements to the community. The fact that both buildings retain integrity and, most importantly, the fact that the Pump House continues to serve its original function after more than a century of service, supports the argument for local historic designation and the enhanced preservation planning that comes with it. It is important to ensure that these significant examples of civic infrastructure can continue to serve the residents of Pittsburgh.

Criterion 10. Its unique location and distinctive physical appearance or presence representing an established and familiar visual feature of a neighborhood, community, or the City of Pittsburgh.

The Herron Hill Pumping Station is significant for a number of reasons as a visual landmark in North Oakland, a neighborhood that is undergoing a considerable amount of new development. First, it is important aesthetically for the historic composition of its site. Fraser placed his Classical Revival building appropriately upon a pedestal. The grassy knoll from which the building rises not only adds to its prominence, but would have offered sweeping views of the East End and the much of the Herron Hill Service area when first constructed. He created a site that is both ordered and unordered, with winding walkways and paved driveways to the south and a forested hillside rising to the north. More than a decade after his death, the property was noted for its landscaping, which was planted with Cannas, Geraniums and Coleus.

Second, the Herron Hill Pumping Station is important visually for its scale and the era represented by that scale. At the time it was constructed, the two-story building would have been the largest structure for a block or two in any direction. Subsequent construction in the neighborhood during the early part of the twentieth century brought some larger

apartment buildings, but on the whole, the neighborhood remained one of largely of low-rise construction into the twenty-first century. Construction of the One on Centre apartment building across the street from the Pumping Station radically altered the compatible scale of buildings in neighborhood and resulted in the loss of five c. 1890 houses on Centre along with a duplex on North Dithridge.

5. Integrity

Both the Herron Hill Pumping Station Building and the Herron Hill Laboratory Building meet the criteria for integrity as it applies to location, design, materials, and workmanship.

Location: The Herron Hill Pumping Station Building and the Herron Hill Laboratory Building both retain integrity in regard to location. They both remain in their original locations, from which the Pumping Station has pumped water to the Herron Hill Reservoir since 1896 and the Laboratory advanced the scientific basis for water and paving analysis for more than half a century.

Design: The buildings retain integrity in regard to design. Both retain their form, massing, method of construction, and general plan. The Pumping Station Building, in particular retains character-defining features that allow its significance as an example of the Classical Revival style to be conveyed. These include its symmetrical design, full height pilasters, front facing pediment, dentiled cornice, arcaded window openings and encircling entablature. While the infill of the windows is a loss, this does not keep the style and function of the building from being understood.

Materials: The buildings retain integrity in regard to materials. They retain their coursed sandstone foundations, brick walls, decorative pilaster capitals with egg-and-dart ornament, stone sills and lintels, and carved stone frieze containing the building's name and date of construction.

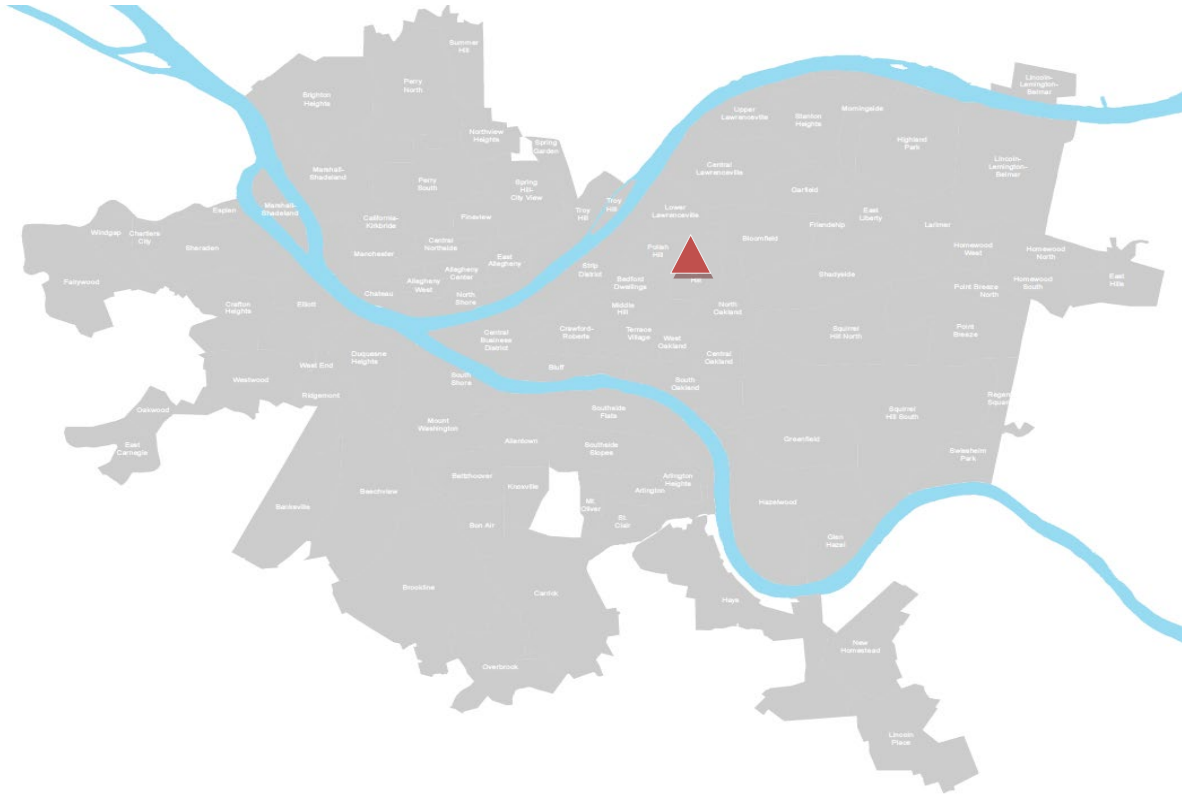
Workmanship: The buildings retain integrity in regard to workmanship. The exterior masonry details reflect a high level of skill and care that has allowed the walls to stand with little signs of unwanted movement or the need for repointing.

6. Photos





7. Maps



8. Recommendation of the Historic Review Commission

The Historic Review Commission held a public hearing regarding the designation of the Herron Hill Pumping Station. On August 5, 2020 the Commission voted to recommend to City Council that it designate Herron Hill Pumping Station as historic

9. Recommendation of the City Planning Commission

The City Planning Commission held a public hearing regarding the designation the Herron Hill Pumping Station. On August 11, 2020 the Commission voted to recommend to City Council that it designate the Herron Hill Pumping Station as historic.

10. Meeting Minutes

HRC MINUTES – JULY 1, 2020 – PRELIMINARY DETERMINATION HEARING

Herron Hill Pumping Station
4501 Centre Avenue

Historic Nomination

Owner:
City of Pittsburgh

Ward: 5th

Lot and Block: 27-D-35

Nominator:
Matthew Falcone

Inspector:

Council District:

Nomination Received: 5/15/20

National Register Status: **Listed:** **Eligible:**

Proposed Changes: Nomination for historic designation.

Discussion:

1. Ms. Quinn makes a short presentation on the property. She states that the nominator found that the property is significant under **Criterion 3**, exemplification of an architectural type, style or design distinguished by innovation, rarity, uniqueness, or overall quality of design, detail, materials, or craftsmanship, **Criterion 4**, work of an architect, engineer, designer, or builder, **Criterion 5**, exemplification of important planning and urban design techniques distinguished by innovation, rarity, uniqueness, or overall quality of design or detail, and **Criterion 10**, unique location and distinctive physical appearance or presence representing an established and familiar visual feature of a neighborhood, community, or the City of Pittsburgh, and that the property does retain integrity.
 2. The Commission discusses the nomination.
-
-

Motion:

1. Mr. Green moves to confirm the viability of the historic nomination based on the listed criteria.
 2. Ms. Loysen seconds.
 3. Ms. Aguirre asks for a vote; all are in favor and motion carries.
-
-

HRC MINUTES – AUGUST 5, 2020 RECOMMENDATION

Herron Hill Pumping Station
4501 Centre Avenue

Historic Nomination

Owner:
City of Pittsburgh

Ward: 5th

Lot and Block: 27-D-35

Nominator:
Matthew Falcone

Inspector:

Council District:

Nomination Received: 5/15/20

National Register Status: Listed: Eligible:

Proposed Changes: Nomination for historic designation.

Discussion:

3. Ms. Quinn makes a short presentation on the property. She states that the nominator found that the property is significant under **Criterion 3**, exemplification of an architectural type, style or design distinguished by innovation, rarity, uniqueness, or overall quality of design, detail, materials, or craftsmanship, **Criterion 4**, work of an architect, engineer, designer, or builder, **Criterion 5**, exemplification of important planning and urban design techniques distinguished by innovation, rarity, uniqueness, or overall quality of design or detail, and **Criterion 10**, unique location and distinctive physical appearance or presence representing an established and familiar visual feature of a neighborhood, community, or the City of Pittsburgh, and that the property does retain integrity.
4. Ms. Aguirre asks for public comment; there is none. She notes for the record several emails received in support of the nomination.
5. The Commission discusses the nomination.

Motion:

4. Mr. Green moves to make a positive recommendation based on the listed criteria.
5. Mr. Hill seconds.
6. Ms. Aguirre asks for a vote; all are in favor and motion carries.

PLANNING COMMISSION MINUTES –SEPTEMBER 15, 2020

C. Development Reviews (See Attachment C for staff reports)

Hearing and Action:

1. DCP-HN-2020-00372, Herron Hill Pumping Station, Historic Nomination.

Ms. Quinn made presentation in accordance with the attached staff report.

She informed history of building construction and use, criteria for nomination and planning staff recommendation.

Chairwoman called for questions and comments from the public.

Mr. Matthew Falcone from Preservation Pittsburgh thanked City planning staff for this nomination. He underlined that the subject structure is very significant as the oldest piece of water infrastructure and has a nice green space around. Mr. Falcone supported proposed nomination.

Ms. Kathy Gallagher, resident, supported the nomination.

There being no comments from the Commissioners, the Chairwoman called for the motion.

MOTION:

That the Planning Commission of the City of Pittsburgh provides a positive recommendation to City Council for the nomination of Herron Hill Pumping Station DCP-HN2020-00372 for listing as a City- designated historic site.

MOVED BY: Ms. Deitrick SECONDED BY: Ms. Dick

IN FAVOR: Mondor, Mingo, Deitrick, Blackwell, Dick, O'Neill

RECUSED:

OPPOSED:

MOTION CARRIED