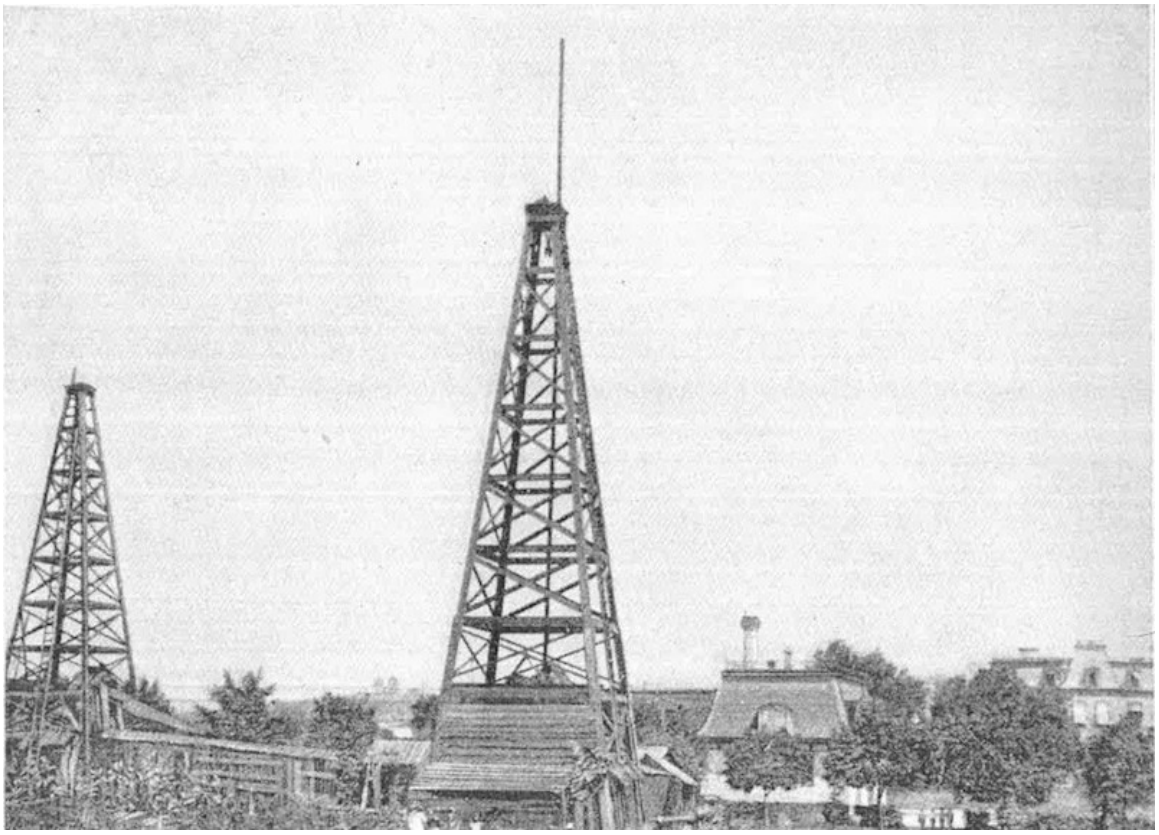

Westinghouse Park

City of Pittsburgh Historic Landmark Nomination

Prepared by Preservation Pittsburgh & The Westinghouse Legacy

THE WESTINGHOUSE LEGACY

PRESERVATION PITTSBURGH

CITY OF PITTSBURGH
DEPARTMENT OF CITY PLANNING

Historic Nomination Application

Application information

A Property information

Historic name of property *Solitude*

Current name of property *Westinghouse Park*

Property address *7051 Thomas Blvd, Pittsburgh, PA 15208*

For Districts, attach a list of all street address of each property included in the nomination and a clear street map illustrating the proposed district boundaries.

B Classification and use - check all that apply

Select classification type. Refer to definitions page for classification descriptions

Historic Structure		✓	Historic Site		
Historic District			Historic Object		

Ownership

Private - residence		✓	Public - government	Place of religious worship	
Private - other			Public - other		

Describe current use below

City Park

The Historic Preservation Ordinance permits nominations by any of the following: the Mayor, a Historic Review Commission member, a Planning Commission member, a City Councilperson, the owner of record, any City resident for at least one year, and for a District, at least 25% of the owners of record.

City of Pittsburgh
Department of City Planning

Historic Nomination Application

Nomination information and instructions

Provide written narratives for each section below and include as an attachment PDF document type. ***Incomplete applications may delay receipt of nomination, staff review and scheduling of required hearings.***

C Description

Provide a description of the structure, district, site, or object. If it has been altered over time, indicate the date(s) and nature of the alteration(s). Include the following information as applicable:

- *Year built*
- *Architectural style*
- *Arrangement of architectural elements*
- *Building materials*
- *Method(s) of construction*
- *Type and arrangement of buildings*
- *Visual character*
- *Street pattern*
- *Density*
- *Topography*
- *History of the development of the area*
- *Architect and/or builder*

D History

Provide a history of the structure, district, site, or object. Include a bibliography of sources consulted, copies of relevant source materials,and the following information as applicable.

- *History of the development of the area;*
- *Circumstances which brought the structure, district, site, or object into being;*
- *Biographical information on architects, builders, developers, artisans, planners, or others who created or contributed to the structure, district, site, or object;*
- *Contextual background on building type(s) and/or style(s);*
- *Importance of the structure, district, site, or object in the larger community over the course of its existence.*
- *Include a bibliography of all sources consulted at the end. Where historical information is uncertain or disputed, reference sources in the text.*

CITY OF PITTSBURGH
DEPARTMENT OF CITY PLANNING

Historic Nomination Application

Nomination information and instructions (cont.)

E Significance

At least one of the ten criteria listed in the Code must be met for Historic Designation. Provide a detailed description of how this nomination meets one or more criteria.

The structure, building, site, district, object is significant because of (note all that apply):

1. *Its location as a site of a significant historic or prehistoric event or activity;*
2. *Its identification with a person or persons who significantly contributed to the cultural, historic, architectural, archaeological, or related aspects of the development of the City of Pittsburgh, State of Pennsylvania, Mid-Atlantic region, or the United States;*
3. *Its exemplification of an architectural type, style or design distinguished by innovation, rarity, uniqueness, or overall quality of design, detail, materials, or craftsmanship;*
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;*
5. *Its exemplification of important planning and urban design techniques distinguished by innovation, rarity, uniqueness, or overall quality of design or detail;*
6. *Its location as a site of an important archaeological resource;*
7. *Its association with important cultural or social aspects or events in the history of the City of Pittsburgh, the State of Pennsylvania, the Mid-Atlantic region, or the United States;*
8. *Its exemplification of a pattern of neighborhood development or settlement significant to the cultural history or traditions of the City, whose components may lack individual distinction;*
9. *Its representation of a cultural, historic, architectural, archaeological, or related theme expressed through distinctive areas, properties, sites, structures, or objects that may or may not be contiguous; or*
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.*

City of Pittsburgh
Department of City Planning

Historic Nomination Application

Nomination information and instructions (cont.)

F Integrity

In addition to Significance, "any area, property, site, structure, or object that meets any one or more of the criteria listed above shall also have sufficient integrity or location, design, materials, and workmanship to make it worthy or preservation or restoration."

G Notification / consent of property owner(s)

The nomination must be accompanied by evidence that the nominator has made a good-faith effort to communicate their interest in the historic designation of this landmark or district to the owner(s) of these properties. Describe how this was done, and attach evidence that the owner(s) of the nominated landmark or of the properties within the nominated district have been informed of the nomination. This may include a copy of a notification letter with a mailing list, a letter confirming phone calls, or a petition signed by affected property owners.

In the case of a nomination as a Historic District the nomination shall be accompanied by a petition signed by the owners of record of 25% of the properties within the boundaries of the proposed District.

Nomination of any religious property shall be accompanied by a signed letter of consent from the property's owner.

H Photographs of property

The application shall include photographs of all elevations of an individual building and its setting, or the front elevation of each building in a district. In the case of closely spaced buildings or row houses, several buildings may be included in one photograph. Each photograph must be labeled with the street address of the building(s) and the month and year the photograph was taken.

CITY OF PITTSBURGH
DEPARTMENT OF CITY PLANNING

Historic Nomination Application

Nomination information and instructions (cont.)

I List of supporting documents

Copies of major supporting documents should accompany the nomination form. Such documents may include, but are not limited to:

- *Historic photographs;*
- *Historic and contemporary maps;*
- *Historic or contemporary texts describing people, places, or events that comprise the historic context of the subject property or district.*
- *Historic or contemporary texts describing the subject property or district*
- *Oversized materials (such as architectural drawings) and materials too fragile to copy may be accepted.*

J Completeness Check

*The following are **required** for the Historic Nomination Application to be considered a complete application. A nomination is deemed accepted upon staff approval of Completeness Check in OneStopPGH.*

- ✓ Property information
- ✓ Classification & Use
- ✓ Description
- ✓ History
- ✓ Statement of Significance
- ✓ Statement of Integrity
- ✓ Notification of property owner
- ✓ Photographs
- ✓ Application fee

7. Description

Solitude/Westinghouse Park is contained within an approximately 10-acre tract. Within this property, George Westinghouse had constructed a large home and stable/laboratory building within a planned landscape garden that included a greenhouse and potting shed, carriage ways, walkways, stone walls, stone pillars, and an elaborate stone stairway. Other site features include brick tunnels (connecting the house and laboratory as well as the house and railroad station), the location of gas wells, and a water well. Today, landscape features such as large mature trees, the carriage ways, walkways, stone walls, stone pillars, and stone stairways remain as part of the modern Westinghouse Park. Modern park features include a one-story concrete recreation building, an asphalt basketball court, and a playground area.

8. History

Site History – Pre-Construction

The land where Westinghouse Park would later stand was originally connected to several Native American tribes that changed over time. The Adena Tribe, the Hopewell Tribe, the Monongahela People were the original inhabitants of the land and, post-European contact, were later joined by refugees from other tribes, such as the Delaware, Shawnee, and Iroquois. Ultimately European colonists would settle this land. When Westinghouse built Solitude in 1872, this area of the City was known as Homewood and it had been recently annexed to Pittsburgh.

Site History – Solitude Construction to Demolition

When Westinghouse built Solitude in 1872, this area of the City was known as Homewood and it had been recently annexed to Pittsburgh. At that time, Homewood encompassed lands on both sides of the Pennsylvania Railroad, which had been constructed in 1852 (and is now the Martin Luther King, Jr. East Busway). The railroad provided an opportunity for Pittsburgh's wealthiest families to live in large-landed woodland estates on the outskirts of the city where they could still maintain easy access into downtown. Homewood was a "beautiful, broad, green valley of woods, swamps and fields…a pastoral paradise" (Sapolsky and Roselli 1987). At that time, these country estates, with their live-in servants, gardeners, cooks, and nurses, were becoming more numerous on both sides of the tracks; however, even then, lands north and south of the tracks were beginning to develop in distinct ways. While there were a few large-landed estates north of the tracks, a compact grid of city streets and several residential plans-of-lots had already been laid out there, though the vast majority remained undeveloped and unoccupied. In comparison, the area south of the tracks where Solitude was located was more populated, but the majority of the lands were still occupied by the large-landed estates owned by the City's wealthiest industrialists and manufacturers. No grid of city streets had been established south of the tracks though Penn Avenue was present along with several of the major north/south roads that exist today, such as Dallas, Murtland, Lang, and Homewood Avenues (Hopkins 1872; 1880).

By 1880, some of the lots in the city grid that had been laid out north of the tracks had begun to be settled while a less-compact street grid had been added south of the tracks and a few of those large-landed estates had begun to be divided into plans-of-lots. A cursory review of census records from 1880 reveals that Homewood had a mix of working class, middle class, and upper-class families. The majority of the families were white and Pennsylvania-born with a small number of Black and immigrant families interspersed throughout the neighborhood. Many of the working-class Black men were laborers; only a few were servants. The majority of the immigrants came from Ireland and England. Most of the Irish immigrants were laborers or servants while the English immigrants tended to hold more skilled jobs, such as a brick molder, stone contractor, and an engineer at a lead works (U. S. Federal Census 1880).

Rapid growth in this area did not occur until 1890 with the advent of the electric streetcar, and, with that, the streetcar suburb was born. The emergence of a new middle class that also wanted to escape the city and could now afford and be able to commute to work brought about the formation of traction companies. These companies spent millions of dollars building streetcar lines to connect Homewood to the rest of the city, including downtown, Kennywood Park, and the Westinghouse plants in the Turtle Creek neighborhood of the city. The trolley lines were constructed along two parallel avenues in the neighborhood, Hamilton and Frankstown Avenues, with another line a few blocks south on Penn Avenue/Lincoln Avenue. Large estates were quickly sold and subdivided into blocks and smaller building lots that averaged 25 by 100 feet. Developers held annual fairs and advertised homes in the local papers, pushing easy access to any point in the city and magnificent views and panoramas (The Pittsburgh Press 1989). The area attracted predominately white middle class families who enjoyed one of the largest shopping districts in the city and new single-family housing, leaving the immigrants to live in the overcrowded conditions of the inner city. Convenient utilities like gas, electric, water, and telephone lines, were brought in at the same time as the trolleys and paved roads (Hopkins 1862; 1872; 1882; 1890; 1910; Sapolsky and Roselli 1987).

Site History – Post-Construction

Westinghouse Park

George Westinghouse, III and his wife Violet inherited Solitude and, in 1918, sold the property to the Engineers Society of Western Pennsylvania for $150,000. Funding came from grants of $50,000 each from Westinghouse Airbrake Company and Westinghouse Electric and Manufacturing Company. The neighborhood collected and contributed another $45,000 and a $5,000 donation from Westinghouse's brother Herman, completed the transaction (Deed Book 1953:128). The Engineers' Society gave the property to the City of Pittsburgh to be used "only for the purposes of a public park" and "although intended for the use of the public, including children, shall not be used as, nor made, a children's playground especially devoted to children" (Deed Book 1962:34-35). As further requested in the deed, the City had six months to demolish the Westinghouse homestead. In 1919, the City demolished the house but retained the stable/laboratory for use as a recreation building. That building remained until 1960 when it was demolished, and the currently extant recreational building was constructed in the same location. Other minor improvements to Westinghouse Park were made between 1935 to 1941 and, more recently, an asphalt basketball court and playground area were added (Stewart 1943).

Although the Engineers Society had reserved the right to build a memorial to the memory of Westinghouse, the memorial was never built in Westinghouse Park. Instead, in 1930, nearly 60,000 employees funded a permanent memorial to Westinghouse in Pittsburgh's Schenley Park. Westinghouse was known as one of the "most persistent and indefatigable worker upon problems involving the safety and comfort of mankind; and as an inventor and engineer was one of the most widely and favorably known men of his time" (Deed Book 1962:34-35).

It should be noted that research did not reveal many details on the role of Westinghouse Park within the neighborhood. In the 1950s and 60s, the "I Am An American Day" events were held there "to honor all those who had attained American citizenship in the past year, either by naturalization or reaching the voting age" (Palmer 1959) and for a few years, the local Bowe Gospel Singers held an "interracial picnic" in the hopes of bringing people of all races together (Pittsburgh Press 1968). Other various community events have been held over the years and the Park clearly functions as a neighborhood recreation and meeting place.

The neighborhood flourished until the 1930s when, as a result of the Great Depression, single-

family homes were converted into multi-family dwellings and the housing stock began to deteriorate (Lubove 1968). In the 1950s, Homewood became one of three neighborhoods included in an urban extension pilot program in the city. The program lasted approximately eight years and had three main goals: organize the citizens, prepare a physical and social plan, and expand municipal services and improvements. There were some material improvements, including "housing code compliance drives, new parking facilities, the organization of the 4-H clubs, liquor license limitations, employment counseling, preschool classes, removal of abandoned cars, installation of mercury vapor lights, and increased street maintenance;" however, the results of the program were mostly ambiguous and largely failed to address the most important issue of crime (Lubove 1969).

It was also during the 1950s and 60s that the Pittsburgh Renaissance and associated urban renewal projects displaced inner-city residents who were then forced to move to other areas of the city, including Homewood. This movement caused dramatic changes to the population of the neighborhood and created racial tensions that did not appear to be present previously. In 1950, the population of Homewood-Brushton was 77 percent white; by 1960 it was 34 percent white (Lubove 1976). Riots following the assassination of Martin Luther King, Jr. in 1968 permanently damaged the already struggling business district. The post-industrial era continued to bring additional population loss, vacant lots, and abandoned buildings to Homewood. It was during this time that the area south of the tracks was renamed Point Breeze.

By the 1980s, the neighborhood again became more racially balanced and remains so today (Cedar Lake Ventures, Inc. 2018). An ethnographic survey of the area conducted in the 1990s indicates that some residents chose to live in the area to "distance themselves from the reputation for exclusiveness and elitism" that had characterized the area south of Penn Avenue. Many of those residents "were politically active in the civil rights and anti-war protests of the 1960s and continued to be active in social and environmental causes" (Snyder 1993).

More recently, the neighborhood was further reduced and renamed Point Breeze North. Currently, it is roughly bound by the Martin Luther King, Jr. Busway to the north, North Braddock Avenue to the east, Penn Avenue to the south, and 5th Avenue to the west. Westinghouse Park is centrally located in the middle of the neighborhood.

9. Criteria / Significance Statement

1. *Its location as a site of a significant historic or prehistoric event or activity*;

   This resource does not meet this Criterion.

2. *Its identification with a person or persons who significantly contributed to the cultural, historic, architectural, archaeological, or related aspects of the development of the City of Pittsburgh, State of Pennsylvania, Mid-Atlantic region, or the United States;*

   This resource meets this Criterion because of its association with George & Marguerite Westinghouse.

George and Marguerite Westinghouse

George Westinghouse, Jr. was born in Central Bridge, New York on October 6, 1846. As a young man, Westinghouse worked in his father's agricultural machinery factory where he began his early experiments. During the Civil War, he joined the Union troops and served as an assistant engineer in the Navy from 1864 to 1865 (Leupp 1918:299). After the war was over, at the age of only 19, Westinghouse designed a rotary steam engine and received his first patent. Two years after receiving this patent, Westinghouse married Marguerite Erskine Walker on August 8, 1867, and the couple moved to Pittsburgh (U.S. Federal Census Bureau 1870).

For almost 50 years, George Westinghouse and his wife Marguerite lived in 'Solitude,' a beautiful Pittsburgh mansion built in Point Breeze North (then Homewood) (Historic Photo 1). When Solitude was built, the young couple did not have enough money to furnish the rooms. At the time, Westinghouse was a 25-year-old Civil War veteran with a bride of less than three years, but he was also a young entrepreneur with his own company, a firm built on the success of the air brake, a device that vastly improved railroad safety and made Westinghouse famous. By 1876, Westinghouse Air Brake Company employed 120 workers and shipped their product all over America and to international customers as far away as Peru, Australia, and Europe (Durant 1876). By the end of the century, Westinghouse owned 60 companies, worth more than 120 million dollars.

Solitude was built on land George Westinghouse purchased in March of 1871 from James H. Hopkins, who later became a congressman and bank president. Hopkins sold Westinghouse the vacant northern half of a property located on the Pennsylvania Railroad in an area of large rural estates built away from the smoke and bustle of Pittsburgh yet with easy access to the city via the railroad and the old Greensburg Turnpike, now Penn Avenue (Hopkins 1872).

Between 1871 and 1901, Westinghouse purchased at least seven parcels of land in Homewood, including lands where the Homewood Railroad Station south of the tracks was constructed (Figures 1-4).

Historic Photo 1: Historic Postcard of “Solitude”

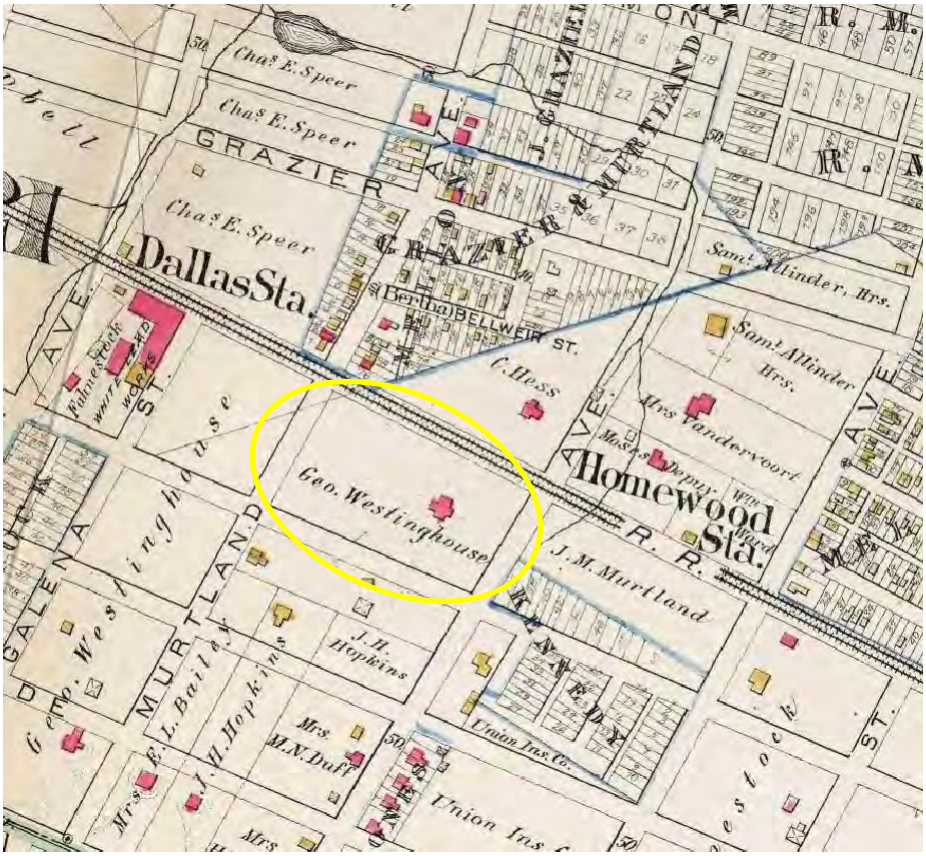

Fig. 1: Historic Map of the Project Area (Hopkins 1880).

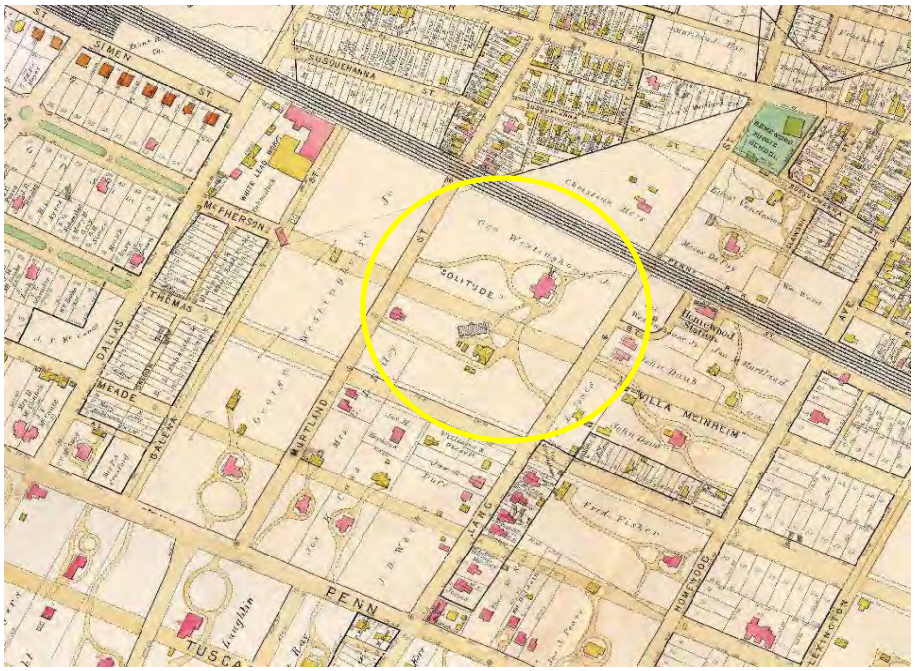

Fig. 2: Historic Map of the Project Area (Hopkins 1890).

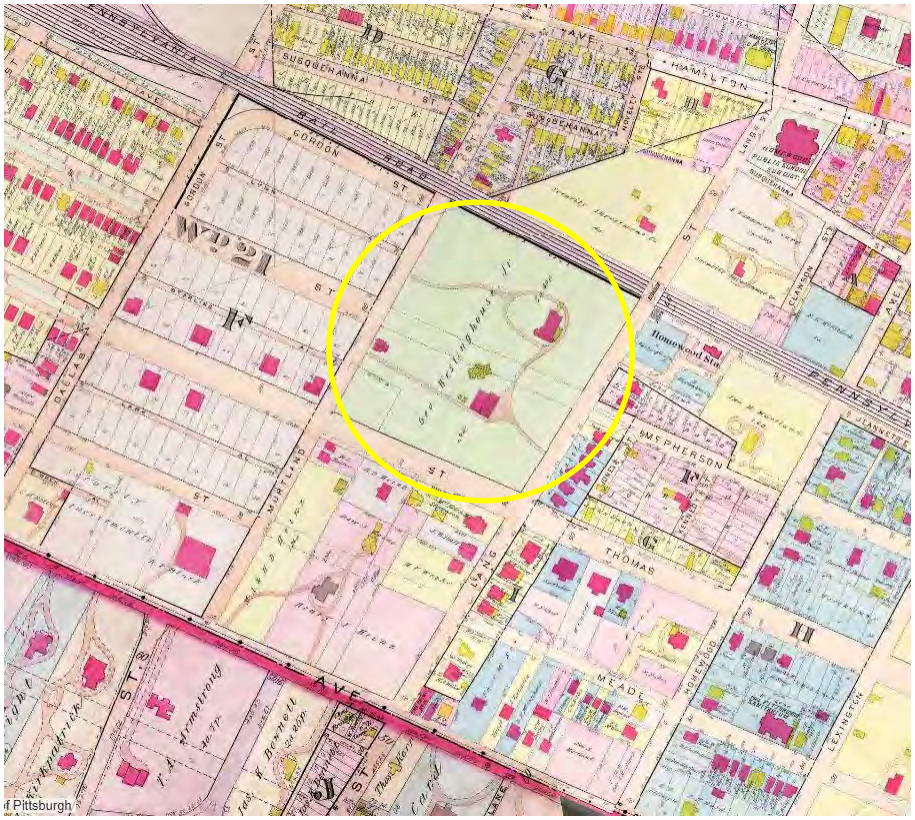

Fig. 3: Historic Map of the Project Area (Hopkins 1893).

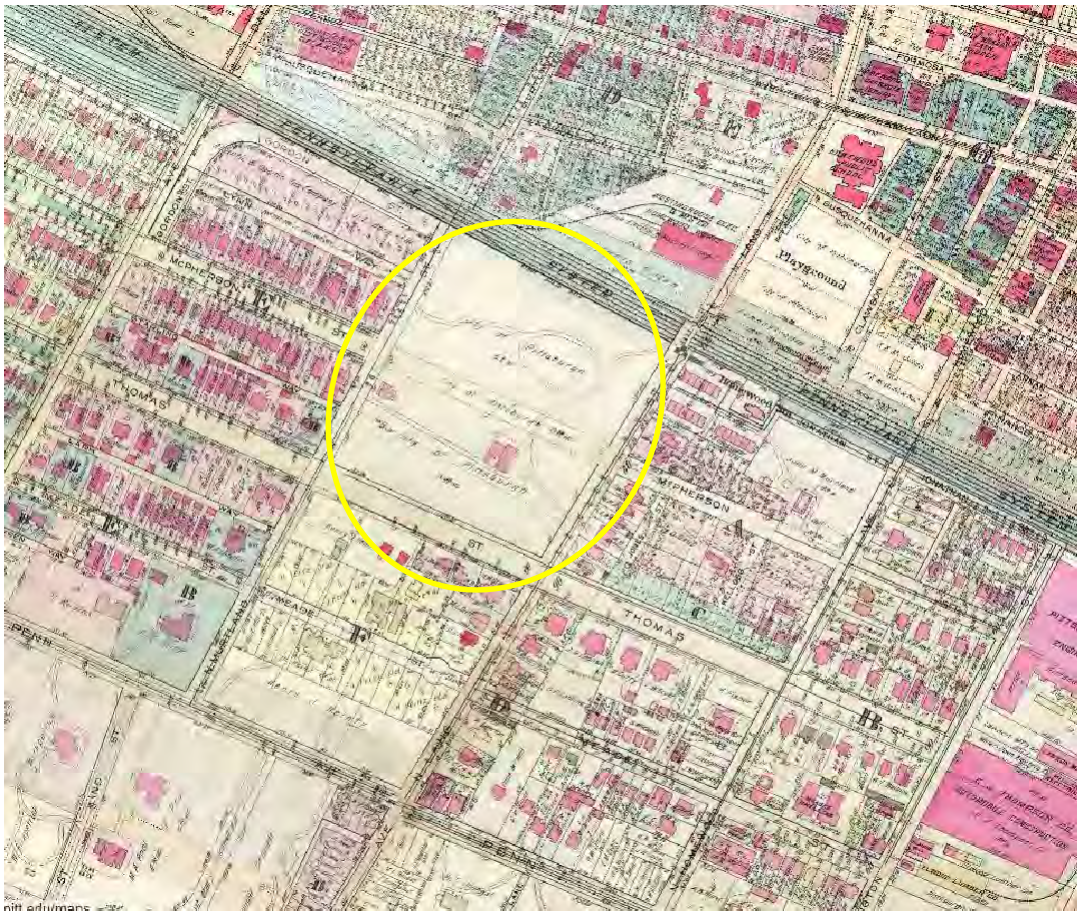

Fig. 4: Historic Map of the Project Area (Hopkins 1924).

It was at Solitude that Westinghouse conducted one of his most extraordinary and daring experiments, an experiment that led to numerous patent inventions in the gas industry. In December of 1883, Westinghouse signed a contract with Gillespie Tool Company of Pittsburgh to construct a derrick and drill a gas well in the backyard of his home. Once the drillers were underway, Westinghouse and his pregnant wife left Pittsburgh to winter in New York where their son, George Jr., was born. The family returned to Pittsburgh in the following spring of 1884. Workers continued drilling in the backyard for another three weeks when they a hit a level of gravel, sand, mud, and water at 1,560 feet below ground surface. The explosion damaged the big derrick causing the pulley tackle and engine to overturn. Mud covered Mrs. Westinghouse's gardens and grape arbor. Westinghouse ordered the drilling to continue, and natural gas was discovered.

Westinghouse had been experimenting with ways to tackle the problem of controlling the gas flow from a well and in July of 1884, he patented a device to regulate gas under pressure (Prout 1921). He moved on to create inventions using gas for lighting homes, streets, and businesses. Westinghouse began this research by devising a pulley system to haul a torch of burning rags to

the top of a pipe rising 60 feet into the air above the gas well. There the gas and rags ignited, and an incredible roaring jet of light shot 100 feet into the air. The light was so brilliant that people living a mile away could read newspapers at night. Visitors and neighbors sat on the lawns at Solitude watching with amazement as Westinghouse demonstrated his new invention (Leupp 1918).

The successful natural gas discovery in his own backyard stimulated Westinghouse to invent ways to control and distribute natural gas to both industrial and residential consumers. At first, consumers feared that natural gas was flammable and dangerous to use (Leupp 1918:113). By 1886, within two years of his famous gas well strike, Westinghouse had invented a natural gas meter, an automatic cut-off regulator, and a leak-proof piping system. Westinghouse patented a system of gas pipelines that could regulate the amount of gas conveyed to specific places and test these lines to reduce leaking.

Confident with his success, Westinghouse drilled more wells in his yard and rapidly continued his work inventing ways to distribute gas from these backyard wells to Pittsburgh residences and industries. Huge wood derricks covered the gas wells in Solitude's backyard near the Victorian gardens and greenhouse. The smog from burning coal lifted and the city had clean air for the first time in many years. Without coal smoke spewing from chimneys, Point Breeze and the East End enjoyed the city's cleanest air. People painted their houses white for the first time (Leupp 1918).

But most importantly, natural gas was a new source of clean and cheap fuel for the iron and steel industries at a critical time when the industry was beginning to boom. Now, Pittsburgh had the fuel and the means for distributing it. Thus, it was in Pittsburgh that the iron and steel industry emerged as one of the most powerful in the nation. "From the workings of a simple well in his back yard, he figured out an efficient way to transmit clean, natural gas to homes - for lighting and heating - and to industry for fuel. The natural gas industry owes its existence to George Westinghouse" (Anonymous 1886).

Within months of the initial strike in the spring of 1884, Westinghouse had formed the Philadelphia Company to control the gas wells on his property and also to own the patent for "conveying and utilizing as under pressure" (Van Trump 1959).

Recognizing the potential need, Westinghouse purchased additional easements for natural gas lines and wells in the region including Murrysville where the first natural gas well was drilled in 1878. By 1886, the Philadelphia Company dominated Pittsburgh's natural gas industry and supplied over 3,000 families, 34 iron and steel mills, 60 glass factories, and 300 other small factories and hotels with fuel. The company estimated a 40 percent savings in fuel costs by using gas instead of coal (d'Invilliers 1887). The success of the system was due to the "fertile genius of George Westinghouse" (Anonymous 1886). However, once the industry was established, natural gas sources were soon depleted, and coal emerged again as the primary fuel. Pittsburgh was again the Smoky City.

During the period when the gas wells were found at Solitude, George Westinghouse's stable was transformed into a private laboratory, and he constructed a brick tunnel to connect the laboratory with his home (Sanborn 1893). As this underground tunnel was built, newspaper reporters speculated that Westinghouse was secretly working on inventions in the underground passage (Leupp 1918:262). At the time (1884), the competition between Thomas Alva Edison and Westinghouse in the "War for Electricity" had accelerated. These two great inventors were experiencing a fundamental shift in the way they organized their businesses. Both Westinghouse and Edison began as master craftsmen who employed apprentices and assistants to work with on their inventions in small laboratories. By the 1880s, a fundamental change in this system became essential with the increased value of the intellectual property created by these new concepts and ultimately by their patents. Employees possessed valuable knowledge that could be transmitted to competitors.

Lawsuits between Westinghouse and Edison involved large sums of money and increasingly larger companies. They adopted a strategy of specialization, with individuals concentrated on one part of the invention rather than having knowledge of the entire concept. Edison became so worried about industrial espionage and sabotage that he secured his patents, laboratory notebooks, models, and other information in a secret underground brick vault found by archaeologists in Menlo Park. The vault was used from 1876 to 1882 (Gall 2004). The private laboratory and brick tunnel at Solitude possessed a similar mystery.

Westinghouse's successful gas wells led to several dozen inventions for the control and distribution of natural gas. The knowledge gained from this work pointed the great inventor toward a better distribution system for electric current. Based on this work, Westinghouse invented a transformer that proved to be the key to widespread distribution of electricity, a concept of international significance (Jonnes 2003).

In the 1880s Westinghouse had diversified into the production of electrical equipment and electric lamps. At the time he bought U.S. Electric Lighting Company and began making lamps, but the company was sued by Thomas Edison for patent infringement. In 1892, the courts decided in Edison's favor and forced Westinghouse to stop production; however, Westinghouse had obtained rights to the Sawyer-Man patents and quickly retooled to make non-infringing lamps based on those patents. The two men - Westinghouse and Edison - fiercely competed in their "race to electrify the world" and engaged in many famous disputes, notably the efficacy of Alternating versus Direct currents (Jonnes 2003).

In 1893, Westinghouse proved the viability of using the alternating current when he won the contract to provide a lighting system for the entire Columbian Exposition in Chicago. Two years later, in 1895, the Westinghouse Electric Company harnessed the power of Niagara Falls to supply low-cost energy for hundreds of miles. This was the first practical demonstration of large-scale power generation. Lord Kelvin of the University of Glasgow, and a close friend of Westinghouse who visited Solitude many times, served as Chairman of the International Niagara Commission (Jonnes 2003).

Scientists, chemists, railroad executives, and other guests from all over the world visited Solitude to dine with Westinghouse. “It was their normal life to have several guests in the house and to have a dinner-party every night” (Leupp 1918). Marguerite “lives in greater style, entertains more splendidly, and wears more gorgeous, varied, elegant toilets, has more and finer diamonds, than any woman in Pittsburg… Dresden china, Sevres, and fine porcelain, cut glass, silver, and gold adorned the table. The house was a “perfect palace” and the grounds worthy of it” (Nevin 1888). George Westinghouse enjoyed discussions on the porch or in his den near the main entrance. He would often engage visitors with a brilliant new idea and spread out drawings in the billiard room (Leupp 1918:260-61). At Solitude, visitors also experienced first-hand the successful results of Westinghouse’s inventions (Sanborn 1893).

In the late 1880s, Marguerite Westinghouse became ill, and her doctors advised her to spend more time in clean mountain air. Westinghouse purchased a second home in Lenox, Massachusetts and the entire home was completely decorated in white (Anonymous 1890). The Westinghouse family also maintained a home in Dupont Circle in Washington, D.C. as well as a private rail car and an apartment in New York City. The elaborate private rail car, named Glen Eyre, contained a bedroom, dining room, kitchen, and office (Leupp 1918:259). The car would be parked on the rail line at the Homewood Station ready for Westinghouse to embark on his travels and local commutes.

Historic Photo 2: George and Marguerite Westinghouse

George and Marguerite Westinghouse entertained a number of house guests at Solitude including, for a time, William A. Stewart, the family physician from New York. A young chemist, Henry Noel Potter, his wife Lillian, and three small children also lived there in 1900. Potter, age 31, had graduated from Amherst College in 1891 and attended school in Germany. Potter brought George Westinghouse's attention to an incandescent lamp invented by a German physicist. Westinghouse became interested in the lamp, bought the American rights, and subsequently founded a lamp company in Pittsburgh.

Potter was hired by Westinghouse to work as a special engineer between 1898 and 1907 when he was in "charge of his private research laboratory" for four years (U.S. Federal Census 1900; Prout 1921:234; Amherst College 2005). At the turn of the twentieth century, the Westinghouse companies were worth about 120 million dollars. Despite his phenomenal success, the Depression of 1907 caused Westinghouse to lose control of the companies he had founded. To protect his home, Westinghouse transferred ownership of Solitude to his wife for $1.00 (Deed Book 1543:285).

In April of 1910, George and Marguerite were living at Solitude with six servants including their 56-year-old housekeeper, Catherine (Katie) Griffin who had been with the Westinghouse family since at least 1880. Also residing at the Pittsburgh homestead was the valet, Albert Hammond, house maid Catherine Nichols, the French chef Francois Bizet and two recent Swedish immigrants, Anna Larson, a cook, and Emilie Abrahamson, the kitchen maid. Westinghouse's only child, George, lived only a block from his parents' home at 201 North Murtland Avenue (U.S. Federal Census 1880; 1910).

By 1911, George Westinghouse had severed all ties with his former companies and within two years, was diagnosed with a heart ailment. On March 12, 1914, Westinghouse died. As a Civil War Veteran, he was buried in Arlington Cemetery. Within three months, Marguerite was dead and buried beside her husband. The following year, Francis E. Leupp who was a friend and biographer of Westinghouse, visited Solitude and noted that the "house stood just as he and his wife left it, except that it had been stripped of most of the finer furniture, and the bric-a-brac and curios with which they filled it." Yet, objects did remain in the house including a huge photograph of Mr. and Mrs. Westinghouse from their first visit to England (Leupp 1918).

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

This resource does not meet this Criterion.

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

This resource does not meet this Criterion.

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

This resource does not meet this Criterion.

6. *Its location as a site of an important archaeological resource;*

This resource meets this Criterion because of the abundance of archaeological resources associated with the Westinghouse's.

THE WESTINGHOUSE RESIDENCE

The Westinghouse estate residence was built in 1872 on the northeastern corner of the property and surrounded by a circular carriage drive (Figures 1-4). The foundation of this structure is still intact below the ground surface, but the above ground portion of the building was removed in 1919. Carriage entrances were located on both Murtland Avenue and Lang Avenue and a portico stood on the north side of the house. The three-story French Second Empire villa with a four-story tower on the main entrance faced Lang Avenue. The brick house measured approximately 70 feet by 40 feet and was painted white with dark shutters and white awnings. A one-story solarium wrapped around the southeast corner facing the front lawn and the side gardens. A large dining room with a high ceiling was added on the rear of the original house (Leupp 1918:260). The mansard roof of slate had iron cresting along the roof line, and, on the roof tower, a series of antennas projected from the roof. The walls and ceilings of the home were festooned with bare wires left uncovered by woodwork or plaster in order for Westinghouse to continue his experiments on residential gas and electrical power as well as telephone transmission (Leupp 1918). The majority of the family's possessions were removed from the house before it was demolished.

Historic Photo 3: Solitude

The archaeological remains of Solitude were discovered in several Phase I units and were identified as Feature 5 (Figures 1 to 4; Archeological Photo 1). Over 1,249 historic artifacts were recovered from this feature. The artifacts provided new information about the architecture of Solitude. For example, fragments of yellow, green, red, and blue hand-painted glass were

recovered (Archeological Photo 2), along with examples of stained glass (Archeological Photo 3). Fragments of pink, black, blue, and white marble, travertine, and granite were used for floors and walls. Gray roof slate, green window glass, red brick, mortar samples, and nails also were recovered. While many visitors, laborers, and servants were allowed access within Solitude, photographs and descriptions of the building's details are rare. Additional excavation could reveal additional information about Solitude's architectural details.

Archeological Photo 1: Feature 5, looking west

Archeological Photo 2: Hand-painted stained-glass fragments

Archeological Photo 3: Stained-glass fragments

REDACTED

Fig. 8: Westinghouse Park Features

REDACTED

Fig. 9: Westinghouse Park Features and Phase I Testing

REDACTED

Fig. 10: Closeup of Phase I Testing Near Residence

Artifacts suggesting the high socio-economic status of the Westinghouse family include a Havilland porcelain saucer and a crystal perfume bottle. Mason jars with porcelain and metal lids, and bottle glass represent objects left in the kitchen before demolition. Additional excavation and further artifact analysis could provide both additional evidence for the goods used by the Westinghouse's and their guests, as well as potentially information about the goods used by their staff, boarders, and laborers.

WESTINGHOUSE LABORATORY/STABLE

Like the residence, the Westinghouse Laboratory/Stable building foundation remains below the ground surface. The above ground portion of the building was removed in 1960. While some experimentation was done within the walls of Solitude, George Westinghouse's private laboratory was located in the original two- story brick stable with full basement (Historic Photo 4). The stable reflected the architecture of the main house with its painted white brick, mansard roof with iron cresting along the roof line and decorative brackets. The second floor was well lighted with double-hung dormer windows with Victorian peaked lintels on all facades. The stable's roof was pierced by a tall brick chimney and several ventilators. An archival photograph of the laboratory dating from 1920 reveals many of these architectural details.

Before the laboratory was demolished, the City prepared measured drawings of the exterior and interior of the building. The L-shaped building measured 62 feet on the east, 59 feet, 9 inches on the west, and 56 feet, 2 inches on the north and south facades. On the first floor were two offices, both with plaster walls and ceilings, wood wainscoting, and double-hung windows. The larger office had stairs leading to the second floor and a trap door to the basement. Two sets of exterior steps also served as entrances to the basement. The basement had brick arches with iron trusses and housed a generator and engine room for the heating and lighting systems (Sanborn 1893). An underground boiler room was constructed beyond the east wall of the basement at the connection point with the underground tunnel. Also located on the first floor were the wagon room and harness room with wood floors, beaded board ceilings, and stable doors. An exterior courtyard surrounded by a brick wall opened from one of the stable rooms.

After the City of Pittsburgh purchased Solitude, the laboratory remained in use as an office, picnic shelter, restrooms, and storage room until 1960 when the building was demolished (Stewart 1943). The existing building recreation building was constructed in 1960 partially within the footprint of the original laboratory (Archeological Photo 4). Most significantly, the new recreation building does not have a basement thus there is a high probability of preserved archaeological features in the basement area as well as beneath the asphalt surface surrounding the existing building. Based on field observations and mapping, George Westinghouse's basement boiler room is now beneath asphalt pavement on the east façade of the building.

Historic Photo 4: Solitude stable and Westinghouse laboratory

Archeological Photo 4: Existing ca. 1960's recreation building

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BRICK ARCH TUNNEL BETWEEL HOUSE AND LABORATORY

A brick arched tunnel connected the basement of the residence with the basement of the former laboratory (Sanborn 1893). This tunnel remains intact within Westinghouse Park today. As this underground tunnel was built, newspaper reporters speculated that Westinghouse was secretly working on inventions in the underground passage (Leupp 1918:262). The discovery of natural gas at Solitude and the patents developed by Westinghouse suggest that this assumption was correct. The tunnel was used as part of a system to design and develop patents for residential gas and lighting systems. Metal hangars for wires hang from the arch of the tunnel and pipes once entered the residence's basement. This brick arch tunnel is nearly 200 feet in length and measures approximately 8.6 feet high at the arch and 6.5 feet high on the side walls. The tunnel was first identified through archival mapping [redacted] The rubble stone top of the tunnel was identified at 76 cm below ground surface (b.g.s.) (30 inches) in Unit 23 as Feature 9.

The interior of the tunnel was examined in 2005 by Public Safety personal. Pittsburgh's Mayor Tom Murphy, Cheryl Hall, and Curtis Biondich, formerly of CDC, entered the tunnel and explored the interior (Archeological Photo 6). Mr. Biondich photographed the structure and found a main and secondary entrance where the tunnel would have entered Solitude's basement. The main entrance, which is filled with rubble from the demolition of the house, was in a straight line with the laboratory. Access

to the laboratory was found to be infilled with bricks (Archeological Photo 7). The secondary entrance was for the utility pipes. Near the main entrance, an L shaped passageway runs off of the tunnel. At the end of this short passageway is an entrance that would have led to Solitude's basement. This entrance was originally, and remains, partially bricked with an arch at the top for the utility pipes to access the basement.

LANG AVENUE TUNNEL FROM RAILROAD STATION TO SOLITUDE

George and Marguerite Westinghouse entertained at their Solitude home nearly every night. When guests arrived by rail, they were greeted at the Homewood Station and guided to an elaborate iron gate at the entrance of a tunnel beneath Lang Street. For the most important guests, a red carpet was rolled out and a canopy constructed between the house and tunnel entrance.

Guests included President William McKinley, Michel Hilkov (Russian Minister of Ways and Means), and Prince Albert (later King of Belgium), as well as Pittsburgh's great leaders including H. C. Frick, Andrew Carnegie, Henry Heinz, and Robert Pitcairn, among others (Van Trump 1959:160). The Lang Avenue Tunnel with beautiful iron gate remains extant although both entrances have been infilled with brick (Archeological Photos 8 & 9). On the opposite side, or east side, of Lang Avenue, a stone platform is extant (Archeological Photo 10). This platform leads to the site of the former railroad station, which has since been demolished.

REDACTED
Archeological Photo 5: Original Tice & Jacobs, New York vault cover

REDACTED
Archeological Photo 6: Westinghouse Site tunnel interior

REDACTED
Archeological Photo 7: Laboratory tunnel access

Archeological Photo 8: Lang Avenue tunnel entrance

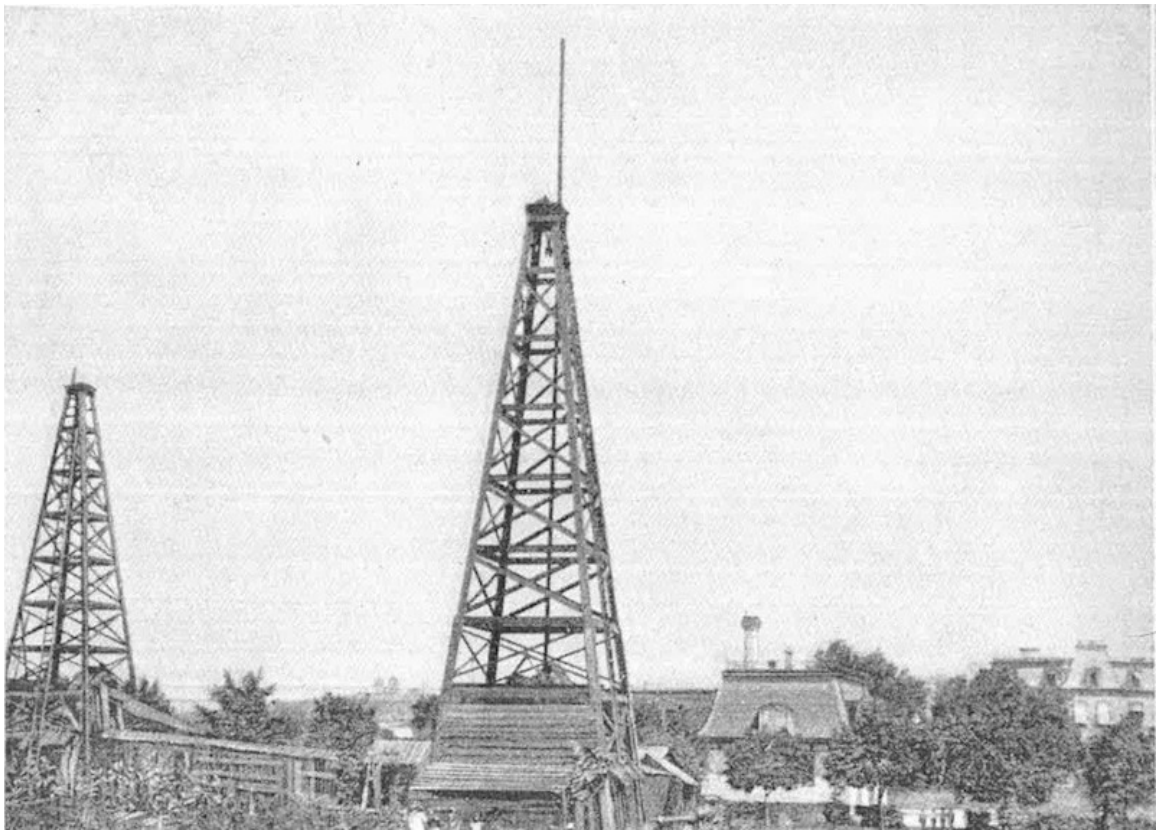
Archeological Photo 9: Lang Avenue tunnel iron gate

Archeological Photo 10: Lang Avenue stone platform

WESTINGHOUSE GAS WELLS

In 1884, Westinghouse successfully drilled a gas well behind his laboratory. By 1912, he had drilled three additional gas wells on the property (Sanborn 1893) and was distributing the gas through pipelines to the East End community. Large wood derricks and small buildings occupied the southern lawns of Solitude (Historic Photo 5).

While no above ground evidence of the former derricks remains, there are archaeological remains for three of the four gas wells drilled by Westinghouse between 1884 and 1912. This includes the original Westinghouse #1 Well drilled in 1884, as well as the 1885 and 1912 wells. The fourth well was destroyed when Thomas Boulevard was widened by approximately 30 feet.



Historic Photo 5: Archival photograph of large wood derricks and small buildings occupying the southern lawns of Solitude (Leonard 1889)

The original 1884 gas well, identified as Feature 1 in Unit 6, was located 30 feet south of the existing recreation building. Feature 1 was sealed with a concrete and metal cap stamped "Lincoln 5 ½ S/S" (Archeological Photo 11). The surrounding soils were heavily mottled gray/black silty loam with brick fragments. Due to a cave-in around the well cap, the unit was not completed.

In Unit 5, a cast iron pipe found less than 10 cm b.g.s. was identified as Feature 2. The unit was not expanded or excavated below this level (Archeological Photo 12). The pipe continued west to connect with Feature 1 and east to the Lang Avenue border of the property. This pipe represents a 2-inch gas line installed by Westinghouse to provide local residents with natural gas.

Archeological Photo 11: Feature 1, capped gas well

Archeological Photo 12: Feature 2, cast iron pipe

Feature 3, found in Unit 8, was the last gas well drilled on the property in 1912 and later covered with a woodshed building. During the excavation, a 39 cm level of thick gray clay loam with brick fragments overlaid a level of dense bricks embedded in black oily soils with a strong smell of gas (Archeological Photo 13). Due to this odor, the unit was terminated.

Feature 4 was found in Unit 7 and identified as a second gas well drilled by Westinghouse in 1885. The well is now capped with concrete (Archeological Photo 14).

GREENHOUSE AND POTTING SHEDS

Neither the Greenhouse nor Potting Shed buildings remain within Westinghouse Park. The large, private greenhouse stood near the stable, while two small wood outbuildings were located east of the greenhouse (Sanborn 1893; Hopkins 1904; Sanborn 1906). Unit 15 was excavated to determine the location

Archeological Photo 13: Feature 3, brick and clay overlying gas well

Archeological Photo 14: Feature 4, concrete capped gas well

of the greenhouse. Based on the recovery of 75 window glass fragments and a portion of a redware flowerpot, the greenhouse remains were identified as Feature 6. Units 16 and 17 were excavated to determine the function of two small wood outbuildings located near the greenhouse. The assemblage from these units included 39 redware flowerpot fragments and window glass suggesting these remains were from the potting sheds associated with the greenhouse. This area was designated as Feature 7.

WATER WELL

A circular water well, now covered with a concrete cap, formerly stood north of the laboratory. When the City purchased the property, the well was capped with a metal pump. The well was identified during the pedestrian survey (Feature 8) as a preserved feature capped with concrete (Archeological Photo 15). No excavations were undertaken in this area.

Archeological Photo 15: Feature 8, concrete capped water well

7. *Its association with important cultural or social aspects or events in the history of the City of Pittsburgh, the State of Pennsylvania, the Mid-Atlantic region, or the United States*

This resource does not meet this Criterion.

8. *Its exemplification of a pattern of neighborhood development or settlement significant to the cultural history or traditions of the City, whose components may lack individual distinction*

This resource does not meet this Criterion.

9. *Its representation of a cultural, historic, architectural, archeological, or related theme expressed through distinctive areas, properties, sites, structures, or objects that may or may not be contiguous*

This resource does not meet this 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.*

This resource possibly meets this Criterion though more information is needed.

10. Integrity

ASSESSMENT OF PREVIOUS GROUND DISTURBANCE

Based on the results of the Phase I Survey, ground disturbance within Westinghouse Site and the grounds of Solitude has been minimal. Removal of the main house and stable/laboratory buildings has resulted in some disturbance within the immediate vicinity of the structures. As evidenced by the presence of intact below ground features, such as the tunnel, gas wells, gas piping, demolition did not impact the site to any significant degree below the ground surface. Given the overall good archaeological integrity of the site, geophysical survey was undertaken to further identify associated below ground features.

GEOPHYSICAL SURVEY

The Geophysical Survey was conducted on November 21 and 30, 2018 by THG (Appendix III). The survey utilized a frequency-domain electromagnetic imaging (FDEM), an Overhauser magnetomerter/gradiometer, and ground penetrating radar (GPR). Five significant FDEM anomalies and six significant magnetic anomalies were identified. Several anomalies were concurrent. GPR data was acquired over all of the anomalies except one (C/2).

Known elements, such as the house, tunnel, and gas wells, were identified, as well as several additional areas with similar FDEM/GPR pattern results that have a potential for features though they remain uninvestigated. Historic research suggests that one of the unexplored areas may be a large cistern associated with the historic stable/laboratory. A second area has a signature similar to the existing tunnel, suggesting another tunnel segment may exist within the site. Further excavation, analysis, and background research are needed to explore these

potential features.

INTEGRITY ASSESSMENT

The loss of the Westinghouse era above ground structures has resulted in a loss of design, materials, workmanship, and feeling for this property. However, above ground landscape features associated with the layout of the estate remain, such as the carriage paths, ashlar entrance pillars, stone steps and walls, and mature specimen trees. Further, the surrounding neighborhood has changed little since 1918 and the death of Marguerite Westinghouse. Consequently, Solitude/Westinghouse Park retains integrity in the areas of location, setting, and association.

However, although as noted no Westinghouse period buildings remain at the surface, this resource retains a high degree of archaeological integrity. Foundation remains within the Westinghouse Site (36AL0525) consist of the residence, the laboratory basement and foundation, two brick tunnels, the greenhouse, well, and three gas wells. All of these features are intact as confirmed through Phase I Archaeological Survey. Associated, intact, artifact-bearing deposits were also identified. The geophysical survey also identified additional unexplored potential features that, based on the overall absence of identified disturbance to date, retain a very high probability of containing additional significant archaeological information (see Table 2).

Westinghouse Park
Historic Nomination Form
Bibliography

Bibliography

Allegheny County Recorder of Deeds, Deed Books: 398:192; 1543:285; 1953:128; 1962:34-35.

Anonymous
1886 Natural Gas. *The Manufacturer and Builder*. Vol. XVIII (11):242-243.

1890 *The Bulletin*. Vol. xxii 2 (8). November, 1890.

1913 George Westinghouse's Home to be made into City Park. *Gazette Times*

Cedar Lake Ventures, Inc.
2018 Demographics of Point Breeze North, Pittsburgh, Pennsylvania. Electronic document, www.statistacalatlas.com, accessed June 28, 2021.

City of Pittsburgh
n.d. Plan of Westinghouse Park. Department of Public Works, Bureau of Engineering.

Department of City Planning
1974 A Community Profile of Point Breeze, Vol. 17, No. 2. Electronic document, www.historicpittsburgh.org, accessed June 28, 2021.

d'Invilliers, E. V.
1887 *The Pittsburgh Coal Region.* Second Geological Survey Annual Report, 1886.

Durant, Samuel W.
1876 *History of Allegheny County, Pennsylvania*. L. H. Everts and Company, Philadelphia.

Gall, Michael J.
2004 *Thomas A. Edison: Managing Menlo Park 1876-1882*. A Masters Thesis submitted to Monmouth University.

Hopkins, G.M.
1872 *Atlas of the Cities of Pittsburgh and Allegheny, from the Official Records, Private Plans and Actual Surveys.*
1882 *Atlas of the Cities of Pittsburgh, Allegheny, and the Adjoining Boroughs.*
1886 *Atlas of the Vicinity of the Cities of Pittsburgh and Allegheny.*
1890 *Atlas of the City of Pittsburgh; Wards 16, 20, 22-23, Vol. 4.*
1904 *East End of Pittsburgh.*

1924 *Real Estate Plat-Book of the City of Pittsburgh; Wards 8, 10-13, Vol. 3.*
1939 *East End of Pittsburgh.*

Jonnes, Jill
2003 *Empires of Light. Edison, Tesla, Westinghouse and the Race to Electrify the World.* Random House.

Leupp, Francis E.
1918 *George Westinghouse His Life and Achievements.* Little, Brown and Company, Boston.

Nevin, Adelaide
1888 *The Social Mirror*. T. W. Nevin, Pittsburgh.

Olds, Edward B.
1939 Homewood Brushton. A Pictorial Representation of Its Growth, Population, Characteristics, Housing Conditions, Health, Social Services, and Recreational Facilities. Bureau of Social Research, Federation of Social Agencies of Pittsburgh and Allegheny County. Electronic document, www.historicpittsburgh.org, accessed June 28, 2021.

Palmer, David
1959 'American Day' Glows Anew with Patriotism. *Pittsburgh Sun Telegraph* 14 September. Pittsburgh. Electronic document, www.newspapers.com, accessed July 7, 2021.

Pittsburgh Press, The
1898 "The Opening Sale of Homewood Park is a Grand Success." 15 Nov:11. Pittsburgh. Electronic document, www.newspapers.com, accessed June 28, 2021.
1968 Goodwill Gospel: Family Picnic Aims for Better Relations. 21 June. Electronic document, www.newspapers.com, accessed July 7, 2021.

Prout, Henry G.
1921 *Life of George Westinghouse.* Scribner, New York.

Sanborn-Perris Map Company
1893 City of Pittsburgh, Allegheny County, Pennsylvania. 1906
City of Pittsburgh, Allegheny County, Pennsylvania.

Snyder, Jean E.
1993 Ethnographic Survey of Homewood, Point Breeze, East Liberty, and Highland Park, Final Report. Completed for the Steel Industry Heritage

Corporation. Electronic document, www.pointbreezepgh.org/the-breeze- blog, accessed June 28, 2021.

Stewart, Howard
1943 *Historical Data, Pittsburgh Public Parks.* Collected and compiled by Howard Stewart under sponsorship of the Greater Pittsburgh Parks Association. Electronic document, www.historicpittsburgh.org, accessed June 28, 2021.

Toker, Franklin
1986 Pittsburgh An Urban Portrait. University of Pittsburgh Press, Pittsburgh.

U.S. Federal Census
1870 *Federal Census for City of Pittsburgh, Pennsylvania* 1880
Federal Census for City of Pittsburgh, Pennsylvania 1900
Federal Census for City of Pittsburgh, Pennsylvania 1910
Federal Census for City of Pittsburgh, Pennsylvania
Van Trump, James D.
1959 "Solitude" and the Nether Depths: The Pittsburgh Estate of George Westinghouse and Its Gas Well. *Historical Society of Western Pennsylvania.* Vol. 42 (2).

Wideman, John Edgar
1984 *Brothers and Keepers*. Holt, Rinehart and Winston, New York.

Westinghouse Park
Historic Nomination Form
Photo Logs

Westinghouse Park - Areal View with Photo Key

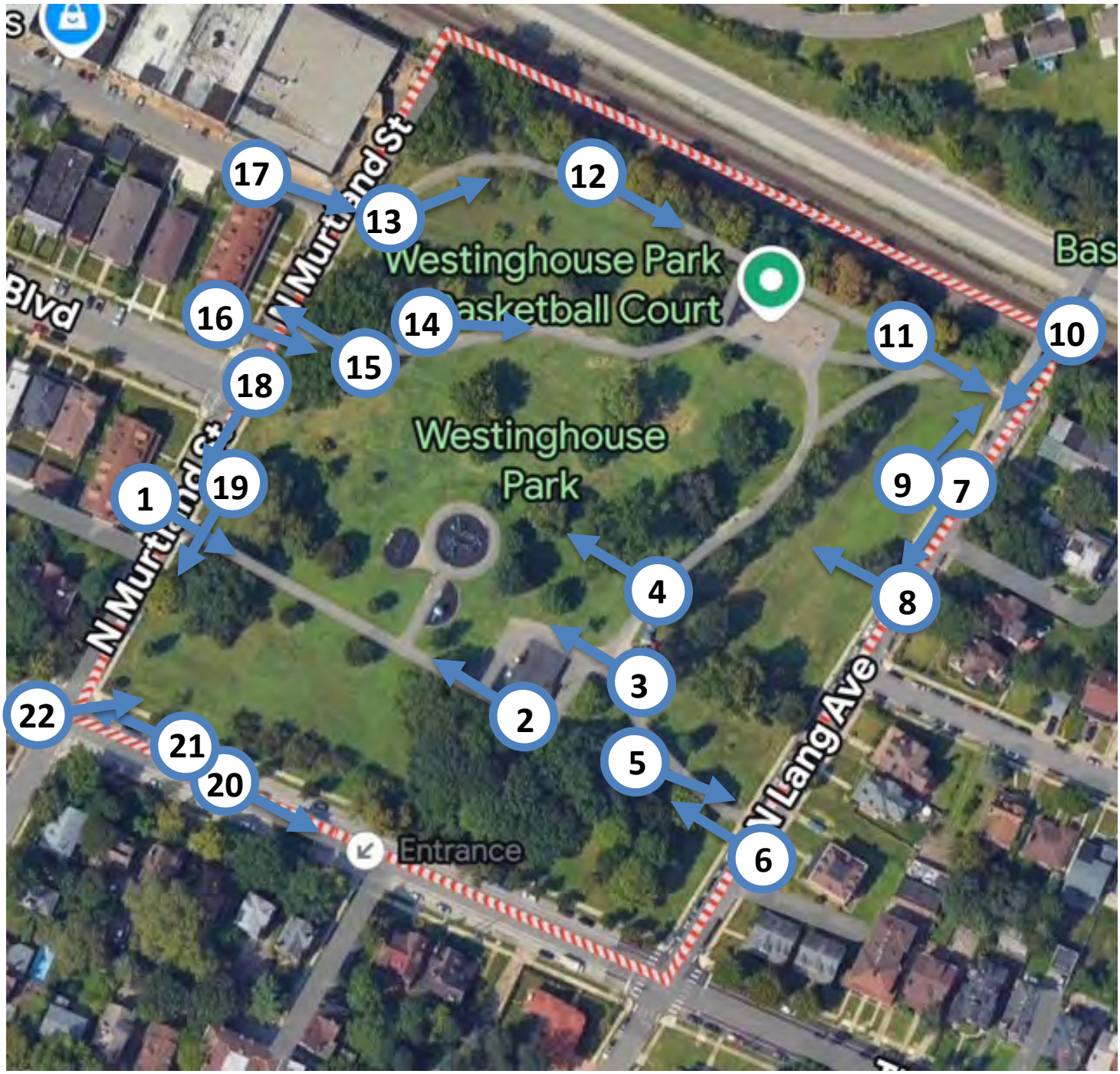


Photo 1. Westinghouse Park, Stone Entrance Pillars. M. Falcone. May, 2024.

Photo 2. Westinghouse Park, Footpath looking Northwest.

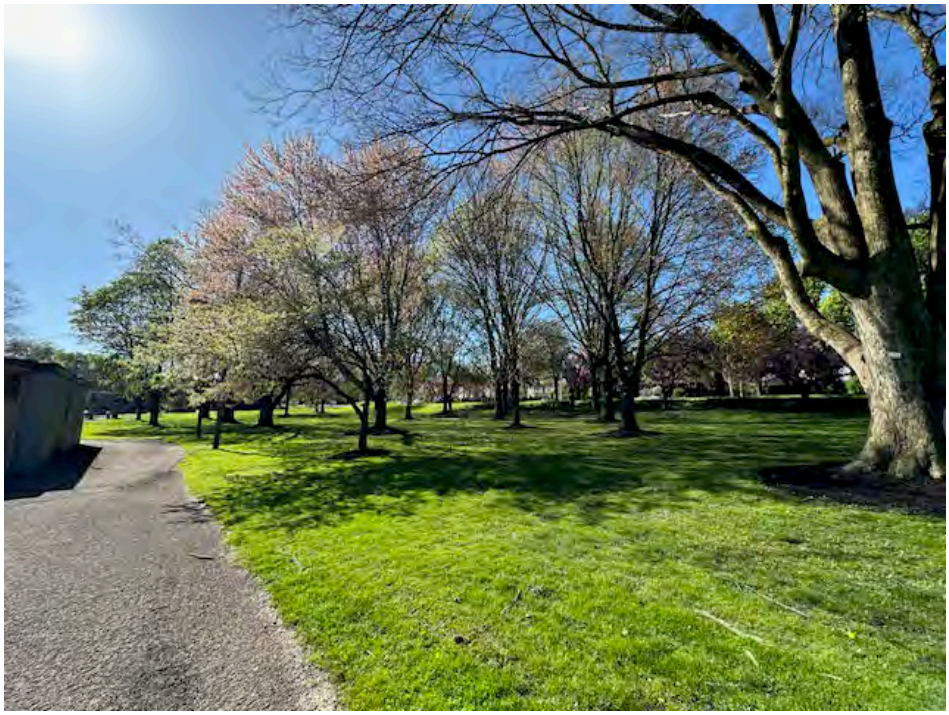


Photo 3. Westinghouse Park, Footpath & Grove looking Southeast.

Photo 4. Westinghouse Park, Grove & Playground looking Northwest.

Photo 5. Westinghouse Park, Footpath looking Southeast.

Photo 6. Westinghouse Park, Stone Entrance Pillars looking Northwest.

Photo 7. Westinghouse Park, Sidewalk looking Southwest.

Photo 8. Westinghouse Park, Field & Grove looking Northwest.

Photo 9. Westinghouse Park, Stone Stairs looking North.

Photo 10. Westinghouse Park, sidewalk, stairs & field looking Southwest.

Photo 11. Westinghouse Park, Stairway looking Southeast.

Photo 12. Westinghouse Park, Footpath looking Southwest.

Photo 13. Westinghouse Park, Footpath looking Southeast.

Photo 14. Westinghouse Park, Footpath looking West.

Photo 15. Westinghouse Park, Stone Entrance Pillars looking Northwest.

Photo 16. Westinghouse Park, Stone Entrance Pillars looking Southeast.

Photo 17. Westinghouse Park, Stairway looking Southeast.

Photo 18. Westinghouse Park, Sidewalk and Field looking Southwest.

Photo 19. Westinghouse Park, Stone Entranceway Pillars looking South.

Photo 20. Westinghouse Park, Sidewalk looking Southeast.

Photo 21. Westinghouse Park, State Historic Marker Northwest.

Photo 22. Westinghouse Park, Park Sign looking Northeast.

- Archeological Photo 1: Feature 5, looking west
- Archeological Photo 2: Hand-painted stained-glass fragments
- Archeological Photo 3: Stained-glass fragments
- Archeological Photo 4: Existing ca. 1960's recreation building
- Archeological Photo 5: Original Tice & Jacobs, New York vault cover
- Archeological Photo 6: Westinghouse Site tunnel interior
- Archeological Photo 7: Laboratory tunnel access
- Archeological Photo 8: Lang Avenue tunnel entrance
- Archeological Photo 9: Lang Avenue tunnel iron gate
- Archeological Photo 10: Lang Avenue stone platform
- Archeological Photo 11: Feature 1, capped gas well
- Archeological Photo 12: Feature 2, cast iron pipe

Westinghouse Park
Historic Nomination Form
Supporting Documents

- Historic Photo 1: Historic Postcard of “Solitude”
- Historic Photo 2: George and Marguerite Westinghouse
- Historic Photo 3: Solitude
- Historic Photo 5: Archival photograph of large wood derricks and small buildings occupying the southern lawns of Solitude (Leonard 1889)

- Fig. 1: Historic Map of the Project Area (Hopkins 1880).
- Fig. 2: Historic Map of the Project Area (Hopkins 1890).
- Fig. 3: Historic Map of the Project Area (Hopkins 1893).
- Fig, 4: Historic Map of the Project Area (Hopkins 1924).