B-1007 (44) B-1007

Form 10-300
(Rev. 6-72)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY – NOMINATION FORM

(Type all entries – complete applicable sections)

STATE:	Maryland
COUNTY:	Baltimore City
FOR NPS USE ONLY	
ENTRY DATE	

1. NAME

COMMON: 3500 Clipper Road

AND/OR HISTORIC: Poole and Hunt Company Buildings

2. LOCATION

STREET AND NUMBER: 3500 Clipper Road

CITY OR TOWN:	CONGRESSIONAL DISTRICT:
Baltimore	4th (Congressman Sarbanes)

STATE	CODE	COUNTY:	CODE
Maryland	24	Baltimore City	510

3. CLASSIFICATION

CATEGORY (Check One)	OWNERSHIP		STATUS	ACCESSIBLE TO THE PUBLIC
☒ District ☐ Building ☐ Site ☐ Structure ☐ Object	☐ Public ☒ Private ☐ Both	Public Acquisition: ☐ In Process ☐ Being Considered	☒ Occupied ☐ Unoccupied ☐ Preservation work in progress	Yes: ☐ Restricted ☐ Unrestricted ☒ No

PRESENT USE (Check One or More as Appropriate)

☐ Agricultural	☐ Government	☐ Park	☐ Transportation	☐ Comments
☒ Commercial	☒ Industrial	☐ Private Residence	☐ Other (Specify)	
☐ Educational	☐ Military	☐ Religious		
☐ Entertainment	☐ Museum	☐ Scientific		

4. OWNER OF PROPERTY

OWNER'S NAME: Old Mill Park, c/o J. Leonard Feinglass

STREET AND NUMBER: Arlington Federal Building

CITY OR TOWN:	STATE:	CODE
Baltimore	Maryland	24

5. LOCATION OF LEGAL DESCRIPTION

COURTHOUSE, REGISTRY OF DEEDS, ETC: Land Record Office of Baltimore

STREET AND NUMBER: Room 610, Baltimore City Courthouse

CITY OR TOWN:	STATE	CODE
Baltimore	Maryland	24

6. REPRESENTATION IN EXISTING SURVEYS

TITLE OF SURVEY: Maryland Register of Historic Sites and Landmarks

DATE OF SURVEY: Aug. 1972 | | Federal ☒ State | | County | | Local

DEPOSITORY FOR SURVEY RECORDS: Maryland Historical Trust

STREET AND NUMBER: 2525 Riva Road

CITY OR TOWN:	STATE:	CODE
Annapolis	Maryland	24

STATE: Maryland

COUNTY: Baltimore City

FOR NPS USE ONLY

ENTERED

DATE

SEE INSTRUCTIONS

7 DESCRIPTION

CONDITION	(Check One) ☐ Excellent ☐ Good ☒ Fair ☐ Deteriorated ☐ Ruins ☐ Unexposed	
	(Check One) ☒ Altered ☐ Unaltered	(Check One) ☐ Moved ☒ Original Site

DESCRIBE THE PRESENT AND ORIGINAL (if known) PHYSICAL APPEARANCE

The complex of fieldstone and brick buildings which comprise the former Poole and Hunt Company plant occupied a site of approximately 20 acres. They were erected in 1853 and enlarged periodically as the need arose, although no record has been found of an architect or of the exact dates of each new building. The brick office building, however, appears to have been erected around the turn of the last century.

A 1915 description published by the company mentions the following structures: a modern fireproof office with draughting rooms, an iron foundry, a machine shop, an erecting shop, a smith shop, a pattern shop, extensive stables for its own teams and an ample building for the storage of patterns. The company also had its own railroad siding and all necessary tracks through the grounds and buildings, as well as its own locomotive for shifting and hauling raw material and finished products. The iron foundry was equipped with cupola for melting and cranes for handling castings. All the equipment was the most modern of its kind.[1]

At the present, much of the plant is abandoned. Several of the low stone sheds are being used as storage space for a bottling company nearby. The brick, three-story office building is closed and the railroad spur is unused. The recent purchaser of the property, a woodworking firm, is using some of the structures and has bought up a portion of the property to the west which originally belonged to the Poole and Hunt Company but was sold off in 1950. Plans for the future use of the entire property are unknown.

The Poole Foundry and Machine Company, successors to Poole and Hunt, is located across Clipper Road in a modern building.

SEE INSTRUCTIONS

[1]Information from an unpublished manuscript, dated 1915, provided by Mr. Lawrence Ricketts, Jr., of the Poole Foundry Company, successors to Poole and Hunt Company.

Purpose of Additional Documentation

The following documentation is presented to update, expand and clarify the very brief 1972 National Register nomination for the Poole & Hunt Buildings, historically known as the Poole & Hunt Foundry and Machine Works. The Poole & Hunt Foundry and Machine Works suffered a major fire in 1995 that resulted in the destruction of most of the fabric of the Machine Shop. However, more than 75% of the buildings in the original National Register nomination remain intact and in good condition. Overall, the complex retains sufficient integrity to represent its 80-year history as Maryland's largest machine works. This additional documentation clarifies the period of significance for the complex, identifies contributing and non-contributing buildings, and corrects an error in drawing the boundaries of the original nomination. The boundary has been clarified to encompass the entirety of the property historically associated with the resource. This clarification does not affect the number of the resources included in the nomination..

Description Summary:

The Poole & Hunt Foundry & Machine Works is a complex consisting of six brick and stone industrial buildings (ca. 1856-1916) listed on the National Register in 1972. In a manner typical of machine works, a series of accretive additions have been made to the buildings during a century of active industrial use.[1] (See Attachment B.) Poole & Hunt qualifies for listing on the National Register under Criterion A as Maryland's largest and most prominent machine manufactory. The period of significance for Poole & Hunt extends from 1853, when the earliest building was constructed, to 1934 when the complex was sold to Balmar Corp. Despite the loss of a major building in a fire in 1995, Poole & Hunt Foundry & Machine Works retains over 75% of the buildings included in the NR Nomination. The contributing buildings in the complex are the ca. 1856 Blacksmiths Shop, the ca. 1870 Foundry, the ca. 1890 Erecting Shop 1, the ca. 1905 Office, and the ca. 1916 Erecting Shop 2 [Tractor Building], which continue to illustrate the enormous scale of Poole & Hunt's operations. With the exception of a few additions (specified below), all of the buildings and additions were constructed within the period of significance of the resource and illustrate its evolution over time.

General Description:

In general, this description has developed an analytical framework based on visual distinction to help the reader understand this complicated resource. Because of the manner in which the complex was continually altered over the years and the interconnections within the complex, some of the components conform to the National Park Service (NPS) definition of individual buildings. Others are clearly part of larger wholes. Building names are derived from Sanborn Maps (1915, 1928, 1951); common names are given in parenthesis. Photographs provide general views of the complex and images of individual components. A list of the complex's contributing building is included on Pages 5 and 6 of Section 7 of this additional documentation.

[1] Based on the comments of Robert Vogel, Curator Emeritus of civil and mechanical engineering at the Smithsonian Institution, from his visit to the site in September 2002.

The Poole & Hunt Foundry & Machine Works is a complex consisting of six contributing brick and stone industrial buildings (ca. 1856-1916), each of which has undergone accretive additions during a century of active industrial use. Poole & Hunt's primary buildings are:

- **Office** (ca. 1905)
- **Blacksmith Shop** [Artisan Building] (ca. 1856)
- **Foundry** (ca. 1870)
- **Erecting Shop 1** [Assembly Building] (ca. 1890)
- **Erecting Shop 2** [Tractor Building] (ca. 1916) and
- **Wagon House** [Stables Building] (ca. 1890)

The complex sustained a major fire in 1995, which destroyed the **Machine Shop** (ca. 1853) and damaged one *Erecting Shop* (ca. 1890).

The Poole & Hunt Foundry & Machine Works complex occupies a 17.4-acre valley between a prominence at the northern boundary of Druid Hill Park and a mill village, Woodberry, which rises to the north. The site appears to have been graded to create a flat building lot that climbs sharply beyond the buildings to the north and south. Clipper Road and railroad tracks (now used for the Light Rail) run along the eastern boundary of the site. A private roadway (Clipper Park Road) that runs east-west from Clipper Road to Parkdale Avenue bisects the property. Remnants of two pairs of branch rail spurs run along this roadway. The *Office*, *Foundry*, and *Blacksmith Shop* occupy the north half of the site. The *Erecting Shops*, *Wagon House*, *Machine Shop ruins*, and *Mill Race* occupy the south half of the site. The **Mill Race** runs west to east, south of the buildings, and is a contributing structure within the complex.

Poole & Hunt's contributing buildings are briefly described below. For clarity, additions are described individually following the primary buildings. Building function, when given on Sanborn Maps, is supplied. The Associated Factory Mutual Fire Insurance map (updated 1963) provides dates of construction for most buildings and additions. The period of significance for Poole & Hunt extends from 1853, when the earliest building was constructed, to 1935 when the complex was sold to Balmar Corp. With the exception of additions Nos. 4F, 10A, 21B, and 21C all of the buildings and additions were constructed within the period of significance of the resource and illustrate its evolution over time.

Bldg No. 8 - Office (1905) is a three-story 3x3 bay brick and brownstone building with a square footprint and a hipped roof. The building, which is in fair condition, displays a raised stone basement, brownstone trim, and a copper cupola. The *Office* is the gateway building to the complex fronting Clipper Road at the eastern edge of the property. The building is distinguished by its ordered paired windows, stone belt courses, and brownstone entry surround with classical-revival details. The interior of the *Office* is largely altered.

Bldg No. 4 - Blacksmith Shop [Artisan Building] (1856) is a one-story 7-bay stone building with a rectangular footprint and a gable roof. The Blacksmith Shop is the oldest building in the Poole & Hunt complex and although it retains its characteristic form, stone, and fenestration pattern, incompatible replacement materials mar its south facade. A hodge-

podge of replacement windows and infill materials fill the large vertical window openings, a metal pull-down vehicular entry door marks the entry bay, and portions of the building have been rebuilt with cmu. The *Blacksmith Shop* is located directly west of the *Office* and has five additions.

No. 4 Addition (ca. 1850s) is a one-story 4x5 bay stone addition, in fair condition, with a square footprint and a monitor roof. *No. 4 Addition* extends to the west of the *Blacksmith Shop*. Additions No. 4B and 4C extend from No. 4 Addition's north and south facades. The visible west facade displays four openings with wood and stone sills and lintels. Poole & Hunt used *No. 4 Addition* first for engine rooms and later as a millwright shop.

No. 4A (1913) is a one-story 1x7 bay brick addition, in fair condition, with a rectangular footprint and a gable roof behind parapet walls. *No. 4A* is located north of the *Blacksmith Shop* and is only minimally visible within the complex.

No. 4B (1917) is a one-story 1x9 bay brick addition, in fair condition, with a rectangular footprint and a shed roof. *No. 4B* extends north of *No. 4 Addition*. This addition continues the roof line of *No. 4 Addition* and, except for the change in materials, appears to be part of that addition.

No. 4C (1916) is a one-story 1x4 bay brick addition, in fair condition, with a rectangular footprint and a shed roof. *No. 4C* extends south of *No. 4 Addition*. This addition continues the roof line of *No. 4 Addition* and, except for the change in materials, appears to be part of that addition

No. 4F (1956) is a two-story 2x5 bay concrete masonry unit addition, in fair condition, with a rectangular footprint and a flat roof. *No. 4F* extends west of the *Office* and south of the *Blacksmith Shop* and displays a brick-faced facade (east). Poole and Hunt used *No. 4F* as a machine shop and office. No. 4F was constructed after the end of the period of significance and does not contribute to the complex.

Bldg No. 5 – Foundry (1870) is tall one-story stone and wood building with a rectangular footprint and a monitor roof. Within the complex, the *Foundry* is primarily visible from the west, its wood-clad gable end and monitor roof rising above the small additions that surround it. *Bldg No. 5* retains multiple-pane clerestory wood window sash on its north and east facades. The building, which is in poor condition, has an open space plan and an exposed wood structural system. The *Foundry* is surrounded by 12 smaller additions.

No. 6 (1880) is a one-story brick building, in fair condition, with a gable roof. *No. 6* is located east of the *Foundry* and *No. 7*. Poole & Hunt used *No. 6* as a pattern shop.

No. 7 (1880) is a one-story brick addition, in very poor condition, with a monitor roof. *No. 7* is located north of the *Foundry*.

No. 9 (1890) and 9A form a one-story brick addition, in fair condition, with monitor and gable roofs. Shown on maps as a group of small additions that form an L around the west and south end of the *Foundry*, *No. 9* and *No. 9A* have a unified west facade. From the yard, the individual structures that comprise *No. 9* and *No. 9A* can only

be distinguished as distinct elements by the variety of roof features that cap them. Poole & Hunt housed a carpentry shop, sand screening, core mixing, core ovens, and brass foundry in *No. 9* and *9A*.

No. 10 (1890) is a one-story addition, in poor condition, with a monitor roof. Engulfed by other additions, it is located south of the *Foundry*, west of *No. 12*, north of *No. 10* and *No. 11*, and east of *No. 9*. Poole & Hunt used *No. 10* for cleaning castings.

No. 10A (ca. 1952) is a one-story brick addition, in poor condition, with a flat roof. Pointed in concrete, the facade's (south) brick is crumbling. *No. 10A* is located south of *No. 10*, west of *No. 11*, and east of *No. 14*.

No. 11 (1890) is a one-story brick addition, in fair condition, with a gable roof. It is located south of *No. 10* and east of *No. 10A*. Poole & Hunt used *No. 11* for ladle storage

No. 12[2] (1856) is a one-story brick addition, in poor condition, with a gable roof. It is located south of the *Foundry* and east of *No. 10*. Poole & Hunt housed rattlers, chargers, and coke supplies in *No. 12*.

No. 14 (1890) is a one-story brick addition, in poor condition, with a monitor roof. It is located south of *No. 8*, west of *No. 10A*, north of *No. 3*, and east of *No. 15*. Poole & Hunt used *No. 14* for lumber and coke storage.

No. 15 (1890) is a one-story stone addition in poor condition. It is located south of *No. 9*, west of *No. 14*, north of *No. 3*, and east of *No. 15 Addition*.

No. 15 Addition (by 1915) is a one-story stone addition, in fair condition, with a shed roof. *No. 15 Addition* projects from *No. 15*'s west facade.

The Poole & Hunt complex has two large erecting shops:

Bldg No. 3 - Erecting Shop 1 [Assembly Building] (1890) is an 80 foot tall one-story (with interior galleries) brick and stone fire-damaged building, in poor condition, with a rectangular footprint, monitor roof frame, and a sally port. *Building No. 3's* facades feature multi-story arched window openings, some of which enclose remnants of unglazed wood multiple-pane wood sash. The primary (east) facade is organized around a central cross-gable with a large vehicular opening. The vehicular entry is aligned with the central axis of the Machine Shop (now gone), which facilitated rail transport of large machined parts between the *Machine Shop* and the *Erecting Shops*. The interior of *Erecting Shop 1* displays an open space plan and exposed steel structural system. *Bldg No. 3* had one addition, elements of which remain in ruins.

In 1995 a major fire damaged *Erecting Shop 1*. Despite fire damage, the Erecting Shop continues to contribute to the historic significance of the Poole & Hunt complex. All of the Erecting Shop's brick exterior walls, its exposed structural

[2] Both the building number and appearance of this addition suggest a later date for this building than that provided by the Factory Mutual Fire Insurance map.

system, and its steel roof truss survive. Its fenestration pattern, position within the complex, distinctive overall form, and size and scale remain unscathed. The vast, open volume of interior space – which directly relates to the size and scale of Poole & Hunt's operations – can still be easily read. Despite the fire damage, the building retains sufficient integrity of design, form, materials, workmanship, and setting to add to the complex's sense of time, place, and historical development.

No. 2 (1890) – is the site of an addition to *Erecting Shop 1* that joined it to the *Machine Shop* (now gone). The addition retains building elements, including iron columns, in its basement level.

Bldg No. 21 – Erecting Shop 2 [Tractor Building] (1916) is a two-story brick building, in fair condition, with a rectangular footprint and gable roof pierced by multiple monitors. *Bldg No. 21's* three visible facades (north, east, and west) feature multi-story arched window openings that enclose multiple-pane steel sash. The interior of *Erecting Shop 2* displays an open space plan and exposed steel structural system. A gallery runs along the south wall. Bldg. *No. 21* has four additions.

No. 21 Addition (ca. 1916) is a one-story brick addition, in fair condition, with a shed roof. It is located over the mill race south of *Bldg. No. 21 – Erecting Shop* and west of *Bldg. No. 3 – Erecting Shop.*

No. 21A (ca. 1916) is a one-story concrete addition, in poor condition, with a flat roof. It is located over the mill race south of *Bldg. No. 21 – Erecting Shop.*

No. 21B (ca. 1935) is a two-story brick addition, in fair condition, with a flat roof. It is located north of *Bldg No. 21. No. 21B* was used for shipping.

No 21C (ca. 1935) is a two-story brick addition, in fair condition, with a flat roof. It is located north of *Bldg No. 21 – Erecting Shop* and east of *No. 21B.*

Bldg No. 27 – Wagon Shed [Stables Building] (1890) is a two-story stone building, in fair condition, with a cross-gable hipped slate roof. *Bldg No. 27* has three visible facades (north, east, and west), each of which encloses a central vehicular entry, and retains some wood double-hung sash. The *Wagon Shed* has one addition.

No. 28 (1890) is a one-story stone addition, in fair condition, with a monitor roof. *No. 28* extends from the *Wagon Shed*'s south facade. *No. 28* has three visible facades (south, east, and west), each of which display a vehicular entry (the entry on the east facade is infilled with cmu). The building retains some wood double hung sash and wood monitor windows, which have been reglazed with plexiglass. Poole & Hunt used *No. 28* as a stable.

Contributing and Non-contributing Resources

The Poole & Hunt Foundry & Machine Works includes six contributing buildings and one contributing structure:

- **Office**
- **Blacksmith Shop** [Artisan Building]
- **Foundry**
- **Erecting Shop 1** [Assembly Building]
- **Erecting Shop 2** [Tractor Building]
- **Wagon House** [Stables Building]
- **Mill Race**

There are no non-contributing buildings or structures.

Four additions to contributing buildings at the Poole & Hunt Foundry and Machine Works were constructed after the end of the period of significance and do not contribute to the resource:

- Addition No. 21B, constructed ca. 1935
- Addition No. 21C, constructed ca. 1935
- Addition No. 4F, constructed ca. 1956
- Addition No. 10A, constructed ca. 1952.

Discussion of Integrity

Despite the 1995 fire, Poole & Hunt Foundry & Machine Works retains sufficient integrity to reflect its tremendous significance under National Register Criterion A as Maryland's largest and most prominent machine manufactory. It retains over 75% of its contributing buildings and structures as well as its extensive setting, and its purpose-built function remains clearly legible. Located at the center of the Jones Falls Valley in one of Maryland's most significant industrial areas, Hampden-Woodberry, the manufactory retains integrity of location. Sited in a valley with Druid Hill Park to the south, the Woodberry mill village to the north, the railroad tracks and Jones Falls to the east, and the Hooper cotton mill to the west, the works retains integrity of setting. Partially constructed of gneiss stone quarried on site, the complex retains integrity of materials.[3] The range of workmanship still evident in the complex reflects the evolution of the site over a full century, including mid 19th century stone-built shops, a late 19th century stone and brick stables and wagon house, a turn of the 20th century brick and brownstone office building, and a World War I era brick erecting shop. Poole & Hunt retains six of its seven primary structures and the complex, on whole, retains sufficient integrity of design. The plan and

[3] The Jones Falls Valley was the primary source for Maryland gneiss through the middle of the 19th century. Gneiss is a high-quality metamorphic rock with a similar mineralogical make-up as granite. The Jones Falls valley quarries were prolific, providing stone for many buildings in downtown Baltimore. In the early part of the 19th century, a number of Baltimore's monumental buildings, such as the Maryland penitentiary were constructed of gneiss. Later, gneiss was primarily used for foundations, due to its coarse finish. After 1850, gneiss was quarried in the Patapsco river valley as well. (George P. Merrill and Edward B. Mathews [Maryland Geological Survey], ***The Building and Decorative Stones of Maryland***, Baltimore: The Johns Hopkins Press, 1898.)

space of the complex, in ensemble, and scale of the remaining structures remain clearly legible to convey the feeling and association of a massive machine works.

8. SIGNIFICANCE

PERIOD (Check One or More as Appropriate)

- [ ] Pre-Columbian
- [ ] 15th Century
- [ ] 16th Century
- [ ] 17th Century
- [ ] 18th Century
- [x] 19th Century
- [ ] 20th Century

SPECIFIC DATE(S) (If Applicable and Known) 1853

AREAS OF SIGNIFICANCE (Check One or More as Appropriate)

- [ ] Aboriginal
  - [ ] Prehistoric
  - [ ] Historic
- [ ] Agriculture
- [ ] Architecture
- [ ] Art
- [x] Commerce
- [ ] Communications
- [ ] Conservation
- [ ] Education
- [x] Engineering
- [x] Industry
- [x] Invention
- [ ] Landscape Architecture
- [ ] Literature
- [ ] Military
- [ ] Music
- [ ] Political
- [ ] Religion/Philosophy
- [x] Science
- [ ] Sculpture
- [ ] Social Humanitarian
- [ ] Theater
- [x] Transportation
- [ ] Urban Planning
- [ ] Other (Specify) _____

STATEMENT OF SIGNIFICANCE

The extensive works of Poole and Hunt, located at 3500 Clipper Road, produced machinery and castings for a world-wide market from 1853 to 1889. This partnership succeeded Poole and Ferguson, founded in 1843 on North (now Holliday) Street in downtown Baltimore, and was continued as Robert Poole and Son from 1889 to 1903 and Poole Engineering and Machine Company thereafter.

Robert Poole (1818-1903), trained in local machine shops of cotton mills and railroad locomotive works, pioneered in the design and manufacture of looms for weaving cotton duck and of machinery for textile, grist, flouring and saw mills. His workshops manufactured a standard line of presses, shafting, pulleys and hangers, machine moulded gearing and transmission machinery, portable and stationary steam-engines and steam boilers of all dimensions. It was, however, operating machinery for Chicago and New York City cable railways, patented devices such as Ebaugh's mineral crusher, and the Leffel double turbine water-wheel, the Von Schmidt pumping dredge and the casting of the largest sand wheel in the world, 65 feet in diameter, built for the Calumet and Hecla Mining Company, which because of their on-the-job performance in the early days of the application of mechanical power brought Poole extensive comment with descriptions and pictures in both foreign and U. S. technical, scientific and trade journals.

The iron columns supporting the present (Thomas U. Walter) dome of the Capitol in Washington, and those of the custom-house in New Orleans were furnished by Poole and Hunt.

SEE INSTRUCTIONS

Summary Statement of Significance:

Located at the heart of the Jones Falls Valley in Baltimore, Maryland, the Poole & Hunt Foundry & Machine Works stands to represent its 80-year history as the site of the works of Poole & Hunt, later Robert Poole & Son and the Poole Engineering & Machine Co. The Poole & Hunt works meet Criterion A for listing on the National Register because it housed Maryland's largest machine works, which was a key component of Maryland's industrial base during the period of significance (1853-1934). The Poole & Hunt Foundry & Machine Works illustrates how the machinery manufacturing industry evolved through changing technologies from the mid 19th century through the early 20th century. The period of significance for the works extends from 1853, when the earliest building was constructed, to 1934 when the plant was sold to Balmar Corp.

Resource History and Historic Context:

The Poole & Hunt Foundry and Machine Works (later Robert Poole & Son and the Poole Engineering & Machine Co.) led Maryland's machine manufacturing industry through the second half of the 19th century into the early 20th century. In 1857 Poole & Hunt employed 250 workers at the Woodberry works and the American Railroad Journal hailed them as "iron founders and machinists second to none in the country."[4] By 1881, Poole & Hunt was described as the largest iron works in Maryland, employing over 700 workers, constituting about one-third of Baltimore's iron workforce.[5]

Through the late 19th and early 20th century, foundry and machine shop products were a key component of Maryland's industrial economic base. Based on the gross value of the products, in 1880 foundry and machine shop products were Baltimore's fourth largest industry.[6] Between 1890 and 1909, the industry remained in the top five and dropped to seventh in 1914.[7] It was in Baltimore's top three industries between 1880 and 1909 in capitalization and net value of products.[8] Throughout that time, Poole & Hunt, was the largest foundry and machine shop in Baltimore and Maryland.[9]

The Poole & Hunt Foundry and Machine Works is located along the Jones Falls in the Woodberry section of Hampden-Woodberry, Maryland's largest industrial community outside Baltimore.[10] Poole & Hunt was founded in 1843 as Poole & Ferguson by Irish machinist Robert Poole (1818-1903) and was originally located in downtown Baltimore, at North (now Guilford Avenue) and Holliday streets. William Ferguson retired in 1851 and German H. Hunt joined Robert Poole as

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[4] "A Visit to Woodberry – Messrs. Poole & Hunt's Exclusive Works." ***American Railroad Journal***, April 4, 1857, p. 212-213.

[5] Scharf, p. 838; Eleanor Stephens Bruchey, ***The Business Elite in Baltimore 1880-1914***, Baltimore: The John Hopkins University, 1967, p. 39.

[6] Bruchey, p. 35.

[7] Ibid, p. 35-37.

[8] Ibid, p. 39-43.

[9] Zembala, Dennis M., ***Baltimore: Industrial Gateway on the Chesapeake Bay***, Baltimore: The Baltimore Museum of Industry, 1995, p. 104. Zembala notes that the only foundry that may have surpassed Poole & Hunt would be the B&O Mt. Clare shops.

[10] J. Thomas Scharf. ***History of Baltimore City and County, Maryland***. 1881, p. 837.

partner. The downtown works partially burned in 1853. Poole & Hunt rebuilt on a large site at Woodberry, which was initially settled in the early 19th century. Located along the Northern Central Railroad, access to transportation, an available water source, and a ready workforce privileged the site. Typical of rural mill villages, the men who owned and managed the factories in the area developed a paternalistic system that supplied their workers with housing, stores, and schools.

Robert Poole's personality may have influenced his decision to locate the works in an area where he could wield great influence in his workers lives. Character sketches of Robert Poole emphasize that his charitable nature more than balanced his technological skill and bold business acumen.[11] Robert Poole lived at Maple Hill (now gone), a large estate overlooking his works, constructed part of Woodberry's houses for his workers, and was well known for his altruistic contributions. He donated thousands of dollars to the endowment of the Women's College of Baltimore City (now Goucher College) and fully funded a library branch for Hampden-Woodberry (now the Hampden branch of the Enoch Pratt Free Library).[12] Robert Poole died in 1903 and the firm reorganized as Poole Engineering and Machine Company.

The machine works embody both the evolution of industrial building construction technology and the scale of the machinery that was produced. The shops at the Poole & Hunt Foundry were designed and constructed by in-house millwrights. The earliest buildings on the site were the machine shop (now gone), the foundry, and the blacksmith shop (extant). These shops were all stone built and one story high with huge floor plates and open spans. In 1857, they were remarkable for their size. The ***American Railroad Journal*** marveled at the complex, noting the foundry's interior clearance and "very imposing appearance."[13] Poole and Hunt planned their buildings in direct relationship to the machines the firm used and made. For example when constructed, the machine shop, which was 60 feet wide and 430 feet long, housed a large boring machine "capable of turning 10 feet in diameter" and a lathe "40 feet long with, with a swing of 7 feet" and the foundry which was 120 feet long by 80 feet wide had "three cranes, each capable of lifting ten tons" and a casting pit "30 feet deep and 20 feet in diameter."[14] Over time, the size of the buildings Poole & Hunt constructed on site grew in size and displayed generations of refinement in construction technology. For example, the ca. 1890 Erecting Shop displays steel frame construction with a clear interior height of 80 feet.

As can be seen in the 1915 Sanborn Map (see Attachment D), the plan of the Poole & Hunt Foundry and Machine Works was carefully arranged to facilitate efficient movement of bulky raw materials and finished products through the complex and to a national transportation network. A rail spur of the Northern and Central Railroad, which bisected the complex, directly served the works. Poole & Hunt also had its own rail cars that moved within the complex. Tracks ran directly into the Foundry, Erecting Shops, and Machine Shop.

As implied by the firm's name, the works served dual purpose; the foundry and the machine works. These two functions are clearly delineated in the complex's plan. The foundry functions were housed north of Clipper Park Road, the machining, assembly, and distribution functions were housed south of Clipper Park Road. This plan separated the

[11] ***History of Baltimore V. 2***, New York: Lewis Historical Publishing, 1912, p. 234-236.
[12] "A Captain of Industry Dead," unmarked clipping in the files of the Research Center at The Baltimore Museum of Industry.
[13] "A Visit to Woodberry," p. 212.
[14] Ibid.

buildings that housed the highly combustible foundry functions and the buildings that housed completed parts and products. The Office, Black Smith Shop, and Foundry occupy the north half of the complex.

- The Office is located at the eastern edge of the site at the foot of Union Avenue and Clipper Road. The Office housed the directors, engineers, and draftsmen, who managed the firm and designed the castings, machined parts, and machines.
- The Black Smith Shop is located between the Office and Foundry. The blacksmith constructed any wrought iron elements needed for projects. The millwright's space was located in an addition of the Black Smith Shop. The millwright designed and oversaw construction of the Poole & Hunt buildings and additions.
- The Foundry is located west of Black Smith Shop. Within the Foundry, workers melted down pig iron, steel, and brass and cast the molten metal into sand molds. The Foundry has 12 additions, which served the specialized ancillary functions associated with founding.
- Poole & Hunt housed the pattern shop in one addition. Pattern makers constructed patterns out of wood or iron for each casting in the pattern shop.
- Poole & Hunt housed molding in one addition. Molders made the casting molds from sand and clay that was packed around the pattern.
- Poole & Hunt housed the cupolas in one addition. The Poole & Hunt cupolas were enormous furnaces where the iron and steel were melted. The men who prepared the cupolas for melting the metal, known as charging, loaded the huge fire-brick lined iron drums with alternating layers of coke (a refined type of superheating coal) and raw metal and lit the coke with wood. When the cupolas were heated they would open air sources that created intense, volatile combustion in the cupola to melt the iron or steel. After the metal was melted, the men would open a hole in the bottom of the cupola and the molten metal would run out into ladles and be distributed to the molds in the foundry.
- Poole & Hunt stored ladles in one addition.
- Poole & Hunt used one addition for cleaning the castings, which would have sand residue and slightly rough surfaces after being cast.
- Poole & Hunt used one addition as a brass foundry. Brass castings were typically smaller and more refined than iron castings. Casting brass was a separate process.
- Poole & Hunt used a series of additions for sand, wood, and coke storage. Foundry work required bulk storage of these raw materials in close proximity to the Foundry.
- Adjacent to the sand storage were specialized spaces for: sand screening to remove impurities and/or separate out fine sands; mixing cores (sand forms for creating voids in castings); and core ovens where the cores were dried. Since cores were often completely surrounded by molten metal in the casting process, it was important that the sand core be completely dry, since any water in the sand would try to escape into the casting as steam.

The Machine Shop, Erecting Shops, and Wagon House and Stables occupy the southern half of the complex.

- The Machine Shop housed machine tools for workers to refine the castings made in the foundry and assemble the smaller parts. Men turned rolls, cut gears, ground and milled parts smooth, cut screws and bolts in lathes, planed, shaped, bored, and drilled parts in the Machine Shop.

- The Erecting Shops housed cranes, and pits for workers to assemble the cast and machined parts into huge machines and machine parts, such as mills and aircraft gun housings. The enormous size of the erecting shops at Poole & Hunt are impressive. Their size reflects the enormity of the machines that the firm was able to produce. For example, a 65-foot, 500 ton sand wheel, then the largest in the world, was assembled in Erecting Shop 1 in the early 20th century (see Attachment G).
- The Wagon House and Stables housed horses and wagons that were used to support the primary rail distribution of parts and products.

Poole & Hunt, who specialized in power transmission machinery, were acclaimed both for their product lines and for their custom work. In 1857 they stocked engines, mill gearing, gas works, rail cars, hydraulic presses, sugar and saw mills, shafting, pulleys and hangers, steam boilers and water tanks.[15] By the 1880s, Poole & Hunt manufactured steam-engines and boilers, the Leffel American double turbine water-wheel, saw-mills, grist-mills, white-lead mills, oil-mills, and flour-mills, railroad cars, as well as machine parts and architectural iron. The Leffel-Poole turbine is especially significant in 19th c. technological refinement of efficient hydraulic power. Poole & Hunt produced Leffel-American turbines for the southern states under contract with Leffel (who developed the turbine) in the first half of the 1880s and by 1886 purchased the right to manufacture the turbines nationwide, after Leffel's death.[16] Leffel turbines had an international market and thousands were sold through the 19th century. Architectural iron work and railroad power and cars were featured among their jobs. The ironwork and decorative columns for the Capitol's ca. 1856 fire-proof dome (Thomas U. Walter) were engineered and manufactured in the Poole & Hunt shops.[17] In the last quarter of the 19th century, Poole & Hunt pioneered manufacture of cable railway machinery, which transferred the power from huge steam engines to a continuous loop of rope that drove the cars.[18] Baltimore, Washington, Chicago, Hoboken, Kansas City, and New York City all operated with their systems.[19]

Between the turn of 20th century and the Great Depression, Poole & Hunt's core lines of manufacture became largely obsolete and their market share gradually declined. World War I supplied a brief burst of vigorous production, when Poole Engineering and Machine Company produced artillery mountings, guns, and ammunition. In 1934 the firm sold the Clipper Road works to Balmar Corp., railroad equipment manufacturers, and soon reopened in smaller, new quarters across the street where their primary lines were flexible couplings and gears.[20] Balmar remained on the site until ca. 1970. Since that time small-scale artisans and light industries have occupied the site. In 1995, a fire, which took the life of one firefighter and seriously injured others, swept through the ca. 1890 Erecting Shop and destroyed the Machine Shop.

Discussion of Period of Significance

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[15] Ibid.
[16] "The Poole & Hunt Leffel Turbine," ***The Manufacturer and Builder***, Jan. 1885, p. 1.
[17] Ibid.
[18] "Baltimore's New Cable Line," ***Street Railway Review***, Sept, 15, 1892, p. 516-517.
[19] "Engineers, Founders and Machinists," ***Baltimore Business Advocate***, Feb. 6, 1886; "The Robert Poole & Son Company's Plant and Products," ***Manufacturer's Gazette***, Sept. 24, 1892.
[20] "Thriving Activity in Recently Idle Factory as Balmar Corporation begins Production," ***Power Pictorial***, Sept, 1935, p. 15.

As was typical of National Register nominations prepared in the early 1970s, the original nomination did not specifically address a Period of Significance for the Poole & Hunt complex. However, the text does refer to buildings constructed in the 19th and 20th centuries. Additional research clarifies the period of significance as extending from 1856, when the firm began operations on the site, to 1934, when the Poole Engineering and Machine Company (successors of Poole & Hunt) sold the property to Balmar Corporation and moved to smaller facilities.

9. MAJOR BIBLIOGRAPHICAL REFERENCES

Bannister, Turpin C. "The Genealogy of the Dome of the United States Capitol". Journal of the Society of Architectural Historians, vol. 7, nos. 1-2 (January-June, 1948), pp. 2 ff.

Scharf, J. Thomas. History of Baltimore City and Baltimore County. Louis H. Everts. (Philadelphia, 1881). P. 838, illus.

[see continuation sheet]

10. GEOGRAPHICAL DATA

LATITUDE AND LONGITUDE COORDINATES DEFINING A RECTANGLE LOCATING THE PROPERTY			OR	LATITUDE AND LONGITUDE COORDINATES DEFINING THE CENTER POINT OF A PROPERTY OF LESS THAN TEN ACRES	
CORNER	LATITUDE	LONGITUDE		LATITUDE	LONGITUDE
	Degrees Minutes Seconds	Degrees Minutes Seconds		Degrees Minutes Seconds	Degrees Minutes Seconds
NW	39° 19' 56"	76° 38' 48"		° ' "	° ' "
NE	39° 19' 57"	76° 38' 40"			
SE	39° 19' 52"	76° 38' 38"			
SW	39° 19' 51"	76° 38' 47"			

APPROXIMATE ACREAGE OF NOMINATED PROPERTY: 8 1/2 acres

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE:	CODE	COUNTY	CODE
STATE:	CODE	COUNTY:	CODE
STATE:	CODE	COUNTY:	CODE
STATE:	CODE	COUNTY:	CODE

SEE INSTRUCTIONS

11. FORM PREPARED BY

NAME AND TITLE: Catharine F. Black

ORGANIZATION: Maryland Historical Trust

DATE: Sept. 25, 1972

STREET AND NUMBER: 2525 Riva Road

CITY OR TOWN: Annapolis

STATE: Maryland

CODE: 24

12. STATE LIAISON OFFICER CERTIFICATION

As the designated State Liaison Officer for the National Historic Preservation Act of 1966 (Public Law 89-665), I hereby nominate this property for inclusion in the National Register and certify that it has been evaluated according to the criteria and procedures set forth by the National Park Service. The recommended level of significance of this nomination is:

National [ ] State [X] Local [ ]

Name Orlando Ridout IV

Orlando Ridout IV

Title State Liaison Officer for Maryland

Date Sept. 27, 1972

NATIONAL REGISTER VERIFICATION

I hereby certify that this property is included in the National Register

Director, Office of Archeology and Historic Preservation

Date

ATTEST:

Keeper of The National Register

Date

Form 10-300a
(July 1969)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES
INVENTORY - NOMINATION FORM

(Continuation Sheet)

STATE	
Maryland	
COUNTY	
Baltimore City	
FOR NPS USE ONLY	
ENTRY NUMBER	DATE

(Number all entries)

3500 Clipper Road

#9. MAJOR BIBLIOGRAPHICAL REFERENCES continued

Unpublished typescript, dated 1915 and furnished by the Poole Foundry Co., courtesy Mr. Lawrence Ricketts, Jr.

_____. "Robert Poole". Baltimore, Its History and Its People, vol. II. Lewis Historical Publishing Company. (New York, 1912). pp. 234 ff.

Major Bibliographical References:

"Baltimore's New Cable Line." *Street Railway Review.* (September 15, 1892): 516-517.

Bruchey, Eleanor Stephens. *The Business Elite in Baltimore 1880-1914.* Baltimore: The Johns Hopkins University Press, 1967.

"A Captain of Industry Dead." Baltimore Museum of Industry Research Center Vertical Files.

"Engineers, Founders and Machinists." *Baltimore Business Advocate.* (February 6, 1886)

History of Baltimore. Vol. 2. New York: Lewis Historical Publishing, 1912.

Merrill, George P. and Edward B. Matthews. *The Building and Decorative Stones of Maryland.* Baltimore: The Johns Hopkins Press, 1898.

"The Poole & Hunt Leffel Turbine." *The Manufacturer and Builder.* (January 1885): 1.

"The Robert Poole & Son Company's Plant and Products." *Manufacturer's Gazette.* (September 24, 1892)

Scharf, J. Thomas. *History of Baltimore City and County, Maryland.* Philadelphia: Louis H. Everts, 1881.

"Thriving Activity in Recently Idle Factory as Balmar Corporation Begins Production." *Power Pictorial. (September 1935): 15.*

"A Visit to Woodberry – Messrs. Poole & Hunt's Exclusive Works." *American Railroad Journal.* (April 4, 1857): 212-213.

Zembala, Dennis M. *Baltimore: Industrial Gateway on the Chesapeake Bay.* Baltimore: The Baltimore Museum of Industry, 1995.

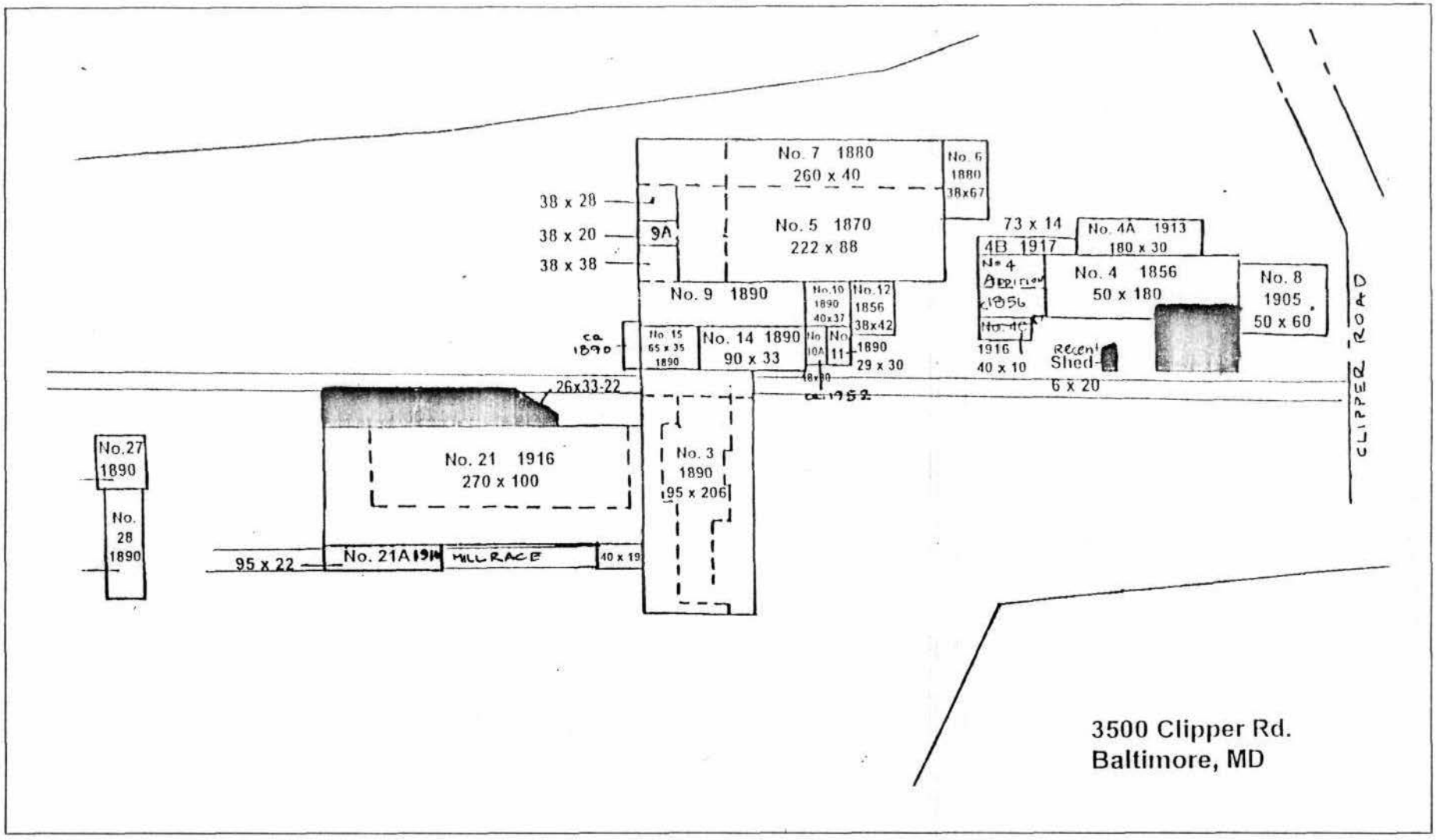
Verbal Boundary Description:

The National Register Boundary for the Poole & Hunt Foundry & Machine Works follows the boundary for Baltimore City Tax Block 3390B, Lots 050, 051, 052, and 052B. The boundary encompasses approximately 17.4 acres.

UTM References:
A: 18-357185-4354764
B: 18-358287-4354632
C: 18-357962-4354419
D: 18-357937-4354627

Boundary Justification:

The 1972 National Register documentation indicates that 8.5 acres of the site were included in the nomination; however, the boundary line drawn on the USGS quad which accompanied that documentation encompassed the total property of approximately 17.4 acres, and the Latitude / Longitude references calculated for the property reflect the entire parcel. As no explanation for the 8.5 acre figure can be discovered, either in the National Register documentation nor in the working files of the Maryland State Historic Preservation Office, it is concluded that this figure is erroneous. This additional documentation clarifies that the boundaries of the nominatied property conform with the record lots, i. e., the approximately 17.4-acre site historically associated with the Poole & Hunt works (see Attachment C).

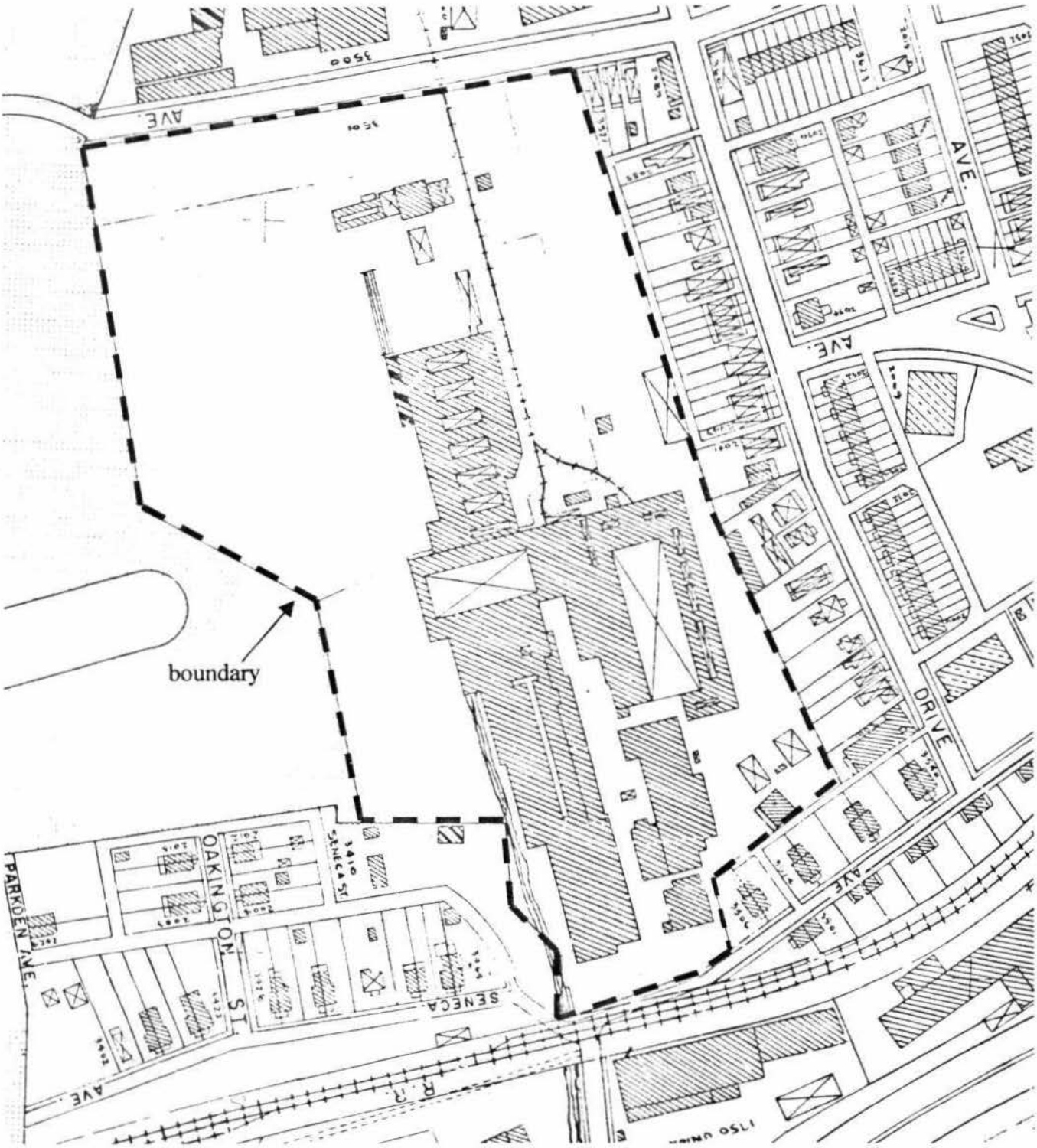


Attachment B – Poole & Hunt complex showing dates of construction and contributing buildings
Poole & Hunt Foundry and Machine Works (B-1007)
3500 Clipper Road
Baltimore, Maryland

Additions constructed
after the period of significance

B-1007

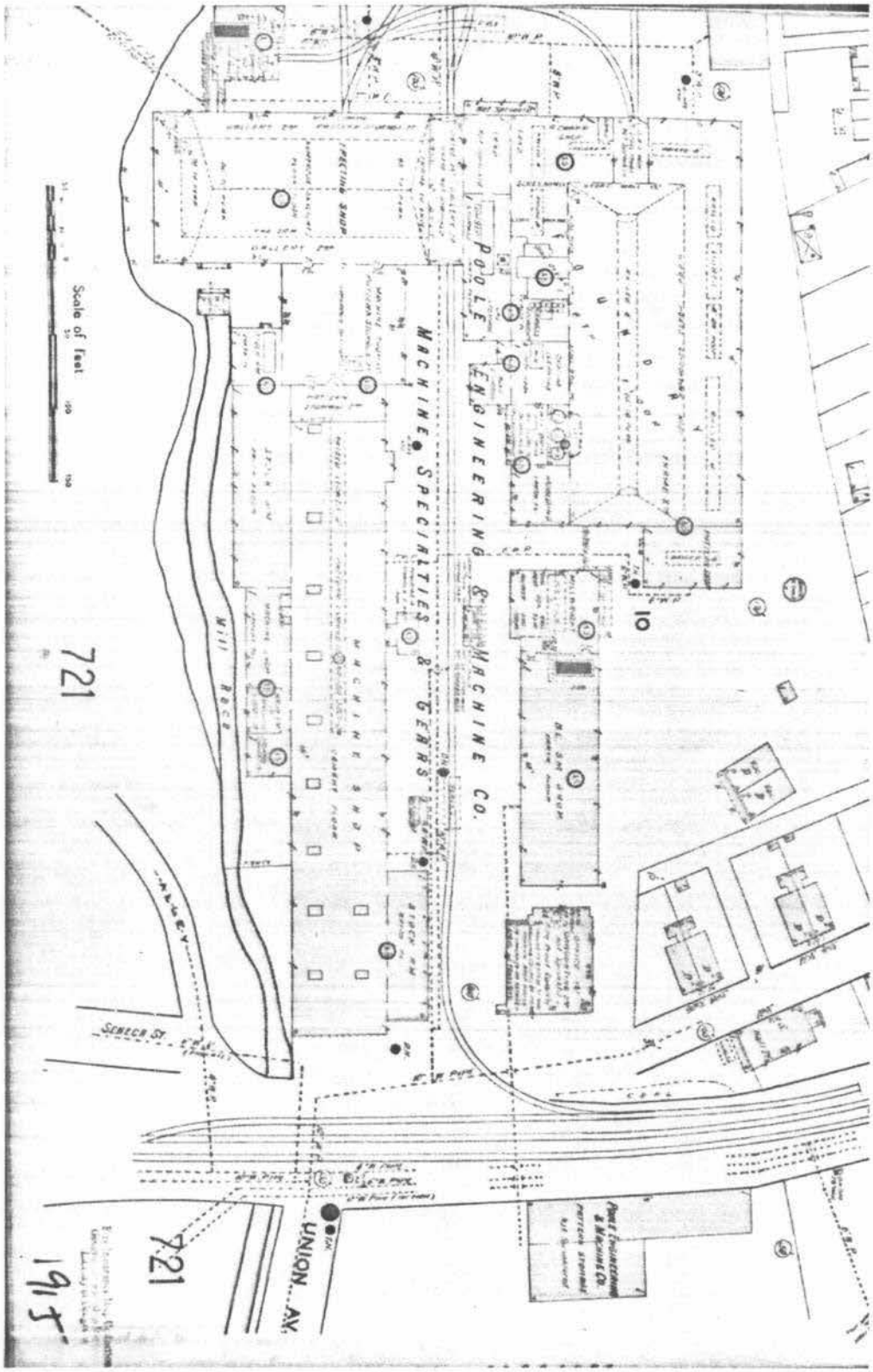
B-1007



Attachment C – Site Plan (City of Baltimore, 1964) showing boundary
Poole & Hunt Foundry and Machine Works (B-1007)
3500 Clipper Road
Baltimore, Maryland

N

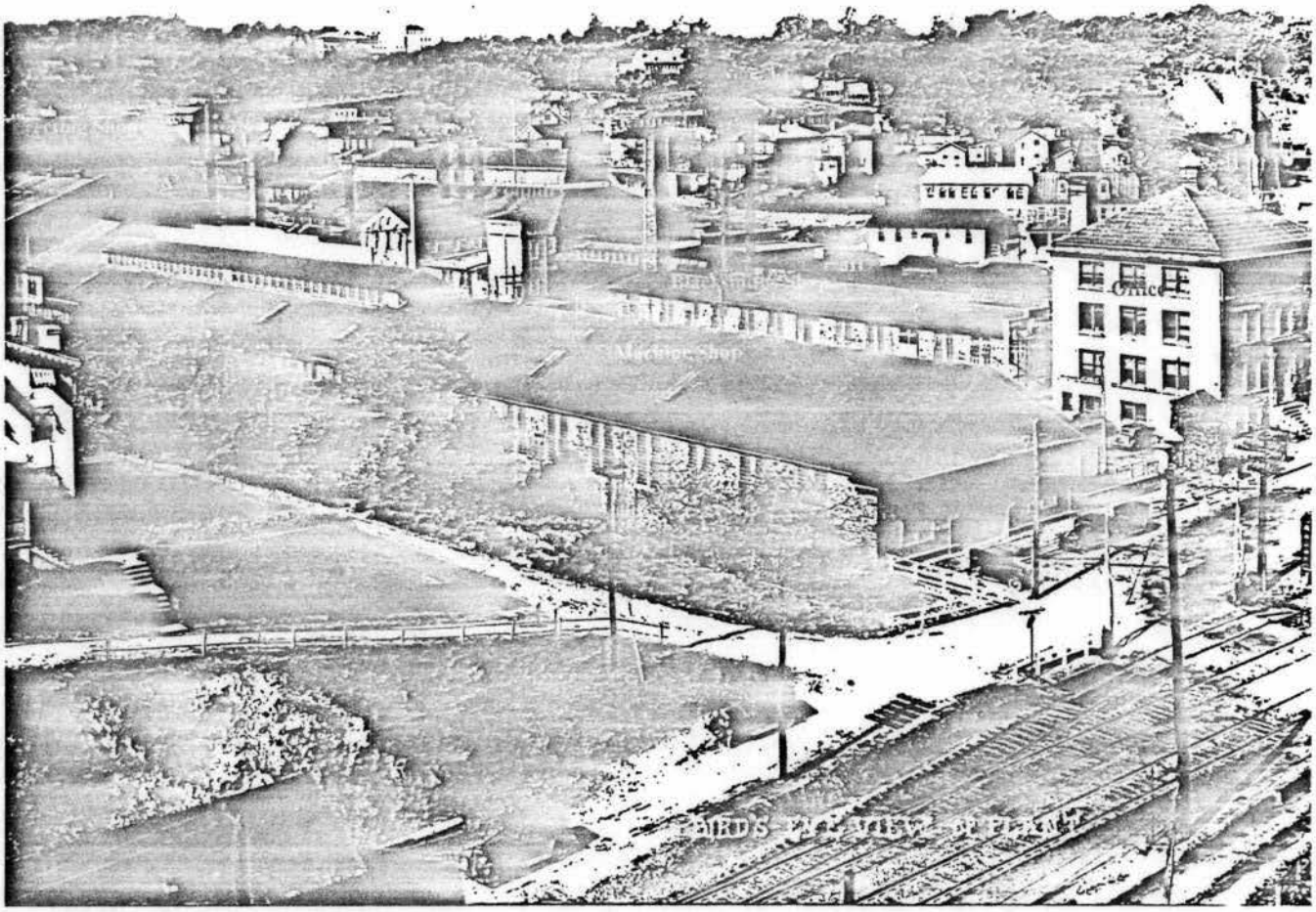
B-1007



Attachment D – 1915 Sanborn Map
Poole & Hunt Foundry and Machine Works (B-1007)
3500 Clipper Road
Baltimore, Maryland

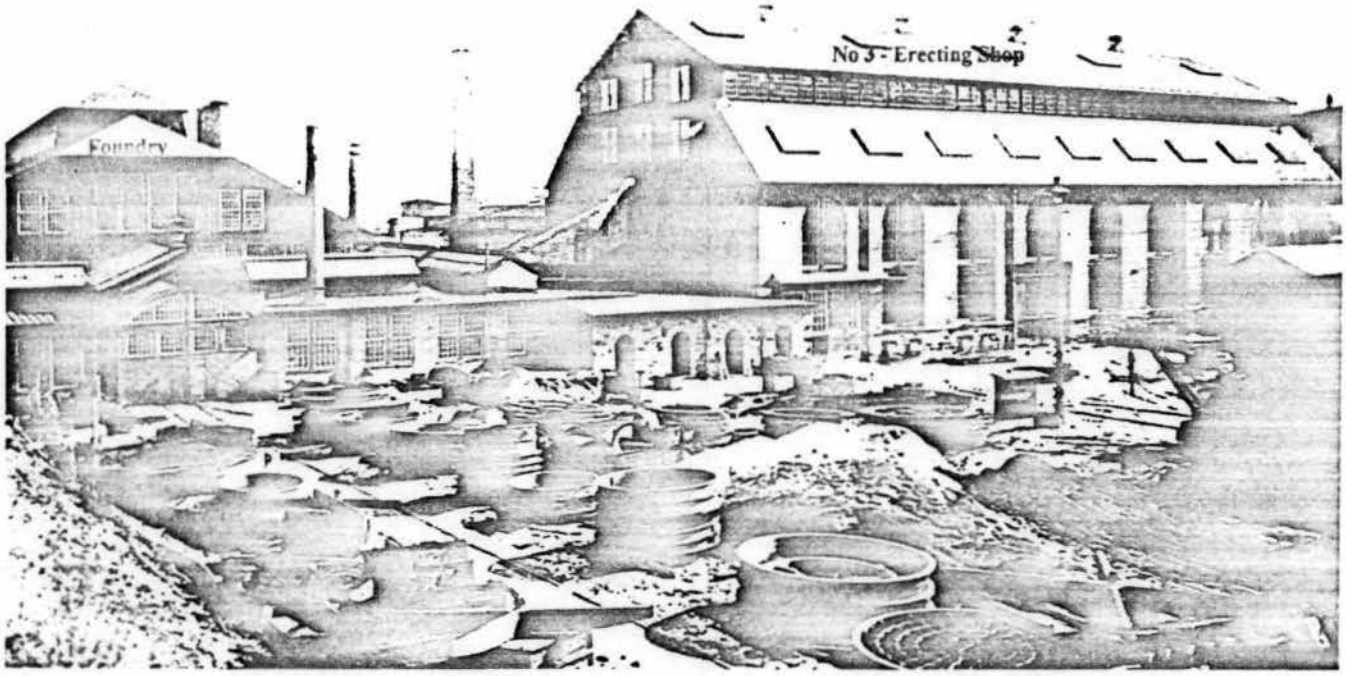
N

B-1007



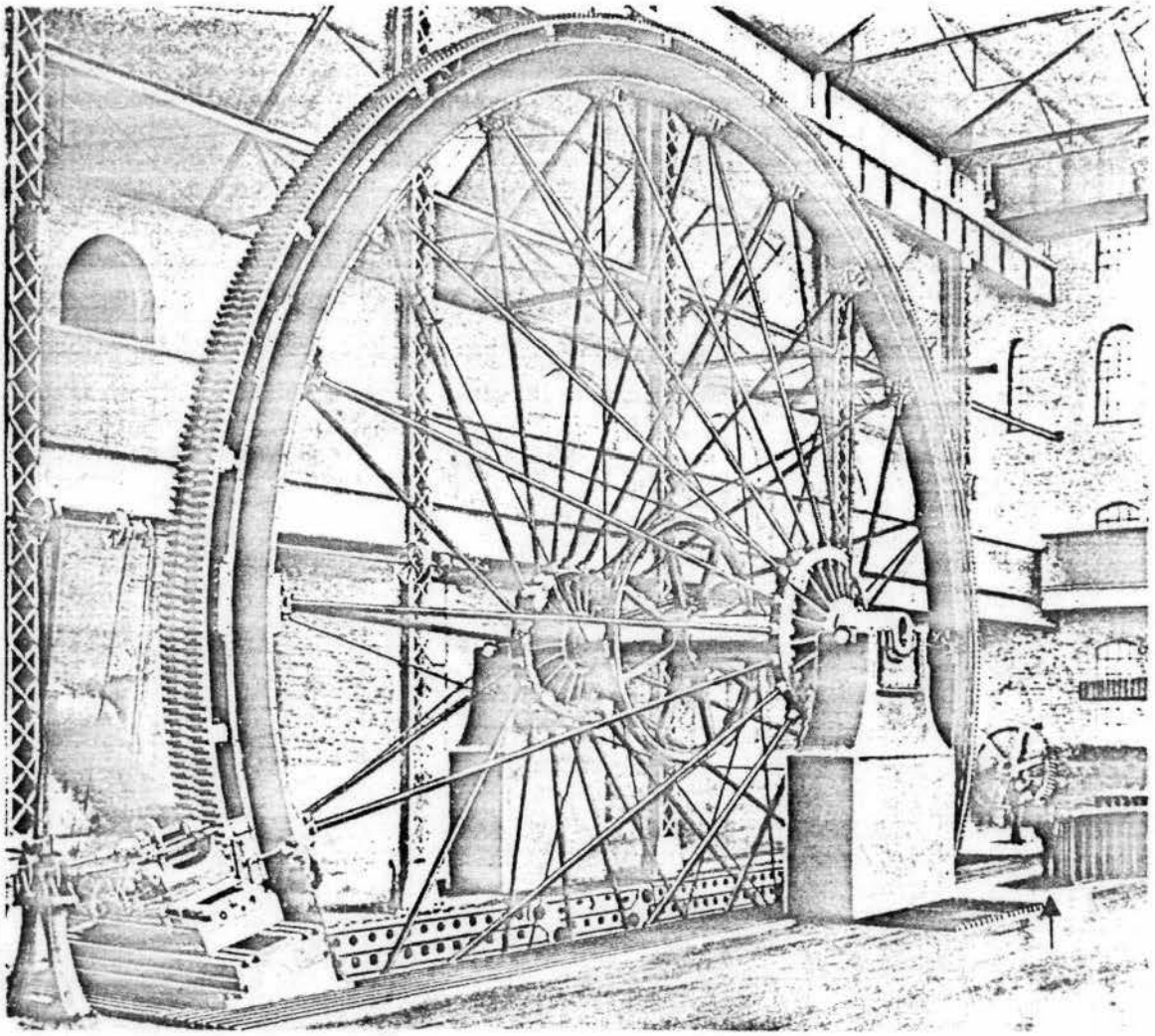
Attachment E – ca. 1930 photo
Poole & Hunt Foundry and Machine Works (B-1007)
3500 Clipper Road
Baltimore, Maryland
Source: Maryland Historical Society

B-1007



Attachment F – ca. 1900 photo
Poole & Hunt Foundry and Machine Works (B-1007)
3500 Clipper Road
Baltimore, Maryland
Source: Research Center, Baltimore Museum of Industry

B-1007



SAND WHEEL FOR THE CALUMET AND HECLA MINING COMPANY
DIAMETER, 65 FEET; WEIGHT, 500 TONS

Attachment G – Sand Wheel being assembled in Erecting Shop 1 (Note man for scale)
Poole & Hunt Foundry and Machine Works (B-1007)
3500 Clipper Road
Baltimore, Maryland
Source: Poole Engineering & Machine Company literature at the Baltimore Museum of Industry Research Center

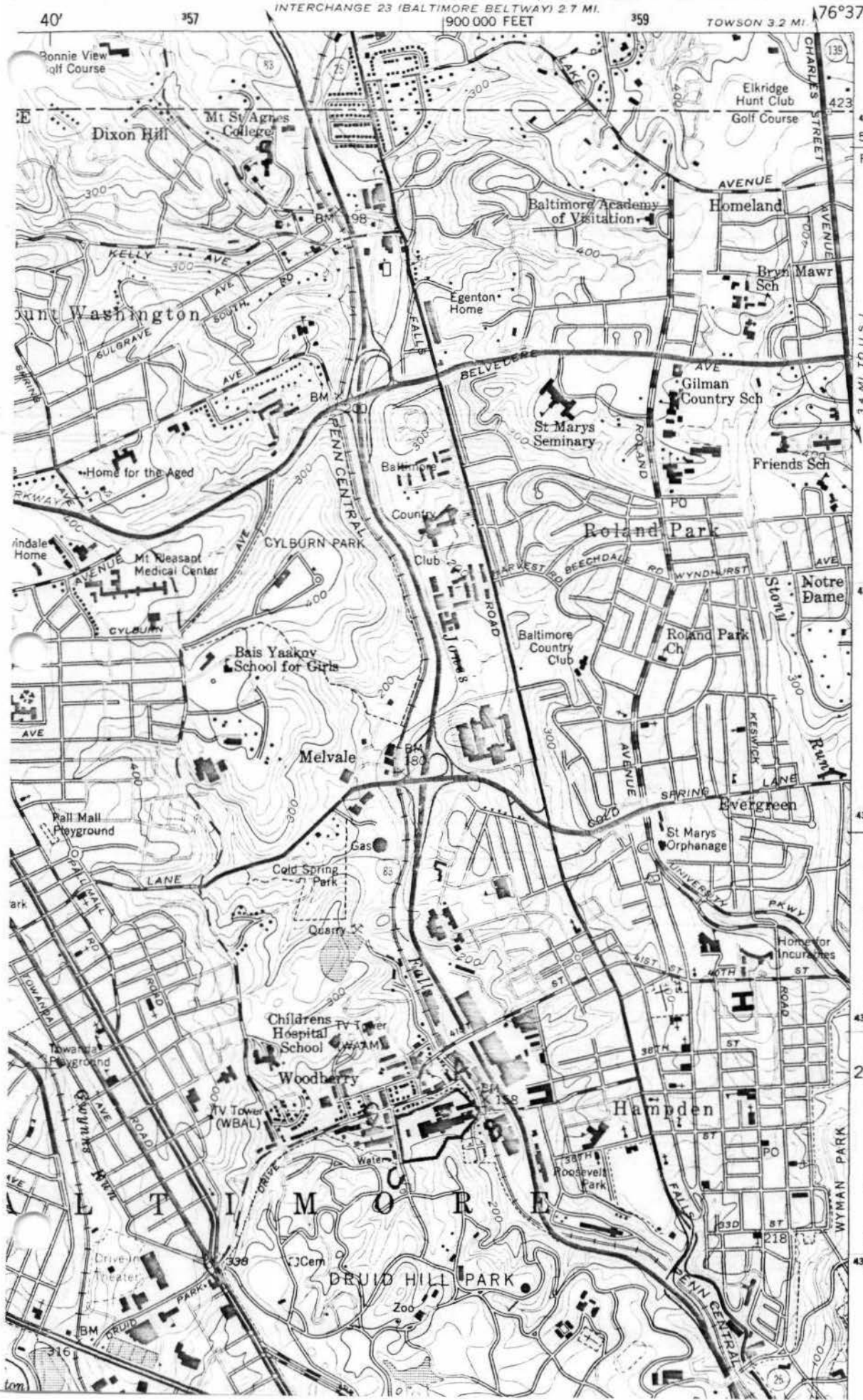
BALTIMORE WEST QUADRANGLE

MARYLAND

7.5 MINUTE SERIES (TOPOGRAPHIC)

SW/4 BALTIMORE 15' QUADRANGLE

5662 I NE (TOWSON)



B-1007

POOLE & HUNT FOUNDRY AND MACHINE WORKS BALTIMORE, MD

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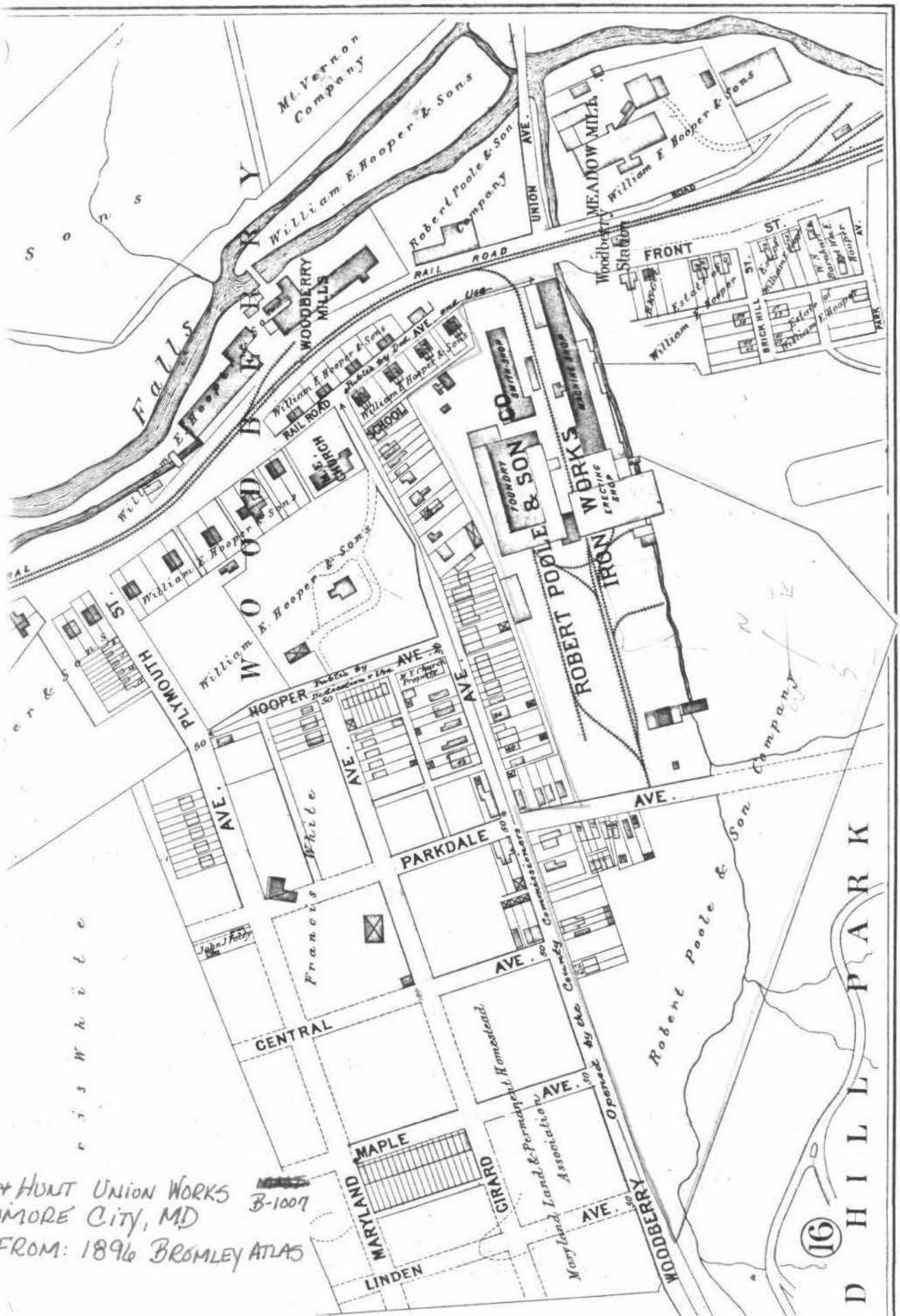
B: 18-358287-4354632

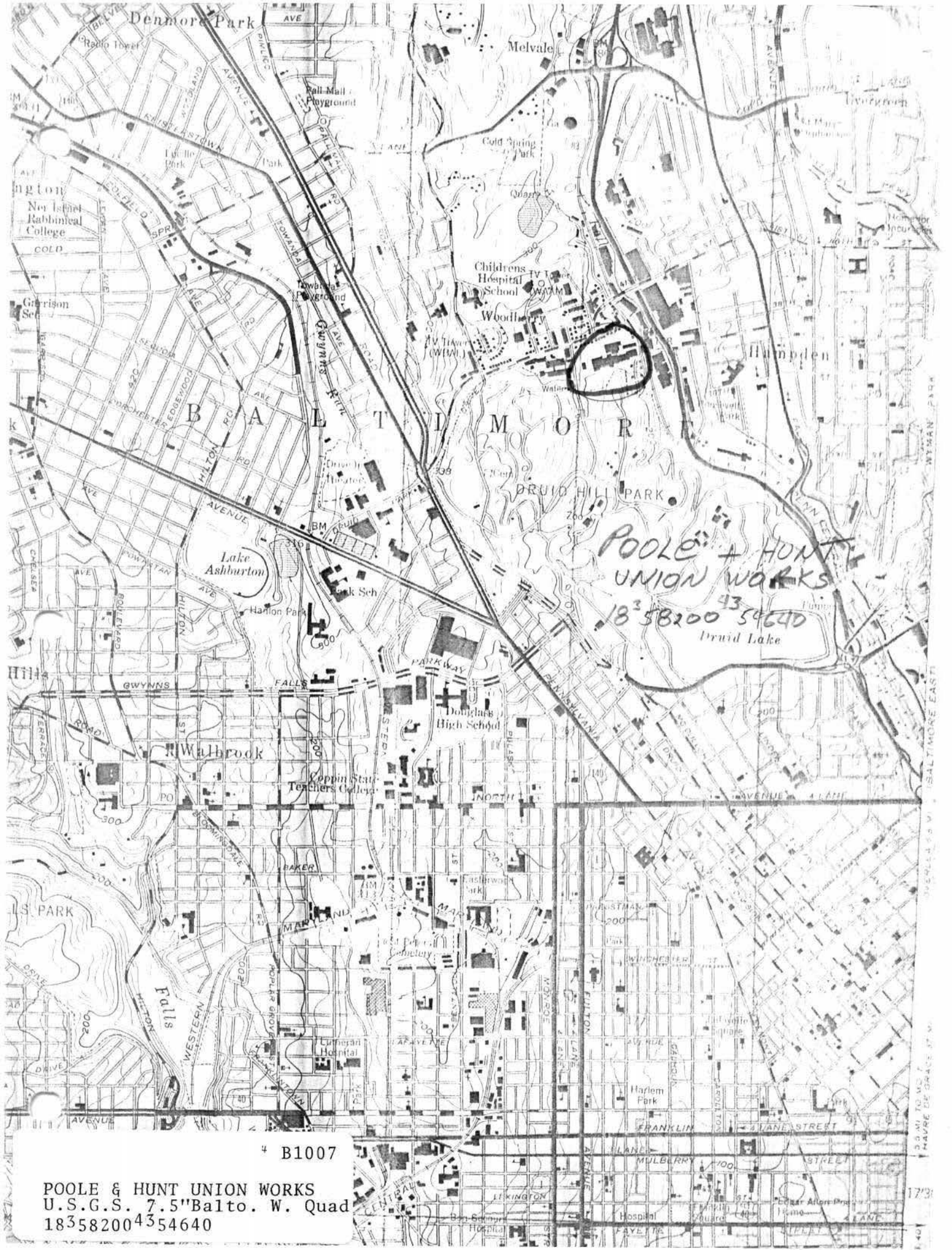
C: 18-357962-4354419

D: 18-357937-4354627



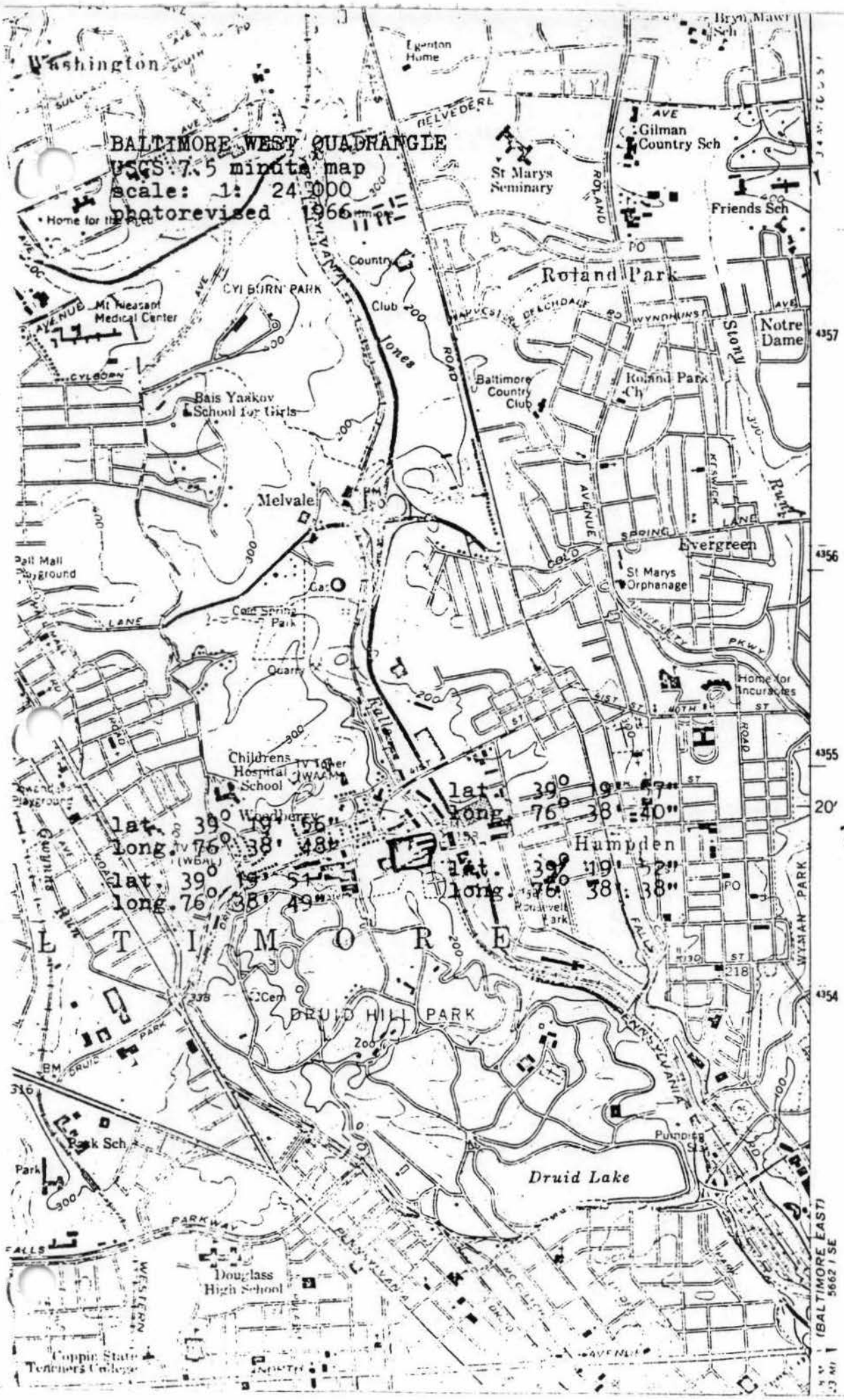
POOLE & HUNT UNION WORKS
BALTIMORE CITY, MD
MAP FROM: 1896 BROMLEY ATLAS

B-1007



4 B1007

POOLE & HUNT UNION WORKS
U.S.G.S. 7.5"Balto. W. Quad
18358200 4354640



Poole + Hunt Co Buildings

N