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HISTORIC RESOURCES SURVEY OF THE ALUMINUM INDUSTRY IN WESTMORELAND AND ALLEGHENY COUNTIES, PENNSYLVANIA

FINAL REPORT

JOHN MILNER ASSOCIATES
ARCHITECTS • ARCHEOLOGISTS • PLANNERS

HISTORIC RESOURCES SURVEY OF THE ALUMINUM INDUSTRY IN WESTMORELAND AND ALLEGHENY COUNTIES, PENNSYLVANIA

FINAL REPORT

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1.0 INTRODUCTION

John Milner Associates, Inc. (JMA), in association with DHM, Inc., was directed by the Denver Service Center of the National Park Service to conduct a historic resources survey of the aluminum industry in Westmoreland and Allegheny counties, Pennsylvania. The purpose of the investigation was to assist in compliance with Public Law 100-698, Section 104(d), which charges the Southwestern Pennsylvania Heritage Preservation Commission with providing "an analysis of the methods and means of inventorying, preserving, and interpreting the cultural and historical resources" of the region. The aluminum industry is recognized as having played a vital role in the history of industrialization in southwestern Pennsylvania.

The sections that follow present a historical overview of the aluminum industry and define the historic context and property types that are addressed. Subsequent sections provide a brief summary of survey results and a list of references. Appendix I contains a list of historic resources, location maps, and copies of Pennsylvania Historic/Industrial Resource Survey forms that were completed during the survey.

2.0 HISTORICAL OVERVIEW

2.1 Discovery and Early Production of Aluminum

While metals such as iron, bronze, and copper have been used by man for thousands of years, aluminum was not isolated until the nineteenth century.[1] Aluminum is the most abundant metal in the earth's crust, but it always occurs in combination with other elements. The basic form of naturally occurring aluminum is alumina, aluminum oxide (Al_2O_3), which generally occurs in hydrated form in bauxite. Bauxite consists of a combination of aluminum oxide with oxides of iron, silicon, and titanium.[2] The existence of aluminum as an element was first postulated in 1782 by the French chemist Antoine-Laurent Lavoisier. Lavoisier wrote that it "is highly probable that alumine is the oxide of a metal whose affinity for oxygen is so strong that it cannot be overcome either by carbon or any other known reducing agent."[3]

In 1807, Sir Humphrey Davy made the first attempt to isolate aluminum by mixing potash and alumina in a platinum crucible and subjecting the mixture to an electric current.[4] Davy succeeded in freeing aluminum from its oxide only to have it join immediately with the iron of the electrodes as an alloy.[5] Isolation of aluminum was achieved by the Danish physicist and chemist, Hans Christian Oersted, in 1825. By gently heating dilute potassium amalgam and causing it to react with an excess of anhydrous aluminum chloride, Oersted produced aluminum amalgam, aluminum

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[1]George David Smith, *From Monopoly to Competition: The Transformation of Alcoa, 1886-1986* (New York: Cambridge University Press, 1988), 3.

[2]Stanley V. Malcuit, *The Aluminum Industry* (N.p.:Bellman Publishing Company, 1946), 13.

[3]Philip Farin, Gary G. Reibsamen and the Editorial Staff of *Metals Week*, *Aluminum: Profile of an Industry* (New York: McGraw-Hill, Inc., 1969), 10.

[4]June Metcalfe, *Aluminum: From Mine to Sky* (New York: McGraw-Hill Book Company, 1947), 21.

[5]Smith, *From Monopoly to Competition*, 4.

combined with mercury. Subsequently, the mercury was then distilled away, leaving a small residue of aluminum.[6]

Two years later, the German scientist, Frederick Wöhler, also isolated aluminum through a reduction process by using metallic potassium instead of potassium chloride.[7] By allowing aluminum chloride to react with potassium vapor, Wöhler produced pin-head globules of the metal.[8] With this small amount of the metal, he measured its density and determined that it was easy to work when cold, was stable in air, and could be melted with the heat of a laboratory blowpipe.[9]

Further progress in aluminum production was made by the French chemist, Henri Étienne Sainte-Claire Deville (1818-1881) under the patronage of Emperor Napoleon III of France. Napoleon was interested in using the lightweight metal for helmets and armor, thus increasing the mobility of his army.[10] Sainte-Claire Deville reduced the cost of aluminum production by substituting relatively low-cost sodium for more-expensive potassium in the reduction process.[11] Bauxite, which contained between 50 and 65 percent alumina, was crushed and mixed with caustic soda. The sodium aluminate leached out with water, and pure alumina was precipitated by blowing in carbon dioxide. The alumina was then heated with charcoal in a stream of chlorine to produce

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[6]Alfred Cowles, *The True Story of Aluminum* (Chicago: Henry Regnery Company, 1958), 5.

[7]Stanley V. Malcuit, *The Aluminum Industry* (N.p.: Bellman Publishing Company, 1946), 9.

[8]Charles E. Singer, et al., *A History of Technology*, Volume V (New York: Oxford University Press, 1958), 90.

[9]Smith, *From Monopoly to Competition* (New York: Cambridge University Press, 1988), 4.

[10]Malcuit, *The Aluminum Industry*, 10.

[11]Singer, et al., *A History of Technology*, 91.

aluminum chloride, a volatile solid.[12] By 1855, Sainte-Claire Deville had produced sufficient aluminum to manufacture a bar that was displayed at the Paris World's Fair.[13]

In 1857, Sainte-Claire Deville supervised construction of a facility at Nanterre, intended specifically for the production of aluminum. He also introduced some changes in the chemistry of reduction, the most significant of which was the introduction of fluorides as fluxes, agents that prompted the fusing of particles. Ten parts of crushed aluminum-sodium chloride were mixed with five parts fluorspar and two parts sodium in a closed reverberatory furnace. Aluminum, 97 percent pure, was tapped out of the furnace in a stream and then formed into a solid. Economies of scale enabled the price of aluminum to be reduced from the original $550.00 per pound in 1854 to $17.00 per pound in 1859.[14] Despite the price reduction, the metal remained expensive and was used only for ornamental and luxury items, including a breastplate for Napoleon III, spoons for state banquets, and a rattle for Napoleon's infant son.[15] Expansion of the market for aluminum required the development of less expensive methods of producing the metal.

2.2 Charles Martin Hall and the Development of Aluminum Production in the United States

One such method was independently and simultaneously developed by the young American chemist Charles Martin Hall and the French chemist Paul Louis Toussaint Héroult.[16] Hall's interest in the development of an improved method of producing aluminum grew from his studies

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[12]Ibid.

[13]June Metcalfe, *Aluminum: From Mine to Sky* (New York: McGraw-Hill Book Company, 1947), 27.

[14]Smith, *From Monopoly to Competition*, 5-6.

[15]Singer, et al., *A History of Technology*, 91.

[16]Ibid.

at Oberlin College in Ohio. In the fall of 1882, Hall attended a chemistry lecture by Professor Frank Fanning Jewett in which the professor told of Wöhler's discovery of the characteristics of aluminum. Jewett told his students that a brilliant future awaited anyone who produced an inexpensive way to mass-produce the metal. From that time, Hall devoted his spare time to research on aluminum production.[17]

After graduating from Oberlin, Hall continued his experiments in a woodshed behind his family's house. In October 1885, Hall began experimenting with electrolysis to produce aluminum. In electrolysis, an electric current is passed through a solution, causing a chemical reaction, and the resulting product accumulates at the electrodes. Initially Hall's process produced only a white powder. Hall concluded that the aluminum in the solution had reacted with water to form an oxide instead of the pure metal. What was needed, he decided, was a compound that contained no water, a compound that could be melted at a relatively low temperature and that would dissolve the alumina he was using as his source of aluminum.

In collaboration with his sister Julia, Hall began new experiments in February 1886, using sodium aluminum fluoride, a relatively inexpensive and common mineral known as cyrolite. After building several batteries, Charles and Julia Hall passed an electric current through the molten cyrolite and alumina mixture in a crucible while heating the mixture over a gas flame. Repeated attempts still failed to produce aluminum.[18]

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[17]Anonymous, *Aluminum by Alcoa: The Story of a Light Metal* (Pittsburgh: Aluminum Company of America, 1954), 2.

[18]Metcalfe, *Aluminum: From Mine to Sky*, 34-35.

Eventually, Hall realized that the problem was the crucible. The electrolytic process was dissolving silica from the sides of the crucible, and the silica interfered with the aluminum reduction. Hall fashioned a new crucible from carbon and on February 23, 1886, repeated the experiment with this new crucible.[19] After several hours, Hall stopped the current, poured the resulting mixture into an old skillet, and allowed it to cool. After the cyrolite hardened, Hall broke up the hardened mineral and found several buttons of aluminum. The following day, Hall wrote a letter to his brother George, describing his successful experiment in producing aluminum. That same day he filed a patent application on his method of aluminum production.

In the same year, Paul Louis Toussaint Héroult, applied for and was granted a French patent for producing aluminum by the electrolytic process. Hall's letters to his brother proved instrumental in the legal battles that followed, and in April 2, 1889, Hall was awarded a United States patent for the electrolytic method of aluminum production.

During the patent approval process, Hall attempted to interest financial backers in funding development of commercial aluminum reduction facilities. With the assistance of his brother George, he sought financing in Boston and with the assistance of his uncle, he sought backing in Cleveland, Ohio.

In October 1886, Hall found backers in Alfred and Eugene Cowles, brothers who had been pioneers in the development of the electric furnace. The Cowles Electric Smelting and Aluminum Company was headquartered in Cleveland and since 1885 had been a manufacturer of aluminum bronze, an alloy made primarily of copper. Hall worked for a year at the Cowles' facility in

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[19] Junius Edwards, *The Immortal Woodshed: The Story of the Inventor who Brought Aluminum to America* (New York: Dodd, Mead and Company, 1955), 57.

Lockport, New York. During this time, he unsuccessfully attempted to develop a feasible method of commercial aluminum production. On none of his nearly 135 production runs did he produce any aluminum of more than 93 percent purity in quantities of more than 12 ounces.[20]

After a year, the Cowleses failed to renew their option on the Hall patent. Hall left the firm in July 1888. Despite Hall's failures to adapt his process to mass production of aluminum, his process impressed Romaine C. Cole, general manager of Cowles Lockport works.[21] Cole was an acquaintance of Captain Alfred E. Hunt, a well-known metallurgist who was co-owner of the Pittsburgh Testing Laboratory,[22] and had assisted Hunt earlier in the 1880s with an experimental, but unsuccessful, attempt to convert aluminum oxide to aluminum through the use of an open-hearth furnace.[23] Hunt, who held a degree in mining and engineering from the Massachusetts Institute of Technology, had worked his way up in the New England steel industry as a chemist and a mining engineer before moving to Pittsburgh where demand was greater for his expertise in open-hearth furnace technology.[24] Cole came to Pittsburgh in the summer of 1888 and arranged a meeting between Hunt and Hall.

Hunt became interested in Hall's process, committed his partner George Clapp to the effort, and assembled a group of young investors associated with the steel industry in Pittsburgh to finance initial development of the process. Together, a total of $20,000.00 was subscribed. Among the

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[20]Smith, *From Monopoly to Competition*, 21-22.

[21]Ibid., 22.

[22]Anonymous, *Aluminum by Alcoa*, 7.

[23]Roy A. Hunt, *The Aluminum Pioneers* (New York: The Newcomen Society in North America, 1951), 8.

[24]Margaret B. Graham and Bettye H. Pruitt, *R&D for Industry: A Century of Technical Innovation at Alcoa* (New York: Cambridge University Press, 1990), 36.

investors were Howard Lash, head of the Carbon Steel Company; Millard Hunsiker, sales manager of the same company; Robert Scott, mill superintendent for the Carnegie Steel Company; and W.S. Sample, chief chemist for the Pittsburgh Testing Laboratory.[25] On July 31, 1888, the group met in Captain Hunt's Shady Lane living room, reached a decision to begin commercial aluminum production, and began organization of the Pittsburgh Reduction Company to finance this effort.[26]

2.3 Initial Production of Aluminum

The Pittsburgh Reduction Company (PRC) was officially formed on August 10, 1888. Four days later, the company accepted a bid for the installation of two Westinghouse dynamos for its first production plant. A week later, the new firm leased a lot in the 3200 block of Smallman Street in Pittsburgh and contracted for the construction of a two room building, measuring 24 feet wide and 70 feet long, to house the plant.[27] The plant's machinery consisted of a 125 horsepower engine, the two dynamos, and a few crucibles or "reduction pots," as they came to be called.[28]

The first reduction pots, measuring 24 inches by 16 inches by 20 inches, were made of cast iron and were lined with three inches of baked carbon. Each was capable of holding at least 200 pounds of bath. At least six carbon anodes were suspended by thin copper rods from an overhead copper bus. Arranged in series, the pots were charged with up to 1,800 amperes at 16 volts of direct current and were heated from below with a gas flame. The carbon lining served as a

[25]Hunt, *The Aluminum Pioneers*, 12.

[26]Ibid., 11.

[27]Anonymous, *Aluminum by Alcoa*, 4.

[28]Graham and Pruitt, *R&D for Industry*, 42.

cathode, and a carbon anode was suspended above the cell.[29] As larger pots were introduced, Hall and Davis discovered that these pots required less electricity per unit volume of the bath and that the heating effect of the electric current could maintain the bath liquid, eliminating the need for external heating by a gas flame.[30]

The first aluminum was produced at the plant on Thanksgiving Day 1888. In December 1888, Hall wrote to his sister Julia, "Everybody is convinced of the success of the scheme--although we are not making sixty pounds a day right along as calculated."[31] The small amounts produced were offered for sale at $8.00 per pound and were stored in the office safe.

Early aluminum production was not without problems. It was necessary to constantly monitor and supervise the reduction process. When oxygen from the alumina was released at the anode, it united with the carbon to form carbon dioxide, eroding the anode in the process. In addition, the cyrolite would break down unless enough alumina was maintained in the bath.[32] By early 1889, Hall and Davis were dividing 12-hour shifts and working seven days per week.[33] Eventually a night superintendent was hired, and two furnace men were hired to help tend the reduction pots. According to Hall the original production process was "handicapped by the inadequacy of our

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[29]Smith, *From Monopoly to Competition*, 27.

[30]Ibid.

[31]Charles C. Carr, *Alcoa: An American Enterprise* (New York: Rinehart and Company, Inc., 1952), 17.

[32]Smith, *From Monopoly to Competition*, 27.

[33]Ibid.

machinery," making it "a gamble from hour to hour whether the electrical apparatus would continue to function."[34]

Six months after start-up, the PRC was able to sell an average daily output of 50 pounds of aluminum at $5.00 per pound.[35] With increased production, the company sought funds to further expand its operations. Alfred Hunt, Arthur Vining Davis, and George Clapp approached banker Andrew W. Mellon for a $4,000.00 loan to continue operation of the Smallman Street plant. Mellon convinced the trio to accept a $25,000.00 loan instead.[36] With these funds, the plant was enlarged and two new, more powerful dynamos were installed. By the fall of 1889, the price had fallen to $2.00, and the pilot plant was deemed a success. By September 1890, the company was producing 475 pounds of aluminum per day.[37]

Crucial to the success of the PRC was the resolution of competing patent claims concerning aluminum production. As early as 1883, Charles S. Bradley had filed a broad patent application covering the process of "fusing ores" by means of an electric arc, using electrolysis. In this application, he cited the decomposition of cryolite as an ore of aluminum as his example. The Bradley application was delayed, and a patent was not granted until after the approval of Hall's patent.[38]

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[34]Ibid.

[35]Ibid., 29.

[36]Ibid., 32.

[37]Ibid., 30.

[38]Graham and Pruitt, *R&D for Industry*, 40.

At the same time, a patent infringement controversy developed with the Cowles brothers. The Cowleses had hired away John Hobbs, one of the PRC's furnace operators, and by January 1891 were offering pure aluminum for sale at a price that undercut the PRC's price.[39] They also filed suit to preclude the PRC from entering the aluminum reduction business. This suit was based on their 1886 patent on an electrothermal process for reducing mixtures of alumina, carbon, and some other heavy metal to produce light alloys with up to 40 percent aluminum content.[40] After Arthur Vining Davis sneaked into the Lockport facility and ascertained that the Cowleses were using the Hall process, the PRC countersued.[41] A series of suits and countersuits followed, and decisions in 1901 and 1903 made it impossible for either the Cowleses or the PRC to produce aluminum without violating a critical patent held by the other. Final settlement called for the PRC to pay a fee in return for a license to use patents held by the Cowleses. The Cowleses, the only serious competitors in the aluminum business at that time, agreed not to reenter the business of producing pure aluminum.[42] This agreement, as well as the Hall patent, insured the PRC's monopoly of the United States aluminum industry until at least 1909.[43]

Although production was below the capacity of the enlarged plant, the owners began planning a new plant at New Kensington, Pennsylvania, where the company could take advantage of natural gas and cheap coal deposits for power,[44] as well as good transportation for incoming ore supplies

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[39]Smith, *From Monopoly to Competition*, 36.

[40]Ibid., 8.

[41]Ibid., 36.

[42]Graham and Pruitt, *R&D for Industry*, 40.

[43]Ibid., 40-41.

[44]Ibid.

and outgoing metal.[45] Andrew W. Mellon and his brother Richard B. Mellon advanced the company the funds necessary for its move to New Kensington. Through their real estate connections, the Mellons were able to secure for the company a favorable deal on land along the Allegheny River and a loan to finance the relocation. In exchange, the Mellons acquired stock and seats on the company's board.[46] Two years later, the Mellons were instrumental in the issuance of bonds to finance the development of smelting operations in Niagara Falls, a key move that resulted in production economies that brought down the price of the metal sufficiently to open a mass market.[47]

Production jumped from around 4,000 pounds per month in 1891 to 1,000 pounds per day in 1893. During 1893 the company earned $139,726.00, all of which was retained in the business. Production economies were driven by larger-scale operations at New Kensington, where four generators were driven by a single Westinghouse steam engine. This steam engine supplied electricity for up to 20 reduction pots. By the end of 1892, the price of pure aluminum ingot had dropped to $0.85. This lower price helped stimulate an increase in sales in one year from 58,604 pounds to 138,307 pounds.[48]

2.4 Development of the Aluminum Market in the United States

In the early 1890s, the major markets for aluminum were not yet defined and most of the techniques for its fabrication were largely unknown. The Scovill Manufacturing Company of Waterbury, Connecticut had bought much of the company's 1890 production and converted it to

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[45]Graham and Pruitt, *R&D for Industry*, 45.

[46]Smith, *From Monopoly to Competition*, 32.

[47]Ibid., 32.

[48]Ibid., 80.

novelties, but the public's initial fascination with the metal's lightness was short-lived.[49] In November 1891, Hall wrote to Romaine Cole:

> The mention of $2 in 1,000-pound lots didn't seem to interest anyone. I know a good many people look at it as a big buy, and they have reason to do so, as they know that the total consumption of aluminum in the U.S. has hardly been 1,000 pounds a year. People have said we didn't have 1,000 pounds. They were wrong, but they might have said, that so far as the users of aluminum were concerned, practically no one wanted 1,000 pounds.[50]

Applications for aluminum had expanded beyond the novelty and luxury markets in only one important respect. The biggest customer for the company's output was the steel industry. This industry used small quantities of aluminum with its affinity for oxygen to remedy the problem of "blow holes" or pock marks on steel ingots caused by the presence of excessive oxygen in the open-hearth furnaces.[51] A few handfuls of aluminum thrown into the hot steel in an open hearth would take up the oxygen and free the resulting ingot from blow holes.[52] By 1895, some 920,000 pounds of aluminum were sold in the United States for about $0.54 per pound.[53]

To establish a significant market for aluminum, its price had to be reduced to be competitive with other metals. Hall and Davis devoted most of their efforts to increased production efficiency during the first few years of the business. As assistant general manager, Davis kept close watch over the development of all phases of production. Through the 1890s, he made "almost daily visits" from Pittsburgh to New Kensington to supervise production. Writing to Hunt from the

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[49]Ibid., 33.

[50]Ibid.

[51]Ibid., 33-34.

[52]Carr, *Alcoa: An American Enterprise*, 39.

[53]Smith, *From Monopoly to Competition*, 8.

factory, Davis explained that the company could bring down its cost of production dramatically "if we can run full month in and month out" and increase the ratio of reduction pots to inputs of electric power. Davis recognized a basic underlying fact about large-scale, capital intensive enterprise: that to realize economies from higher capacity, it was less expensive to run at full capacity even in slack times. If the company was determined to grow through high-volume sales, then "our sales are going to regulate our costs." More sales would support more capacity, which, in turn, would yield greater economies of scale.[54]

By the mid-1890s, the PRC shipped 250.4 tons of aluminum. Forty-four and eight tenths percent of this tonnage was in the form of pig and ingot, 52.6 percent in the form of sheet, 1.7 percent in the form of castings, and 0.9 percent in the form of rod, wire, bar, and tube.[55] An 1897 catalog of the PRC indicated that it fabricated aluminum and aluminum alloys in the form of "ingots, castings, bars, sheets, tubes, wire and all forms of structural shapes,"[56] as well as aluminum bronze powder, finely powdered pure aluminum, used for metallic paint, wallpaper, and coloring for celluloid and rubber.[57]

By 1900, annual aluminum production was approximately seven million pounds, while the United States price had dropped to $0.33 per pound. With the increased volume of sales, the profit rate continued to increase. Increased sales were never a function of pricing alone. New applications

[54]Ibid., 79.

[55]Ibid., 85.

[56]Pittsburgh Reduction Company, *The Pittsburgh Reduction Company: Manufacturers of Aluminum under the Patents of Charles M. Hall* (Pittsburgh: Myers and Shinkle Company, 1897), 1.

[57]Ibid., 9.

had continually to be developed, according to Davis, lest "much to our disgust, we [remain] dependent on novelties." It was important, he added,

> to find places where aluminum would really fit in. Aluminum in rolled and steel castings, aluminum alloyed with copper for making copper bronze, and aluminum sheet and castings for certain specific purposes were gradually developed until in the course of time we built up a consumption which had some merit and stability to it. To do this was really one of our most difficulty jobs, and as I look back upon it now, one which presented the greatest opportunity for catastrophe in the event of not finding these permanent uses.[58]

Although the price of aluminum continued to decline, its price was still too high for widespread commercial use. In an attempt to expand the market, *The Aluminum World*, an industry publication, listed the following uses for aluminum in 1900:

1. Manufacture of utensils and in the arts, as kitchen utensils, tableware, bottles, watch hands, trimmings for books, wagon frames, etc.
2. Articles for military use, as equipment for soldiers and general warfare implements.
3. Articles for marine and aeronautical purposes.
4. Instruments and apparatus for surgical purposes and sick room supplies, such as respirators, syringes, catheters, coffins, artificial teeth plates, etc.
5. Instruments for mathematical, physical, optical, and chemical uses.
6. In the wire industry for wire brushes, baskets, hooks and eyes, egg beaters, dog muzzles, bird cages, etc.
7. For foils, bottle caps, etc.
8. Aluminum powder and paint.
9. As a reducing agent.
10. For lithographic printing.[59]

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[58]Ibid., 83.

[59]Ibid., 110-111.

By the early 1900s, the substantially lowered price of aluminum and a growing consumer acceptance for a wide range of small aluminum products had rendered the light metal a viable substitute for brass, zinc, tin, and iron in machine parts, electrical apparatus, containers, utensils, and novelties.[60] Every new application involved the substitution of aluminum for other metals. Because metals are not interchangeable in their properties or performance, the company had to demonstrate that aluminum was a superior metal for many specific applications, even where it may have enjoyed a price advantage. Established foundries, rolling mills, or wire-drawing plants with investments tied up in better known metals had little incentive to experiment. Lacking large scale fabricators for its increasing capacity to produce aluminum ingot, the PRC added foundry, wire-drawing, tubing, and other fabricating facilities to its plant in New Kensington. Within a few years, the company had become its own largest customer for aluminum, which it then transformed into products for industrial, end consumer, and military uses.[61]

Among the first finished products produced by the PRC was aluminum cookware. According to company lore, Arthur Vining Davis borrowed a molder from the Griswold Company in Erie, Pennsylvania and brought it back to New Kensington to cast an aluminum teakettle. The goal was to demonstrate why the company should buy aluminum from the PRC. Instead, the Griswold Company ordered 2,000 kettles from the PRC. To fill this order, the company added a fabricating unit for kitchen utensils to its New Kensington works.[62]

The company's kitchen utensil fabricating operations were enlarged later in the 1890s. A Waltham, Massachusetts based company, Hill, Whitney and Wood, to which the PRC had been

[60]Ibid.

[61]Ibid., 84-85.

[62]Ibid., 111.

selling sheet aluminum for cooking utensil manufacture, found itself in financial difficulty and turned over its operations to the PRC in settlement of its debt. With the acquisition of the company came C.F. Whitney, who became supervisor of the PRC's cooking utensil department. One of the accounts of the former firm was an order for 2,800 aluminum kettles, placed by a J.H. Wilson of Blue Island, Illinois. Wilson and his partner Charles E. Ziegler had organized a firm in 1895 to sell the Handy Kettle Steamer and the Ideal Percolating Coffee Pot door to door. The two were invited by the PRC to join the company and to form a sales force to sell aluminum cooking utensils to consumers.

The dies and machinery of Hill, Whitney and Wood were moved to New Kensington in 1900. Cooking utensils were first produced on the second floor of the old Excelsior Glass Building. The United States Aluminum Company was incorporated in 1901 to manufacture cooking utensils and the Aluminum Cooking Utensil Company was incorporated to sell them.[63] From their inception, these companies produced and marketed durable, thick, heavy, stamped aluminum utensils in contrast to the thin sheet utensils made by other manufacturers. Wilson and Ziegler developed a distribution network for the products, employing college students who spent their summers demonstrating and selling utensils door to door. These utensils were sold under the Wear-Ever brand name.[64] By 1912, Alcoa's kitchen utensils had secured more than 75 percent of the growing United States aluminum utensil market.[65]

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[63] Women's Club of New Kensington, *Lore of Yore: A History of New Kensington, Arnold, and Lower Burrell* (New Kensington, Pennsylvania: Women's Club of New Kensington, 1986), 62.

[64] Ibid., 114-115.

[65] Smith, *From Monopoly to Competition*, 86.

In 1897, the PRC produced its first electric transmission wire using equipment located at the New Kensington Sheet Mill. The line was to be used in the Chicago stock yards as a substitute for a half mile of copper telephone wire which had been damaged by corrosion from locomotive gases. The following year, the PRC reduced the price of aluminum wire from $0.33 to $0.29 per pound delivered, prompting the Standard Electric Company of California to try aluminum rather than copper wire for a 46-mile, three phase line to be installed from Blue Lakes to Stockton.[66] Arthur Vining Davis had originally hoped to involve the PRC in the market for transmission wire in a low-risk way, stimulating intermediate producers to use it, rather than entering the market directly. Once having secured a few substantial contracts from large customers, he had envisioned subcontracting with wire producers to make the new material on their existing equipment. The PRC would produce the aluminum ingot, and the wire makers would do the rest. When Davis tried to interest other companies in making the aluminum wire he had sold, he was unsuccessful.[67] To meet the California order, Davis was compelled to purchase more equipment for the New Kensington plant. This equipment was initially the same equipment used by manufacturers of copper wire and included a new rod mill and a three-strand wire drawing machine, ordered from England. From the start, the PRC met with difficulty, fabricating wire from an aluminum-copper alloy. Eventually, after experiencing problems with excessive vibration of this wire, the PRC research staff developed steel-reinforced aluminum cable, a cable that offered the necessary durability and reduced the amount of vibration. In 1901, the company began to produce steel-reinforced aluminum cable at its own wire mill, wire that became the standard for electric power lines.[68]

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[66]Graham and Pruitt, *R&D for Industry*, 78.

[67]Ibid.

[68]Carr, *Alcoa: An American Enterprise*, 120.

In 1898 Ball Brothers, makers of Mason jars, signed a contract with the PRC to fabricate aluminum covers for their jars.[69] With the new century, additional markets developed for aluminum. The aluminum in the engine of the Wright Brother's first airplane had been produced by the PRC, a foreshadowing of one of the company's largest markets in later years.[70] Other means of transportation also provided new markets. Railroad cars began to incorporate steel and aluminum elements,[71] and the "Lu-Mi-Num" bicycle demonstrated the metal's suitability for two wheel transportation. Lightweight aluminum bodies were used on a number of automobiles, built during the early 20th century.[72]

2.5 Corporate Growth and the Protection of Market Share

For Alcoa, as for most large business enterprises, sustained growth required significant control over competitive forces. Many companies attempted to achieve growth through horizontal integration, the consolidation of firms in the same line of business. Such growth was typical of many industries of the time, including oil, sugar refining, linseed and cottonseed oil processing, and lead processing.[73]

Alcoa, on the other hand, relied much more on internally generated growth than on acquisition to expand its business and keep competition in check. This growth in new plant and equipment required huge amounts of capital. Part of this capital was generated by retained earnings, but such earnings were not enough. Investment bankers became crucial sources of venture capital for

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[69]Carr, *Alcoa: An American Enterprise*, 118.

[70]Carr, *Alcoa: An American Enterprise*, 118.

[71]Ibid.

[72]Anonymous, *Aluminum by Alcoa*, 6[?].

[73]Smith, *From Monopoly to Competition*, 46-47.

rapidly growing businesses. Playing a critical role in the growth of Alcoa, as well as other Pittsburgh business enterprises, including Gulf Oil, Carborundum, and Koppers, was the Mellon family.[74] By 1920, the Mellon family owned about one-third of the stock of the company, a percentage that remained relatively stable into the 1950s.[75]

Initially, the PRC pursued several strategies to protect its market shares and to discourage competition from imports, as well as other domestic producers. Import protection was attempted using two strategies, tariffs and cartels. Prior to 1909, when Alcoa was protected against the rise of competing domestic smelters by the Hall and Bradley patents, well-established producers of aluminum ingot had emerged in Switzerland, France, and England. By 1909, European aluminum companies produced more than 60 percent of the world's primary aluminum ingot and had developed the potential to export large quantities of aluminum to the United States, the world's largest consumer of the metal.[76]

In the early years of the PRC's operations, tariff protection supported the company's hold on the American market, balancing the lower-cost operations of major European producers who had access to high-grade bauxite reserves, cheap labor, and well-located sources of hydroelectric power. During the patent period, tariff protection for aluminum was strong. In 1890, the import duty was a very high $0.15 per pound. In 1897, the duty was $0.08, reflecting the drop in the price of aluminum. The tariff remained high prior to 1909. Tariff protection was also granted to

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[74]Ibid., 47-48.

[75]Carr, *Alcoa: An American Enterprise*, 44.

[76]Smith, *From Monopoly to Competition*, 106-107.

fabricated products. Between 1897 and 1913, the tariff on finished goods ranged from a high of $0.13 to a low of $0.035 per pound.[77]

The PRC supplemented tariff protection for aluminum by participation in a series of cartels that had been formed by European producers. In 1896, the PRC entered into a cartel with the Swiss, then the most important producers in the European market. This initial agreement worried company attorneys because of the Sherman Antitrust Act's proscription of cartels. The company's subsequent cartel participation was through its newly formed Canadian subsidiary, Northern Aluminum Company. Under the terms of cartel agreements, each national producer was allotted the market of its own country as a "closed" market with prices fixed at about one cent per pound higher than sales in the "open market." The United States was treated as a closed market, the needs of which were to be supplied by Northern Aluminum. In practice, the PRC supplied the United States market.[78]

By the end of the first decade of the twentieth century, the international cartel had collapsed, and European producers began to dump their surplus metal in the United States where demand was relatively strong and competition relatively week. After 1909, rising imports provided the only direct threat to the company's market position in primary aluminum. From 1909 to 1912, the average United States price for a pound of aluminum dropped to $0.22, while the average European price was $0.14. During this period, imports of European ingot increased from a small amount in 1908 to 10,324 metric tons in 1912, an amount equal to more than half of the company's total output.

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[77]Ibid., 107.

[78]Ibid., 108.

Tariff protection diminished after the election of Woodrow Wilson as president. Congress slashed the duty on aluminum ingot to $0.02 per pound. After a temporary reduction in revenues, partly attributable to the effects of imports, the company's earnings rose again with the outbreak of war in Europe. Imports decreased substantially as European producers concentrated on meeting their countries' own needs.[79]

No capital-intensive industry was likely to prosper unless accompanied by some degree of vertical integration. Like most large industrial corporations, Alcoa found that growth required consolidation under common ownership of inputs and intermediate outputs from the extraction or procurement of raw materials to the delivery of finished products. Integration "forward" or "downstream" occurred in industries seeking to combine mass distribution with their capacity for mass production. This often occurred in response to needs for larger networks and more specialized expertise in the handling or selling of products than could be expected of independent wholesalers. Examples of downstream integration included the development of heating and refrigeration techniques by meat producers, and the installation and service of electrical equipment by manufacturers such as General Electric and Westinghouse. Alcoa's downstream integration, described earlier, included ownership of cooking utensil producing companies and production of electric transmission wire.

"Backward" or "upstream" integration occurred only when serious problems arose in procuring materials at the quantity, quality or price desired. Backward integration protected large companies from fluctuations in supply, while creating opportunities for savings derived from the substitution of an internal organization for multiple dealings in external markets. The PRC first integrated

[79]Ibid., 109.

backwardly to gain logistical and technological control over bauxite, alumina, and power, the indispensable ingredients in aluminum production.[80]

Upon the recommendation of general manager Arthur Vining Davis, the PRC implemented vertical integration, beginning in the early 1900s. To process raw materials, the company developed its own bauxite supplies and alumina refinery. To support a growing number of reduction plants in New York, Tennessee, North Carolina, and Canada, the PRC constructed its own transportation systems, dams, and hydroelectric plants.[81]

In 1907, the PRC changed its name to the Aluminum Company of America (Alcoa), in recognition of its expansion of activities far beyond aluminum reduction. Two years later, its activities expanded to include an ownership share in a group of foundries and fabricators which Alcoa helped to bring together as the Aluminum Castings Company. This company maintained operations in Cleveland, Buffalo, and Detroit. The same year, Alcoa acquired an aluminum bronze powder plant in Dover, New Jersey.[82]

By the end of the first decade of the twentieth century, the value of aluminum had become widely recognized. As Joseph W. Richard, the country's leading academic authority on the metal, wrote:

> ...aluminum seems finally to have attained a position among commercial metals where it is treated entirely on its merits. In the early days of the industry, the claims for aluminum with regard to its noncorrosive qualities, lightness and other distinguishing characteristics, were so exaggerated that it failed to measure up to expectations thus created. It was tried in many uses to which it was not suited, and a reaction occurred, so that the real merits which the metal possesses

[80]Ibid., 52-53.

[81]Ibid., 8-9.

[82]Graham and Pruitt, *R&D for Industry*, 65.

have been somewhat discounted for a number of years. This condition no longer exists and today aluminum is ranked among metals according to its value.[83]

During the first decade of the twentieth century, annual aluminum pig production grew from 5,738,256 pounds per year to 35,164,853 pounds per year, and product sales grew from 5,808,607 pounds to 30,003,704 pounds.[84]

From the beginning of the twentieth century to the start of World War I, the growth in aluminum production throughout the world was primarily the growth of Alcoa.[85] Although the Hall patent had expired in 1909, Alcoa's reinvestment enabled the company to grow large enough and efficient enough to make the competitive cost of entry into aluminum production very high.[86] By 1910, aggressive sales efforts and technical progress in fabricating aluminum had helped to create a demand for the metal that equaled the company's supply.[87] By the mid-1910s, Alcoa had facilities scattered throughout the eastern and central United States. It owned bauxite deposits in Saline County, Arkansas, from which it secured most of its aluminum ore. The bauxite mined in Arkansas was shipped to the refining plant in East St. Louis, Illinois. Reduction plants were located at Niagara Falls and Massena, New York, and Maryville, Tennessee. Wire and cabling mills were located at Massena, and a general fabricating plant was located at New Kensington. In

[83]Smith, *From Monopoly to Competition*, 87.

[84]Ibid., 88.

[85]Farin, *Aluminum: Profile of an Industry*, 13.

[86]George David Smith, "Arthur Vining Davis and the Aluminum Monopoly," *Alcoa News*, August 1986, 9.

[87]Bettye Pruitt, *Alcoa in Westmoreland County* (Merwin, Pennsylvania: Alcoa Laboratories, 1986), 6.

addition, a plant for the manufacture of aluminum, bronze powder, and aluminum foil was located at New Kensington.[88]

Shortly after the expiration of its basic patents in 1909, Alcoa found itself the subject of federal government scrutiny under the Sherman Act. Provisions of the Act made restraints of trade and monopolization of trade illegal.[89] In 1912, the Department of Justice investigated the company for three alleged violations of the Act: making restrictive covenants, engaging in alleged acts of unfair competition, and participation in foreign cartels.[90] Specifically, the Justice Department charged that Alcoa had made restrictive covenants in contracts covering the purchase of alumina and bauxite in which suppliers agreed not to engage in aluminum manufacture. They also charged that Alcoa had participated in European cartels in which markets were fixed and price agreements made.[91]

The litigation was settled on June 7, 1912, when Alcoa agreed to discontinue the actions charged by the government. This government probe marked the beginning of Department of Justice attention to Alcoa's role in the industry, and it caused the company to submit to the Department proposed acquisitions of aluminum-making facilities for rulings as to whether such acquisitions were permitted under the consent decree.[92]

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[88]Poor's Manual Company, *Poor's Manual of Industrials. Manufacturing, Mining and Miscellaneous Companies* (New York: Poor's Manual Company, 1917), 22.

[89]Carr, *Alcoa: An American Enterprise*, 75-76.

[90]Ibid., 77.

[91]Ibid., 79-80.

[92]Ibid., 83.

2.6 Alcoa in World War I

As the only United States producer of pig aluminum during the World War I, Alcoa had to produce sufficient metal to meet the war needs of both the United States and its allies, as well as attempt to accommodate needs of civilian users.[93] War preparations affected company aluminum sales even before the United States entered the conflict. Between 1915 and 1917, the British purchased 72 million pounds of aluminum from Alcoa. The French and Italian governments purchased 17 million pounds of aluminum in 1917 and 1918.[94]

In response to requests from the War Industries Board, Arthur Vining Davis, then president of the company, offered the United States Government all the aluminum it might require at its own price. Two million pounds were immediately accepted at 27 1/2 cents per pound, and an additional six million pounds were added, delivery to be made by August 1917.

Ninety percent of the company's production during the World War I was allocated for military purposes. During the first part of the war, a substantial portion of demand was from the European allies who used aluminum dust to make an explosive in combination with ammonium nitrate. Aluminum was also used in the manufacture of mess, personal and horse equipment, drop bombs, fuses, flares, fillers, hand grenades, heavy ammunition, rifle cartridges, and airplane engines and castings.

At the peak of its production during World War I, Alcoa's physical plant consisted of the following units: bauxite mines in Bauxite, Arkansas and Hermitage, Georgia; a terminal in Bauxippi, Arkansas; a fluorspar mine in Mexico, Kentucky; ore refineries in East St. Louis,

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[93]Ibid., 147.

[94]Ibid., 150.

Illinois and Baltimore, Maryland (under construction); fabricating plants in New Kensington, Arnold, and Logans Ferry, Pennsylvania, Edgewater, New Jersey, and Toronto; smelting, fabricating, and power plants in Niagara Falls, New York; smelting, fabricating, carbon and power plants in Massena, New York; smelting, carbon and fabricating plans in Alcoa, Tennessee; smelting, carbon and power plants in Badin, North Carolina; a power plant and transmission system in Calderwood, Tennessee; a fleet of ships, connecting Baltimore, Maryland with bauxite mines in South America; and smelting and fabricating plans in Shawinigan Falls, Quebec.[95]

To meet demand for aluminum during the war, Alcoa raised its production from 109 million pounds in 1915 to a peak of 152 million pounds in 1917. Output was reduced to 148 million pounds in 1918 because of a water shortage at the company's hydroelectric plants.[96]

With the conclusion of hostilities in 1919, Alcoa faced competition from international producers. Germany, who had consumed four million pounds of aluminum in 1914, increased its consumption to 20 million pounds in 1913, and 75 million pounds per annum by the end of the war. Aluminum alloys were used in the manufacture of German cars, trucks, tanks, machinery, utensils, aircraft and aircraft explosives. A German, Alfred Wilm, invented Duralumin, an alloy of aluminum having increased strength. With the conclusion of hostilities, a large national debt, and currency inflation, Germany was looking for markets for its producing capacity of 76 million pounds of aluminum.[97]

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[95]Ibid., 151-152.

[96]Ibid., 155.

[97]Ibid., 157.

Other European countries also increased their production capacity during the war. Norway's production had increased eightfold over prewar levels, and Switzerland doubled its producing capacity. By 1920, the United States, which had never previously imported more than 26 million pounds of aluminum, imported 40 million pounds. Much of this total was dumped in the United States because of lack of European demand and was sold at below the cost of production of American producers.[98]

To counteract the threat of foreign competition, the company undertook a three part strategy. The first component was government regulation. Possibly due to the influence of Andrew W. Mellon, a major stockholder and long-time director, higher government tariffs on aluminum were reinstituted. These higher tariffs were included in the Fordney-McCumber Tariff Act of 1922.[99] Tariffs were also raised on alumina, but a low tariff was retained on bauxite, a material Alcoa imported. The combined effect of these tariffs was that Alcoa was again able to sell aluminum at a lower price than its foreign competitors.[100]

2.7 Alcoa Research and Development

Another strategy for corporate growth and protection of market share was the expansion of the company's research and development efforts. Prior to World War I, the company undertook little formal research. Although research on the alumina refining process had received considerable attention, the company had invested little in exploration into the fundamental nature of aluminum, its alloys, or the theoretical basis of their fabrication and application. As Charles Carr wrote,

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[98]Ibid., 158-159.

[99]Charlotte F. Muller, *Light Metal Monopoly* (New York: AMS Press, Inc., 1968), 66.

[100]Ibid., 65.

research projects were "informally organized and frequently had to be put aside for more pressing production problems."[101]

After the war, Alcoa could no longer afford to ignore research into the fundamental problems of metallurgy. The invention of Duralumin in Germany had demonstrated that an outside invention had a potential to threaten a major portion of Alcoa's business. Without an in-house capability of responding to or anticipating such technical discoveries, the company might not have been able to replicate an important new technology, find a reasonable substitute, or bring key patents under its control. As a company the technology of which operated on the frontiers of contemporary knowledge, Alcoa found it necessary to finance fundamental research and development to defend its business base.[102]

To head this new research effort, Alcoa selected Francis C. Frary, a 33 year old research chemist from the University of Minnesota. Frary had spent several years teaching a full load of industrial chemistry courses, while still finding time to conduct experiments in electrometallurgy. By 1915, he had patented six inventions, including five hard-lead alloys. In 1915, he left Minnesota to work at the Oldbury Chemical Company in Niagara Falls and had developed credentials as a generalist, having knowledge and experience that spanned the fields of chemistry, chemical engineering, and metallurgy.

Frary was interviewed by the superintendent of Alcoa's Niagara Falls works and expressed interest in "handling work of an original nature, but not in solving problems that arise from time to time at the Works relating to process control." He was assured that it was the company's intention "to

[101]Smith, *From Monopoly to Competition*, 163.

[102]Ibid., 163.

establish a general research laboratory, somewhat along the lines of those established by General Electric and other companies, and that the work that would be carried on there was of an investigating nature and did not pertain to troubles of various kinds relating to the Work's operations."[103]

Initially the Research Bureau was one of two branches of the new Technical Department. The other branch, the Technical Direction Bureau, was responsible for functions related to process improvements and quality control. The Research Bureau was intended to operate without regard to the routine work of the company.

The original plan of the Research Committee was that the Technical Department would remain in New Kensington only until a new laboratory could be built at a neutral location. Edwin Fickes recorded the rationale of the committee:

> ....neither Mr. Hoopes nor I wanted the laboratory at any of the works or too closely associated with them, as we feared in time the works where it was situated would become a dominant factor in determining a research policy which would neglect other problems which might be of far greater importance to the Company than those of the single works where the laboratory was located.[104]

Possible sites for the laboratory were Pittsburgh, its headquarter's city and home to Carnegie Institute of Technology, or Edgewater, New Jersey, site of an Alcoa mill and near to the campus of Stevens Institute of Technology. However, a postwar business slump and lingering skepticism on the part of some senior Alcoa managers thwarted the wishes of the Research Committee. The Research and Technical Bureaus were located for the first 10 years in cramped and inadequate facilities on the third floor of the New Kensington works clock house.

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[103]Ibid., 165.

[104]Graham and Pruitt, *R&D for Industry*, 128.

Frary assembled a staff, drawing on his outside associations from teaching and involvement in professional organizations. In 1920, Alcoa took over the Lynite Laboratories. With this acquisition came a number of young scientists, including Robert S. Archer and Zay Jeffries, already noted aluminum scientists. With a growing core of respected scientists, Frary was able to attract other talented metallurgists.

Aside from completing unfinished research projects, Frary's early research program focused on the need to build an institution. His objectives were to win credibility by addressing a list of new "live" problems identified by works managers as critical, to define the state of aluminum technology by collecting and translating a base of knowledge about aluminum already available in the literature, and to conduct fundamental studies that would extend the existing knowledge base and provide the basis for further aluminum applications.[105]

Frary undertook one of his first research projects in collaboration with William Hoopes at the company's Badin, North Carolina works. The two constructed an experimental pot in which they floated a molten fluoride electrolyte under a layer of pure aluminum (which served as a cathode) upon a heavier aluminum-copper alloy (which served as an anode). Pure aluminum was then dissolved from the heavier anode alloy and deposited in the cathode layer of molten aluminum. The result was the production of aluminum more pure than could be made by the conventional Hall process. The aluminum obtainable from this new process was 99.99 percent pure as opposed to 97.75 percent purity obtainable from the Hall process. Availability of this purer aluminum greatly enhanced the Research Bureau's ability to determine with precision the properties and behavior of aluminum alloys and demonstrated the usefulness of a systematic research effort.[106]

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[105]Ibid., 133-134.

[106]Smith, *From Monopoly to Competition*, 166-167.

Early research efforts also had direct effects on the company's revenue picture. As Graham and Pruitt note, "one fruitful discovery, such as the way to make salable aluminum chloride from dross, or implementation of an improved design for carbon electrodes and the equipment used to secure them in the smelting pots at Massena, would easily pay for the entire year's research budget."[107]

Another success cited by Graham and Pruitt was work done to extend the use of aluminum powder for pigment in paint, work that proved its worth so rapidly that the Logans Ferry powder works, built for wartime supply of powder for explosives, was able to be converted to this product soon after the war and found its business soon exceeding capacity.[108] The distinct advantage of initially concentrating research in the areas of smelting and refining was that significant improvements there would have effects on all processes further down the production line.[109]

In 1929, Alcoa completed its long-awaited central research laboratory, located on a bluff high above the Allegheny River in New Kensington. The building was constructed to house the more than 150 researchers of its central laboratory.[110] With this new laboratory came a new research structure dividing the research function between the center and branch. As Graham and Pruitt note, "If the center created a new alloy, the branch put it to use, designing the product and the process to produce it.... If the Aluminum Research Laboratories...in New Kensington worked on

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[107]Graham and Pruitt, *R&D for Industry*, 135.

[108]Ibid.

[109]Ibid., 136.

[110]Graham and Pruitt, *R&D for Industry*, 186.

the chemical and physical characteristics of a particular class of alloys, metallurgists at Massena would work on casting it into ingot and trying out its rolling characteristics."[111]

The new $50 million laboratory building incorporated the latest ideas in chemical research laboratory design and also served as a showcase for aluminum structures. Graham and Pruitt note the pervasive use of aluminum in the building:

> Aluminum was everywhere, visible and invisible--from the elevator with hammered doors to the floors with aluminum strips in the terrazzo, the window casings, piping, ornamentation, furniture..., railings, and paint. Many of the features--paint, floors, aluminum radiators, and piping--required preliminary research to determine the reaction of the aluminum to surrounding materials, and all would provide a chance for close daily follow-up.[112]

In describing the laboratory facilities, Graham and Pruitt wrote:

> The courtyard of the new building was specially designed to rig all configurations of test equipment and to accommodate medium-term experiments such as testing activated alumina for its adsorptive qualities, which were useful for filtering industrial wastes and later in air conditioning. The laboratory had its own melting, casting, and rolling equipment, including several electrical furnaces, on the ground floor.[113]

During the years prior to World War II, the ARL generated and published basic data stemming from long-term systematic work in three primary technical areas: alloy composition and properties, corrosion, and structures. Fundamental research on aluminum-based alloy systems, begun in mid-1926, accelerated during the 1930s with implementation of an intensive program of metallography to identify alloy constituents, using first a regular microscope and later x-ray equipment and electron microscopes.

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[111]Ibid., 189.

[112]Ibid., 193.

[113]Ibid.

Several new classes of alloys resulted from the combination of fundamental alloy work and cooperative work with manufactures. Alloy 27S was developed in 1933 for use on Pittsburgh's Smithfield Street bridge; 53S was developed in the same year for beer barrel sheet; and 11S was produced for use in screw machine work.[114]

In 1926 the research staff decided that the level of understanding of corrosion was so low as to prevent the formulation of standard methods of corrosion testing. Research began collecting many samples of different aluminum alloys to be tested on a long-term basis under different climates and conditions. In 1931, fundamental studies began on the mechanism of corrosion itself, and the work was undertaken to determine the effects of different fabrication methods.

In the area of structural research, systematic laboratory testing was conducted to test the design and properties of aluminum structural members. Extra laboratory testing was conducted on the Smithfield Street bridge, which Alcoa had rebuilt using aluminum.[115]

2.8 Development of Product Base in the 1920s

A third part of Alcoa's strategy to counteract the threat of competition was the continued expansion of the company's product base. During the 1920s, the number of products produced by Alcoa increased substantially. Demand for aluminum sheet for many uses caused the company to expand its sheet rolling capacity. On November 8, 1920, the first sheet was shipped from Alcoa's new mill at Alcoa, Tennessee, a mill of greater capacity and size than any other the Company owned up to that time.

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[114]Ibid., 214.

[115]Ibid., 213.

By the end of 1921, the mill began working at a high level of production as the demand for aluminum sheet increased for use primarily in cooking utensils and automobile bodies, and to a lesser degree in license plates, reflector, cameras, refrigerator trays, washing machine cylinders, drainboards, airplanes, and radio parts. In 1924, Chevrolet decided to use aluminum radiator shells, and ten million pounds went into this item between 1925 and 1927.[116]

Another major new fabrication item was sand and permanent castings. Beginning in 1922, this product found a major market in automotive pistons. Additional applications of this new technology included washing-machine agitators and automotive cylinder heads.[117] Aluminum forgings also developed a large market in the 1920s. In 1922, the first aluminum propeller-blade forgings were developed. Later in the same decade, forged aircraft engine fittings and pistons were developed.[118]

Alcoa's intensive research and development efforts led to the development of additional mill products such as collapsible tubes, bottle caps and seals, and screw machine products. In 1921, Alcoa began to manufacture collapsible tubes at its Edgewater, New Jersey works. By the early 1950s, the company was making over 600,000 gross of tubes per year for toothpaste and similar items.

The Aluminum Seal Company, an Alcoa subsidiary located in New Kensington, developed bottle caps and seals during the 1920s. "Rolled-on" sealing was perfected in 1924 and provided a tailor-

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[116]Carr, *Alcoa: An American Enterprise*, 180.

[117]Ibid., 182.

[118]Ibid., 183-184.

made fit and a hermetic seal for each cap. This method not only increased the use of aluminum caps but extended the market for glass bottles.

The company began to produce aluminum screw machine products at Edgewater, New Jersey in 1922. The development of 17S alloy rod in the years after World War I provided the necessary raw material. Production of high-strength, heat-treated alloy tubing began in 1922, and in the following year, the product was being made at the rate of 110,000 pounds per month. In 1924 octagonal shaped tubing was introduced. Alcoa tubing found a market in such items as rigid conduit, vacuum cleaner handles, typewriter rolls, and automobile oil lines.[119]

Because of the rapidly expanding market for aluminum, the company decided to organize its foreign holdings to develop their full potential. On June 4, 1928, these foreign holdings became the property of Aluminium, Ltd., a Canadian corporation formed by Alcoa stockholders but to be independently operated as an aluminum manufacturing and sales organization.

Alcoa had been operating in Canada for more than a quarter century. Following investigation of water power at Shawnigan Falls, Quebec, the company built a power plant and reduction works at that location and began supplementing the aluminum production at Niagara Falls with metal made in pot lines at the Canadian location. In 1926, Alcoa acquired additional water power on the Saguenay River. This acquisition made possible the construction of an aluminum producing plant at Arvida. In 1927, the company added to its Canadian holdings with the construction of a foil mill at Toronto, and a permanent mold-casting department was put in operation at this location in the same year.[120]

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[119]Ibid., 185.

[120]Ibid., 186-187.

2.9 Alcoa in the 1930s

After sustained growth through much of the 1920s, aluminum sales were severely affected by the Depression. Gross revenues declined from $34.4 million in 1929 to $11.1 million in 1932. The number of employees fell from 24,857 to 13,652 during the same period. Engineers were dismissed, and the sales force was pared back. By 1936, the pent up demand for aluminum burst into a new round of orders, and the company realized a generally good recovery in the following years.[121]

In 1937, total company revenues had climbed to 127.8 million dollars. The largest portion of sales, 35.4 percent, came from sheet, plate, and foil. Pig and ingot represented 17.8 percent of sales; castings, jobbing, and screw machine products, 16.4 percent; rod, wire, and bar, 14.4 percent; tubing, rolled structures, forgings, and extrusions, 12.9 percent; and powder and paste, 2.8 percent.[122]

2.10 Alcoa and Restraint of Trade Litigation

In the midst of its expansion of capacity in the late 1930s, Alcoa again faced the prospect of anti-trust litigation. On April 23, 1937, the United States Department of Justice filed a bill of complaint against Alcoa in the Federal District Court for the Southern District of New York and asked that the company be dissolved. The company was charged with monopolizing interstate commerce in 16 markets and commodities and being a party to comprehensive conspiracies with foreign producers.[123]

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[121]Smith, *From Monopoly to Competition*, 137.

[122]Ibid.

[123]Carr, *Alcoa: An American Enterprise*, 217.

The Government's complaint fell under three main headings: monopolization, illegal conduct in domestic competition, and conspiracy with foreign producers. The principal commodities which Alcoa was accused of monopolizing were bauxite, water power, alumina, virgin aluminum, castings, cooking utensils, pistons, extrusions and structural shapes, foil, sheet, and miscellaneous fabricated products. The conspiracy charges accused Alcoa of making deals with foreign producers, designed to control the price of aluminum in the United States.

The case went to trial on June 1, 1938 before Judge Francis G. Caffey. In all, 155 witnesses testified and 58,000 pages of testimony were recorded. Among the witnesses was Arthur Vining Davis who was on the stand for six weeks and whose testimony covers 2,105 pages of the transcript.

On July 23, 1942, the District Court entered a judgment, dismissing the petition of the government. In his opinion, Judge Caffey wrote,

> I think it clear that, with the access to the two raw materials of ore and power named which is and, save when prevented by a patent, always has been open to everybody in the United States, anyone possessing the four cardinal tangible elements of intelligence, industry, courage, and money or credit is and has been able, with confidence, to go into the production of virgin aluminum. Anyone in the United States outfitted with the four prerequisites I have mentioned is now free, and since the expiration of the Bradley patent in 1909 has been free, to produce virgin aluminum.[124]

The Department of Justice appealed the case to the Supreme Court. The high court had an absence of quorum because four Supreme Court justices has previously participated in antitrust actions against Alcoa. An act of Congress, passed in June 1944, provided that in such situations, the case could be certified to a lower appeals court. After hearing arguments in January 1945, a

[124]Ibid., 229.

tribunal consisting of Learned Hand, Augustus Hand, and Thomas Swan rendered their decision, written by Learned Hand.

In his opinion, Learned Hand emphasized Section 2 of the Sherman Act, which related to monopolization. Alcoa, he found, had illegally monopolized the ingot market, not because of specifically proven acts of misconduct, but because the company was in a position of monopoly power and had not been merely a passive beneficiary of its position. Instead, the company had engaged in a "positive drive" to expand its business, a drive that resulted in the maintenance of its monopoly. Hand wrote that all that mattered was

> whether [Alcoa] falls within the exception established in favor of those who do not seek, but cannot avoid, the control of a market. It seems to us that question scarcely survives its statement. It was not inevitable that it should always anticipate increases in demand for ingot and be prepared to supply them. Nothing compelled it to keep doubling and redoubling its capacity before others entered the field. It insists that it never excluded competitors; but we can think of no more effective exclusion that progressively to embrace every opportunity as it opened, and to face every newcomer with new capacity already geared into a great organization, having the advantage of experience, trade connections and the elite of personnel.[125]

In his decision, Judge Learned Hand further noted,

> Having proved that "Alcoa" had a monopoly of the domestic ingot market, the plaintiff had gone far enough; if it was an excuse, that "Alcoa" had not abused its power, it lay upon "Alcoa" to prove that it had not. But the whole exercise is irrelevant anyway, for it is no excuse for "monopolizing" a market that the monopoly has not been used to extract from the consumer more than a "fair" profit. The [Sherman] Act has wider purposes....Congress...did not condone "good trusts" and condemn "bad" ones; it forbade all. Moreover, in doing so it was not necessarily actuated by economic motives alone. It is possible, because of its indirect social or moral effect, to prefer a system of small producers, each dependent for his success upon his own skill and character, to one in which the great mass of those engaged must accept the direction of the few. These considerations, which we have suggested only as possible purposes of the Act, we think the decisions prove to have been in fact its purposes.[126]

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[125]Smith, *From Monopoly to Competition*, 209.

[126]Ibid.

This decision, setting a precedent for antitrust cases, continues to be subject of intense debate among corporate law scholars.

The court rejected the Department of Justice's request for a dissolution of Alcoa. Noting that the industry had changed substantially since the closing of evidence in 1940 and that the issue of the disposal of wartime aluminum plants was unresolved, Judge Hand wrote that "it would be particularly fatuous to prepare a plan now, even if we could be sure that some form of dissolution will be proper."[127]

2.11 Alcoa and World War II

By 1937, world aluminum consumption had reached an all-time high of 499,666 metric tons. In the midst of the economic expansion following the Depression, Alcoa began to implement plans to expand its business. In early 1937, the company established a second bauxite mining operation in Surinam and later in the same year, added several ships to the corporate bauxite transportation fleet. A new aluminum refinery was established in Mobile, Alabama, and aluminum production at the company's four smelting locations was expanded toward full capacity. Alcoa also opened a fabricating plant in Lafayette, Indiana, to meet growing demand for aluminum tubing and expanded its aluminum-rivet capacity at Massena, New York.[128]

Pressure to further increase capacity mounted, as Germany built up its air force. In 1937, that country accounted for 30 percent of the increase in world production of aluminum. By 1938, Germany was the largest aluminum producer in the world. By the end of 1937, European political

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[127]Ibid.

[128]Smith, *From Monopoly to Competition*, 214.

developments increased the German threat, and Alcoa began to study the potential aluminum requirements of England and France.

After consultation with domestic and foreign aircraft producers, military agencies, and government officials, Alcoa enlarged its facilities for hard alloy sheet, forgings, and extrusions. By the early fall of 1939, after the invasion of Poland, it was clear that both the European war and domestic demand would require more smelting capacity. Alcoa made a long-term power contract with Bonneville Power Authority to operate a smelter in Vancouver, Washington. On October 17, 1940, in response to the United States Military Aircraft Program as presented to Congress, Alcoa began construction of a five million pound per month capacity sheet mill at Alcoa, Tennessee.[129]

The shortage of capacity for World War II was the immediate precipitating factor in the end of Alcoa's monopoly on primary aluminum production in the United States. The company's production facilities were soon overwhelmed by United States and Allied demands for aluminum. Initially, both company officials and Federal government officials believed that the company's reserves and production would be sufficient for military needs. But by 1940, Northrop Aircraft, Inc. complained of insufficient aluminum for its production requirements.

After viewing the booming potential market for primary aluminum and aluminum products, Alcoa's first domestic competitor entered the primary aluminum field. In 1939, Reynolds Metals found itself cut off by Alcoa from its supply of ingot. The Richmond, Virginia based company

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[129]Ibid., 215.

founded by tobacco magnate Richard S. Reynolds[130] had been making aluminum powder and paste and aluminum foil for cigarettes and other packaging since the late 1920s.[131]

When Richard Reynolds traveled to Europe in search of alternative supplies of aluminum ingot, he observed first hand the magnitude of the German military buildup. Reynolds claimed that upon returning to the United States, he urged Alcoa president A.V. Davis to triple aluminum capacity for aircraft production. But, according to Reynolds, Alcoa failed to grasp the enormity of the problem, having paid too much attention to the projections of the United States military. Seeing the potential military market as an opportunity to expand his own business, Reynolds sought aid from the National Defense Advisory Commission, but the federal government was not interested in proposals from companies other than Alcoa. Eventually, through his political connections and with the aid of Senator Lister Hill of Alabama, Reynolds was put in touch with the Reconstruction Finance Corporation (RFC). The RFC granted Reynolds loans secured by a mortgage on his existing plants to construct a smelter in Washington State and a smelter and sheet mill in the newly named community of Listerhill, Alabama.[132]

A Congressional committee, chaired by Senator Harry Truman, had been set up to investigate defense program problems and abuses. After examination of the shortage of aluminum capacity for war time uses, the committee prodded the government to enter the aluminum business directly. Some senators thought that the only way to ascertain if Alcoa's production levels could be exceeded and its prices bettered was either for the Government to sponsor other companies or to build its own plants. It was no longer expected that Alcoa, which was in the midst of increasing

[130]Anonymous, "Aluminum Reborn," *Fortune* 33 (May 1946): 106.

[131]Smith, *From Monopoly to Competition*, 216.

[132]Ibid., 217.

its net plant investment from $236.6 million on January 1, 1937 to $427 million by the end of 1941, could afford to singlehandedly finance the wartime expansion.

The extent of government subsidy for wartime aluminum production is indicated by the total commitments of the Defense Plants Corporation (DPC), a governmental entity established by Congress to supervise construction of plants critical to the war effort. A total of $774,465,000 was appropriated for aluminum plants, of which $185,799,000 went to aluminum smelters, $83,398,000 to alumina plants, $441,429,000 to fabrication plants, $28,204,000 to power facilities for aluminum production, and the remaining $35,635,000 to miscellaneous projects related to aluminum.[133] Alcoa's Engineering Department constructed most of these facilities. During 1941, Alcoa contracted for work that led to the building and operation of eight smelters, 11 fabricating facilities, and four alumina refineries (two of which were never activated). All but one of these facilities were operated by Alcoa personnel. The sole exception was a smelter in Tacoma, Washington, operated by Olin Corporation. In all, Alcoa personnel were responsible for 96 percent of DPC alumina production and 93 percent of aluminum production.[134]

A particularly significant defense plant built and operated by Alcoa was a refinery constructed at Hurricane Creek, Arkansas. At this refinery, Alcoa installed the first full-scale operation of the Alcoa Combination Process which made possible the use of low-grade United States ores that previously had been economically and technically unsuitable for good-quality aluminum. This plant proved a vital link in the wartime production process, since bauxite shipments from South America were curtailed because of the threat of German submarine attacks.[135]

[133]Muller, *Light Metals Monopoly*, 200.

[134]Ibid.

[135]Smith, *From Monopoly to Competition*, 218.

The DPC determined the price of bauxite to leased alumina plants, the allocation of alumina output, the price of aluminum, and the rates of operation at all leased plants. Alcoa insisted on leases that provided for the Government to retain 85 percent of net profits from the DPC plants while absorbing any loss. In turn, Alcoa agreed to built the government plants at cost and without fee.[136]

During World War II, production shifted almost entirely from civilian to military markets. Most of the annual output was dedicated to aircraft. In five and one-half years of military production, approximately 3.5 billion pounds of aluminum were used to manufacture 304,000 military airplanes. Most of these planes were constructed using hard aluminum alloys developed by Alcoa in the 1930s.[137] Over its lifetime, the Federal Government's aluminum program added approximately 511 thousand metric tons to the nation's capacity, as aluminum output increased from 148.3 thousand metric tons in 1939 to 834.1 thousand tons in 1944.[138]

From the start of the defense program in May 1940 to the end of the War, Alcoa produced 11.4 billion pounds of alumina, smelted 5.5 billion pounds of aluminum, and fabricated 2.7 billion pounds of sheet, 450 million pounds of extruded shapes, 500 million pounds of forgings, and 400 million pounds of castings. Total net for the period was $199 million.[139]

[136]Ibid.

[137]Ibid., 218, 221.

[138]Ibid., 232.

[139]Anonymous, "Aluminum Reborn": 215.

2.12 Disposal of DPC Aluminum Facilities

At the end of World War II, the federal government was the largest owner of aluminum producing facilities in the United States. The government had $672 million invested in 50 wholly-owned plants for either aluminum production of fabrication, as compared to Alcoa's investment of $474 million. The capacity of federally owned aluminum producing plants capable of competitive operation was 552 million pounds, as compared to 650 million pounds for Alcoa and 162 million pounds for Reynolds Metal Company.[140]

In 1944, Congress established a War Surplus Property Board (SPB) which was to dispose of government-owned facilities that had been built for the war. The Act was intended to facilitate the transition from wartime to peacetime production in a way that promoted free enterprise and discouraged the concentration of industry.[141]

In the wake of the appellate court's ruling on the Government antitrust suit against Alcoa, the SPB considered competing proposals to restructure the aluminum industry to make it more competitive. Two proposals were solicited from expert consultants. Gordon W. Reed, a businessman who had worked on the Aluminum Division of the War Production Board, advocated placing half the government's smelting capacity under Alcoa control. This action would had given Alcoa a primary aluminum market share of 75 percent. Sam Moment, an economist who had served on the War Production Board, advocated that Alcoa be prohibited from buying any of the plants and that the government provide both plants and subsidies to new aluminum producers.[142]

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[140]Carr, *Alcoa: An American Enterprise*, 263.

[141]Smith, *From Monopoly to Competition*, 232.

[142]Ibid., 235-236.

Within a few days of the end of the War, Alcoa's leases on alumina and aluminum plants were canceled by the Reconstruction Finance Corporation (RFC) on a somewhat tenuous technicality.[143] The RFC then contacted 224 companies in the metal and metalworking industries, asking whether they would be interested in any of the government-owned aluminum or alumina plants. Only two expressions of interest were received even after a government guarantee to purchase all the aluminum produced that could not be sold elsewhere. The reluctance of companies to enter the field was due to the dominance of Alcoa. The company retained control of most of the available high-grade bauxite deposits in the United States and the critical patents on the processing of lower-grade bauxite in the government's alumina plants. Without a source of alumina independent of Alcoa, no company could profitably enter the aluminum business.[144]

Realizing the roadblock to industry diversification, W. Stuart Symington, former administrator of the Surplus Property Administration, accused Alcoa of using its patents to obstruct disposal of government-owned aluminum plants, and of an attempt "to distract the members of Congress and the public from the fact that Alcoa was seeking to obtain the more desirable government plants and thus to increase its own monopolistic position."[145]

To deflect this criticism, Alcoa handed over to the government its patents for extraction of alumina from low-grade bauxite. These patents were critical for the operation of the alumina works at Hurricane Creek, Arkansas, a plant with an annual capacity of 1.5 billion pounds. Operation of Hurricane Creek would make it possible for competitors to enter the field by

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[143]Anonymous, "Aluminum Reborn": 104.

[144]Ibid.

[145]Ibid.

enabling them to produce alumina at a price competitive with Alcoa's price from high grade bauxite.

The Hurricane Creek lease was acquired by Reynolds Metals Company which agreed to sell alumina to all buyers at cost plus six percent up to a maximum of $40 per ton. Along with a five-year lease on Hurricane Creek, Reynolds leased the nearby government-owned smelting plant at Jones Mills, Arkansas. With these acquisitions, Reynolds could now produce the alumina it needed to supply all its ingot capacity to feed aluminum into all its fabricating plants. The company became the first fully integrated U.S. competitor of Alcoa.[146]

In April 1946, an additional competitor entered the United States aluminum industry. Henry J. Kaiser, a Californian who had made his fortune as a highway contractor, shipbuilder and steelmaker, acquired a five-year lease on a $22 million aluminum smelting plant in Spokane, Washington through his company Kaiser-Cargo, Inc. Another Kaiser company, Kaiser-Frazer Corp., leased the nearby $48 million sheet rolling mill. At the same time, Reynolds increased its operations by leasing a $44 million Chicago sheet mill, as well as an extrusion plant in Grand Rapids, Michigan, and buying a $20 million sheet, rod and bar mill in Alabama, which it had operated during the War.[147]

2.13 Alcoa in the Post-War Era

Aluminum benefited from the economic boom that followed World War II. Despite some scaling down of production, capacity remained at 3.9 times the prewar peak consumption.

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[146]Ibid., 105.

[147]Ibid., 108, 212.

Research and development played a critical role in adapting aluminum for nonmilitary uses. Planning for the postwar period focused attention on problem areas, highlighting enabling technologies that would have to be developed to bring good applications to market. For example, in March 1944, Alcoa vice-president George Gibbons complained strongly about the failure to develop good joining techniques, a problem that had gone unsolved for decades and could keep aluminum out of important high-volume markets, such as shipbuilding.[148]

Alcoa continued to develop new products to maintain and expand its market share. A major new product was roofing sheet, developed in 1945. Alcoa president Roy Hunt estimated that annual consumption of this product would reach 1,250 million pounds by 1950.[149] Improved technology developed during the War had also reduced the cost of aluminum, making it increasingly competitive with copper and steel. By late 1946, pig aluminum was quoted at $0.14 per pound, and copper was quoted at $0.143 per pound.[150]

In 1950, antitrust litigation against Alcoa was once again decided in U.S. District Court of New York where John C. Knox had succeeded Francis Caffey as Chief Judge. With the emergence of the Cold War, Knox faced the challenge of how to ensure the ability of Alcoa's competitors to survive in a manner consistent with the national welfare, both at home and abroad. Knox sought a principle of "effective competition," enabling Kaiser and Reynolds to grow and prosper in a market where Alcoa maintained important advantages. Knox concentrated on Alcoa's ownership ties to Aluminium Limited of Canada. Large shareholders in the two companies were ordered to dispose of their holdings in one or the other company within 10 years. As a result of this decision,

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[148]Graham and Pruitt, *R&D for Industry*, 234.

[149]Smith, *From Monopoly to Competition*, 242.

[150]Ibid., 243.

Alcoa had another major competitor, a competitor whose low cost smelting enabled it to penetrate the United States market.[151]

Despite increased competition, Alcoa remained the primary producer of aluminum in the United States. At the end of 1954, total aluminum capacity was slightly more than 1.3 billion short tons. Alcoa had 41.8 percent of this capacity, while Reynolds had 27.4 percent, and Kaiser had 30.8 percent.

In the early 1950s, Alcoa began construction of its new corporate headquarters, a 30-story, aluminum-clad building in downtown Pittsburgh. This building reemphasized the company's commitment to its birthplace and its participation in the city's civic revival. The architect for the building was Wallace Harrison. In consultation with the directors, he designed a radical aluminum-sheathed building that also employed aluminum for elevators, ceilings, doors, thresholds, lighting fixtures, windows, blinds, baseboards, trim, furnishings, and even water pipes.[152] This building foreshadowed the development of building products as the material's major market. By the late 1950s, sales of aluminum building products surpassed sales of aluminum for transportation, consumer durables, and electrical products.[153]

Beginning in the mid-1950s, additional companies entered the aluminum smelting industry. The first new entrant was Anaconda, a long-time copper producer and fabricator of copper, brass, and aluminum. Anaconda was followed in 1958 by Harvey Machine Tools, a prewar producer of aluminum parts; Olin Mathieson Chemical Corporation, which had managed the Spokane smelter

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[151]Ibid., 273.

[152]Ibid., 265, 267.

[153]Ibid., 268.

in World War II and became a diversified manufacturer and consumer of aluminum following the War; and Revere Copper and Brass, a long-time fabricator of copper, brass, and aluminum, famous for its pots and pans.[154] By the end of 1958, these three newcomers accounted for only 12 percent of national primary aluminum capacity.[155]

With the emergence of new aluminum producers came increased competition for aluminum consumer markets. Reynolds, with its background in consumer goods and experience in distribution and marketing, led the way in transforming aluminum into a greater variety of finished products. The company embarked on a "frenzy of fabrication," making aluminum toys, rowboats, home freezers, golf clubs, cooking utensils and other home products. Alcoa was also drawn into the finished product market, due to the possibility that Reynolds' production could drive many independent customers of Alcoa's semifabricated products out of business.[156]

Alcoa's research efforts in the 1950s were also aimed at addressing the changing aluminum market. In the years following the War, the Laboratories had been undergoing a reorientation toward products that promised short-term payoffs in new product development, new product-related process inventions, new alloys, and production processes that promised to lower cost in high-margin areas of production.[157] For example, research in structural applications aided Alcoa's entry into monumental architecture, one of its most lucrative market segments.[158] Alcoa retained a

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[154]John A. Stuckey, *Vertical Integration and Joint Ventures in the Aluminum Industry* (Cambridge, Massachusetts: Harvard University Press, 1983), 259.

[155]Smith, *From Monopoly to Competition*, 285.

[156]Ibid., 288.

[157]Ibid., 288-289.

[158]Ibid., 289.

much larger technical staff than its competitors (700 at Alcoa, 110 at Kaiser, and 100 at Reynolds), and the larger technical staff enabled it to quickly address market innovations.

At the end of the 1950s, Alcoa continued to evolve its product line to retain its market share. In 1959, the company moved more broadly into finished-product markets aimed at specialized users. This move was accomplished through acquisition of companies specializing in building products, insulated cable, and magnet wire, and through internal diversification into such end products as aluminum siding, irrigation pipes, food packaging, telephone booths, and printed foil. Most of these new market efforts, however, did not provide the desired economic return.

Printed foil serves as an example of the company's inability to develop downstream applications beyond the semi-finished stage. In the 1950s, Reynolds sold printed foil directly to food companies, whereas Alcoa sold its industrial foil to other fabricators, who in turn laminated it, printed it, and then resold it for substantial profits. In 1959, Alcoa struck an agreement for R.R. Donnelley to run a color press which Alcoa installed at Donnelley's Chicago plant, and a small division was created to market the printed foil. Alcoa soon discovered that competition was fiercer and profit margins lower than expected, and the project was abandoned.[159]

Alcoa's fundamental problem revolved around its structural position in the industry. When it sought to produce finished goods, it was brought into direct competition with too many of its own customers. Alcoa had been persuaded to enter many finished markets by the apparent success of its competitors, but the effort was also defensive, a response to the activities of customers who were beginning to integrate backward. As historian George Smith has noted, "in those markets where technologies were simple and economies of scale unimportant, Alcoa simply could not

[159]Ibid., 312-313.

compete. Smaller fabricators with lower labor and overhead costs could produce finished goods more cheaply."[160]

The company discovered that even in areas in which technical sophistication and production economies were important, it was better for Alcoa to stick to its normal practice of working with customers to develop new end uses rather than to enter consumer markets directly. Alcoa followed this strategy when it cooperated with can companies and breweries to develop markets for aluminum cans, with General Electric to develop appliance components, and with auto manufacturers to develop engine parts and wheels. Alcoa could sell its semifabricated sheet, extrusions, rod, wire, bar, forgings and castings in volume to all these manufacturers.

During the uncertain economic climate of the 1960s, Alcoa struggled to maintain both its profitability and its market in the aluminum industry. As the decade progressed, Alcoa's share of the domestic market was dwindling. In 1965, Alcoa had 29.4 percent of United States aluminum capacity, Reynolds had 22.4 percent, and Kaiser, 20.1 percent.[161]

To reverse these trends, Alcoa president John Harper decided to concentrate company resources on the development of markets in which Alcoa's size, financial power, and unique technological capabilities gave it a specific advantage. Harper directed Alcoa's reorientation toward high-volume and technologically sophisticated semi-finished goods.[162]

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[160] Ibid.

[161] Ibid., 316.

[162] Ibid., 319.

Harper believed that for too long, Alcoa had sold the bulk of its value-added mill products on a kind of project or "job-shop" basis. Most of Alcoa's fabricating plants were multipurpose facilities that had turned out low-volume, special-order products at increasingly higher cost. In the process, Alcoa had become bogged down in too many markets where it had no competitive advantage.[163]

Harper believed that the company would fare better overall if it established outlets for its metal analogous to some of the steel industry's mass markets for high-volume, continuous runs of semi-fabricated goods. Alcoa developed a three-prong strategy: (1) to move beyond its historic concentration on "job-shop" operations in fabricating in order to develop products which could be manufactured on high-volume, low-cost runs in large mills that embraced huge economies of scale; (2) to expand its business in high-margin specialty items in highly technical sectors of the market, such as aerospace, for which Alcoa, with its strong research and engineering staffs, had a decisive edge over less-sophisticated producers; and (3) to cut its costs of production through large-scale process improvements, plant modernization, organizational reforms, and more sophisticated planning.[164]

The New Kensington-Arnold plant facilities, typical of the multipurpose job-shop facilities, were no longer viable, given the company's long-term strategy. By the beginning of the 1970s, buildings had been closed in New Kensington and Arnold and remaining operations had been shifted to other, more efficient Alcoa facilities.

By 1970, the chief market for aluminum produced in the United States continued to be building and construction. Approximately 26.6 percent of the poundage produced was used for that

[163]Ibid., 319-320.

[164]Ibid., 320.

purpose. Other major uses included transportation (17.2 percent), containers and packaging (14.5 percent), electrical (13.7 percent), consumer durables (9.3 percent), and machinery and equipment (6.2 percent).[165]

In 1971, the combined capacity of the non-major American producers stood at about 1,506,000 tons. By comparison, the combined capacity of Alcoa, Reynolds, and Kaiser stood at 3,160,000 tons. Alcoa's 1,475,000 tons comprised about 32 percent of this total.[166] Even though the North American industry consisted of a growing number of players, it remained highly concentrated.[167] By the 1970s, serious challenges had developed in aluminum's traditional markets. Plastics were being used more and more in construction, transportation, machinery, and packaging; fiberglass was being used in consumer durables; sodium in electrical conductors; and composite materials in specialized, high margin applications.[168]

In addition to challenges to its markets, Alcoa was also affected by general economic forces in the 1970s. Revenue growth slowed and profits were squeezed by slackening demand and escalating costs.[169] Plant closings continued as the company sought to reduce costs. The increasing costs of energy and mining led to the development of recycled aluminum as an important source of the metal in the 1970s. Aluminum recycling was first used by Reynolds in 1967, and by the 1980s, 20 percent of aluminum supplies came from recycled cans and other aluminum scrap.[170]

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[165]Ibid., 314.

[166]Ibid., 365.

[167]Ibid.

[168]Ibid., 371.

[169]Ibid., 375.

[170]Jeffrey Keeffe, editor, *Aluminum: Profile of an Industry* (New York: McGraw-Hill Publications Company, 1982), 5.

By the mid-1980s, corporate communications characterized Alcoa as a three part enterprise consisting of a "packaging company," "an engineering company," and a "materials company." The company sought to increase revenues by shifting its fundamental research into new materials, including aluminum-based alloys, non-aluminum metals, chemicals, ceramics, composites, and polymers. Among major research activities were the development of alloys for aerospace and energy applications; new packaging systems, including non-metallic microwavable formed containers; and ceramics for use in computers, telecommunication systems, and military armor.[171] Forty-one percent of the company's 1986 sales came from packaging systems, 38 percent from aerospace and industrial customers, and 18 percent from bauxite, alumina, industrial chemicals and magnesium.[172]

Presently Alcoa's market is divided into three major segments: alumina and chemicals; aluminum processing; and non-aluminum products. Aluminum processing provided the largest portion of its revenues in 1992, and approximately 40 percent of the $7.48 billion in revenues in this segment was attributable to sales of flat rolled products. A substantial portion of flat rolled products sales consisted of rigid container sheet (RCS), used to make beverage cans. Engineered products, including the company's traditional products of aluminum wire, rod, and bar, as well as aluminum forging and wheels, building products, and automobile bumpers, contributed $1.52 billion to 1992 company revenues. The non-aluminum products segment contributed $1.55 billion in revenues. This growing segment included fiber optic cable, wire harnesses and electronic components for automobiles, packaging machinery, plastic container closures, as well as vinyl windows and siding for the construction industry. Despite near record shipments of raw aluminum, revenues from

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[171]Smith, *From Monopoly to Competition*, 424:425.

[172]Ibid., 429.

alumina and chemicals have declined in recent years due to depressed prices. Revenues totaled $14.2 billion in 1992.[173]

2.14 Aluminum Facilities in New Kensington, Arnold, and Logans Ferry

By the early 1890s, the PRC officials determined that the facilities of the Smallman Street plant were too small and too inefficient for the desired growth in aluminum production. Operations were discontinued there in March 1891 and were removed to a new plant that the company had partially completed at New Kensington, 19 miles east of Pittsburgh on the south bank of the Allegheny River.

New Kensington was founded as a "boom town," promoted by a party of Pittsburgh capitalists incorporated as the Burrell Improvement Company.[174] This company, whose shareholders included the PRC's bankers, T. Mellon and Sons, acquired parts of the Stephen Young and Rev. Alexander Young farms as the site of the new town.[175] To attract house builders to their community, Burrell offered incentives for companies to locate there. It offered the PRC 3.5 acres of level land on the river bank free of charge and a $10,000.00 cash bonus if the company would locate in New Kensington. T. Mellon and Sons provided an additional $7,000.00 in financing to make the move possible.[176] The factory site was a strip of land, bounded on the east by the Indian Run branch of the Allegheny Valley Railroad, on the west by the Allegheny River, on the south by

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[173]Aluminum Company of America, *1993 Annual Report* (Pittsburgh: Aluminum Company of America, 1993), 6-8.

[174]John N. Boucher, *Old and New Westmoreland.* Volume II (New York: The American Historical Society, Inc., 1918), 588.

[175]Ibid.

[176]Carr, *Alcoa: An American Enterprise*, 43.

the Brownsville Plate Glass Company property, and on the north by Eleventh Street.[177] The PRC was joined by a variety of other industrial firms, expected to provide jobs for more than 4,000 workers in New Kensington.[178] These firms included the Excelsior Glass Works, the Sterling White Lead Company, the Bradley Stove Works, the Pennsylvania Tin Plate Company, the Hudson Air Brake Works, the Cold Rolled Steel Company, the Kensington Enameling Works,[179] the Brownsville Plate Glass Company,[180] the Glenn Drilling Company, Chambers' Glass Works,[181] the Kensington Roller Process Flour Company, Kensington Tube Works, Logan and Sons Planing Mills, the Rolled Wheel Steel Company, the B.F. Rynd Planing Mills, and the New York Piano and Organ Factory.[182]

New Kensington became the center of growth for both the United States aluminum industry and the company that was to become Alcoa. As the New Kensington *Daily Dispatch* asserted in 1953, "If the aluminum business was born in Pittsburgh, it was cradled in New Kensington."[183] The role of the city in the aluminum industry was reflected in a sign painted on the river side of one of Alcoa's New Kensington buildings which read, "Welcome to New Kensington, the Aluminum City."[184]

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[177]Carmen P. DiCiccio, *Extant Manufacturing, Transportation and Coal Mining Facilities in Westmoreland County (Opened Prior to 1935)*, 1989, n.p.

[178]Women's Club, *Lore of Yore*, 35.

[179]City of New Kensington, *Celebrating a Century. A Commemorative Document* (New Kensington, Pennsylvania: City of New Kensington, 1991), 82.

[180]Women's Club, *Lore of Yore*, 35.

[181]Boucher, *Old and New Westmoreland*, 588.

[182]Women's Club, *Lore of Yore*, 35.

[183]Quoted in Pruitt, *Alcoa in Westmoreland County*, 2-3.

[184]Christine Mueseler, Alcoa, New Kensington: The Company, the Community, and the Work Force (Unpublished manuscript submitted to America's Industrial Heritage Project), 3.

The first buildings at the New Kensington Works were completed in 1891. These single story, steel framed, brick clad, original buildings included a portion of Building 9A that housed the boiler room and blacksmith shop, as well as a portion of Building 9B that housed the engine and dynamo room and pot room. Two wood framed service buildings were also erected to serve as a coal shed and foundry.[185]

Initially, the New Kensington facility was the site of aluminum reduction. Reduction pots were installed in Building 9. Coal and natural gas powered the steam engines used to generate electricity which was used in the reduction process. However, although fuel costs was low, company officials realized the need for a source of lower cost and more abundant power to enlarge smelting operations. By the mid-1890s, the company's smelting operations were relocated to Niagara Falls, New York where inexpensive and abundant hydroelectric power was available.[186] The reduction plant became the first industrial user of Niagara Falls hydroelectric power.[187] Several years later, New Kensington was briefly the site of the company's first efforts to refine its own alumina. This pilot operation proved to be financially feasible, and a larger-scale refinery was constructed near the Mississippi River in East St. Louis, Illinois.[188]

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[185]New Kensington Plant Building Inventory. Alcoa Corporate Archives, Pittsburgh, Pennsylvania.

[186]Carr, *Alcoa: An American Enterprise*, 88-89.

[187]Hunt, *The Aluminum Pioneers*, 15.

[188]Pruitt, *Alcoa in Westmoreland County*, 4.

New Kensington was developed as the PRC's central fabricating facility.[189] Initially, the company produced only aluminum ingots,[190] and by March 1891, aluminum ingots were being produced at New Kensington. Aluminum ingots, however, had very limited uses, and it became evident that partial fabrication was necessary for aluminum to compete with other metals. As a result, the company had to develop processes to cast, roll, and otherwise work aluminum.[191]

In the early 1890s two brass rollers, Harry Davis and George Doolittle, were brought to New Kensington from the Naugatuck Valley of Connecticut to teach aluminum workers how to roll sheet metal.[192] A 7,525 square foot expansion of Building 9B, which was completed in 1893, provided space for the first rolling mill at the New Kensington Works.[193] Coiled sheet was first produced at New Kensington, and subsequently flat sheets were produced as well.[194] In 1893, the company tripled the floor area of its plant facilities.[195] In addition to expanding Building 9B to accommodate the rolling mill, the company also erected service buildings that were housed the shipping, carpenter, and buffing operations, and served as an oil house, lumber shed, acid house, calcimining building, engine house, and two warehouses.[196]

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[189]Ibid.

[190]Hunt, *The Aluminum Pioneers*, 15.

[191]Malcuit, *The Aluminum Industry*, 11.

[192]Carr, *Alcoa: An American Enterprise*, 128.

[193]New Kensington Plant Building Inventory.

[194]Hunt, *The Aluminum Pioneers*, 15.

[195]Women's Club, *Lore of Yore*, 36.

[196]New Kensington Plant Building Inventory.

Additional plant expansion occurred in 1896.[197] In that year, a 5,741 square foot addition was made to Building 9A to house a melting room and foundry, a 14,653 square foot addition was made to Building 9B to accommodate the growth of the rolling mill and additional service buildings used as storage sheds and an acid house.

While a few manufacturers made a small amount of aluminum tubing in the 1890s, none actively sought a market for the product until the PRC installed a small tube-drawing plant at New Kensington. The initial tube-drawing mill was located in the original section of Building 9B, a single story, 158 foot by 21 foot, wood framed building, sheathed in corrugated steel and constructed in 1901. Making satisfactory aluminum tubing at a reasonable cost proved to be a long and tedious process. At the same time this process was perfected, a market for the product was developed.[198] By 1909, sufficient demand had emerged to enlarge the area of the tube mill. The original building was replaced with a much larger, steel framed building, constructed in two parts. By 1910, the floor area of the tube mill had grown from the original 3,318 square feet to 21,228 square feet.[199]

The year 1900 witnessed the first strike at the aluminum plant and resulted in the formation of the Aluminum Workers' Union. On March 27, 1900, 37 men in the wire mill of the company walked out in a wage dispute. Employees in other departments joined the walkout, and a strike committee was formed. Workers imported by management were met at the railroad station and persuaded to

[197]Ibid.

[198]Carr, *Alcoa: An American Enterprise*, 130.

[199]New Kensington Plant Building Inventory.

leave town. On April 4, a settlement was reached in which the strikers received a 12 percent wage increase and a reduction in Sunday work.[200]

By 1902, the New Kensington works consisted of 173,000 square feet of space, situated on 15 acres. About 300 employees were engaged in making special alloys and ingots, castings, sheet, rod and bar, wire, rivets, tubes, cooking utensils and job-shop items.[201] The major plant buildings included Building 8, a single story wood framed block used as a machine shop; Building 9A, site of a melting room; Building 9B, the rolling mill, which had grown to include over 50,000 square feet of space; Building 9D, the original tube drawing mill; Building 18B, a two story, brick building housing a dipping room, stock room, and storage; and a large number of smaller service buildings.[202]

Early in the twentieth century, the New Kensington works developed the practice of extruding aluminum into useful shapes. In 1905, the company bought an extrusion press and hired Louis de Cazenove to operate the machine. After several years of experimentation, aluminum shapes produced by the extrusion method with hydraulic presses became a product of the New Kensington mills.[203] Much of this output was used for trim on early automobiles.[204] After the expansion of Alcoa facilities to Arnold, extrusion presses were relocated to the latter facility.

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[200]Carl I. Meyerhuber, Jr., "Organizing Alcoa: The Aluminum Workers' Union in Pennsylvania's Allegheny Valley, 1900-1971," *Pennsylvania History*, 48, July 1981, 195.

[201]Women's Club, *Lore of Yore*, 62.

[202]New Kensington Plant Building Inventory.

[203]Ibid.

[204]Women's Club, *Lore of Yore*, 62.

During the 1910s, 11 major new buildings were added to the New Kensington works. These included Building 3, originally used to house aluminum bronze powder production; Building 4, originally used as a forge shop; Building 5, originally used as a job-shop; Building 10, used as a boiler house; Building 13, an eight story office, packing and shipping, and storage block which was situated at the southwest corner of the plant and which was recently demolished; Building 16, used as a receiving room and storage; Building 24, used as a box and paint ship and lacquering facility, which was demolished in 1935; the six story Building 25, which was used as a pattern shop, storage, and offices; Building 26, the four story clock house originally used as a chemical laboratory, restaurant, and locker room; Building 30, which was used as a stock house and research laboratory; and Building 31, which was used as a smelting plant.

With the continuing growth in aluminum markets in the 1910s, Alcoa acquired additional land north of the New Kensington works in the adjacent borough of Arnold. Twenty-six acres of land in Arnold were purchased in 1912. Two years later, the first buildings were constructed at the Arnold works. These original buildings included Building 201, a single story, steel framed, brick clad building used as an aluminum foil mill; Building 202, a single story, steel framed, brick clad extrusion mill; and Building 203, a small, single story, wood framed, corrugated metal sheathed building, used as a boiler house. The following year, the tube drawing capacity of the company was increased substantially with the construction of Building 204 which supplemented the original tube drawing mill, Building 9D of the New Kensington works.[205] The aluminum foil rolling capacity increased substantially in subsequent years. Two additions to Building 201 enlarged the floor area of the foil rolling mill from its original 22,200 square feet to 71,018 square feet.

[205] Arnold Plant Building Inventory. Alcoa Corporate Archives, Pittsburgh, Pennsylvania.

In 1913, Alcoa made plans to erect an office building on Eleventh Street between Fourth and Fifth avenues, adjacent to the New Kensington town hall. This building, a four story, steel framed, Tudor Revival block, designed by Pittsburgh architect James H. Giesey, was completed in 1916. This building housed the offices of the United States Aluminum Company and the Aluminum Cooking Utensil Company, Alcoa subsidiaries which manufactured Wear-Ever utensils at the New Kensington works. In late 1916, construction was begun on the Aluminum Club on Freeport Road to house technical and professional employees new to the company.[206] This building was completed in 1918.

In 1916, the initial sections of Buildings 205 and 206 were completed in Arnold. These buildings, the fourth production facility at the Arnold works, housed the offices and manufacturing space for the Aluminum Seal Company, an Alcoa subsidiary that manufactured seals for food and beverage containers.

During its early years at New Kensington, the company continued to develop new aluminum technology. Perhaps the most difficult technology to be mastered at New Kensington was the production of high-strength alloy sheet, a process which depended on a new German process of heat treatment and age-hardening that gave aluminum the strength of steel. During World War I, the appearance of German dirigibles constructed with the new alloy, called Duralumin, put pressure on Alcoa to produce a comparable material for U.S. aircraft. After the patent was seized by the Alien Property Custodian during World War I and was licensed to Alcoa, the company produced its own variety of Duralumin, called 17S. This ad hoc research and development

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[206]Ibid., 41,63.

process pointed out the need for research into the properties and behavior of aluminum to make significant manufacturing advances.[207]

Another product of the New Kensington works was aluminum bronze powder, finely flaked bits of aluminum used in explosives as pigments in paints and ink.[208] This powder was first produced at Building 3A of the New Kensington works. After a 1917 explosion in the powder production facility killed eight workers, plans were made to relocate this manufacturing operation to a facility distant from the main works.[209] Twenty acres of land was purchased at Logans Ferry, south of New Kensington, and the first buildings were completed at the Logans Ferry works in 1918. By the end of World War I, New Kensington and Arnold facilities as well as an aluminum powder plant at Logans Ferry, accounted for over 3,000 jobs.[210] The New Kensington works covered 75 acres, having a manufacturing floor space of over one million square feet.[211]

Expansion continued at both the New Kensington and Arnold works as increased industrial capacity lead to increased demand for materials such as aluminum during the economic boom of the 1920s. In 1920, the Arnold extrusion factory (Building 202) was substantially expanded with the construction of a 45,468 square foot addition. Two years later, a 25,916 square foot sheet mill (Building 225) was constructed in Arnold.[212] By 1923, Alcoa employment had grown to 4,000

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[207]Pruitt, *Alcoa in Westmoreland County*, 7.

[208]Women's Club, *Lore of Yore*, 62.

[209]Pruitt, *Alcoa in Westmoreland County*, 7.

[210]City of New Kensington, *Celebrating a Century*, 83.

[211]Women's Club, *Lore of Yore*, 63.

[212]Arnold Plant Building Inventory.

workers.[213] In 1928, Alcoa announced a million dollar plant expansion project at its facilities in New Kensington and Arnold.[214] Major construction included Building 38, a 91,280 square foot steel framed, brick clad building, constructed to house the machine shop, stores, and metallurgical facilities; a 134,500 square foot addition to the Arnold Tube Mill (Building 204A); a 67,820 square foot building to house the Melting Room at the Arnold Works (Building 210); and a four story, 58,568 square foot addition to the Aluminum Seal Company facilities (Building 206).[215] The addition to the Aluminum Seal Company facility reflected the increased business volume that resulted from the company's development of "Rolled-on" sealing in 1924. This process provided a tailor-made fit and hermetic seal for each cap. As a result, the method not only increased the use of aluminum caps but extended the market for glass jars. Two years later, the Aluminum Seal Company first produced mason jar caps, and during the following year, 25,000,000 were sold.[216]

On one of his then infrequent trips to New Kensington, company chairman Arthur Vining Davis visited the research quarters at the New Kensington works and pronounced them "a slop hole of a laboratory." Fifty million dollars was appropriated for a new laboratory. The building, referred to as Building 29, was constructed on the Ross tract high above the Allegheny Valley, well away from the smoke that hung over the New Kensington works. The Freeport Road laboratory building, completed in 1929 and designed by Henry Hornbostel, a noted Pittsburgh architect, highlighted the architectural possibilities of aluminum and was described in *Iron Age* as a

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[213]City of New Kensington, *Celebrating a Century*, 83.

[214]City of New Kensington, *Celebrating a Century*, 84.

[215]New Kensington and Arnold Plants Building Inventories.

[216]Carr, *Alcoa: An American Enterprise*, 184.

"laboratory of dignity and beauty."[217] Also in 1929, the company disclosed plans to convert the former New Kensington Brewing Company plant at Ninth Street and Railroad Avenue to storage and shipping facilities for the Aluminum Cooking Utensil Company.[218] By 1930 the New Kensington works produced 15 million pounds of aluminum sheet per year, and the Arnold works produced 12 million pounds of sheet.[219]

Alcoa was adversely affected by the Depression, losing two million dollars during 1932. In March 1934, the company's 5,352 employees struck for increased pay and changed work hours. Work resumed when an agreement to negotiate was reached, but the workers struck again in August. This second strike was prompted by Alcoa's failure to accept the agreement reached to end the previous strike. Primary sources of contention were a union membership check-off, demands for a closed shop, wage rates, seniority rights, dismissal rules, and grievance procedures. The strike lasted five weeks and ended with union capitulation.[220]

This strike lasted one month.[221] Plant expansion largely ceased because of a temporary decrease in the demand for aluminum. With war preparations, Alcoa's fortunes improved, beginning with a $582,000.00 Navy contract the company received in 1939. By 1940, Alcoa had opened a research center and had tripled its production of magnesium by installing another mill.

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[217]Graham and Pruitt, *R&D for Industry*, 191.

[218]New Kensington Plant Building Inventory.

[219]Frank C. Harper, *Pittsburgh of Today: Its Resources and People*, Volume II (New York: The American Historical Society, 1931), 620.

[220]Meyerhuber, "Organizing Alcoa," 204.

[221]Ibid.

Plant expansion resumed as the economy rebounded. Major construction at the New Kensington works in the late 1930s included the construction of Building 19B, a six story 107,748 square foot block to accommodate warehousing and manufacturing space for the Aluminum Cooking Utensil Company; construction of Building 37, a 36,494 square foot, steel framed building to house the structural steel shop and steel stores; construction of Building 44, a 3 story, 75,640 square foot, steel framed building to house the job shop; and Building 242, a six story, 85,680 square foot building that included space for plant offices and stores.[222] Major building projects at the Arnold works included a 53,373 square foot addition to the tube mill and an additional story added to the Aluminum Seal Building (Building 206) to accommodate company offices.[223]

Expansion continued during World War II. In 1941, the U.S. Public Building Administration commissioned Walter Gropius and Marcel Breuer to design a defense housing project to accommodate 250 families associated with the aluminum and other industries in the New Kensington area. This project, located west of the city, became known as Aluminum City Terrace.[224] In 1943, the Glassmere tract in Upper Burrell Township was the site of a new plant built to produce aluminum powder for the U.S. Navy.[225] During the World War II, Alcoa produced 11.4 billion tons of alumina, smelted 5.5 billion pounds of aluminum, and fabricated 2.7 billion tons of sheet metal, 450 million pounds of extruded shapes, 500 million pounds of forgings, and 400 million pounds of castings.[226]

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[222]New Kensington Plant Building Inventory.

[223]Arnold Plant Building Inventory.

[224]Ibid., 74.

[225]Ibid., 48.

[226]DiCiccio, *Extant Manufacturing, Transportation and Coal Mining Facilities in Westmoreland County*, n.p.

In 1947, Alcoa employed a total of 3,893 workers, and its subsidiary, the Aluminum Cooking Utensil Company, employed an additional 2,108 workers.[227] Although Alcoa invested approximately $24 million in the New Kensington works in the decade following World War II,[228] the late 1940s marked the beginning of Alcoa's reduction of New Kensington operations. A facility that made a "little bit of everything"--extrusions, tubing, beer barrels, telephone booths, farm gates, cookware--saw its market stagnate, while demand for high-volume products such as cable and can sheet, produced by other Alcoa facilities, was booming.[229] In 1947, Alcoa's president Roy Hunt announced that some of New Kensington's Wear-Ever production would be moved to Chillicothe, Ohio.[230]

During the 1950s and early 1960s production at Alcoa's New Kensington plants declined substantially. In 1956, production totaled over 82 million pounds. Annual production declined to 33 million pounds in 1960.[231] This decrease in production resulted from decreased demand due to both a changing market for aluminum products and increased competition from other aluminum producers.

During the 1960s, change in the company's New Kensington area operations continued. Manufacturing facilities were supplanted in importance by growing aluminum research facilities. The workforce at Alcoa's New Kensington facilities changed as factory workers were displaced and the number of professional and technical workers increased. In 1962, Alcoa began

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[227]Ibid.

[228]Pruitt, *Alcoa in Westmoreland County*, 12.

[229]Ibid., 13.

[230]Women's Club, *Lore of Yore*, 49.

[231]City of New Kensington, *Celebrating a Century*, 85.

construction on its Technical Center located in Merwin, Upper Burrell Township, 6.5 miles east of New Kensington. In the same year, Alcoa donated a 30-acre tract four miles east of New Kensington for the Pennsylvania State University New Kensington campus and donated the Aluminum Club on Freeport Road to Citizens General Hospital for use as a nurses' residence.[232] Later in the decade, Alcoa donated its Wear-Ever Building to the city of New Kensington.[233]

In 1965, Alcoa began a major realignment of operations at New Kensington. Production of impact extrusions was moved from Edgewater, New Jersey and became the major manufacturing function, as foil rolling, press extrusion and tube operations, and the Wear-Ever line of small utensils were moved to new locations. The company also proposed to spend millions in modernization of the plant's facilities. But commercial realities dictated the New Kensington Works final fate. On July 1, 1970, Alcoa announced the termination of its manufactured products division and the closing of the New Kensington works. By March 31, 1971, this closing had been completed.[234]

Retired New Kensington and Arnold Alcoa workers point to both the aging plant facilities and union wage demands as contributing factors in the company's decision to close the New Kensington and Arnold works. John Kane recalled:

> It [the plant] was very old and the labor pool was becoming very expensive. The company felt it could do a lot of the work at other plants for a lot cheaper labor rate. It was the union as well as the obsolescence of the plant [which brought about the relocation].[235]

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[232]Women's Club, *Lore of Yore*, 51.

[233]Ibid.

[234]Meyerhuber, "Organizing Alcoa," 219.

[235]Mueseler, Alcoa, New Kensington, 10.

The New Kensington and Arnold facilities were Alcoa's only major plants employing an essentially urban work force. The bulk of Alcoa's operations were located in rural areas where industrial unions were weak and the prevailing wage scale was lower. Stanley Pelczarski, a 37 year veteran of Alcoa, cited wages as the primary reason for the shutdown of New Kensington operations:

> They shut down the plant, I think, because of wages. When they turned around and started taking CU [the Cooking Utensil unit] to Davenport [Iowa], they came up and said it's cheaper wages up there.[236]

Alcoa shut down its New Kensington operations by not replacing workers as they retired and offering incentives, including increased pensions, to those employees who took early retirement. Alcoa employee Gino Marotto explained:

> When Alcoa closed the plant in the 70s, most people had enough time in that they just got phased out. The company gave them extra money and they got their social security and they just retired, most of them. The ones that were younger just got jobs elsewhere.[237]

The Alcoa shutdown was part of the larger deindustrialization of New Kensington and Arnold. The American Window Glass Factory (later American Saint Gobain) in Arnold closed at about the same time. Jones & Laughlin Steel Corporation Conduit Division had ceased operations in the early 1960s.[238]

After Alcoa's closure of the New Kensington and Arnold works, residents had mixed feelings about the company, feelings that were expressed by former employee, Phillip Morton:

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[236]Ibid.

[237]Ibid., 12.

[238]Women's Club, *Lore of Yore*, 63.

> You had Alcoa making a business decision that ripped a tightly knit social fabric that they had really contributed to weaving. Anger is not the right word; disappointment, disillusionment are better. Intellectually most people understood that you build a plant with a life span. The plant was here for 80 years, and it just got old and worn out and it was shut down. Alcoa will shut down plants that they are building today in 80 years. They just won't be efficient.
>
> It's the emotional side that is hard for people to live with. When you get into the fact of why people are angry, it had nothing to do with closing the plant; it has to do with the fact that their kids can no longer live on the next block. For the older people their whole way of life was built on the old assumption that my family will stay in this area because they can work for Alcoa[239]

Demand for the aluminum powder remained relatively strong, and the Logans Ferry Powder Plant remained open through the 1970s. In July 1979, one of the two melting furnaces at the Logans Ferry works exploded killing one worker. After the explosion, no powder was manufactured at the facility. Powder was shipped by rail or truck from other facilities and was mixed with paste at Logans Ferry. Logans Ferry retained this reduced role until 1986, when the plant was sold to an Alcoa competitor, Silberline Manufacturing Company. Silberline, which operated a plant in Tamaqua, Pennsylvania, removed the equipment from the Logans Ferry plant for use at its eastern Pennsylvania operation.[240]

Downsizing of other Alcoa facilities in the New Kensington area continued into the 1970s. In 1970, the main laboratories were relocated to the technical center in Merwin,[241] and in March

[239]Mueseler, Alcoa, New Kensington, 12-13.

[240]Allegheny Foothills Historical Society, *Where Wild Plum Trees Grow* (Plum Township, Pennsylvania: Allegheny Foothills Historical Society, 1988), 24.

[241]Women's Club, *Lore of Yore*, 63.

1977, the technical center terminated 100 workers.[242] Layoffs continued into the 1980s when 82 Alcoa employees were dismissed in 1983.[243]

Presently, Alcoa maintains three facilities in the New Kensington area. These include the Alcoa Technical Center in Merwin, the former Aluminum Research Laboratories in New Kensington, presently used as a satellite facility by the Technical Center; and a small facility on the Glassmere tract adjacent to Pennsylvania State University-New Kensington, used for experiments in aluminum powder production.

Prior to and following the closure of the New Kensington and Arnold Alcoa works, a significant number of plant buildings were demolished. In 1968, Buildings 13, 14, and 15 were demolished. Building 13 was an eight story office and storage building, constructed in 1916, that stood east of Building 9 and south of the Boiler House (Building 10). Building 14 was a two story, brick bearing wall building, erected in 1905, that originally was used for offices, drafting rooms, a restaurant, and stores and was later used for New Kensington sheet and Aluminum Cooking Utensil Company shipping. This building adjoined the south wall of Building 13. Building 15 was a two story brick bearing wall building, erected in 1906, that was originally used as offices, locker rooms, wash rooms, first aid, and tool and miscellaneous storage. This building stood east of the south end of the Boiler House (Building 10). A short time later, Building 26, the four story clock house, constructed in 1913, was demolished. In late 1969 or early 1970, two additional buildings were demolished: Building 25, a six story concrete frame building, sheathed in concrete and brick and constructed in 1912; and Building 94, a building constructed in the World War II era. Building 25 was originally used as a pattern shop, as storage for lumber, office supplies and

[242]Ibid., 52.

[243]Ibid., 53.

old records, and as a carpenter shop. It stood at the southwest corner of the New Kensington works, adjacent to the Ninth Street bridge. In 1970, Building 81, one of two buildings acquired from the New Kensington Brewing Company, was demolished. The other building, number 80, was later demolished as part of a New Kensington redevelopment project. These buildings were located at the northeast corner of Ninth Street and Railroad Street (present Industrial Drive).

2.15 Working Conditions in the New Kensington and Arnold Works

Historically, the income of aluminum workers exceeded the average wage of industrial workers in the United States. At the end of World War I, the average yearly wage of an aluminum worker was $1,169.00, compared to $1,141.00 for industrial workers nationwide. By 1929, annual wages of aluminum workers were $1,507.00, compared to an average of $1,401.00 for industrial workers nationwide.[244] As employee Fred Billman stated, "Alcoa has always been up near the top of the major U.S. companies, both for salaried and hourly employees. Alcoa by its own publicity and by also by its employees' beliefs, always had one of the better benefit packages."[245]

The aluminum industry provided employment for both men and women. Women were part of the workforce in New Kensington and Arnold at least as early as 1905. Mueseler cites the example of Frances McSherry who began work in the mailing department of the Cooking Utensil Company in 1905 and by 1930, had advanced to the head of the Filing Department.[246] In addition to traditional clerical roles, women also worked in aluminum fabrication. In 1944, Lucy Polcyn and Margaret

[244]Smith, *From Monopoly to Competition*, 119.

[245]Mueseler, Alcoa, New Kensington, 17.

[246]Ibid., 23.

Heidelmeier, bench operators in the Tube Mill, were honored for 22 and 20 years of service, respectively.[247]

Women held a wide variety of jobs at the New Kensington and Arnold works. A substantial number worked in the Seal Mill, the Foil Mill, the Tube Mill, the Extrusion Department, and the Cooking Utensil Unit. Retired Alcoa employee Henry Ryba spoke about the work his sister performed in the Extrusion Department:

> People thought women just started working lately in factories, but my oldest sister worked in the Aluminum Company in the 1920s. She worked in extrusions where they take ingot and they make a pipe [and] then keep reducing it. They wore whole coveralls and they worked the machines.[248]

Stanley Pelczarski recalled a neighbor who worked on a "labor gang" at the works in the 1920s:

> When I was a young kid yet, my next door neighbor was a woman and she worked at Alcoa. She worked on the "labor gang" in the laundry room. Labor gang had the laundry room. They had men working there too, but women took care of all the wash.[249]

He also recalled the work of his sister Mary who worked in the Cooking Utensil Department from 1932 until its shutdown in 1971:

> My sister worked at Alcoa longer than I did....She used to work in CU [Cooking Utensils]. She was a wrapper and inspector and all that. She was everything. During the war, she made the noses for the airplanes.[250]

Ann Ryba Pelczarski began her work at Alcoa in the Foil Mill but spent the majority of her nine year's employment in the Cooking Utensil Unit. She described her work there:

> They didn't train anybody; they just showed you and then they put you on it and if you got hurt then you got hurt. I worked "single action" where each one had

[247]Ibid., 23-24.

[248]Ibid., 24.

[249]Ibid., 25.

[250]Ibid.

> their own press. We got the plain things and put the trademarks on them and we would trim. The presses went real fast, [and] we got paid by the piece. Everybody did.[251]

At Alcoa, as at most industrial plants, a clear differentiation existed between what was called "men's work" and what was called "women's work." Women were permitted in only certain job categories, were paid on a separate pay scale, and faced separate work rules. Women worked in the Seal Mill, the Foil Mill, the Tube Mill, the Extrusion Department, and the Cooking Utensil Unit, but jobs in the Foundry, Sheet Mill, Powder Plant, Machine Shop, and Melting Room were considered unsuitable for women.[252]

This segregation lessened during the labor shortages of World War II. The first department opened to women was the Machine Shop, where six women worked, running lathes, drill presses, and other machinery. In the Job Shop, women undertook a wide variety of work, from production of Army canteens to manufacturing aircraft parts. In the Powder Plant, women unloaded aluminum ingot in the Receiving and Stores Department.[253] Following the war, most of these jobs were returned to men.[254]

The wage scale for women was lower than the wage scale for men. The explanation given by the company was that men did distinct and more strenuous work. Ann Pelczarski cited the example of her work in the Seal Mill:

> I got 22 cents an hour in 1932. Stan [her husband] started one year later, in 1933, at 35 cents an hour. Men got paid more than women did. Men's wages were different than ladies' wages because men could do heavier work. They

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[251]Ibid., 25-26.

[252]Ibid., 28.

[253]Ibid., 28.

[254]Ibid., 29.

didn't have the women doing nothing heavy, except those single action bundt pans when they worked on those great big presses.[255]

Women were largely excluded from salaried supervisory positions at Alcoa until the 1960s. New Kensington resident Loretto Gatto discussed the role of women at Alcoa in the 1950s:

> It took me quite a while to realize this, but there were not women supervisors in my department at that time. In the CU division, almost all the women were packers, and I don't remember any men who worked as packers. The supervisors were men.[256]

The most substantive difference in work rules between men and women at Alcoa was a company policy that prohibited married women from being employed by the company. The policy remained in effect at Alcoa until 1963, and prevented many women who worked in the aluminum industry from accumulating the 10 years of service required to receive retirement benefits.[257]

During the years prior to World War II, working conditions at Alcoa could be both unhealthy and hazardous. Explosions and electrical fires were a danger in the smelting plant, and explosions were a constant hazard in the power plant. Workers faced exposure to hazardous chemicals, including carcinogens, such as benzene and asbestos, as well as airborne alumina dust. Stanley Pelczarski described conditions in the Polishing Department and the Dip Shop:

> Benzene was used when you worked on the polishing wheel. They polished the ware and while it's hot, they put it in benzene. Then they dry it off in the sawdust. That was miserable because then you inhaled the fumes from that.
>
> Every now and then, when they were short of men, they would ask different departments if they could spare a man to go into the washing. You would use rubber gloves, but every now and then the benzene would spill right into the glove.

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[255]Ibid., 30-31.

[256]Ibid., 33-34.

[257]Ibid., 37.

> I worked in the Dip Shop until I got some kind of a rash from the fumes. Then I had to go down into the cheapest job there was.[258]

He also described the grimy work at the Powder Plant:

> We used to see the men from the powder plant and you would think they were men from the moon or something. Their faces had powder all over them and their clothes were powdered up. The men that worked on the polishing machines were dirty but they weren't half as bad.[259]

Women's jobs could also be hazardous. Ann Pelczarski remembered:

> Mary Bonnoret lost her fingers when her press repeated in the CU unit [the press came back down without stopping]. That was before they had the straps that jerked your hands back from the machine.[260]

2.16 Labor Relations at the New Kensington and Arnold Works

The first strike by workers at Pittsburgh Reduction Company's New Kensington works occurred in March 1900. On March 27, 37 workers in the wire mill department went on strike. Representatives presented petitions to company management, demanding wage increases from $1.50 to $1.75 for ten hours' work. A company counterproposal, including a $0.10 increase, was rejected. Employees from other departments joined the walkout, and a strike committee was formed.

The strike was settled on April 4. The strikers received a 12 percent wage increase and a reduction in Sunday work. The newly created Local 8261, Aluminum Workers Union (AWU), American Federation of Labor (AFL), was nominally recognized by the company.

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[258]Ibid., 41-42.

[259]Ibid., 42.

[260]Ibid., 43.

As historian Carl Meyerhuber has indicated, the apparent easy victory of the aluminum workers belied the predominant anti-union sentiment in New Kensington. In September 1900, the Glass Cutters League attempted to organize American Window Glass plants located in the neighboring community of Arnold. The strike was suppressed, and members of the League were fired and blacklisted. In 1901, the Amalgamated Association of Iron, Steel and Tin Workers attempted to unionize two American Sheet and Tin Plate plants in New Kensington, an effort blocked by the hiring of scabs and the threat of plant relocation.[261]

The Aluminum Company of America moved against the union by hiring replacement non-union machinists during a brief strike in 1907. In 1908, a depression year, the company issued an ultimatum that the members of the AWU rescind their charter, disband their organization, and accept an open-shop plan, or face the loss of their jobs. In its early years, Alcoa staunchly resisted the organization of unions among its workers.[262] The union membership quickly complied. In the absence of union representation, subsequent strikes were short-lived. In 1913, an Industrial Workers of the World (IWW) organizer allegedly promoted a strike in Alcoa's polishing department in which 100 employees walked out. The organizer was arrested and fined, and the strike collapsed within a week.[263]

Three years later Alcoa machinists walked out in a spontaneous strike. Nearly 3,000 employees joined the strike several days later. The strikers met at the Polish Falcon Hall in New Kensington and formed a strike committee to present grievances to management. The workers demanded an eight-hour day with pay for 10 hours, time and a half for overtime, double pay for Sunday work,

[261]Meyerhuber, *Less than Forever*, 180-181.

[262]Smith, *From Monopoly to Competition*, 119.

[263]Ibid., 182.

and better ventilation for company shops. Management responded that the market was poor and that the company had remained open only to provide employment for its workers. The strike collapsed after two weeks.

Almost two decades of labor peace followed this strike. According to Meyerhuber, Alcoa believed in a carefully calculated policy to insure labor peace:

> .... management did not emulate the strikebreaking techniques utilized by steelmakers and mine operators. Scabs and hired thugs were not imported by the trainload. Company-inspired violence was not the weapon of choice. Alcoa apparently preferred a measured policy of economic coercion, attrition, selective dismissals, and watchful waiting in labor conflicts. By the standards of the Allegheny Valley, Alcoa's approach to the resolution of industrial conflict was moderate....[264]

Union organization of the aluminum workers began again in July 1933 when Howard Crowe and Edward Croghan, organizers for the Allegheny Valley Central Labor Union, appeared at the gates of the New Kensington works. On August 1, 1933, AWU Local 18356 was chartered by the American Federation of Labor (AFL). On August 25, a representative election was conducted with 2,897 votes cast for Local 18356 and 831 for Alcoa's Employee Representation Plan.[265]

Alcoa's "measured policy" included subtle intimidation, especially of women workers. In many Alcoa facilities, women constituted a majority of workers. Meyerhuber described working conditions for many of these women and company retaliation against workers who protested their treatment:

> Each day thousands of women would appear at the plant and were forced to endure the company's version of the shape-up. The women were lined up and inspected in military fashion. Those who were hired were admitted to the shops and were subjected to harassment and intimidation. Personal insults, demeaning restroom policies, and a "bonus system" that deprived workers of their just

[264]Ibid.

[265]Ibid., 183.

> wages incensed Mary Peli. After conferring with her family and co-workers, she and forty-two female Alcoa employees marched in a group to the Broad Building and signed union cards. Shortly thereafter she was called into the shop superintendent's office and fired for "unsatisfactory work."[266]

After her dismissal by Alcoa, Mary Peli was hired by the union to do clerical work and spot organizing. Shortly after Peli assumed her new job, an Alcoa plant superintendent appeared at her home and offered her family financial security if she agreed to forgo union activities. After she refused that offer, she was called in by her parish priest, a union opponent reputed to be closely associated with the Mellons. As an Alcoa representative looked on, the priest offered Mary Peli a job at the Italian consulate in Pittsburgh. Peli refused, citing her intentions to remain actively involved in union organizing in New Kensington.[267]

Initial organizers of the AWU included Nick Zonarich, John Haser, and Peli. Most of the original members of the union signed cards in order to protest company policies of low wages, preferential hiring, and selective layoffs. Initially, membership totaled 3,300, but by January 1935, active membership had been reduced to 17. Much of this attrition was due to Alcoa's actions. Its Employee Representation Plan was promoted throughout New Kensington. Workers who subscribed to the plan were given preferential treatment by local merchants and company foremen. Retail credit dried up for Alcoa employees who supported the union. Local 18356 received nominal recognition by the company, but demands for a union contract and checkoff were refused.[268]

Shortly after the organization of the AWU, it faced its first challenge. The recently passed National Recovery Act contained provision for union representation. Alcoa played the dominant

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[266]Meyerhuber, *Less than Forever*, 183.

[267]Ibid., 183-184.

[268]Ibid., 184.

role in drafting the National Recovery Act codes for the aluminum industry. On October 14, 1933, a basic wage scale, providing $0.40 per hour for male aluminum workers and $0.35 for females, was presented to the National Recovery Administration (NRA). Local 18356 protested that the codes caused a reduction in real wages for many workers. Subsequently, local membership repudiated the codes by a vote of 2,757 to 14. This vote was conveyed to the AFL.

The Local had a rocky relationship with the AFL. AFL representatives did not support the local in its opposition to NRA codes, and AFL representatives did not hesitate to bargain without authorization of the local rank and file. On March 1, 1934, Local President Karl Burke Guiney resigned, citing his inability to conduct the business of the local. The same day, 3,800 aluminum workers walked out, and union militants demanded a minimum $1.00 per hour wage rate, a checkoff, and a five-day work week. Alcoa responded with an offer of an 11 percent wage increase retroactive to the first day of the strike but refused a union contract and a checkoff.[269]

The strike opened a breach between the Local and the AFL. The AFL did not endorse the strike and failed to produce strike benefits. The Local continued to press the AFL, seeking the creation of an Aluminum Workers International Union. AFL leadership rejected the call for a union and instead founded an Aluminum Workers Council.

In July 1934, negotiations resumed with Alcoa. The company again refused the checkoff provision and noted that it would pay the going wage rates in all localities. Other union demands, including a closed shop, seniority rights, dismissal rules, and grievance procedures, were rejected. Alcoa president Roy Hunt expressed to the aluminum workers his objections to union demands. The proposed check-off for union membership "was not a natural or necessary function of the

[269]Ibid., 185.

company." In response to wage demands, he indicated that Alcoa would pay "going wage rates" in all of its plant locations. The union demand of a closed shop would violate both existing agreements and NRA codes. Seniority rights dismissal rules and grievance procedures were, according to Hunt, a matter of company policy and were not subject to union negotiations.[270]

On August 10, a five week strike began. This strike was never sanctioned by the AFL. After five weeks, the renegade union members capitulated without obtaining any of their demands. The skirmish between the dissident local and the AFL continued to escalate as local members expressed support for the rival Congress of Industrial Organization (CIO). In April 1936, the Local's parent, the Allegheny Valley Central Labor Union, was forced to surrender it charter to AFL.

By January 1937, a majority of the Local supported the CIO. On April 12, a workers convention was held in New Kensington for the purpose of founding an industrial union under the auspices of the CIO. Twenty-one delegates, representing only four AWU locals, founded the Aluminum Workers of America (AWA), CIO. The CIO granted the AWA a charter on June 15. The former AFL Local 18356 became Local 2, AWA. Nick Zonarich was elected international president, and John Haser became business agent for Local 2.

In its early years, Local 2 wielded substantial power in local affairs. In 1937, four aluminum workers stood for election in New Kensington and Arnold, and candidates representing CIO affiliates dominated the Democratic party slate. Union supporters were represented on school boards, city councils, county commissions, as mayors and burgesses, and in the offices of district

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[270]Meyerhuber, "Organizing Alcoa," 204.

attorney and sheriff.[271] Strikes occurred in 1937, 1938, and 1939, and Alcoa signed a comprehensive union contract on November 11, 1939.[272] By 1940, the membership of Local 2 had grown to 7,075. By 1940, the local secretary's report indicated that "working conditions improved to the extent that we can seldom find anything wrong with the workplace."[273]

After reaching a peak of power, the influence of the union waned. Conflict erupted in late 1940 over the alleged influence of Communism in the union. Although the increased workforce at Alcoa's New Kensington works added to union membership rolls, the financial condition of the AWA remained tenuous. The budget could support only the officers' salaries and an organizing staff of five. Union president Nick Zonarich had always supported one large industrial union for all workers in the metals industry, and Local 2 official John Haser anticipated a major struggle between the AWA and Alcoa after the war. The union's meager resources could not support this struggle. To provide additional financial and organizational resources, Haser and Zonarich quietly promoted the merger of the AWA with the United Steel Workers of America (USWA).

Initial reports indicated that the amalgamation would be recognized in the new name of the combined union, the United Steel and Aluminum Workers of America, and that the aluminum workers would continue to be supported by an organizing staff and business agent. The amalgamation was effected without AWA membership debate, and the local was reorganized as Local 302.

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[271]Ibid., 191.

[272]Ibid., 192.

[273]Ibid., 191-193.

The promised name change never occurred and many members felt neglected by the USWA. Disputes as to the use of local funds led to the suspension of the local officers. Six local officers were disciplined by the USWA in a trial. On November 5, 1948, members of Local 302 rejected the findings and recommendations of the trial in a secret ballot. The remainder of the Local's history was less stormy. In 1933, the union local offices were moved to the newly constructed union hall in the 1000 block of Third Avenue. By 1966, with the shrinking work force in New Kensington-Arnold, membership had decreased to 2,200. Shop closings threatened 500 more jobs. The Local signed a "save the plant" agreement which included concessions on retirement, seniority, and incentive provisions. But on July 1, 1970, the company announced termination of its manufactured products division, and by March 31, 1971, aluminum manufacturing in New Kensington-Arnold had ceased.[274]

Despite the shutdown, Alcoa's benefit policies for company retirees alleviated their resentment toward the company. Thirty-year Alcoa employee Garnet Marotto expressed a typical opinion among New Kensington retirees:

> Alcoa is a good company, I mean, they still give me health benefits. I only wish they would have modernized here, which to me would have been nice since this was the original plant.[275]

2.17 The Development of New Kensington and Arnold

New Kensington expanded rapidly after the initial lots were sold in 1891. The lots along the Allegheny River were sold as industrial sites. The business district was initially concentrated along Ninth and Tenth streets and adjoining portions of Fourth and Fifth avenues.[276] The lots

[274]Meyerhuber, "Organizing Alcoa," 219.

[275]Mueseler, Alcoa, New Kensington, 12.

[276]Ibid., 34.

located on Second Street, as well as those north and south of the business district, were sold as house sites. The first lot to be sold was located at the corner of Fifth Avenue and Ninth Street. The third lot to be sold was located at the corner of Fifth Avenue and Ninth Street and was bought by D. A. Leslie, who opened a drug store on the site.[277]

By the end of 1891, 500 houses had been built in the newly established borough of New Kensington.[278] To service the residents of the growing community, a variety of businesses had located in New Kensington. The recently established *New Kensington Dispatch* contained advertisements from: J. Minick, butcher; B.F. Rynd, lumber; Philip Adams, baker; Causer Brothers, bakery; W. F. Hall, messenger service; M.C. Feely, grocer; G.C. Parke, physician; J. A. Lowrie, architect; Kaye and McClung, coal dealers; William Tillman, grocer; Charles K. Garey, hotelkeeper; Smith and Owens, building contractors; Mulvihill and Herron, hotel proprietors; Glass and McKean, hardware; C. Seybold & Sons, hardware; J.N. Goerman, flour and seed, J.A. Slonisky, grocer, Sands and White, plumbers.[279] Some of these business enterprises provided goods and services for residents, while others reflected the need for construction materials and services in the growing community.

By the mid-1890s, the New Kensington waterfront was lined with large industrial complexes. The Chambers Glass complex was located north of Nineteenth Street in the area that became the borough of Arnold. Other riverfront complexes included Pennsylvania Tin Plate at Twelfth Street and between Seventh and Eighth streets, Excelsior Flint Glass at Eleventh Street, Brownsville Plate Glass at Tenth Street, the Pittsburgh Reduction Company north of Ninth Street, Pittsburgh

[277]City of New Kensington, *Celebrating a Century*, 10.

[278]Ibid.

[279]Women's Club, *Lore of Yore*, 35.

Cold Steel south of Ninth Street, the Kensington Foundry at Sixth Street, and the Sterling White Lead Company south of Sixth Street.[280] The New Kensington Manufacturing Company was established in 1893 on land southeast of downtown New Kensington. After the plant was destroyed by fire in 1898, a new enterprise, the American Conduit Manufacturing Company, was established at the same location.[281]

During the 1890s, the central business district grew as the population of the area grew. In 1892, two men's clothing stores opened. I. Claster was located at the Fourth Avenue and Tenth Street and Sibley & McAlister at Fourth Avenue and Ninth Street. Elias Bloser, a Newville, Pennsylvania resident who stopped in New Kensington during a business trip, decided to open a jewelry store on Tenth Street.[282] In 1893, the First National Bank of New Kensington was organized with $50,000.00 capital, and plans were developed for a streetcar line and an electric power company. During the same year, Petrolia, Pennsylvania resident H.A. Klingensmith opened a hardware store in New Kensington, and Philip J. Jacobus opened the Jacobus Baking Company.[283] In 1895, construction was completed on the Town Hall, located on the east side of Fourth Avenue south of Eleventh Street.[284]

By 1895, the central business district was concentrated along Ninth and Tenth streets with some businesses also located on Third, Fourth and Fifth avenues between Eighth and Tenth streets. The

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[280]Sanborn Map Company, *Insurance Map of New Kensington, Pennsylvania* (New York: Sanborn Map Company, 1895).

[281]Women's Club, *Lore of Yore*, 63.

[282]Ibid.

[283]Ibid., 36.

[284]Ibid., 53.

business district contained six grocery stores, three variety stores, five clothing stores, three drug stores, four bakeries, three meat markets, two laundries, three tailors, five milliners, two tobacconists, four hotels, a book store, a jewelry store, three hardware stores, two butteries, two undertakers, a dry goods store, two barbers, a carpentry shop, two fruit stores, a restaurant, two pool rooms, and several office buildings. Most of these buildings were wood framed, although several of the more prominent commercial blocks were of masonry construction.[285]

In 1897, E. A. Mainwaring moved her millinery shop from Leechburg to New Kensington. In recognition of the growth of business in New Kensington, streets in the district began to be paved with brick. The first paved street was Fifth Avenue between Ninth and Tenth streets.[286] The following year, the business district met its first setback as the New Kensington Opera House, located at the corner of Fourth Avenue and Tenth Street, and 10 nearby houses were destroyed in a fire that caused an estimated $50,000.00 damage. Despite the destruction of the opera house, the community retained a cultural center. News items published in the *Dispatch in 1899* indicate that Behm's Opera House hosted performances by the Mozart Concert Company, the New Kensington Philharmonic Glee Society, and the New Kensington Military Band.[287]

Arnold grew as the glass works expanded. Within a short time after the establishment of the factory, several thousand people were living on land surrounding the glass plant. Housing was desperately needed for the immigrant glass workers, and the company contracted with the

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[285]Sanborn Map Company, *Insurance Map of New Kensington, Pennsylvania* (1895).

[286]Women's Club, *Lore of Yore*, 53.

[287]Ibid., 37.

Kensington Improvement Company to erect houses to accommodate them. Within one hundred days, one hundred houses had been built.[288]

In 1900, less than 10 years after its establishment, the population of New Kensington had reached 4,665. Arnold had a population of 1,426 in the same year.[289] Much of this population growth came from influxes of immigrants who came to work in the growing industrial enterprises of New Kensington and Arnold. During the late nineteenth and early twentieth centuries, the communities had two major sources of employment: the Pittsburgh Reduction Company (later Aluminum Company of America) works in New Kensington and the Chambers Glass Company (later American Window Glass Company) factory in Arnold. Most of the early immigrants to New Kensington and Arnold came to work in either of these two factories or in the coal mines located in the surrounding area.

By 1900, New Kensington's population included substantial numbers of western, central, and eastern European immigrants. Western European immigrants were primarily from England and Wales, while lesser numbers came from Scotland and Ireland. English and Welsh immigrants were predominantly employed as skilled workers at the aluminum works. Among the earliest arriving immigrants, they may have been recruited by the Pittsburgh Reduction Company as skilled metalworkers to supervise the operation of plant machinery. During the 1890s, New Kensington witnessed a large population influx of Italians and Poles and lesser numbers of Germans and Russians. Many of these immigrants worked as laborers in the aluminum works, while others worked as laborers in the Arnold glass works, or as coal miners. Immigrants were

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[288]Women's Club, *Lore of Yore*, 78.

[289]U.S. Bureau of the Census, *15th Census of the United States*, I:932.

concentrated in the numbered streets and avenues in the central sections of the city. The outlying streets, on the ridges east of downtown, were largely settled by native-born Americans.

Prior to the establishment of the Arnold Alcoa Works in the 1910s, Chambers Glass Company was the primary employer in Arnold. The company's dominance is shown in the 1900 population census for Arnold. A substantial portion of the population consisted of Belgian and French immigrants who came to Arnold in the 1890s to use their European training in glassmaking and glassblowing. Lesser numbers of German, Irish, and Italians were represented among the immigrant population, and many of the adult males worked as unskilled workers at the glass plant. A smaller number worked as laborers in the aluminum works.[290]

By 1905, the 1700 blocks of Third and Second (present Riverside) avenues in Arnold had been largely developed with wood framed duplexes. North of Eighteenth Street, little development had occurred. Additional houses were located on the south side of Seventeenth Street between Second and Third avenues.[291]

During the first decade of the twentieth century, residential development began outside the central core of New Kensington and Arnold. In 1906, the New Kensington Land Company developed East Kensington on former farmland in the vicinity of the Martin School, east of downtown New Kensington. The initial section of the development was bordered on the west by Wood Street, on the south and east by Seventh Street, and on the north by the present Powers Drive.[292]

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[290]U.S. Bureau of the Census, *12th Census of the United States*, Schedule 1: Population.

[291]Sanborn-Perrin Map Company, *Insurance Map of New Kensington, Pennsylvania* (1905).

[292]Women's Club, *Lore of Yore*, 70.

New Kensington's commercial and industrial growth continued during the first decade of the twentieth century. By 1900, the density of the central business district had increased. Most of the lots on Fourth and Fifth avenues between Ninth and Tenth streets were occupied by brick and wood framed two and three story commercial blocks. The variety of available goods increased as well, as merchants catered to the needs and wants of the growing community.[293]

In 1900, the New Kensington Brewing Company occupied a parcel of land at the corner of Ninth Street and Railroad Avenue. Hunt Air Brake was located at Ninth Street and Railroad Avenue. Existing industries, such as American Tin Plate and the Pittsburgh Reduction Company, expanded their physical plants as demand for their products grew.[294] In 1903, the Union Spring and Manufacturing Company began operations in the plant originally used by Pittsburgh Cold Steel. This plant initially manufactured coil springs for railroad cars and later manufactured springs for a variety of industrial applications.[295]

In 1902, a streetcar line was completed between Natrona and New Kensington. This streetcar line ran cars every 20 minutes and resulted in increased patronage for the shops and services of the central business district of New Kensington. To accommodate this increased commerce, new businesses were founded, and existing businesses enlarged. Frank M. Curtis & Company, one of the areas biggest stores, planned expansion into a second three-story building on Fourth Avenue. Isaac Fisher broke ground for a new $10,000.00 clothing store at Fourth Avenue and Tenth Street. The following year, the city council and the Pennsylvania Railroad reached an agreement for

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[293]Sanborn Map Company, *Insurance Map of New Kensington* (New York: Sanborn Map Company, 1900).

[294]Women's Club, *Lore of Yore*, 70.

[295]Ibid., 63.

construction of a station at Barnes and Ninth. The growing city gained a social institution when former New Kensington resident Charles Parkins announced the donation of $13,000.00 to begin a building fund to construct a YMCA on Fifth Avenue between Ninth and Tenth. The remaining funds necessary were soon raised, and the building was completed within a year.[296]

A 1903 telephone directory listed some of the businesses and professionals located in New Kensington at that time. Allen Connor Co., Ltd, dry goods was located on Ninth Street. J. G. Alter, a physician, maintained an office on Fifth Avenue. A.J. Boarer, another physician, had an office on Tenth Street, and the partnership of J.A. and P.A. Brown, physicians, had an office on Fourth Avenue. The central business district boasted three hotels. The Central Hotel was located on Fourth Avenue, the Kensington on Fifth Avenue, and the Merchants Hotel on Fifth Avenue. Stores included E.R. Criss, grocers and general produce, located at 409 Tenth Street; A. Erdman, meat market, on Fifth Avenue; M.G. Euwer, furniture, on Fifth Avenue; H.A. Klingensmith, hardware, on Fifth Avenue; D.A. Leslie, druggist, on Tenth Street; the Long Furniture Company, at 937 Fifth Avenue; Masters and Robinson, hardware, at 927 Fifth Avenue; J.S. McKean and Sons, hardware and groceries, on Fifth Avenue; and W.W. McKnight, grocer, at 925 Fourth Avenue. Services included the New Kensington Bank on Fifth Avenue; J.M. Patterson, funeral director, on Fourth Avenue; the Prudential Insurance Company at 317 Tenth Street; and several real estate offices, including Shepard & Co. on Ninth Street, A. H. Snyder in the 900 block of Fifth Avenue, and Sullivan Brothers on Tenth Street.[297] By 1908, other Fifth Avenue businesses included the Logan Trust Company, McGuigan Furniture Store, and Glover's Confectionery.

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[296]Ibid., 38.

[297]Ibid., 39.

By 1905, most of the blocks within the historic core of the central business district had become completely developed. Wood framed buildings had been largely replaced by masonry buildings. The streets within the district were lined with adjoining two and three story brick commercial blocks.[298]

By 1910, the population of New Kensington had grown to 7,707, and that of Arnold had grown to 1,818.[299] A large portion of this increase represented immigrants who provided much of the unskilled and semi-skilled labor for the aluminum and glass plants. Many of these workers lived in boarding houses or boarded with families who had arrived previously. The largest proportion of immigrants remained Italian and Polish. When plans for a sanitary sewer system for Arnold were published in 1913, lot ownership by persons of Italian and Slavic origin had risen to nearly half the population in Arnold's new neighborhoods.[300] In addition, significant numbers of Hungarian-Slovak, Austrian, and Russians populated both New Kensington and Arnold. Arnold retained a substantial Belgian population. Most of the Belgians worked in the glass factory, while lesser numbers worked in the coal mines. The glass factory remained the largest employer in Arnold, but significant numbers of residents worked for Alcoa.[301] The largest ethnic concentrations in Arnold and New Kensington were represented by churches and social organizations. St. Peter's Roman Catholic Church served the Italian community, and St. Mary's Roman Catholic Church served the Polish community. The Polish community had its Polish

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[298]Sanborn-Perrin Map Company, *Insurance Map of New Kensington, Pennsylvania* (1905).

[299]U.S. Bureau of the Census, *15th Census of the United States*, I:932.

[300]Carl I. Meyerhuber, Jr., *Less than Forever: The Rise and Decline of Union Solidarity in Western Pennsylvania, 1914-1948* (Selinsgrove, Pennsylvania: Susquehanna University Press, 1987), 181.

[301]U.S. Bureau of the Census, *13th Census of the United States*, Schedule 1: Population.

Falcon Hall, its Polish National Alliance, and Veterans hall, while the Italians had the Italian Club and the Young Italy organization. The two churches and several social organizations remain active, testimony to the continuing strong ties within these two largest ethnic communities of the area. Despite the large influxes of immigrants, there is no evidence that whole communities were recruited from Europe, as was the case in some other western Pennsylvania industrial communities.[302]

By 1915, almost all of the lots in Arnold on the east side of Third Avenue from the New Kensington boundary line to Fifteenth Street were occupied by houses. North of Fifteenth Street, Third Avenue was less heavily developed. The west side of Second Avenue from Fifteenth Street to Seventeenth Street was almost completely developed with houses by 1915. The east side of Second Avenue was less heavily developed. The south side of Seventeenth Street east of Third Avenue and the north side of Sixteenth Street at Third Avenue were also developed. A commercial district had developed along Fifth Avenue from Sixteenth to Eighteenth streets.[303]

During the second decade of the twentieth century, residential development of the land surrounding New Kensington and Arnold continued. In 1915, the subdivision of Mount Vernon was established southeast of downtown New Kensington. The first section included Summit and Spring streets, and the first houses were constructed along Spring Street. During the latter portion of the decade, the second and third sections of the subdivision were platted. The roads in this section were given names to honor battle sites, military divisions, and soldiers from World War I.[304]

[302]Interview with Carl Meyerhuber, Apollo, Pennsylvania. July 27, 1993.

[303]Sanborn Map Company, *Insurance Map of New Kensington, Pennsylvania* (1915).

[304]Women's Club, *Lore of Yore*, 71.

By 1911, the business district had expanded south to Seventh Street. The section between Ninth and Eleventh streets consisted primarily of attached masonry blocks. South of Eighth Street, commercial development was concentrated along Fifth Avenue. The 800 block of Fifth Avenue was occupied by a large number of small commercial buildings, as well as larger blocks housing a five and ten cent store and Moose lodge, a theater, a furniture and carpet store and a dry goods store. New Kensington High School was located on Fourth Avenue north of Eigthth Street. South of Eighth Street, Fifth Avenue was lined with wood framed two and three story commercial blocks, housing stores and shops that served the adjacent residential areas.[305]

In 1912, New Kensington had three banks, eight large stores, a well-equipped hospital, a good business college, 16 doctors, seven dentists, five lawyers, 25 clubs, 13 hotels, 12 restaurants, five theaters, and three weekly newspapers. Thirty-five daily Pennsylvania Railroad trains connected New Kensington with Pittsburgh.[306] Five thousand workers were employed at 13 large, diversified industrial plants in Arnold, New Kensington, and Parnassus, a community south of New Kensington. Industry continued to grow, and population increased in response to the demand for workers. To serve the growing population of New Kensington, further development occurred within the central business district.

In 1913, the First National Bank planned a new building, constructed at Fifth Avenue and Ninth Street, and the Logan Bank announced expansion plans. Alcoa announced plans to construct an office building on Eleventh Street between Fourth and Fifth avenues. In 1914, a fund drive was undertaken for a new building for Citizens General Hospital, and construction was begun. The

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[305]Sanborn Map Company, *Insurance Map of New Kensington, Pennsylvania* (New York: Sanborn Map Co., 1911).

[306]Women's Club, *Lore of Yore*, 41.

new Citizens General Hospital was dedicated in 1915. In the same year, F.W. Woolworth opened a variety store on Fifth Avenue, and the McAllister Building on Fourth Avenue was destroyed by fire.[307] In 1917, the Ritz Theater at 956-960 Fifth Avenue was erected.[308]

By 1920, the population of New Kensington had risen to 11,487, and the population of Arnold had boomed to 6,120[309], reflecting in part the additional employment provided by the new Arnold Alcoa Works. The immigrant population had continued to increase in both communities during the 1910s. In Arnold, immigration from Eastern Europe increased, and predominantly immigrant neighborhoods dominated much of the community. Some blocks in Arnold were almost exclusively Italian, some were almost exclusively Polish. Large numbers of these immigrants worked at the glass factory, while equally large numbers worked at the Alcoa works. While these two ethnic groups dominated the population of both communities, other ethnic communities had also developed by 1920. Arnold was home to a significant number of Galician immigrants who came to the United States from an area of Eastern Europe now divided between Poland and Ukraine. Other Arnold immigrants came from Ukraine and Russia. This growing Ukrainian-Russian community provided the impetus for the establishment of the Ukrainian Citizens Club in Arnold, a building that still stands at Fourteenth Street and Fourth Avenue. Most of these Eastern European immigrants worked as laborers or in other semi-skilled occupations, such as packers. In addition, a small group of Mexican immigrants had settled in Arnold in 1914-1915. All were employed as laborers at the Alcoa works.

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[307]Ibid.

[308]Pennsylvania Comprehensive Historic Sites Survey Form, Ritz Theater, Form 24-3-15. Bureau for Historic Preservation, 1.

[309]U.S. Bureau of the Census, *15th Census of the United States*, I:932.

By 1921, most of the empty lots in the southern portion of Third Avenue in Arnold had been developed with houses. The east side of Third Avenue between Fifteenth Street and Seventeenth Street was still lightly developed. Intensive development had occurred in the 1400 block of Fourth Avenue. The east side of the 1500 and 1600 block of Second Avenue was still undeveloped. By 1928, most of the previously undeveloped residential parcels in Arnold had been developed with houses.[310]

Development of outlying areas as residential subdivisions continued in the 1920s and 1930s. Houses were constructed in the Mount Vernon subdivision, and several grocery stores were constructed to serve residents of the area. Pine Manor subdivision was established on a former dairy farm on Woodbury Road northeast of downtown New Kensington. Many of the larger homes in the subdivision were designed by Enos Cooke, the architect of Mt. Saint Peter's Roman Catholic Church.[311]

Development of the central business district continued in the 1920s. By 1921, the central business district had begun to expand northward and eastward. Commercial development extended to the railroad tracks on the east side of downtown, and the 1200 blocks of Fourth and Fifth avenues contained a mixture of wood framed detached residences and masonry commercial blocks and light manufacturing plants. Several social clubs and churches were also located in the north section of downtown New Kensington.[312] In 1921, the Liberty Theater opened at Fifth Avenue

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[310]Sanborn Map Company, *Insurance Maps of New Kensington, Pennsylvania* (1921, 1928).

[311]Women's Club, *Lore of Yore*, 74.

[312]Sanborn Map Company, *Insurance Map of New Kensington, Pennsylvania* (New York: Sanborn Map Company, 1921).

and Eight Street.[313] In 1924, the cornerstone was laid for the Salvation Army Citadel at the north end of the central business district, and the building was dedicated the following year.[314] Another theater, the State, opened on Fifth Avenue in 1925,[315] reflecting the growing popularity of movies as entertainment. In 1928, the city's first free public library opened, Montgomery Ward & Company announced plans for a store in the 1000 block of Fifth Avenue, and a $100,000.00 fire destroyed the Edelson Building in the 300 block of Ninth Street.[316]

New Kensington of the 1920s was somewhat segregated ethnically, although the level of segregation was less than that of some other western Pennsylvanian communities. Some blocks in downtown New Kensington were overwhelmingly populated by Polish immigrants, while others were overwhelmingly populated by Italian immigrants. Most of these blocks were concentrated in the area of Second to Fifth avenues, east of the Alcoa works. Blocks at the south end of New Kensington and east of the downtown area contained some immigrant residents but remained predominantly populated by native-born Americans. This segregation continued into the following decade. Sister Lois Sculco recalled that her family was the first Catholic, Italian family to move into the neighborhood on the heights above downtown New Kensington near the Aluminum Research Laboratories:

> We were the first Italian family...to move into an area where we were surrounded by Aluminum Company executives. And it was like we were the foreigners.
>
> The ethnic groups resided separately from what I would consider the 'Country Club' class... The ethnic population was the blue collar workers. The

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313Women's Club, *Lore of Yore*, 41.

314Ibid., 42.

315Ibid., 43.

316Ibid., 44-45.

professionals, who lived...in a certain area of town, were basically Aluminum Company executives.....

My father was a professional and gradually the professionals that came from the ethnic groups moved into those areas of housing.[317]

The ethnic mix of the city increased by 1920. Earlier immigrants were joined by significant numbers of Czecho-Slovaks, Austrians, and Russians, as well as smaller numbers of Syrians and Greeks. A substantial portion of each of these ethnic communities found employment in the aluminum works. Smaller numbers, primarily earlier arriving immigrants, worked as shopkeepers and small business men.[318] By 1930, Arnold had continued to grow rapidly to a population of 10,575, and New Kensington had reached a population of 16,762.[319] Italian-Americans constituted more than 60 percent of Alcoa's New Kensington area labor force.[320]

According to historian Carl Meyerhuber, the Arnold-New Kensington Alcoa workforce was almost entirely of European descent. The few African-American employees were relegated to peripheral jobs, such as plant watchman.[321]

As elsewhere, the depression slowed the growth of New Kensington during the 1930s and early 1940s. In 1930, the city sustained a severe setback when a $300,000.00 fire destroyed the Wainwright Department Store, three other business places, and several apartments.[322] In 1931, as

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[317]Mueseler, Alcoa, New Kensington, 20-21.

[318]U.S. Bureau of the Census, *14th Census of the United States*, Schedule 1: Population.

[319]U.S. Bureau of the Census, *15th Census of the United States*, I:932.

[320]Ibid., 183.

[321]Interview with Carl Meyerhuber, Apollo, Pennsylvania. July 27, 1993.

[322]Women's Club, *Lore of Yore*, 45.

part of depression-era public works programs, the Treasury Department awarded a contract to construct a new post office at Fifth Avenue and Eleventh Street. This building, incorporating Art Deco and Neo-Classical elements, was designed by James A. Wetmore, Supervising Architect of the Treasury Department.[323] In 1938, a $70,000.00 fire destroyed Hart's store at 955 Fourth Avenue.[324] In 1942, the new Art Deco Dattola Theater, designed by Michael J. DeAngelis, was erected on the site of a previous theater at 1021 Fifth Avenue.[325]

In the years before World War II, the economic life of New Kensington revolved around Alcoa. Almost every family in the area had at least one family member who worked for the company, and approximately one-quarter of the total population of New Kensington and Arnold worked for Alcoa. New Kensington resident John Kane remembered his perceptions of the company as he was growing up:

> ...all my friends' fathers worked for Alcoa. We didn't think that anybody in the world worked for anybody else. Either you worked for Alcoa or you operated a grocery store that helped support the people who worked for Alcoa.
>
> In my case I had my father, three uncles and when my sister graduated from high school, she also went to work at Alcoa.[326]

As another illustration, Mueseler cited the Mazzotta family. James Mazzotta began working as a polisher in the cooking utensil plant in 1907. He retired from Alcoa in 1957. Each of his eight

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[323]Paul A. Tellers, U.S. Post Office-New Kensington, PA, U.S. Postal Service Historic, Architectural & Archeological Significance Survey, Manuscript Copy in files of the Bureau for Historic Preservation, Harrisburg, Pennsylvania, 3.

[324]Women's Club, *Lore of Yore*, 46.

[325]M. Cabot Associates, Dattola Theater, Pennsylvania Historic Resources Survey Form, Bureau for Historic Preservation, Harrisburg, Pennsylvania, 1-2.

[326]Mueseler, Alcoa, New Kensington, 15.

children worked for Alcoa for varying periods of time. His sons, Bob and Vic, spent their careers with the company, working for 28 and 27 years, respectively.[327]

Later changes in the population of New Kensington and Arnold reflected the impact of changing industrial employment. In 1940, the combined population of New Kensington and Arnold was 34,630. During the next 10 years, the population remained relatively static, and in 1950, the two communities had a combined population of 35,409. Partly in response to the decrease in Alcoa operations in New Kensington-Arnold, the combined population dropped seven percent between 1950 and 1960 to 32,921. During the 1960s, as Alcoa continued to relocate some operations and close others and Jones & Laughlin Steel Company closed an area plant, the population continued to decline. Between 1960 and 1970, population declined 13 percent to 28,486. Population continued to decline following the Alcoa shutdown and the shutdown of American Saint Gobain's Arnold glass factory. In 1980, the population of Arnold and New Kensington totalled 24,513, a 14 percent decline from 10 years earlier.[328]

In the years following World War II, the central portion of New Kensington continued to change. In 1948, Citizens General Hospital was granted federal approval for an expansion program to be financed with $1 million in government funds and $500,000.00 raised by a fund drive. The expansion was completed in 1952.[329] During the 1950s, the development of shopping centers in outlying sections of the New Kensington area began with the construction of a $10 million center in Natrona Heights. This development pattern, typical of many urban areas in the post-war period, contributed to the decline of downtown New Kensington as a commercial center.

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[327]Ibid., 15-16.

[328]Ibid., 13.

[329]Women's Club, *Lore of Yore*, 48.

In 1957, work was begun on a $3 million urban renewal project. The city hall was relocated from Fourth Avenue south of Eleventh Street to the city line on Leechburg Road. The original city hall site was converted to a parking lot. A new high school was also completed east of downtown New Kensington. The commercial exodus from downtown continued in the 1960s with the completion of the Riverview Plaza on Tarentum Bridge Road in 1964.[330] A downtown fire that same year destroyed two shops and caused $100,000.00 in damages.[331]

With the shutdown of industrial facilities came the shutdown of retail businesses that served industrial employees. Sr. Lois Sculco, who grew up in New Kensington, recalled:

> When the Alcoa plant closed...what I saw as an observer was a lot of poverty in New Kensington, a lot of unemployment after that. The downtown, like lots of downtowns in small towns, is basically gone in terms of businesses. All those prominent stores that were considered very nice stores when I was growing up, are now really gone.[332]

Some attempt was made to reverse the commercial decline of downtown with the construction of a new shopping center on urban renewal land south of Ninth Street in 1971. However, the decline continued when three businesses in the 900 block of Fourth Avenue were destroyed by fire.[333]

The shutdown also resulted in a loss of many of the community's leaders. In an interview, Elizabeth Blissell, the secretary of the New Kensington Area Chamber of Commerce, noted,

> While everybody was lamenting the closing down of the aluminum works, nobody ever said a thing about the thing I was concerned about...that was that we lost the leadership of that middle management. Middle management doesn't even recognize that themselves. A lot of the fellows did good work here. I felt

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[330]Ibid., 51.

[331]Ibid.

[332]Ibid.

[333]Women's Club, *Lore of Yore*, 52.

we could recoup things on the nuts and bolts level, but losing that leadership here in this community was a very sad thing as far as I was concerned.[334]

[334]Ibid., 18.

3.0 DOCUMENTATION OF A HISTORIC CONTEXT

The historic resources survey was conducted in accordance with the U.S. Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation. These standards require the establishment of an organizational framework known as a historic context. The historic context organizes information based on a cultural theme and its geographical and chronological limits. Contexts describe the significant broad patterns of development in an area that may be represented by historic properties. The documentation of historic contexts is the foundation for decisions about identification, evaluation, registration, and treatment of historic properties. Each of the basic steps for documenting a historic context is addressed below.[335]

3.1 Identification of Concept, Chronological Period, and Geographical Area

The stated purpose of the survey was to identify and evaluate aluminum industry-related resources in southwestern Pennsylvania. The time period encompassed by the survey extends from the establishment of the first aluminum reduction facility in Pittsburgh in 1888 until the end of World War II in 1945. The end of World War II signaled the decline of the New Kensington and Arnold Alcoa Works and subsequent relocation of facilities to other locations outside the region. The geographical area of the historic context comprises the region of Pennsylvania in which aluminum industry-related facilities were located. Specifically, it includes Westmoreland County and Allegheny County.

3.2 Assemblage of Information

Information regarding the historic context was collected from the following repositories: the Bureau for Historic Preservation, Harrisburg, Pennsylvania; the Historical Society of Western

[335]U.S. Department of the Interior, National Park Service, "Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines," *Federal Register*, 48:190, September 29, 1983, 44717-44719.

Pennsylvania, Pittsburgh; the Hillman Library and Graduate School of Business Library, University of Pittsburgh; the Archives of Industrial Society, University of Pittsburgh; the Roy Hunt Library, Carnegie-Mellon University; the People's Library, New Kensington, Pennsylvania; the Alcoa Corporate Library, Pittsburgh; the Aluminum Company of America Archives, Pittsburgh; the Carnegie Library, Pittsburgh; the Pennsylvania State Library, Harrisburg; and the University of Pennsylvania Library, Philadelphia.

Sources consulted included published histories of the aluminum industry; corporate histories of Alcoa; historic maps, insurance atlases, and photographs; local histories; local architectural guides and architectural surveys; periodical articles; archival collections containing information on local history and the history of the aluminum industry; and persons knowledgeable of the history of the aluminum industry. These sources are listed in Section 5.0 of the present report.

3.3 Synthesis of Information

The information obtained concerning the historic context of the aluminum industry in southwestern Pennsylvania has been synthesized in Section 2.0 of the present report.

3.4 Definition of Property Types

Research indicated the presence of seven property types that have relevance and importance in illustrating the historic context: "The Aluminum Industry in Westmoreland and Allegheny Counties, Pennsylvania, 1888-1945." These property types are:

- aluminum production and support facilities
- aluminum company office facilities
- aluminum company research facilities
- aluminum company residential facilities

- residences associated with aluminum company founders
- housing for aluminum and other industrial workers
- buildings associated with aluminum company employees
- residential districts adjacent to aluminum production facilities

Known examples of these property types were recorded during the field examination task of the survey. A complete definition of property types follows.

3.4.1 *Locational Patterns*

Research indicated that a major concentration of aluminum industry-related resources existed in the adjacent communities of Logans Ferry, New Kensington, and Arnold, Pennsylvania. Situated along the industrial waterfront of these three communities are a large number of buildings associated with aluminum production, including cooking utensil fabricating facilities; steel and foil rolling mills; an aluminum powder plant; an extrusion facility; a melting room, a machine shop, a tube drawing mill, a casting plant, an aluminum seal fabrication facility, and offices.

In addition, one aluminum fabrication building has been identified in the city of South Greensburg, Westmoreland County. This building formerly housed the Penn Aluminum Company, a fabricator of aluminum cooking utensils. The original production building of the Pittsburgh Reduction Company on Smallman Street in Pittsburgh has been demolished. Its site is indicated by a historical marker.

Other aluminum industry-related historic resources are located elsewhere within the city of New Kensington. These include the former Aluminum Research Laboratories and Aluminum Club residence, both located on Freeport Road in New Kensington, as well as the Wear-Ever Building, located on Eleventh Street between Fourth and Fifth avenues in New Kensington.

According to industry scholar Carl Meyerhuber, the Pittsburgh Reduction Company and Alcoa constructed no houses for their workers.[336] However, several concentrations of vernacular residential buildings are located in close proximity to aluminum production facilities in New Kensington and Arnold. These residential neighborhoods are situated immediately east of former Alcoa production facilities and housed workers in the production facilities. In addition, Aluminum City Terrace, a 1941 defense workers housing complex, is situated on the eastern edge of New Kensington.

The identified property types also include houses associated with founders of the Pittsburgh Reduction Company, the corporate predecessor of the Aluminum Company of America. the Alfred E. Hunt House is located on Shady Avenue in the Shadyside section of Pittsburgh. The George H. Clapp House is located on Woodland Road in the Pittsburgh suburb of Edgeworth.

3.4.2 *Current Condition of Known Properties*

Based on the results of research, a survey was conducted both to confirm the documentary evidence regarding locational patterns and to permit a characterization of the current condition of known properties relating to each property type. The current condition of each property type is addressed below.

3.4.2.1 Aluminum Production and Support Facilities

Production facilities include sheet and foil rolling mills, powder mills, aluminum cooking utensil fabricating facilities, drawing mills, extrusion facilities, a melting room, job-shop, and aluminum seal fabrication facilities. Most are steel framed buildings with brick cladding and were erected between 1900 and 1940. The buildings within New Kensington and Arnold are presently

[336]Carl Meyerhuber, Interview, New Kensington, Pennsylvania, March 31, 1993.

incorporated into the Schreiber Industrial Park. Because of the elimination of Alcoa's fabrication facilities in New Kensington, Arnold, and Logans Ferry, none of these buildings is presently used for its original purposes. Some have been adapted for use by other industrial enterprises. Others remain vacant. Those buildings that are currently in use are in relatively good condition, although alterations have compromised architectural integrity of some buildings. These alterations have generally involved reconfiguration of interior spaces. Vacant buildings are expected to retain a high degree of architectural integrity but may be in poor condition. The largest group of vacant buildings are located at Logans Ferry. Though in good condition, these buildings may be endangered due to eventual reuse of the site by its present owner.

Support facilities at the New Kensington, Arnold, and Logans Ferry works include gate houses, storage sheds, machine shops, boiler and power houses, oil houses, carpenter and box shops, gas meter house, paint shops, garages, laundry facilities, and an electric substation. Many of these support buildings remain at the three Alcoa facilities. Few remain in their original uses. Most of the remaining buildings have been converted to new uses and retain a moderate degree of architectural integrity.

3.4.2.2 Aluminum Company Office Facilities

Several historic office facilities are included in the survey. The first, the Wear-Ever Building, has been adaptively used as the Kensington Arms apartments and retains its basic architectural integrity and is in good condition. The second, Building 242 of the New Kensington Alcoa Works continues its historic use as an office/storage facility and has been well-maintained. A third possible office facility, the ca. 1940 Building 250 of the Arnold Alcoa Works, is abandoned and deteriorating. Its architectural integrity has been compromised by vandalism. The Aloca corporate headquarters building in downtown Pittsburgh was built in 1951-1952. It was not surveyed because it postdates the period of significance.

3.4.2.3 Aluminum Company Research Facilities

Although the original Alcoa laboratory building, constructed in 1929, no longer houses the company's main laboratory, it remains in use. This building and other associated buildings retain their integrity, and their exteriors are in good condition. The present Alcoa research complex, located in Merwin, Upper Burrell Township, Westmoreland County, dates from the early 1960s and later. It was not surveyed, because it postdates the period of significance and does not possess any outstanding characteristics that might afford it special National Register consideration.

3.4.2.4 Aluminum Company Residential Facilities

One residential facility was constructed by Alcoa, the Aluminum Club, a 1915 building located on Freeport Road. The Aluminum Club was later used as a residence for nursing students at New Kensington's Citizen's General Hospital and is presently used as classroom space by the nursing school. Although remodeled, its basic architectural integrity is intact, and it is in good condition.

3.4.2.5 Residences Associated with Company Founders

Two houses associated with aluminum company founders remain in Allegheny County. The first, the Albert E. Hunt House in Pittsburgh, has been substantially altered in its conversion to offices and apartments. Despite these major alterations, it retains sufficient exterior architectural integrity to convey associations with its late nineteenth century period of significance. The second, the George H. Clapp House in Edgeworth, has been little altered since its occupancy by Clapp and retains a high level of integrity.

3.4.3.6 Housing for Aluminum and Other Industrial Workers

Aluminum City Terrace was constructed in the early 1940s by the U.S. Public Building Administration to provide housing for aluminum and other defense industry workers. The complex has been altered by the replacement of sunshades, the reorientation of the main entrances, and the addition of porches. Despite these changes, the buildings are still recognizable as examples of ca. 1940 International Style residences. The buildings retain basic architectural integrity and are generally in good condition.

3.4.2.7 Buildings Associated with Aluminum Company Employees

Consultation with staff of the America's Industrial Heritage Project allowed identification of three resources significant because of connections to workers in the Arnold and New Kensington Alcoa works. Two of these resources, both churches. reflect the predominant ethnic heritage of the plant workers. A third resource, the United Steel Workers of America Local 302 Union Hall, reflects the importance of the union in the history of the aluminum industry in the area.

The two churches, Mount St. Peter's Roman Catholic Church and St. Mary's Roman Catholic Church, are both in active use by large congregations. Both churches retain a high level of architectural integrity. The Union Hall has been adaptively used as a senior center. An addition has been made to the original block, and a gable roof has been added to the original flat roofed main block. Despite these changes, the building retains a moderate degree of architectural integrity.

3.4.2.8 Residential Districts adjacent to Aluminum Production Facilities

Immediately east of Alcoa production facilities in New Kensington and Arnold are approximately 14 blocks of early twentieth century residential buildings. These buildings are remnants of larger residential districts associated with the factories, portions of which were demolished as part of urban renewal projects. At the edges of this 14 block area the pattern of land usage and level of historic integrity changes significantly. East and northeast of the Arnold district is a predominantly light industrial and downtown commercial area. North, east and south of the New Kensington district are several post-World War II commercial and residential developments, parking areas, and vacant lots.

Although a few houses have been abandoned, the general condition of buildings in the 14 block area is fair to good. Many buildings have been altered significantly over time, including window replacement and re-siding with aluminum and vinyl siding. Despite these changes, the area as a whole a retains a moderate level of historic integrity.

4.0 SURVEY RESULTS

This historic resources survey is intended as an intensive level investigation of the aluminum industry in southwestern Pennsylvania (1888-1945) and documents all known historic resources related to the development and operation of that industry.[337] A Pennsylvania Historic Resource Survey Form was completed for each identified resource directly related to the aluminum industry. In addition, Pennsylvania Historic Resource Survey Forms were completed for two primarily residential districts located immediately adjacent to production facilities. These districts are known to have housed the families of aluminum workers.[338] Within these districts, selected pivotal buildings were surveyed individually and recorded on separate survey forms. Historic resources were identified in South Greensburg, New Kensington, and Arnold in Westmoreland County; and Pittsburgh, Edgeworth, and Logans Ferry in Allegheny County (Appendix 1).

The following table indicates the number of resources recorded and the number of survey forms prepared for each of the identified property types. Due to the wide range in type and scale of resources, the length and complexity of each survey form varies considerably. In total, it is estimated that ca. 380 buildings and structures were addressed during the survey, either individually or as components of a district.

[337]Anne Derry, et al., *Guidelines for Local Surveys: A Basis for Preservation Planning*, National Register Bulletin 24 (Washington, D.C.: National Register of Historic Places, National Park Service, 1985), 12.

[338]The central business district of New Kensington was not included within the New Kensington Historic District since it is physically isolated from it by recent intrusions and vacant lots and functionally removed from it by its differing land uses. While aluminum workers undoubtedly patronized local businesses, the central business district is more appropriately evaluated within the separate context of commercial development in New Kensington.

ALUMINUM INDUSTRY-RELATED RESOURCES IN SOUTHWESTERN PENNSYLVANIA		
Property Type	**No. of Resources**	**No. of Survey Forms**
Aluminum Production and Support Facilities	1 individual building and 3 districts	1 individual form and 3 district forms
Aluminum Company Office Facilities	2	2
Aluminum Company Research Facilities	1	1
Aluminum Company Residential Facilities	1	1
Residences Associated with Aluminum Company Founders	2	2
Housing for Aluminum and Other Industrial Workers	1 (including 38 individual buildings)	1
Buildings Associated with Aluminum Company Employees	3	3
Residential Districts adjacent to Aluminum Production Facilities	2 (including ca. 54 buildings in New Kensington and ca. 220 buildings in Arnold)	2 district forms and 10 individual forms on pivotal buildings
TOTALS	16 (including 11 individual buildings or complexes and 5 districts)	26

Each historic resource was related to the historic context, and the physical evidence was correlated with the documentary sources. Resources that possessed physical or associative characteristics, significantly relating them to the historic context, and a sufficient level of historic integrity to be good representatives of their property types were recommended eligible for the National Register.

Resources that did not meet these requirements were recommended not eligible. Recommendations for or against eligibility was based explicitly on National Register criteria.[339]

4.1 Resources Recommended Eligible for the National Register

The following resources are recommended eligible for the National Register of Historic Places. Each possesses a moderate to high level of historic integrity and is associated with the general historical theme: The Aluminum Industry in Westmoreland and Allegheny Counties, Pennsylvania, 1888-1945. Properties are fully documented in Appendix I of the present report.

Aluminum Production and Support Facilities

New Kensington Alcoa Works (west side, Industrial Boulevard from Ninth Street north to Arnold city line)
Arnold Alcoa Works (west side, Third Avenue from Thirteenth Street to Fourteenth Street and west side, Riverside Drive)
Logans Ferry Aluminum Powder Plant (Barking Road, Plum Township)
Penn Aluminum Company[340] (north side, Theabold Avenue, South Greensburg)

Aluminum Company Office Facilities

Wear-Ever Building (400 Eleventh Street, New Kensington)
Building 242[341] (New Kensington Alcoa Works)

Aluminum Company Research Facilities

Aluminum Research Laboratories (east side, Freeport Road between Catalpa Street and Edgewood Road, New Kensington)

Aluminum Company Residential Facilities

Aluminum Club (east side, Freeport Road at Elizabeth Street)

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[339]National Register of Historic Places, Criteria for Evaluation. Code of Federal Regulations, Title 36, Chapter I, Part 60.4. U.S. Government Printing Office, Washington, DC.

[340]This building is recommended eligible for the National Register as a contributing resource of a potential Theobald Avenue Industrial District. Since other buildings within the potential district are not associated with the aluminum industry, they were not included in the present survey.

[341]This building is recommended eligible for the National Register as a contributing resource of the New Kensington Alcoa Works.

Residences Associated with Aluminum Company Founders

Captain Alfred E. Hunt House (272 Shady Avenue, Pittsburgh)
George H. Clapp House (425 Woodland Road, Edgeworth)

Housing for Aluminum and Other Industrial Workers

Aluminum City Terrace (Terrace Street, New Kensington)

Buildings Associated with Aluminum Company Employees

United Steel Workers of America Local 302 Union Hall[342] (1035 Third Avenue, New Kensington)

Residential Districts adjacent to Aluminum Production Facilities

New Kensington Historic District (900-1091 Third Avenue, 302-324 Tenth Street, 201-319 Ninth Street, and 920 Industrial Drive)

Pivotal Buildings:
- Washington Hotel (305 Tenth Street)
- Michael and Cynthia Stenger Houses (304-306 Tenth Street)
- Elizabeth Czepull House (308 Tenth Street)
- Redman Apartments (302 Tenth Street)
- William Paskiewicz House (1080 Third Avenue)
- Rorabaugh Block (324 Tenth Avenue)
- George Skegas Block (209 Ninth Street)

Arnold Historic District (portions of Second, Third, and Fourth avenues between New Kensington city line and Elizabeth Street)

Pivotal Buildings:
- Ukranian Citizens Club (1402 Fourth Avenue)
- George and Cynthia Dobler House (1521-1523 Third Avenue)
- Bernard P. Potts House (217 Sixteenth Street)

Two buildings associated with aluminum company employees, St. Mary's Roman Catholic Church (857 Kenneth Avenue, New Kensington) and Mount St. Peter's Roman Catholic Church (100 Freeport Road, New Kensington), are recommended not eligible for the National Register. Ordinarily, religious buildings are considered not eligible unless they possess outstanding

[342]This building is recommended eligible for the National Register as a contributing resource of the New Kensington Historic District.

architectural or historical merit. These churches are common examples of their type and do not possess outstanding merit.

4.2 Resources Recommended Eligible for National Historic Landmark Status

The following resources are recommended eligible for National Historic Landmark status.

New Kensington Alcoa Works
Arnold Alcoa Works
Aluminum Research Laboratories
Aluminum City Terrace

The New Kensington and Arnold Works include the earliest extant facilities of Alcoa, the country's oldest and largest manufacturer of aluminum and aluminum products. The Aluminum Research Laboratories were a center for research and innovation in aluminum technology from 1929 to 1970. The original building, Building 29, was an important work in the Classical Revival style by the nationally known Pittsburgh architect, Henry Hornbostel. Aluminum City Terrace is a major expression of the Federal Government's Defense Housing Project. The housing development was designed by Walter Gropius and Marcel Breuer, two internationally acclaimed masters of modern architecture.

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APPENDIX I:

LIST OF HISTORIC RESOURCES, LOCATION MAPS, AND PENNSYLVANIA HISTORIC/INDUSTRIAL RESOURCE SURVEY FORMS

LIST OF HISTORIC RESOURCES

THE ALUMINUM INDUSTRY IN WESTMORELAND AND ALLEGHENY COUNTIES, PENNSYLVANIA, 1888-1945

Aluminum Production and Support Facilities

New Kensington Alcoa Works (west side, Industrial Boulevard from Ninth Street north to Arnold city line)
Arnold Alcoa Works (west side, Third Avenue from Thirteenth Street to Fourteenth Street and west side, Riverside Drive)
Logans Ferry Aluminum Powder Plant (Barking Road, Plum Township)
Penn Aluminum Company (north side, Theabold Avenue, South Greensburg)

Aluminum Company Office Facilities

Wear-Ever Building (400 Eleventh Street, New Kensington)
Building 242 (New Kensington Alcoa Works)

Aluminum Company Research Facilities

Aluminum Research Laboratories (east side, Freeport Road between Catalpa Street and Edgewood Road, New Kensington)

Aluminum Company Residential Facilities

Aluminum Club (east side, Freeport Road at Elizabeth Street)

Residences Associated with Aluminum Company Founders

Captain Alfred E. Hunt House (272 Shady Avenue, Pittsburgh)
George H. Clapp House (425 Woodland Road, Edgeworth)

Housing for Aluminum and Other Industrial Workers

Aluminum City Terrace (Terrace Street, New Kensington)

Buildings Associated with Aluminum Company Employees

United Steel Workers of America Local 302 Union Hall (1035 Third Avenue, New Kensington)
St. Mary's Roman Catholic Church (857 Kenneth Avenue, New Kensington)
Mount St. Peter's Roman Catholic Church (100 Freeport Road, New Kensington)

Residential Districts adjacent to Aluminum Production Facilities

New Kensington Historic District (900-1091 Third Avenue, 302-324 Tenth Street, 201-319 Ninth Street, and 920 Industrial Drive)

Pivotal Buildings:

- Washington Hotel (305 Tenth Street)
- Michael and Cynthia Stenger Houses (304-306 Tenth Street)
- Elizabeth Czepull House (308 Tenth Street)
- Redman Apartments (302 Tenth Street)
- William Paskiewicz House (1080 Third Avenue)
- Rorabaugh Block (324 Tenth Avenue)
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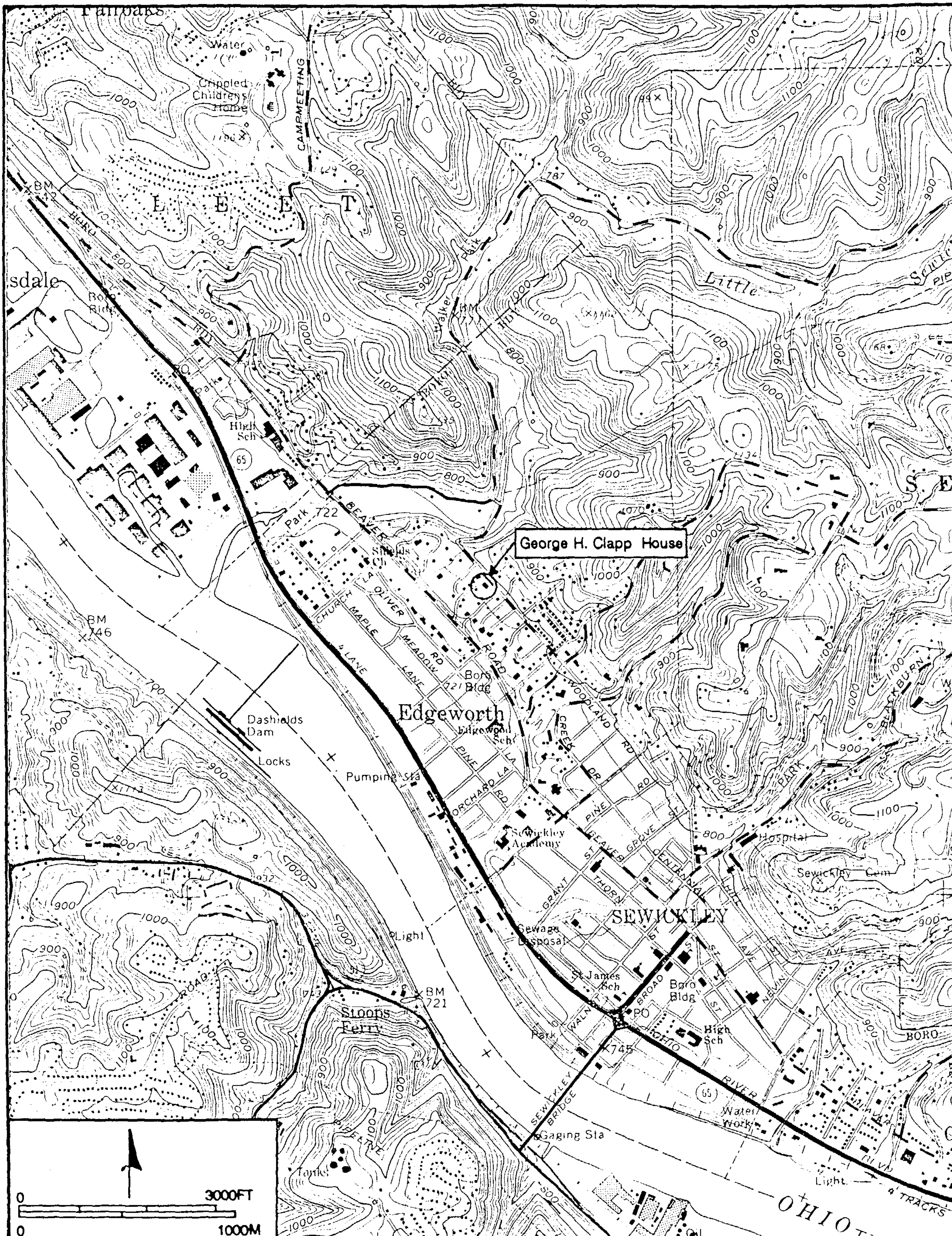
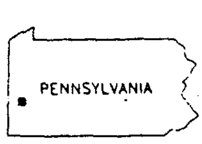
Arnold Historic District (portions of Second, Third, and Fourth avenues between New Kensington city line and Elizabeth Street)

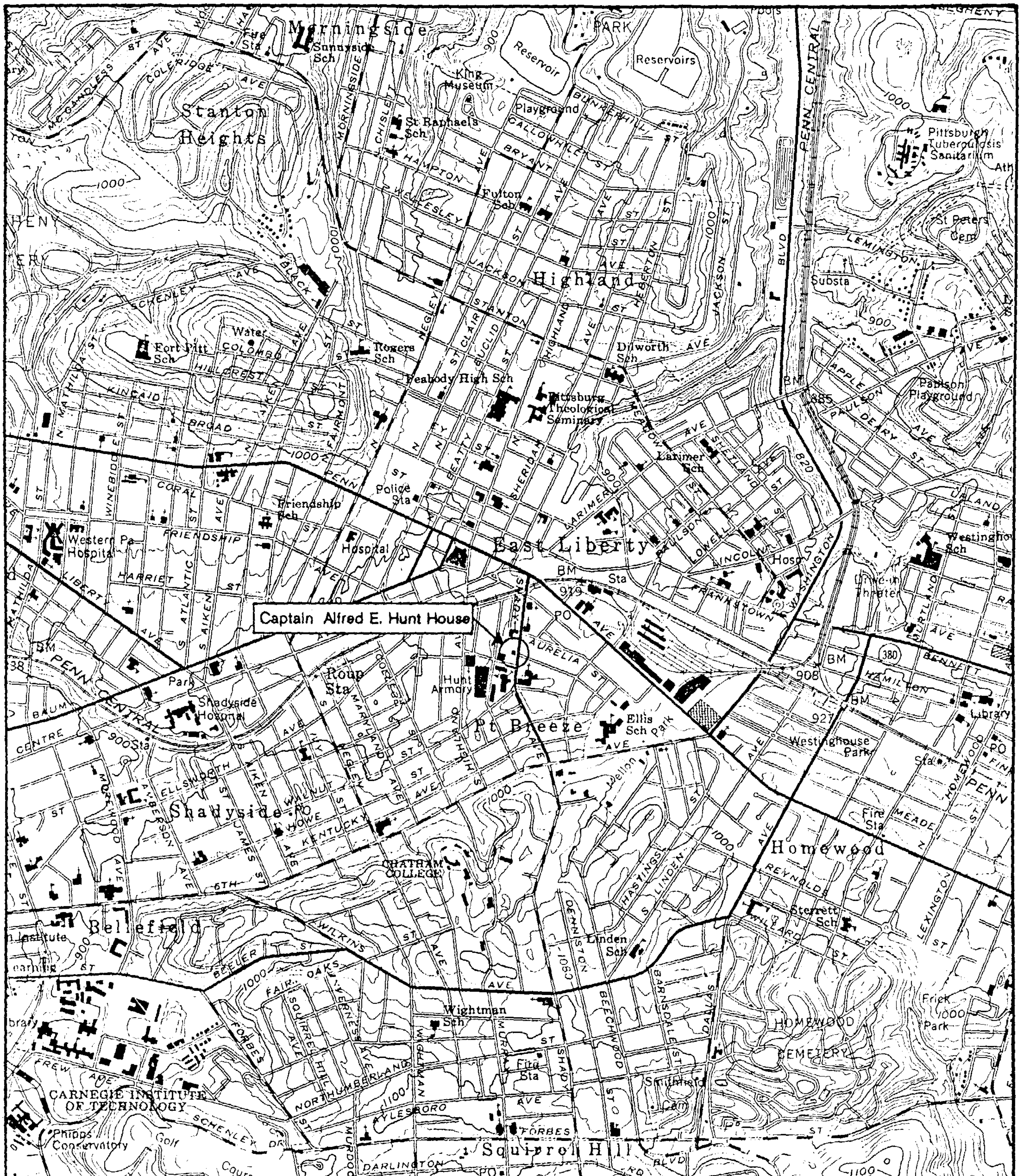
Pivotal Buildings:

- Ukranian Citizens Club (1402 Fourth Avenue)
- George and Cynthia Dobler House (1521-1523 Third Avenue)
- Bernard P. Potts House (217 Sixteenth Street)



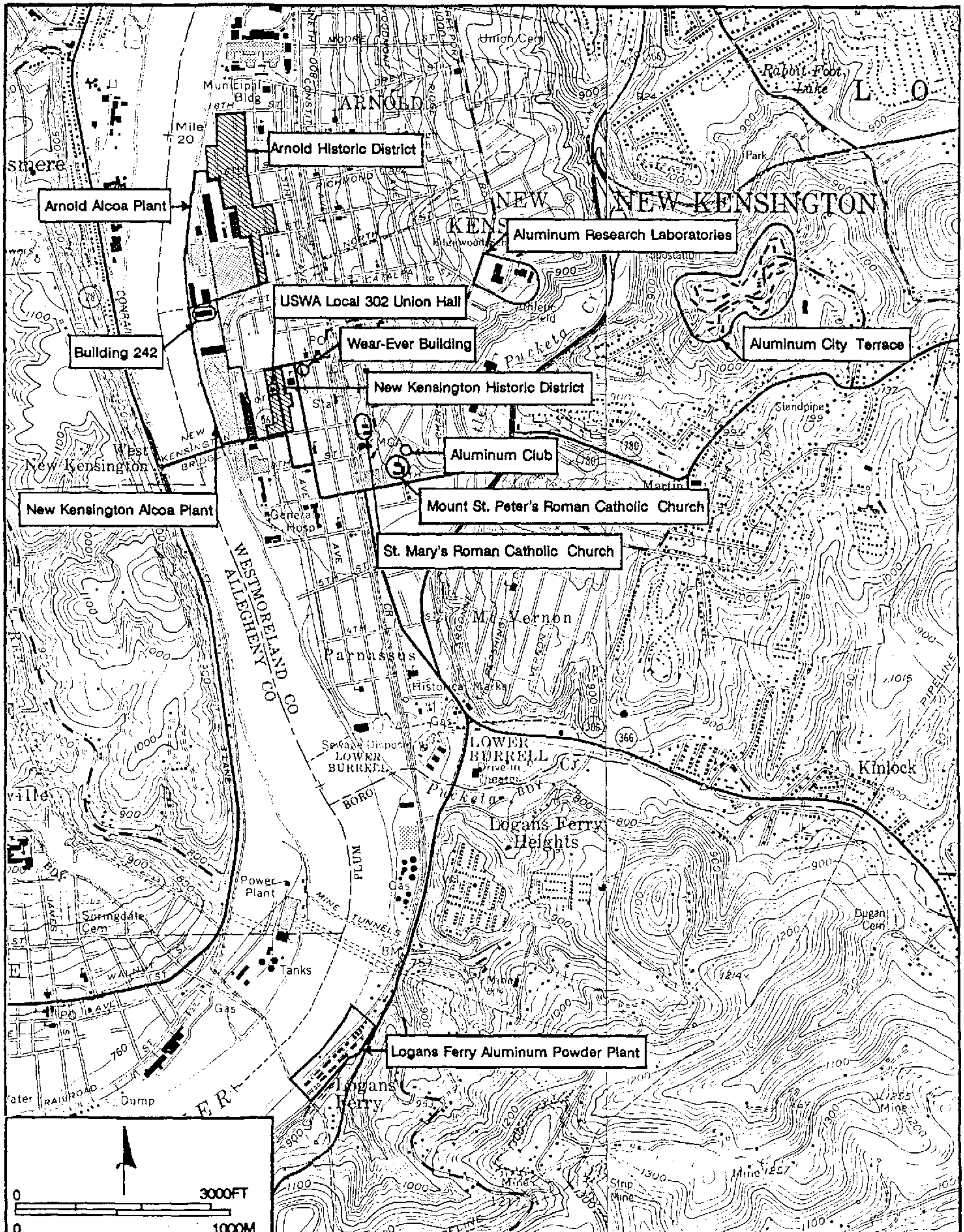


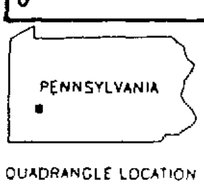
Location of Historic Resource
USGS 7.5 Minute Series
Ambridge Quadrangle
Photorevised 1990 Edition



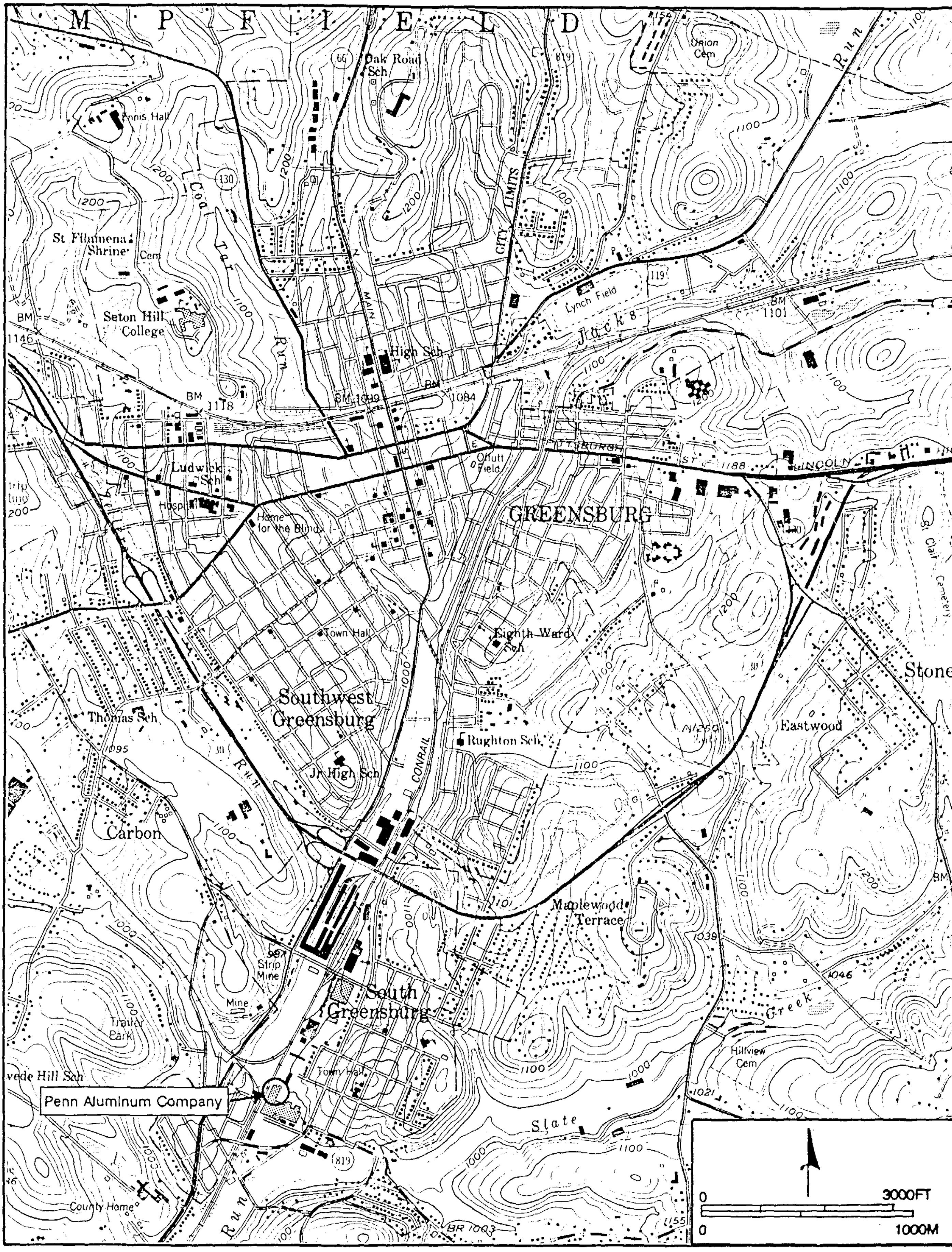
QUADRANGLE LOCATION

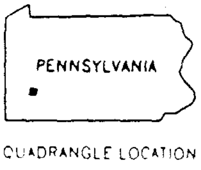
Location of Historic Resource
USGS 7.5 Minute Series
Pittsburgh East Quadrangle
Photorevised 1969 Edition





Locations of Historic Resources
USGS 7.5 Minute Series
New Kensington West and New Kensington East, PA. Quadrangles
Photorevised 1979 Editions





Location of Historic Resource
USGS 7.5 Minute Series
Greensburg, PA
Photorevised 1979 Edition

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM--PHOTO/SITE PLAN SHEET

89A

Pennsylvania Historical and Museum Commission
Bureau of Historic Preservation
Box 1026, Harrisburg, PA 17108-1026

Survey Code/Tax Parcel/Other No.: 24-3-11-1 County: Westmoreland
Municipality: New Kensington Address: West side, Industrial Boulevard from 9th Street north to Arnold City line
Historic Name/Other Name: New Kensington Alcoa Works

SITE PLAN

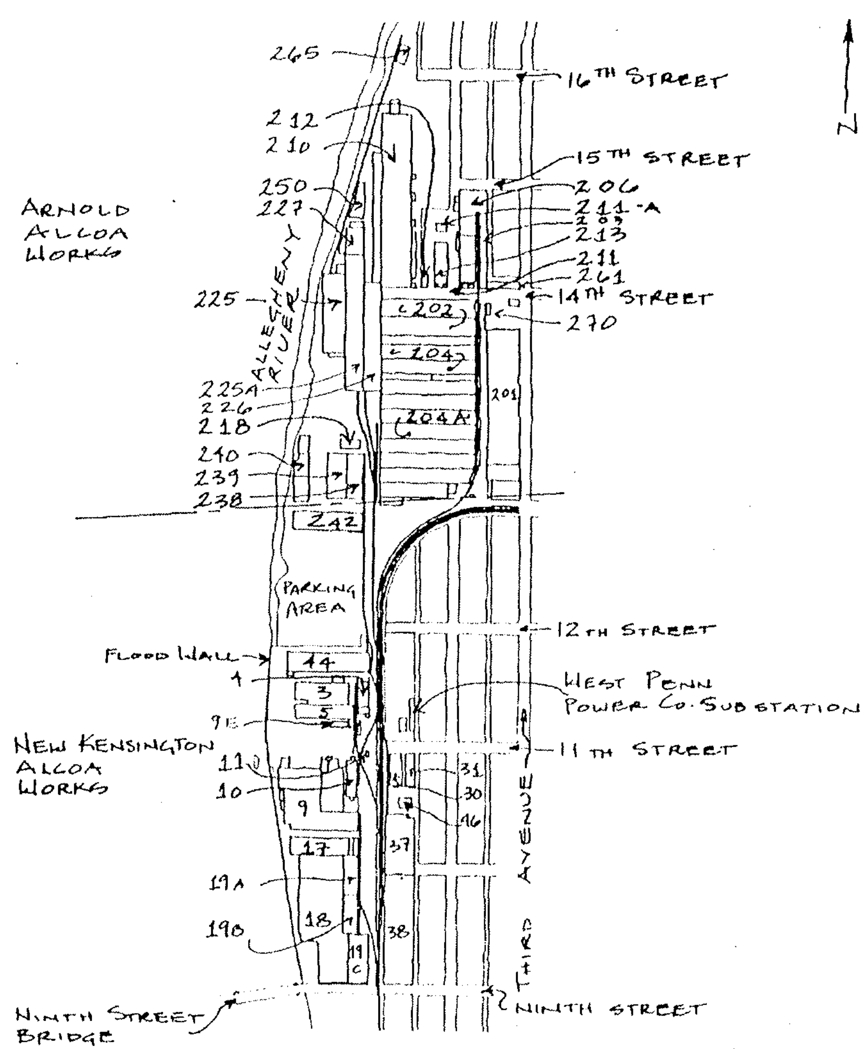
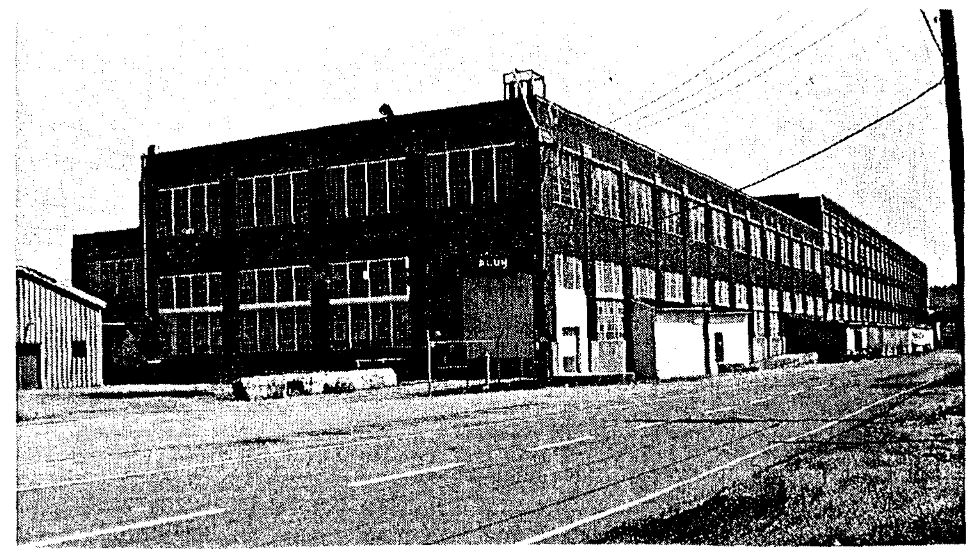


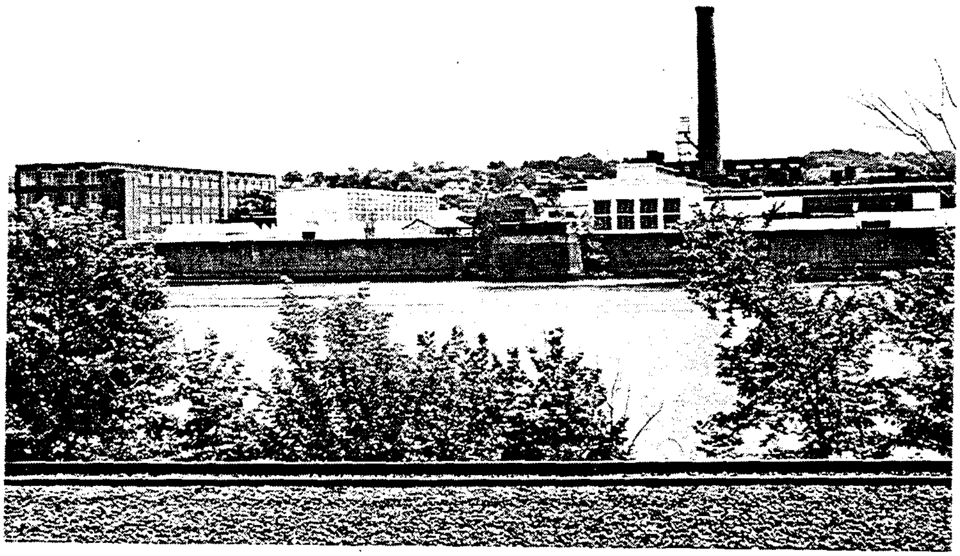
PHOTO INFORMATION

Attach Photo Here



Number	Description of View	Direction of Camera
1	Buildings 37 and 38, North and West sides	SE
2	Building 19, East side	NW
3	Building 3, West and North sides	E
4	Buildings 9E and 5, South sides	NW
5	Buildings 4 and 44, South and East sides	NW
6	Building 9, North and West sides	SE
7	Building 18, West side	SE
8	Buildings 30 and 31, South and West sides	NE
9	Building 17. West and North sides	SE
10	Building 10. East and North sides	SW
11	West Penn Power Co. Substation. West side	E
12	New Kensington Works. South end from West bank, Allegheny River	E
13	New Kensington Works. North end from West bank, Allegheny River	E

Photographer Name: Douglas C. McVarish Date: July 1993
Negative Location: John Milner Associates, Inc. 309 N. Matlack Street, West Chester, PA 19380



PENNSYLVANIA INDUSTRIAL RESOURCE SURVEY FORM--DATA SHEET 89BIN
Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

IDENTIFICATION AND LOCATION

Survey Code: ______ Tax Parcel/Other No.: 24-3-11-1

County: 1. Westmoreland 1 2 9 2. ______

Municipality: 1. New Kensington 2. ______

Address: West side, Industrial Boulevard from 9th Street to Arnold City line

Historic Name: New Kensington Alcoa Works

Other Name: Schreiber Industrial Park

Owner Name/Address: Richard Schreiber, Schreiber Industrial Development Co., Box 641, New Kensington, PA 15068

Owner Category: X Private ___ Public-local ___ Public-state ___ Public-federal

Resource Category: ___ Building X District ___ Site ___ Structure ___ Object

Number/Approximate Number of Resources Covered by this Form: 15

USGS Quad: 1. New Kensington West 2. ______

UTM References							
A.	17	604020	4458940	C.	17	603860	4491600
B.	17	604120	4458960	D.	17	603980	4491620

HISTORIC AND CURRENT FUNCTIONS

Historic Function Category:	Subcategory	Code:
A. Industrial/Processing/Extraction	Manufacturing facility	1 0 A
B.		
C.		

Particular Type: A. Factory
B.
C.

Associated Process/Activity:	Code
A. Structural metal products fabrication	I C F
B. Metal stampings fabrication	I C G
C. Metal fabrication	I C A

Current Function Category:	Subcategory:	Code:
A. Industry/Processing/Extraction	Manufacturing facility	1 0 A
B. Commerce/Trade	Warehouse	
C.		

PHYSICAL DESCRIPTION

Architectural Classification: A. Modern Movement 7 0

B. Italianate 4 2 Other: ______

Exterior Materials: Foundation Concrete 6 5 Roof Asphalt 6 3

Walls Brick 3 0 Walls Concrete 6 5

Other ______ Other ______

Structural System: 1. Steel frame 4 1 2. Masonry-brick 2 1

Roof System: Material Steel 4 System: Sawtooth truss 8

Width: 20+ bays F Depth: 100 + feet Stories/Height: 1 A

Power System: Electric--alternating current 8 0

Machinery: none

Archeological Remains: floorslabs of several manufacturing buildings

HISTORICAL INFORMATION

Year Built: ____ C. 1891 to X C. 1945 Additions/Alterations Dates: X C. 1970 ; ____ C. ______

Basis for Dating: X Documentary ____ Physical

Explain: Construction of complex was begun in 1891. Alcoa added buildings through at least the World War II era. Complex underwent frequent change including construction and demolition of buildings through entire period of occupancy by PRC and Alcoa. Subsequent changes have included demolition of several buildings.

Cultural/Ethic Affiliation: 1. ______ 2. ______

Associated Individuals: 1. ______ 2. ______

Associated Events: 1. Aluminum Company of America 2. ______

Architects/Engineers: 1. ______ 2. ______

Builders: 1. ______ 2. ______

MAJOR BIBLIOGRAPHICAL REFERENCES

See attached sheet.

PREVIOUS SURVEY, DETERMINATIONS

DiCiccio, Carmen P. *Extant Manufacturing, Transportation and Coal Mining Facilities in Westmoreland County (Opened Prior to 1935).* March 1, 1989.

EVALUATION (Survey Director/Consultants Only)

Individual NR Potential: X Yes ____ No Context(s): Aluminum Industry in Westmoreland and Allegheny Counties, 1888-1945

Contributes to Potential District ____ Yes X No District Name/Status ______

Explain:

THREATS

Threats: 4 1. None 2. Public Development 3. Private Development 4. Neglect 5. Other

Explain: Some of the older buildings are unused, unmaintained, and deteriorating.

SURVEYOR INFORMATION

Surveyor Name/Title: Douglas C. McVarish, Project Architectural Historian Date: July 1993

Project Name: Historic Resources Survey of the Aluminum Industry in Westmoreland and Allegheny Counties, PA

Organization: John Milner Associates, Inc. Telephone: (215) 436-9000

Street and No. 309 North Matlack Street

City, State: West Chester, Pennsylvania Zip Code: 19380

Additional Survey Documentation: ______

Associated Survey Costs: ______

MAJOR BIBLIOGRAPHICAL REFERENCES

(Continued from previous page)

Anonymous. "Specialties Are Favorites With Jobbing Division." *The Alcoa News.* Undated clipping in collection of Alcoa Technical Center Library.

Anonymous. "We Visit New Kensington: A New Machine Shop." *The Alcoa News.* 1:25, November 10, 1930:3.

Carr, Charles C. *Alcoa: An American Enterprise.* New York: Rinehart and Company, 1952.

City of New Kensington. *Celebrating a Century: A Commemorative Document.* New Kensington: City of New Kensington, 1991.

Harper, Frank C. *Pittsburgh of Today: Its Resources and People.* Volume II. New York: The American Historical Society, 1931.

Hopkins, Albert A. "Aluminum on Trial: Cooking Utensils Made of Aluminum Are Shown to Have No Harmful Effects on Food." *Scientific American* 140:246-248. February 1929.

Hunt, Roy A. *The Aluminum Pioneers.* New York: The Newcomen Society in North America, 1951.

Meyerhuber, Jr., Carl I. "Organizing Alcoa: The Aluminum Workers' Union in Pennsylvania's Allegheny Valley, 1900-1971." *Pennsylvania History,* 48, July 1981: 195-219.

New Kensington Plant Building Inventory. Manuscript in Alcoa Corporate Archives, Pittsburgh, Pennsylvania.

New Kensington Plant Site Map A-37825-K. Blueprint on file in offices of Schreiber Industrial Development Corporation, New Kensington, Pennsylvania.

Pruitt, Bettye. *Alcoa in Westmoreland County.* Merwin, Pennsylvania: Alcoa Laboratories, 1986.

Sanborn Map Company. *Insurance Map of New Kensington, Pennsylvania.* New York: Sanborn Map Company, 1921.

Women's Club of New Kensington. *Lore of Yore: A History of New Kensington, Arnold and Lower Burrell.* New Kensington: Women's Club of New Kensington, 1986.

Archival Collections: Description Plant history

Location: Alcoa Corporate Archives, Pittsburgh, Pennsylvania   Contact Person: Barbara Stewart

Survey Code: ______________ Tax Parcel/Other No.: 24-3-11-1

County: Westmoreland Municipality: New Kensington

Address: West side, Industrial Boulevard from 9th Street north to Arnold City line

Historic/Other Name: New Kensington Alcoa Works

PHYSICAL DESCRIPTION:

The historic New Kensington Works of the Aluminum Company of America consists of the southern section of the aluminum production and fabrication facilities located on the east bank of the Allegheny River in New Kensington and Arnold. The New Kensington section of the works is bounded on the south by the approach ramp and span for the 9th Street bridge, on the east by Industrial Drive, on the west by the Allegheny River, and on the north by the New Kensington-Arnold boundary.

The site of the works incorporates a portion of the flood plain of the Allegheny River. An access road extends along the west side of the site. Adjoining this access road is an eight foot high concrete flood wall constructed in the 1930s. The east side of the site is situated approximately 10 feet above the level of the west side, and a portion of the east side is bordered by a brick retaining wall. Buildings, of various sizes and heights, are generally oriented north-south on either side of a central spine formed by a former railroad spur. The areas between several of the buildings are occupied by concrete parking areas, some of which were the sites of demolished buildings. The south end of the New Kensington Works is accessible from a driveway beneath the ramp for the 9th Street bridge. Additional entry points are located at 11th and 12th streets. The historic gate located at the west end of 10th Street has been enclosed with concrete blocks. The New Kensington Works presently consists of 15 buildings and groups of related buildings. Each of these buildings, with the exceptions of the West Penn Power substation and the gas meter house, is listed by Alcoa building number and is described below. The locations of these buildings are indicated on the site plan.

Building 38/37

Buildings 38 and 37 are located in the southeast corner of the New Kensington Works. The southern building, number 38, adjoins the 9th Street bridge ramp. Building 37 adjoins the north end of Building 38.

Building 37 is a single story in height and 13 bays wide. Bays are delineated by brick pilasters with angled concrete caps, and a concrete string course forms the lintels for the second story windows. The north end of Building 37 is four bays wide. These bays are also delineated by brick pilasters with angled concrete caps. A loading dock with a corrugated metal overhead door is situated in the west bay of the north wall. Above this dock is a set of four 24 light, metal framed windows. The lower wall of the remaining bays is fenestrated with sets of four 20 light windows with four light, pivoting inset windows. Above these windows and separated from them by steel beams are sets of four, 16 light windows. Fenestration of the second story consists of sets of four, 24 light windows. Projecting from the west wall of Building 37 are three angled, shed roofed, concrete block loading docks. Each of these loading docks has an overhead door on its south wall, and two have steel doors reached by concrete steps on the west wall. An additional loading bay is situated at the north end of the west wall. This bay contains a small, corrugated metal overhead door. Fenestration of the west wall is similar to that of the north wall. Lower walls bays not containing loading docks are fenestrated with groups of three 25 light windows surmounted by groups of three 20 light windows. The upper wall is fenestrated with groups of three 30 light windows, and a concrete string course forms the lintels of these upper windows. The parapeted roofline of the building is marked by concrete capstones. Its roof is sheathed in flat tile.

Building 38 adjoins the south end of Building 37. This tall, rectangular, brick building is 25 bays wide. It is one story in height with a balcony and basement. Bays are delineated by brick pilasters with angled concrete caps. Concrete block, shed roofed loading docks project from the west wall of the building. These docks have metal overhead doors on their south walls. First story bays not occupied by loading docks are fenestrated with groups of three 25 light windows with inset pivoting six light windows. Above these windows and separated from them by steel beams are sets of three 20 light windows. Brick spandrel panels separate these windows from the windows above. The second level is fenestrated with groups of three 30 light windows. Separated from these windows by a second set of spandrel panels are the top windows.

PHYSICAL DESCRIPTION (continued):

The lower portions of these windows consist of groups of three 25 light windows. Above these are groups of three 16 light windows. Each of these upper windows has an inset pivoting window. The south wall is fenestrated with sets of three windows. Lower windows contain 20 lights. Above these are 30 light windows. Above these, in turn, are 25 and 20 light windows. The building is topped with a brick parapet, stepped at the corners. Its roof is sheathed in gypsum block.

Projecting from the east wall of both buildings is a lower two story addition that extends almost the entire width of the building. Bays are delineated by brick piers, and openings are enclosed with metal panels. Brick spandrel panels separate the upper and lower openings. A step parapeted gateway is located near the center of this addition. This gateway is shown in historic photographs as the 10th Street gate to the New Kensington Works. Its openings are presently enclosed with metal panels. North of the gateway is a three sided canted bay, which may have originally been used as a guardhouse. The cornice of the addition is marked by concrete slab capstones. Visible behind the addition are the east walls of the original buildings. The upper portion of this wall is fenestrated with groups of three 25 light windows, surmounted by groups of three 16 light windows. Each of these windows has a pivoting inset window. The buildings have a concrete foundation. Bricks are laid with headers every sixth stretcher course.

The original portion of the two buildings was Building 38. This 482 foot by 129 foot building was constructed in 1929 to house the plant's machine shop, stores and metallurgical facilities. Building 37 was added in 1936. This building consists of two blocks, measuring 259 feet by 186 feet and 240 feet by 42 feet, and originally housed the structural steel shop and steel stores (New Kensington Plant Building Inventory). Both are now used as a wholesale furniture warehouse.

Building 19

Building 19 is located on the west side of the spine road of the New Kensington Works at the south end of the site. The brick building was apparently constructed in three sections, the older portion being the central and northern ends of the block. Adjoining the entire west wall of Building 19 is the sawtooth gabled roof Building 18, historically used as a cooking utensil manufacturing facility.

The southern section of the building is a six story, 12 bay block with bays delineated by full height piers. Fenestration of the south wall consists of groups of three, multi-light, metal framed windows separated by spandrels. First story windows consist of sets of three 20 light windows, many of which are covered with corrugated metal sheets. Upper floors contain 30 light windows flanked by 24 light windows. A concrete belt course forms the lintels of the sixth story windows. The southernmost bay on the east wall is pierced by tall, rectangular, metal louvered vents. The block has a flat brick parapet topped with concrete slab capstones. The south wall of the block adjoins the ramp for the 9th Street bridge. This wall has four bays, each delineated by brick pilasters with angled concrete caps. The fourth, fifth, and sixth stories have paired, 20 light frosted glass windows. Lower stories have protruding brick stretcher window frames, but the windows are bricked over.

The west side of the building is visible above the roofline of the adjoining Building 18. Bays are delineated by brick pilasters topped with angled concrete caps. Window bays generally contain groups of three 30 light windows with pivoting four light inset windows.

The northern section of the building is the oldest portion and is among the earliest surviving buildings of the New Kensington Works. This 24 bay, rectangular, six story, brick bearing wall block is fenestrated with paired windows in a single segmentally arched surround consisting of three brick header courses. These windows, many of which are broken, have 12 over 12, double hung sashes and concrete sills. Star tie bar ends are visible beneath each row of windows. First story openings on the east side were also originally arched. Most of these openings have been shortened and widened and fitted with paired sliding metal doors to form loading doors. Projecting from close to the center of the east wall is a cylindrical metal stack that rests on projecting steel girders. According to the present owner, this stack was part of a conveyor system used to retrieve pots and pans from the upper stories. An aluminum fire escape adjoins the northeast corner of this block.

Building 19 was historically used by the cooking utensil department of the United States Aluminum Company for the facility office, as well as for the packing, shipping, and storage of utensils. The south portion of the six story block housed shipping and finished stock in the first story, packing and finished stock rooms in the second story, and finished stock storage in the upper stories. The north end of this block housed shipping in the first story, offices and stock rooms in the second story, and finished stock storage in the upper stories.

PHYSICAL DESCRIPTION (continued):

Adjoining the north end of the block is a single story, two bay, sawtooth roofed brick block. The east wall of this block is fenestrated with 12 over 12, metal framed windows, set in arched brick surrounds. A loading door opening is situated in the east wall of the north bay. The clerestories are fenestrated with two ranks of oblong, frosted glass windows. The north wall is open, and remains of a wall indicate that this block once extended further north. The original portion of Building 19, designated as Building 19A, is a 169 foot by 65 foot block, constructed in 1906. Originally four stories in height, an additional two stories were added in 1910. The original four story block was first used for shipping, offices, a drafting room, pattern storage for aluminum utensils, and finished ware storage. The additional two stories were added to provide supplemental finished ware storage space. In 1940, the building was used by Alcoa and the Aluminum Cooking Utensil Company for shipping, and as the Aluminum Cooking Utensil Company warehouse (New Kensington Plant Building Inventory).

Building 19B was constructed in 1910, adjoining the south wall of 19A. Originally two stories in height, it was raised to the present six stories in 1912. The lower floors were originally used for finished ware storage and shipping, while the upper stories were used for finished ware storage and wrapping. In 1940, building 19B accommodated a portion of the Aluminum Cooking Utensil Company warehouse and shipping department. The southern section of Building 19, designated as Building 19C, was constructed in 1936. This six story, 86 foot by 217 foot, steel framed, brick block was used by the Aluminum Cooking Utensil Company for manufacturing and warehousing (New Kensington Plant Building Inventory).

These buildings are shown on the 1921 Sanborn map as housing the inspecting section of the cooking utensil department of the United States Aluminum Company. This block is connected to Building 17 by a one bay, parapeted, flat roofed section, adjoining its west side. The entire building is presently vacant.

Building 18

Building 18 is a single story, sawtooth gable, brick building located at the southwest corner of the New Kensington Works. Its east wall adjoins Building 19, and its north wall adjoins Building 17. The southern part of its west wall is notched inwardly. Historic photos show that a multi-story brick building was located to the west of the south end of the building.

The building is 18 bays wide. The southern five bays are recessed. The four northern bays are presently used as loading docks. The lower wall has been removed, and bays are marked by square brick piers. The northernmost bay, adjoining Building 17, has a flat roof with projecting cylindrical metal vents. The other three bays at the north end have upper walls sheathed in ribbed metal panels and a sawtooth roofline. The remainder of the west wall has several metal entry doors, but other openings have been enclosed. The roof is sheathed in metal panels supported by steel beams. A few of the oblong, frosted glass, clerestory windows are still visible, but most have been covered with corrugated metal panels. The brick parapet walls are capped with molded metal caps. The foundation is constructed of concrete, and the roof is sheathed in asphalt roofing.

At the south end of the building are three loading docks with corrugated metal overhead doors. The southern portion contains 14 window bays openings with concrete lintels, each of which is blocked in. A gable roofed, aluminum sided penthouse with louvered metal side vents projects from the roof between the third and fourth sawtooth from the south end of the building.

Building 18 was constructed in numerous sections. The original portion, designated as Building 18A, a 75 foot by 238 foot, steel framed, brick, one story block with cellar, was constructed in 1901. This initial section has a wood framed sawtooth roof. Originally, this section of the building was used as a wire mill. It was later used as a jobbing shop, for cooking utensil manufacturing, and as a tool room. In 1940, this section of the building was used for cooking utensil manufacturing, as a tool room, and as a sheet mill. The first addition to the building was constructed in 1906. This 150 foot by 216 foot steel framed, brick block was also constructed with a single story and cellar and a wood framed sawtooth roof. This portion of the building was initially used by the cooking utensil department and as a machine shop. It was later used for cooking utensil manufacturing. The following year, the building was again enlarged with the construction of a single story, 43 foot by 75 foot block. This block, of steel framed construction with brick walls and wood window sashes, had a flat roof. It housed a portion of the cooking utensil manufacturing facilities. In 1910, additional expansion occurred with the construction of two adjoinining steel framed blocks with brick exterior walls and a hyrib roof. These blocks, which measured 75 feet by 152 feet and 75 feet by 109 feet, were initially used for cooking utensil manufacturing and jobbing and were later used exclusively for utensil manufacturing. The following year, two flat roofed, steel framed, brick clad blocks were added. These blocks, that measured 75 feet by 187 feet and 67 feet by 37 feet, were also initially used for jobbing and cooking utensil manufacturing. Both were subsequently used exclusively for cooking utensil manufacturing.

PHYSICAL DESCRIPTION (continued):

Additional expansion of Building 18A occurred in 1912. In that year, a 176 foot by 179 foot, single story, steel framed block with brick walls and a hyrib roof was constructed. This block was used for cooking utensil production. About one-quarter of this block was demolished in 1935. In 1936 and 1937, two small additions were made to Building 18A. The first, a 29 foot by 14 foot steel framed block with corrugated steel walls and roof was used for heat treating. The second, an 8 foot by 25 foot, single story, brick bearing wall block housed toilets.

In 1901, two small additions were constructed adjoining the northeast corner of the original Building 18A. These additions were designated as 18B and 18C. Building 18B, a two story, brick bearing wall block with full basement and sawtooth roof, measured 42 feet by 80 feet. It initially housed the aluminum dipping room. It was subsequently used as storage space, as a stock room, and as an inspection room. The 1921 Sanborn map indicates it as the supply house, while the c. 1940 building inventories lists its uses as New Kensington Sheet and Aluminum Cooking Utensil Company manufacturing. Building 18C adjoins the north and east walls of Building 18B. This 74 foot by 21 foot single story block with basement has brick bearing walls and a wood roof on steel purlins. This building was initially used as shipping and storage space. The 1921 Sanborn map indicates that it housed the inspection room for the cooking utensils department. In 1940, it was used for New Kensington Sheet and Aluminum Cooking Utensil Company manufacturing.

In 1910 and 1911 two additional portions of Building 18 were constructed. These two single story blocks, designated as buildings 18D and 18E, were both constructed with steel frames and brick walls. The exact location of Building 18D is not indicated on available plant maps. This 86 foot by 75 foot flat roofed block housed the aluminum dip shop and was expanded in 1934 with an irregularly shaped 1,070 square foot block that housed the oxygen-hydrogen unit. Building 18E, a 63 foot by 43 foot hyrib roofed block adjoins the west end of the north wall of Building 18A and the south wall of Building 9B. This block housed the tool room for the Aluminum Cooking Utensil Company (New Kensington Plant Building Inventory). The entire building is presently used for storage and shipping.

Building 17

Building 17 adjoins the north wall of Building 18. A two story, rectangular, brick building, it is oriented east-west. The corners are marked by rectangular stair towers. These towers provide access to the roof and are fenestrated with nine light windows at the roof level. Original openings and windows in the first story of the north wall have been altered. Present openings include several overhead metal doors and several metal entry doors. Originally window openings have been enclosed. Above are 12 sets of windows. The east end bay contains three 20 light windows, while the remaining bays contain two 25 light windows flanked by two 20 light windows. Each set of windows is separated from the adjacent set by a brick pier. The east wall contains a metal, one light entry door in the first story. This door may have replaced an earlier set of windows. North of this door is a set of four, 20 light windows with four light inset pivoting windows and a single 20 light window. Fenestration of the second story consists of two sets of four 20 light windows. The south stair tower bay on the east side is fenestrated with two 20 light windows. First story bays on the south side of the building are largely enclosed with concrete block and corrugated metal panels. Second story bays consist of groups of four 20 light windows. Outer windows of the group have eight light pivoting inset windows, while inner windows contain pivoting four light insets. The roof parapet is marked by concrete capstones, and cylindrical metal ventilators project from the roof.

Exterior detailing suggests that this building was constructed in about 1940. Its historic use is unknown. It was erected on the site of an earlier, small wood framed building, used as a laundry, which was demolished in 1988. It is presently used for light manufacturing.

Building 9

Building 9 presently consists of several adjoining sections indicated on an Alcoa site plan as Buildings 9D and 9B. The complicated massing of this building indicates that it consists of sections constructed at differing times. Until recent years, Building 9A adjoined the north side of buildings 9B and 9D. Building 9A was probably demolished after the complex was acquired for use as an industrial park.

The eastern portion of the building is situated west of Building 10 and is connected to it by steel beams and cabling. This portion of Building 9 is a single story, brick block with a sawtoothed roofline. The northern bay is narrower than the southern bays, and a shed roofed, metal sided ell adjoins the east wall of the north bay. A second shed roofed ell adjoins the west side of the north wall of the north bay. This brick ell is fenestrated with two 30 light windows on its north wall. The north wall also contains a metal door. At the east end of the north wall is a rectangular vehicular opening. Damage to the brickwork of the north wall appears to indicate that other additions have been removed. The clerestory of the north end of the east section is fenestrated by two ranks of oblong frosted glass windows.

PHYSICAL DESCRIPTION (continued):

A taller, gable roofed brick block adjoins the west side of the sawtooth roofed section. The upper portion of the north gable end of the block is divided into six bays by pilasters. Empty beam pockets and disturbed brickwork lower on the wall indicate that the now-demolished Building 9A adjoined the present building at this point. The east end of the lower wall contains a rectangular vehicular opening. Missing brickwork on the upper west wall allows glimpses of the side of the steel roof truss. This gabled block adjoins a lower gable roofed block at its south end. This oblong block has full-width shed dormers on both its east and west roof slopes, and cylindrical metal ventilators project from the peak of the roof.

A third portion of Building 9 adjoins the west wall of the central portion of the block. This flat roofed, parapeted block, with central flat roof parapeted clerestory, is oriented east-west. A wing projects from the south wall of the central block, and an addition adjoins its north wall. The brick addition contains a 2-story western section and a single story eastern section. Situated on the north wall of the 2-story section is a single light, metal door, sheltered by a shed roofed hood. Openings on the north wall of the single story section include a single light metal door, sheltered by a shed roofed hood, and a rectangular vehicular opening. Fenestration of the two story block include one over one double hung sash windows in the central portion of the wall and two 24 light, metal framed windows in the upper section of the west wall. The two story section presently houses the building office.

The west end of the main block of the west section of Building 9 is decorated by brick string courses at the sills and lintels of the windows, additional string courses in the upper wall and at the parapet, and brick pilasters delineating the four bays of the west side. Fenestration of this side consists of two ranks of windows arranged in groups of three. Lower and upper windows consist of 28 lights with inset pivoting windows. The east section of the north side wall of this block is also fenestrated with two ranks of windows. Upper windows contain 30 and 36 lights, while lower windows contain 20 and 24 lights. The upper section of the eastern portion of the wall is fenestrated with 20 light windows. The clerestory is fenestrated with two ranks of oblong, single light windows. The north wall of the west section of Building 9 is sheathed in metal panels. The remaining walls are brick.

Projecting from the north wall of the main block of the west is a flat roofed wing with clerestory. The west wall of the wing is stepped inwardly toward the south and is pierced by a single metal door. The clerestory is fenestrated with two ranks of single light oblong windows.

The east end of the south wall of Building 9 is blank. Empty beam pockets indicate that an addition once extended south from this portion of the wall. West of this wall and separated from it by a flat parapet is the eaves end of a gable roofed section. The lower portion of the eaves wall is now open with bays defined by steel beams. The upper section is clad with corrugated metal panels. The western section of the south wall consists of a gable roofed section and a sawtooth roofed section. The gable roofed section is pierced by a metal entry door.

Portions of Building 9 were among the earliest buildings at the New Kensington Works. Only a small portion of these early buildings remains. This remaining portion, designated in the Alcoa building inventory as a portion of Building 9A, is a gabled roof, steel framed block on the north end of the building is now vacant. The 69 foot by 58 foot single story block with balcony and basement, was constructed in 1892 as a portion of a larger boiler room and blacksmith shop. It subsequently housed a power plant. The remaining portions of Building 9A, which housed melting rooms, were constructed between 1891 and 1913 and were probably demolished after the present owner's acquisition of the plant.

Portions of Building 9B remain intact, although the earliest sections were demolished and replaced with later construction. The earliest sections of 9B were single story blocks of steel framed construction with corrugated steel walls and roofs. These blocks were constructed between 1891 and 1893. Early building uses included the boiler room, engine and dynamo room, pot room, wire drawing facilities, and rod mill. Subsequently, these early sections were used as a portion of the aluminum sheet mill. Demolition took place in 1938. Other turn-of-the-century portions of Building 9B are listed in the c. 1940 Alcoa building inventory and may still remain standing. In 1896, a steel framed, single story, steel framed, wood sided block, consisting of two sections measuring 20 feet by 68 feet and 189 feet by 68 feet was constructed. This portion of the building initially served as a rolling mill, shipping room, and office and was subsequently used as a sheet mill. In 1899, a 157 foot by 69 foot steel framed block, one story tall with basement, was constructed. This block has brick walls and steel sashes. It was initially used as a rolling mill and was subsequently used as part of the sheet mill.

PHYSICAL DESCRIPTION (continued):

Two years later, Building 9B was expanded with construction of an 80 foot by 42 foot block adjoining the south end of its east wall. This block, of steel framed construction with brick walls and wood sashes, initially housed a portion of the shipping department and the shear room. It subsequently housed a portion of the sheet mill. The following year, a small, single story, wood framed ell was added for the annealing department. This ell was demolished in 1935. In 1903, a 94 foot by 42 foot, steel framed addition with brick walls and wood sashes was constructed adjoining the south wall to accommodate the shear room. Two years later, two wood framed blocks, measuring 90 feet by 21 feet and 31 feet by 17 feet, were added. These blocks, which housed a portion of the annealing department as well as the fan house, were demolished in 1935. In 1906, a 43 foot by 109 foot, single story wood framed block was erected. This block, most of which was demolished in 1922, originally included the millwright's shed, storage, and a portion of the sheet mill. Later, the entire block was used as a portion of the sheet mill.

The present appearance of Building 9B reflects additons constructed in the 1920s and 1930s. In 1922, a 70 foot by 120 foot, single story, steel framed, brick clad block was added. This block was initially used as the rolling mill and subsequently as a hot mill. In 1935, an irregularly shaped, single story, 5,753 square foot block was added. This steel framed block was sheathed in corrugated steel and housed annealing operations. The final section of Building 9B, measuring 167 feet by 68 feet, was constructed in 1938. This building was used to produce strip sheet.

The earliest section of Building 9D was constructed in 1901. This 158 foot by 21 foot building had a wood frame, and its walls and roof were sheathed in corrugated steel. This block, which was used for tube drawing, was demolished in 1909. It was replaced by a 150 foot by 37 foot steel framed building that was originally used for tube drawing and later formed part of the sheet mill. This building was expanded the following year by three steel framed, brick clad blocks, each with a single story and balcony. The blocks measured approximately 188 feet by 54 feet, 38 feet by 75 feet, and 36 feet by 38 feet. Initially, these blocks housed tube drawing facilities. Later, they formed part of the sheet mill. Additional expansion of the sheet mill occurred in 1930 with the construction of two blocks and an attached lean-to. These steel framed, single story blocks were sheathed in corrugated steel and measured approximately 13 feet by 18 feet and 17 feet by 14 feet.

The inventory for Building 9 also includes two other sections of the building, 9C and 9E. Building 9C, a 42 foot by 41 foot, single story, brick bearing wall block, was erected in 1901, adjoining the center of the south wall of Building 9C. This block initially was used as a fan house. It subsequently accommodated the building heating system and sheet production facilities. Building 9E, a 122 foot by 31 foot single story steel framed block with corrugated steel walls was constructed in 1927. Its exact location is not indicated on available site maps. It served as melting room storage and stores (New Kensington Plant Building Inventory).

The 1921 Sanborn fire insurance map indicates Building 9B as the site of the United States Aluminum Company Rolling Mill. The same map shows narrow bays to the west of the main block that housed the annealing department and the heating department. These bays have apparently been removed. At least a portion of the building is presently used as offices and manufacturing facilities by Cannon Boiler Works.

Building 10 (Boiler House)

Building 10 is a boiler house used to generate steam to power the machinery of the New Kensington Works. It is presently abandoned and deteriorating. The boiler house block is oriented north-south and is divided into two parts, a taller east portion and a shorter west portion. Projecting from the center of the western portion is an approximately 125 foot tall, tapering, cylindrical, brick chimney. The entire building is approximately 171 feet long and 40 feet wide.

The east wall is divided into 10 bays. The side of each bay is delineated by pilasters, and the top is marked by brick corbeling. The lower portion of the east wall was originally pierced by loading dock doors. Each of these door openings has been bricked over. Above these dock openings were arched windows. The arch was formed by four header courses decorated with concrete keystones and impost blocks. The arches have been filled in with bricks. Each set of windows now consists of two 20 light windows with inset pivoting six light windows, surmounted by two 20 light windows. Above the arched windows are molded brick panels. The upper wall is fenestrated by paired 20 light windows with inset six light pivoting windows. A shed roof loading porch adjoins the south end of the east wall and is supported by steel braces. South of the porch and adjacent to the center of the upper wall is the steel supporting structure for a cylindrical tank, sheathed with ceramic tiles. A steel scaffolding on the roof supports a metal elevator that angles from the top of this tank. The north and south walls of the east portion of the boiler house are one bay wide. Molded panels decorate the upper wall, and above these panels are paired 20 light windows with six light pivoting inset windows. Its flat roof is sheathed in tile.

PHYSICAL DESCRIPTION (continued):

The south and north walls of the west section are also one bay wide, and the upper wall is also marked by brick corbeling. A sheet metal, rectangular, elevator tube extends downwardly from the north wall, and the south wall is pierced by a 30 light window. A single story, shed roofed brick addition projects from the north wall of the building.

Fenestration of the west wall is not completely visible because of the proximity of Building 9. The bays of this wall are also delineated by pilasters and marked by corbeled brickwork. Original window openings on the upper wall of the west section probably consisted of arch topped 25 light windows, few of which are still visible. Cantilevered from the north end of this wall is a two bay, shed roofed addition, fenestrated with two ranks of paired 20 light windows. The upper west wall of the east portion of the block is visible above the cornice line of the west portion of the block. Its fenestration consists of paired 20 light windows with six light pivoting inset windows.

The 1921 Sanborn map of the New Kensington Works indicates that the boiler house was constructed in 1913. The building is now vacant.

Building 46

Building 46 is a small, rectangular, gable roofed storage building, located north of Building 37 and south of Buildings 30 and 31. The walls and roof of the building are sheathed in corrugated metal. Double metal doors are centered on the west wall of the building, and rectangular, metal vent openings are located on each of the walls of the building. The building, which was constructed in the mid-20th century, may presently be used for storage. It is located on the site of a wood framed, gable roofed sheet metal shop that was demolished in 1936.

Building 30/31

Buildings 30 and 31 are two adjoining, single story rectangular blocks, located on the south side of the 11th Street entrance to the New Kensington Works. Building 30, the western building, has a sawtooth gable and gable roof, while Building 31 has a clerestory gable roof oriented north-south. The two buildings are connected at the south end by a flat roofed, parapeted bay with a door opening centered on the south wall.

Building 30 consists of three sawtooth roofed sections at its southern end and a gable roofed section at its northern end. The walls were originally fenestrated with arch topped windows. Many of these openings have been enclosed with bricks or concrete blocks. Openings on the north wall include a wood framed door and a window constructed of eight glass blocks. The west wall is divided into a total of 20 bays. The north end of the west wall contains two shortened windows. Two metal doors are situated near the south end of the west wall. The gable rake at the north end is marked by exposed steel beams. Projecting from the southeast corner of Building 30 is a shed roofed ell. This ell is fenestrated with 18 light windows. The walls of the building are laid in five-course American bond brick, and the roof is covered with asphalt roofing compound.

The gable ends of Building 31 are marked by exposed steel beams at the gable rake and rectangular, metal louvered vents in the end walls of the clerestory. A shed roofed loading dock projects slightly from the north wall of the block and is pierced by a corrugated metal, overhead loading door. The south and east walls of the building are blank. Adjoining the south wall is a shed roofed, three bay addition, fenestrated with 15 light windows. Building 31 has a concrete foundation, and walls and roof sheathed in corrugated metal.

Both buildings were constructed in 1910. A lean-to addition to Building 31 was constructed in 1923. In its early years, Building 30 was used as a stock house, as site of the experimental department, as a paint shop, and as a laboratory. In 1940, it housed a paint shop, research lab, and a portion of the Aluminum Cooking Utensil Company manufacturing. In its early years, Building 31 was used as a smelting plant, for cement storage, as a foundry, and as an experimental mill. In 1940, the building continued to be used as an experimental mill and also contained a forge and a portion of the Aluminum Cooking Utensil Company jobbing department. The lean-to to Building 31 accommodated a portion of the research laboratory and experimental mill (New Kensington Plant Building Inventory).

PHYSICAL DESCRIPTION (continued):

Building 9E

Building 9E is situated immediately south of Building 5. South of the building is a parking lot that was formerly the location of Building 9A. East of the gable end, approximately 10 feet above the foundation level of Building 9E, is a vacant lot with miscellaneous building debris. This lot was probably the site of a building which adjoined the upper east gable wall of Building 9E. Building 9E is a long, narrow, gable roofed, single story, rectangular block, measuring 122 feet by 31 feet. Its east gable end is constructed of brick, while the remaining sides are clad in corrugated steel. Fenestration consists of seven, nine over six double hung sash windows spaced along the south wall of the block. A pair of deteriorated sliding metal doors are located in the lower south wall. The ruins of an ell project from the east gable end and adjoin the vacant lot. Remains of the ell consist of lower walls. The east wall shows evidence of early fenestration in that the arched windows tops, formed by three header courses, are visible in the brickwork. The west gable wall is blank. The roof of the building is sheathed in rolled roofing.

The building was constructed in 1927 and was used as a melting room and storage facility. It is presently used for storage by the occupant of Building 5.

Building 5

Building 5 is a rectangular, two-story, shallow gabled, steel framed, brick building, oriented east-west and measuring 255 feet by 62 feet. It is located immediately north of Building 9E and south of Building 3. Access to the building is from both the spine road and from the road extending along the west side of the industrial park. Building 5 is similar in design to the adjacent Building 4. Both have shallow gable roofs and tall ranks of multi-light windows in the side walls. The building is 16 bays long and three bays wide. Bays are delineated by brick pilasters. Most of the eaves wall bays are fenestrated with three ranks of windows, separated by steel beams. Each bay generally contains 15 light windows, flanked by 25 light windows. The 25 light windows contain eight light pivoting inset windows. Below these ranks of windows are multi-paned basement windows, most of which have been painted over. The east wall is divided into three bays by full-height brick pilasters. This wall was originally fenestrated with at least two arch topped windows. These window openings have been bricked over, and the wall is presently pierced by a loading dock opening at its south end.

The west wall has a central vehicular door. At the north end of the wall are arched brick openings in the lower and upper walls. Both of these openings contain 25 light, metal framed windows with six light inset pivoting windows. Above the central door is an arched opening enclosed with concrete blocks. At the south end of the west wall is a 25 light window contained within a rectangular opening. Building 5 is connected to the adjacent Building 3 by a shed roofed bay recessed from the west gable end. This bay is pierced by an overhead door in its west wall. The roof appears to be coated with asphalt roofing compound. Three cylindrical vent stacks project from the roof.

Building 5 was constructed in 1912. It was initially used as a job-shop and subsequently as a job-shop and shipping facility (New Kensington Plant Building Inventory). The 1921 Sanborn map indicates that the west side of the building was used by the United States Aluminum Company for polishing. The east end of the building was used for stamping. It is presently used for light manufacturing.

Building 3

Building 3 is located north of Building 5 and is connected to it by a shed roofed bay. This building is a sawtooth roofed, single story, rectangular brick bearing wall block, 11 bays deep and three bays wide. The present appearance of the building reflects mid-to late 20th century alterations.

Building 3 was constructed in three sections, each erected in 1912. The northeast portion of the block, measuring approximately 81 feet by 90 feet, was initially used for the manufacture of aluminum bronze powder prior to the establishment of the Logans Ferry Works. Subsequently the building accommodated rivet manufacturing space, as well as a scale shop, foundry, drafting room, and electric shop. In 1940, it housed an aluminum and iron foundry and a space was used to produce aluminum colors. Section 3B, an 81 foot by 133 foot section on the south side of the block with a 14 foot by 27 foot ell, was also originally used for manufacturing aluminum bronze powder. It subsequently housed part of the aluminum and iron foundry. Section 3C constitutes the east end of the building and measures approximately 81 feet by 22 feet. This section initially housed a portion of the aluminum bronze powder manufacturing facilities and subsequently accommodated a portion of the aluminum and iron foundry, as well as storage space (New Kensington Plant Building Inventory).

PHYSICAL DESCRIPTION (continued):

Building 4 (Forge Shop)

Building 4 is located adjacent to the west side of the spine road, south of the east end of Building 44, and east of the east end of Building 3.

The single story, steel framed rectangular brick building is nine bays long and three bays wide. It has a very shallow gable roof, its roof rake marked by projecting steel beams. The south wall of the building has a single, 36 light window with 8-light inset window centered in the upper gable wall. A pair of 20 light windows with 6 light insets are situated lower on the wall at its west end. Centered on the wall is a concrete loading dock with a corrugated metal, overhead loading door. A parapeted flat roofed ell projects from the east end of the south gable wall. This ell is fenestrated with large 12 over 8 metal framed windows. Both the east and west side walls of the building are constructed of ranks of windows set in metal frames and separated into bays by brick pilasters. Each bay contains paired 15 light windows situated low on the wall.

Above these windows are paired 20 light windows with six light insets. The upper rank of windows on the wall is separated from the lower rank by a steel beam. Fenestration of the upper walls consists of paired, 30 light metal framed windows with six light insets. The north wall is pierced by a wood framed six light door at the basement level. The remainder of the north wall is blank. A low, flat roofed, brick utility shed adjoins the west side of the north wall. Projecting from the center of the roof gable is a low gabled, rectangular block. This block, presently clad in corrugated metal, originally may have been a clerestory window.

The original portions of Building 4, a 50 foot by 103 foot block and a 21 foot by 16 foot ell, were constructed in 1913. This portion of the building was initially used as a forge shop and coal bin and was later used solely as a forge shop. The building was expanded in 1918 with an irregularly shaped 3,000 square foot, wood framed, wood clad addition. This addition, which was used for heat treating and storage, was removed in 1936 (New Kensington Plant Building Inventory). The 1921 Sanborn map indicates that the south end of the building was used for smithing, and the north end was used for hardening. Apparently Building 4 is presently used for light manufacturing.

Building 44

Building 44 is a three story, 18 bay rectangular brick block, measuring approximately 354 feet by 86 feet located south of the 12th Street entrance to the industrial park. Immediately north of the building is a driveway that provides access to the west side of the industrial park. North of the driveway is a large parking area for truck trailers, an area which may have been the location of a now-demolished industrial building.

Building 44, a steel framed building sheathed in brick, is similar in appearance to several of the later buildings of the New Kensington and Arnold works, including Buildings 37 and 38 and Building 242. The main decorative elements are the pilasters with angled concrete caps that divide the walls into bays. The north and south walls of the building are fenestrated by three ranks of multi-light metal framed windows. The end bays contain sets of three, 28 light windows in each bay, while the middle bays contain sets of three, 35 light windows with six light pivoting inset windows. First story bays at the east end of the north wall are pierced by loading dock doors. The basement is exposed at the west end of the north wall of the block. The basement is ornamented by a stepped water table. East bays contain three, 10 light windows, while west bays contain three, 35 light windows. The east wall consists of four bays. None of the first story bays contains openings, although a door opening at the south end has been enclosed with concrete blocks. The second and third stories contain groups of three multi-light metal framed windows.

The west wall of the building contains five bays. The northern bay contains groups of three, 35 light windows with six pane pivoting inset windows in all stories. The adjacent bay contains an overhead door at the basement level and sets of three, 35 light windows in the upper stories. The two adjacent bays contain loading dock openings which have been enclosed with corrugated metal panels. Above these bays are groups of three, 10 light windows. The narrower south bay has a 15 light window in the top story. The flat roof of the building is sheathed in book tile.

Building 44 was erected on the site of an early wood framed building. This single story, 16 foot by 50 foot building was erected in 1919 as a grease shed. It was demolished in 1936, and the present building 44 was constructed the same year. This building was used as a job-shop in which custom aluminum products were fabricated (New Kensington Plant Building Inventory). At least a portion of it is now used as a warehouse.

PHYSICAL DESCRIPTION (continued):

West Penn Power Company Substation

The West Penn Power Company substation is a small complex of three buildings and associated power transformers, located on the north side of the 11th Street entrance to the plant. The rectangular site is surrounded by a barbed wire fence.

The largest building is a gable roofed, brick, single story rectangular block, four bays wide and three bays deep, situated in the western portion of the small site. This building has a parapeted north gable end with traces of a lower one story addition that historically adjoined this gable wall. Fenestration originally consisted of tall, arch topped window openings.

The upper portions of all of these openings have been enclosed with modern brick work, and the lower portions of the openings are now filled in with glass bricks. Each of the window openings has a concrete sill. A single light metal door is located in the west bay of the south gable wall of the building. The building walls are laid in five-course American bond brick, and the gable roof is covered with asphalt-based roofing coating.

North of this building is a rectangular, gable roofed, metal walled, prefabricated building. The west gable end wall is pierced by a rectangular louvered vent, and the east gable wall is pierced by a metal door. The remaining walls are blank. The walls and roof are constructed of ribbed metal panels. This storage building was probably erected in about 1980.

Adjoining the east side of the site is a single story, gable roofed, brick, rectangular building, oriented north-south. Plain brick pilasters divide the east and west walls into five bays, and the top of each bay is delineated by brick corbeling. A pair of metal doors and a single metal door are situated in the south gable end. The building has a low gable roof, constructed of concrete slabs. A metal stairway provides access to the north end of the roof, and the roof is topped with transformer racks. This building appears to be contemporary with the other brick building on the site.

Reference to Sanborn maps indicates that the largest building was constructed between 1901 and 1905 as a substation for the New Kensington Electric Company. The complex remains in active use as an electric substation.

Building 11 (Meter House)

The remains of the gas meter house are located northeast of the Boiler House (Building 10) and south of the Forge Shop (Building 4). The structure was originally a single store brick bearing wall building, measuring 18 feet by 28 feet, with a concrete on hyrib roof (New Kensington Plant Building Inventory). The south end of the structure consists of an approximately 12 foot high oversized brick wall. This wall is laid in five-course American bond. Adjoining the west side of this wall is a concrete slab. Gas hose hookups protrude from the slap. A small, shed roofed, rectangular, brick building adjoins the north end of the wall. This building has rectangular, louvered, wood vents on its south, east, and north walls, and a vertical board door on its east wall. The roof is concrete slab and is supported by steel girders. The meter house was constructed in 1911. It is presently vacant.

Integrity

As noted in the building and site descriptions, the New Kensington Alcoa Works has undergone many changes throughout its history. Earlier buildings were demolished and replaced by more recent buildings. Exteriors and interiors of buildings were altered to accommodate changing uses. Such alterations are typical of an industrial complex that grew and evolved over a period of almost 80 years.

Although not all of the historically significant buildings remain, examples remain of all the periods of development of the New Kensington Works. Although interior and exterior changes have been made, historic photographs of the complex demonstrate that individual buildings and the complex as a whole still convincingly convey associations with their period of active use for aluminum processing and fabrication. The complex as a whole retains a high level of integrity of location, design, setting, materials, workmanship, and feeling.

HISTORICAL NARRATIVE:

The Pittsburgh Reduction Company (PRC), predecessor of the Aluminum Company of America, began aluminum ingot production at a small plant on Smallman Street in Pittsburgh. By the early 1890s, PRC officials had determined that the facilities of the Smallman Street plant were too small and too inefficient to accommodate the anticipated growth in aluminum production. Operations were discontinued at Smallman Street in 1891 and were relocated to a new plant that the company had partially completed in New Kensington.

New Kensington was a speculative venture promoted by a group of Pittsburgh capitalists and incorporated as the Burrell Improvement Company. This company, whose shareholders included the PRC's bankers, T. Mellon and Sons, acquired portions of the Stephen Young and Rev. Alexander Young farms as the site of the new town. To attract population, Burrell offered incentives for potential employers to locate industrial facilities in New Kensington. The PRC was offered level land on the east bank of the Allegheny River and an additional $10,000.00 cash bonus for locating its production facilities in the town. T. Mellon and Sons provided an additional $7,000.00 in financing to make the move possible (Carr 1952:43).

The first parcel of land the PRC acquired in New Kensington consisted of Block J, a parcel with 262.5 feet of frontage on the west side of Railroad Street (present north-south spine of the complex), south of 11th Street, and a portion of Block I, that adjoined parcel J on the south and extended to 10th Street. These two parcels were acquired for the token sum of $1.00 in September 1891 (Westmoreland County Deed Book 206:80, September 13, 1891). Five years later, Burrell Improvement Company transferred two additional parcels to the PRC. Parcels R and S, each measuring 130 by 480 feet, were bounded on the east by Pine Alley, on the west by Railroad Street, on the north by 11th Street, and on the south by 9th Street (Westmoreland County Deed Book 249:277, January 30, 1896; 250:80, January 30, 1896).

Additional parcels were acquired from other industrial enterprises in New Kensington. In 1895, Brownsville Plate Glass sold the PRC Block H and a portion of Block I for $10,000.00 (Westmoreland County Deed Book 250:44, November 21, 1895). This acquisition extended the PRC's waterfront holdings to south of 10th Street. The following year, Excelsior Plate Glass sold the PRC the entirety of Parcel K and a portion of Parcel L for $20,000.00 (Westmoreland County Deed Book 252:354, May 26, 1896). With this acquisition, the PRC owned all the land on the Allegheny waterfront extending from north of 9th Street to south of 12th Street. These parcels were the site of the early development of the company's New Kensington Works.

Initially, the New Kensington facility was the site of aluminum reduction operations, the production of relatively pure aluminum through electrochemical processes. Coal and natural gas powered the steam engines that were used to generate electricity which was used in the reduction process. However, in order to lower production costs, the company needed a less expensive and more abundant power source. By the mid-1890s, the company's reduction operations were relocated to Niagara Falls, New York, where inexpensive hydroelectric power was available (Carr 1952:88-89).

Among the first buildings to be erected at the New Kensington Works were the original sections of Building 9A and 9B. Both were single story steel framed structures. Building 9A had brick walls, while Building 9B had corrugated steel walls. Building 9A was used as a boiler room and blacksmith shop, and Building 9B contained a boiler room, engine and dynamo room, and pot room. Two other unnamed wood framed buildings were also constructed in 1891. These were a 97 foot by 30 foot block, used as a coal shed before its demolition in 1900, and a 50 foot by 33 foot building with iron walls that was used as a foundry. This latter building was demolished in 1898.

New Kensington became the PRC's central aluminum fabricating facility. By 1891, aluminum ingots were being produced at New Kensington. Aluminum ingots, however, had very limited uses, and company officials realized that to increase their market, they had to undertake partial fabrication of aluminum products. New Kensington became the site of aluminum casting and rolling facilities. The first fabricated product to be produced at New Kensington was aluminum sheet, made first in coiled sheets and subsequently in flat sheets (Hunt 1951:15). By 1893, the company announced plans to triple the size of its plant facilities. Buildings erected in 1893 included a one story 7,525 square foot section of Building 9B that was originally used as a rolling mill, as well as other smaller buildings. The smaller buildings included: 1) a 71 foot by 25 foot wood framed, single story building with iron walls that housed the shipping, carpentry and buffing facilities. This building was demolished in 1898; 2) a 75 foot by 70 foot single story, steel framed building with iron walls and roof that was used for Calcining. This building was demolished in 1910; 3) two wood framed warehouse buildings, measuring 50 feet by 25 feet and 52 feet by 35 feet. The first was demolished in 1898, and the second stood until 1910; 4) a 20 foot square steel framed, single story lumber shed with iron walls and an iron roof that was demolished in 1898; 5) a 30 foot by 20 foot, single story, wood framed acid house that was demolished in 1898; 6) a 20 foot square, single story, wood framed engine house that was demolished in 1910; 7) a 19 foot by 10 foot single story, wood framed oil house that was demolished in 1904; and a 23 foot by 16 foot, single story, steel framed pump house with iron walls and an iron roof that was demolished in 1902 (New Kensington Plant Building Inventory). Additional plant expansion occurred in 1896 with the construction of

HISTORICAL NARRATIVE (continued):

additions to buildings 9A and 9B, as well as the erection of several smaller buildings. The one story addition to Building 9A added 5,741 additional square feet of floor area and accommodated a melting room and foundry. The 14,653 square foot addition to Building 9B accommodated the plant's first rolling mill. Smaller buildings added in 1896 included three wood framed, wood sheathed sheds, each of which was demolished in 1902, and a 30 foot by 60 foot wood framed, wood sheathed acid house that was demolished in 1913 (New Kensington Plant Building Inventory).

Another aluminum product developed in New Kensington was aluminum tubing. In 1901, the PRC constructed a small tube-drawing plant at the New Kensington Works (Building 9D). By 1902, the New Kensington Works included 15 acres of land and more than 173,000 square feet of building area. Approximately 300 employees were engaged in making special alloys and ingots, castings, sheet, road and bar, wire, rivets, tubes, cooking utensils, and job-shop items (Women's Club 1986:62).

Additional plant expansion occurred in 1896 with the construction of additions to buildings 9A and 9B as well as the erection of several smaller buildings. The one story addition to Building 9A added 5,741 additional square feet of floor area and accommodated a melting room and foundry. The 14,653 square foot addition to Building 9B accommodated the plant's first rolling mill. Smaller buildings added in 1896 included three wood framed, wood sheathed sheds, each of which was demolished in 1902, and a 30 foot by 60 foot wood framed, wood sheathed acid house that was demolished in 1913 (New Kensington Plant Building Inventory).

In the first decade of the 20th century, the first sections of Building 18 were constructed. This building developed as the site of cooking utensil fabrication, which for many years, was one of the primary production functions of the New Kensington Works. Techniques of cooking utensil fabrication were later described in an article in *Scientific American* based on a visit to the New Kensington Works.

The starting point for fabrication of cooking utensils was sheet aluminum. This sheet was produced by melting and casting pigs of aluminum in Building 9A and fabricating this aluminum into sheets in Building 9B. The sheets were passed through large rolling mills until they were reduced to the exact thickness required. During this process, the metal was squeezed and compressed until it became dense and hard.

Starting with a "blank," a circular or oval flat sheet of compressed aluminum a little thicker than the final thickness of the utensil, four or five stamping or forming operations took place to convert the sheet into a utensil of a straight or inverted conical shape.

In utensils in which the top opening was smaller than the body diameter, the utensil first had a cylindrical form and was then placed over a collapsible steel form shaped exactly like the inside of the finished utensil. By rapidly revolving the steel form and the partly formed utensil, while exerting pressure from the outside, the metal was shaped to the final form. The collapsible inside die could be easily removed. If the utensil had a spout, that was made separately and then welded onto the body (Hopkins 1929:248).

Early in the 20th century, the New Kensington Works developed the technology for extruding aluminum into useful shapes. In 1905, the company bought an extrusion press and hired Louis de Cazenove to operate the machine. After several years of experimentation, commercial production of extruded shapes was begun. Much of the output was used for trim on early automobiles (Women's Club 1986:62).

During the 1910s, 11 major new buildings were added to the New Kensington Works. These included Building 3, originally used to house aluminum bronze powder production; Building 4, originally used as a forge shop; Building 5, originally used as a job-shop; Building 10, used as a boiler house; Building 13, an eight story office, packing and shipping, and storage block which was situated at the southwest corner of the plant and which was recently demolished; Building 16, used as a receiving room and storage; Building 24, used as a box and paint ship and lacquering facility, which was demolished in 1935; the six story Building 25, which was used as a pattern shop, storage, and offices; Building 26, the four story clock house originally used as a chemical laboratory, restaurant, and locker room; Building 30, which was used as a stock house and research laboratory; and Building 31, which was used as a smelting plant. Earlier buildings were substantially expanded to accommodate increased production as a result of the increased wartime demand for aluminum, and other small service buildings were erected (New Kensington Plant Building Inventory). By the end of World War I, the New Kensington Works covered 75 acres and included manufacturing floor space of over one million square feet (Women's Club 1986:63). Expansion continued in the 1920s, and in 1928, the firm, then known as Alcoa, announced a million dollar plant expansion (City of New Kensington 1991:83).

HISTORICAL NARRATIVE (continued):

A major portion of this expansion was the construction of Builing 38, a steel framed, brick walled, single story building with balcony and basement. The 91,280 foot floor area of this building was initially used for the machine shop, metallurgical facilities, and stores.

The new New Kensington machine shop was profiled in an article in the November 10, 1930 issue of the *Alcoa News*:

> [The building] consists of a single story main bay 85 feet by 480 feet and a two-story leanto 45 feet by 480 feet. Large machine tools are located in the main bay which is serviced by a 50-ton and 10-ton aluminum crane, both of which operate on the same 81 foot span runway. Medium machine tools are located on the ground floor of the leanto which is serviced by two 5-ton aluminum cranes on separate 20 foot span runways. Light machine tools are located on the ground floor of the leanto which is shared with the die manufacturing section and the shop office. An 80 by 130 foot basement under the south end houses the wash, shower and locker rooms; general transformer room; motor-generator sets; drinking water cooling system and heating system vacuum and return pumps.
>
> Light machine assembly work is done in the north end of the first floor leanto while heavy erection is performed in the adjacent north end of the main bay where a 55 by 75 foot sectional cast iron surface plate is being installed....
>
> The shop's machine tool equipment is of such complete variety and type as to handle economically practically any type of machine and die work from the smallest to the capacity of 48 inch swing lathes, a 12 foot vertical boring mill, a 120 inch planer and a 44 inch swing roll grinder.... (*Alcoa News* November 10, 1930:3).

The following year, the company disclosed plans to acquire and remodel the buildings of the New Kensington Brewing Company, located adjacent to the New Kensington Works, and to increase the size of the tube mill, located at the Arnold Works. The acquisition of the brewery buildings added over 30,000 square feet of floor area to the plant. This additional space was used as a garage, for a portion of the Aluminum Cooking Utensil Company shipping department, and for pattern and general storage. By 1930 the New Kensington Works produced 15 million pounds of aluminum sheet per year (Harper 1931:II:620).

Expansion continued during the 1930s as the company's facilities grew to meet increased production. Major construction projects during the 1930s included the construction of buildings 19C, 38, and 242, and the reconstruction of Building 44. Building 19C, a six story, steel framed building with brick walls is located at the south end of the works. This building provided additional manufacturing and warehouse space for the Aluminum Cooking Utensils Company. Building 37, a single story, steel framed building with brick walls, adjoins the north wall of Building 38 in the southeast portion of the works. This building, which has 36,494 square feet of floor area, was originally used as a structural steel shop and for steel stores. Building 242, a six story, steel framed building with brick walls, is located at the 12th Street entrance to the plant. The 85,680 square feet of floor area of this building was originally used for stores and plant offices (New Kensington Plant Building Inventory).

Building 44, located south of the 12th Street entrance to the plant, is a three story, steel framed, brick clad building erected as a job-shop. In the job-shop, workers fabricated custom-built aluminum items for Alcoa customers. The earliest job-shop was organized in 1904. Its earliest products included aluminum bodies for automobiles. Among its products were an all-aluminum locomotive tender, constructed for the Alton and Southern Railroad in 1946, chemical and brewery tanks, hand trucks for the meat packing industry, fuel tanks, chemical pipe line sections, powder can liners, steam jacketed kettles, and beams for use in the textile industry.

Additional major plant expansion occurred during World War II as the company sought to accommodate huge increases in demand for aluminum for military applications. Alcoa invested an additional $24 million in physical improvements to the New Kensington Works in the decade following World War II. Despite this expansion, the late 1940s marked the beginning of Alcoa's reduction of New Kensington operations. The demand for products produced at New Kensington, including extrusions, tubing, beer barrels, telephone booths, farm gates and cookware slackened, while demand for high-volume products, such as cable and can sheet produced by other company facilities, increased rapidly (Pruitt 1986:12).

HISTORICAL NARRATIVE (continued):

In 1965, Alcoa began a major realignment of operations at New Kensington. Production of impact extrusions was moved from Edgewater, New Jersey and became the major manufacturing function, as foil rolling, press extrusion and tube operations, and kitchen utensil fabrication were relocated to other facilities. In its last years of ownership, Alcoa began demolition of buildings at the New Kensington Works. In 1968, Buildings 13, 14, and 15 were demolished. Building 13 was an eight story office and storage building, constructed in 1916, that stood east of Building 9 and south of the Boiler House (Building 10). Building 14 was a two story, brick bearing wall building, erected in 1905, that originally was used for offices, drafting rooms, a restaurant, and stores and was later used for New Kensington sheet, and Aluminum Cooking Utensil Company shipping. This building adjoined the south wall of Building 13. Building 15 was a two story brick bearing wall building, erected in 1906, that was originally used as offices, locker rooms, wash rooms, first aid, and tool and miscellaneous storage. This building stood east of the south end of the Boiler House (Building 10). A short time later, Building 26, the four story clock house, constructed in 1913, was demolished. In late 1969 or early 1970, two additional buildings were demolished: Building 25, a six story concrete frame building sheathed in concrete and brick, constructed in 1912; and Building 94, a building constructed in the World War II era. Building 25 was originally used as a pattern shop, as storage for lumber, office supplies and old records, and as a carpenter shop. It stood at the southwest corner of the New Kensington Works, adjacent to the Ninth Street Bridge. In 1970, Building 81, one of two acquired from the New Kensington Brewing Company, was demolished. The other building, number 80, was later demolished as part of a New Kensington redevelopment project. These buildings were located at the northeast corner of Ninth Street and Railroad Street (present Industrial Drive) (New Kensington Plant Site Map A-37825-K).

On July 1, 1970, Alcoa announced the termination of its manufactured products division and the closing of the New Kensington Works. By March 31, 1971, this closing had been completed (Meyerhuber 1981:219). Later the same year, the Arnold and New Kensington works were sold for $3,000,000.00 to the Schreiber Industrial Development Company (Westmoreland County Deed Book 2084:912, December 14, 1971). Many of the manufacturing buildings at Arnold and New Kensington have been adapted for other industrial use.

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM--PHOTO/SITE PLAN SHEET

89A

Pennsylvania Historical and Museum Commission
Bureau of Historic Preservation
Box 1026, Harrisburg, PA 17108-1026

Survey Code/Tax Parcel/Other No.: 2-2-7-341 County: Westmoreland
Municipality: Arnold Address: West side, 3rd Avenue from 13th Street to 14th Street and West side, Riverside Drive from 14th Street to north of 16th Street
Historic Name/Other Name: Arnold Alcoa Works

SITE PLAN

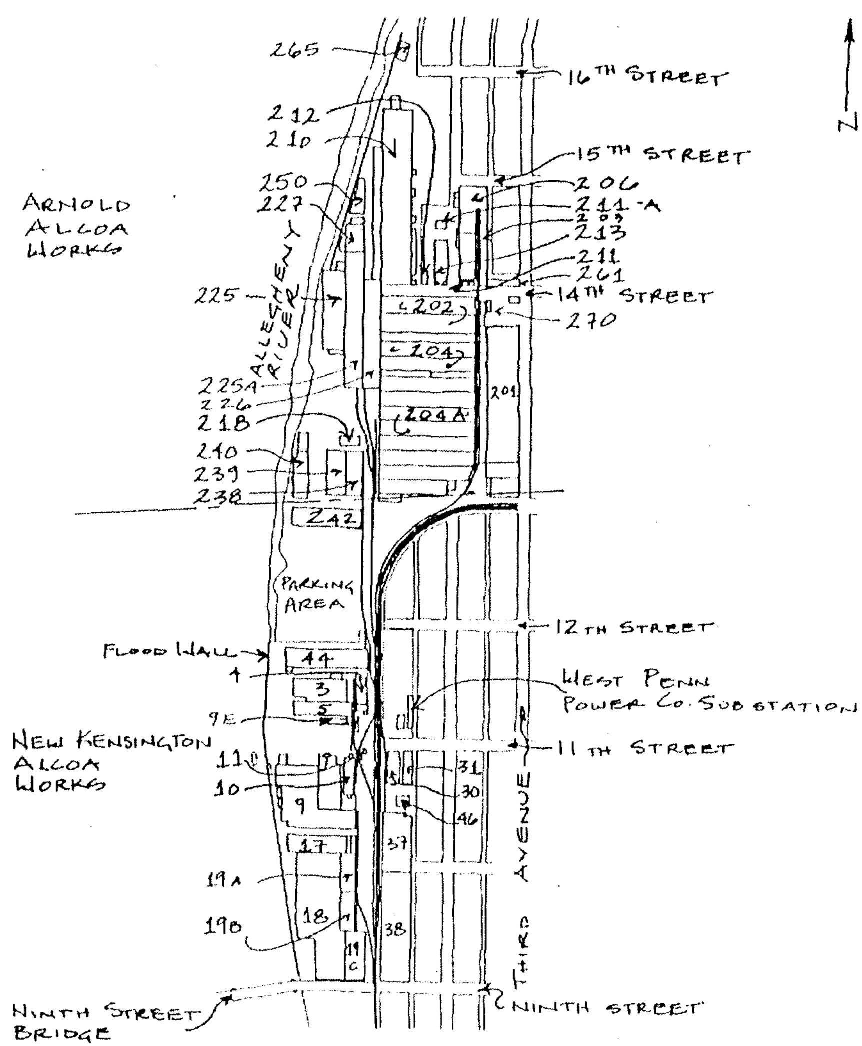
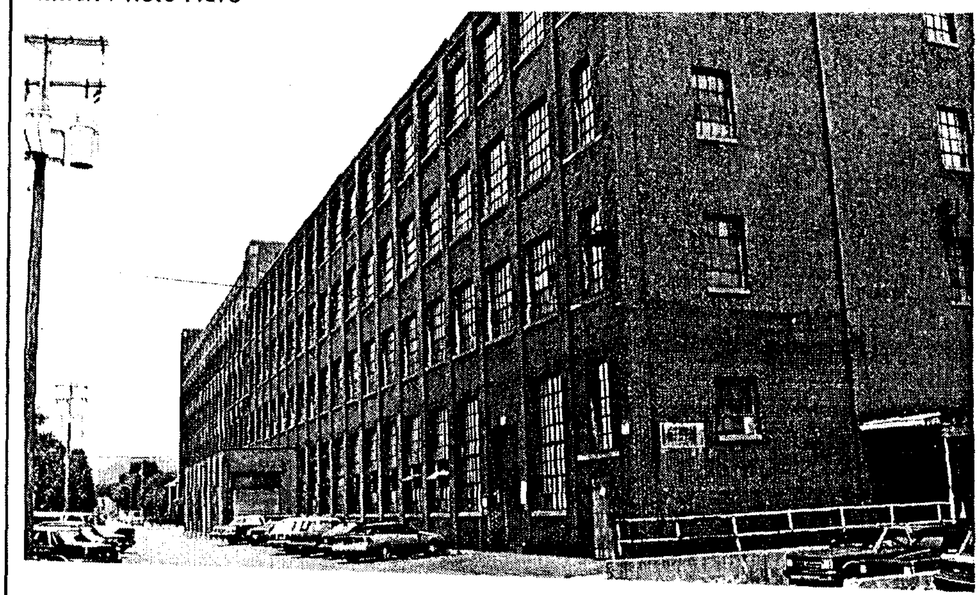


PHOTO INFORMATION

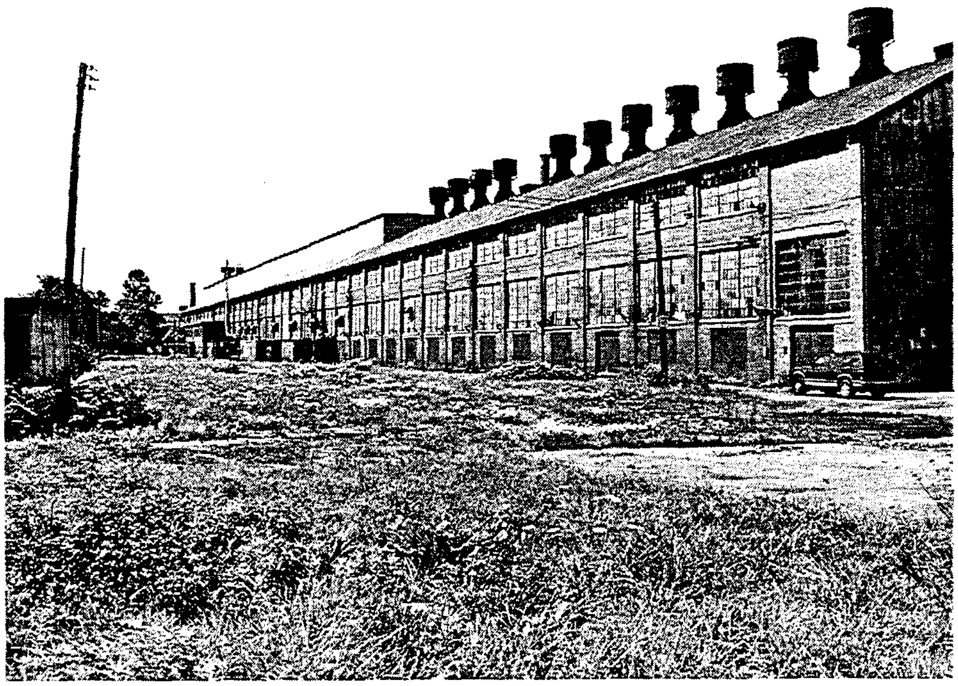
Attach Photo Here

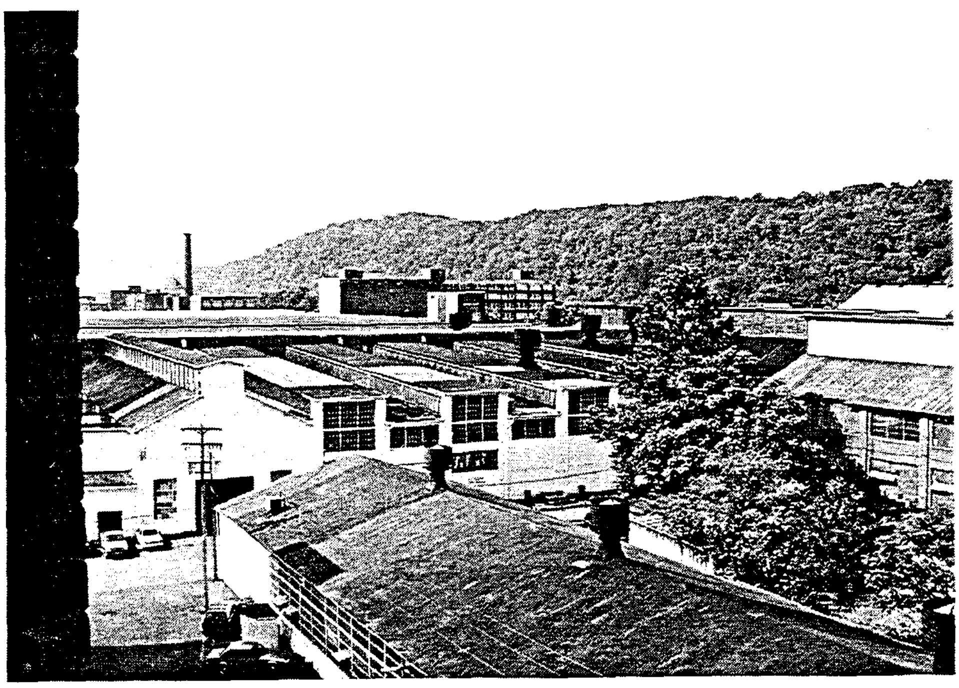


Number	Description of View	Direction of Camera
1	West and south sides, Building 206	NE
2	North and east sides, Building 201	SW
3	North and east sides, Building 206	W
4	Building 211 (Building 206 in background)	NW
5	South and east sides, Building 240	NW
6	South side, Buildings 238/239	NW
7	South and west sides, Building 204A	NE
8	South and east sides, Buildings 261/203	NW
9	South and west sides, Buildings 225/225A	N
10	East and north sides, Building 210	SW
11	View from 6th Floor, Building 206 showing Buildings 213, 210, and 202	S

Photographer Name: Douglas C. McVarish Date: July 1993
Negative Location: John Milner Associates, Inc. 309 N. Matlack Street, West Chester, PA 19380

See reverse for additional instruction





PENNSYLVANIA INDUSTRIAL RESOURCE SURVEY FORM--DATA SHEET 89BIN
Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

IDENTIFICATION AND LOCATION

Survey Code: ______ Tax Parcel/Other No.: 2-2-7-341

County: 1. Westmoreland 1 2 9 2. ______

Municipality: 1. Arnold 2. ______

Address: West side, 3rd Avenue from 13th Street to 14th Street and West side, Riverside Drive from 14th Street to north of 16th Street

Historic Name: Arnold Alcoa Works

Other Name: Schreiber Industrial Park, northern section

Owner Name/Address: Schreiber Industrial Development Company, Box 641, New Kensington, PA 15068

Owner Category: X Private ___ Public-local ___ Public-state ___ Public-federal

Resource Category: ___ Building X District ___ Site ___ Structure ___ Object

Number/Approximate Number of Resources Covered by this Form: 15

USGS Quad: 1. New Kensington West 2. ______

UTM References	Zone	Easting	Northing
A.	17	603870	4491600
B.	17	603910	4492140
C.	17	604080	4492060
D.	17	604760	4491700

HISTORIC AND CURRENT FUNCTIONS

Historic Function Category:	Subcategory	Code:
A. Industry/Processing/Extraction	Manufacturing facility	1 0 A
B.		

Particular Type: A. Factory
B.
C.

Associated Process/Activity:	Code:
A. Industry: Primary metal industries	I - B A
B. Metal containers fabrication	I - C D
C. Metal stampings fabrication	I - C G
D. Cooking and heating equipment fabrication	I - C I

Current Function Category:	Subcategory:	Code:
A. Industry/Processing/Extraction	Manufacturing facility	1 0 A
B. Commerce/Trade	Warehouse	0 2 H
C. Commerce/Trade	Business	0 2 A

PHYSICAL DESCRIPTION

Architectural Classification: A. Modern Movement 7 0
B. ______ Other: Steel framed factory buildings 8 0
Masonry storage sheds 8 0

Exterior Materials:

		Code			Code
Foundation	Concrete	6 5	Roof	Asphalt	6 3
Walls	Brick	3 0	Walls		
Other	Roof: steel	5 6	Other		

Structural System: 1. Steel frame 4 1 2. Masonry 2 0

Roof System: Material Steel 4 System: Sawtooth Truss 8

Width: 20+ bays F Depth: 100+ feet ___ Stories/Height: 1 A

Power System: Electric--alternating current 8 0

Machinery: No historic machinery extant

Archeological Remains: Foundation slabs

HISTORICAL INFORMATION

Year Built: ___ C. 1913 to X C. 1945 Additions/Alterations Dates: X C. 1971 ; ___ C. ___
Basis for Dating: X Documentary X Physical

Explain: First building completed at Arnold Works in 1913. Subsequent buildings were added up until about World War II. Alteration of building uses and interior arrangements made after acquisition of the site by Schreiber Industrial Development Company in 1971.

Cultural/Ethic Affiliation: 1. ___ 2. ___
Associated Individuals: 1. ___ 2. ___
Associated Events: 1. Alcoa expansion 2. ___
Architects/Engineers: 1. unknown 2. ___
Builders: 1. unknown 2. ___

MAJOR BIBLIOGRAPHICAL REFERENCES

Anonymous. "Beer Bottles to Battleships. We Visit Arnold Foil Mill and Discover Some Interesting Facts." *The Alcoa News.* 6:4, February 18, 1935:3-4.

___. "Pressure Plus Heat Makes Extrusions." *Alcoa Warrior.* 4:12, July 31, 1946:4-6.

___. "2,000,000 A Day! Manufacture of Closures An Important Contribution to Packing Industry." *The Alcoa News.* 6:;7, April 1, 1935:3-4.

Arnold Plant Building Inventory. Manuscript in Alcoa Corporate Archives, Pittsburgh, Pennsylvania.

Hopkins, Albert A. "Aluminum on Trial: Cooking Utensils Made of Aluminum Are Shown to Have No Harmful Effects on Food." *Scientific American* 140:246-248. February 1929.

Pruitt, Bettye. *Alcoa in Westmoreland County.* Merwin, Pennsylvania: Alcoa Laboratories, 1986.

Sanborn Fire Insurance Maps. New York: Sanbom Map Company. Various dates.

Smith, George David. *From Monopoly to Competition: The Transformatin of Alcoa, 1886-1986.* New York: Cambridge University Press, 1988.

Women's Club of New Kensington. *Lore of Yore: A History of New Kensington, Arnold and Lower Burrell.* New Kensington, Pennsylvania: Women's Club of New Kensington, 1986.

Archival Collections: Alcoa Technical Library has company periodicals that mention building uses and manufacturing processes at the Arnold Works.

Location: Alcoa Technical Library, Merwin, Pennsylvania. Contact Person: Nick Kotow

PREVIOUS SURVEY, DETERMINATIONS

DiCiccio, Carmen P. *Extant Manufacturing, Transportation and Coal Mining Facilities in Westmoreland County (Opened Prior to 1935).* March 1, 1989.

EVALUATION (Survey Director/Consultants Only)

Individual NR Potential: X Yes ___ No Context(s): Aluminum Industry in Westmoreland and Allegheny Counties, 1888-1945

Contributes to Potential District ___ Yes X No District Name/Status ___
Explain:

THREATS

Threats: 3, 4 1. None 2. Public Development 3. Private Development 4. Neglect 5. Other
Explain: Some buildings, not currently in use, are deteriorating. Possible future alterations to buildings to accommodate new uses may threaten architectural integrity.

SURVEYOR INFORMATION

Surveyor Name/Title: Douglas C. McVarish, Project Architectural Historian Date: July 1993
Project Name: Historic Resources Survey of the Aluminum Industry in Westmoreland and Allegheny Counties, PA
Organization: John Milner Associates, Inc. Telephone: (215) 436-9000
Street and No. 309 North Matlack Street
City, State: West Chester, Pennsylvania Zip Code: 19380
Additional Survey Documentation: ___
Associated Survey Costs: ___

PENNSYLVANIA INDUSTRIAL RESOURCE SURVEY FORM--NARRATIVE SHEET

Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

Survey Code: ______ Tax Parcel/Other No.: 2-2-7-341

County: Westmoreland Municipality: Arnold

Address: West side, 3rd Avenue from 13th Street to 14th Street and West side, Riverside Drive from 14th Street to north of 16th Street

Historic/Other Name: Arnold Alcoa Works

PHYSICAL DESCRIPTION:

The historic Arnold Works of the Aluminum Company of America consists of the northern section of the aluminum production and fabrication facilities located on the east bank of the Allegheny River in New Kensington and Arnold, Pennsylvania. The Arnold section of the works is bounded on the south by the Arnold-New Kensington line and on the east by Third Avenue and Riverside Drive. It extends along the east bank of the river to north of 16th Street.

The general site of the works is flat, incorporating the flood plain of the river. Buildings, of varying sizes, are generally oriented north-south. Between buildings are concrete parking areas, some of which may have been the sites of buildings that have been demolished. Primary access to the Arnold Works is through gates at the west end of 14th and 16th streets. The south end of the Arnold Works is accessible from the main New Kensington gate at the west end of 12th Street. Concrete alleyways run north-south between several of the large buildings. The Arnold Works presently consists of 15 principal buildings and groups of related buildings. Each of these buildings, listed by Alcoa building number, is described below. The locations of these buildings are indicated on the site plan.

Building 204A/204/202

This rectangular brick building has one of the largest footprints of any extant building at the Arnold or New Kensington works. Its south end is located northeast of Building 242, while its north end adjoins the 14th Street driveway. It is laid in five course American bond brick, has a poured concrete foundation, and is one story in height.

The south portion of the building is designated as Building 204A. This section of the building is used as a warehouse by a wholesale distribution company. Although the southern section has a sawtoothed roofline, the sawtooth is not readily apparent because of the flat roof parapet. The south wall of the building is largely pierced by loading docks at the first story level. Above these loading docks are two ranks of multi-pane, metal framed windows, separated by steel beams. Separating each group of windows is a brick pier. The southern section of the west wall also contains loading docks as well as a ramp extending from the southwest corner of the building. Above the shed roofed canopy of the loading dock are tall, paired, multi-pane, metal frame windows separated by brick piers.

The central section of the building, designated as Building 204, is not readily visible because of the proximity of adjacent buildings. An aerial view of the building indicates that it has a flat roof covered with asphalt and gravel and is approximately two stories in height. The northern end of the building, designated as Building 202, adjoins the south side of the entry drive from 14th Street. The complicated roofline of this section of the building was probably designed to provide the maximum amount of light to the production floor. The east and west sections of the roof are gabled with a clerestory. Between these end sections are raised, flat roofed clerestory sections. All of the clerestory windows have now been enclosed with metal panels. Fenestration of the north wall of Building 204 consists of large windows situated in the central and upper walls. These windows, arranged in groups of three separated by the brick piers marking the north wall bays, generally contain 20 or 25 lights. Changes in brickwork indicate that loading doors may once have been in place in all the north wall bays. Loading doors now are present only in two of the western bays.

These adjoining buildings were constructed in a series of stages. The earliest portion was an approximately 157 foot by 160 foot section of Building 202, constructed in 1914. This building originally housed the extrusion department and machine shop and subsequently housed the extrusion department, plant restaurant, and power plant. The original section of Building 204 was a 321 foot by 130 foot block with a 65 foot by 100 foot ell. This building, constructed in 1915, housed the Arnold tube mill and extrusion facilities. After the construction of 204A, 204 housed extrusion facilities. In 1916, Building 202 was enlarged with a 243 foot by 32 foot addition. This addition originally housed pumps and the extrusion die room. When 2,067 square feet of this building was taken out of service in 1929, the remaining portion continued to be used as the extrusion die room. Also in 1916, a 45 foot by 80 foot addition was made to Building 202 and designated as Building 202A.

PHYSICAL DESCRIPTION:

This addition was initially used by the shipping department and subsequently accommodated expansion of the extrusion facilities. Both Building 202 and Building 204 were expanded in 1920. The expansion of Building 202 was 173 feet by 264 feet in size and was used for expanded extrusion facilities. The expansion of Building 204 was 65 feet by 101 feet in size. This portion of the building was originally used as a part of the tube mill and as part of extrusion facilities. Later, the entire addition housed extrusion facilities. The first section of Building 204A was constructed in 1927. This 138 foot by 25 foot block was used as offices for the tube mill. The following year, Building 204A was enlarged by a 90 by 100 foot addition. This addition housed the tube mill. Building 204A was further enlarged in 1929 with 134,500 square foot addition which was used to greatly expand the tube mill and later incorporated offices for the tube mill. Also in 1929, a 4,092 square foot addition was made to Building 202. This addition originally contained extrusion facilities and the electric shop and was later used exclusively for extrusion facilities. The final major additions to the group of buildings occurred in 1937 when two blocks, one measuring 65 feet by 419 feet and the other 65 feet by 405 feet, were added to Building 204A. These additions accommodated the growing tube mill and also provided space for the shipping department (Arnold Plant Building Inventory).

Building 240

Building 240 is located west of the west end of 13th Street and north of the west end of Building 242. It is separated from Building 242 by a parking area. Building 240 was constructed in several sections. The first portions, measuring 178 feet by 66 feet and 28 feet by 45 feet, were constructed in 1936. This portion of the building housed the garage and paint shop for the Arnold Works. In the following year, an 84 foot by 45 foot addition was made to the building. This addition was used as a laundry and tool house (Arnold Plant Building Inventory). It currently houses a truck repair garage. The rectangular, single story, brick building is oriented north-south. Its bricks are laid in stretcher bond with alternating headers and stretchers every sixth course. The south wall is comprised of five bays. Fenestration consists of sets of three, 21 light, metal framed windows with inset 6 light pivoting windows at either end of the south wall. Interior bays consist of paired 21 light windows with six light insets. A metal door is situated on the south end wall of the building. At the south end of the east wall is a 24 light window set in a metal frame. The next bay north contains a metal door. To the north of this metal door are 7 overhead, corrugated metal vehicle doors. At the north end of the east wall is a 3 panel, one light door and tall 30 light, metal frame windows with inset, pivoting, six light windows. The north end of the block is fenestrated with two pairs of 30 light windows.

Buildings 238/239

Buildings 238 and 239 are located north of Building 242 and west of a railroad siding at the south end of the Arnold Works. The adjoining buildings are separated by stepped parapet brick fire walls. Both buildings are one story in height. The western half of the building is constructed of brick, while the eastern half has a wood frame sheathed in corrugated steel. Both sections have a concrete foundation. Building 239, the western section of the block, has a sawtooth roofline and measures 81 feet by 199 feet. Unlike most of the other sawtoothed roof buildings in the works, its clerestory windows are not covered. The windows consist of a group of about sixteen 24 light windows in metal frames. The south wall of Building 239 is fenestrated with groups of three 20 light windows arranged in three ranks. It measures 200 by 70 feet. Bays are delineated by piers. The west side of Building 239 is pierced by loading docks and sixteen light, metal frame windows. The east section, known as Building 238, has four shallow gabled roofs with the east wall forming the gable ends. Twelve light metal frame windows pierce the upper sections of the wall and the central bays of the east wall are also pierced by loading dock doors. The north end of the building is pierced by a pair of 3 panel, 1 light doors, as well as two ranks of multi-pane, rectangular, metal framed windows.

Building 238 was originally erected at the New Kensington Works in 1912. The building was used as a lumber shed. In 1936, the shed was relocated to its present site at the Arnold Works. Building 239 was constructed in 1936. This building was used as a carpenter and box shop (Arnold Plant Building Inventory).

Building 218

Building 218 is a rectangular, single gable roofed shed with paired metal clad doors situated in its west gable end. The north, south, and east walls are blank. The building has a concrete floor and a steel frame. Its walls are sheathed with sheet steel, and its roof is also sheathed in sheet steel. The building, which was constructed in 1928, was historically used as a brick and cement shed and construction equipment storage (Arnold Plant Building Inventory). It is presently used for storage.

HYSICAL DESCRIPTION (continued):

Building 201 (Arnold Rolling Mill).

Building 201 is located on the west side of Third Avenue between 13th and 14th Streets. The earliest portion of the building, the central 161 foot by 140 foot section, constructed in 1914, is shown on a 1915 Sanborn insurance map. Subsequent additions to the foil mill occurred in 1916, 1919, and 1927. In 1916 and 1919, 160 foot by 140 foot blocks were added to the original portion of the mill. In 1927, a 181 foot by 140 foot block was added. In subsequent years, additional small blocks designated as 201A and 201B were added. These small additions were probably made to the west wall of the original block. The original 201A, constructed in 1927, measured approximately 16 feet by 60 feet. This steel framed addition has corrugated steel walls. It was used as a foil reclamation facility and was removed in 1937. In that year, a new steel framed addition was added. This addition measured approximately 32 feet by 110 feet and replaced the original 201A as a foil reclamation facility. Building 201B consists of two steel framed blocks sheathed in corrugated aluminum with corrugated aluminum roofs, each measuring 20 feet square. The first section was constructed in 1931, while the second was constructed in 1935. Both were used for lacquer storage (Arnold Plant Building Inventory). The east wall of the one story brick Building 201 is located approximately 18 inches from the curb of Third Avenue. North of the building is a fenced asphalt parking lot, and south of the building is an asphalt drive that provides access to a loading dock on the building's south wall.

The building is a large rectangular, one story block, divided along its west and east walls into 15 sawtooth roofed bays. Fenestration consists of four large rectangular window openings per side bay. Each of these windows has a concrete sill and is boarded over. The sawtooths are fenestrated with two rows of oblong frosted windows. The north wall is pierced by a 30 light glass brick window at its east end and five loading dock openings to the west. Projecting from the southeast corner of the block is a brick, stepping wall. A blank arch formed by three rows of brick headers is situated in the higher center section of the wall. The south wall of the building is fenestrated with three sliding two-light windows. A metal door is situated at the west end of the south wall. Projecting from the south wall is a shed roofed, concrete block addition. The roof is pierced by irregularly spaced cylindrical metal vents, and a modern HVAC box also protrudes from the roof. The sawtooth parapeted roofline is marked by concrete slab capstones. The building adjoins buildings 270 and 204 on its west side. Building 201 was originally used to produce aluminum sheets. A portion of the building is currently used to produce concrete paving blocks.

Buildings 261/203

Building 261/203 is situated on the north side of the 14th Street entrance to the Arnold Works. This building consists of a single story 15 bay section oriented east-west along the north side of the entry drive (Building 261). Adjoining this block at its west end is a taller, one story, rectangular brick block oriented north-south (Building 203). Building 261 probably served as the Arnold Works gatehouse, and Building 203 as office space.

The south wall of Building 261 is ornamented with four recessed brick string courses. Fenestration consists of rectangular window openings now covered with corrugated metal panels. A metal door set in a rectangular recess is located close to the center of the wall. At the 3rd Avenue end of the south wall is a shed roofed porch supported by three square brick columns. This porch shelters a three-sided canted bay and a door opening. This door and the transom above it have been boarded over. The east wall of the building has four rectangular window openings. All openings on this wall are also covered with corrugated metal panels. The flat roofed buildings have brick parapets with concrete slab capstones.

Building 203 extends north to 15th Street. At the southern end, a narrow alleyway separates the building from Building 206 to the west. At the 15th Street end, this building adjoins Building 206. The south wall of Building 206 is recessed from the facade plane of Building 203. This wall contains three bays, two rectangular window openings, now enclosed with metal panels, and a metal door. The east and west walls of the building are fenestrated with rectangular windows of a similar size. Most are covered with corrugated metal panels. Some at the north end of the east wall are uncovered and consist of 24 light, metal frame windows with inset 6 light pivoting windows. The north wall contains six 48 light frosted glass windows with six light inset windows. The present use of the buildings is unknown.

Buildings 261/203 were probably constructed during World War II. Building 203 was erected on the site of an earlier building. The first section of this earlier building, a 48 foot by 34 foot wood framed block with corrugated steel walls and roof was constructed in 1914 and was used as a boiler house. This block was expanded three years later. In 1919, a 34 foot by 20 foot steel framed addition was constructed. This addition was used as a forge shop and storage. Subsequent additions included a single story wood framed block, measuring 35 feet by 33 feet and constructed in 1921, and a 35 foot square single story wood framed block, added in 1927. These two blocks housed the Arnold Power House (Arnold Plant Building Inventory). Major portions of this building were demolished in 1937, and the portion housing the power housing was demolished in about 1940.

PHYSICAL DESCRIPTION (continued):

Building 206

Building 206 is situated south of 15th Street and west of Spruce Alley. The initial section building was constructed in 1916 as the manufacturing facility of the Aluminum Seal Company. The lower floors are currently used for light manufacturing, while the upper floors are vacant. The northern end of the building adjoins the northern section of Building 203. The building is divided into a lower eastern block and a taller western block. Both blocks are three bays wide on the 15th Street side. The north wall of the eastern block is five stories in height and is divided into bays by full height brick pilasters topped with angled concrete caps. Fenestration consists of tall, paired, metal framed, multi-paned windows. First story windows have triple hung 12 over 12 over 8 sashes. The second story is fenestrated with 8 over 12 double hung sashes, the third with 12 over 8 double hung sashes, the fourth with 16 light windows with 4 light inset windows, and the fifth with one over one, double hung windows. A concrete sill course ornaments the building at the fifth story level, and the fifth story windows have vertical header lintels.

The north wall of the western section has been altered by the bricking-over of many window openings. Windows currently illuminate only the western bay. This bay is fenestrated with metal frame 15 light windows with 6 light insets and 25 light windows with 9 light insets. The east wall of the building is fenestrated with paired large, rectangular, multi-paned windows in the lower stories. Most common are twenty light windows with a pivoting 8-light lower section. The top story is fenestrated with paired, one over one, double hung windows.

The west wall of the building is also broken into bays with full height brick pilasters with angled concrete caps. Painted on the west wall is "The United States Aluminum Company Arnold Works." This painted sign replaced an earlier sign that presumably identified the building as the Aluminum Seal Company. The northern bay contains a stair tower that projects an additional story in height. The west side of the building is divided into two sections. The northern twenty bays, with the exception of stair towers at the north and south ends, are five stories in height. Fenestration consists primarily of large, paired, multi-pane, metal frame windows with inset pivoting windows. Fenestration of the top story consists of paired one over one, double hung windows. Several of the first story openings at the northern end have been enclosed with concrete. Projecting from close to center of the west wall is an eight bay, single story, flat roofed loading dock with a corrugated metal overhead door in its north end wall. The southern portion of the west wall is four stories in height with the exception of the two end bays in which a stair tower is located. Fenestration of the four stories consists of large, rectangular, multi-paned, metal frame windows with pivoting windows on each of the four stories. The cornice above the fourth story windows is marked by corbeled brick work. A metal entry door is situated at the south end of the west wall. The south wall consists of four irregularly spaced bays, fenestrated with single and paired, metal frame, multi-pane windows. Adjoining the south wall of the building is a hyphen connecting with Building 211.

Building 206 was constructed in three parts. In 1916, a 214 foot by 70 foot building with a 65 foot by 50 foot ell was erected. This building was four stories in height with a full basement. In 1928, a 203 foot by 70 foot, four story addition was constructed to accommodate growing aluminum seal production. A second addition, made in 1937, added a fifth story to the original main block of the building (Arnold Plant Building Inventory).

Building 250

Building 250 is located west of Building 210 along the east bank of the Allegheny River. It is a two story, brick, trapezoidal shaped building that was probably constructed during World War II and may have originally been used as offices. It is now vacant and is in poor condition. Most of the windows have been broken and the interior has been vandalized. The brick walls of the building are decorated with eight recessed stretcher string courses. A ninth marks the cornice line.

The north side of the building is marked by a 12 light window at its east end. Above this window is a 9 light, metal frame, second story window. The east bay of the north wall is occupied by a metal frame doorway in the first story. Above this doorway is a second story doorway. A cantilevered concrete slab extends outward from this doorway. A stairway bay is situated in the northwest corner of the building. The east side of the block is fenestrated by metal framed casement windows. The northern bay on the east side has a four light casement window in the first story and a three light casement in the second story. The remaining bays have eight light casement windows in the first story and six light casement windows in the second story. Near the center of the east wall is a loading dock opening surmounted by a four light transom. Double three light, single panel doors are centered on the south wall of the building. These doors are surmounted by a three light transom. Adjoining the doors is a concrete deck that extends to the north wall of the adjacent Building 227.

PHYSICAL DESCRIPTION (continued):

Building 227

Building 227 is situated on the east bank of the Allegheny River immediately south of Building 250 and connected to it by a concrete deck. Its south wall adjoins Building 225A. Building 227 is a brick, sawtoothed roof, rectangular building with six side bays. Together, the two buildings have a roof consisting of at least 25 sawtooths. The windows in the sawtooths are covered with metal panels. Projecting from the north end of the building a two story, shed roofed ell sheathed in corrugated metal. Fenestration of the ell consists of groups of three 20 light windows. Fenestration of the sides of the building consists of groups of three 24 light windows on the upper wall. The lower wall is shaded by a flat metal canopy supported at either end by truss brackets. Beneath the canopy are groups of three 16 light windows on the lower wall and beneath these windows are loading dock openings now enclosed with concrete block. Building 227 is connected to building 202/204 by a long narrow shed roofed section, indicated on site plans as Building 226. The north wall of this building is pierced by two overhead door openings. The historic use of the building is unknown. It is not listed on a c.1940 Alcoa building inventory and was probably constructed during World War II. Building 227 may presently be used by Westinghouse as part of its distribution center.

Building 270

Building 270 is a small, rectangular, brick, single story, World War II era building located on the south side of the 14th street entry drive to the works. It is located west of the parking lot north of Building 201. The building is three bays wide at its north wall and seven bays deep. Its southeast corner adjoins Building 201. A metal door is centered in the north wall of the block. This door has a wood panel surround. Flanking the door are metal framed, two over two, double hung windows with horizontal muntins. Six additional two over two, double hung windows pierce the east wall. In the south bay of the east wall is a metal door. Adjoining the west wall is a half length, shed roofed ell set back from the north wall of the building. This ell contains a four panel wood door and a loading dock. The brickwork of the building is ornamented with recessed string courses. The roof is flat and is marked by a brick parapet with concrete capstones. The historic use of the building is unknown. It is currently used as an office and shop for an electrical contractor.

Building 211

Building 211, is a small, single story, gable roofed five course American bond brick building, measuring approximately 20 feet by 27 feet. It is located immediately south of the old Aluminum Seal Company building (206) and north of the 14th Street driveway. The smaller building, which is presently connected to the larger building by a shed roofed hyphen, was originally free standing. Projecting from the west gable end is a shed roof porch that shelters a loading dock. This porch has vertical board wood rafters whose outer ends rest on a steel I-beam. The beam is in turn supported by metal posts at the outer corners of the porch. These posts are anchored in the concrete side walls of the loading dock. A concrete ramp leads downward from a driveway to the loading dock. A single door is centered on the west wall of the building. The south wall is fenestrated with two 12-light windows with pivoting center, four light insets. Centered on the east gable end is a 16 light window. All windows have concrete sills. Variations in the brickwork indicate that these windows were probably added during alterations to the building. The roof is the building is marked by exposed wood rafter ends and is sheathed in metal roofing panels. The historic use of the building is unknown. It is presently used as office space by an industrial firm that rents space in several adjacent buildings. Building 211 was constructed in 1920 and was historically used as the oil house (Arnold Plant Building Inventory).

Building 211A

Building 211A is a gable and shed roofed storage shed situated in a fenced in area north of Building 211. The building is sheathed in corrugated steel panels and has a corrugated steel roof. Double doors are situated in the east gable end. The present use of the building is unknown, although it may be used to store supplies for the light manufacturing that takes place in surrounding buildings. The first section of Building 211A was a 21 foot by 52 foot block, constructed in 1924. Five years later, a 20 foot by 52 foot addition was constructed. Both portions of the building were historically used for oil and grease storage (Arnold Plant Building Inventory).

PHYSICAL DESCRIPTION (continued):

Building 213

Building 213 is a single story, gable roofed, rectangular brick building probably constructed in about 1940. It was constructed on the site of an early 72 foot by 30 foot single story, wood framed building that had been constructed in 1916 and 1922 and was used as a box shop until its demolition in 1929 (Arnold Plant Building Inventory). Its lower side walls are constructed of stretcher bond brick while the upper portions of the east, west and north walls are fenestrated with ribbons of windows set in steel frames. A central entry door is situated on the south wall of the building. This door is flanked by three 16-light windows. The lights of these windows have been painted over. Fenestration of the side walls consists of rectangular, metal framed, 20 and 24 light windows with inset 8 light pivoting inset windows. These windows are surmounted by 10 and 12 light transoms. The northern wall of the building has a large, central rectangular opening. The ribbon of windows on the north wall is comprised of 20 and 16 light, rectangular, metal frame windows with 8 light pivoting inset windows. These windows are surmounted by 10 and 12 light transoms. The gable roof is covered with roofing tar and is pierced by three circular metal vents. The original use of the building is unknown. It is presently used for light manufacturing.

Building 212

Building 212 is a small gabled roofed concrete block storage building located on the north side of the 14th Street entrance drive west of Building 213. Double wood doors are situated in its south gable end. Its gables are sheathed in novelty siding, and its roof is sheathed in rolled roofing. The building was probably constructed about 1940 and may incorporate portions of an earliler 16 foot by 22 foot wood framed and sided building, constructed in 1930 as a first aid station.

Buildings 225A/226

Buildings 225A/226 are located adjacent to the west side of Building 202-204 and north of Buildings 238/239. These buildings appear to have been constructed during the substantial expansion of the Arnold Works that occured during the 1920s. These adjoining buildings are of steel framed, brick veneer construction, one story in height, oriented north-south and have a sawtooth roofline. The south wall of the block is fenestrated with groups of three, large, rectangular, multi-light, metal framed windows in the second story. Below these windows are covered over window openings. A large rectangular vehicle opening is also situated on the south wall and is surmounted by a metal hood that may have replaced one group of second story windows. Building 226 is located east of the sawtooth roofed block and connects it to the northern portion of the west wall of Building 204/202. Fenestration of the side bays consists of groups of three, large rectangular, multi-light, metal framed windows. First story windows on the west side have also been enclosed. Projecting from the west wall of the block is a single story, shed roofed, six bay concrete block addition which may contain offices for the building. Also located on the west wall of the building are several loading bays. At its northern end, Building 225A adjoins Building 227. The junction of these two buildings is marked by a two story, flat roofed, brick bay, windowless on its east wall. The initial 330 foot by 82 foot section of Building 225A was constructed in 1922. This building housed the Arnold Sheet Mill and the shipping department. Building 225A was expanded twice in 1926. The first addition, measuring 83 feet by 82 feet, housed the Arnold machine shop. The second addition, measuring 104 feet by 82 feet, enlarged the size of the sheet mill. In the same year, the initial section of a steel framed, concrete hyrib walled Building 226 was constructed. This 31 foot by 15 foot, single story building was used for nitrate storage. Building 226 was probably expanded to its present dimensions during the World War II era. In 1928, a leanto was added to the south wall of Building 225. This addition, designated 225C, measures approximately 77 feet by 19 feet and contains 1,511 square feet of floor space. It provided additional space for the Arnold sheet mill (Arnold Plant Building Inventory). Both are currently used as part of a Westinghouse distribution center.

Building 225

Building 225, a single story, steel framed, brick gable roofed building, is oriented north-south along the western edge of the Arnold Works adjacent to the Allegheny River. The building adjoins the center of the sawtooth-roofed Building 225A. In the center of the south wall is a large overhead door opening. Projecting from the wall above the door is a flat metal hood, and above the hood are three, 35 light, metal frame windows with concrete sills. Flanking these central windows are two ranks of multi-light windows. Projecting from the east side of the south gable end is a shed roofed addition. This addition may provide a connection between Building 225 and the adjacent 225A. The east slope of the south gable end is ornamented with corbeling.

PHYSICAL DESCRIPTION (continued):

Building 225 was constructed in several sections. The original 249 foot by 105 foot section was constructed in 1922 as the Arnold Sheet Mill. In 1929, the area of the sheet mill was enlarged with a 104 foot by 105 foot addition. Subsequent construction added and enlarged a brick bearing wall block to house the offices of the sheet mill. In 1930, a 20 foot by 33 foot block was constructed. In 1937, a 12 foot by 33 foot addition was made to this block (Arnold Plant Building Inventory). The south wall detailing suggests that the remainder of the building resembles one of the gables of Building 210. The building is presently used as a part of the Westinghouse distribution center.

Building 210

Building 210 is a large, rectangular, double gable roofed building with clerestories in each gable. Its south end adjoins the north side of the driveway extending west from 14th Street, while its north end extends almost to 16th Street. The single story, steel framed brick building is oriented north-south and has approximately 35 bays delineated by brick piers. The lower wall of the south end of the building is pierced by one loading door and several metal entry doors. Other loading dock openings may have been enclosed with bricks. The north wall has seven bays. The central bay has a single rank of multi-paned, metal framed windows while the outer bays contain two ranks. Windows are arranged in groups of three and consist of 25 and 35 light windows. The clerestories extend approximately half the length of the building and are covered with metal panels. The east side bays of the building have loading dock openings on the lower wall, most of which are boarded over. Above these openings are groups of three, 35 light windows with concrete sills and above these windows, beneath the roof eaves, are groups of three 25 light windows. Several additions adjoin the east wall of the building. Furthest north is a concrete block, four bay projecting loading dock. Two of the bays have been enclosed, while the two northern bays contain an overhead door and an entry door. The central addition is a 14 bay, two story, shed roofed brick block. This block contains double hung sash windows in the second story, while first story openings have been enclosed. Adjoining this addition on its south side is a single story shed roofed addition.

The north wall of the east section of the building is clad with metal paneling. Extending from the north wall of the west gable is a brick office block with a stepped parapet roofline. This block has blocked over window openings and a double door opening on its north wall and two 16 light windows on its west wall. The west wall of the building is fenestrated with three ranks of windows separated by steel beams. Two ranks consist of groups of three, 20 light windows, while the third rank consists of groups of three, 30 light windows. The northern portion of the roof of both gables is pierced by cylindrical metal ventilators.

Building 210 was constructed in several sections. The original 142 foot by 201 foot block was built in 1928 to house the aluminum melting room. The following year, the area of the building was greatly increased with a 142 foot by 280 foot addition. In 1936, another addition, measuring 142 feet by 41 feet, was made. In that same year, the office, designated as Building 214, a brick bearing wall, 16 foot by 20 foot block, was constructed adjoining the north wall of the building. The 15 foot by 40 foot addition on the east side of the building was constructed in the same year to provide additional office space for the melting room (Arnold Plant Building Inventory).

Building 265

Building 265 is a single story storage building probably constructed in about 1940. It is located at the north end of the Arnold Works north of Building 210. The gable roofed building is constructed of concrete blocks. The south gable end contains double wood, vertical board, sliding loading doors. The remaining walls of the building are blank. Above the loading doors is a louvered metal vent, and a stepped brick parapet is visible beneath the south roof gable. The historic and current uses of the building are unknown.

According to the present owner, Richard Schreiber, some of the buildings retained historic machinery or equipment upon his acquisition of the property in 1971. All of this equipment and machinery was subsequently removed. In general, the buildings retain a moderate degree of integrity. The main exception is Building 250, whose integrity has been compromised by vandalism. Some interior spaces have been reconfigured in other buildings and moderate alterations have been made to the exteriors of buildings, primarily the closing of historic doors and windows. Despite these changes and despite demolition of some historic buildings, the surviving buildings generally retain integrity of location, design, setting, materials, workmanship, feeling, and association. Most buildings remain in uses compatible with their historic uses. The Arnold Works still convincingly conveys associations with the era of active aluminum fabrication and production at the site.

HISTORICAL NARRATIVE:

Although aluminum facilities were first constructed in New Kensington during the 1890s, it was not until the second decade of the 20th century that the first Aluminum Company of America production facilities were erected in the neighboring city of Arnold. With the expansion of the New Kensington Works in the early part of the 20th century, its site had become fully developed. In 1912, Alcoa purchased 26 additional acres of land on the Allegheny riverfront in Arnold north of the New Kensington Works to permit additional plant expansion.

The first buildings to be constructed at the Arnold Alcoa Works were the Foil Mill (Building 201), the Extrusion Mill (Building 202), and the boiler house (Building 203). The foil and extrusion mill buildings still stand, but the boiler house was demolished in 1937. The following year, the third production building, the Tube Mill (Building 204) was constructed at the Arnold Works. In 1916, the fourth production facility, Buildings 205 and 206, were constructed for the Aluminum Seal Company, an Alcoa subsidiary. These two buildings were located south of 15th Street and west of Spruce Alley.

In the extrusion facility, tremendous pressure exerted on the rear of a heated aluminum ingot forced the metal through a die. The die controlled the shape of the extrusion. Extrusion presses were hydraulically operated. The great pressures necessary to operate the presses were created by pumping a column of water underneath accumulators. The accumulators were made of cast iron, weighed 575 tons, and compressed the water on which they floated to deliver 4,500 pounds of pressure at the extrusion press.

Some extruded aluminum alloys were heat treated to increase their strength. A rack of metal was lowered into a well of water, swung underneath a long tubular furnace, and hoisted up into it. The metal was then heated at 900 to 1,000 degrees Fahrenheit for one and one-half hours and then quickly lowered and quenched in the water (*Alcoa Warrior* 4:12, July 3, 1946, 4-5).

In the Aluminum Seal Company factory, aluminum arrived in the form of sheet. Trimmed to an appropriate size, the rectangular sections were coated with either lacquer or enamel. Where a solid color was needed, several coats of enamel were applied. If a semi-transparent coating with a metallic luster was desired, lacquer was used. The colored sheets were then dried by passing them slowly through a drying oven where they were subjected to a blast of hot air. At the end of the oven, they were stacks, ready for lithographing or slitting and blanking in the case of plain closures.

In lithographing, the printed outline of the closures was impressed on the colored sheets. Each section of sheet carried up to 150 or more seals. The next step for the sheets was the slitting machine. Each sheet was passed through rolls with multiple knives which cut the sheet into strips of the proper size for blanking.

An automatic press blanked the seals out along the lines indicated by the lithographing. The scrap sections were then removed. After passing through this stage, the closures were in roughly finished form.

Subsequent operations varied accorded to the style of the cap. In rolled-on caps, the rough caps passed from the automatic press to an assembly unit that inserted the component parts and dropped the caps into a tray. With ready made caps, the preliminary threading and finishing was done at the factory (*Alcoa News,* April 1, 1935:3).

By the 1930s, a major product of the Arnold Works was aluminum foil, the production of which was described in an article in the February 18, 1935 issue of *The Alcoa News* (pp. 3-4). The first step in the production process was the reduction of the thickness of sheet aluminum to a maximum of .005 inches, the maximum thickness of foil. This was accomplished by feeding the sheet through two breakdown mills. After foil was produced, it was generally annealed by placing rolls of foil on a conveyor rack and subjecting the rolls to high temperature in an electrically heated annealing furnace for several hours. This process removed the lubricants used in rolling out the foil and also made the foil more pliable.

Other machinery in the foil mill stamped designed on the foil, while still other machinery lacquered foil to make it waterproof and non-toxic for use with food products. Some of the foil produced was strengthened by the application of paper backing, and some foil was imprinted with designs or logos for commercial packaging. Foil produced at the Arnold mill was used for packaging food and other consumer products, as gift wrapping paper, as insulating material, and as material to fabricate truck and railroad car components.

HISTORICAL NARRATIVE (continued):

During the late 1910s and early 1920s these production facilities were expanded to accommodate increasing demand for the company's products. Two additions were made to the Foil Mill. These single story additions increased the floor area of the mill from 22,200 square feet to 71,018 square feet. Additions to the Extrusion Mill increased its floor area from 25,120 square feet to 78,505 square feet. An addition to the Tube Mill added an additional 6,500 square feet to the 48,100 square foot building. In addition, an additional production facility was opened, the Arnold Sheet Mill (Building 225). Constructed in 1922, this one story, steel framed building initially contained 52,265 square feet of floor area.

Plant expansion continued in the late 1920s as the United States economy grew in the years prior to the Depression. In 1927, two additions to the Foil Mill added an additional 17,490 square feet of floor space to the building. The Tube Mill was greatly enlarged in the period from 1927 to 1929. Three additions increased the floor space of the building by almost 150,000 square feet. A 1928 addition to Building 206 of the Aluminum Seal Company increased the company's total floor area by almost 80 percent. Additions to the Arnold Sheet Mill added 12,909 square feet of floor area to that facility. In addition, another production building was added to the Arnold Works. Building 210 (the Melting Room) was constructed in 1928 with 28,640 square feet of floor area. An addition with 39,180 square feet of floor area was constructed in the following year (Arnold Plant Building Inventory).

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For nearly five years after the 1929 stock market crash, aluminum sales and profits were severely affected. Gross revenues dipped from $34.4 million in 1929 to $11.1 million in 1932 (Smith 1988:137). Because of the decreased demand for aluminum during the economic downturn, only minor plant expansion occurred in Arnold during the early 1930s. By 1936, pent up demand resulted in a new round of orders, and the company realized a good recovery until 1919, when preparations for war spurred a huge increase in aluminum production (Smith 1988:137). Facilities expansion resumed during World II in response to the great increase in the demand for aluminum for defense uses. Among the buildings constructed at the Arnold Works during that period were Buildings 227, 250, and 270.

As the market for aluminum products evolved and changed, the uses of buildings at the Alcoa Arnold Works changed as well. An article in the July 31, 1947 issue of the *Alcoa Warrior* (p. 1) indicated that the Aluminum Seal Company building on 15th Street had reopened as the specialty shipping department for the company's Wear-Ever division. Equipment installed in the building included a conveyor system consisting of gravity and moving belt conveyors to bring products from upper stories of the building to the packing area in the first story. The specialty shipping department was capable of assembling, packing, and shipping enough kitchen utensils in one day to fill several railroad box cars.

The market for aluminum consumer products became more competitive as additional producers entered the marketplace in the years following World War II. As a result, demand decreased for products produced at the Arnold Works. Foil rolling, press extrusion, tube production, and fabrication of kitchen utensils were relocated to other Alcoa facilities. On July 1, 1970, Alcoa announced the closing of its New Kensington and Arnold works. By March 31, 1971, this closing had been completed.

In the same year, both the New Kensington and Arnold works were sold to the Schreiber Industrial Development Company which operates an industrial park on the site. Most of the actively used buildings in the Arnold Works are presently used for light manufacturing. Other buildings house service industry facilities, and Building 210, one of the largest buildings in the Arnold Works, is used in part as a wholesale building supply warehouse. At least one building, Building 250, which may have served as Alcoa offices, is abandoned and deteriorating.

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM--PHOTO/SITE PLAN SHEET

89A

Pennsylvania Historical and Museum Commission
Bureau of Historic Preservation
Box 1026, Harrisburg, PA 17108-1026

Survey Code/Tax Parcel/Other No.: 9880-X-357, 357-1, 1258 County: Allegheny
Municipality: Plum Township Address: Barking Road, Logans Ferry
Historic Name/Other Name: Logans Ferry Aluminum Powder Plant

SITE PLAN

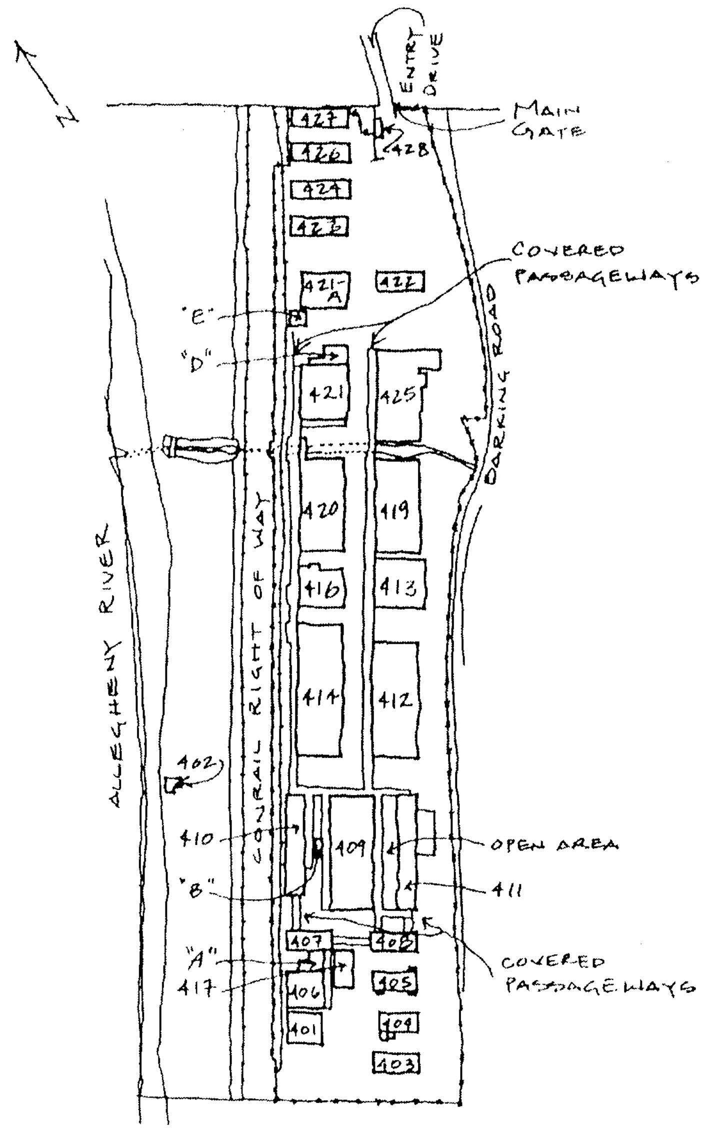
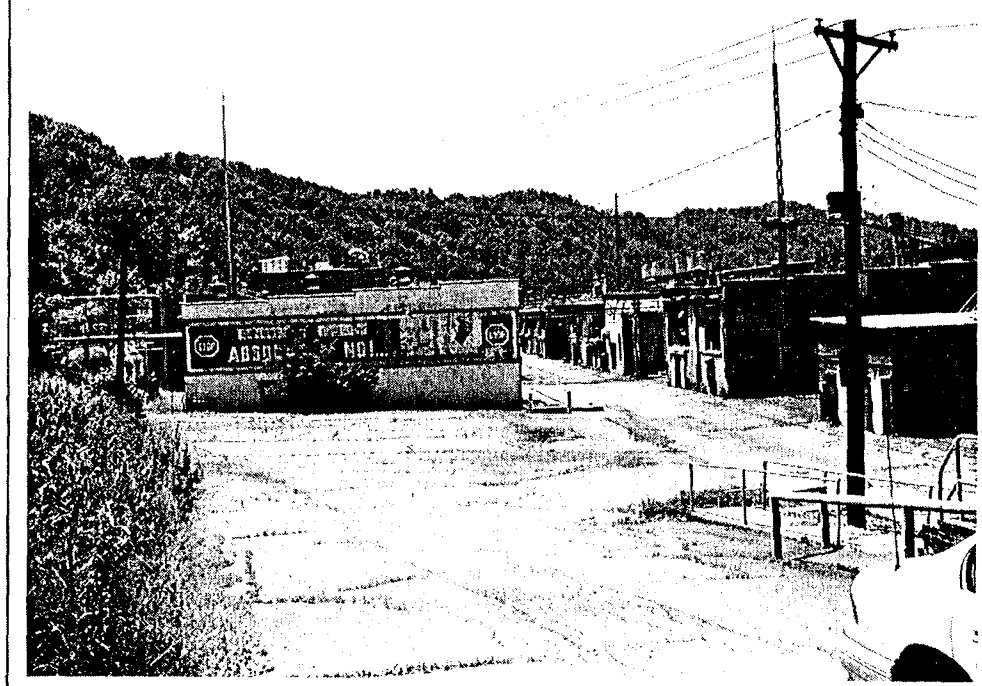


PHOTO INFORMATION

Attach Photo Here



Number	Direction Description of View	of Camera
1	Northeast section of Plant	SW
2	General view, Northeast section	NE
3	General view, Central section	NE
4	Details, rears of representative buildings	SW
5	Boiler House, NW and SW sides	SE
6	General view, Southwest section	SW
7	Detail, representative building	SW
8	Building rooftops	SE

Photographer Name: Douglas C. McVarish Date: July 1993
Negative Location: John Milner Associates, Inc. 309 N. Matlack Street, West Chester, PA 19380

See reverse for additional instruction

PENNSYLVANIA INDUSTRIAL RESOURCE SURVEY FORM--DATA SHEET 89BIN

Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

IDENTIFICATION AND LOCATION

Survey Code: ______ Tax Parcel/Other No.: 9880-X-1257, 1258, 1259

County: 1. Allegheny 0 0 3 2. ______

Municipality: 1. Plum Township 2. ______

Address: Barking Road, Logans Ferry

Historic Name: Logans Ferry Aluminum Powder Plant

Other Name: ______

Owner Name/Address: Floyd R. Gannassi, FRG Group, Logans Ferry Development Company, 1000 RIDC Plaza, Suite 106, Pittsburgh, PA 15238

Owner Category: X Private ___ Public-local ___ Public-state ___ Public-federal

Resource Category: ___ Building X District ___ Site ___ Structure ___ Object

Number/Approximate Number of Resources Covered by this Form: c.30

USGS Quad: 1. New Kensington West 2. ______

UTM References							
A.	17	604440	4487970	C.	17	604750	4488300
B.	17	604480	4487920	D.			

HISTORIC AND CURRENT FUNCTIONS

Historic Function Category:	Subcategory	Code:
A. Industry/Processing/Extraction	Manufacturing facility	1 0 A
B.		
C.		

Particular Type: A. Processing plant
B. ______
C. ______

Associated Process/Activity:	Code:
A. Primary metal industries	I - B A
B.	-
C.	-
D.	-

Current Function Category:	Subcategory:	Code:
A. Vacant/not in use		9 8
B.		
C.		

PHYSICAL DESCRIPTION

Architectural Classification: A. Modern movement 7 0
B. ______ Other: ______

Exterior Materials:

		Code			Code
Foundation	Concrete	6 5	Roof	Other: gypsum	8 0
Walls	Concrete	6 5	Walls	Brick	3 0
Other	Roof: concrete	6 5	Other		

Structural System: 1. Masonry: brick 2 1 2. Steel frame 4 1

Roof System: Material Steel 4 System: Other 9

Width: 4 bays D Depth: 62 feet Stories/Height: 1 A

Power System: Electric--alternating current 8 0

Machinery: Compressed air system

Archeological Remains: None identified.

HISTORICAL INFORMATION

Year Built: ___ C. 1918 to X C. 1940 Additions/Alterations Dates: ___C. ________; ___C. ______

Basis for Dating: X Documentary _____ Physical

Explain: Initial establishment indicated in numerous secondary historical materials. Most recent buildings were probably constructed during Alcoa's facility expansion in the World War II era.

Cultural/Ethic Affiliation: 1. ________ 2. ________

Associated Individuals: 1. ________ 2. ________

Associated Events: 1. Aluminum Company of America 2. ________

Architects/Engineers: 1. ________ 2. ________

Builders: 1. ________ 2. ________

MAJOR BIBLIOGRAPHICAL REFERENCES

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Archival Collections: Description Plant histories and other documents including site plans related to individual Alcoa facilities.

Location: Aluminum Company of America Headquarters, Pittsburgh Contact Person: Barbara Stewart, Archivist.

PREVIOUS SURVEY, DETERMINATIONS

EVALUATION (Survey Director/Consultants Only)

Individual NR Potential: X Yes ____No Context(s): Aluminum Industry in Westmoreland and Allegheny Counties, 1888-1945

Contributes to Potential District ____Yes X No District Name/Status ________

Explain:

THREATS

Threats: 3, 4 1. None 2. Public Development 3. Private Development 4. Neglect 5. Other

Explain: Buildings are largely unused and are deteriorating. According to a representative of the owner, plans are for the buildings to be eventually demolished and the site offered for industrial or warehouse development.

SURVEYOR INFORMATION

Surveyor Name/Title: Douglas C. McVarish, Project Architectural Historian Date: July 1993

Project Name: Historic Resources Survey of the Aluminum Industry in Westmoreland and Allegheny Counties, PA

Organization: John Milner Associates, Inc. Telephone: (215) 436-9000

Street and No. 309 North Matlack Street

City, State: West Chester, Pennsylvania Zip Code: 19380

Additional Survey Documentation: ________

Associated Survey Costs: ________

PENNSYLVANIA INDUSTRIAL RESOURCE SURVEY FORM–NARRATIVE SHEET

89CIN

Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

Survey Code: ________ Tax Parcel/Other No.: 9880-X-357, 357-1, 1258

County: Allegheny Municipality: Plum Township

Address: Barking Road, Logans Ferry

Historic/Other Name: Logans Ferry Aluminum Powder Plant

PHYSICAL DESCRIPTION:

The Logans Ferry Aluminum Powder Plant is located in the floodplain of the Allegheny River, approximately 1.8 miles south of the south end of the Alcoa New Kensington Works in Logans Ferry, Plum Township, Allegheny County. The long, narrow site is located adjacent to Barking Road, which extends along the southeast side of the site. The northwest side of the site is bounded by a Conrail spur line. The terrain rises sharply east and north of the site and is relatively level to the south and west.

The entire site is surrounded by a barbed wire fence with gates at the northeast and southwest ends. Most of the site is overgrown with bushes and weeds. A concrete spine road extends through the site from northeast to southwest. Approximately 30 buildings are arranged on either side of the concrete spine with facades facing toward the road.

A modern wood framed modular house is situated at the extreme northeast end of the site and serves as the office for the site guard. This building was erected after purchase of the site by its present owners in 1986. South of the house is the main gate of the complex, as well as the historic gatehouse. This gatehouse is a single story, rectangular, wood framed building, 14 feet 2 inches by 10 feet 4 inches in size. A single light, three panel door is centered on its southeast wall. The flat roofed building is fenestrated with rectangular, two and four light, metal framed windows. The building was constructed in 1924 (Logans Ferry Plant Building Inventory).

Four single story, rectangular brick production buildings are located south and west of the gatehouse on the west side of the spine road. These buildings, designated as buildings 423, 424, 426 and 427, are all 27 feet by 77 feet in size. The two north buildings, 426 and 427, were constructed in 1936. Building 426 served as a first aid facility and office for the Logans Ferry plant, while Building 427 was used for storage. Buildings 423 and 424 were both used for aluminum powder storage (Logans Ferry Plant Building Inventory). The facade of each of these buildings is narrow and originally may have been marked by a metal door, mounted on an overhead track. One of these doors is still in place. Others have been replaced. The side walls of these buildings are either blank or fenestrated with tall, paired, 25 light, metal framed windows. Each of the buildings has a roof constructed of gypsum slabs.

South of Building 423 is a single story, rectangular, brick building, sheathed in corrugated metal. This building, designated as 421A, is approximately 53 feet wide and 62 feet deep. Fenestration consists of groups of 36 light windows with metal sashes, visible on the north and east walls of the block. Projecting from the rear of the roof of the block is a full width, corrugated metal sided penthouse. Building 421A was constructed in 1926. It housed the facility's research laboratory (Logans Ferry Plant Building Inventory).

Opposite Building 421A, on the east side of the spine road, is Building 422. This narrow, oblong, brick building is 27 feet wide and 62 feet deep. Its west facade is fenestrated with a group of three, 36 light, metal frame windows. The rear wall is fenestrated with tall groups of multi-paned windows. Centered on the west facade is a sliding metal door on an overhead track. The north wall is painted with a large sign, indicating the facility's prohibition on smoking. The building has a stepped parapet roofline, and three cylindrical ventilators project from the gypsum roof. Building 422, constructed in 1927, was originally used as a forge shop and oil house and was later used as an oil house and still (Logans Ferry Plant Building Inventory). Southeast of Building 422 is a large cylindrical tank in a horizontal mounting.

PHYSICAL DESCRIPTION (continued):

South of Building 421A is a similar building. Constructed of brick with sliding metal doors on its facade and fenestrated with large panels of windows, this building is designated as 421. It is 105 feet wide and 62 feet deep. Like other nearby buildings, its roofline is parapeted and a flat, corrugated metal penthouse extends the width of the rear of the roof and provides access to rear metal fire escapes. A shed roofed concrete block wing adjoins the west end of the north wall of the block. This building's roof is constructed of gypsum. According to company records, 1,500 square feet of the total 6,000 square foot floor area of the building was no longer used after 1931. The building was initially used for scrap storage, as the shredder location, and to store stearic acid. After the introduction of aluminum paste production, the building was used for paste units and to store sheet scrap (Logans Ferry Plant Building Inventory).

Opposite Building 421 is a single story brick block, laid in five-course American bond. The block has a rear two story concrete block addition. The building is approximately 131 feet wide and 62 feet deep. This building has sliding metal doors and tall windows and a sliding metal door on its facade. An overhead door is situated on the north wall of the rear addition. The building has a parapeted roofline, stepped downward to the rear. The roof, constructed of gypsum, is pierced by cylindrical metal ventilators. Building 425 was constructed in 1930. It was initially used to house experimental machinery and for general storage and was subsequently used to house shredders, paste units, and atomized metal dryers (Logans Ferry Plant Building Inventory).

Building 421 and several buildings south of it are connected by an enclosed single story, shed roofed, metal framed gallery. Similar galleries adjoin the facade walls of Building 425 and several buildings to the south. These galleries are reached by door openings along the rear walls or facade walls of the buildings. These openings originally may have contained sliding metal doors, but most of these doors are now missing. The galleries provided access to narrow, tall chambers, each extending the full depth of the building and separated from adjoining chambers by fire walls. Each of these brick buildings is laid in five-course American bond. The facades of these buildings have varying fenestration patterns, including 12 light, metal framed windows and sets of three or four 24 light windows. Facade walls of the buildings are also pierced by the aluminum cowlings of emergency escape chutes. The interiors of these buildings generally contain a metal framed mezzanine level at one side of the space. The gypsum roofs are constructed of large slabs, designed according to a representative of the present owner to blow off the building in the event of an explosion. These roofs are pierced by cylindrical metal ventilators. Some of the buildings also have a corrugated metal walled penthouse, extending the width of the roof, that provides access to metal emergency stairs.

Buildings 419 and 412 are located south of Building 425 on the east side of the spine road. Building 419 was constructed in four sections. The first three sections are all approximately 26 feet wide and 62 feet deep. The order of construction of these three northern sections is not known. The first section, constructed in 1923, housed shredders. The second section, added in 1924, housed sixteeners. The third section, added in 1924, housed shredders and sixteeners. The fourth section is approximately 53 feet wide and 62 feet deep and was constructed in 1926. This section housed shredders and sixteeners. Building 412 is located south of Building 419. Building 412, one of the original Logans Ferry buildings, is approximately 157 feet wide and 62 feet deep. The building was originally used to house shredders and sixteeners and later was also used for storage (Logans Ferry Plant Building Inventory).

Buildings 420, 418, and 414 are located south of Building 421 on the west side of the spine road. Building 420, located immediately south of Building 420, is approximately 78 feet wide and 62 feet deep. This building, constructed in 1924, was used to house sixteeners. Building 418 is located south of Building 420. This irregularly shaped building was constructed in 1925. Built as offices, it was retired from service in 1936. South of Building 418 is Building 414. This building, identical in size and general configuration to Building 412 on the opposite side of the spine road, was constructed in 1918. Used originally to house shredders and sixteeners, it subsequently housed the round stamping operations as well (Logans Ferry Plant Building Inventory).

South of Buildings 412 and 414, the passageways join, and the spine road ends. The central building, immediately south of the termination of the spine road, is Building 409. Similar to, though slightly larger than, buildings 412 and 414, it is laid in five-course American bond, has a full width, corrugated metal walled penthouse with rear escape stair. Its rear wall is fenestrated with tall groups of multi-light windows, and its gypsum roof is pierced with circular metal ventilators. A covered, shed roofed passageway extends along its east and west walls. Building 409 was constructed in 1918 and is approximately 161 feet long and 62 feet deep. The building housed polishers (Logans Ferry Plant Building Inventory).

PHYSICAL DESCRIPTION (continued):

West of Building 409 is the narrow brick Building 410. This building was constructed in three sections, each 27 feet wide. The earliest portion is 101 feet long and was built in 1919. The second section is approximately 39 feet long and was built in 1924. The third section, approximately 68 feet long, was constructed in 1934 and is taller than the two northern sections. A shed roofed passageway extends along the north portion of its east wall, and a second passageway projects from its south end wall and connects it to Building 407. The gypsum roof is pierced with cylindrical metal ventilators. The first section originally housed sifters and subsequently was used for can storage as well. Approximately 1682 square feet of its 2,351 square feet of floor area was retired from use in 1932. The second section was used for can storage, and the thrid section housed sifters (Logans Ferry Plant Building Inventory).

East of Building 409 is Building 411. This building is similar in dimensions to Building 410. The building is constructed of brick and is fenestrated with large, multi-paned, metal framed windows. A shed roofed metal framed passageway extends along the west portion of its north wall. A corrugated metal walled penthouse extends the width of the north end of the roof. This penthouse is fenestrated with six light windows, and a metal fire escape adjoins its west end. This building was constructed in two sections, each approximately 27 feet wide. The first section, approximately 100 feet long, was constructed in 1918. The second section, approximately 61 feet long, was added in 1926. The first section was originally used for packing and housed sifters. Later, after the second section was constructed to accommodate the packing section, the first section was used only to house sifters (Logans Ferry Plant Building Inventory).

South of Buildings 410 and 411 and connected to the buildings by shed roofed, single story passageways are Buildings 407 and 408. These low, rectangular buildings of identical size and detailing are connected to each other by a covered passageway. The buildings, measuring approximately 27 feet by 62 feet, were both constructed in 1918 to accommodate powder stores and packing. The packing operations were subsequently relocated to Building 411. An L-shaped addition adjoins the south wall of Building 407. This addition, indicated on site maps as "A" is not listed in the facility building inventory. Its use and construction date is not known. Building 406 adjoins the south wall of addition A and is connected with both the addition and 407 by a passageway along its west wall. This flat roofed building was constructed in two parts, each measuring approximately 26 feet by 62 feet. The first section, constructed in 1918, housed the plant's shipping department (Logans Ferry Plant Building Inventory). The second section, constructed in 1929, enlarged the shipping department to accommodate increased production. A railroad spur extended along the west wall of the building and facilitated loading of the plant's production into railroad cars.

Building 417 adjoins the west side of the passageway that connects buildings 407 and 408. This small wood framed building, 14 feet by 20 feet in size, was constructed as a blacksmith shop. It was removed from service in 1924. West of Building 417 is Building 405. This brick building, identical in size to buildings 407 and 408, has sliding metal doors in its west end wall. Projecting from its gypsum roof are a variety of pipes and ventilators. Building 505 originally housed a store room and powder stores and was subsequently used for carton store and inspection (Logans Ferry Plant Building Inventory).

South of Building 405 is a similar low brick building, Building 404. The original block of this building is approximately 27 feet wide and 62 feet deep. Its west wall is also pierced by double sliding metal doors. Two small ells adjoin the west end of its south wall, and cylindrical aluminum pipes extend from the roof of this building to the roof of the adjoining building, number 403. This building was constructed in 1918. It originally was used for the box shop, powder storage, and inspection, and subsequently housed the atomizer. South of Building 404 is Building 403. This one story brick building is laid in five-course American bond. Centered on the west facade are paired metal doors, sheathed in corrugated metal. These doors slide on an overhead track, and the track is protected by an angled aluminum cowling. The south side wall of the building is blank. The other walls are not visible due to the proximity of overgrown bushes. Originally used for powder storage, it was subsequently used for pig storage and to house the air compressor that supplied pressurized air for use in the powder and paste manufacturing process (Logans Ferry Plant Building Inventory). This building, according to a representative owner, is the only one to retain machinery, dating from the facility's use by Alcoa. A control panel and an air compressor is still in place.

South of Building 406 is Building 401. This tall, single story brick building is fenestrated with steel sash multi-light windows. A tapered brick smokestack adjoins the center of its west wall. Cylindrical ventilator stacks project from its gypsum roof. This building was the plant's boiler house (Logans Ferry Plant Building Inventory).

PHYSICAL DESCRIPTION (continued):

The site plan for the facility indicates two structures south of Building 401. Immediately south was a cooling tower. This structure is not indicated on the facility's building inventory and was probably constructed after 1940. East of the cooling tower is Building 437, a small block used as a scale house (Logans Ferry Plant Building Inventory). This building also does not appear on the facility inventory and was probably constructed after 1940. Both are not visible because of overgrown brush.

The remaining plant building, number 402, was also not accessible for survey and may no longer be standing. This building, located west of Building 410 near the Allegheny riverbank, measured the facility pump house. The building was constructed in two sections. The first section, built in 1918, measured approximately 9 feet by 11 feet. The second section, constructed in 1926, measured approximately 21 feet by 12 feet. Both sections had brick walls, steel window sashes, and concrete roofs (Logans Ferry Plant Building Inventory).

Integrity

The Logans Ferry Aluminum Powder Plant retains most, if not all, of its historic buildings. These buildings clearly show the evolution of the site throughout its history with extant examples of both original and later buildings. The complex retains integrity of location, design, setting, materials, workmanship, and feeling, and it clearly conveys associations with its period of operation by Alcoa. The physical integrity of the complex is endangered because of both lack of maintenance and long-term plans to demolish some or all of the buildings on the site.

HISTORICAL NARRATIVE:

Aluminum powder and paste shipments have never been a substantial component of the fabricated aluminum market. The writers of *Aluminum: Profile of an Industry* (Keeffe 1982:82) indicated that in 1982 these products accounted for slightly less than one percent of the market. Growth was almost totally dependent on defense markets for atomized powder.

An early area of research for the Aluminum Company of America and its predecessor company was the production of aluminum bronze powder. Charles Martin Hall, one of the company's founders, carried on many experiments in order to develop methods of producing powder by the stamp method. In 1908, he succeeded in producing a small amount of aluminum bronze powder, flakes or leaves of the metal which could be used to produce metallic paint. Commercial production of aluminum bronze powder began in 1913 in New Kensington. This production took place in Building 3 of the New Kensington Works. The average monthly production during the first year was 25,299 pounds of powder. In subsequent years, production increased. Production ceased on November 5, 1917 when a large explosion completely destroyed the powder manufacturing department. Twenty-three employees were injured and eight died.

As a result of this explosion, Alcoa sought a new location for powder production away from the main manufacturing complex in New Kensington. The company erected six new buildings at New Kensington to serve as a temporary plant location and purchased 20 acres of land south of New Kensington at Logans Ferry to serve as the new aluminum powder plant location.

The Logans Ferry Works began operation on August 1, 1918 (Allegheny Foothills Historical Society, 1988:23-24). The first buildings constructed at the Logans Ferry works included buildings 401, the original section of 402, 404, 405, the original section of 406, 407, 408, 409, 411, 412, the original section of 413, 414 and 415 (Logans Ferry Plant Building Inventory). Demand for the product continued to grow and more buildings were constructed, more machinery installed, and more workers hired.

In 1929, a second serious explosion damaged the aluminum powder production facility. Twenty-three employees were injured and eight died either from the explosion or from severe burns. The plant was idle for a substantial period of time while repairs were made. Demand for powder continued strong, and a new powder plant was erected in Alcoa, Tennessee to supplement the production at Logans Ferry. In 1932, another explosion occurred in Building 410 and destroyed an entire room.

Research was undertaken to reduce the likelihood of explosions. In 1933, researchers discovered that aluminum paste in conjunction with powder made manufacturing less hazardous and that the resultant mixture was much safer to store and use. In 1935, Albron paste began to be manufactured at Logans Ferry. In June 1935 Alcoa shipped a carload of 30,000 pounds of aluminum paste to San Francisco for use in painting the Golden Gate Bridge. Powder manufactured at Logans Ferry was used in aluminum paints and roof coatings, welding rods, mining explosives, and solid rocket propellent (Allegheny Foothills Historical Society 1988:24).

Manufacture of Aluminum Powder

Nearly 99 percent of all aluminum powder production presently uses 99.5 percent unalloyed aluminum ingot as is basic raw material. The ingot is melted in a furnace and drawn through an atomizer where it contracts streams of air or inert gases and forms a spray which solidifies and is collected. The resultant granular shapes are atomized particles.

As a raw material in flake and paste production, atomized feed is ball-milled in a large drum. A lubricant is added to prevent the particles from welding together under impact, and mineral spirits and organic acids are added to stabilize the slurry for coating applications. Ball milling produces paste which is then used to make flake. Particles are flaked out of the paste through drying. This manufacturing process, as described in *Aluminum: Profile of an Industry* (Keeffe 1982:82-83), was the basic process used to manufacture aluminum paste and powder at Logans Ferry in the 1940s and subsequent years.

An earlier process, which may have been used in the earlier years of Alcoa's aluminum powder production, was described in Anderson's *The Metallurgy of Aluminum and Aluminum Alloys* (1925:667-669).

HISTORICAL NARRATIVE:

The raw material for aluminum powder manufacture was generally clean scrap aluminum foil and light-gage sheet. The material was annealed to soften it by heating it for approximately 10 to 20 minutes at 450 to 500 degrees centigrade. The powder was made by a progressive stamping process, whereby small aluminum pieces were broken down into flakes and graded during the process of stamping. In order to prevent consolidation of the flake particles during stamping, a lubricant was used. Typical lubricants were oils, waxes, fatty acids, and soaps.

Flakes of different finenesses were separated as they formed during the intermediate stamping process and machines were designed to grade the metal as it disintegrates. Aluminum powder was sieved to grade with wire screens and silk bolting cloths. The very fine powders were graded by air flotation, and a total of a dozen or more grades were made for the market (Anderson 1925:667-668).

Much of this powder was used for aluminum paint. Among the uses of this paint was coating of balloon and dirigible gas bags, as well as painting oil storage tanks, gas holders, and other apparatus which needed to be kept cool. For general paint purposes, aluminum powder was used without further treatment. When a bright and highly reflective paint was desired, bright or polished powder was employed (Anderson 1925:296-297.)

In polishing it was necessary to rub both surfaces of each fine flake of powder without disintegrating the flakes. Several methods were developed to polish aluminum powder. In one process, the aluminum powder was stirred with paddles rotating within a cylinder, while in another method a brush machine was used in which stiff bristle brushes were revolved against the surface of a cylinder containing the powder. These brushes were run at approximately 100 r.p.m. for up to 30 hours.

Another process used with aluminum powder was coloring. The graded powder was first given a de-greasing treatment to remove the lubricant. This was followed by mordanting the flakes so that they would take up the color. The usual mordants included tannic acid, starch, and resin lacquers. After mordanting, the powder was treated with dye, then dried and polished (Anderson 1925:668).

Later History of the Logans Ferry Powder Plant

By the 1940s, facilities at Logans Ferry were producing powder for use primarily as a paint pigment but also in the manufacture of printing inks, metallized paper, plastics, rubber compounds, fireworks, aerated concentrating soaps, and lubricants. Also located at the powder plant was the Albron Technical Department, a small research organization which experimented and developed new methods of manufacturing aluminum powder and paste (*Alcoa Warrior* 1946:8). Demand for aluminum powder peaked at the height of the Vietnam War. Over 150,000 tons were shipped by all producers in 1969. This production was used primarily in military explosives.

Despite improvements in production safety, the danger of explosions remained. In July 1979, one of the two melting furnaces exploded, killing one employee. After that explosion, no powder was manufactured at Logans Ferry. Powder was shipped to Logans Ferry by rail or truck and then mixed with paint. In the 1980s, demand for aluminum powder had declined and substantial capital investment would have been necessary for the Logans Ferry plant to remain competitive. The powder-paste market was stagnant from 1976 to 1980, showing an average annual decline in shipments of about three percent. Total shipments were 66,000 tons in 1976 and 58,000 tons in 1980 (Keeffe 1982:82).

In 1980, the markets for aluminum powder could be divided into several parts. Commercial markets, amounting to approximately 30 to 40 percent of powder shipments, included metal coatings and ferro-alloy production. The chemical industry, which took approximately half of the total commercial market, used aluminum powder primarily as raw materials for the production of alkyl and non-foaming detergent. Powder was also used for the removal of impurities in steel making, as a fuel additive, and in aerated concrete and cement production. In addition, commercial mining explosives were also a significant consumer of aluminum powder. Approximately 80 percent of the paste production in 1980 was consumed by protective paint coatings. Industrial and automotive metallic finishes and heavy construction paints were important segments of the aluminum paint market in 1980. Flake production was used primarily in industrial explosives, printing inks, and as cold body solders. A portion of the flake production was also used for vinyl fabric coatings (Keeffe 1982:83).

In February 1986, Alcoa sold the powder plant to a competitor, Silberline Manufacturing Company. Silberline, which operated a powder plant in eastern Pennsylvania, removed the equipment from the Logans Ferry works. The 85 employees of the plant were terminated. The plant was permanently closed on May 30, 1986, and the property was sold to the current owner FRG Group (d/b/a Logans Ferry Development Company). The current owner rents a portion of the facility for industrial storage, but the majority of the buildings are vacant and deteriorating.

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM--PHOTO/SITE PLAN SHEET

89A

Pennsylvania Historical and Museum Commission
Bureau of Historic Preservation
Box 1026, Harrisburg, PA 17108-1026

Survey Code/Tax Parcel/Other No.: 33-2-2-149 County: Westmoreland
Municipality: South Greensburg Address: North side, Theabold Avenue
Historic Name/Other Name: Penn Aluminum Company

SITE PLAN

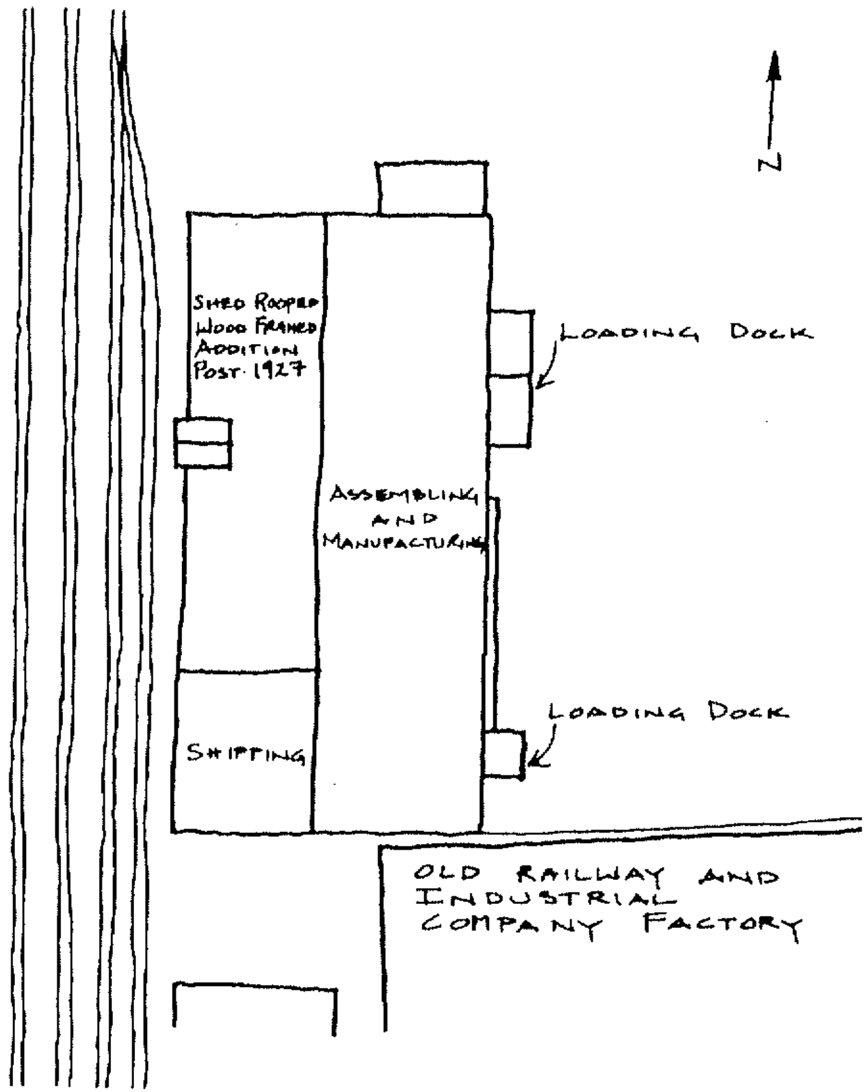
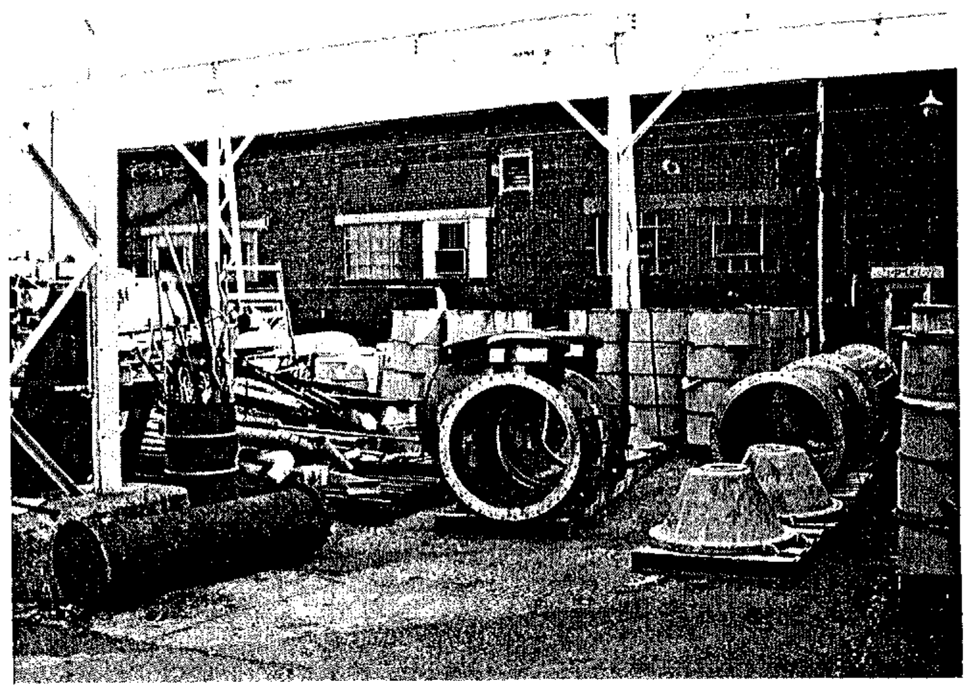


PHOTO INFORMATION

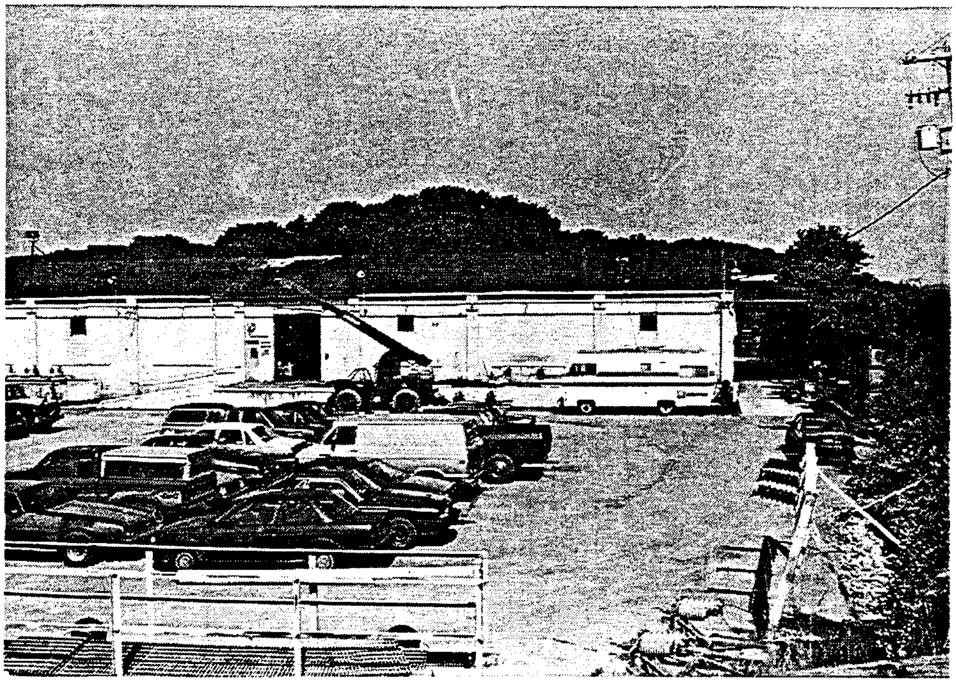
Attach Photo Here



Number	Description of View	Direction of Camera
1	Penn Aluminum Company, South side	N
2	Penn Aluminum Company, East side	SW
3	Penn Aluminum Company, North end, East side	W
4	Penn Aluminum Company, North end, West side	SW

Photographer Name: Douglas C. McVarish Date: July 1993
Negative Location: John Milner Associates, Inc. 309 N. Matlack Street, West Chester, PA 19380

See reverse for additional instruction



PENNSYLVANIA INDUSTRIAL RESOURCE SURVEY FORM--DATA SHEET 89BIN
Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

IDENTIFICATION AND LOCATION

Survey Code: ______ Tax Parcel/Other No.: 33-2-2-149

County: 1. Westmoreland 1 2 9 2. ______

Municipality: 1. South Greensburg 2. ______

Address: North side, Theabold Avenue

Historic Name: Penn Aluminum Company

Other Name: Farzati Manufacturing Company

Owner Name/Address: Frank Farzati, Jr., 125 Theobald Avenue, South Greensburg, Pennsylvania 15601

Owner Category: X Private ___ Public-local ___ Public-state ___ Public-federal

Resource Category: X Building ___ District ___ Site ___ Structure ___ Object

Number/Approximate Number of Resources Covered by this Form: 1

USGS Quad: 1. Greensburg 2. ______

UTM References: A. 17 623170 4459220 C. ______
B. ______ D. ______

HISTORIC AND CURRENT FUNCTIONS

Historic Function Category: / Subcategory / Code:

A. Industry/Processing/Extraction — Manufacturing facility — 1 0 A
B. ______
C. ______

Particular Type: A. Factory
B. ______
C. ______

Associated Process/Activity: (Code:)
A. Cooking and heating equipment fabrication — I - C I
B. ______
C. ______

Current Function Category: / Subcategory: / Code:

A. Industry/Processing/Extraction — Manufacturing facility — 1 0 A
B. ______
C. ______

PHYSICAL DESCRIPTION

Architectural Classification: A. ______
B. ______ Other: Brick gable roofed industrial bldg. 8 0

Exterior Materials: Foundation Brick 3 0 Roof Asphalt 6 3
Walls Brick 3 0 Walls ______
Other ______ Other ______

Structural System: 1. Masonry: brick 2 1 2. ______

Roof System: Material Steel 4 System: Rafter 3

Width: 6 bays F Depth: approx. 210 feet Stories/Height: 1

Power System: ______

Machinery: None

Archeological Remains: None

HISTORICAL INFORMATION

Year Built: X C. 1900 to _ C.____ Additions/Alterations Dates: X C. 1930 ; ___C. _______

Basis for Dating: _____ Documentary X Physical

Explain: Exterior architectural elements. Wood framed additions to west side post-date use of building by Penn Aluminum Company.

Cultural/Ethic Affiliation: 1. ______ 2. ______

Associated Individuals: 1. ______ 2. ______

Associated Events: 1. ______ 2. ______

Architects/Engineers: 1. ______ 2. ______

Builders: 1. ______ 2. ______

MAJOR BIBLIOGRAPHICAL REFERENCES

Archival Collections: Description

Rowe, J. Wyant, editor. *A Town Grows Up. 1891-1941. The Life of South Greensburg*. South Greensburg, Pennsylvania: Borough of South Greensburg, n.d.

Location: Contact Person:

PREVIOUS SURVEY, DETERMINATIONS

DiCiccio, Carmen P. *Extant Manufacturing, Transportation and Coal Mining Facilities in Westmoreland County (Opened Prior to 1935)*. March 1, 1989

EVALUATION (Survey Director/Consultants Only)

Individual NR Potential: _____Yes X No Context(s): Aluminum Industry in Westmoreland and Allegheny Counties, 1888-1945

Contributes to Potential District X Yes _____No District Name/Status ______

Explain: Possible Theobald Avenue Industrial District

The building is situated among a group of well-preserved early 20th century industrial buildings, all still in industrial use, reflecting the industrial growth of the borough in its early years. Aside from the Penn Aluminum Company, these buildings were not used in aluminum fabrication.

THREATS

Threats: 1 1. None 2. Public Development 3. Private Development 4. Neglect 5. Other

Explain: Building remains in industrial use. Although altered, its basic architectural integrity is intact.

SURVEYOR INFORMATION

Surveyor Name/Title: Douglas C. McVarish, Project Architectural Historian Date: July 1993

Project Name: Historic Resources Survey of the Aluminum Industry in Westmoreland and Allegheny Counties, PA

Organization: John Milner Associates, Inc. Telephone: (215) 436-9000

Street and No. 309 North Matlack Street

City, State: West Chester, Pennsylvania Zip Code: 19380

Additional Survey Documentation: ______

Associated Survey Costs: ______

PENNSYLVANIA INDUSTRIAL RESOURCE SURVEY FORM–NARRATIVE SHEET

Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

Survey Code: ______________________ Tax Parcel/Other No.: 33-2-2-149

County: Westmoreland Municipality: South Greensburg

Address: North side, Theabold Avenue

Historic/Other Name: Penn Aluminum Company

PHYSICAL DESCRIPTION:

The Penn Aluminum Company factory is located at the north end of a small industrial park in the southern section of South Greensburg. The industrial park is bounded on the south by Theabold Avenue and on the west by a spur railroad line. On the west side of the railroad line is an early 20th century residential area. South of the Penn Aluminum Company factory are several masonry, steel frame buildings historically occupied by the Railway and Industrial Company. East of the factory is a parking area reached by a driveway extending north off Theabold Avenue east of historic manufacturing buildings of the Railroad and Industrial Company. North of the parking lot is a small transformer station located up a slope from the parking area.

The front entrance to the building is located in its south facade. This single story brick facade is laid in six course American bond. The south section of the building has a gable roof, oriented east-west. A small paved open area separates the south facade of the building from other industrial buildings to the south and southeast. A historic 50-ton crane extends from the northwest wall of the historic Railway and Industrial Company factory. The paved area is littered with metal pipe segments and assorted scrap metal produced by the current occupants of the Railway and Industrial Company factory.

The original massing of the building consists of a single story, square, gabled roof block that housed the shipping department. Adjoining the east side of this block was an oblong block incorporating the main factory floor as well as storage and a machine shop. This section also has a gable roof, oriented perpendicularly to the gable roof of the shipping department. Adjoining the north wall of the building is a single story, metal framed, shed roofed dock with concrete ramp. Adjoining the west wall of the building is a shed roofed, wood frame addition with central gabled loading dock. This addition postdates the building's use by the Penn Aluminum Company.

The front entry door is situated near the center of the south wall. This entrance leads to a small vestibule and a short flight of steps. The steps lead upward to the factory floor and to the parts counter and office located in the south portion of the building. The metal door has two rectangular lights in its upper section. Fenestration of the facade has been substantially altered from its original configuration. Large rectangular window openings have been either bricked-over or enclosed with concrete block. Historic windows have been replaced by glass blocks, and the original vertical stretcher lintels have been replaced by concrete lintels. Two original nine over nine, double hung sash windows are situated at the east end of the south wall. The south wall is ornamented by a stepped brick water table.

The west wall of this block has five bays. One is occupied by a door, a second by a rectangular window opening, a third by a large rectangular window opening now pierced by a rectangular metal, louvered vent. The remaining two openings have been enclosed with concrete blocks.

The east wall of the building is laid in stretcher bond brick. The wall consists of 12 bays delineated by brick piers. Historically, this side of the building contained large rectangular window openings. These openings have been enclosed by concrete blocks and ventilation is now provided by rectangular, louvered metal vents situated in the upper portions of the walls. The concrete sills and vertical header lintels for the windows are still in place. Two concrete loading docks adjoin the east wall of the building. A narrow concrete platform extends north from the south loading dock, and a concrete ramp extends south from the north loading dock. The loading docks provide access to large rectangular openings on the east wall.

Adjoining the north wall of the factory is a shed roofed, metal framed, open loading bay. A concrete ramp leads from the parking lot to the west side of the building along the north wall. The north wall is fenestrated by groups of three, tall, wood sash, nine over nine, double hung windows, situated on either side of a rectangular central opening.

PHYSICAL DESCRIPTION (continued):

Adjoining the west wall of the manufacturing block are two shed roofed, wood framed additions. The first addition extends from the roof eaves of the main block. The second addition extends from the upper section of the west wall of the first addition. Both additions are shed in horizontal boards. A rectangular garage opening is situated in the north wall of the second addition. A gable roofed loading dock is situated in the middle of the west wall of the second addition. These additions extend along the entire west wall of the oblong block of the factory.

During its operation as an aluminum cooking utensil factory, aluminum pots and pans were fabricated by cold-drawing and spinning aluminum sheets. No historic machinery is still in place. The factory building is now used for assembly of electrical components.

The Penn Aluminum Company factory retains integrity of location, setting, workmanship, and feeling. Its integrity of design and materials has been compromised by replacement of its historic fenestration with glass blocks and the removal of other windows and doors. The interior of the building appears generally to retain its original configuration and materials. Its integrity of association with the aluminum industry has been severely compromised. No indication remains of its historic use as an aluminum utensil production facility. This use can be determined only by reference to historic maps and local history. Therefore, the building no longer reflects its historical significance as a small-scale aluminum utensil factory whose products competed with the much larger output of Alcoa's Wearever Company. However, since the building is situated among a group of well-preserved early 20th century industrial buildings, it may contribute to a potential Theobald Avenue Industrial District.

HISTORICAL NARRATIVE:

On the 1915 Sanborn insurance map of South Greensburg, the building is indicated as the Barnes Safe and Lock Company.

In 1919, the Penn Aluminum Company moved into the building. The company, whose president was Maurice La Vauer, manufactured aluminum cooking utensils. The cooking utensils were fabricated by cold-drawing and spinning aluminum sheets, and the finished products were shipped to all parts of the United States. The plant employed 50 persons and ceased operation in 1925 (Rowe n.d.: 101).

On the 1927 Sanborn map, the building is listed as vacant. It was later used by other industrial concerns, currently by Farzati Manufacturing Company, a manufacturer of electrical components. After the Penn Aluminum Company ceased operation, subsequent occupants of the building constructed the shed roofed, wood framed addition west of the main block of the building.

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM--PHOTO/SITE PLAN SHEET

Pennsylvania Historical and Museum Commission
Bureau of Historic Preservation
Box 1026, Harrisburg, PA 17108-1026

Survey Code/Tax Parcel/Other No.: 24-3-11-156 County: Westmoreland
Municipality: New Kensington Address: 400 11th Street
Historic Name/Other Name: Wearever Building (Aluminum Cooking Utensils Company Building)

SITE PLAN

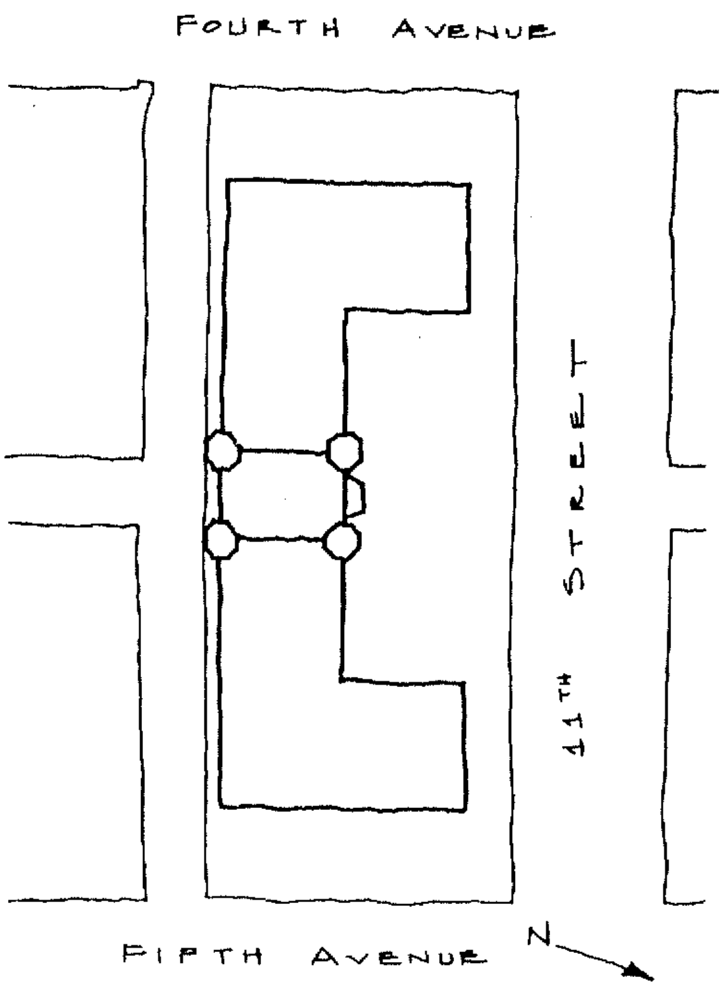
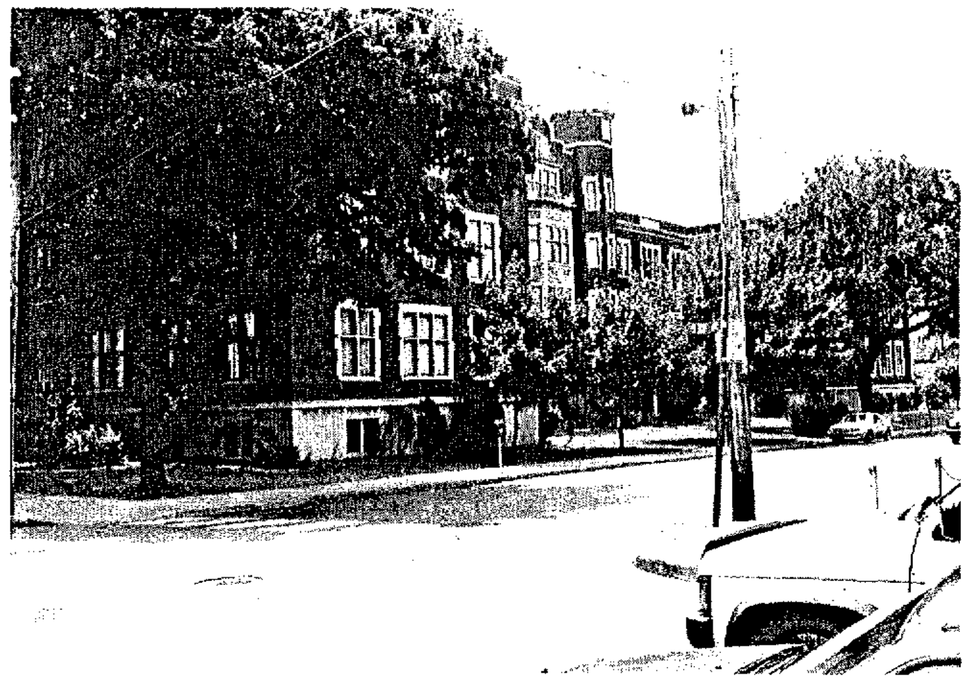


PHOTO INFORMATION

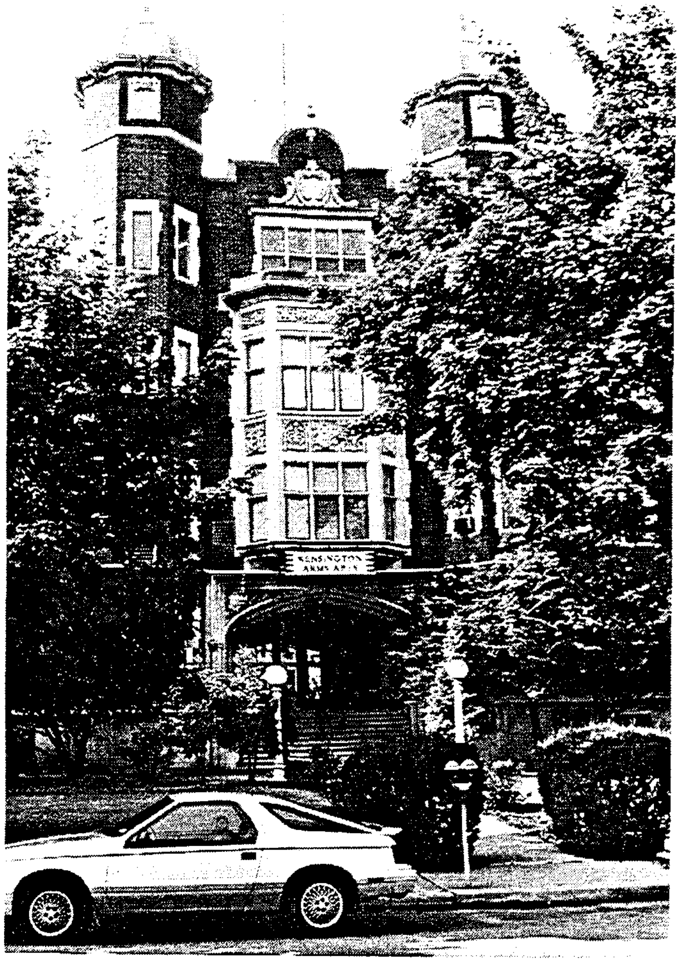
Attach Photo Here

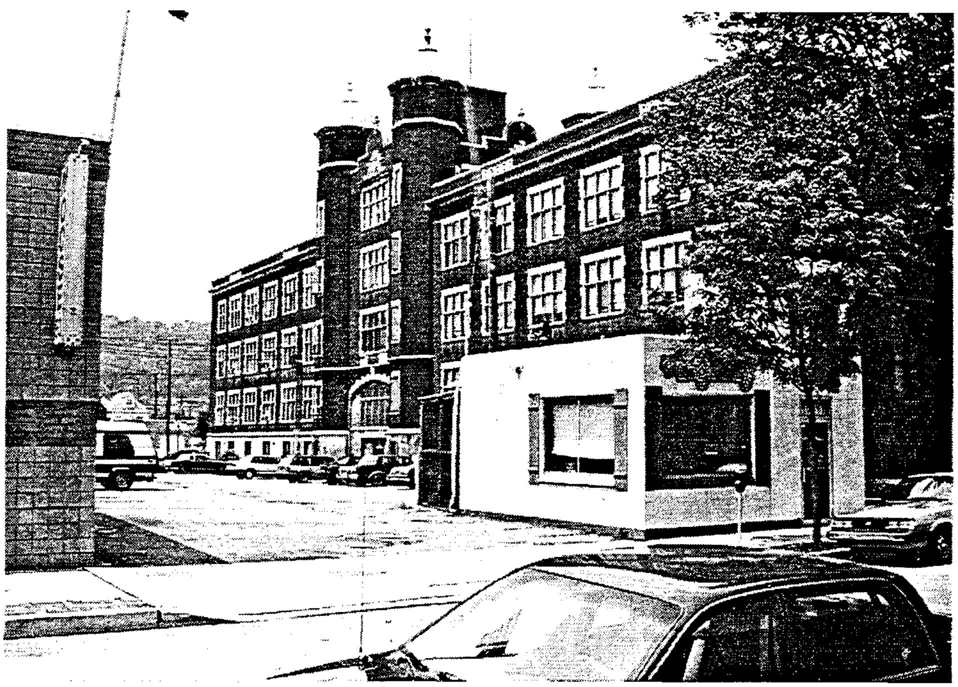


Number	Description of View	Direction of Camera
1	North facade and east side	SW
2	North facade; entry bay	S
3	South facade	NW

Photographer Name: Douglas C. McVarish Date: July 1993
Negative Location: John Milner Associates, Inc. 309 N. Matlack Street, West Chester, PA 19380

See reverse for additional instruction





PENNSYLVANIA HISTORICAL RESOURCE SURVEY FORM–DATA SHEET 89B
Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

IDENTIFICATION AND LOCATION

Survey Code: ______ Tax Parcel/Other No.: 24-3-11-156

County: 1. Westmoreland 1 2 9 2. ______

Municipality: 1. New Kensington 2. ______

Address: 400 11th Street

Historic Name: Wear-Ever Building (United States Aluminum Company, Aluminum Cooking Utensils Company Building)

Other Name: Kensington Arms Apartments

Owner Name/Address: City of New Kensington, 2400 Leechburg Road, New Kensington, PA 15068

Owner Category: ___ Private X Public-local ___ Public-state ___ Public-federal

Resource Category: X Building ___ District ___ Site ___ Structure ___ Object

Number/Approximate Number of Resources Covered by this Form: 1

USGS Quad: 1. New Kensington West 2. ______

UTM References: A. 17 604420 4491340 B. ______ C. ______ D. ______

HISTORIC AND CURRENT FUNCTIONS

Historic Function Category:	Subcategory	Code:
A. Commerce/Trade	Business	0 2 A
B.		
C.		
D.		

Particular Type: A. Office building
B. ______
C. ______
D. ______

Current Function Category:	Subcategory:	Code:
A. Domestic	Multiple dwelling	0 1 B
B.		
C.		
D.		

PHYSICAL DESCRIPTION

Architectural Classification: A. Tudor Revival 5 3
B. ______ C: ______
D. ______ Other: ______

Exterior Materials:

		Code			Code
Foundation	Stone	4 0	Roof	Copper	5 0
Walls	Brick	3 0	Walls	Limestone	4 3
Other	Roof: concrete	6 5	Other		

Structural System: 1. Steel frame 4 1 2. ______

Width: 15 bays F Depth: 3 rooms C Stories/Height: 4 D

HISTORICAL INFORMATION

Year Built: ___ C. 1914 to 1915 C.____ Additions/Alterations Dates: X C. 1968 ; ___C. ______

Basis for Dating: X Documentary ____ Physical

Explain: Historic maps, date stones on building, and company histories. In 1968, the building was donated to the City of New Kensington. In approximately that year, it was adapted for use as apartments.

Cultural/Ethic Affiliation: 1. ____________ 2. ____________

Associated Individuals: 1. ____________ 2. ____________

Associated Events: 1. ____________ 2. ____________

Architects/Engineers: 1. James H. Giesey 2. ____________

Builders: 1. ____________ 2. ____________

MAJOR BIBLIOGRAPHICAL REFERENCES

Anonymous. "Alcoa Decides to Hang Up Its Cooking-Utensil Line." *Wall Street Journal.* May 23, 1982:26.

Carnegie Library vertical files. Art and Architecture Department. Carnegie Library of Pittsburgh. Pittsburgh, PA.

Carr, Charles C. *Alcoa: An American Enterprise.* New York: Rinehart and Company, Inc., 1952.

City of New Kensington. *Celebrating a Century. A Commemorative Document.* New Kensington: City of New Kensington, 1991.

Hopkins, Albert A. "Aluminum on Trial: Cooking Utensils Made of Aluminum Are Shown to Have No Harmful Effects on Food." *Scientific American* 140:246-248. February 1929.

New Kensington Plant Building Inventory. Manuscript in Alcoa Corporate Archives, Pittsburgh, Pennsylvania. C. 1940.

Poor's Publishing Company. *1940 Industrial Manual.* New York: Poor's Publishing Company, 1940.

Smith, George David. *From Monopoly to Competition: The Transformation of Alcoa, 1886-1986.* New York: Cambridge University Press, 1988.

Smith, Helene and George Swetnam. *A Guidebook to Historic Western Pennsylvania.* Pittsburgh: University of Pittsburgh Press, 1991.

Women's Club of New Kensington. *Lore of Yore: A History of New Kensington, Arnold and Lower Burrell.* New Kensington: Women's Club of New Kensington, 1986.

PREVIOUS SURVEY, DETERMINATIONS

DiCiccio, Carmen P. *Extant Manufacturing, Transportation and Coal Mining Facilities in Westmoreland County (Opened Prior to 1935).* March 1, 1989.

EVALUATION (Survey Director/Consultants Only)

Individual NR Potential: X Yes ____ No Context(s): Aluminum Industry in Westmoreland and Allegheny Counties, 1888-1945

Contributes to Potential District ____ Yes X No District Name/Status ____________

Explain:

THREATS

Threats: 1 1. None 2. Public Development 3. Private Development 4. Neglect 5. Other

Explain:

SURVEYOR INFORMATION

Surveyor Name/Title: Douglas C. McVarish, Project Architectural Historian Date: July 1993

Project Name: Historic Resources Survey of the Aluminum Industry in Westmoreland and Allegheny Counties, PA

Organization: John Milner Associates, Inc. Telephone: (215) 436-9000

Street and No. 309 North Matlack Street

City, State: West Chester, Pennsylvania Zip Code: 19380

Additional Survey Documentation: ____________

Associated Survey Costs: ____________

PENNSYLVANIA HISTORICAL RESOURCE SURVEY FORM–NARRATIVE SHEET 89C

Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

Survey Code: ______ Tax Parcel/Other No.: 24-3-11-156

County: Westmoreland Municipality: New Kensington

Address: 400 11th Street

Historic/Other Name: Wear-Ever Building (United States Aluminum Company, Aluminum Cooking Utensils Company Building)

PHYSICAL DESCRIPTION:

The Wear-Ever Building is situated near the north end of New Kensington's central business district. The large building occupies the entire block on the south side of 11th Street between Fourth and Fifth avenues. Across 11th Street from the building is a former church converted to Salvation Army offices and a church education building. The building is set back from the sidewalk, and its front and side yards are landscaped with mature trees and bushes. A wrought iron fence extends along the Fifth Avenue side of the parcel, and the entry is marked by cast-iron lampposts topped by frosted globes. A municipal parking lot is located south of the building.

The building has a C-shaped footprint. The main facade of the four story building faces north. The building is of steel frame construction, is sheathed in common bond brick and has a dressed limestone ashlar foundation and a molded stone water table. This facade has a recessed central section and projecting wings. The main entrance is in the central bay of the facade. The front doors are recessed behind a Tudor arched gateway. The spandrels contain plaques indicating a date of construction of 1914. These plaques are surrounded by abstracted vine patterns. A set of 11 concrete steps located beneath the arch lead up from the sidewalk. Flanking the steps are painted niches. Above the entryway is a two-story oriel. This oriel is fenestrated with casement windows surmounted by transoms. Ornamenting the window are cast stone spandrels with flower and vine patterns. The top of the oriel forms a balcony for the central 3rd story bay. This bay is fenestrated with four casement windows surmounted by single light transoms with patterned etched glass. The windows have a shelf lintel surmounted by a cast stone crest. The wall is topped by a stepped and half-circular parapet topped with a stone finial and stone dripstones. This parapet design is employed on all four sides of the central bay of the building.

Flanking the entrance bay are half-engaged octagonal towers. The three exposed sides of these towers are fenestrated with replacement single light windows with eared surrounds. A stone beltcourse is situated above the third story windows. Above this belt course are cast stone plaques depicting a cross on a shield. The top of the frames of these plaques are ornamented with grotesques. Above the plaques is a molded, octagonal stone gutters with gargoyles centered on each side. Each tower is topped with a ribbed copper domed roof surmounted by a finial. The entrance itself consists of double, wood framed, glass doors set in a leaded glass surround. The framing for this surround is constructed of stained wood. Visible through the glass entryway are stained glass shields set within the leaded glass of the far wall of the foyer.

Flanking the facade towers is the recessed three story, north facade. Both the east and west end of this facade are fenestrated by sets of three windows flanked by paired windows on each of the three stories. Each of the windows has a single light, oblong casement surmounted by a single light transom and is set in a stone surround. Below the first story windows is a molded stone water table and above the third story windows is a molded stone cornice. The brick parapet is topped by stone coping and is ornamented by stone panels with a guilloche pattern. Three bay wings project at either end of the facade of the building. Fenestration of the facade of both wings is similar to that of the recessed central sections. The basement is illuminated by paired single light windows set into the limestone wall. The west wall of the building has six bays. The end bays contain paired windows in each story while the four central bays contain groups of three windows. Windows have eared limestone surrounds and the east wall also has the molded water table and cornice and decorated parapet found on the facade of the building. The east wall is similar to the west wall.

The rear of the building lacks the projecting wings, Tudor arched recessed entrance and oriel window of the north facade, but much of the ornamentation and fenestration is similar. The rear service entrance is located beneath the flat Tudor arch at the center of the rear elevation. The rear entrance is enclosed within a limestone ashlar surround and is surmounted by five oblong leaded glass windows. These windows are topped by transom windows whose shape reflect the curvature of the under side of the arch. Projecting from the center of the arch is an ornamental keystone. Above the arch, the upper stories are fenestrated with two pairs of single light casement windows topped by transoms. Each of these sets of windows is contained within an eared stone surround. Centered above the top story windows is a limestone crest, mirroring the crest

PHYSICAL DESCRIPTION (continued):

on the center of the north facade. Engaged octagonal towers project slightly from either side of the entry bay. These towers are fenestrated with single light casement windows set in eared surrounds. Fenestration of the rear of the block consists of paired, single light casement windows with single light transoms in the end bays and groups of three windows in the interior bays. Each of these windows is set within an eared limestone surround. A molded limestone cornice extends above the third story windows, and the parapet has stone capstones and stone panels with guilloche motifs.

As noted, the roofs of the building's towers are sheathed in copper. The remainder of the roof is constructed of concrete (New Kensington Plant Building Inventory).

Comparison of the current appearance of the north facade of the Wear-Ever Building with a photograph taken shortly after its construction indicates how little the exterior has been changed. Interior access was not permitted, so it was not possible to determine the extent of renovations made in the building's conversion to apartments. Windows may have been replaced, but no other significant changes are visible. The building retains integrity of location, design, setting, materials, workmanship, feeling, and association, and still convincingly conveys associations with the time of its construction.

HISTORICAL NARRATIVE:

To develop markets for the aluminum it produced, the Pittsburgh Reduction Company (PRC) developed facilities for fabricating aluminum in the form of products for industrial, end consumer, and military uses (Smith 1988:84-85).

Among the first finished products produced by the PRC was aluminum cookware. According to company lore, PRC officer Arthur Vining Davis borrowed a cooking utensil molder from the Griswold Company in Erie, Pennsylvania and brought it back to new Kensington for use in fabricating an aluminum teakettle. The goal was to demonstrate why the company should buy aluminum from the PRC. Instead, the Griswold Company ordered 2,000 teakettles from the PRC. To fill this order, the company added a fabricating unit for kitchen utensils to its New Kensington works (Smith 1988:111).

The company's kitchen utensil fabricating operations were enlarged during the late 1890s. A Waltham, Massachusetts based company, Hill, Whitney and Wood, to whom the PRC had been selling sheet aluminum for cooking utensil manufacture, found itself in financial difficulty and turned over its operations to the PRC in settlement of its debt. The dies and machinery of the Hill, Whitney and Wood Company were moved to New Kensington in 1900, and enlarged fabrication operations were begun in the second story of the old Excelsior Glass Building. In recognition of the growing importance of cooking utensil manufacture to the company, two subsidiaries were established in 1901. The United States Aluminum Company was incorporated to manufacture aluminum cooking utensils and the Aluminum Cooking Utensil Company to sell these utensils (Women's Club 1986:62).

From their inception, these companies produced and marketed durable, thick, heavy, stamped aluminum utensils in contrast to the thin sheet utensils made by competing manufacturers. The Aluminum Cooking Utensil Company developed a distribution network for the products, employing college students who spent their summers demonstrating and selling utensils door to door. The utensils were sold under the Wear-Ever Brand name (Women's Club 1986:114-115). By 1912, Alcoa's kitchen utensils had over 75 percent of the growing United States aluminum cookware market (Smith 1988:86). During the 1910s, articles began to appear in women's magazines, such as *Good Housekeeping*, highlighting aluminum cookware as an alternative to other materials such as cast iron (*Reader's Guide to Periodical Literature*, various issues, 1910s).

In recognition of the growing importance of their subsidiaries, the parent company, then known as the Aluminum Company of America, contracted for the erection of a building to provide office space for both the Aluminum Cooking Utensil Company and the United States Aluminum Company. This building was constructed in 1914-1915 on Eleventh Street between Fourth and Fifth avenues. Although officially known as the United States Aluminum Company Building, it was commonly known as the Wear-Ever Building. This building supplemented the United States Aluminum Company manufacturing, shipping, storage, and inspection facilities that were located in Buildings 13, 14, 16, and 18 of the New Kensington Works. These facilities used aluminum sheet for utensil fabrication, produced in Building 9 of the New Kensington Works (New Kensington Plant Building Inventory). The Wear-Ever Building's architect was James H. Giesey of Pittsburgh (Carnegie Library vertical file). In 1917, Giesey was listed at having his office at 33 Mellon Bank Building in Pittsburgh. None of his other work is known.

Alcoa's cooking utensil fabrication business was hard hit during World War I when 90 percent of the company's aluminum output was taken for war use. The cooking utensil subsidiaries adapted to the situation. In 1917 the Aluminum Cooking Utensil Company joined with Armour and Company and five other concerns in conducting wartime cooking schools. Because of the conversion of the New Kensington Works to war production, limited production of cooking utensils was temporarily transferred to Alcoa's Edgewater, New Jersey plant and other production was farmed out to other companies. During World War I, the company devoted its advertising space to the slogan, "Food will Win the War." After the war, the company ran advertisements in the *Stars and Stripes*, offering jobs as Wear-Ever salesmen and salaried employees (Carr 1952:162).

With the post-war economic expansion of the 1920s came an increase in demand for all kinds of aluminum products, including aluminum cookware. As the market for aluminum cookware continued to expand, rumors were floated concerning the alleged toxicity of food cooked in aluminum cookware. These rumors apparently caused a temporary decrease in the demand for aluminum cookware during the mid-1920s. Scientific studies, such as those reported in *Scientific American* in 1929, found no evidence that the use of aluminum cookware was injurious to health. For example, a U.S. Public Health Service scientist reported:

HISTORICAL NARRATIVE:

> Our own experiments as to the quantities of aluminum removed from utensils by cooking foods therein show that the quantities of aluminum removed are so small that they are not significant unless reported as parts of aluminum per million parts of food. These quantities are of the same order as those in which aluminum normally occurs in food stuffs and are in many cases far less than those observed in many public water supplies which have been not subject to chemical treatment.... (Hopkins 1929:247).

In the late 1930s, the Aluminum Cooking Utensil Company produced approximately half of the aluminum cooking utensils sold in the United States (Smith 1988:200). The company's main competitor was the Aluminum Goods Manufacturing Company of Manitowoc, Wisconsin. The latter company began operations in 1909 and manufactured cooking utensils sold nationally under the "Mirro," "Viko," "Sturdy," "Comet," and "Dixie Queen" brand names. Its plants were located at Manitowoc and Two Rivers, Wisconsin. Although independent from Alcoa, two Alcoa officers, Arthur Vining Davis and Roy A. Hunt, sat on its board. Net 1939 sales of the Aluminum Goods Manufacturing Company in 1939 were $10,251,903 (Poor's 1940:496-497). Sales of the Aluminum Cooking Utensil Company were probably somewhat higher, although these sales figures are unavailable.

With the entry of additional aluminum fabrication companies into the market place following World War II, manufacture of aluminum cookware became an increasingly competitive and less profitable segment of Alcoa's business. Introduction of new cookware materials and claddings such as Teflon further eroded the company's market share. In 1965, in a cost reduction move, Wear-Ever utensil fabrication was relocated from New Kensington to Chillicothe, Ohio. Three years later, Alcoa donated the Wear-Ever Building to the City of New Kensington. Local architect Michael Shamey was hired to design adaptations to convert the building into apartments. The building continues to be used as apartments and is presently called Kensington Arms.

Alcoa retained ownership of its cooking utensil subsidiary until 1982. In July 1982, the subsidiary, then known as Wear-Ever Aluminum, Inc., was sold along with a second subsidiary, Lincoln Manufacturing Company, to Wesray Corporation of Morristown, New Jersey. A *New York Times* report placed the value of the transaction at $50 to $100 million.

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM--PHOTO/SITE PLAN SHEET 89A

Pennsylvania Historical and Museum Commission
Bureau of Historic Preservation
Box 1026, Harrisburg, PA 17108-1026

Survey Code/Tax Parcel/Other No.: 24-3-11-1 (part) County: Westmoreland
Municipality: New Kensington Address: 12th Street, Schreiber Industrial Park
Historic Name/Other Name: Building 242

SITE PLAN

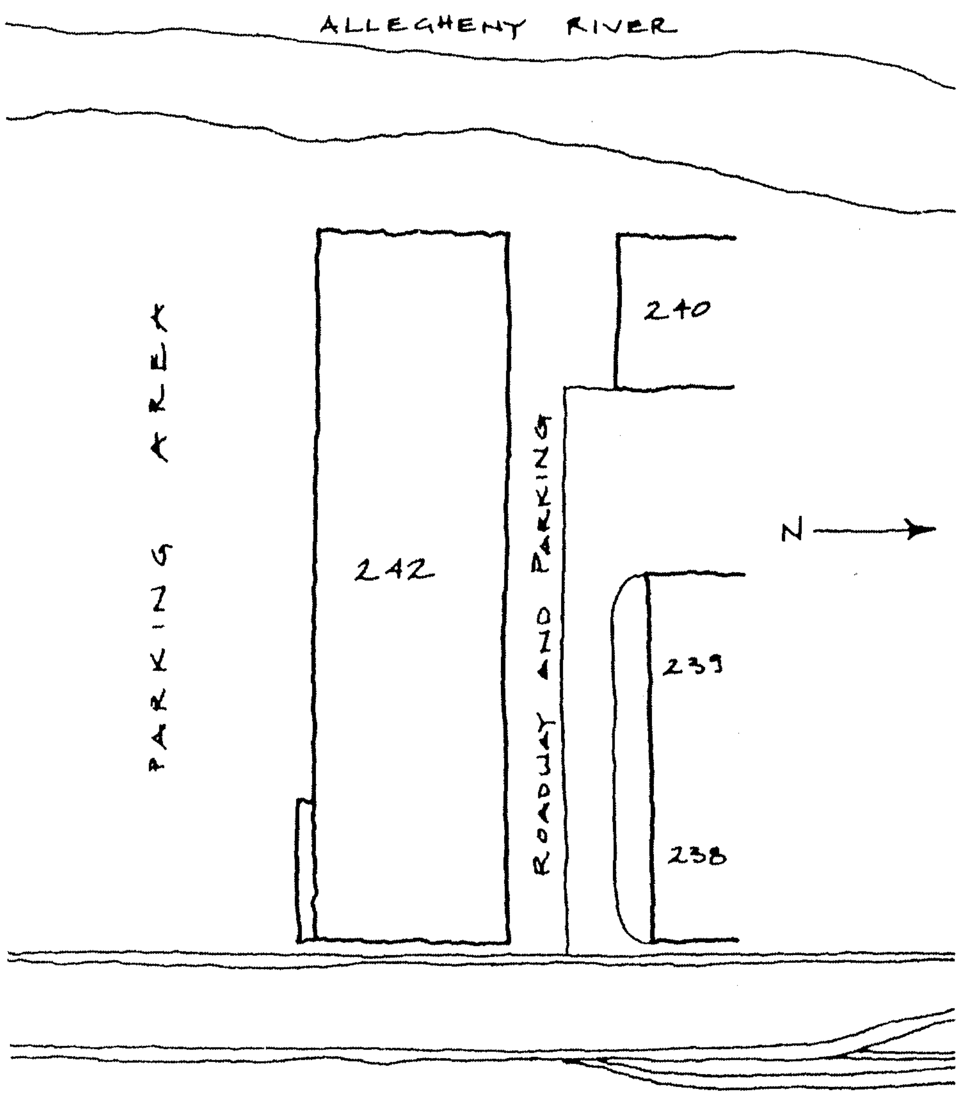
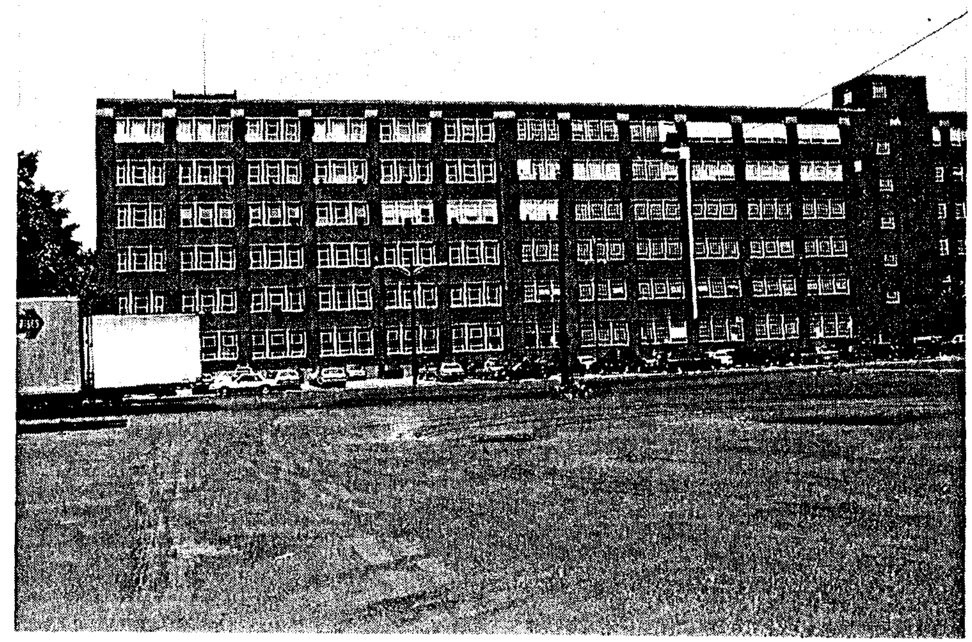


PHOTO INFORMATION

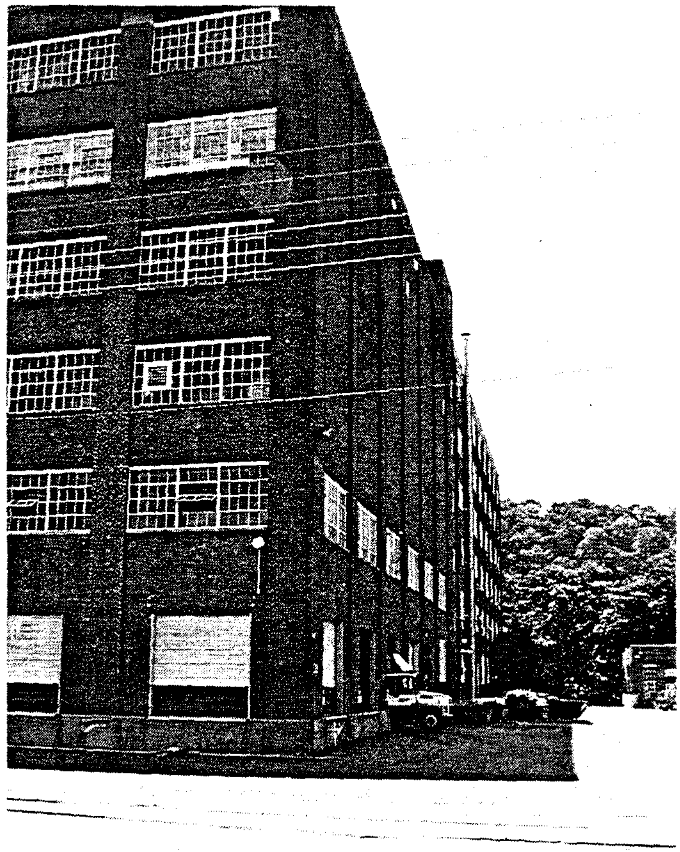
Attach Photo Here

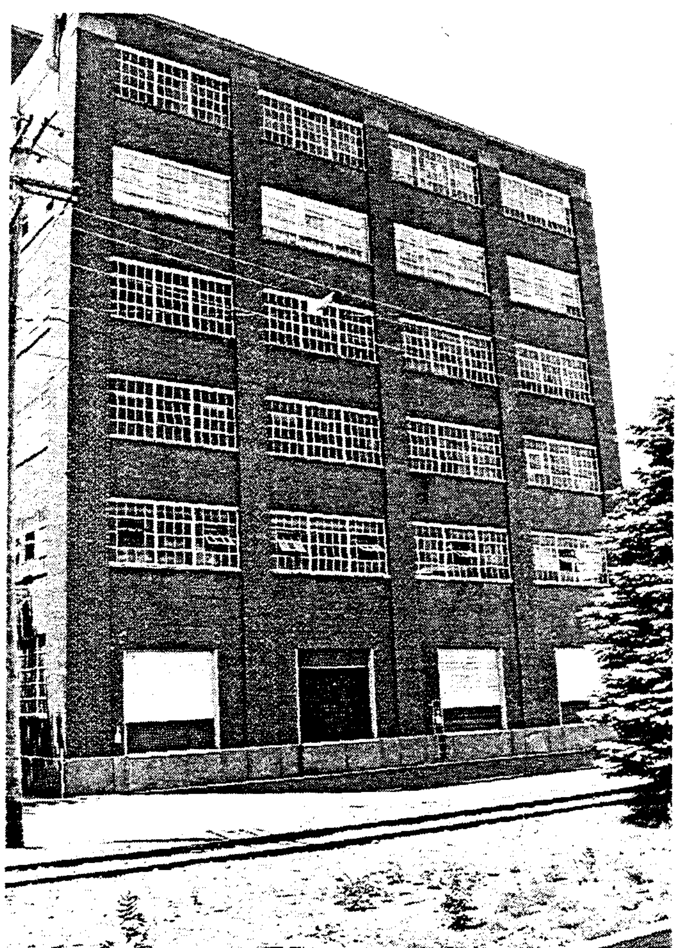


Number	Description of View	Direction of Camera
1	South facade	N
2	East wall and North facade	W
3	East wall	NW

Photographer Name: Douglas C. McVarish Date: July 1993
Negative Location: John Milner Associates, Inc. 309 N. Matlack Street, West Chester, PA 19380

See reverse for additional instruction





PENNSYLVANIA INDUSTRIAL RESOURCE SURVEY FORM--DATA SHEET 89BIN
Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

IDENTIFICATION AND LOCATION

Survey Code: ______ Tax Parcel/Other No.: 24-3-11-1

County: 1. Westmoreland 1 2 9 2. ______

Municipality: 1. New Kensington 2. ______

Address: Schreiber Industrial Park, 12th Street

Historic Name: Building 242

Other Name: ______

Owner Name/Address: Richard Schreiber, Schreiber Industrial Development Co., Box 641, New Kensington, PA 15068

Owner Category: X Private ___ Public-local ___ Public-state ___ Public-federal

Resource Category: X Building ___ District ___ Site ___ Structure ___ Object

Number/Approximate Number of Resources Covered by this Form: 1

USGS Quad: 1. New Kensington West 2. ______

UTM References: A. 17 603930 4491570 B. ___ C. ___ D. ___

HISTORIC AND CURRENT FUNCTIONS

Historic Function Category:	Subcategory	Code:
A. Commerce/Trade	Business	0 2 A
B. Health care	Clinic	1 2 B
C.		

Particular Type: A. Office building
B. Company medical facility
C. ______

Associated Process/Activity: A. ______
B. ______
C. ______

Current Function Category:	Subcategory:	Code:
A. Commerce/trade	Business	0 2 A
B. Commerce/trade	Professional	0 2 B
C. Commerce/trade	Warehouse	0 2 H

PHYSICAL DESCRIPTION

Architectural Classification: A. Modern Movement 7 0
B. ______ Other: ______

Exterior Materials: Foundation Concrete 6 5 Roof Asphalt 6 3
Walls Brick 3 0 Walls ______
Other ______ Other ______

Structural System: 1. Steel frame 4 1 2. ______

Roof System: Material Steel 4 System: Other 9

Width: 15 bays F Depth: 82 feet Stories/Height: 6 D

Power System: Electric--alternating current 8 0

Machinery: No original machinery extant

Archeological Remains: None

HISTORICAL INFORMATION

Year Built: ___ C. 1937 to ___ C. 1938 Additions/Alterations Dates: X C. 1971 ; ___ C. ______

Basis for Dating: X Documentary X Physical

Explain: According to New Kensington Plant Building Inventory, Building 242 was erected in 1937-38. The building was refurbished shortly after Schreiber Development's acquisition of the New Kensington Works in 1971.

Cultural/Ethic Affiliation: 1. ______ 2. ______

Associated Individuals: 1. ______ 2. ______

Associated Events: 1. ______ 2. ______

Architects/Engineers: 1. unknown 2. ______

Builders: 1. Aluminum Company of America 2. ______

MAJOR BIBLIOGRAPHICAL REFERENCES

Schreibner, Richard. Interview. New Kensington, Pennsylvania. July 8, 1993.

New Kensington Plant Building Inventory, Alcoa Corporate Archives, Pittsburgh, Pennsylvania.

Smith, George David. *From Monopoly to Competition: The Transformation of Alcoa, 1996-1986.* New York: Cambridge University Press, 1988.

Archival Collections: Description

Location: Contact Person:

PREVIOUS SURVEY, DETERMINATIONS

EVALUATION (Survey Director/Consultants Only)

Individual NR Potential: ____ Yes X No Context(s): Aluminum Industry in Westmoreland and Allegheny Counties, 1888-1945

Contributes to Potential District X Yes ____ No District Name/Status New Kensington Alcoa Works

Explain: This building is recommended eligible for the National Register as a contributing component within the New Kensington Alcoa Works, a nationally significant site of aluminum fabrication.

THREATS

Threats: 1 1. None 2. Public Development 3. Private Development 4. Neglect 5. Other

Explain: Building remains in active use, a use which, in part, reflects its historic use.

SURVEYOR INFORMATION

Surveyor Name/Title: Douglas C. McVarish, Project Architectural Historian Date: July 1993

Project Name: Historic Resources Survey of the Aluminum Industry in Westmoreland and Allegheny Counties, PA

Organization: John Milner Associates, Inc. Telephone: (215) 436-9000

Street and No. 309 North Matlack Street

City, State: West Chester, Pennsylvania Zip Code: 19380

Additional Survey Documentation: ______

Associated Survey Costs: ______

PENNSYLVANIA INDUSTRIAL RESOURCE SURVEY FORM--NARRATIVE SHEET

89C

Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

Survey Code: ______ Tax Parcel/Other No.: 24-3-11-1

County: Westmoreland Municipality: New Kensington

Address: Schreiber Industrial Park, 12th Street

Historic/Other Name: Building 242

PHYSICAL DESCRIPTION:

Building 242 is situated in roughly the center of the New Kensington-Arnold Alcoa Works on the east bank of the Allegheny River in New Kensington. South of the building is a large parking area, a portion of which appears to have been the location of a now demolished building. North of the building is a driveway and small parking area as well as the southern sections of buildings 238, 239, and 240. The interior industrial park road extends along the east side of the building. Across this road is the southern section of Building 204.

The large rectangular, steel framed, brick clad, six story building is utilitarian in appearance. It measures approximately 180 feet by 82 feet and contains 85,680 square feet of floor area. The north facade is comprised of fifteen bays, each delineated by a brick pier with an angled concrete cap. The roofline is marked by a flat brick parapet with concrete slab capstones. The primary north facade entry door is located at the west end of the first story. This entry consists of a metal frame, glass entry door with a glass surround set in a metal frame. West of this door are three large, single light, fixed rectangular windows set in metal frames. Corrugated metal overhead doors occupy the five east first story bays of the north facade. The four outer doors adjoin loading docks, while the central door provides vehicular access to the interior of the building. A stair tower is situated in the center bay of the north facade. A single light, metal door provides access to the tower which is illuminated by 15 light metal frame windows with inset six light hopper windows. The stair tower extends one story above the remainder of the north facade. The seventh story is illuminated by 15 light metal frame windows with inset six light pivoting windows on the north and west side. Another corrugated metal overhead loading dock door is situated in the first story of the third bay west of the stair tower.

The six bays at the east end of the north facade are fenestrated with sets of three, 20 light windows with inset six light hopper windows at the second story level. The remainder of the east end of the north facade is largely blank with only a few scattered single light windows in the upper stories. The two bays west of the stair tower on the north facade are fenestrated with sets of three, metal frame windows in the upper stories. The central windows have 20 lights with an inset pivoting six light window, while the outer windows have 16 lights with an inset pivoting six light windows. Bays at the west end of the north facade are fenestrated with nine light, metal frame windows. The three central, hopper windows are wider than the flanking, fixed windows.

The east wall has four corrugated metal, overhead loading dock doors in its four first story bays. Upper stories are fenestrated with sets of three, metal frame windows. As in the central bays of the north wall, each set of three is comprised of a central 16 light window with inset eight light pivoting window flanked by 20 light windows with inset six light pivoting windows. The types of windows found on the north and east walls are also the predominant window types on the south wall of the building. A stair tower occupies the third bay from the east end of the north wall. Similar to the south tower, access is provided by paired one light, one panel doors in the ground story and illumination is provided by 15 light, metal frame windows with inset pivoting six light windows in the upper stories. West of the stair tower is a narrower bay fenestrated with 12 light, metal frame windows with inset pivoting six light windows.

Building 242 continues to be partly used as offices. The east portion of the first story may have been adapted for use as storage and some windows and doors may have been altered in recent years. Historic photographs have not been located. Therefore, a comparison with its original appearance has not been made. In general, the building retains integrity of location, design, setting, materials, workmanship, feeling, and association and still convincingly conveys associations with its 1937 date of construction.

HISTORICAL NARRATIVE:

According to Alcoa plant records, construction was begun on Building 242 in 1937 and was completed in the following year. The building was originally used for stores and offices of the New Kensington Works (New Kensington Plant Building Inventory).

The building was part of a significant expansion of New Kensington and Arnold facilities in the years prior to and during World War II. Other buildings erected during the late 1930s at the New Kensington Works include Building 19C, a six story, 107,748 square foot, steel framed, brick clad building used as an Aluminum Cooking Utensil Company manufacturing facility and warehouse; Building 37, a single story, 36,494 square foot, steel framed, brick clad building used to house the structural steel shop and steel stores; and Building 44, a three story, 75,640 square foot, steel framed, brick clad building that housed the job shop. Construction at the Arnold plant during the late 1930s included a 53,373 square foot addition to the tube mill, Building 204A; a floor added to Building 206 for Aluminum Seal Company offices; and Building 239-240, single story steel framed, brick clad buildings housing the carpenter and box shop and garage and paint shop (New Kensington Plant Building Inventory). The expansion during the late 1930s resulted from the growth of the economy as the United States began to emerge from the Depression and the growth in demand for Alcoa products, such as kitchen utensils, container seals, and specialty aluminum items for industrial customers. By 1937, world aluminum consumption reached an all-time high of 499,666 metric tons (Smith 1988:214).

This growth continued during World War II as massive government investment through the Defense Plants Corporation provided a total of $774,465,000.00 for defense plant construction throughout the United States. The Arnold Works was expanded during the World War II era to accommodate the growing need for aluminum for defense purposes. Among the buildings dating from this period were buildings 225 and 227. Other buildings were probably expanded during World War II.

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM--PHOTO/SITE PLAN SHEET

Pennsylvania Historical and Museum Commission
Bureau of Historic Preservation
Box 1026, Harrisburg, PA 17108-1026

Survey Code/Tax Parcel/Other No.: 24-3-12-390 County: Westmoreland
Municipality: New Kensington Address: East side, Freeport Road, between Catalpa Street and Edgewood Road
Historic Name/Other Name: Aluminum Research Laboratories, Buildings 29 and 44

SITE PLAN

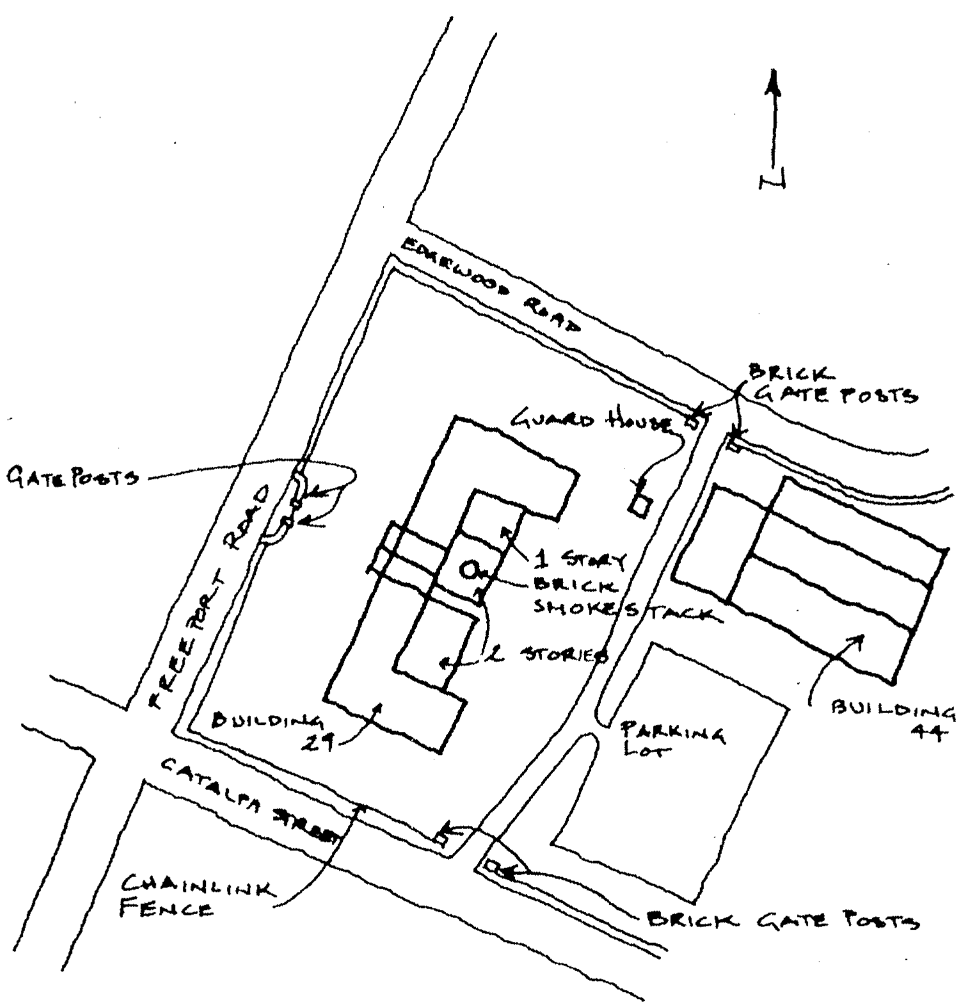
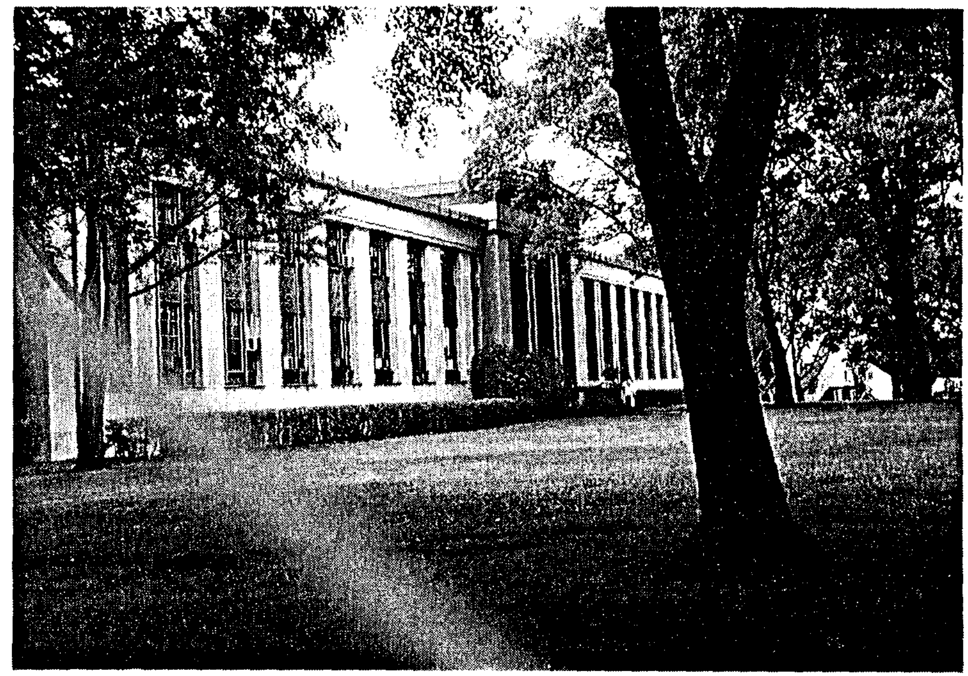


PHOTO INFORMATION

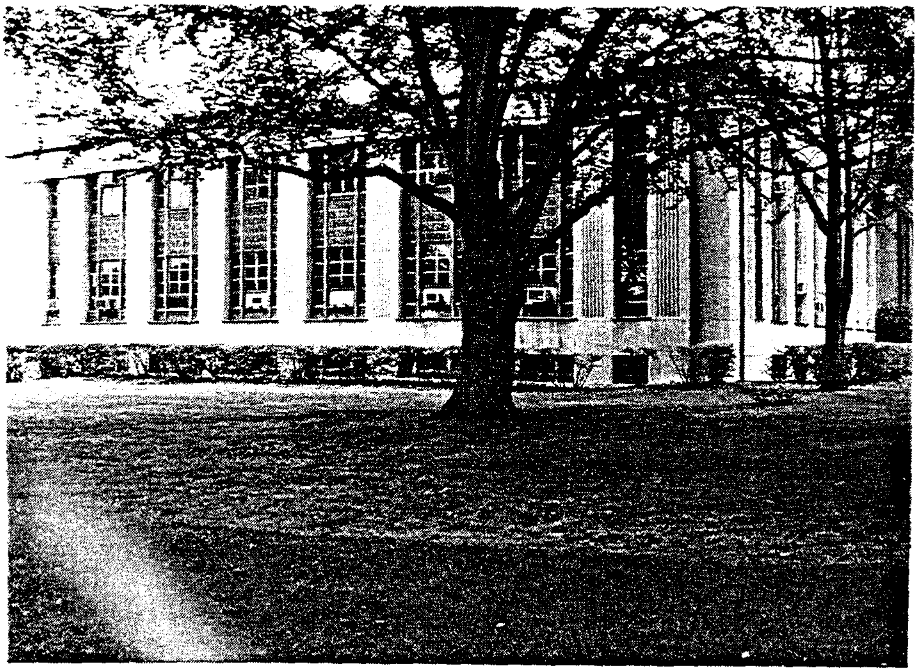
Attach Photo Here

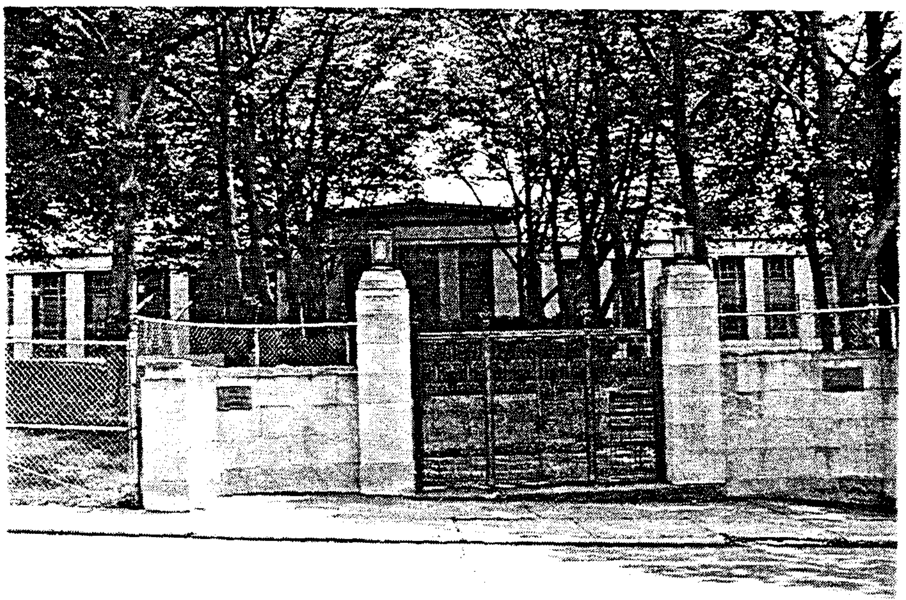


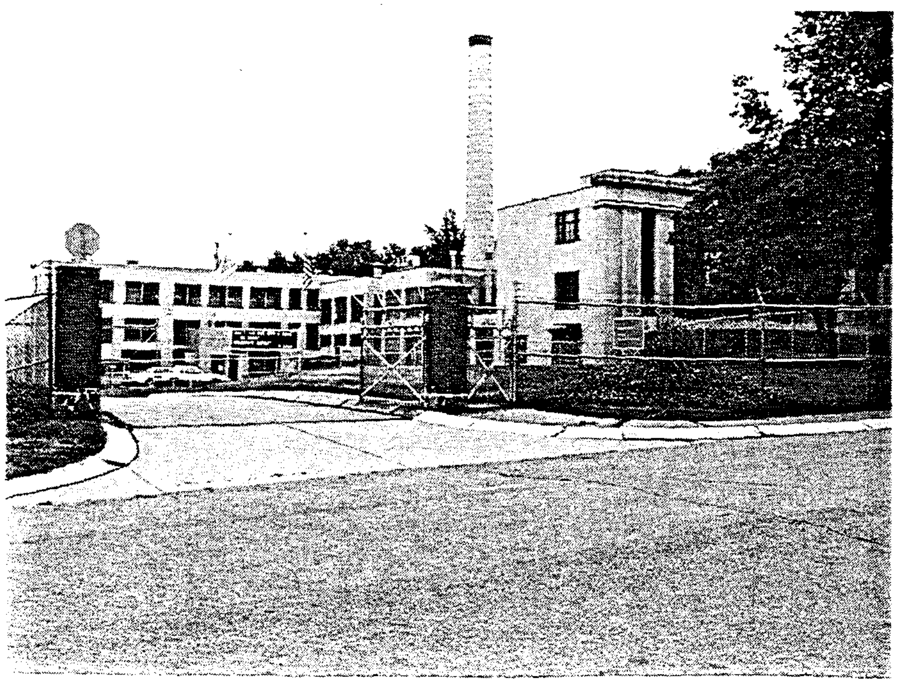
Number	Description of View	Direction of Camera
1	West facade, Building 29	SE
2	North wall, Building 29	S
3	Freeport Road gateposts	SE
4	Rear elevations, Building 29	S
5	Building 44, north and west sides	SE

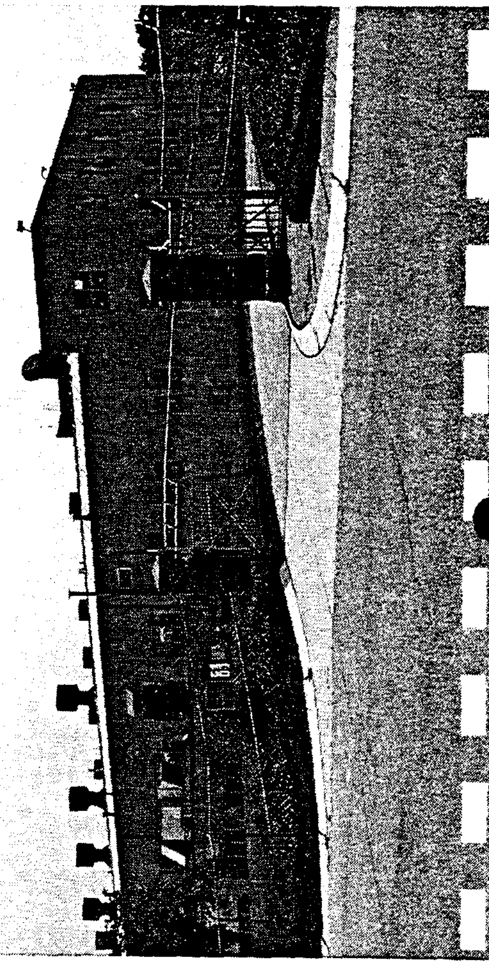
Photographer Name: Douglas C. McVarish Date: July 1993
Negative Location: John Milner Associates, Inc. 309 N. Matlack Street, West Chester, PA 19380

See reverse for additional instruction









PENNSYLVANIA INDUSTRIAL RESOURCE SURVEY FORM--DATA SHEET 89BIN

Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

IDENTIFICATION AND LOCATION

Survey Code: ______ Tax Parcel/Other No.: 24-3-12-390

County: 1. Westmoreland 1 2 9 2. ______

Municipality: 1. New Kensington 2. ______

Address: Freeport Road

Historic Name: Aluminum Research Laboratories

Other Name: Buildings 29 and 44

Owner Name/Address: Aluminum Company of America, c/o Ronald J. Groholski, Alcoa Technical Center, Alcoa Center, PA15069

Owner Category: X Private ___ Public-local ___ Public-state ___ Public-federal

Resource Category: X Building ___ District ___ Site ___ Structure ___ Object

Number/Approximate Number of Resources Covered by this Form: 5

USGS Quad: 1. New Kensington West 2. ______

UTM References: A. 17 605125 4491540 C. ______
B. ______ D. ______

HISTORIC AND CURRENT FUNCTIONS

Historic Function Category:	Subcategory	Code:
A. Industry/Processing/Extraction		1 0
B.		
C.		

Particular Type: A. Research laboratory
B.
C.

Associated Process/Activity: A. Primary metal industries 1 B A
B.
C.

Current Function Category:	Subcategory:	Code:
A. Industry/Processing/Extraction		1 0
B.		
C.		

PHYSICAL DESCRIPTION

Architectural Classification: A. Classical Revival 52

B. Modern Movement 7 0 Other: ______

Exterior Materials: Foundation Limestone 4 3 Roof Ceramic tile 6 7
Walls Limestone 4 3 Walls ______
Other Roof: concrete 6 5 Other ______

Structural System: 1. Steel frame 4 1 2. ______

Roof System: Material Steel 4 System: Other 9

Width: 21 Bays F Depth: 108 feet Stories/Height: 2 B

Power System: Electric - alternating current 8 0

Machinery: Unknown

Archeological Remains: None

HISTORICAL INFORMATION

Year Built: ___ C. 1929 to ___ C.___ Additions/Alterations Dates: ___C. 1944 ___; ___C. ______

Basis for Dating: X Documentary _____ Physical

Explain: Company records and company histories. The original laboratory was constructed in 1929. Building 44 was added in 1944.

Cultural/Ethic Affiliation: 1. ______ 2. ______

Associated Individuals: 1. Francis Frary 2. ______

Associated Events: 1. ______ 2. ______

Architects/Engineers: 1. Henry Hornbostel 2. ______

Builders: 1. ______ 2. ______

MAJOR BIBLIOGRAPHICAL REFERENCES

Anonymous. "Little Visits to Our Plants: Research Laboratories' New Home." *The Alcoa News*, 1:12, August 11, 1930: 3-4.

Anonymous. "Research Labs Get New Building." *Alcoa Warrier*, 3:9, June 1945: 4.

Bedford, Steven McLeod. "Hornbostel, Henry." In *Macmillan Encyclopedia of Architects*. New York: The Free Press, 1982.

Graham, Margaret B. and Bettye H. Pruitt. *R&D for Industry: A Century of Technical Innovation at Alcoa*. New York: Cambridge University Press, 1990.

Smith, George David. *From Monopoly to Competion: The Transformation of Alcoa, 1886-1986*. New York. Oxford University Press, 1988.

Archival Collections: Description--photos of Building 29 taken shortly after completion. Contained in a photo album.
Location: Alcoa Technical Center Library, Upper Burrell, Pennsylvania Contact Person: Nick Kotow

PREVIOUS SURVEY, DETERMINATIONS

EVALUATION (Survey Director/Consultants Only)

Individual NR Potential: X Yes ___ No Context(s): Aluminum Industry in Westmoreland and Allegheny Counties, 1888-1945; Architecture of Henry Hornbostel

Contributes to Potential District ___ Yes X No District Name/Status ______

Explain:

THREATS

Threats: 1 1. None 2. Public Development 3. Private Development 4. Neglect 5. Other

Explain:

SURVEYOR INFORMATION

Surveyor Name/Title: Douglas C. McVarish, Project Architectural Historian Date: July 1993

Project Name: Historic Resources Survey of the Aluminum Industry in Westmoreland and Allegheny Counties, PA

Organization: John Milner Associates, Inc. Telephone: (215) 436-9000

Street and No. 309 North Matlack Street

City, State: West Chester, Pennsylvania Zip Code: 19380

Additional Survey Documentation: ______

Associated Survey Costs: ______

PENNSYLVANIA HISTORICAL RESOURCE SURVEY FORM–NARRATIVE SHEET

89C

Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

Survey Code: ______ Tax Parcel/Other No.: 24-3-12-390

County: Westmoreland Municipality: New Kensington

Address: East side, Freeport Road between Catalpa Street and Edgewood Road

Historic/Other Name: Aluminum Research Laboratories (Buildings 29 and 44)

PHYSICAL DESCRIPTION:

The historic Aluminum Research Laboratories are located on a large tree shaded plot of land on the east side of Freeport Road. The site is atop a ridge above the Allegheny River valley and downtown New Kensington. The original portion of the laboratory is a C-shaped, two story block with a principal facade facing west toward Freeport Road. The site is surrounded by an aluminum, chain link fence. The formal entrance to the grounds of the facility is marked by a gates on the Freeport Road side. These two leaf, patterned aluminum gates ornamented with abstracted Greek frets and fleur-de-lis are hung from dressed ashlar limestone gateposts. Surmounting each of the gateposts is a cylindrical aluminum framed lantern. Dressed limestone walls arch outward from the outsides of the gateposts. Each wall is marked by an aluminum plaque designating the facility as the Aluminum Research Laboratories. The gates are no longer used.

The front lawn of the facilities is approximately three and one-half feet above the sidewalk level. Concrete steps connect the gateway area with a concrete walk that leads to the central portico of Building 29. This walk is lined with mature, deciduous trees.

Building 29 is of steel frame construction. Its walls are sheathed in limestone. The west facade entrance of Building 29 is emphasized by a central two story, distyle in antis portico. The building has a basic C-shaped footprint with rear ells. The building is 275 feet long and 108 feet deep and contains 56,000 feet of floor space (Anonymous 1930:3). Extending from either side of the central portico are two story, nine bay wings. The bays of the wings are delineated by fluted pilasters. The end bays of these wings are narrower than the central bays. The building is eight bays wide. The west, north and south exterior walls of Building 29 are ornamented with classical and abstracted classical decorative elements. The portico has abstracted Doric columns with rectangular flutes. A simplified regula is marked by abstracted guttae. The frieze is ornamented with a stylized wave and flower band and the band is repeated beneath the shallow rake of the cornice. The roofline of the portico is ornamented with a large central aluminum antefix flanked by Greek fret cresting and smaller antefixes which extends along the north and south eaves as well. The corners of the roof are marked with an anthemion leaf motif acroteria. The double main entry doors are situated in the central bay of the portico. These aluminum framed doors are ornamented with abstracted trees. The door surround, transom, and door hood all feature elaborate aluminum ornamentation. The door hood is marked by abstracted flowers and a central finial. Above the entrance are a pair of two light casement windows flanked by single casement windows. Each of these windows is surmounted by a single light transom. The outer bays of the portico are fenestrated with paired three light casement windows on the first story flanked by single three light casement windows. Beneath this casement windows are single light hopper windows. Aluminum spandrels of the two side bays are ornamented with abstracted Greek frets. The second story windows consist of paired two light casement windows surmounted by single light transoms.

The roofline of the side wings continues the cresting of the portico, and the abstracted guttae hang from the regula above each fluted pilaster. The first and second stories of the wings continue the basic fenestration pattern of the portico. A few of the windows have been removed and replaced by room air conditioners. Aluminum spandrels identical to those in the portico ornament the areas between first and second story windows. Aluminum panels with abstracted Greek frets are also used to ornament the areas below the first story windows. Because of the downward slope of the land toward the east on the south side of the building, the basement level is exposed. This basement level is fenestrated with central two leaf casement windows flanked by single leaf casement windows.

The rear of Building 29 lacks the ornamentation of the other walls of the building. Instead of stone facing, this portion of the laboratory is faced with buff brick. This portion of a building also has a complex massing. Extending west from the rear of the central wall of the laboratory building are two, two story rectangular blocks. Because of the slope of the site, the cornice line of these blocks is lower than the cornice line of the laboratory facade. The two blocks are separated by a narrow passageway. The southern block adjoins a rectangular two story block that extends almost the entire width of the south leg of the building. The two story north block is connected to the northern leg of the main building by a single story rectangular, three bay block. A tapering, tall, brick chimney protrudes from the roof of the two story north block. Fenestration of the rear of the building consists of large, rectangular, 16 and 20 light windows.

PHYSICAL DESCRIPTION (continued):

Minor changes have been made to Building 29. These changes include installation of air conditioners and the cessation of use of the west facade entrance. None of these changes is irreversible. The building retains a high level of integrity of location, design, setting, materials, workmanship, and association. The building still reflects its significance as the historic center for aluminum research at the Aluminum Company of America.

A driveway extends along the east side of Building 29 from Edgewood Road to Catalpa Street and provides access to a parking lot southeast of Building 29. The Catalpa Street and Edgewood Road ends of the driveway are marked by two leaf, aluminum gates hung from square brick gateposts. These gateposts are topped with pyramidal concrete caps.

In addition to Building 29, four other related buildings are located on the Aluminum Research Laboratories site. The largest of these is Building 44. Building 44, which is located east of Building 29, was constructed in 1944. This steel framed, brick sheathed building has a three story block at its west end. The five bay west facade is fenestrated with paired four-light casement windows in the first, second, and third stories of the outer bays. Inner bays are fenestrated with paired four-light casement windows at the first story and paired three light casement windows in the upper story. The north wall of this block is fenestrated with paired four-light casement windows at the first and second story and paired three-light casement windows in the third story. The main entrance is centered on the west facade wall and consists of paired, metal framed glass doors. The west block of the building has a flat parapet with concrete slab capstones.

A long, rectangular, two story block projects from the rear wall of this three-story block. The north wall of this block is primarily fenestrated with paired 16-light windows at the first and second story level. Double metal doors with a single transom light are situated near the west end of the north wall of the block. A two-part, single story, flat roofed wing projects from the center and rear of the north wall of this block. Immediately adjoining the north wall is a steel framed, brick sheathed block fenestrated with groups of three, 28-light windows. The second part of the wing projects from the center and west portion of the north wall of the brick-sheathed wing. This addition is steel framed with corrugated steel walls. It appears to postdate the rest of the block and may have been added in the 1960s. Fenestration consists of groups of three, 12-light, frosted glass windows with pivoting four-light inset windows. The two story main block has a low pitched, gabled roof, sheathed in corrugated steel. Its east end is marked by a stepped brick parapet. Cylindrical metal vents protrude from the roof of the main block, as well as from the roof of the brick wing.

The most significant change to Building 44 has been the construction of a corrugated steel-sheathed addition to the north side of the block. This addition retains the same general fenestration patterns as the remainder of the block and retains the scale of the adjoining brick-sheathed addition. The building retains a high level of integrity of location, design, setting, materials, and workmanship. Building 44 continues to convey strong associations with the World War II era of its construction.

Two small buildings are located northeast of Building 44. Closest to Building 44 is a metal framed, gable roofed, corrugated metal-sheathed, prefabricated utility shed. This shed was probably erected about 1970. North of the utility shed, adjoining the chain link fence on the north side of the site, is a flat roofed, brick transformer shed. Glass block windows fenestrate the west wall. The north wall contains a metal door. This shed was probably erected at approximately the same time as Building 44. It retains a high level of integrity.

A fifth building is located at the west end of the site. This two story, rectangular, flat roofed, steel framed building is sheathed in corrugated steel. The north wall of the building is seven bays wide and fenestrated with large banks of multi-light windows. The fenestration of the remainder of the block was not visible. This building appears to be the most recent of the major buildings on the site and was probably erected within the past 30 years.

HISTORICAL NARRATIVE:

A major facet of the Aluminum Company of America's efforts to retain its historically strong market share and to develop new markets for its products was the expansion of the company's research and development efforts. Prior to World War I, the company undertook little formal research. Although research on the alumina refining process had received considerable attention, the company had invested little in exploration into the fundamental nature of aluminum, its alloys, or the theoretical basis of their fabrication and application. As Charles Carr wrote, research projects were "informally organized and frequently had to be put aside for more pressing production problems: (Smith 1988:163).

After the war, Alcoa could no longer afford to ignore research into the fundamental problems of metallurgy. The invention of Duralumin in Germany had demonstrated that an outside invention had a potential to threaten a major portion of Alcoa's business. Without an in-house capability of responding to or anticipating such technical discoveries, the company might not be able to replicate an important new technology, find a reasonable substitute, or bring key patents under its control. As a company, the technology of which operated on the frontiers of contemporary knowledge, Alcoa found it necessary to finance fundamental research and development to defend its business base (Smith 1988:163).

To head this new research effort, Alcoa selected Francis C. Frary, a 33 year old research chemist from the University of Minnesota. Frary had spent several years teaching a full load of industrial chemistry courses while still finding time to conduct experiments in electrometallurgy. By 1915, he had patented six inventions, including five hard-lead alloys. In 1915, he left Minnesota to work at the Oldbury Chemical Company in Niagara Falls and had developed credentials as a generalist with knowledge and experience spanning the fields of chemistry, chemical engineering, and metallurgy.

Frary was interviewed by the superintendent of Alcoa's Niagara Falls works and expressed interest in "handling work of an original nature, but not in solving problems that arise from time to time at the Works relating to process control." He was assured that it was the company's intention "to establish a general research laboratory, somewhat along the lines of those established by General Electric and other companies, and that the work that would be carried on there was of an investigating nature and did not pertain to troubles of various kinds relating to the Work's operations" (Smith 1988:165).

Initially the Research Bureau was one of two branches of the new Technical Department. The other branch, the Technical Direction Bureau, was responsible for functions related to process improvements and quality control. The Research Bureau was intended to operate without regard to the routine work of the company.

The original plan of the Research Committee was that the Technical Department would remain in New Kensington only until a new laboratory could be built at a neutral location. Edwin Fickes recorded the rationale of the committee:

> ...neither Mr. Hoopes nor I wanted the laboratory at any of the works or too closely associated with them, as we feared in time the works where it was situated would become a dominant factor in determining a research policy which would neglect other problems which might be of far greater importance to the company than those of the single works where the laboratory was located (Graham and Pruitt 1990:128).

Possible sites for the laboratory were Pittsburgh, its headquarter's city and home to Carnegie Institute of Technology, and Edgewater, New Jersey, site of an Alcoa mill and near the campus of Stevens Institute of Technology. However, a postwar business slump and lingering skepticism on the part of some senior Alcoa managers thwarted the wishes of the Research Committee. The Research and Technical Bureaus were located for the first 10 years in cramped and inadequate facilities on the third floor of the New Kensington works clock house.

Frary assembled a staff, drawing on his outside associations from teaching and involvement in professional organizations. In 1920, Alcoa took over the Lynite Laboratories. With this acquisition came a number of young scientists, including Robert S. Archer and Zay Jeffries, already noted aluminum scientists. With a growing core of respected scientists, Frary was able to attract other talented metallurgists.

Aside from completing unfinished research projects, Frary's early research program focused on the need to build an institution. His objectives were to win credibility by addressing a list of new "live" problems, identified by works managers as critical, to define the state of aluminum technology by collecting and translating a base of knowledge about aluminum already available in the literature, and to conduct fundamental studies that would extend the existing knowledge base and provide the basis for further aluminum applications (Graham and Pruitt 1990:133-134).

HISTORICAL NARRATIVE (continued):

Frary undertook one of the first research projects in collaboration with William Hoopes at the company's Badin, North Carolina works. The two constructed an experimental pot in which they floated a molten fluoride electrolyte under a layer of pure aluminum (which served as a cathode) upon a heavier aluminum-copper alloy (which served as an anode). Pure aluminum was then dissolved from the heavier anode alloy and deposited in the cathode layer of molten aluminum. The result was the production of aluminum more pure than could be made by the conventional Hall process. The aluminum obtainable from this new process was 99.99 percent pure as opposed to 97.75 percent purity obtainable from the Hall process. Availability of this purer aluminum greatly enhanced the Research Bureau's ability to determine with precision the properties and behavior of aluminum alloys, and demonstrated the usefulness of a systematic research effort (Smith 1988:166-167).

Early research efforts also had direct effects on the company's revenue picture. As Graham and Pruitt note, "one fruitful discovery, such as the way to make salable aluminum chloride from dross, or implementation of an improved design for carbon electrodes and the equipment used to secure them in the smelting pots at Massena, would easily pay for the entire year's research budget" (Graham and Pruitt 1990:135).

Another success cited by Graham and Pruitt was work done to extend the use of aluminum powder for pigment in paint, work that proved its worth so rapidly that the Logans Ferry powder works, built for wartime supply of powder for explosives, was able to be converted to this product soon after the war and found its business soon exceeding capacity (Graham and Pruitt 1990:135).

The distinct advantage of initially concentrating research in the areas of smelting and refining was that significant improvements there would have effects on all processes further down the production line (Graham and Pruitt 1990:136).

In the late 1920s, Alcoa chairman Arthur Vining Davis visited the New Kensington facility and pronounced it "a slop hole of a laboratory." Fifty million dollars was allocated to build a new laboratory on a 14-acre site on Freeport Road in New Kensington, well away from the smoke that hung over the New Kensington works. The laboratory, known as Building 29 because of its date of construction, became home to more than 120 scientists, incorporated the latest ideas in research and laboratory design, and also served as a showcase of the architectural uses of aluminum. Graham and Pruitt describe the use of aluminum in the building:

> Aluminum was everywhere, visible and invisible--from the elevator with hammered doors to the floors with aluminum strips in the terrazzo, the windows casings, piping, furniture (especially innovative laboratory benches), railings and paint. Many of the features--paint, floors, aluminum radiators, and piping--required preliminary research to determine the reaction of the aluminum to surrounding materials and all would provide a chance for close daily follow-up (Graham and Pruitt 1990: 192-193).

Henry Hornbostel

The company had selected prominent Pittsburgh architect Henry Hornbostel to design the new research laboratory. Born in Brooklyn, New York in 1867, he began his architectural career by working summers in the office of Lemos and Cordes of New York while attending Columbia University. Between 1893 and 1897, he studied at the Ecole des Beaux-Arts in Paris. After his return from Europe, he joined the faculty of the Department of Architecture at Columbia University where he taught until 1903. While at Columbia, he worked as a draftsman for Stanford White and Carrere and Hastings who were preparing designs for the Buffalo Exposition of 1901.

Following his departure from Columbia, he opened an architectural practice. At various times, he was a partner in the firms of Howell, Stokes and Hornbostel; Wood, Palmer and Hornbostel; Palmer and Hornbostel; and Palmer, Hornbostel and Jones, prior to establishing his own Pittsburgh office during the second decade of the 20th century.

He came to Pittsburgh in 1904 as a member of the firm of Palmer and Hornbostel. The firm had won the design competition for the campus of the new Carnegie Institute of Technology (now Carnegie-Mellon University), and he acted as supervising architect for the project. Throughout the remainder of his career, Hornbostel was closely identified with the new institution, both as resident architect and designer of the original campus as well as professor and first head of the Department of Architecture. Hornbostel's Central Building Bureau designed later buildings on the Tech campus including Margaret Morrison (1906), the Science Building (1908-1909), Administration Hall (1912), Machinery Hall (1912-1913) and the College of Fine Arts (1912-1916). His firm of Palmer and Hornbostel also designed other prominent Pittsburgh buildings including the Soldiers and Sailors Memorial Hall (1907), the Rodef Shalom Temple (1906), and in association with Edward B. Lee, the City-County Building (1916). The firm also devoted a master plan for the University of Pittsburgh (1908) (Pittsburgh Chapter, AIA Yearbook 1971:9).

HISTORICAL NARRATIVE:

The firm of Palmer and Hornbostel also executed major works in other parts of the country including the architectural portions of New York's Williamsburg (1903), Queensborough (1905) and Hell Gate (1917) bridges, and city halls in Wilmington, Delaware (1910), Oakland, California (1910), and Hartford, Connecticut (1911). Following the dissolution of his partnership, Hornbostel designed several other prominent Pittsburgh buildings including the Schenly Apartments (1922), the University Club (1924), the Grant Building (1927-1929), and the Webster Hall Hall (1926). The latter work was designed in collaboration with Eric Fisher Wood, who also collaborated on the design of the George Washington Memorial (1926) in Schenly Park. Other Hornbostel designs outside of Pittsburgh include the Oakland, California Auditorium (1920), buildings at Emory University in Atlanta (1920), the Warren G. Harding Memorial in Marion, Ohio (1924), and the Seward Monument in East Seward, Alaska (1929).

Hornbostel served as first chairman of Pittsburgh's Art Commission and as supervising architect for the Pennsylvania State Planning Commission. He served as director of the Allegheny County Parks from 1935 to 1939 and was instrumental in the development of North and South parks. Hornbostel died in 1961 (Bedford 1982:420-421).

Original Laboratory Equipment

An article in the August 18, 1930 issue of *The Alcoa News* described the original research equipment in the building:

> Precision instruments for accurate determination of both the chemical and physical properties of metals are found in abundance, as are furnaces of widely varying temperatures; testing machines; a rolling mill, and other apparatus designed to facilitate the work.
>
> Equipment for experimental melting, casting and rolling of aluminum alloys is located in large laboratories on the ground floor, as are electric furnaces maintaining constant temperatures for periods of several months. Aluminum paint on the furnaces decreases radiation losses. For the attainment of very high temperatures, there is available in the physical chemistry laboratory a high-frequency induction furnace with which experiments can be carried out in temperatures as high as 5,400 degrees Fahrenheit.
>
> The latest type microscopes are used for detailed study of specifimens of metal, and photomicrographs... are made on instruments capable of magnifications as low as five diameters and as high as 16,000.
>
> Chemical process development work is carried out in a large laboratory in the rear court. The rear of the laboratory is two stories high to permit the use of full size test units of plant equipment. For the determination of the tensile and compressive properties of aluminum products, the laboratories are equipped with a large variety of hydraulic testing, torsion testing and wire testing machines. Provision is made for making tensile tests at temperatures ranging, in degrees Fahrenheit, from 112 below zero to 1200 above.
>
> Artificial weather, including sunshine..., summer heat, winter cold, and rain, are available at all times in the division of paints and finishes, where the application of paints to aluminum as well as the application of aluminum paint to other surfaces is studied (Anonymous 1930:3).

Aluminum Research Laboratories Research

During the years prior to World War II, the ARL generated and published basic data stemming from long-term systematic work in three primary technical areas; alloy composition and properties, corrosion, and structures. Fundamental research on aluminum-based alloy systems, begun in mid-1926, intensified in the 1930s with an intensive program of metallography to identify alloy constituents, using first a regular microscope and later x-ray equipment and electron microscopes.

Several new classes of alloys resulted from the combination of fundamental alloy work and cooperative work with manufactures. Alloy 27S was developed in 1933 for use on Pittsburgh's Smithfield Street bridge; 53S was developed in the same year for beer barrel sheet; and 11S was produced for use in screw machine work (Graham and Pruitt 1990:214).

In 1926 the research staff decided that the level of understanding of corrosion was so low as to prevent the formulation of standard methods of corrosion testing. Research began collecting many samples of different aluminum alloys to be tested on a long-term basis under different climates and conditions. In 1931, fundamental studies began on the mechanism of corrosion itself, and the work was undertaken to determine the effects of corrosion on different fabrication methods.

HISTORICAL NARRATIVE:

In the area of structural research, systematic laboratory testing was done to test the design and properties of aluminum structural members. Extra laboratory testing was conducted on the Smithfield Street bridge, which Alcoa had rebuilt using aluminum (Graham and Pruitt 1990:213).

In the years following World War II, Alcoa's research concentrated on process improvement and large-scale process innovation. The Working Aluminum Program, initiated in the late 1930s but undertaken after 1945, the large-scale ingot program, and the revival of smelting research in the 1950s that evolved into a large-scale program to improve the smelting process in the 1960s and 1970s were among research programs aimed at innovation in process technology (Graham and Pruitt 1990:495-496).

By World War II, Building 29 had become crowded and plans were developed for a second building on the site. This building, known as Building 44, for the date of the beginning of construction, was completed in 1945. The new building housed the process metallurgy and the physical metallurgy divisions of the Research Laboratories. Large machines for the study of riveted joints and other structural members were moved to the new building and facilities were set up to study aluminum corrosion (Anonymous 1945:4).

Later, a third building was erected east of Building 29. These buildings housed Alcoa's research laboratories until the mid-1960s. At that time, the laboratories were relocated to the Alcoa Technical Center in Upper Burrell Township, approximately seven miles east of New Kensington. The Freeport Road facilities are still owned by Alcoa and are operated as a satellite laboratory by the Specialty Metals Division.

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM--PHOTO/SITE PLAN SHEET

89A

Pennsylvania Historical and Museum Commission
Bureau of Historic Preservation
Box 1026, Harrisburg, PA 17108-1026

Survey Code/Tax Parcel/Other No.: 24-3-16-115 County: Westmoreland
Municipality: New Kensington Address: East side, Freeport Road at Elizabeth Street
Historic Name/Other Name: Aluminum Club

SITE PLAN

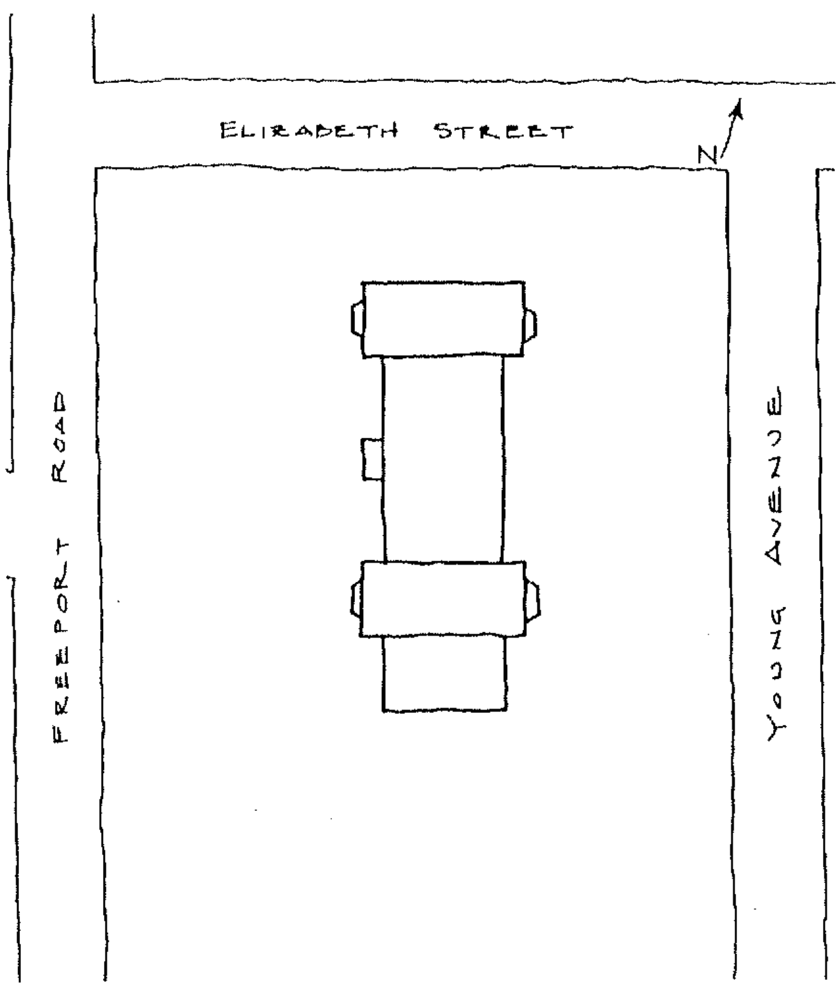


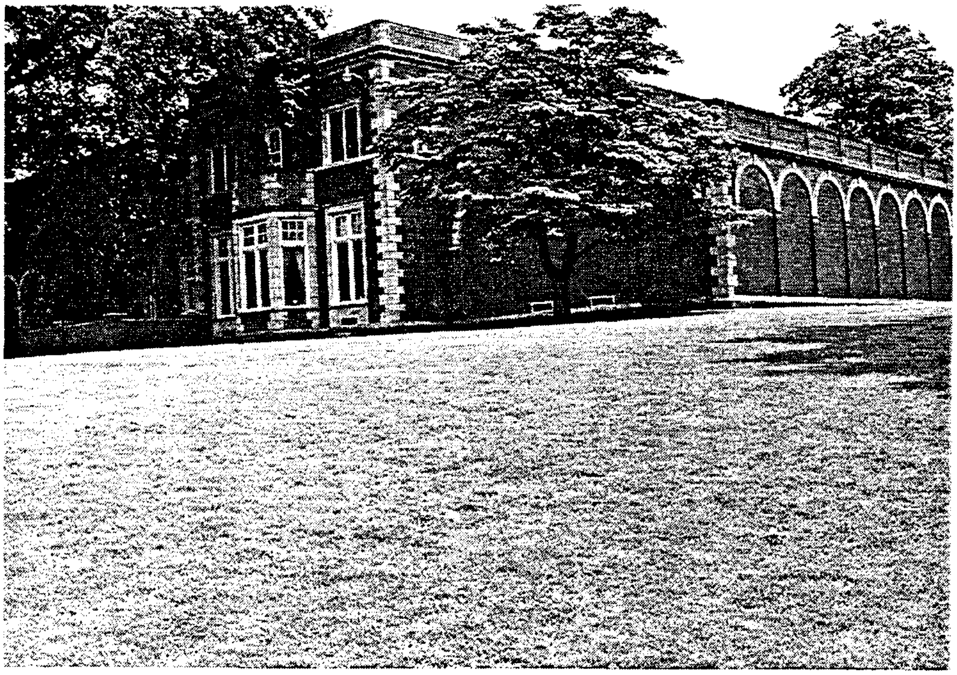
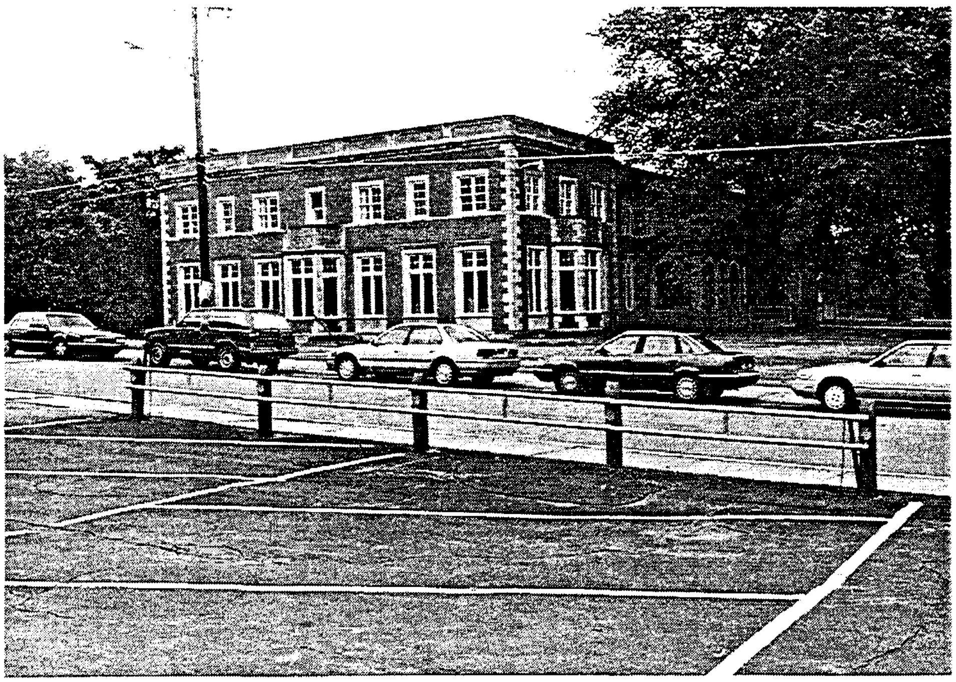
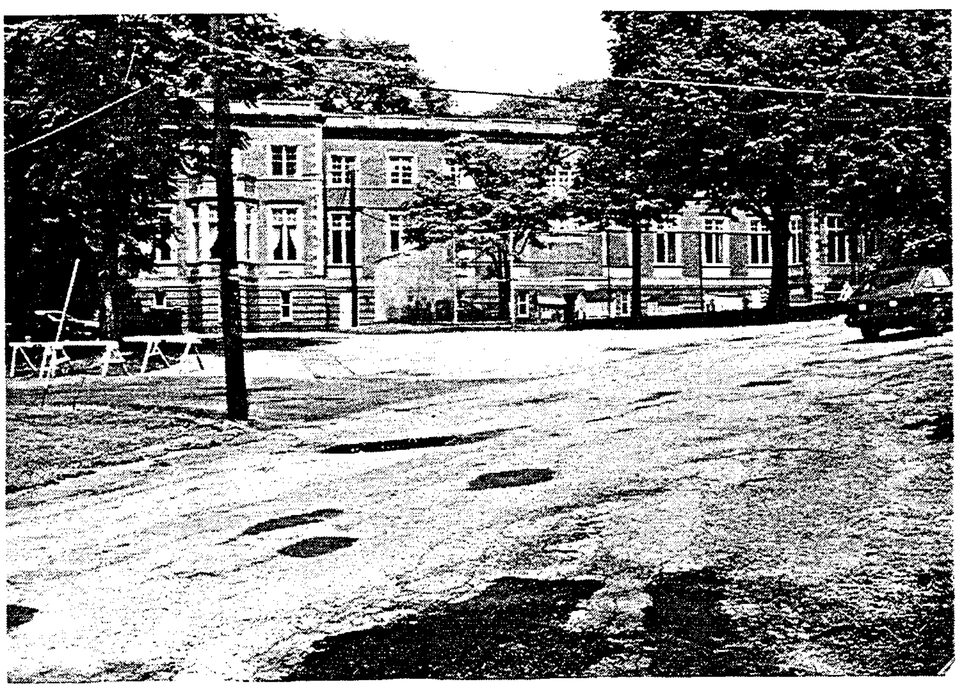
PHOTO INFORMATION

Attach Photo Here

Number	Description of View	Direction of Camera
1	West facade	SE
2	West facade and south side	NE
3	North side	SW
4	Rear	W

Photographer Name: Douglas C. McVarish Date: July 1993
Negative Location: John Milner Associates, Inc. 309 N. Matlack Street, West Chester, PA 19380

See reverse for additional instruction

PENNSYLVANIA INDUSTRIAL RESOURCE SURVEY FORM–DATA SHEET **89BIN**

Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

IDENTIFICATION AND LOCATION

Survey Code: ______ Tax Parcel/Other No.: 24-3-16-115

County: 1. Westmoreland 1 2 9 2. ______

Municipality: 1. New Kensington 2. ______

Address: East side, Freeport Road at Elizabeth Street

Historic Name: Aluminum Club

Other Name: Citizens General Hospital Nurses Residence

Owner Name/Address: Citizens General Hospital, 651 Fourth Avenue, New Kensington, PA 15068

Owner Category: X Private ___ Public-local ___ Public-state ___ Public-federal

Resource Category: X Building ___ District ___ Site ___ Structure ___ Object

Number/Approximate Number of Resources Covered by this Form: 1

USGS Quad: 1. New Kensington West 2. ______

UTM A. 17 604840 4490940 C. ______

References: B. ______ D. ______

HISTORIC AND CURRENT FUNCTIONS

Historic Function Category:	Subcategory	Code:
A. Domestic	Institutional housing	0 1 E
B.		
C.		

Particular Type: A. Apartment building

B. ______

C. ______

Associated Process/ Activity: A. ______

B. ______

C. ______

Current Function Category:	Subcategory:	Code:
A. Health care		1 2
B.		
C.		

PHYSICAL DESCRIPTION

Architectural Classification: A. Second Renaissance Revival 4 8

B. ______ Other: ______

Exterior Materials: Foundation Brick 3 0 Roof Asphalt 6 3

Walls Brick 3 0 Walls Sandstone 4 2

Other ______ Other ______

Structural System: 1. Steel frame 4 1 2. ______

Roof System: Material ______ System: ______

Width: 15 bays F Depth: approx. 50 feet Stories/Height: 2

Power System: ______

Machinery:

Archeological Remains:

HISTORICAL INFORMATION

Year Built: ____ C. 1915 to 1917 C.______ Additions/Alterations Dates: X C. 1962 ; C.______

Basis for Dating: X Documentary _____ Physical

Explain: Secondary sources on company and city history indicate dates of construction. Property acquired in 1962 by Citizens General Hospital for use as a nurses' residence.

Cultural/Ethic Affiliation: 1. ____________ 2. ____________

Associated Individuals: 1. ____________ 2. ____________

Associated Events: 1. ____________ 2. ____________

Architects/Engineers: 1. unknown 2. ____________

Builders: 1. unknown 2. ____________

MAJOR BIBLIOGRAPHICAL REFERENCES

Anonymous. "Visit an Aluminum Institution: The New Kensington Clubhouse--and 'Skipper'." *The Alcoa News* 1:16, September 8, 1930:3-4.

Women's Club of New Kensington. *Lore of Yore: A History of New Kensington, Arnold and Lower Burrell.* New Kensington, Pennsylvania: Women's Club of New Kensington, 1986.

Location: Contact Person:

PREVIOUS SURVEY, DETERMINATIONS

DiCiccio, Carmen P. *Extant Manufacturing, Transportation and Coal Mining Facilities in Westmoreland County (Opened Prior to 1935).* March 1, 1989.

EVALUATION (Survey Director/Consultants Only)

Individual NR Potential: X Yes ____ No Context(s): Aluminum Industry in Westmoreland and Allegheny Counties, 1888-1945

Contributes to Potential District ____ Yes X No District Name/Status ____________

Explain:

THREATS

Threats: 1 1. None 2. Public Development 3. Private Development 4. Neglect 5. Other

Explain: Building remains in active use, a use compatible with its historic use.

SURVEYOR INFORMATION

Surveyor Name/Title: Douglas C. McVarish, Project Architectural Historian Date: July 1993

Project Name: Historic Resources Survey of the Aluminum Industry in Westmoreland and Allegheny Counties, PA

Organization: John Milner Associates, Inc. Telephone: (215) 436-9000

Street and No. 309 North Matlack Street

City, State: West Chester, Pennsylvania Zip Code: 19380

Additional Survey Documentation: ____________

Associated Survey Costs: ____________

PENNSYLVANIA INDUSTRIAL RESOURCE SURVEY FORM–NARRATIVE SHEET

89C

Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

Survey Code: ______________________ Tax Parcel/Other No.: 24-3-16-115

County: Westmoreland Municipality: New Kensington

Address: East side, Freeport Road at Elizabeth Street

Historic/Other Name: Aluminum Club

PHYSICAL DESCRIPTION:

The Aluminum Club is situated on a large, tree shaded lot on the east side of Freeport Road. North of the site is Elizabeth Street and across Elizabeth Street is the parking lot for a funeral home. East of the building is a parking lot for the building and a fenced children's play area. South of the site is the Mount Saint Peter's Catholic Church. The site is at the edge of a single family residential area.

The building is situated approximately 150 feet east of Freeport Road. Its front yard slopes up slightly from the road and is approximately three feet above the level of the sidewalk. The footprint of the building consists of a central rectangular block with a protruding arcaded entry porch on its west wall. Adjoining the central block on the north and south walls are wider rectangular blocks with single story bay windows centered on the east and west walls. Adjoining the south wall of the south block is a one story rectangular block. This block may have housed the swimming pool.

The building is a two story, flat roofed steel framed building with an exposed basement on its east side. Its walls are faced in brick with stone trim. The brick bond consists of alternating header and stretcher courses. Sandstone trim includes quoins, a water table, a sill course, a cornice, and window surrounds. The main entry to the building is centered on its east wall. The entry is delineated by a single story, three bay, arcaded entry porch. The arcade has stone piers, arches, and keystones, and the porch also has stone quoins. Projecting from the outer corners of the porch are low brick walls with regularly spaced, square brick piers and concrete slab capstones. These walls enclose rectangular areas in front of the recessed portion of the facade. The entry way has a deep reveal and the sides of the reveal contain doors. The main entry doors, recessed from the facade wall, consist of paired ten light doors surmounted by a four light transom. The second story facade above the entry porch contains three pairs of four over four, double hung windows set in stone surrounds. Flanking the three recessed central bays are three additional recessed bays. These bays contain three pairs of windows on the first story, each set within a stone surround. Each window consists of a replacement oblong single light window surmounted by a four light transom. Second story windows consists of three pairs of four over four, double hung windows, each with a stone surround.

The three bays on either end of the facade project from the plane of the central portion of the facade. The center of the first story of these projecting bays is marked by a three-sided canted, single story bay. Each of these bays has paired, replacement single light, oblong windows on its outer walls surmounted by four light transoms. These windows are set within a stone surround whose sides are scored to imitate quoins. The sides of the bay contain a single light, oblong, replacement window surmounted by a six pane transom. These windows are also set in a stone surround. Stone quoins decorate the walls beneath the window frames. Above the window frames is a stone string course, and stone quoins ornament the brick parapet above the string course. Flanking the bay window are paired single light, oblong replacement windows surmounted by four light transoms. These windows are also set within a stone surround. Second story openings consists of a central, single, four over four, double hung window flanked by paired four over four, double hung windows. A stone sill course connects the sills of the second story windows. The corners of the projecting ends of the building are marked by stone quoins. A molded stone cornice extends around the entire building. A brick parapet wall with brick and stone panels surmounts the cornice.

The north wall of the building contains seven bays. Second story bays are marked by alternating double and single, four over four, double hung sash windows. The central first story contains a three sided canted bay identical in form and fenestration to the canted bays on the facade of the building. This central bay is flanked by three pairs of single light, oblong windows surmounted by a four light transom. Beneath these first story windows are stone panels. A single story block projects from the south wall of the main block of the building. This block, constructed at the same time as the remainder of the building, is ornamented with corner quoins and a blind arcade of seven arches applied to its south wall. Above the arcade is a molded stone cornice, and this cornice is surmounted by a paneled brick parapet.

PHYSICAL DESCRIPTION (continued):

The basement is exposed at the rear of the block and is marked by five recessed brick string courses. The basement is fenestrated with one over one, double hung sashes with brick header sills and vertical stretcher brick lintels. These lintels form part of a string course that extends the length of the rear of the building beneath the sandstone water table. The rear elevation consists of 14 bays. The three bays on either end of the rear elevation project from the facade plane of the central section. The north and south sections of the rear elevation are marked by bay windows mirroring the bay windows on the front of the block. These windows, centered in the end sections, rise from the basement to the top of the first story level. The three sided, canted bays are fenestrated with two single light, casement windows on the outer walls. The windows are topped by four light transoms. The angled sides of the window are fenestration with a single light, casement window surmounted by a four light transom. The windows are set in sandstone surrounds and the angled corners of the bay are ornamented with sandstone quoins. The parapet wall above the bay windows forms a balustrade for a second story balcony. Flanking the central bay windows are single light, casement windows topped by four light transoms. These windows are set in a sandstone surround and have a sandstone shelf lintel.

Second story windows of the projecting end sections of the rear elevation consist of four over four, double hung sashes with sandstone surrounds. Above these second story windows is a molded sandstone cornice, and a paneled brick parapet rises above the cornice. The recessed central section of the rear elevation has double central, one light, two panel doors in the basement level. First story fenestration consists of three pairs of one light casement windows topped by four light transoms on either side of two bricked-over openings that appear to have originally contained similar windows. These first story windows have sandstone surrounds and shelf lintels. Illumination for the central interior staircase is provided b by three 10 over 10 double hung windows set in a sandstone surround situated between the first and second story levels. Second story windows consist of three pairs of four over four, double hung sash windows set in sandstone surrounds flanking two bricked-over window openings. These bricked-over openings apparently originally contained paired four over four, double hung windows.

A square brick electrical shed is located southeast of the Aluminum Club. This shed has sandstone quoins that echo the ornamentation of the main building. The only opening is a metal door on the south facade. Its flat roof is constructed of a concrete slab.

The main alteration of the Aluminum Club has been replacement of its historic multi-light casement windows with single light windows and the bricking-over of window openings on the rear elevation. Other alterations include the replacement of the original concrete steps with modern concrete steps and possible replacement of the brick wall extending from either side of the entry porch. These minor changes have not compromised the building's integrity of location, design, setting, materials, workmanship, feeling and association. The building continues in a use compatible with its original use and still convincingly conveys associations with its early 20th century construction date.

HISTORICAL NARRATIVE:

The Aluminum Club was constructed to provide housing for young male professional employees of Aluminum Company of America facilities in New Kensington. Construction on the building was begun in 1915 and completed in 1917.

A 1930 article in *The Alcoa News* described the building interior:

> The porch leads into the main floor corridor which provides entrance to a huge lounge, billiard room, card room, locker room, a 22 x 60 swimming pool, shower room, office and parcel room. A circular staircase leads to the second floor which has 31 bedrooms. The bedrooms are all equipped with running water. A large shower room provides ample bathing facilities.
>
> Cypress and brick have been used for the interior wood work trim. The smooth plaster walls are decorated with a two color stipple effect on an aluminum base and present an unusually attractive finish. All of the bedrooms are decorated in this fashion, a wide range of colors being employed to obtain variety. Good taste is exemplified in the club furnishings and hangings. The magnificent lounge or living room, 31 x 70 feet, is comfortably furnished with plenty of inviting couches and easy chairs (Anonymous 1930:3-4).

In 1962, the Aluminum Club building was donated to the Citizens General Hospital of New Kensington for use as a nurses' residence (Women's Club 1986:51) and is presently used as classroom space by the hospital's nursing school.

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM--PHOTO/SITE PLAN SHEET

89A

Pennsylvania Historical and Museum Commission
Bureau of Historic Preservation
Box 1026, Harrisburg, PA 17108-1026

Survey Code/Tax Parcel/Other No.: 84-L-49 County: Allegheny
Municipality: Pittsburgh Address: 272 Shady Avenue
Historic Name/Other Name: Hunt, Captain Alfred E. House

SITE PLAN

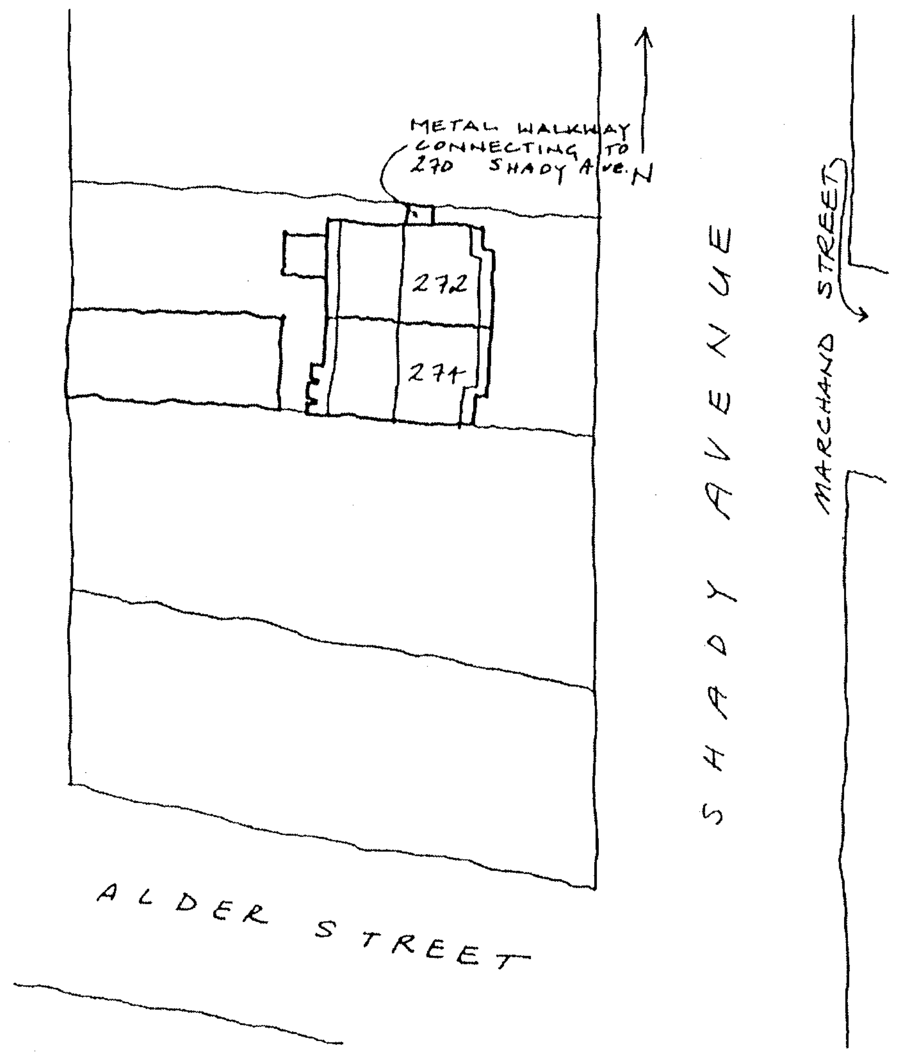
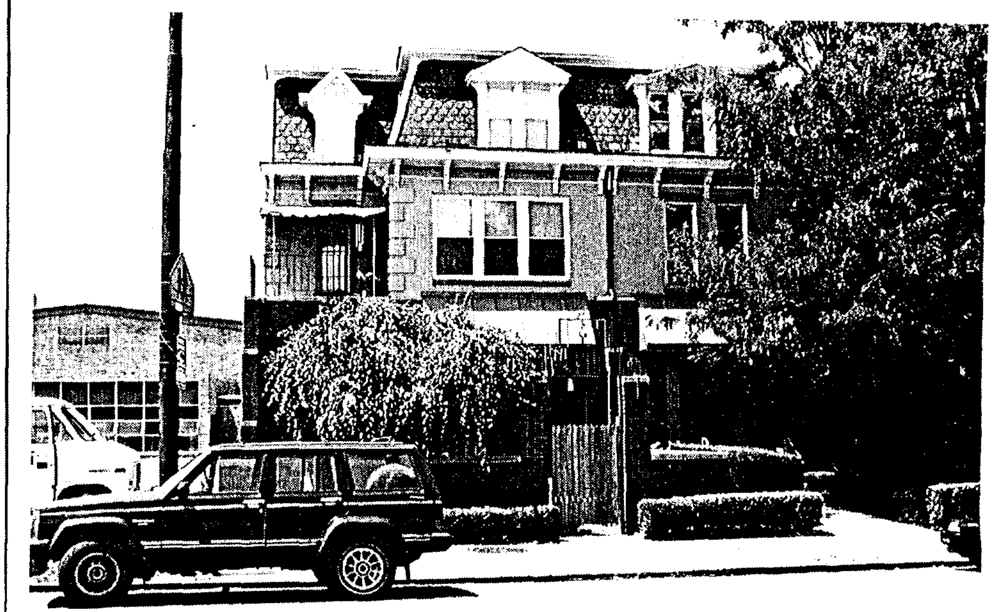


PHOTO INFORMATION

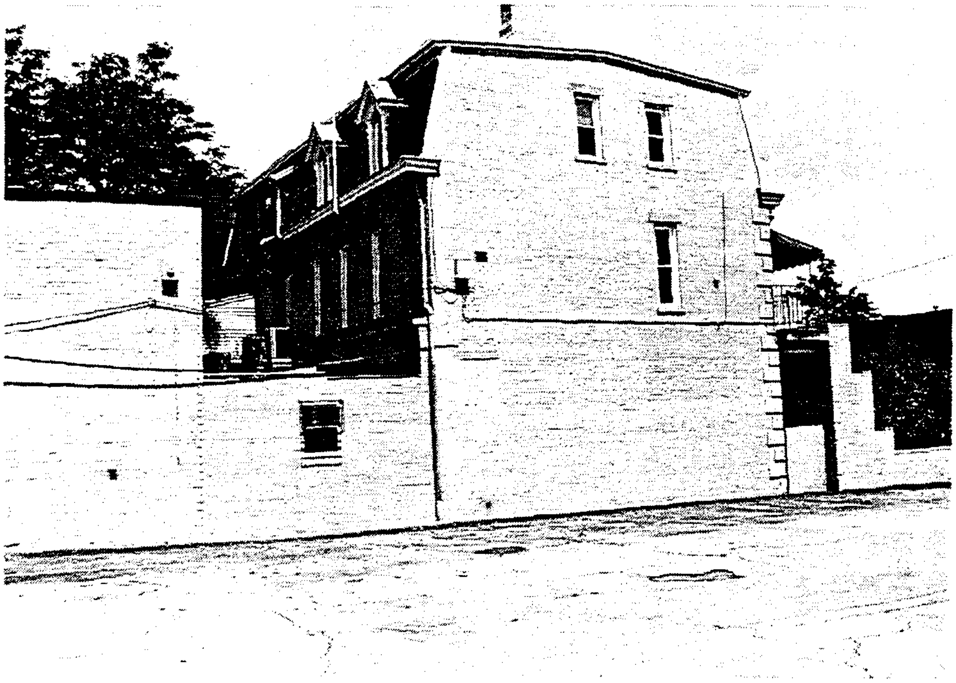
Attach Photo Here



Number	Description of View	Direction of Camera
1	Facade, 272-274 Shady Avenue	W
2	South side, 272-274 Shady Avenue	N

Photographer Name: Douglas C. McVarish Date: July 1993
Negative Location: John Milner Associates, Inc. 309 N. Matlack Street, West Chester, PA 19380

See reverse for additional instruction



PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM–DATA SHEET 89B
Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

IDENTIFICATION AND LOCATION

Survey Code: ________ Tax Parcel/Other No.: 84-L-49

County: 1. Allegheny 0 0 3 2. ________

Municipality: 1. Pittsburgh 2. ________

Address: 272 Shady Avenue

Historic Name: Hunt, Captain Alfred E. House

Other Name: ________

Owner Name/Address: Rebcar Development, Inc., 272 Shady Avenue, Pittsburgh, Pennsylvania 15206

Owner Category: X Private ___ Public-local ___ Public-state ___ Public-federal

Resource Category: X Building ___ District ___ Site ___ Structure ___ Object

Number/Approximate Number of Resources Covered by this Form: ________

USGS Quad: 1. Pittsburgh East, Pennsylvania 2. ________

UTM References: A. 17 591360 4478840 C. ________

B. ________ D. ________

HISTORIC AND CURRENT FUNCTIONS

Historic Function Category:	Subcategory	Code:
A. Domestic	Single dwelling	0 1 A
B.		
C.		
D.		

Particular Type: A. House
B. ________
C. ________
D. ________

Current Function Category:	Subcategory:	Code:
A. Commerce/Trade	Business	0 2 A
B. Domestic	Multiple dwelling	0 1 B
C.		
D.		

PHYSICAL DESCRIPTION

Architectural Classification: A. Second Empire 4 3
B. ________ C: ________
D. ________ Other: ________

Exterior Materials: Foundation ________ Roof ________
Walls Brick 3 0 Walls ________
Other ________ Other ________

Structural System: 1. Masonry: brick 2 1 2. ________

Width: ________ Depth: ________ Stories/Height 2½ B

HISTORICAL INFORMATION

Year Built: _X_ C. _1870_ to _X_ C. _1880_ Additions/Alterations Dates: _X_ C. _1970_; ___ C. ______

Basis for Dating: _____ Documentary _X_ Physical

Explain: Exterior architectural styling of house and design of recent additions.

	1.	2.
Cultural/Ethic Affiliation:		
Associated Individuals:	Hunt, Captain Alfred E.	
Associated Events:	Aluminum Company of America	
Architects/Engineers:		
Builders:		

MAJOR BIBLIOGRAPHICAL REFERENCES

Allegheny County Deed Book. Allegheny County Register of Deeds. City-County Building, Pittsburgh, Pennsylvania.

Anonymous. "Hunt, Alfred Ephraim." *The National Cyclopedia of American Biography*. 38-39. New York: James T. White and Company, 1936.

Carr, Charles C. *Alcoa: An American Enterprise*. New York: Rinehart and Company, Inc., 1952.

Hunt, Roy A. *The Aluminum Pioneers*. New York: The Newcomen Society in North America, 1951.

Taylor, Frank A. "Hunt, Alfred E." *Dictionary of American Biography*. V:381-382. New York: Charles Scribner's Sons, 1961.

PREVIOUS SURVEY, DETERMINATIONS

EVALUATION (Survey Director/Consultants Only)

Individual NR Potential: _X_ Yes ____ No Context(s): Aluminum Industry in Westmoreland and Allegheny Counties, 1888-1945

Contributes to Potential District ____ Yes _X_ No District Name/Status ________

Explain:

THREATS

Threats: _3_ 1. None 2. Public Development 3. Private Development 4. Neglect 5. Other

Explain: Building has already been substantially altered. Further alterations could obscure or remove remaining historic architectural fabric.

SURVEYOR INFORMATION

Surveyor Name/Title: Douglas C. McVarish, Project Architectural Historian Date: July 1993

Project Name: Historic Resources Survey of the Aluminum Industry in Westmoreland and Allegheny Counties, PA

Organization: John Milner Associates, Inc. Telephone: (215) 436-9000

Street and No. 309 North Matlack Street

City, State: West Chester, Pennsylvania Zip Code: 19380

Additional Survey Documentation: ________

Associated Survey Costs: ________

PENNSYLVANIA HISTORICAL RESOURCE SURVEY FORM--NARRATIVE SHEET

Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

Survey Code: ____________ Tax Parcel/Other No.: 84-L-49

County: Allegheny Municipality: Pittsburgh

Address: 272 Shady Avenue

Historic/Other Name: Hunt, Captain Alfred E. House

PHYSICAL DESCRIPTION:

The Alfred E. Hunt House is the northern half of a duplex, located on the west side of Shady Avenue north of its intersection with Alder in the Shadyside section of Pittsburgh. The surrounding area is a densely settled residential area, consisting largely of masonry, nineteenth century duplexes and row houses. Immediately south of the duplex is a parking lot, and north of the duplex is a similar brick duplex, presently attached to 272 Shady Avenue.

The facade of the duplex is set back approximately 15 feet from the sidewalk, and the yard is landscaped with low hedges and trees. A concrete walk connects the sidewalk to the front door of 272 Shady Avenue. The landscaping of the front yard of 274 Shady Avenue is more elaborate, having a brick wall and gateway. The first story of both halves of the duplex has been substantially altered in recent years.

The historic appearance of 272 Shady Avenue is shown in an illustration in Charles C. Carr's *Alcoa: An American Enterprise* (following page 28). This illustration shows a recessed entry bay at the north end of the facade. In its first story, this bay appears to have contained a two leaf entry shaded by a flat roofed single bay, wood framed entry porch. In the first story, the southern portion of the facade of 272 Shady Avenue was marked by a three sided, canted bay window elaborated with panels and paired brackets.

The bay window has been removed and replaced with a modern, metal framed, glass door, set in a concrete surround. A shed roofed standing seam metal canopy shelters this entry, as well as the entry to 274 Shady Avenue. The north bay of the facade has also been altered. An arched red brick arcade presently shelters the north doorway. The north door consists of a single large glass pane, set in a wood frame. Flanking the door are half-length sidelights. The door is surmounted by a single light transom. The brick arcade forms the base of a second story balcony. This balcony is enclosed by a modern wrought-iron railing, and a single light, wood framed door provides access to it from the house.

The historic illustration shows two narrow, one over one, double hung sash windows in the second story at the south end of the facade. The window openings remain, as do the stone lintels and sills. The lintels are carved with a central circle, flanked by rectangles. The sash windows have been replaced by single light, oblong windows. The boxed cornice is still supported by the scrollsaw cut wood brackets, shown in the historic illustration, and the mansard roof of the block retains its historic appearance. A gabled dormer projects from the south end of the roof. This gable is supported by corner brackets and is ornamented with a sunburst, formed from wood slats. The dormer is fenestrated with three one over one, double hung sash windows. A narrower, single light dormer with steeply peaked surround projects from the recessed roof slope of the north end of the facade. Its historic one over one, double hung window has been replaced by a single light, oblong window. The roof of the house is sheathed in patterned slate.

The duplex is connected to an adjoining duplex by a steel bridge, extending from the north wall of 272 Shady Avenue to the south wall of the adjoining building. In addition to a door, the north wall is pierced by two one over one windows in the third floor. A brick chimney stack projects from the center of the north wall of the duplex. A shed roofed, three bay dormer projects from the west roof slope of 272 Shady Avenue. This dormer is fenestrated with two pairs of single light windows. Fenestration of the second story consists of a single, narrow, one over one, double hung window at the south end of the west wall. This window has a stone lintel and sill. A wood framed, shed roofed, vinyl sided addition projects from the north end of the west wall of the house. The fenestration of this addition, as well as that of the first story rear elevation, is not visible.

The original portions of the house are constructed of painted brick, laid in six-course American bond. Projecting bricks at the corners of the facade resemble quoins. Additions to the facade of the house are sheathed in stretcher bond red brick.

PHYSICAL DESCRIPTION:

The substantial changes to the exterior of the house have compromised its integrity. These changes include alteration of the first story by removal of the bay window, insertion of a new front entrance, construction of an arcade, and replacement of the door at the north end of the facade. Other changes include replacement of windows in the second story of the facade, construction of a balcony at the north end of the facade, and construction of a two story, shed roofed wood framed addition that adjoins the west wall of the house. As a result of these changes, the Hunt House lacks integrity of materials and workmanship. Its integrity of design and feeling has been compromised, although the roofline of the facade still reflects the house's original Second Empire design. The house retains integrity of location and setting and continues to convey associations with the late nineteenth century date of its construction. Despite the reduction of its physical integrity due to alterations, the Hunt House is recommended eligible for the National Register because of its significant associations with the general historical theme: *The Aluminum Industry in Westmoreland and Allegheny Counties, Pennsylvania 1888-1945.* The house is recommended eligible for the National Register under Criteria A and B. As the site of the organization meeting of the Pittsburgh Reduction Company, the house is associated with events that have made a significant contribution to the broad patterns of our history. As the home of Captain Alfred E. Hunt, the house is the building most closely associated with the productive career of a person significant in the industrial history of Western Pennsylvania.

HISTORICAL NARRATIVE:

The house at 272 Shady Avenue in Pittsburgh is important not only as the residence of Alfred E. Hunt, one of the founders of the Pittsburgh Reduction Company (present Aluminum Company of America), but also as the site of the meeting in which the Pittsburgh Reduction Company was formed.

Alfred Ephraim Hunt was born in East Douglas, Massachusetts on March 31, 1855. His grandfather, Oliver Hunt, had established the Hunt Axe and Tool Works at East Douglas (Anonymous 1936:38.) Alfred Hunt attended the Massachusetts Institute of Technology, graduating in 1876 with a degree in metallurgy and mining engineering. During a portion of his senior year, he did analytic and metallurgical work for the Bay State Steel Company. After graduating from MIT, he became chemist and assistant manager of the company's open-hearth plant in South Boston. In that capacity, he assisted in the erection of the second open-hearth furnace in America.

In 1877, he moved to Nashua, New Hampshire, where he superintended the steel department of the Nashua Iron and Steel Company until 1881. In that year, he moved to Pittsburgh to become superintendent and metallurgical chemist with Park Brothers and Company, managing the open-hearth and heavy-forging department of their Black Diamond Steel Company. Two years later, he resigned and in partnership with his Black Diamond colleague, George H. Clapp, established a chemical and metallurgical laboratory and acted as a consulting engineer for many of the mills around Pittsburgh.

After the process of aluminum reduction developed by Charles Martin Hall was brought to his attention, he along with George Clapp and a group of Pittsburgh investors began organization of a company to produce aluminum through Hall's reduction process (Taylor 1961:382.) Organization of the company was begun in a meeting on July 31, 1888 that took place in the living room of the Shady Avenue house (Hunt 1951:12).

Prior to graduation from MIT, Hunt had enlisted in the National Guard. In 1884, he organized Battery B of the Pennsylvania National Guard. With the outbreak of the Spanish American War, Hunt put aside his business interests to lead his command. He contracted malaria in Puerto Rico and died of the disease in Philadelphia on April 26, 1899 (Taylor 1961:382.)

The Alfred E. Hunt House was acquired by Maria T. Hunt from Elizabeth McQuesten in an unrecorded 1887 transaction. In 1893, Maria T. Hunt and Alfred E. Hunt sold the house to Samuel Dinsmore Hubley for $7,200.00 (Allegheny County Deed Book 843:330, June 10, 1893). Following the sale of this house, the Hunts moved to a larger house located at 4916 Wallingford Street in Shadyside. An heir of Hubley, Elizabeth M. Sheeran, subsequently sold the house to Aline M. Sheffer for $10,000.00 (Allegheny County Deed Book 1294:497, December 8, 1913). After Sheffer's death, Harry F. Holthaus, executor of her estate, sold the property to William F. and Loretta Zepfel for $1.00 and other good and valuable considerations (Allegheny County Deed Book 2461:125, September 5, 1931). William Zepfel owned the property for 27 years. In 1958, he and his wife Dorothy sold the property to J. Alex Byers, Jr. and Martha Byers for $13,500.00 (Allegheny County Deed Book 3695:538, June 5, 1958). The Byerses sold the property to 272 Shady Avenue, Inc. in 1965 for $18,500.00 (Allegheny County Deed Book 4170:683, August 4, 1965). 272 Shady Avenue, Inc., later known as Shadyside Properties, Inc., sold the property to its present owner in 1977 for $36,000.00 (Allegheny County Deed Book 5771:159, May 6, 1977).

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM--PHOTO/SITE PLAN SHEET

89A

Pennsylvania Historical and Museum Commission
Bureau of Historic Preservation
Box 1026, Harrisburg, PA 17108-1026

Survey Code/Tax Parcel/Other No.: 602-K-366 County: Allegheny
Municipality: Edgeworth Borough Address: 425 Woodland Road
Historic Name/Other Name: Clapp, George H. House

SITE PLAN

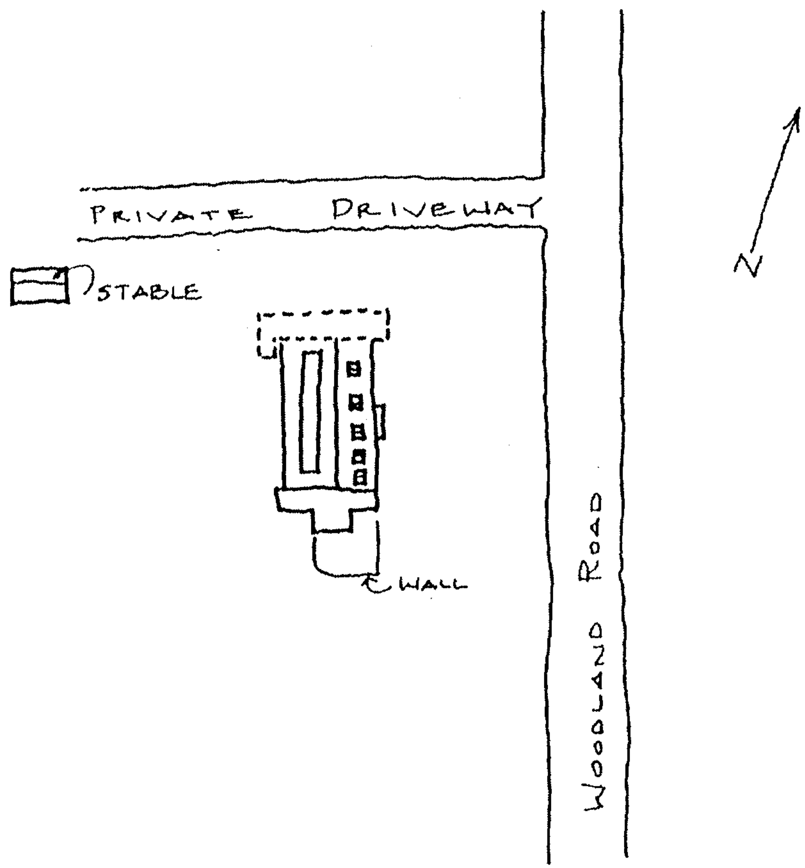


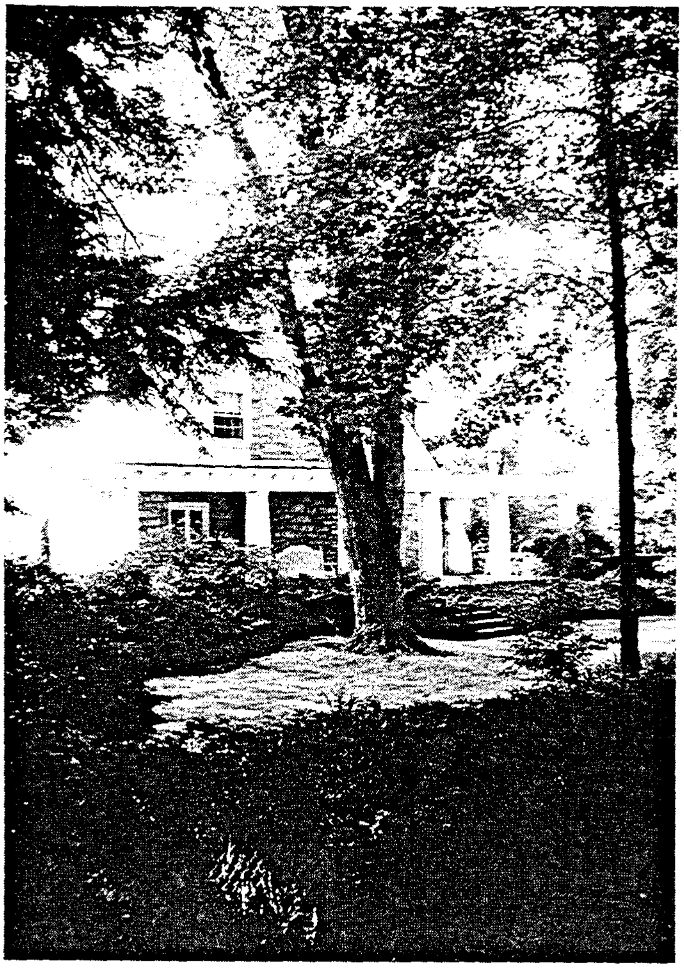
PHOTO INFORMATION

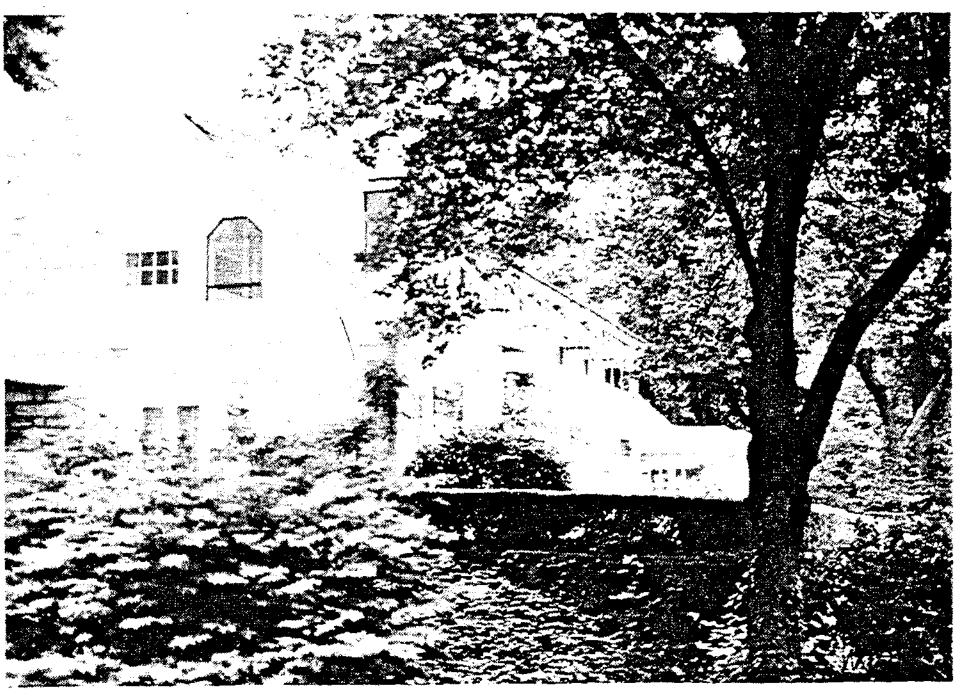
Attach Photo Here

Number	Description of View	Direction of Camera
1	East side, Clapp House	W
2	North side, Clapp House	S
3	North and West sides, Clapp House	SE

Photographer Name: Douglas C. McVarish Date: July 1993
Negative Location: John Milner Associates, Inc. 309 N. Matlack Street, West Chester, PA 19380

See reverse for additional instruction





PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM--DATA SHEET 89B

Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

IDENTIFICATION AND LOCATION

Survey Code: ____ Tax Parcel/Other No.: 602-K-366

County: 1. Allegheny 0 0 3 2. ____

Municipality: 1. Edgeworth Borough 2. ____

Address: 425 Woodland Road

Historic Name: Clapp, George H. House

Other Name: ____

Owner Name/Address: Joseph and Gloria Vales, 425 Woodland Road, Sewickley, Pennsylvania 15143

Owner Category: X Private ____ Public-local ____ Public-state ____ Public-federal

Resource Category: X Building ____ District ____ Site ____ Structure ____ Object

Number/Approximate Number of Resources Covered by this Form: 4

USGS Quad: 1. Ambridge, Pennsylvania 2. ____

UTM References: A. 17 568555 4489430 C. ____

B. ____ D. ____

HISTORIC AND CURRENT FUNCTIONS

Historic Function Category:	Subcategory	Code:
A. Domestic	Single dwelling	0 1 A
B.		
C.		
D.		

Particular Type: A. House

B. ____

C. ____

D. ____

Current Function Category:	Subcategory:	Code:
A. Domestic	Single dwelling	0 1 A
B.		
C.		
D.		

PHYSICAL DESCRIPTION

Architectural Classification: A. Colonial Revival 5 1

B. ____ C: ____

D. ____ Other: ____

Exterior Materials: Foundation ____ Roof Asphalt 6 3

Walls Stucco 6 1 Walls Stone 4 0

Other ____ Other ____

Structural System: 1. Wood--light frame 1 4 2. ____

Width: ____ Depth: ____ Stories/Height 2½ B

HISTORICAL INFORMATION

Year Built: ___ C. 1900 to 1910 C.______ Additions/Alterations Dates: ___C. ________; ___C. ______

Basis for Dating: X Documentary X Physical

Explain: Colonial Revival architectural detailing and deed research.

Cultural/Ethic Affiliation: 1. ______________ 2. ______________

Associated Individuals: 1. Clapp, George H. 2. ______________

Associated Events: 1. Aluminum Company of America 2. ______________

Architects/Engineers: 1. ______________ 2. ______________

Builders: 1. ______________ 2. ______________

MAJOR BIBLIOGRAPHICAL REFERENCES

Allegheny County Registrar of Deed. City-County Building, Pittsburgh, Pennsylvania.

Jordan, John W. "Clapp, George Hubbard." *Encyclopedia of Pennsylvania Biography*. New York: Lewis Historical Publishing Company, 1918.

Kelly, William M. *Edgeworth Club 1893-1993*. Edgeworth, Pennsylvania: Edgeworth Club, 1993.

Sewickley Public Library, Local history files, Sewickley, Pennsylvania.

Toker, Franklin. *Pittsburgh: An Urban Portrait*. University Park, Pennsylvania: Penn State University Press, 1986.

PREVIOUS SURVEY, DETERMINATIONS

EVALUATION (Survey Director/Consultants Only)

Individual NR Potential: X Yes ____No Context(s): Aluminum Industry in Westmoreland and Allegheny Counties, 1888-1945

Contributes to Potential District ____Yes X No District Name/Status ______________

Explain:

THREATS

Threats: 1 1. None 2. Public Development 3. Private Development 4. Neglect 5. Other

Explain: Property is presently occupied and well maintained.

SURVEYOR INFORMATION

Surveyor Name/Title: Douglas C. McVarish, Project Architectural Historian Date: July 1993

Project Name: Historic Resources Survey of the Aluminum Industry in Westmoreland and Allegheny Counties, PA

Organization: John Milner Associates, Inc. Telephone: (215) 436-9000

Street and No. 309 North Matlack Street

City, State: West Chester, Pennsylvania Zip Code: 19380

Additional Survey Documentation: ______________

Associated Survey Costs: ______________

PENNSYLVANIA HISTORICAL RESOURCE SURVEY FORM–NARRATIVE SHEET

89C

Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

Survey Code: ______ Tax Parcel/Other No.: 602-K-366

County: Allegheny Municipality: Edgeworth

Address: 425 Woodland Road

Historic/Other Name: Clapp, George H. House

PHYSICAL DESCRIPTION:

At the time George H. Clapp purchased the Woodland Road property in 1916, the surrounding area was becoming a fashionable residential district for Pittsburgh corporate executives. Franklin Toker wrote in *Pittsburgh: An Urban Portrait*: "The homes on Woodland bear distinguished architectural pedigrees from such society architects as Charles Barton Keen and Benno Janssen, but they are relatively new, from the 1910s and 1920s"(Toker 1986:295).

The Clapp House is typical of these executive residences. Set on a 2.5 acre lot, the house is set back from the road behind hedges and a tall wrought-iron fence. The grounds appear to be professionally landscaped with a variety of flowers, shrubs, and mature trees. In addition to the house, tax assessment records indicate that the property also includes a stable, a tool house, and a hennery.

The Clapp House is set back approximately 200 feet from the west side of Woodland Road. A wrought-iron pike fence surrounds the property, and an elaborate wrought-iron gate leads to the front walk. This slate walk extends from the sidewalk to the front door. Typical of Colonial Revival houses, the seven bay eaves front facade is symmetrical with the front door contained in the center bay. The front door is contained within an architrave surround and is flanked by four-light, three-quarter length sidelights. A balcony shelters the front door. This balcony is supported by carved wood consoles. The balcony floor also serves as the cornice for the first story. The balcony has a plain wrought-iron balustrade. Adjoining the balcony are double, 10-light doors, flanked by full-length 5-light sidelights. Fenestration of the facade consists of regularly placed windows. Central bays contain paired four over four and four light windows. Outer bays contain eight over eight, double hung sash windows on the first and second stories. All windows are flanked by ornamental louvered wood shutters. Projecting from the east roof slope are five hip roofed dormers. Each of these dormers contains an eight over eight, double hung sash window. A shed roofed dormer extends almost the entire length of the west side of the block. This dormer is fenestrated with sliding and sash windows, shaded with canvas awnings.

A pergola with short, thick columns adjoins the north wall of the house and wraps around to the rear. This pergola rests on a stone patio deck. The first story walls of the north side and rear of the block are faced with rubble. A massive exterior end coursed rubble chimney adjoins the north wall of the house. Fenestration of the north wall of the house consists of eight over eight, double hung sash windows and six light casement windows. Fenestration of the rear of the block consists primarily of single and paired eight over eight, double hung windows.

An enclosed pergola and a greenhouse adjoin the south wall of the house. The single story pergola is fenestrated with two six over six, double hung sash windows on its east side. A tall stuccoed wall extends southward from the southeast corner of the enclosed pergola. This wall has posts topped with concrete glove and a wood gate, the upper portion of which is ornamented with a star pattern, formed by offset crosses. The glass walled, gabled greenhouse adjoins the west side of the enclosed pergola. The south gable end of the main block has a massive coursed rubble chimney, and its upper wall is fenestrated with eight over eight, double hung sash windows. The walls of the house are sheathed in stucco and rubble. The house has a boxed cornice and a roof sheathed in asphalt shingles, intended to simulate cedar shakes.

A stable, converted to a secondary house, is situated about 150 feet west of the house on the south side of a drive that extends along the north boundary of the property. This one and one-half story gable roofed building is fenestrated with eight over eight, double hung windows. An enclosed shed roofed porch adjoins its east wall. The main entry door is located near the west end of the north wall and is sheltered by a hood. Reference to Sanborn maps indicates that this building may have been constructed at the same time as the main house.

The George H. Clapp House possesses integrity of location, design, setting, materials, workmanship and feeling. It clearly conveys associations with its period of occupation by George H. Clapp.

HISTORICAL NARRATIVE:

George H. Clapp, business partner of Captain Alfred E. Hunt, was one of the founders of the Pittsburgh Reduction Company, predecessor of the Aluminum Company of America. Clapp was born in Pittsburgh on December 14, 1858 and attended the Western University of Pennsylvania (present University of Pittsburgh) where he graduated in 1877. After graduation, he worked for several years in the machine shop of the Penn Cotton. He subsequently was employed by the Black Diamond Steel Works, first as a chemist and later as supervisor of their open hearth department.

In 1883, Clapp and Captain Alfred E. Hunt purchased the Pittsburgh Testing Laboratory and formed the firm of Hunt and Clapp, Analytical Chemists. In 1888, the two joined with other Pittsburgh businessmen in the formation of the Pittsburgh Reduction Company. Clapp became president of the Pittsburgh Testing Laboratory in 1893 and served successively as treasurer, secretary, and vice-president of the Aluminum Company of America. Active in civic organizations, he served as a member of the board of trustees of the Carnegie Institute of Pittsburgh and as president of the board of trustees of the University of Pittsburgh. Clapp died in Pittsburgh in 1949.

George H. Clapp married Anne Wardrop Love, daughter of Sewickley, Pennsylvania industrialist Francis Marion Love in 1881. From the time of his marriage, George H. Clapp and his wife lived at "Marion Place," the Francis Love House in Sewickley. In 1907, a newspaper report indicated that the Clapps were building a new home on Beaver Road, Leetsdale, that was expected to cost $50,000.00. This yellow brick and stone house was designed by prominent local architects Alden and Harlow. They lived in this house on Woodburn Terrace near Chestnut Road in Edgeworth until 1916. Both of these early Clapp houses have been demolished.

In 1916, Clapp purchased the T. McKee Graham House on Woodland Road in Edgeworth from Alice Elizabeth Campbell and William A. Campbell for $1.00 and other good and valuable considerations (Allegheny County Deed Book 1859:647, November 29, 1916). He divided his time between this house and Apple Blossom Cottage in Kennebunkport, Maine. After George Clapp's death in 1949, ownership of the property passed to his daughters, Marion Clapp Collin and Katherine Clapp Galbraith. In 1954, Katherine Clapp Galbraith relinquished her partial ownership of the property for $1.00 and other good and valuable considerations (Allegheny County Deed Book 3330:699, June 15, 1954).

Marion Clapp Collin died on February 23, 1978. In her will, she bequeathed the Woodland Road property to her six children. The following year, her heirs, represented by Mellon Bank, sold the 2.5781 acre property to the present owners, Joseph and Gloria Vales for $215,000.00 (Allegheny County Deed Book 6039:801, October 23, 1979).

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM--PHOTO/SITE PLAN SHEET

89A

Pennsylvania Historical and Museum Commission
Bureau of Historic Preservation
Box 1026, Harrisburg, PA 17108-1026

Survey Code/Tax Parcel/Other No.: 24-4-9-91 County: Westmoreland
Municipality: New Kensington Address: Terrace Street
Historic Name/Other Name: Aluminum City Terrace

SITE PLAN

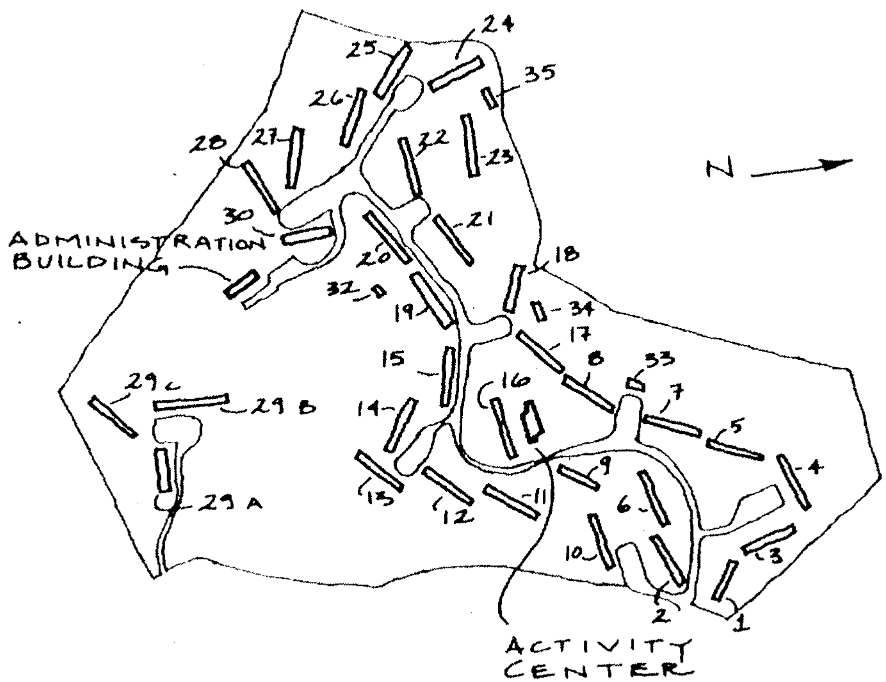


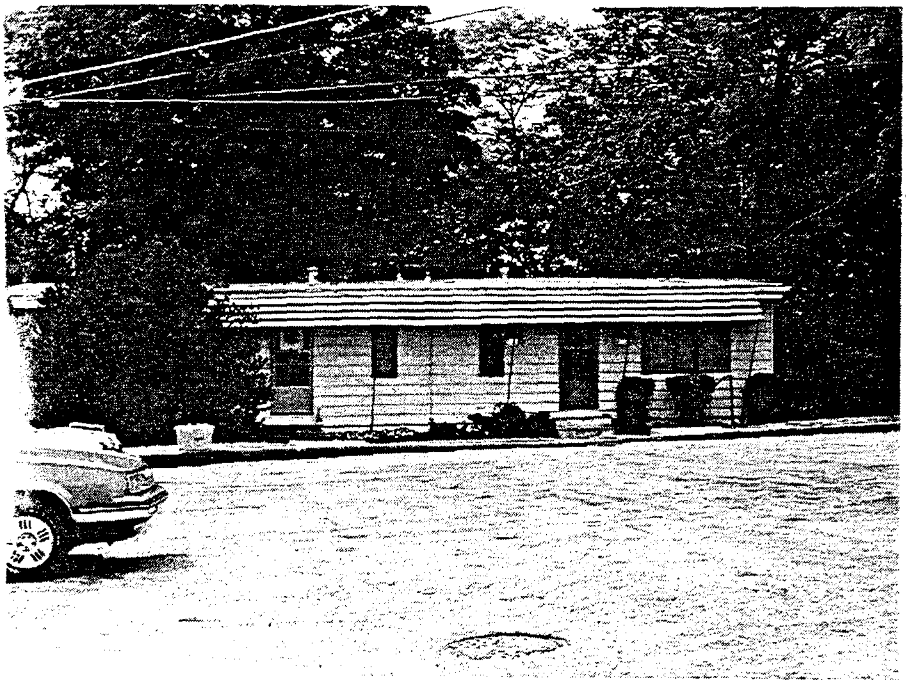
PHOTO INFORMATION

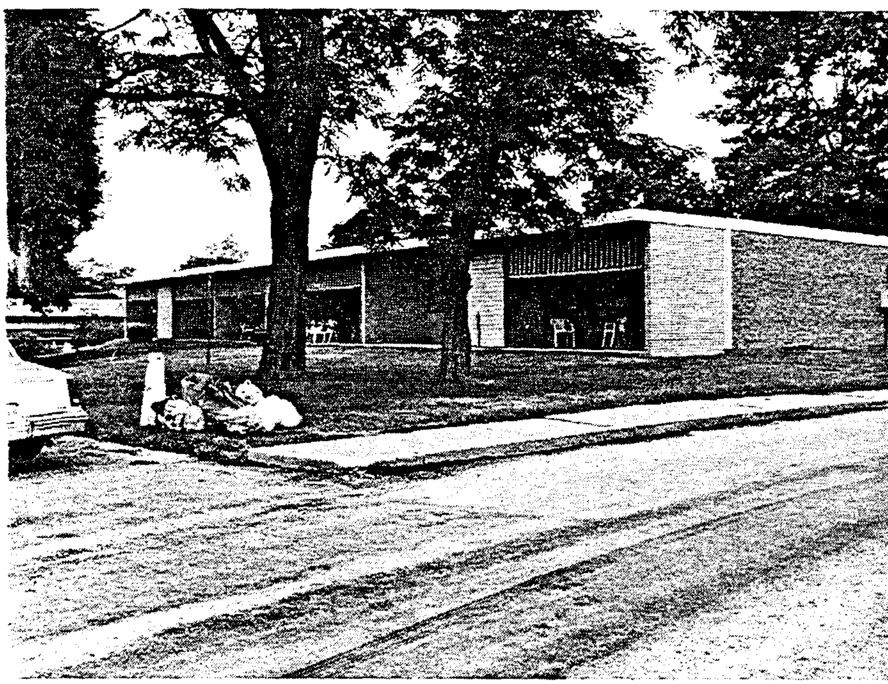
Attach Photo Here

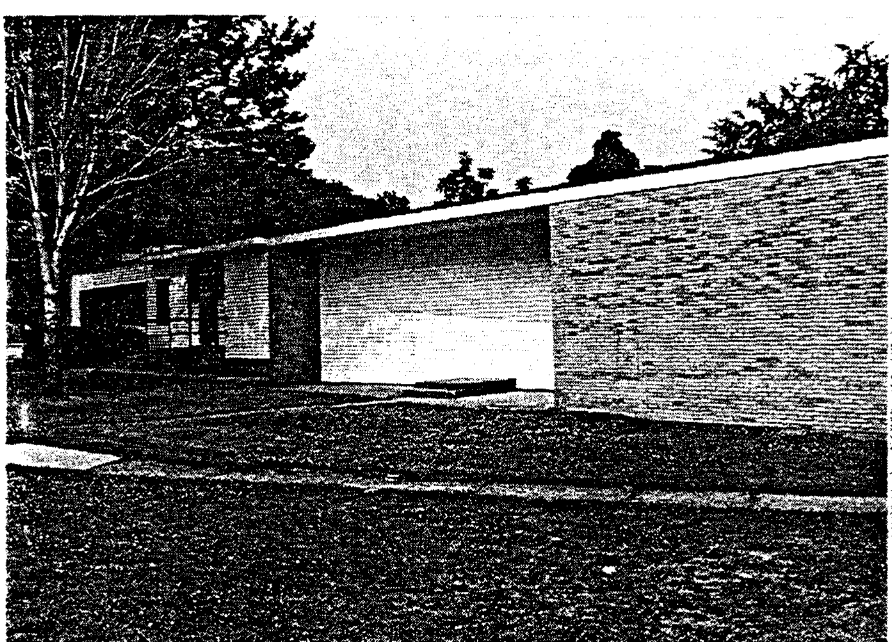
Number	Description of View	Direction of Camera
1	Community Center	NW
2	Building 34 (Duplex)	N
3	Single story, one bedroom building	S
4	Administration Building	NE
5	General view of two story units	E
6	Building 22	S

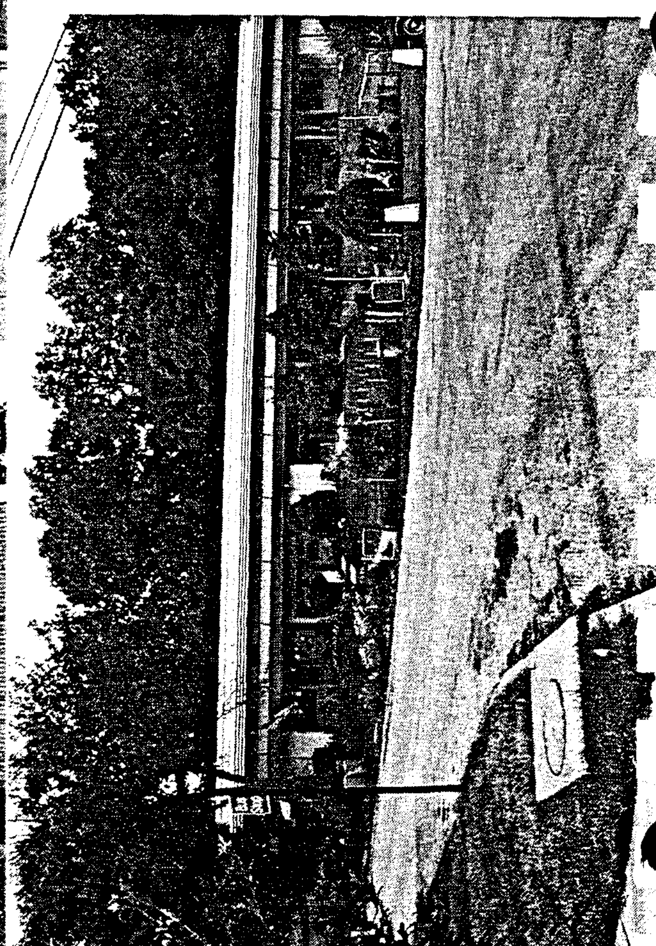
Photographer Name: Douglas C. McVarish Date: July 1993
Negative Location: John Milner Associates, Inc. 309 N. Matlack Street, West Chester, PA 19380

See reverse for additional Instruction









PENNSYLVANIA HISTORICAL RESOURCE SURVEY FORM–DATA SHEET 89B
Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

IDENTIFICATION AND LOCATION

Survey Code: ______ Tax Parcel/Other No.: 24-4-9-91

County: 1. Westmoreland 1 2 9 2. ______

Municipality: 1. New Kensington 2. ______

Address: Terrace Street

Historic Name: Aluminum City Terrace

Other Name: ______

Owner Name/Address: Aluminum City Terrace Association, Terrace Street, New Kensington, PA 15068

Owner Category: X Private ___ Public-local ___ Public-state ___ Public-federal

Resource Category: ___ Building X District ___ Site ___ Structure ___ Object

Number/Approximate Number of Resources Covered by this Form: 38

USGS Quad: 1. New Kensington East 2. ______

UTM References							
A.	17	606600	4491980	C.	17	606300	4491500
B.	17	606540	4491600	D.	17	606200	4491740

HISTORIC AND CURRENT FUNCTIONS

Historic Function Category:	Subcategory	Code:
A. Domestic	Multiple dwelling	0 1 B
B.		
C.		
D.		

Particular Type: A. Apartment complex
B. ______
C. ______
D. ______

Current Function Category:	Subcategory:	Code:
A. Domestic	Multiple dwelling	0 1 B
B.		
C.		
D.		

PHYSICAL DESCRIPTION

Architectural Classification: A. International Style 7 2

B. ______ C: ______

D. ______ Other: ______

Exterior Materials: Foundation Concrete 6 5 Roof Aggregate roofing 8 0

Walls Brick 3 0 Walls Weatherboard 2 1

Other ______ Other ______

Structural System: 1. Wood–light frame 2. ______

Width: 8 bays F Depth: 2 rooms B Stories/Height 2 B

HISTORICAL INFORMATION

Year Built: ___ C. 1941 to 1942 C.___ Additions/Alterations Dates: ___C. 1962 ; ___C. 1983

Basis for Dating: X Documentary ___ Physical

Explain: Voluminous secondary evidence gives construction date as 1941. In 1962, porches were added and awnings replaced. In 1983, the units were rehabilitated to increase energy efficiency.

Cultural/Ethic Affiliation: 1. ___ 2. ___

Associated Individuals: 1. ___ 2. ___

Associated Events: 1. World War II 2. ___

Architects/Engineers: 1. Gropius, Walter 2. Breuer, Marcel

Builders: 1. unknown 2. ___

MAJOR BIBLIOGRAPHICAL REFERENCES

Anonymous. "Aluminum City Terrace Housing." *Architectural Forum.* July 1944:67-76.

Busch-Reisinger Museum. "'Aluminum City' Housing, New Kensington, Pennsylvania." *The Walter Gropius Archive.* Volume 3. Pages 314-347. New York: Garland Publishing, Inc., 1990.

Aluminum City Terrace Association (ACTA) Files. New Kensington, Pennsylvania.

Niederberger, Mary. "Aluminum City Lives On." The Alle-Kiski Press edition of the *Pittsburgh Press.* May 15, 1983:V1 and V4.

Location: Contact Person:

PREVIOUS SURVEY, DETERMINATIONS

DiCiccio, Carmen P. *Extant Manufacturing, Transportation and Coal Mining Facilities in Westmoreland County (Opened Prior to 1935).* March 1, 1989.

EVALUATION (Survey Director/Consultants Only)

Individual NR Potential: X Yes ___ No Context(s): Aluminum Industry in Westmoreland and Allegheny Counties, 1888-1945

Contributes to Potential District ___ Yes X No District Name/Status ___

Explain: Works of Walter Gropius and Marcel Breuer; Industry: Defense Industry Housing of World War II.

THREATS

Threats: X 1. None 2. Public Development 3. Private Development 4. Neglect 5. Other

Explain: Complex is well-maintained and association is aware of the architectural significance and historic importance of complex.

SURVEYOR INFORMATION

Surveyor Name/Title: Douglas C. McVarish, Project Architectural Historian Date: July 1993

Project Name: Historic Resources Survey of the Aluminum Industry in Westmoreland and Allegheny Counties, PA

Organization: John Milner Associates, Inc. Telephone: (215) 436-9000

Street and No. 309 North Matlack Street

City, State: West Chester, Pennsylvania Zip Code: 19380

Additional Survey Documentation: ___

Associated Survey Costs: ___

PENNSYLVANIA HISTORICAL RESOURCE SURVEY FORM–NARRATIVE SHEET

89C

Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

Survey Code: ______ Tax Parcel/Other No.: 24-4-9-91

County: Westmoreland Municipality: New Kensington

Address: Terrace Street

Historic/Other Name: Aluminum City Terrace

PHYSICAL DESCRIPTION:

The design of Aluminum City Terrace grew primarily from its hilly wooded site. A single winding access road leads from Pennsylvania Route 780 through most of the project. The units are irregularly arranged along the road to take advantage of the site contours and views. Some units back up to the road while others front on the road. Central parking areas located off the access road provide parking for several adjacent groups of apartments.

An article in the July 1944 issue of *Architectural Forum* described the plan and construction of the housing units:

> Over four-fifths of the units are two stories high, with two and three bedrooms per unit. The ground floor plan is quite open with living room, dining room, and kitchen separated by only a low partition. The separate utility room, accessible from the kitchen. is larger than required by defense standards....
>
> Two-bedroom and three-bedroom plans are identical except for a projecting bedroom on the second floor. This simplified planning and construction by standardizing the units except for this optional addition.
>
> Wood frame construction has been used in a somewhat untraditional way to create the necessary wide openings for the ribbon windows without recourse to heavy lintels. On the south side, regularly spaced wood posts, located at the ends of partitions between rooms, support all of the vertical loads....
>
> Brick veneer is used on the walls on the access side, treated cedar on the southern walls with their broad windows and slatted sunshades. The general orientation of the living areas to the south, southeast or southwest allows for complete control of the sun's rays.... With a projecting hood over the windows, the hot summer sun can be excluded from the buildings without sacrificing light and view....
>
> An outside garden shed...is provided for each unit. These and fence partitions serve to divide the outdoor garden and sitting areas, from one another, giving each some degree of privacy (Anonymous 1944: 67,69,71).

Dwelling units at Aluminum City Terrace consist of three types: 2 story apartment blocks; single story apartment blocks; and duplex houses. Other buildings on the site include the Administration Building and the Community Center.

Two Story Apartment Blocks

As noted, this is the predominant building type at Aluminum City Terrace. Some of these buildings, such as 30 and 27 have the brick faced side of the block facing the access road, while other units such as 22 have the open, windowed side facing the access road. As noted, this variation is due to the architect's plan to have each unit take advantage of southern sunlight.

All of these buildings have a concrete block foundation and are set in groups of eight units. The buff brick side of each building is divided into units of two bays. Each unit has a wood frame, single light wood door and associated aluminum screen door, and the entry is shaded by an aluminum sunshade. The second first story bay of each unit contains a single light, oblong, wood framed casement window. Second story fenestration of each of the units consists of two, single light, oblong, wood framed casement windows. The roof overhangs this side of the each block. The side walls of each building are also sheathed in veneer brick. Generally, at least two units in each row of eight have bedroom bays projecting from the second story. These bedroom bays are fenestrated with two light, casement windows, and are sheathed with aluminum panels. The projecting bays are supported by regularly spaced, square metal posts, anchored in concrete.

PHYSICAL DESCRIPTION (continued):

The other side of each block is marked by aluminum awnings that shade ribbons of second story windows. The supporting struts for these awnings are angled to intersect the facade wall at the junction of a first story shed roofed porch. This porch roof is supported by brick end walls and walls separating each unit. Adjoining the dividing walls between the units is a wood framed tool shed. The first story opening of each unit consists of a central door. To either side of this door are rectangular, single light picture windows, and adjoining the picture windows are single light casement windows. Second story fenestration for each unit consists of a central two-light casement window flanked by picture windows. The second story is paneled in aluminum and aluminum coping marks the shallow sloping roofline. Roofs are generally covered with either aggregate or rolled asphalt.

<u>Single Story Apartment Blocks</u>

Four of the residential buildings on the site consist of single story, one bedroom apartment units. One building consists of six units, while the other three buildings consist of eight units. As noted in *Architectural Forum*, when built they were similar in construction to the two bedroom units:

> ...brick veneer on the fronts, vertical cedar siding and wide horizontal window rows with their sunshades on the rears. In plan they are more like the small twin units, with bedroom separated from living-dining room-kitchen and accessible from the hall (Anonymous 1944).

The brick sides of single story units are marked by recessed door bays. Fenestration consists of single light, casement windows similar to those used in two story units. The open side of the single story units contains vertical sunshades, brick end and dividing walls, and wood framed tool sheds. Located near the center of this side of each unit is a door. Fenestration consists of a combination of single light casement windows and one light picture windows.

<u>Duplexes</u>

The article in *Architectural Forum* described the small number of duplexes constructed at Aluminum City Terrace:

> Taking advantage of the picturesque slope where the hilltop sheers off into the river valley, four small, semidetached houses are perched on stilts at the edge of the slope [numbers 32-35]....
>
> The twin units are quite different in plan from the two-story row houses. Here the living room, dining room and kitchen are completely open, lacking even the low partition used in other plans. In the original design even the bedroom has no partition between it and the living room, but a wall was actually built.
>
> Another feature of these apartments is the cantilevered porch projecting from the ends. All walls are of vertical cedar siding (Anonymous 1944).

The single story duplexes are located at the ends of some of the parking areas off the access road. The facades of these one story buildings are shaded by aluminum sunshades and the facade walls are clad in aluminum siding. The facade of each of the two units in each duplex contains the following openings: a single light casement window, a door, and a single light casement window flanked by picture windows.

<u>The Community Center</u>

The brick and clapboard veneer community center is located near the center of the complex. It is set back approximately 20 feet from the access road and a small parking lot is located on its north side. The block of the building is divided into two sections, a taller, three bay block to the south, and a shorter two bay block to the north. The facade of the south block is fenestrated with three oblong panels of glass blocks. Double metal entry doors are located in the east wall of the lower section. This entrance is shaded by a flat cantilevered porch hood. North of this door are corner four-light casement windows. A square brick exterior chimney adjoins the north wall of the community center.

The south wall of the community center contains two pairs of double metal doors with adjoining concrete steps and a single metal door at the rear of the wall. Fenestration of this wall consists of 12 light casement windows. Sills of these windows are marked by projecting brick headers. The sill marks the transition from darker brick of the lower wall to lighter brick in the upper wall.

PHYSICAL DESCRIPTION (continued):

Administration Building

The single story administration building is clad with a combination of brick veneer and aluminum siding. The center bay of its facade is recessed. Fenestration consists of a combination of two light casement windows and picture windows. The building has its primary entry door on its west wall and a wood frame porch adjoins this door. Because of its sloping site, the basement of the building is partly exposed on its east wall.

In the fifty years since the completion of Aluminum City Terrace changes have been made. The original cedar siding on the buildings has been replaced with aluminum siding, the wood sunshades have been replaced by aluminum, and the buildings have been reoriented by the addition of aluminum porch awnings on the brick side. A few of the units have been significantly altered by the enclosure of the porch to provide an additional room. Despite these changes, the complex as a whole retains its integrity of location, design, setting, materials, workmanship, feeling and association. Aluminum City Terrace still convincingly conveys associations with its World War II era date of construction.

HISTORICAL NARRATIVE:

Under the provisions of the United States Housing Act of 1937, individual states established Defense Housing Coordinators in 1940 to adjust construction to the war era economy. Beginning in 1941, defense housing was constructed close to industries important to the war effort to accommodate the large number of workers who moved from other parts of the country to work in defense plants (Busch-Reisinger Museum 1990: 3:314).

As part of the defense housing effort, the United States government's housing program had redirected its mission, emphasizing improvements and innovations in housing standards and making the shift in assigning housing projects from staff civil service architects to, as it was phrased at the time, "outstanding modern architects" (ACTA Files) .

Among the defense projects undertaken by noted architects were Avion Village, near Dallas, designed by Richard Neutra; housing for 200 defense workers in Detroit by Eliel Saarinen; housing at Middletown, Pennsylvania, by George Howe; and 1,602 units at the Mare Island, California, Naval Shipyard by the San Francisco architect, William W. Wurster. The partnership of Walter Gropius and Marcel Breuer was selected to design housing for aluminum and other defense workers in New Kensington.

Typical of defense housing projects, Gropius and Breuer faced both tight deadlines and a tight budget. A memorandum from the architects' office (ACTA Files) indicates that the office produced the drawings for the New Kensington Defense Housing Project in fourteen days after the approval of the preliminaries, and twenty-four days after the arrival of topographic information. In less than a month, all the drawings and specifications for the 250 family project were produced. The design required 5,000 man hours of work including 35 straight hours at the end of the design phase.

Defense housing was required not to cost more than an average of $3,500.00 per unit. An article in *Time* (August 25, 1941, in ACTA Files) that appeared while construction was underway indicated that the "units are uncrowded, fresh in design, improved and budgeted like many a more expensive house." Total development costs were $1,228,470.41 of which $50,000.00 went for land, $305,581.04 for utilities and site development, and $796,952.00 for building construction (Anonymous 1944:67). The average cost per unit was $3,188.00.

Gropius and Breuer described the project in a memo dated July 2, 1941:

> The peculiarities of the site allowed a plan in which almost all the main windows have an uninterrupted view toward the south. By a careful location of the buildings resulting from consideration of the natural contours, the units themselves have a loose, informal relationship to each other, each location combining the most favorable orientation, view and least expensive foundation work.
>
> The general orientation of the living areas to the south allows a complete control of the sun's rays. In this latitude, the summer sun has a very steep angle while the winter rays are much lower. With a horizontal louvered frame over the windows, the hot summer sun can be completely eliminated outside of the building, without sacrificing light and view, while in the winter, the rays of the sun pass under the frame and penetrate deep into the room. In all the dwelling units, these specially designed frames will produce desirable year round sun-control (ACTA Files).

Gropius and Breuer further described the construction of the buildings:

> The buildings will be faced principally with a light brick and a natural wood. The brick is only used where there are no large openings. On the south side, the wide openings are taken care of in wood, a light, traditional construction that reduces weight and eliminates steel supports over the wide spans.
>
> The walls are designed so that a system of prefabrication on the site can be employed. Large panels can be made on a jig table, stored in piles, and set on the ground floor joists and rough flooring as an erecting platform. The trim has been simplified for minimum mill work and simplest installation. Door and window details are standard through the whole job and can be set in place already made up, avoiding expensive field work and adjustments (ACTA Files).

The 250 units include rows containing 202 two story, two and three bedroom units, 30 one bedroom units in one story rows, and eight one bedroom duplexes. Amenities provided for the original tenants included a community center containing a large meeting room with a demonstration kitchen, a terrace over a ravine, a room for arts and crafts and a nursery and playground for pre-school children.

HISTORICAL NARRATIVE (continued):

According to one source, the project was not an immediate success. Only 34 families were reported to have moved into the complex when it first opened. As a result, the complex was opened to workers not employed in critical defense industries. The same source indicates that only 188 units were occupied in 1944 (Busch-Reisinger Museum 1990:3:314). Another source indicated that the complex was fully occupied by the summer of 1944 (Anonymous 1944:66). The modern design of the buildings evoked substantial controversy as local newspapers and politicians called the complex chicken coops or rabbit hutches (Anonymous 1944:67). Despite these complaints, the basic design of the complex was approved by most tenants.

Following the end of World War II, the complex was first offered to the city of New Kensington for use as low-rent housing. The city rejected that offer, and the government was obligated to offer it for sale to the tenants.

At a meeting of the tenants held in late 1947, an overwhelming majority voted in favor of buying the project. After negotiations and consideration of government regulations, the tenants were able to obtain a Federal Housing Administration mortgage for 90 percent of the purchase price of $560,356.00 About two-thirds of the original tenants paid $350.00 for shares in a cooperative established to purchase the project. That offering raised about $56,000.00, enough for the required 10 percent down payment. Tenants who formed the cooperative were also charged a maintenance fee of $30.00 per month (Niederberger 1983:V1).

Over 45 years after its formation, Aluminum City Terrace remains a cooperative with its buildings and land owned by the Aluminum City Terrace Association. As of 1983, a share in the cooperative cost $3,550.00 and the monthly fee covering gas, water, sewer, cable television, garbage collection, and maintenance was $150.00 (Niederberger 1983:V1).

In 1966, the complex was repaired and rehabilitated under the supervision of New Kensington architect Michael Shamey. This rehabilitation included the addition of porches to the brick sides of the buildings, the replacement of the original sunshades with aluminum sunshades, and the designation of private garden areas. A second rehabilitation took place in 1983 and included the addition of insulation and the installation of double glass pane windows (ACTA Files).

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM--PHOTO/SITE PLAN SHEET

89A

Pennsylvania Historical and Museum Commission
Bureau of Historic Preservation
Box 1026, Harrisburg, PA 17108-1026

Survey Code/Tax Parcel/Other No.: 24-3-15-37 County: Westmoreland
Municipality: New Kensington Address: 1035 Third Avenue
Historic Name/Other Name: United Steel Workers of America Local 302 Union Hall

SITE PLAN

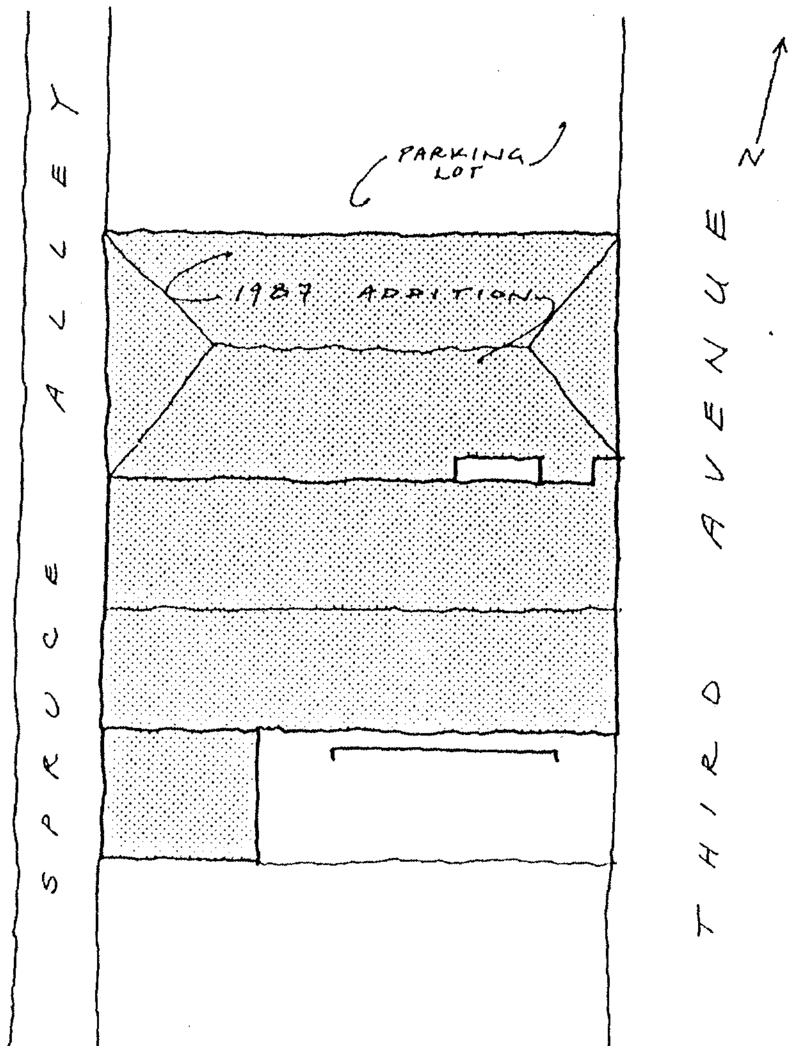


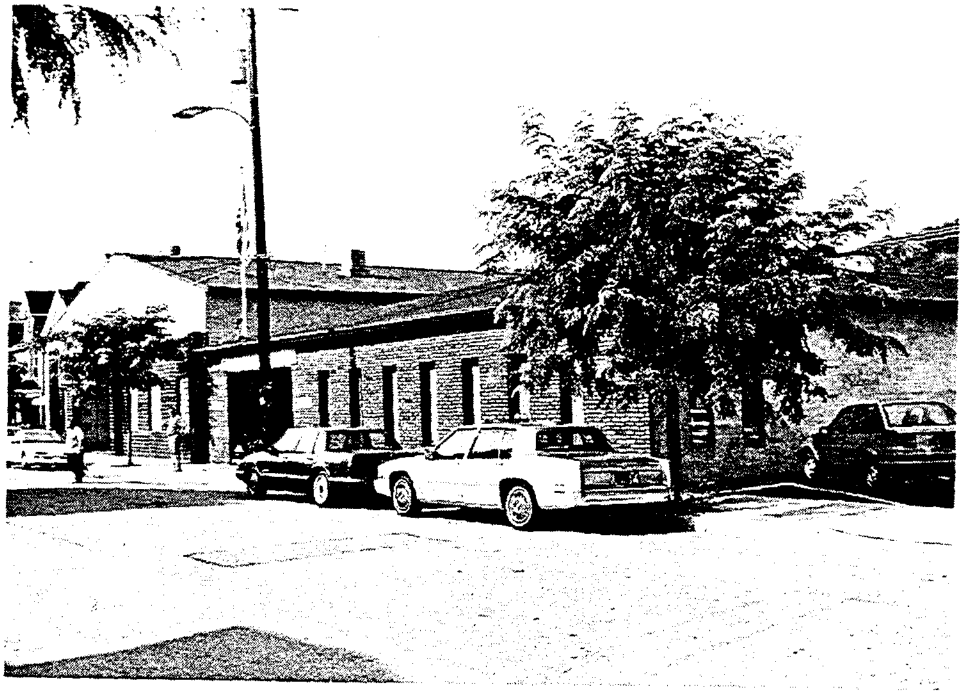
PHOTO INFORMATION

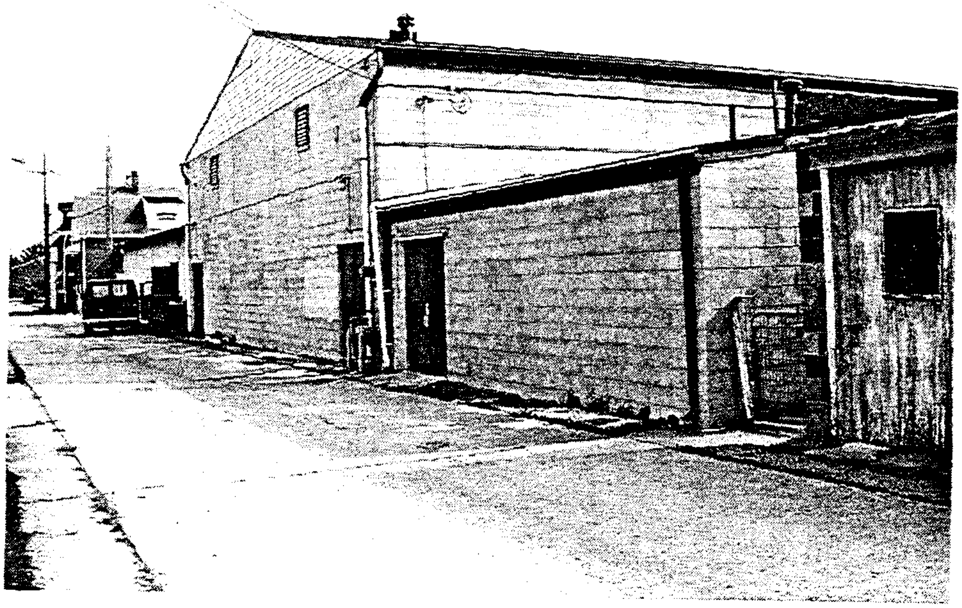
Attach Photo Here

Number	Description of View	Direction of Camera
1	Facade and portion of North wall	W
2	North wall and Addition	SW
3	Rear and South wall	N

Photographer Name: Douglas C. McVarish Date: July 1993
Negative Location: John Milner Associates, Inc. 309 N. Mallack Street, West Chester, PA 19380

See reverse for additional instruction





PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM--DATA SHEET 89B

Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

IDENTIFICATION AND LOCATION

Survey Code: ______ Tax Parcel/Other No.: 24-3-15-37

County: 1. Westmoreland 1 2 9 2. ______

Municipality: 1. New Kensington 2. ______

Address: 1035 Third Avenue

Historic Name: United Steel Workers of America Local 302 Union Hall

Other Name: Alle-Kiski Valley Senior Citizens Center

Owner Name/Address: Alle-Kiski Valley Senior Citizens Center, Inc., 1025 Third Avenue, New Kensington, PA 15068

Owner Category: X Private ___ Public-local ___ Public-state ___ Public-federal

Resource Category: X Building ___ District ___ Site ___ Structure ___ Object

Number/Approximate Number of Resources Covered by this Form: 1

USGS Quad: 1. New Kensington West 2. ______

UTM References: A. 17 604260 4490220 C. ______
B. ______ D. ______

HISTORIC AND CURRENT FUNCTIONS

Historic Function Category:	Subcategory	Code:
A. Social	Meeting hall	0 3 A
B.		
C.		
D.		

Particular Type: A. Union hall
B.
C.
D.

Current Function Category:	Subcategory:	Code:
A. Social	Meeting hall	0 3 A
B.		
C.		
D.		

PHYSICAL DESCRIPTION

Architectural Classification: A. Modern Movement 7 0
B. ______ C: ______
D. ______ Other: ______

Exterior Materials: Foundation Concrete 6 5 Roof Asphalt 6 3
Walls Concrete 6 5 Walls Ceramic tile 6 7
Other ______ Other ______

Structural System: 1. Concrete 5 0 2. ______

Width: 5 Bays E Depth: c.125 feet Stories/Height 1 A

HISTORICAL INFORMATION

Year Built: X C. 1953 to _ C.____ Additions/Alterations Dates: 1987 C. _____; ____C. _____

Basis for Dating: X Documentary _____ Physical

Explain: Date of initial construction indicated on 1957 Sanborn map. Date of addition of the Pallone wing is indicated on a plaque in the lobby.

	1.	2.
Cultural/Ethic Affiliation:	Italian	Polish
Associated Individuals:		
Associated Events:	Aluminum workers union	
Architects/Engineers:		
Builders:		

MAJOR BIBLIOGRAPHICAL REFERENCES

Meyerhuber, Jr., Carl I. "Organizing Alcoa: The Aluminum Workers' Union in Pennsylvania's Allegheny Valley, 1900-1971." *Pennsylvania History* 48, July 1981:195-219.

_____. *Less than Forever: The Rise and Decline of Union Solidarity in Western Pennsylvania, 1914-1948.* Selinsgrove, Pennsylvania: Susquehanna University Press, 1987.

Westmoreland County Deeds. Office of the Registrar of Deeds. Westmoreland County Courthouse, Greensburg, Pennsylvania.

PREVIOUS SURVEY, DETERMINATIONS

EVALUATION (Survey Director/Consultants Only)

Individual NR Potential: _____Yes X No Context(s): Aluminum Industry in Westmoreland and Allegheny Counties, 1888-1945

Contributes to Potential District X Yes ____No District Name/Status New Kensington Historic District/ Recommended

Explain: Although less than 50 years old, the building is significant as the offices of the aluminum workers union. It is recommended as a contributing resource within the recommended historic district.

THREATS

Threats: 1 1. None 2. Public Development 3. Private Development 4. Neglect 5. Other

Explain: Building continues in active, compatible use.

SURVEYOR INFORMATION

Surveyor Name/Title: Douglas C. McVarish, Project Architectural Historian Date: July 1993

Project Name: Historic Resources Survey of the Aluminum Industry in Westmoreland and Allegheny Counties, PA

Organization: John Milner Associates, Inc. Telephone: (215) 436-9000

Street and No. 309 North Matlack Street

City, State: West Chester, Pennsylvania Zip Code: 19380

Additional Survey Documentation:__________

Associated Survey Costs:__________

PENNSYLVANIA HISTORICAL RESOURCE SURVEY FORM–NARRATIVE SHEET

Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

Survey Code: ______ Tax Parcel/Other No.: 24-3-15-36

County: Westmoreland Municipality: New Kensington

Address: 1035 Third Avenue

Historic/Other Name: United Steel Workers of America Local 302 Union Hall

PHYSICAL DESCRIPTION:

The historic Local 302 Union Hall is situated on the west side of Third Avenue between Tenth and Eleventh streets. Historically a residential street, lined with large two and two and one-half story, brick and wood framed houses, its character has been somewhat altered by the construction and enlargement of the union hall. The union hall and its adjacent wing and parking area occupy lots formerly occupied by several houses.

According to a Sanborn insurance map, the union hall was constructed in 1953. Its historic appearance is shown in a photograph published in the *New Kensington Jubilee Souvenir Book 1966*, issued by the City of New Kensington. This photograph shows a flat roofed, single storied block with a low, stepped parapeted facade. In recent years, this original flat roof has been replaced by a gable roof, its gable ends sheathed in vinyl siding. An addition was also constructed to the north side of the block.

The original portion of the hall is a single story, rectangular block with walls constructed of concrete block. The east facade of the block is divided into five bays, and the divisions of the facade are delineated by projecting square piers. The first story wall is sheathed in ceramic tiles. Fenestration of the facade consists of panels of glass blocks. At the south end of the facade is a panel consisting of 27 glass blocks. At the north end of the facade are three panels consisting of 54 glass blocks. A rectangular recess, containing the main entrances to the building, is situated in the southern portion of the facade. The side walls of the recess contain double doors. The south side wall contains metal doors with two rectangular lights in the upper portions. The north side wall contains two metal framed glass doors. The rear wall of the recess contains a large panel constructed of glass bricks. Above the first story bays is a buff brick veneer wall, surmounted by the roof gable clad in vinyl siding. The rear wall of the main block of the hall is constructed of unsheathed concrete blocks. At either end of the rear wall are double metal doors. The upper section of the rear wall is pierced by two, rectangular, louvered metal vents.

Two additions have been made to the original block of the building. Adjoining the rear of the south wall is a shed roofed concrete block. Double metal doors are situated at the north end of the rear wall. A single story hipped roof addition is connected to the north wall of the main block by a gable roofed hyphen. The facade of this addition is sheathed in brick veneer. Double glass, metal framed doors are set within a rectangular recess at the south end of the addition. North of the recess are six single light, fixed oblong windows. Two single light oblong windows are located near the east end of the north wall. The rear wall of the addition is pierced by a set of double metal doors. The hipped roof of the addition is sheathed in asphalt shingles. Projecting from the roof ridge are are two prefabricated cupolas, each topped with a weathervane.

As noted, the building has been altered through additions and through the construction of a gabled roof. Despite these alterations, the basic historic architectural form of the building is readily recognizable. The building possesses integrity of location, design, setting, materials, workmanship, and feeling, and clearly conveys associations to its 1953 date of construction.

HISTORICAL NARRATIVE:

This building is significant as a physical remnant of the important role that unionism played in the aluminum industry in New Kensington. From the time of its construction in 1953 to the termination of Alcoa's production operations in New Kensington in 1971, the hall served as a gathering place for Alcoa workers and as an office for the union.

The first aluminum workers' union was organized in 1900 shortly after workers at the New Kensington Works staged their first strike against the Pittsburgh Reduction Company (Meyerhuber 1987:180). Local 8261, Aluminum Workers Union, AFL was short lived. In 1907, the Aluminum Company of America moved against the union by hiring replacement non-union machinists during a brief strike. In 1908, a depression year, the company issued an ultimatum that members of the Aluminum Workers Union rescind their charter and disband their organization or face the loss of their jobs. The union membership quickly complied.

Union organization of the Alcoa workers began again in July 1933 when organizers for the Allegheny Valley Central Labor Union appeared at the gates of the New Kensington Works. On August 1, 1933, the Aluminum Workers Union Local 18356 was chartered by the AFL. Initial organizers of the union included Nick Zonarich, John Haser, and Mary Peli. Initial membership totalled 3,300, but by January 1935, active membership had been reduced to 17. Much of this attrition was due to Alcoa's action. Its own Employee Representation Plan was promoted throughout New Kensington. Workers who subscribed to the plan were given preferential treatment by local merchants and company foreman, and retail credit dried up for employees who supported the union (Meyerhuber 1987:182-183).

From the beginning of its affiliation with the AFL, the local had a tumultuous relationship with the parent organization (Meyerhuber 1987:185). The National Recovery Act (NRA) provided a wage scale for aluminum workers, a scale endorsed by the AFL. The local's membership overwhelmingly rejected the NRA's codes for the aluminum industry. Wildcat strikes by aluminum workers in 1934 further widened the breach. In 1937, the union left the AFL and affiliated itself with the CIO. The former AFL Local 18356 became Local 2, Aluminum Workers of America (AWA). Nick Zonarich was elected international president, and John Haser became business agent for Local 2 (Meyerhuber 1987:190-191). By 1940, its membership had grown to 7,075 (Meyerhuber 1987:193), and union supporters were represented on school boards, city councils, county commissions, as mayors and burgesses, and in the offices of district attorney and sheriff (Meyerhuber 1987:191).

After reaching a peak of power, the influence of the union waned. Conflict erupted in late 1940 over the alleged influence of Communists in the union. Although the growing workforce at Alcoa's New Kensington works added to the union membership rolls, the financial condition of the AWA remained precarious. The budget could only support the officers' salaries and an organizing staff of five. Union president Nick Zonarich had always supported one large industrial union for all workers in the metals industry, and Local 2 official John Haser anticipated a major struggle between the AWA and Alcoa after the end of the war. The union's meager financial resources could not support this struggle. Haser and Zonarich began to quiety promote the merger of the AWA with the United Steel Workers of America (USWA) (Meyerhuber 1987:193-195).

Initial reports indicated that the amalgamation would be recognized in the new name of the combined union, the United Steel and Aluminum Workers of America, and that the aluminum workers would continue to be supported by an organizing staff and business agent. The amalgamation was effected without AWA membership debate, and the local was reorganized as Local 302. The promised name change never occurred, and many aluminum workers felt neglected by the USWA. In the first years of consolidation, allegations of wrongdoing among the local officers caused a stormy relationship between Local 302 and its parent union (Meyerhuber 1987:195-196). Eventually these disputes were resolved, but the union local's power decreased with the reduction in New Kensington operations. By 1966, membership of the local had decreased to 2,200, and shop closings threatened 500 more jobs. By March 31, 1971, all Alcoa manufacturing operations in the New Kensington area had been eliminated (Meyerhuber 1981:*219).*

The land on which the union hall was constructed was sold by Mary Gallagher, et al. to the trustees of Local 2, AWA in 1940 (Westmoreland County Deed Book 1076:398, November 16, 1940). After the aluminum workers union became part of the the USWA, the former union trustees sold the lot to the trustees of Local 302, USWA for $1.00. The deed indicates that the parcel was vacant (Westmoreland County Deed Book 1428:582, July 19, 1951). Two years later, Local 302 erected their union hall on the lot.

In March 1989, the USWA, Local 1408 (formerly Local 302) sold the parcel of land containing the union hall to the Alle-Kiski Senior Citizens Center, Inc. for $50,000.00 (Westmoreland County Deed Book 2866:337, March 24, 1989). The senior center apparently had been renting the facility from the union for a number of years prior to this sale.

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM--PHOTO/SITE PLAN SHEET

89A

Pennsylvania Historical and Museum Commission
Bureau of Historic Preservation
Box 1026, Harrisburg, PA 17108-1026

Survey Code/Tax Parcel/Other No.: 2-2-7-139 County: Westmoreland
Municipality: Arnold Address: 217 Sixteenth Street
Historic Name/Other Name: Potts, Bernard P. House

SITE PLAN

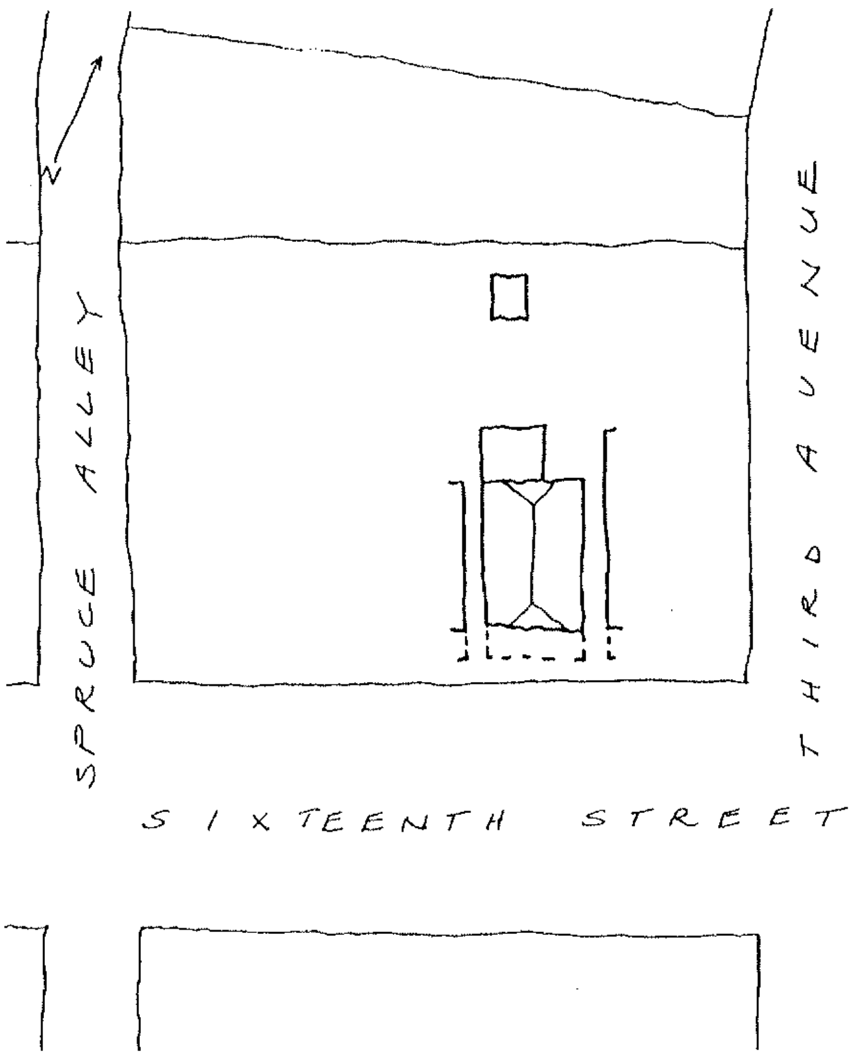
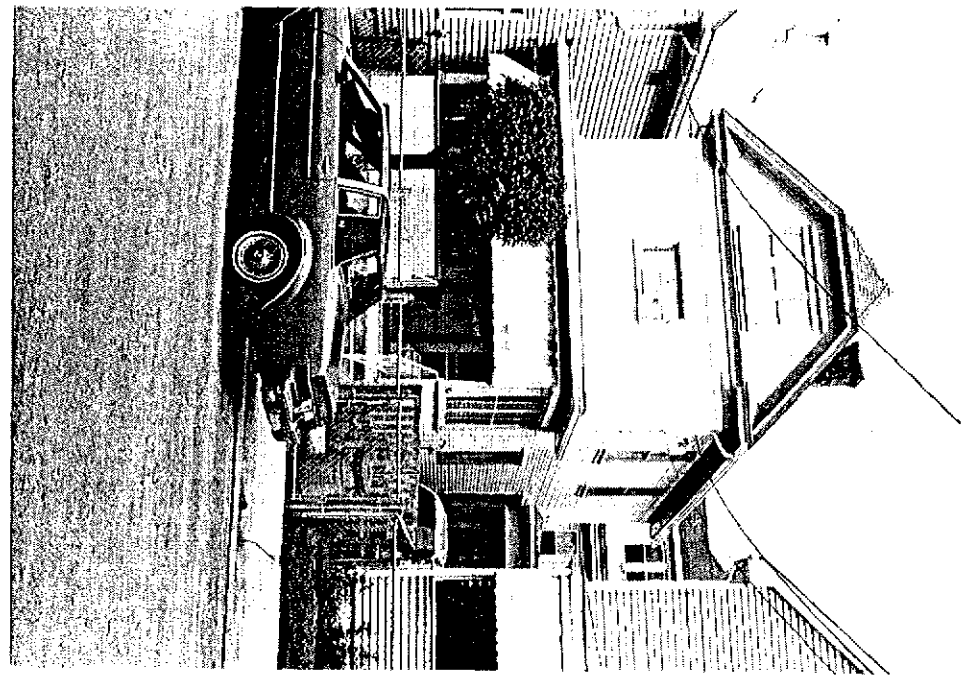


PHOTO INFORMATION

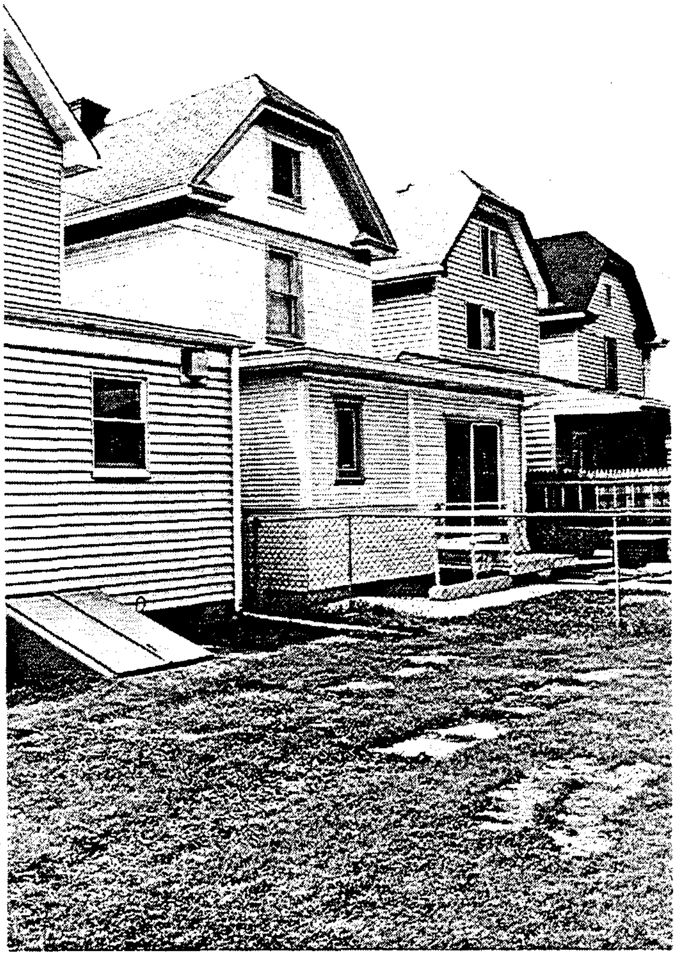
Attach Photo Here



Number	Description of View	Direction of Camera
1	South facade	NW
2	Rear and portion of East side	SW

Photographer Name: Douglas C. McVarish Date: July 1993
Negative Location: John Milner Associates, Inc. 309 N. Matlack Street, West Chester, PA 19380

See reverse for additional instruction



PENNSYLVANIA HISTORICAL RESOURCE SURVEY FORM--DATA SHEET 89B
Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

IDENTIFICATION AND LOCATION

Survey Code: ______ Tax Parcel/Other No.: 2-2-7-139

County: 1. Westmoreland 1 2 9 2. ______

Municipality: 1. Arnold 2. ______

Address: 217 Sixteenth Street

Historic Name: ______

Other Name: Potts, Bernard P. House

Owner Name/Address: Bernard P. Potts, c/o Guaranty Savings and Loan Assoc., 12000 Frankstown Road, Pittsburgh, PA

Owner Category: X Private ___ Public-local ___ Public-state ___ Public-federal

Resource Category: X Building ___ District ___ Site ___ Structure ___ Object

Number/Approximate Number of Resources Covered by this Form: 2

USGS Quad: 1. New Kensington West 2. ______

UTM References: A. 17 604060 4492220 C. ______
B. ______ D. ______

HISTORIC AND CURRENT FUNCTIONS

Historic Function Category:	Subcategory	Code:
A. Domestic	Single dwelling	0 1 A
B.		
C.		
D.		

Particular Type: A. House
B.
C.
D.

Current Function Category:	Subcategory:	Code:
A. Domestic	Single dwelling	0 1 A
B.		
C.		
D.		

PHYSICAL DESCRIPTION

Architectural Classification: A. Jerkinhead gable front house 8 0
B. ______ Other: ______

Exterior Materials: Foundation Stone 4 0 Roof Asphalt 6 3
Walls Wood: weatherboard 2 1 Walls ______
Other ______ Other ______

Structural System: 1. Timber--light frame 1 4 2. ______

Roof System: Material ______ System: ______

Width: 2 Bays B Depth: 2 Rooms B Stories/Height: 2½ B

Power System: ______

Machinery:

Archeological Remains:

HISTORICAL INFORMATION

Year Built: X C. 1915 to _ C.____ Additions/Alterations Dates: X C. 1980 ; ___C. ______

Basis for Dating: X Documentary X Physical

Explain: Increase in value as demonstrated in deeds for the parcel suggests that the house was constructed in the 1910s. Exterior appear of rear porch suggests c. 1980 alterations.

Cultural/Ethic Affiliation: 1. ____________ 2. ____________

Associated Individuals: 1. ____________ 2. ____________

Associated Events: 1. ____________ 2. ____________

Architects/Engineers: 1. ____________ 2. ____________

Builders: 1. ____________ 2. ____________

MAJOR BIBLIOGRAPHICAL REFERENCES

Westmoreland County Deed Books. Office of the Registrar of Deeds. Westmoreland County Courthouse, Greensburg, Pennsylvania.

PREVIOUS SURVEY, DETERMINATIONS

EVALUATION (Survey Director/Consultants Only)

Individual NR Potential: _____Yes X No Context(s): Aluminum Industry in Westmoreland and Allegheny Counties, 1888-1945

Contributes to Potential District X Yes _____No District Name/Status Arnold Historic District/Recommended

Explain:

THREATS

Threats: 1 1. None 2. Public Development 3. Private Development 4. Neglect 5. Other

Explain: Building is well-maintained and remains in single family residential use.

SURVEYOR INFORMATION

Surveyor Name/Title: Douglas C. McVarish, Project Architectural Historian Date: July 1993

Project Name: Historic Resources Survey of the Aluminum Industry in Westmoreland and Allegheny Counties, PA

Organization: John Milner Associates, Inc. Telephone: (215) 436-9000

Street and No. 309 North Matlack Street

City, State: West Chester, Pennsylvania Zip Code: 19380

Additional Survey Documentation: ____________

Associated Survey Costs: ____________

PENNSYLVANIA HISTORICAL RESOURCE SURVEY FORM–NARRATIVE SHEET

Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

Survey Code: ______ Tax Parcel/Other No.: 2-2-7-139

County: Westmoreland Municipality: Arnold

Address: 217 Sixteenth Street

Historic/Other Name: Potts, Bernard P. House

PHYSICAL DESCRIPTION:

The Potts House is situated near the east end of a row of similar houses on the north side of Sixteenth Street in Arnold. These houses, and houses on surrounding streets, are of two basic designs: gable front, two story blocks and jerkinhead gable fronted two-story blocks. Similarities in design and detailing suggest that most of these buildings were constructed at about the same time, probably shortly after the industrial expansion in the community during the years preceding World War I. These houses are generally situated close together, close to the street.

The yard of the house is bounded by a chain link fence. A concrete walk connects the sidewalk to the concrete porch steps. A single small tree is situated in the front yard. The level rear yard is open.

The Potts House consists of a narrow, two and one-half story, rectangular, wood framed block with hipped roof front and rear porches. The roofline is marked by a jerkinhead gable and a boxed cornice with returns. Fenestration consists of a variety of window types. At the west end of the first story facade is a set of three single light windows with single light transoms set in a wood surround. Centered in the second story of the facade is a set of three one over one, double hung windows, also set in a wood surround. The front gable peak is pierced by a set of four over one, double hung windows. These windows have a shelf lintel. The east side of the block is fenestrated with single light windows with transoms in the first story and one over one, double hung windows in the second story, while the rear of the main block is fenestrated with a one over one, double hung window in the second story and a single light rectangular window in the gable peak. The west wall is fenestrated with one over one, double hung windows. The main entry door is situated in the east bay of the south facade. This door is sheltered by a two bay, hip roofed, wood framed porch. This porch has a solid weatherboarded balustrade and tapering square, wood, porch posts. The east and west side walls of porch are enclosed with paired four light windows. Paired sliding glass doors are located on the rear porch. This porch, which may once have been open, is now enclosed. Fenestration consists of a single light, oblong window in the east bay.

A brick chimney with corbeled cap protrudes from near the center of the gabled roof. The house has a rubble foundation, is sheathed in weatherboard, and has a roof sheathed in asphalt shingles.

A prefabricated, gable roofed, wood framed storage shed is situated in the rear yard of the house. This shed, probably erected about 1980, has a door in its south end and a one over one, double hung window in its east wall. Its walls are sheathed in plywood, and its roof is sheathed in asphalt shingles.

The minor changes to the exterior of the house have not compromised its basic architectural integrity. The Potts House retains its integrity of location, design, setting, materials, workmanship, and feeling. As one of the best preserved jerkinhead-gable vernacular houses in its section of Arnold, it convincingly conveys associations with its early 20th century date of construction.

HISTORICAL NARRATIVE:

The 1928 New Kensington-Arnold City Directory indicates that the house was the residence of Michael Grobelny, a laborer. In 1940, Samuel Hajel, also a laborer, is listed as a resident of the house.

The site of the house at 217 Sixteenth Street was part of a parcel, consisting of at least five adjacent lots, that was sold for $2,000.00 by Henry and Amelia Behrhorst to Emil L. Colvin (Westmoreland County Deed Book 460:506, August 17, 1909). In 1922, Aline A. Colvin sold the same lots to Albert G. Lang for $3,100.00 apiece. The increase in value suggests that houses were probably erected on the lots between 1909 and 1922 (Westmoreland County Deed Book 732:434, June 18, 1922). Soon after, Lang and his wife Elizabeth sold the lot containing the present house to Michael and Mary Grobelny for $3,600.00 (Westmoreland County Deed Book 731:376, June 5, 1922). The Grobelnys sold the house to Robert E. Best in 1936 for $1.00 and other good and various considerations (Westmoreland County Deed Book 1015:412, August 5, 1936). Six years later, Robert Best and his wife Genevieve sold the house to Sam and Anna Hajel for $1.00 and other good and various considerations (Westmoreland County Deed Book 1111:298, March 24, 1992). After Anna Hajel's death, Sam Hajel sold the house to his daughter, Thelma, for the token sum of $1.00 (Westmoreland County Deed Book 2233:584, November 18, 1976). Two years later, Thelma Hajel sold the house to its present owner, Bernard P. Potts, for $23,000.00 (Westmoreland County Deed Book 2294:1158, August 1, 1978).

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM--PHOTO/SITE PLAN SHEET

89A

Pennsylvania Historical and Museum Commission
Bureau of Historic Preservation
Box 1026, Harrisburg, PA 17108-1026

Survey Code/Tax Parcel/Other No.: 24-3-15-452 County: Westmoreland
Municipality: New Kensington Address: 857 Kenneth Avenue
Historic Name/Other Name: St. Mary's Roman Catholic Church

SITE PLAN

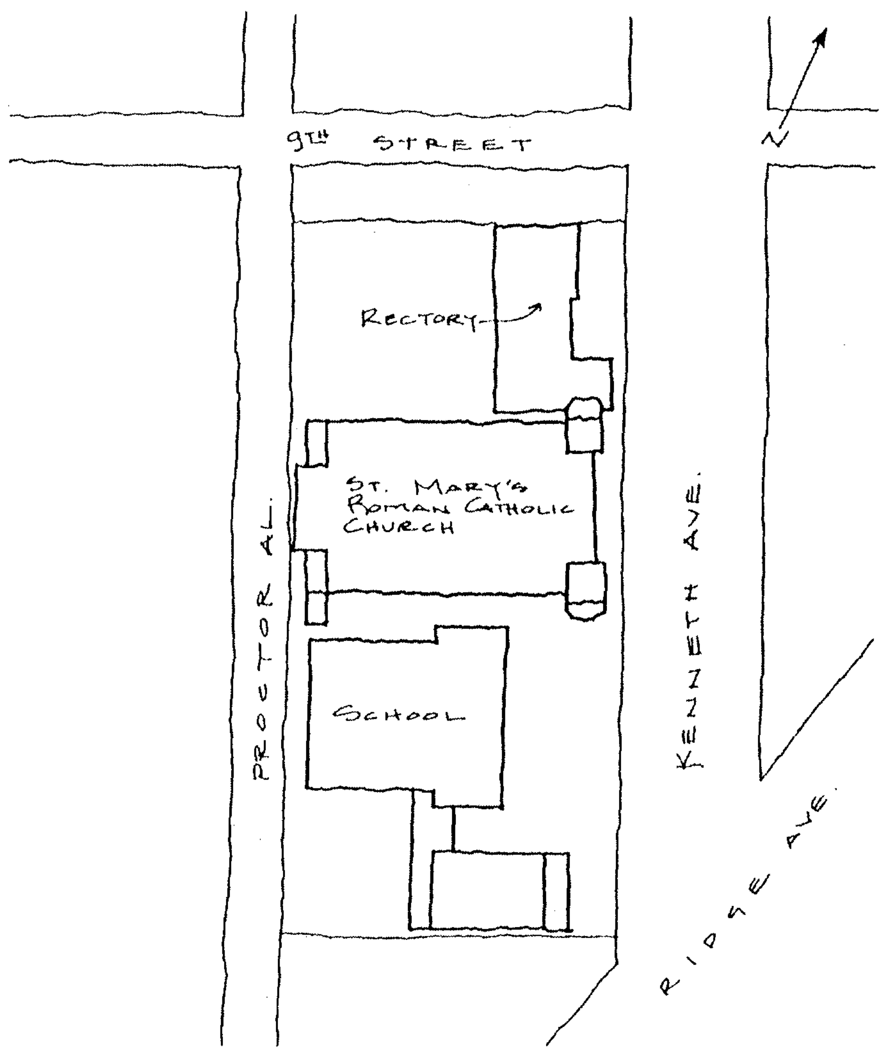
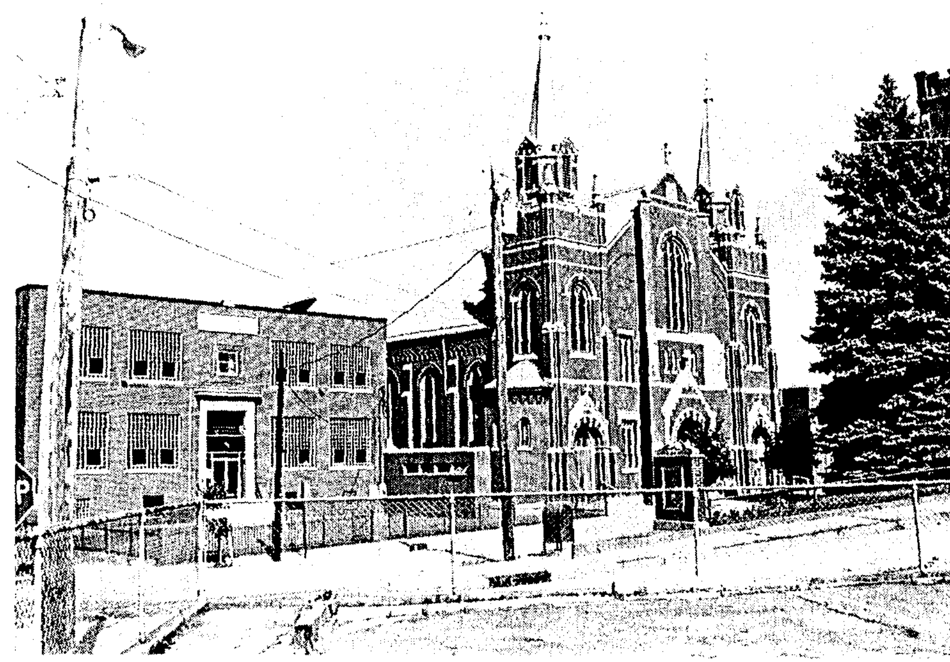


PHOTO INFORMATION

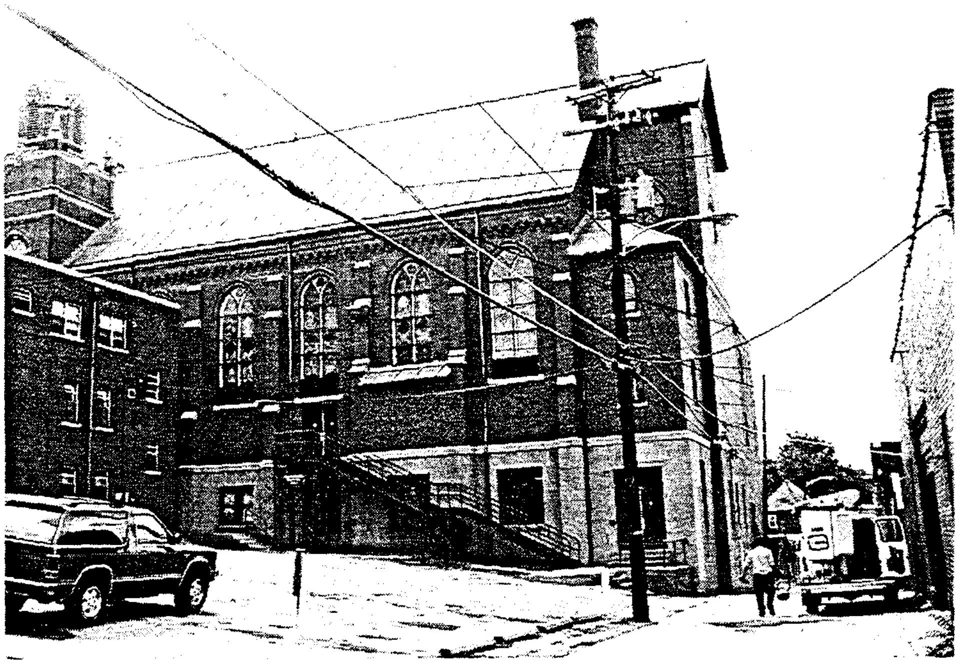
Attach Photo Here



Number	Description of View	Direction of Camera
1	East side, Church and School	W
2	Church, North side and Rear	S

Photographer Name: Douglas C. McVarish Date: July 1993
Negative Location: John Milner Associates, Inc. 309 N. Matlack Street, West Chester, PA 19380

See reverse for additional instruction



PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM–DATA SHEET **89B**

Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

IDENTIFICATION AND LOCATION

Survey Code: ______ Tax Parcel/Other No.: 24-3-15-452

County: 1. Westmoreland 1 2 9 2. ______

Municipality: 1. New Kensington 2. ______

Address: 857 Kenneth Avenue

Historic Name: St. Mary's Roman Catholic Church

Other Name: ______

Owner Name/Address: c/o Trustees, 857 Kenneth Avenue, New Kensington, Pennsylvania 15068

Owner Category: X Private ___ Public-local ___ Public-state ___ Public-federal

Resource Category: X Building ___ District ___ Site ___ Structure ___ Object

Number/Approximate Number of Resources Covered by this Form: 4

USGS Quad: 1. New Kensington West 2. ______

UTM References: A. 17 604700 4491050 C. ______
B. ______ D. ______

HISTORIC AND CURRENT FUNCTIONS

Historic Function Category:	Subcategory	Code:
A. Religion	Religious structure	0 6 A
B.		
C.		
D.		

Particular Type: A. Church
B. ______
C. ______
D. ______

Current Function Category:	Subcategory:	Code:
A. Religion	Religious structure	0 6 A
B.		
C.		
D.		

PHYSICAL DESCRIPTION

Architectural Classification: A. Romanesque 4 7
B. ______ C: ______
D. ______ Other: ______

Exterior Materials: Foundation Concrete 6 5 Roof Metal 5 0
Walls Brick 3 0 Walls ______
Other ______ Other ______

Structural System: 1. Steel frame 4 1 2. ______

Width: 6 Bays F Depth: c. 100 feet Stories/Height 2 B

HISTORICAL INFORMATION

Year Built: ___ C. 1912 to _ C.___ Additions/Alterations Dates: _____ C. 1957 ; ____C. _____

Basis for Dating: X Documentary X Physical

Explain: Cornerstone indicates that church was constructed in 1912. 1957 Sanborn map indicates that rectory was constructed in 1957.

Cultural/Ethic Affiliation:	1. Polish	2.
Associated Individuals:	1.	2.
Associated Events:	1.	2.
Architects/Engineers:	1.	2.
Builders:	1.	2.

MAJOR BIBLIOGRAPHICAL REFERENCES

City of New Kensington. *New Kensington Jubilee Souvenir Book 1966*. New Kensington: City of New Kensington, 1966.

PREVIOUS SURVEY, DETERMINATIONS

EVALUATION (Survey Director/Consultants Only)

Individual NR Potential: ____Yes X No Context(s): Aluminum Industry in Westmoreland and Allegheny Counties, 1888-1945

Contributes to Potential District ____Yes X No District Name/Status ________

Explain: Religious properties are generally not eligible.

THREATS

Threats: 1 1. None 2. Public Development 3. Private Development 4. Neglect 5. Other

Explain: Church remains in active use by a large congregation.

SURVEYOR INFORMATION

Surveyor Name/Title: Douglas C. McVarish, Project Architectural Historian Date: July 1993

Project Name: Historic Resources Survey of the Aluminum Industry in Westmoreland and Allegheny Counties, PA

Organization: John Milner Associates, Inc. Telephone: (215) 436-9000

Street and No. 309 North Matlack Street

City, State: West Chester, Pennsylvania Zip Code: 19380

Additional Survey Documentation: ________

Associated Survey Costs: ________

PENNSYLVANIA HISTORICAL RESOURCE SURVEY FORM–NARRATIVE SHEET

89C

Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

Survey Code: ________________ Tax Parcel/Other No.: 24-3-15-452

County: Westmoreland Municipality: New Kensington

Address: 857 Kenneth Avenue

Historic/Other Name: St. Mary's Roman Catholic Church

PHYSICAL DESCRIPTION:

St. Mary's Roman Catholic Church is situated on a hillside above the central business district of New Kensington. Because of its prominent site, its spires are visible in many portions of the central section of the city. West of the church site is the lightly developed east side of the central business district. East of the church, across Kenneth Avenue, is First Lutheran Church. North and south of the church complex are single family houses. The church property consists of the central church, connected on its north wall to the rectory and on its south wall to the school. The school is in turn connected to a wood framed house, possibly used as a residence for nuns.

The church is a finely detailed example of Romanesque Revival ecclesiastical architecture, incorporating the modern technology of steel frame construction. The facade of the church is divided into three general sections. The central portion of the facade is the gable roofed nave. Marking the corners of the facade are the half engaged towers. Adjoining the side walls of the towers are canted three sided, one story bays with hipped roofs. The corners of the towers are marked by brick and stone buttresses.

The central portion of the facade is subdivided into three bays by brick and stone buttresses. The side bays are fenestrated by paired stained glass windows in the first and second level. These windows have leaded tracery and sandstone drip mold hoods. A stone string course incorporates the sills of the second level windows. The central bay contains the central entrance to the church. Above these double wood doors is an stained glass lunette. The doors are set within a deep reveal. The arch is fabricated with alternating brick and stone voussoirs. Surmounting the arch is a gabled door hood with stone coping, topped with a cross. Flanking the cross are two pairs of slit stained glass windows with sandstone sills. These windows are set within a stone frame with top and bottom formed by sandstone bands and sides formed by stone portions of buttresses. The upper band of stone forms the sill of a central, arched, three part window, decorated with tracery. An arched drip mold shelters this window. The upper walls of the side bays are decorated with arcs, formed by projecting bricks. The apex of the central bay is marked by a gabled, pedimented parapet with sandstone coping and a quatrefoil plaque in the tympanum.

Flanking the center portion of the facade are symmetrical side towers. The bases of the towers contain entrances similar to the central facade entrance. These entrances are also marked by an arch with alternating brick and stone voussoirs. The double wood doors are set within a deep reveal and are surmounted by a stained glass lunette. The gabled door hood with cross is a smaller version of the central door hood. Sandstone belt courses delineate the levels of the tower. Eight light arched windows mark the second level of the facade of each tower. These windows are marked by tracery and have sandstone sills. The curve of the arch is echoed by a sandstone drip mold. The top of the tower walls are ornamented with cross patterns in the brickwork. The towers have sandstone parapets and sandstone finials at the corners. A spire surmounts each tower. The base of the spire is marked by gabled brick sides. Set within each side is an arched louvered window. The arch echoes the voussoir pattern of the arches lower on the facade. Each spire is topped with a ball finial, surmounted by a cross.

Canted bays originally adjoined the side walls of the two towers, but the bay adjoining the south side wall has been either removed or incorporated into the later rectory. These bays have arched stained glass windows with sandstone sills, corbeled brickwork at the cornice, and hipped standing seam metal roofs.

PHYSICAL DESCRIPTION:

The main block of the church is eight bays deep. Bays are defined by brick and sandstone buttresses and a corbeled brick cornice. Bays are occupied by arched 10-light stained glass windows with tracery and stone sills. Because of the sloping site, the foundation of the church is exposed to the rear. The junction of the foundation and the wall is marked by a sandstone water table. Fenestration of the basement consists primarily of paired one over one, double hung windows. The rear portion of the church is divided into three section. The central gabled chancel area extends the upper portion of the gable roof of the main block of the church. Adjoining the north and south walls of the chancel are lower hipped roof bays. On the south wall of the south bay are paired, single light, metal doors, surmounted by a single light transom. The upper walls of both of these side bays are marked by arched windows. The upper side walls of the chancel contain circular windows with spoke-like muntins. The rear foundation wall of the church is pierced with rectangular louvered vents. The rear walls of the side bays are fenestrated with one over one, double hung windows. A circular window is situated high on the rear wall of the apse and is surmounted by a Latin cross, formed of recessed brickwork.

The foundation of the church is constructed of poured concrete, scored to resemble stone blocks. The roof is sheathed in standing seam metal, and a brick chimney with a corbeled cap protrudes from the rear of the north roof slope of the church.

Adjoining the north wall of the church and the side of the canted bay is a single story flat roofed passageway, connecting the church to the adjacent two story school building. This steel framed, brick clad school building, constructed in the 1950s, is a rectangular, five bay block with a central entrance bay. This school is connected at its south end to a two story wood framed dwelling that may presently be used as a residence for nuns. Adjoining the church on the north is the three story brick rectory. Constructed in 1957, the flat roofed, functional building is fenestrated with two over two metal framed windows.

The additions to the church have not compromised its architectural integrity. The church possesses integrity of location, design, setting, materials, workmanship, and feeling. It clearly conveys associations with the early 20th century date of its construction.

HISTORICAL NARRATIVE:

In November 1892, Father Ladislaus Miskiewicz, Pastor of Saint Adalbert Roman Catholic Church in Pittsburgh, called a meeting of the Polish families of New Kensington for the purpose of organizing a society to provide aid in cases of sickness and death and to supervise the collection of funds for the erection of a parish church. The organization was named the Society of Our Lady of Czestochowa, and its membership quickly began the effort to raise funds.

In Spring 1893 the first church was constructed, a wood framed building on the present site of Saint Mary's School. The first pastor was Father Henry Cichowski who assumed that post on October 11, 1893. As of December 1894, the church rolls listed 63 families and 259 members. During the previous year, 29 individuals had been baptized, 8 marriages had been performed, and 30 children received catechetical instruction.

As New Kensington's Polish community grew, so did the parish. The original church was too small to accommodate the growing number of parishioners. Construction of the present church was begun in 1911 under the leadership of Father Francis Pikulski. The church was completed in 1912 during the tenure of Father Francis Poszukanis. The church could accommodate the 1,000 members of the church and could also provide space for instruction in its four basement classrooms.

In 1913, Saint Mary's School was established with teachers provided by the Felician Sisters. The church's first convent was erected in that year. The physical plant of the church was enlarged in the 1950s. In 1957, during the pastorate of Father Edward Sierocki, the old rectory was razed and replaced by the present building north of the church. At about the same time the present St. Mary's School was erected south of the church.

By 1965 membership of the church had expanded to 1,333 families and 6,000 souls. During the previous year 103 people had been baptized, 40 couples had been married, 240 children attended St. Mary's School, and 289 received catechical instruction (City of New Kensington 1966: n.p.).

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM--PHOTO/SITE PLAN SHEET

89A

Pennsylvania Historical and Museum Commission
Bureau of Historic Preservation
Box 1026, Harrisburg, PA 17108-1026

Survey Code/Tax Parcel/Other No.: 24-3-16-116 County: Westmoreland
Municipality: New Kensington Address: 100 Freeport Road
Historic Name/Other Name: Mount St. Peter's Roman Catholic Church

SITE PLAN

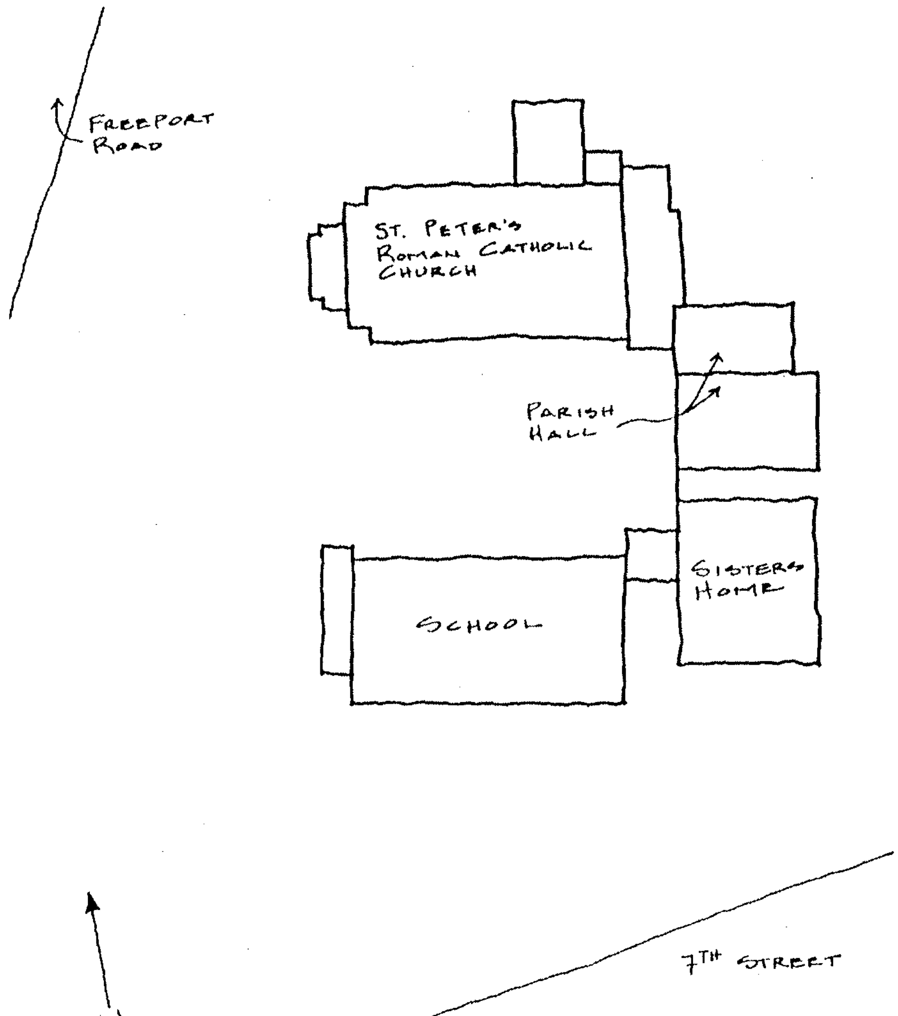
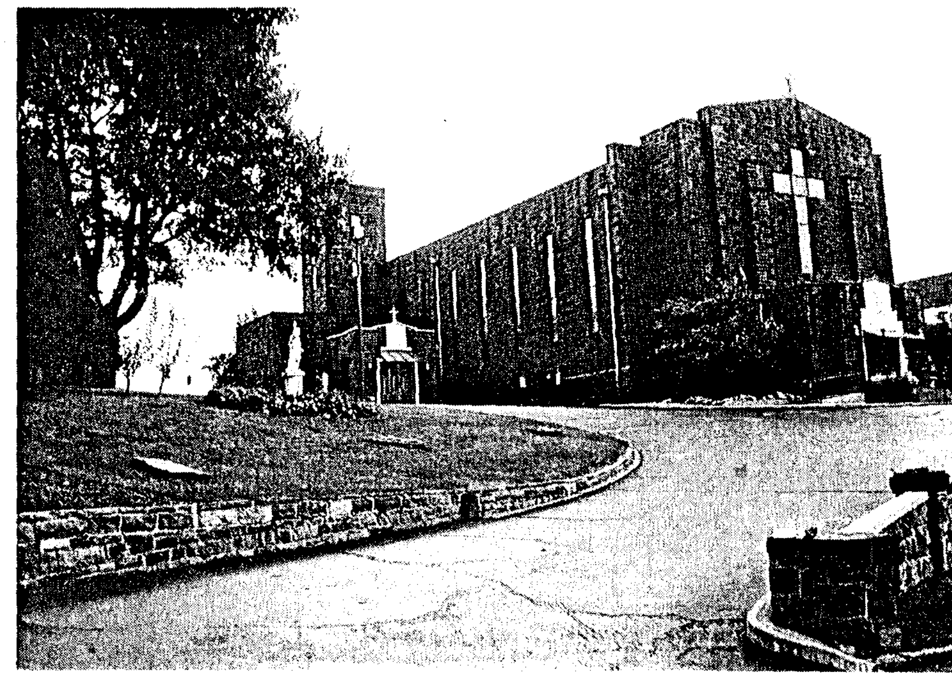


PHOTO INFORMATION

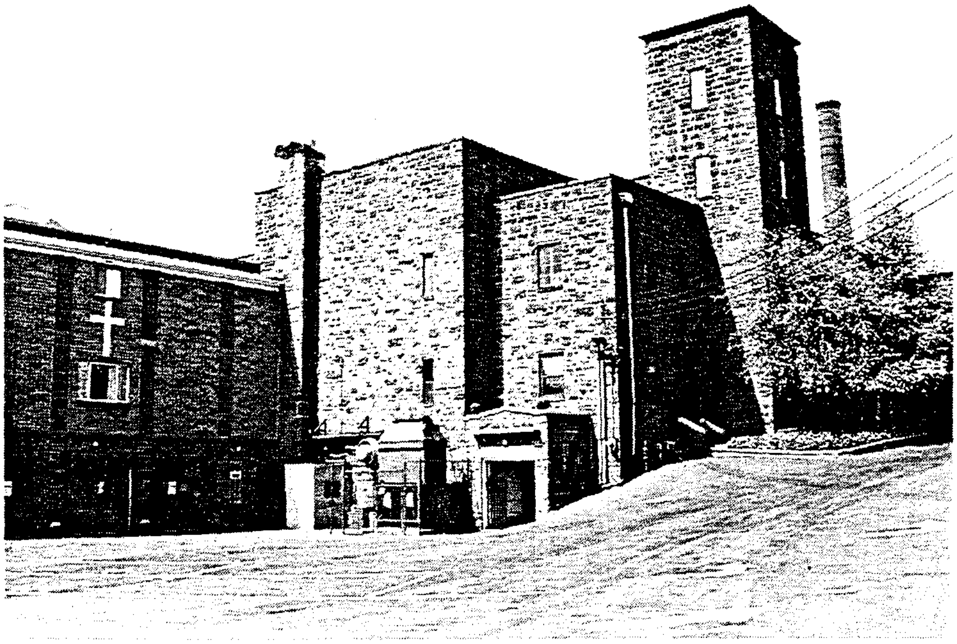
Attach Photo Here

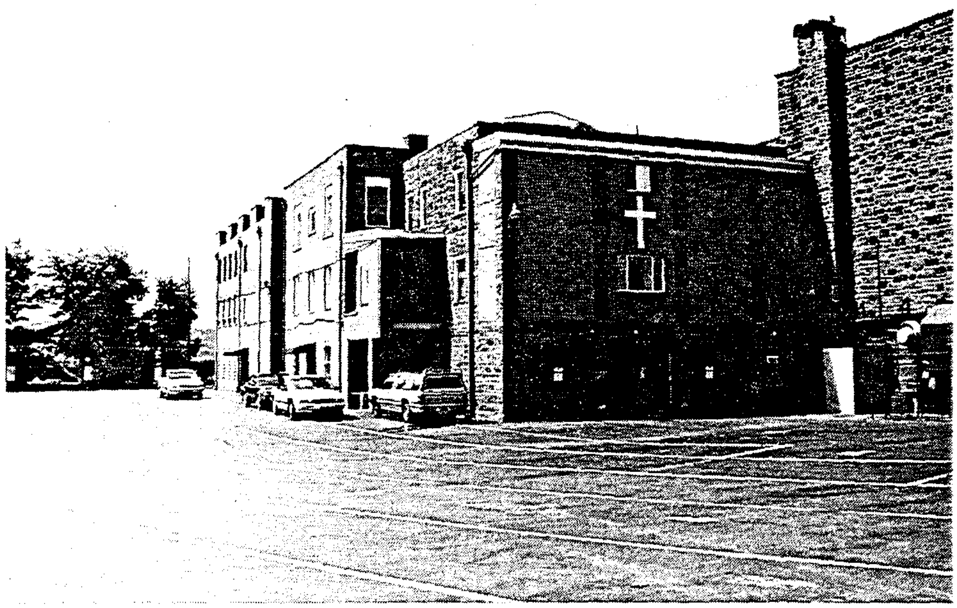


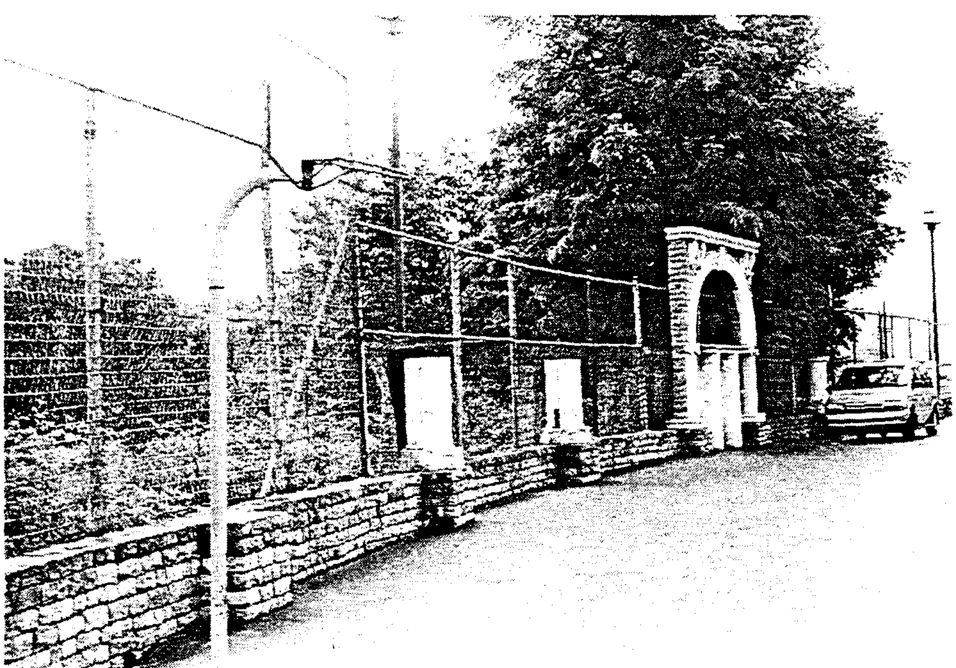
Number	Description of View	Direction of Camera
1	Church from Freeport Road	SE
2	Rear, Church and Parish Hall	W
3	Rear, Parish Hall and Sisters Home	S
4	Architectural Fragments, Rear Parking Lot	SE

Photographer Name: Douglas C. McVarish Date: July 1993
Negative Location: John Milner Associates, Inc. 309 N. Matlack Street, West Chester, PA 19380

See reverse for additional instruction







PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM–DATA SHEET 89B

Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

IDENTIFICATION AND LOCATION

Survey Code: ______ Tax Parcel/Other No.: 24-3-16-116

County: 1. Westmoreland 1 2 9 2. ______

Municipality: 1. New Kensington 2. ______

Address: 100 Freeport Road

Historic Name: Mount St. Peter's Roman Catholic Church

Other Name: ______

Owner Name/Address: Roman Catholic Diocese of Greensburg, 100 Freeport Road, New Kensington, Pennsylvania 15068

Owner Category: X Private ___ Public-local ___ Public-state ___ Public-federal

Resource Category: X Building ___ District ___ Site ___ Structure ___ Object

Number/Approximate Number of Resources Covered by this Form: 3

USGS Quad: 1. New Kensington West 2. ______

UTM References: A. 17 604840 4490860 C. ______

B. ______ D. ______

HISTORIC AND CURRENT FUNCTIONS

Historic Function Category:	Subcategory	Code:
A. Religion	Religious structure	0 6 A
B.		
C.		
D.		

Particular Type: A. Church

B. ______

C. ______

D. ______

Current Function Category:	Subcategory:	Code:
A. Religion	Religious structure	0 6 A
B.		
C.		
D.		

PHYSICAL DESCRIPTION

Architectural Classification: A. Modern Movement 7 0

B. ______ C: ______

D. ______ Other: ______

Exterior Materials: Foundation Concrete 6 5 Roof Other: not visible 8 0

Walls Stone 4 0 Walls ______

Other ______ Other ______

Structural System: 1. Steel frame 4 1 2. ______

Width: 1 Bay A Depth: c. 120 feet ___ Stories/Height 1 A

HISTORICAL INFORMATION

Year Built: ___ C. 1942 to 1942 C.____ Additions/Alterations Dates: ___C. 1946 ; ___C. 1948

Basis for Dating: X Documentary _____ Physical

Explain: According to secondary historical sources, construction was begun on the church in 1940 and completed in 1942. A 1957 Sanborn insurance map of New Kensington indicates that the parish hall was constructed in 1946, the Sisters' Home in 1948, and the school in 1954.

Cultural/Ethic Affiliation: 1. Italian 2. ____

Associated Individuals: 1. ____ 2. ____

Associated Events: 1. ____ 2. ____

Architects/Engineers: 1. Enos Cooke 2. ____

Builders: 1. ____ 2. ____

MAJOR BIBLIOGRAPHICAL REFERENCES

City of New Kensington. *New Kensington Jubilee Souvenir Book 1966.* New Kensington: City of New Kensington, 1966.

Meyerhuber, Jr., Carl I. *Less than Forever: The Rise and Decline of Union Solidarity in Western Pennsylvania, 1914-1948.* Selinsgrove, Pennsylvania: Susquehanna University Press, 1987.

Mueller, Chris. *New Kensington Sites.* Report produced for America's Industrial Heritage Project. July 1, 1993.

Sanborn Map Company. *Insurance Map of New Kensington, Pennsylvania.* Pelham, New York: Sanborn Map Company, 1957.

Women's Club of New Kensington. *Lore of Yore: A History of New Kensington, Arnold and Lower Burrell.* New Kensington: Women's Club of New Kensington, 1986.

PREVIOUS SURVEY, DETERMINATIONS

EVALUATION (Survey Director/Consultants Only)

Individual NR Potential: ____Yes X No Context(s): Aluminum Industry in Westmoreland and Allegheny Counties, 1888-1945

Contributes to Potential District __Yes X No District Name/Status ____

Explain: Religious properties are generally not eligible.

THREATS

Threats: 1 1. None 2. Public Development 3. Private Development 4. Neglect 5. Other

Explain: Church is well maintained and houses a large, active congregation.

SURVEYOR INFORMATION

Surveyor Name/Title: Douglas C. McVarish, Project Architectural Historian Date: July 1993

Project Name: Historic Resources Survey of the Aluminum Industry in Westmoreland and Allegheny Counties, PA

Organization: John Milner Associates, Inc. Telephone: (215) 436-9000

Street and No. 309 North Matlack Street

City, State: West Chester, Pennsylvania Zip Code: 19380

Additional Survey Documentation: ____

Associated Survey Costs: ____

PENNSYLVANIA HISTORICAL RESOURCE SURVEY FORM--NARRATIVE SHEET 89C
Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

Survey Code: ____________ Tax Parcel/Other No.: 24-3-16-116

County: Westmoreland Municipality: New Kensington

Address: 100 Freeport Road

Historic/Other Name: Mount St. Peter's Roman Catholic Church

PHYSICAL DESCRIPTION:

The Mount St. Peter's Church complex occupies a prominent site overlooking the intersection of Seventh Street and Freeport Road on a ridge east of downtown New Kensington. The main entrance to the church complex is a driveway that extends upward off Freeport Road. The asphalt driveway is flanked by low walls with coursed, quarry faced ashlar, echoing the quarry faced ashlar walls of the church. Three flights of steps provide pedestrian access from Freeport Road. The retaining walls adjoining these steps are also constructed of quarry faced ashlar and are topped with concrete slab capstones. The church forms the north side of an open quadrangle. The east side of this quadrangle is formed by the parish house and the sisters home, while the south side is formed by the school. The courtyard is occupied by a driveway and an oval grassy area. A statue of the Virgin Mary is situated in this grassy area, and other statues of religious figures are situated elsewhere on the church grounds. The north end of the grounds adjoins the site of the Citizens General Hospital Nurses Residence (historic Aluminum Club) and is separated from it by a row of mature trees. A large parking area is located east of the church complex. The land slopes sharply at the south end of the grounds. A shrine to the Virgin Mary is located in this sloping portion of the site and incorporates the quarry faced ashlar stone also used in walls elsewhere on the site.

The church itself is a rectangular block with concrete block walls, faced with coursed quarry faced ashlar, steel joists, and concrete slab floors. Smaller blocks, containing the vestibule, chapel, and bell tower, adjoin this central rectangular block. The west facade of the church is formed by a series of projecting planes. The outermost of these planes is the narrowest and contains the formal entrance to the church. Double glass doors with wrought-iron decorative framing comprise the main entry. These doors are set within a sandstone surround and are sheltered by a shed door hood. Marble steps extend from the front drive to the doorway. Behind the entrance, the vestibule walls are stepped outwardly. The stone pilasters with sandstone caps mark the junction of the vestibule with the main block of the church. A six-light stained glass window in the form of a Latin cross is centered between these pilasters. Above the cross, the facade wall forms a gabled parapet. The side walls of the church are stepped outwardly behind the facade and are stepped outwardly again at the junction with the main block of the church. The north wall of this stepped section contains double metal doors, reached by a flight of stairs. Both the north and south walls contain single, rectangular, stained glass windows. The side walls of the church nave are fenestrated by narrow, oblong, five light, stained glass windows. A sandstone water table extends along the lower side walls of the church.

Another entrance adjoins the east end of the south wall of the church. This projecting entrance bay has a marble door surround and gabled parapet, marked by a Latin cross. A single story entry bay also adjoins the north wall of the church. This bay has double carved wood doors in its west wall, set in a sandstone surround. The doors are sheltered by a glass shed hood. Above the hood is a sandstone panel and a stepped gabled parapet, surmounted by a Latin cross. The north side wall of this bay is fenestrated with a stained glass window. Adjoining the east side of this entry bay and projecting outwardly to the north is a larger single story block which may be used as a chapel. This block is fenestrated with two single light, oblong stained glass windows on its north wall. A three story bell tower is situated at the junction of this block and the nave of the church. This tower is fenestrated with four over one, double hung sash windows.

A two story rear block extends the width of the rear wall of the church and adjoins it on its east side. The rear wall of this block contains the entrance to the Chapel of the Devotions. This entrance is situated in a projecting rectangular basement bay with a gabled roof parapet, surmounted by a cross. Above this projecting bay is a one over one, double hung window. Above this window is an eight light casement window. The north end of the rear wall is fenestrated with single one over one, double hung sash windows in the first and second stories. A rectangular chimney projects from the plane of the south end of the rear wall.

PHYSICAL DESCRIPTION:

The south end of the rear wall of the church adjoins the north wall of the Parish Hall. This original section of the hall was apparently constructed at the same time as the church. It is constructed of concrete block, faced with stone, and its north wall is faced with brick. The basement level of the north side contains overhead door openings. Centered on the north wall is a three light, sliding window. The east side of the block is fenestrated with double hung sash windows. This original portion of the parish hall adjoins its two story addition, a brick faced block constructed in 1946. The brick and stone faced two story sisters home, constructed in 1948, adjoins the south side of the parish hall. The parish school, a two story rectangular block of concrete block faced with stone, adjoins the west wall of the sisters home. This latter building was constructed in 1958. This building contains large blocks of rectangular windows to illuminate the classrooms and a corner stair tower with a stepped pyramidal roof.

A parking lot is located east of the Mount St. Peter's Church complex. This parking lot is bounded by a quarry faced ashlar wall, topped with architectural fragments presumably taken from the Mellon Mansion in Pittsburgh.

The Mount St. Peter's Church complex illustrates the evolution of a 20th century church. Although the parish hall addition, the sisters home, and the school are all less than 50 years old, each demonstrates its relationship to the architecture and detailing of the original church. The church itself possesses integrity of location, design, setting, materials, workmanship, and feeling. It conveys associations with its era of construction and is particularly notable for its sensitive incorporation of architectural elements from the earlier Mellon Mansion.

HISTORICAL NARRATIVE:

The major ethnic groups among the factory workers at Alcoa's New Kensington and Arnold Works were the Polish and Italians (Meyerhuber 1987:181). By the 1930s Italian-Americans constituted more than 60 percent of the workforce at the Alcoa works in the New Kensington area (Meyerhuber 1987:183). As noted in Chris Mueller's survey of sites mentioned by aluminum workers, "the Italian community was really situated down on Seventh Street near the old Italian Catholic Church. During the period of the depression, [the] church on Ridge Avenue was crowded with an overflow of the people who came to hear Mass. The crowd often spilled onto the church steps and there was no place for the people to sit (Mueller 1993:4).

The church was organized in 1902 by Reverend Bonaventure Piscopo of the Apostalae Band of the Pittsburgh Diocese. In 1903, Reverend Vincent Maselli was named the first resident pastor, and the church began to hold masses in a store-room at Second Avenue and Tenth Street.

On September 28, 1903, the congregation moved to the basement of St. Mary's Church on Kenneth Avenue. Shortly thereafter, the Burrell Improvement Company donated a plot of land for the construction of a church. This parcel was located at the corner of Ridge Avenue and Constitution Boulevard (then Stanton Avenue).

On September 6, 1923, the Reverend Monsignor Nicola Fusco assumed the pastorate of St. Peter's Church. The church was in trouble. According to one source, lives of previous priests had been threatened by local anarchists, the church was $10,000.00 in debt, and a membership roll containing only 13 families. To better serve Catholics in the surrounding area, Father Fusco established "preaching stations" in Logans Ferry, Kinloch, Barking, Glassmere, and Braeburn. By 1929, the congregation had grown to 1,000 families, and the small church provided only 200 pew seats.

According to Meyerhuber, Father Fusco was a vocal opponent of unionism among Alcoa workers. He denounced the aluminum workers union from his pulpit and tried to dissuade Mary Peli, one of the union activists, from further lobbying for the union by offering her a job at the Italian consulate in Pittsburgh after she was fired from Alcoa (Meyerhuber 1987: 184).

Recognizing the need for a larger site, Father Fusco supervised the purchase of the Leslie Estate, overlooking the corner of Seventh Street and Freeport Road. The land was acquired in May 1939 for $20,000.00. Shortly thereafter, construction was begun on the church which would become known as Mount St. Peter's. At the time construction was begun, the Andrew Mellon Mansion at the corner of Fifth Avenue and Beechwood Boulevard in Pittsburgh was for sale. Mount St. Peter received about 75 percent of the interior and exterior material, including 30 tons of steel beams, 65 oak and bronze doors, marble, bronze stair railings, carved wood, and a granite porch balustrade. These materials were used throughout the church. Four immense marble pillars form the alter, bronze stair railings and carved wood were used to construct the confessionals, and the granite porch balustrade was reused for the communion rails. Additional carved stonework was used to ornament the grounds of the church. According to local sources, the Italian construction workers and members of the parish constructed the new church (Mueller 1993:6).

In August 1942, the parish moved to the new church. In later years, a school, rectory, and convent were erected on the four acre site. The school, begun in 1950 with 54 students, had 205 students and 13 teachers by the mid 1980s. The church congregation had grown to over 2,000 families.

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM--PHOTO/SITE PLAN SHEET

89A

Pennsylvania Historical and Museum Commission
Bureau of Historic Preservation
Box 1026, Harrisburg, PA 17108-1026

Survey Code/Tax Parcel/Other No.: ______ County: Westmoreland
Municipality: New Kensington Address: 900 to 1091 Third Avenue, 302 to 324 Tenth Street, 201 to 319 Ninth Street, and 920 Industrial Drive
Historic Name/Other Name: New Kensington Historic District

SITE PLAN

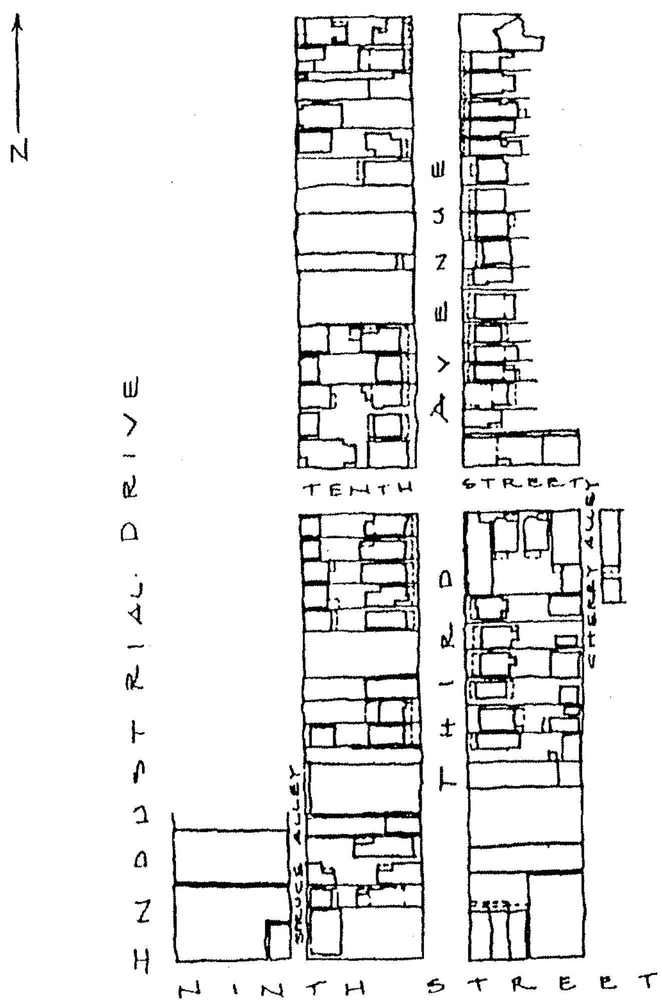
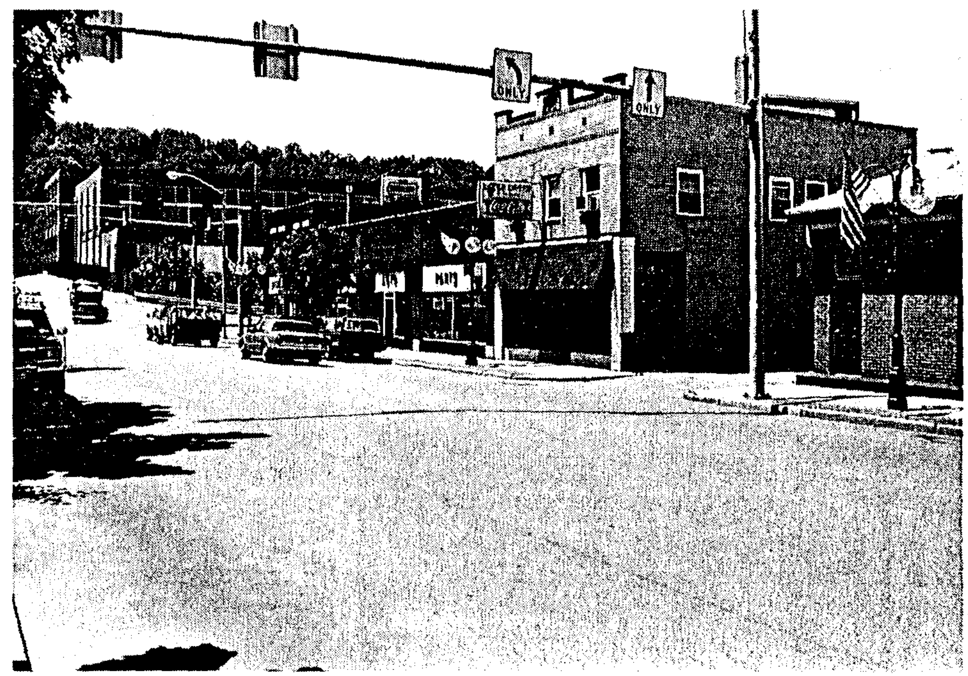


PHOTO INFORMATION

Attach Photo Here

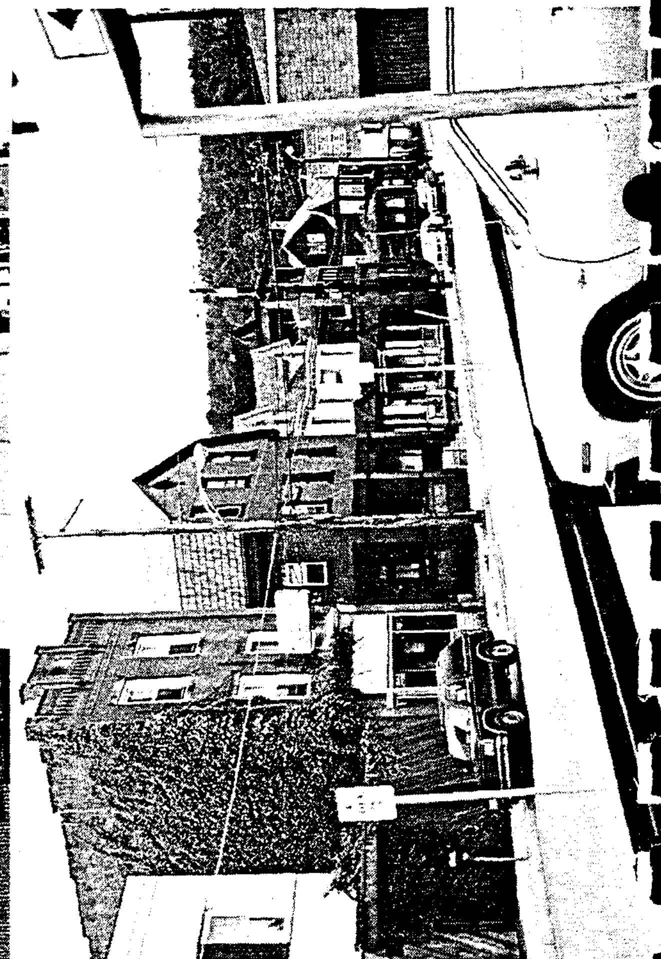


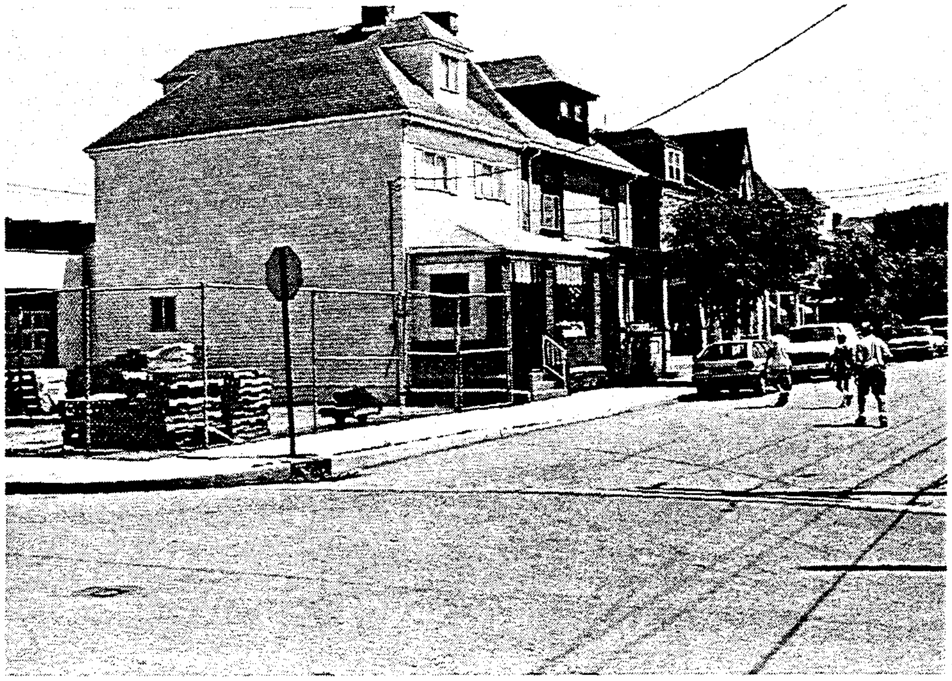
Number	Description of View	Direction of Camera
1	North side of Ninth Street, West of Third Avenue	NW
2	North side of Ninth Street, East of Third Avenue	N
3	Third Avenue from Ninth Street intersection	NE
4	Commercial Building and adjacent house, West side, Third Ave., North of Ninth Street	NW
5	East side of Third Ave., North of Ninth Street	NE
6	South side of Tenth Street, East of Third Avenue	SW
7	East side of Third Ave., South from Eleventh St.	SE
8	West side of Third Ave., North from Tenth St.	NW

Photographer Name: Douglas C. McVarish Date: July 1993
Negative Location: John Milner Associates, Inc. 309 N. Matlack Street, West Chester, PA 19380

See reverse for additional instruction


RAC





PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM--DATA SHEET 89B
Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

IDENTIFICATION AND LOCATION

Survey Code: ____________ Tax Parcel/Other No.: ____________

County: 1. Westmoreland 1 2 9 2. ____________

Municipality: 1. New Kensington 2. ____________

Address: 900 to 1091 Third Avenue, 302 to 324 Tenth Street, 201 to 319 Ninth Street, and 900 Industrial Drive

Historic Name: ____________

Other Name: New Kensington Historic District

Owner Name/Address: Multiple

Owner Category: X Private ___ Public-local ___ Public-state ___ Public-federal

Resource Category: ___ Building X District ___ Site ___ Structure ___ Object

Number/Approximate Number of Resources Covered by this Form: 54

USGS Quad: 1. New Kensington West 2. ____________

UTM References: A. 17 604250 4491000 C. 17 604275 4491415

B. 17 604160 4491040 D. ____________

HISTORIC AND CURRENT FUNCTIONS

Historic Function Category:

	Category	Subcategory	Code
A.	Domestic	Single dwelling	0 1 A
B.	Domestic	Multiple dwelling	0 1 B
C.	Commerce/Trade	Business	0 2 A
D.			

Particular Type:
A. House
B. Apartment house
C. Boarding house
D. Store

Current Function Category:

	Category	Subcategory	Code
A.	Domestic	Single dwelling	0 1 A
B.	Domestic	Multiple dwelling	0 1 B
C.	Commerce/Trade	Business	0 2 A
D.			

PHYSICAL DESCRIPTION

Architectural Classification: A. Prairie School 6 1

B. Colonial Revival 5 1 C: Commercial Style 6 2

D. Mixed 9 0 Other: ____________

Exterior Materials: Foundation Brick 3 0 Roof Asphalt 6 3

Walls Brick 3 0 Walls ____________

Other Porch: wood 2 0 Other ____________

Structural System: 1. Masonry--brick 2 1 2. ____________

Width: 2 Bay B Depth: 2 Rooms ___ Stories/Height 2½ B

HISTORICAL INFORMATION

Year Built: X C. 1895 to X C. 1953 Additions/Alterations Dates: ___C. ________; ___C. ______

Basis for Dating: X Documentary X Physical

Explain: Residential development began shortly after the platting of New Kensington in the late 19th century. The expansion of the district is depicted on Sanborn maps. The USWA Local 32 Union Hall was built in 1953.

Cultural/Ethic Affiliation: 1. ________ 2. ________

Associated Individuals: 1. ________ 2. ________

Associated Events: 1. Aluminum Company of America 2. ________

Architects/Engineers: 1. ________ 2. ________

Builders: 1. ________ 2. ________

MAJOR BIBLIOGRAPHICAL REFERENCES

Sanborn Map Company. *Insurance Maps of New Kensington, Pennsylvania.* New York: Sanborn Map Company, various dates.

PREVIOUS SURVEY, DETERMINATIONS

EVALUATION (Survey Director/Consultants Only)

Individual NR Potential: X Yes ___ No Context(s): Aluminum Industry in Westmoreland and Allegheny Counties, 1888-1945

Contributes to Potential District ___ Yes X No District Name/Status ________

Explain:

THREATS

Threats: 1 1. None 2. Public Development 3. Private Development 4. Neglect 5. Other

Explain: District remains largely in historic uses and contains few vacant or deteriorating buildings.

SURVEYOR INFORMATION

Surveyor Name/Title: Douglas C. McVarish, Project Architectural Historian Date: July 1993

Project Name: Historic Resources Survey of the Aluminum Industry in Westmoreland and Allegheny Counties, PA

Organization: John Milner Associates, Inc. Telephone: (215) 436-9000

Street and No. 309 North Matlack Street

City, State: West Chester, Pennsylvania Zip Code: 19380

Additional Survey Documentation: ________

Associated Survey Costs: ________

PENNSYLVANIA HISTORICAL RESOURCE SURVEY FORM–NARRATIVE SHEET

Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

Survey Code: ______ Tax Parcel/Other No.: ______

County: Westmoreland Municipality: New Kensington

Address: 900 to 1091 Third Avenue, 302 to 324 Tenth Street, 201 to 319 Ninth Street, and 920 Industrial Drive

Historic/Other Name: New Kensington Historic District

PHYSICAL DESCRIPTION:

The district encompasses a small portion of the grid pattern of streets of central New Kensington that was laid out when the city was platted in the late 19th century. The spine of the district is Third Avenue, one of the major north-south streets in central New Kensington. The district comprises the remnants of a historically larger residential area that developed east of the Alcoa New Kensington Works and provided housing for a portion of the company's workforce in the city.

The district, in its current configuration, is a densely developed residential neighborhood with historic commercial buildings along its edges. The district is given unity by common building styles, setbacks, and historic uses. The district extends from Ninth Street on the South to Eleventh Street on the north. On Ninth Street, the district encompasses the commercial buildings on the north side of the street from Industrial Drive (former Second Avenue) on the west to Fourth Avenue on the east. The district also includes a single historic building on the east side of Industrial Drive north of the Ninth Street intersection. The district includes all the buildings on Third Avenue from the Ninth Street intersection to the Eleventh Street intersection. On Tenth Street, the district encompasses all of the buildings from the west side of the Third Avenue intersection to one building east of the Cherry Alley intersection.

Beyond the boundaries of the district are buildings primarily constructed after World War II. South of Ninth Street is a strip shopping center and parking lot constructed as part of urban renewal in New Kensington. Most of the length of Industrial Drive north of Ninth Street is developed with recently constructed warehouse and light industrial buildings. The north side of Eleventh Street is the site of a post-World War II public housing complex. East of the district are several vacant lots. Beyond these vacant lots are buildings of the New Kensington central business district. This area comprises another potential district, reflecting the commercial and institutional history of the city.

In general, the district is characterized by commercial and residential buildings, located close together with facade walls or porch walls immediately adjacent to the sidewalk. The central section of the district, along Third Avenue, is predominantly residential. Outlying portions of the district along Ninth Street, a portion of Tenth Street, and Industrial Drive are predominantly commercial. These commercial buildings may have been constructed to serve the needs of the residents of the district.

The district contains primarily one family houses, although several historic rooming houses and apartments are situated in the vicinity of Third Avenue and Tenth Street. Predominant designs include hip roofed, American Four Square houses with hipped front dormers and vernacular or Victorian vernacular gable front blocks. Most of these houses are two bays wide and two and one half stories tall with a dormer on the front roof slope. The district also contains lesser numbers of eaves front, two story wood framed houses, including several with center front cross gables. The predominant construction material of houses within the district is brick, although wood framed houses are also present. These wood framed houses have generally been re-sided with aluminum, vinyl, or asphalt shingles. Most of the houses have full-width, hip roofed, single story, front porches. Most of these porches have square brick piers and solid brick balustrades. Some of the wood framed houses have solid wood balustrades and square wood columns, while other have wood classical columns and lack a balustrade. The general scale of these houses is large. In some cases, this scale may reflect historic multi-family occupancy. In other cases, it may reflect historically larger family sizes. The residential district began to be developed shortly after the platting of New Kensington in the late 19th century. Most of the houses in the district were constructed in the period between 1895 and 1920.

In addition to these one family houses, several historic rooming houses and apartment buildings, as well as one hotel, are located in the central part of the district at or near the intersection of Third Avenue and Tenth Street. These brick buildings are larger in scale than the single family houses. Each is constructed of brick, although the color of brick varies. Two of the rooming/apartment houses have gambrel roofs with gambrel dormers, and a third has a jerkinhead gable roof with hipped dormers. These buildings are two and one-half or three and one-half stories in height. The elaborate detailing of these

PHYSICAL DESCRIPTION:

multi-unit blocks suggests that each was individually designed by an architect or accomplished builder, although the names of the designers are unknown. These multi-unit buildings, none of which can be identified by an architectural style, were constructed in the period from 1910 to 1925.

In the 1950s and 1980s, several single family houses were removed for the construction of the United Steel Workers of America Local 32 Union Hall and its subsequent enlargement by the Alle-Kiski Senior Center, its present tenant. The original section, a single story, rectangular, concrete block building with its facade faced in ceramic tile, was constructed in 1953 and was later altered with a rear addition and the replacement of its original flat roof with a gabled roof. Despite these alterations and its recent construction date, this section of the building is significant to the district as the home of the aluminum workers union, a significant social, economic and political force in New Kensington during the 1950s and 1960s. A hip roofed addition adjoining the north side of the original hall postdates the building's use as a union hall and lacks historical or architectural significance.

As noted, edges of the district are primarily occupied by commercial buildings. Along Ninth Street and around the corner on Third Avenue are predominantly two story brick commercial blocks. Other building types include a single story service station at Eleventh Street and Third Avenue and a four bay, stepped parapet roofed block at 910 Industrial Drive that may have been originally used as a bus or trolley garage. These commercial blocks are generally decorated with brick corbeling, especially at the cornice and have parapeted rooflines, stepped back to the rear. These commercial buildings are comprised of blocks, ranging from two to four bays wide. The earliest of the buildings include the Rorabaugh Block which was constructed in the 1910s, and the group of three attached brick, two story blocks at the northeast corner of Third Avenue and Ninth Street, standing by 1921. Date plaques and map research indicates that most of these buildings were constructed in the 1920s and early 1930s. A historic service station, presently used as storage by a garden center, located at the northeast corner of Third Avenue and Eleventh Street, was probably constructed in the 1940s. Several of these buildings remain in use as small shops. Others presently house auto service businesses. In design, these buildings reflect the evolution of the small masonry commercial block in the early portion of the 20th century.

Most of the buildings within the district contribute to its significance and retain a high level of architectural integrity. Some of the commercial buildings have been altered by replacement of historic storefronts, although in most cases, upper story fenestration and brickwork remains intact. Only one commercial building, a post-World War II service station at the intersection of Ninth Street and Spruce Alley, does not contribute to the significance of the district. In general, the residential portions of the district also maintain a high level of integrity with few intrusions. Although houses have been altered by replacement of fenestration, re-siding in modern siding materials, and enclosure of a few porches, the houses, in general retain integrity of design. Only one house, a single story, eaves front, center gable house on the east side of the 1000 block of Third Avenue has been recommended as noncontributing due to recent alterations. As noted, the major intrusion in the residential portion of the district is the aluminum workers union hall, constructed on the site of several early 20th century houses. This building, constructed in 1953, is recommended as a contributing resource within the district because of the importance of the aluminum union in the social, political, and economic life of New Kensington. A noncontributing addition adjoins the north side of the union hall. These noncontributing resources comprise less than five percent of the total resources within the district.

The New Kensington Historic District possesses integrity of location, design, setting, materials, workmanship, and feeling. It still strongly conveys associations with its early 20th century dates of development.

HISTORICAL NARRATIVE:

Development of the district began shortly after the platting of New Kensington in 1890-91. The first public sale of lots took place on June 10, 1891. By 1895, New Kensington, Arnold, and Parnassus had a population of 5,000, and Third Avenue between Ninth Street and Eleventh Street had begun to be developed as a residential neighborhood. An 1895 Sanborn map shows scattered two story wood framed houses on the east side of Third Avenue between Ninth and Eleventh streets. Among these early houses was the two story, gable front wood framed house that still stands at 913 Third Avenue, a short distance north of the Ninth Street intersection.

The total population of New Kensington, Arnold, and Parnassus doubled between 1895 and 1900. Some of the additional 5,000 residents lived in new houses constructed along Third Avenue. The 1900 Sanborn map shows that two story wood framed houses had been erected on both sides of the 900 block of Third Avenue. The lots on the east side of the 1000 block of Third Avenue were largely occupied. On the west side of the 1000 block of Third Avenue, fewer lots had been developed. Buildings on the west side of the street included a combination of wood framed houses and shops. By 1905, many of the houses still standing on Third Avenue had been erected. Most of the lots on the east side of the 1000 block of Third Avenue were occupied. The west side of the 1000 block remained less heavily developed, but a majority of the present houses on that side of the block had been constructed by 1905. All the lots on the west side of the 900 block of Third Avenue were occupied, and many of the buildings remaining on this side of the street date from this period. The east side of the 900 block was less heavily developed. Among the few remaining houses constructed in the early 20th century was 972 Third Avenue on the east side of the street. The two identical houses on the south side of Tenth Street east of Third Avenue had been constructed, although the bay windows had not yet been added.

By 1911, the western section of the Washington Hotel at the northeast corner of Third Avenue and Tenth Street had been constructed. This building was initially constructed as an apartment block to accommodate a portion of the continuing growth of the city's population. The city's estimated 1911 population was 13,000. The west side of the 1000 block of Third Avenue had become more heavily developed with a mixture of wood framed houses and shops. By 1915, the district had sustained additional residential and commercial development. The Redman Apartments and the apartment block at the northwest corner of Third Avenue and Tenth Street had both been constructed, probably to house members of New Kensington's growing industrial workforce. The row of three commercial buildings at the northeast corner of Ninth Street and Third Avenue had been erected.

By 1921, the population of the city had swelled to 15,000. Empty lots along Third Avenue had become the sites of additional houses. The 1928 Sanborn map shows the district much as it appears presently. The Rorabaugh Block and a now-demolished adjacent block on the south side of Tenth Street had been constructed. The commercial blocks on the north side of Ninth Street had been constructed by 1928. Both the Dyke Automotive building and the Edelson building housed businesses serving the growing number of automobiles in New Kensington. Several of the houses along Third Avenue had been faced in a brick veneer.

Subsequent changes have primarily consisted of modernizing houses by re-siding and alteration of fenestration and demolition. Among the houses demolished was at least one on the west side of the 900 block of Third Avenue (presently the site of a parking lot) and several houses on the west side of the 1000 block of Third Avenue, presently the site of the Alle-Kiski Retirement Center and adjacent parking lot.

The New Kensington Historic District is recommended eligible for the National Register under criteria A and C. Under Criterion A, the district represents a largely intact early residential and commercial neighborhood in New Kensington and illustrates the evolution of the neighborhood from the initial settlement of the city in the late 19th century to approximately 1940. The district also is significant as a major residential area for workers at the New Kensington Alcoa Works and is recommended eligible as part of a multiple resources nomination of aluminum industry related resources in New Kensington and Arnold. This industry was nationally significant. Other related resources eligible for inclusion in the multiple resources nomination include a residential and commercial district in New Kensington, aluminum company production office and research facilities, as well as housing constructed to accommodate World War II aluminum workers. The district is also recommended eligible under Criterion C of the National Register as representing a significant and distinguishable entity whose components may lack individual distinction. Although few if any of the resources within the district appear individually eligible for National Register listing, together they form a cohesive district that represents an early New Kensington neighborhood, a place of residence for some of the workers at the New Kensington and Arnold Alcoa works.

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM--PHOTO/SITE PLAN SHEET

89A

Pennsylvania Historical and Museum Commission
Bureau of Historic Preservation
Box 1026, Harrisburg, PA 17108-1026

Survey Code/Tax Parcel/Other No.: 24-3-15-55 County: Westmoreland
Municipality: New Kensington Address: 305 Tenth Street
Historic Name/Other Name: Washington Hotel

SITE PLAN

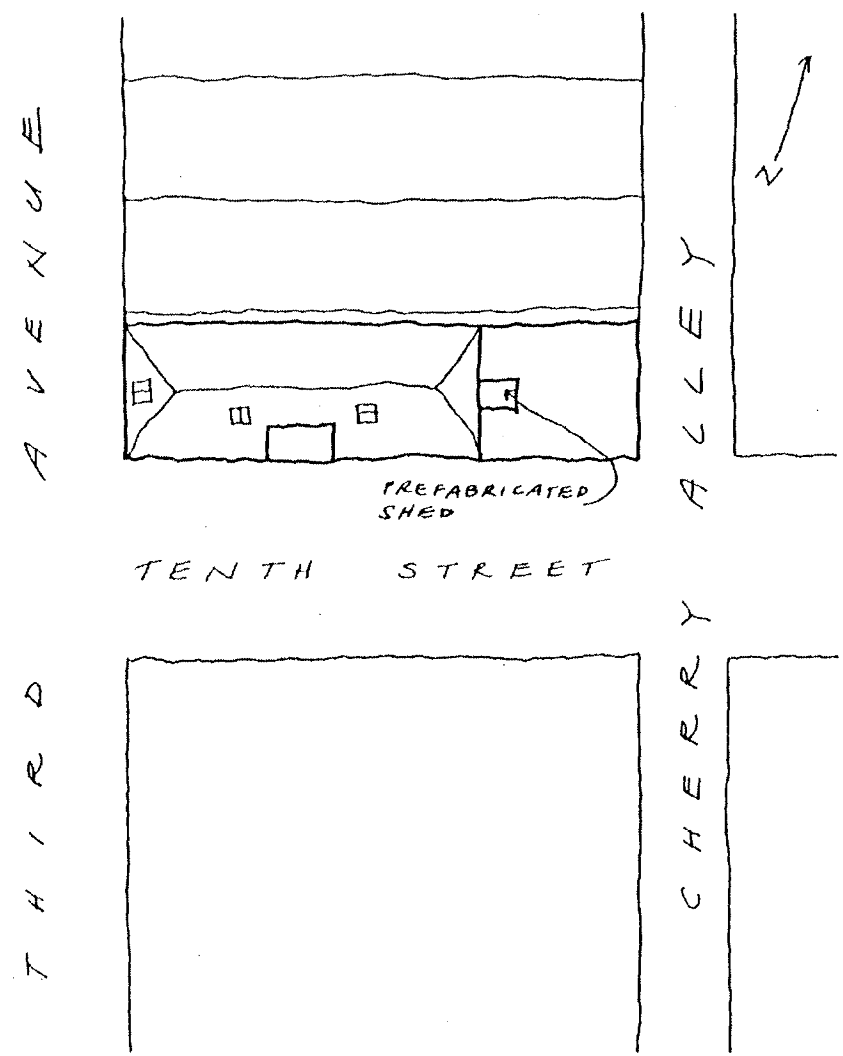


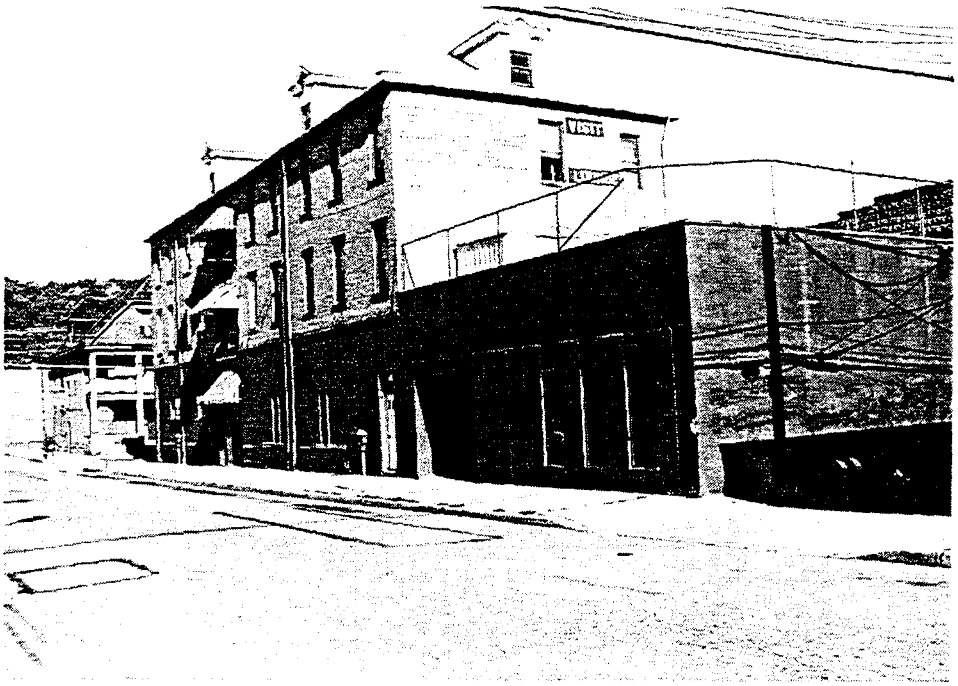
PHOTO INFORMATION

Attach Photo Here

Number	Description of View	Direction of Camera
1	South Facade and West side	NE
2	East wall and South Facade	NW

Photographer Name: Douglas C. McVarish Date: July 1993
Negative Location: John Milner Associates, Inc. 309 N. Matlack Street, West Chester, PA 19380

See reverse for additional instruction



PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM–DATA SHEET 89B

Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

IDENTIFICATION AND LOCATION

Survey Code: ______ Tax Parcel/Other No.: 25-3-15-55

County: 1. Westmoreland 1 2 9 2. ______

Municipality: 1. New Kensington 2. ______

Address: 305 Tenth Street

Historic Name: Washington Hotel

Other Name: Hotel Weber

Owner Name/Address: Alphonse C. Weber, 301 Tenth Street, New Kensington, Pennsylvania 15068

Owner Category: X Private ___ Public-local ___ Public-state ___ Public-federal

Resource Category: X Building ___ District ___ Site ___ Structure ___ Object

Number/Approximate Number of Resources Covered by this Form: 1

USGS Quad: 1. New Kensington West 2. ______

UTM References: A. 17 604315 4491180 B. ___ C. ___ D. ___

HISTORIC AND CURRENT FUNCTIONS

Historic Function Category:	Subcategory	Code:
A. Domestic	Hotel	0 1 D
B.		
C.		
D.		

Particular Type: A. ______ B. ______ C. ______ D. ______

Current Function Category:	Subcategory:	Code:
A. Domestic	Multiple dwelling	0 1 B
B.		
C.		
D.		

PHYSICAL DESCRIPTION

Architectural Classification: A. Mixed 9 0

B. ______ C: ______

D. ______ Other: ______

Exterior Materials:

		Code			Code
Foundation	Concrete	6 5	Roof	Asphalt	6 3
Walls	Stucco	6 1	Walls	Brick	3 0
Other			Other		

Structural System: 1. Masonry--brick 2 1 2. ______

Width: 10 Bays F Depth: c. 40 feet Stories/Height 3½ C

HISTORICAL INFORMATION

Year Built: X C. 1910 to ____ C.____ Additions/Alterations Dates: X C. 1970 ; ____C. ______

Basis for Dating: X Documentary X Physical

Explain: The hotel building is shown for the first time on the 1911 Sanborn insurance map of New Kensington. The alterations to the first story appear to have been made recently, possibly about 1970.

Cultural/Ethic Affiliation: 1. ____________ 2. ____________

Associated Individuals: 1. ____________ 2. ____________

Associated Events: 1. ____________ 2. ____________

Architects/Engineers: 1. ____________ 2. ____________

Builders: 1. ____________ 2. ____________

MAJOR BIBLIOGRAPHICAL REFERENCES

Sanborn Map Company. *Insurance Map of New Kensington, Pennsylvania.* New York: Sanborn Map Company, 1911.

Westmoreland County Deed Books. Office of the Registrar of Deeds. Westmoreland County Courthouse, Greensburg, Pennsylvania.

PREVIOUS SURVEY, DETERMINATIONS

EVALUATION (Survey Director/Consultants Only)

Individual NR Potential: ____Yes X No Context(s): Aluminum Industry in Westmoreland and Allegheny Counties, 1888-1945

Contributes to Potential District X Yes ____No District Name/Status New Kensington Historic District/Recommended

Explain: As a historic hotel, the Washington Hotel is an important building within this potential historic district.

THREATS

Threats: 1 1. None 2. Public Development 3. Private Development 4. Neglect 5. Other

Explain: Building is fairly well maintained and is occupied as an apartment building.

SURVEYOR INFORMATION

Surveyor Name/Title: Douglas C. McVarish, Project Architectural Historian Date: July 1993

Project Name: Historic Resources Survey of the Aluminum Industry in Westmoreland and Allegheny Counties, PA

Organization: John Milner Associates, Inc. Telephone: (215) 436-9000

Street and No. 309 North Matlack Street

City, State: West Chester, Pennsylvania Zip Code: 19380

Additional Survey Documentation: ____________

Associated Survey Costs: ____________

PENNSYLVANIA HISTORICAL RESOURCE SURVEY FORM–NARRATIVE SHEET

89C

Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

Survey Code: ______ Tax Parcel/Other No.: 24-3-15-55

County: Westmoreland Municipality: New Kensington

Address: 305 Tenth Street

Historic/Other Name: Washington Hotel

PHYSICAL DESCRIPTION:

The Washington Hotel occupies the northeast corner of the intersection of Third Avenue and Tenth Street. The main block and one story addition occupy the north side of Tenth Street between Third Avenue and Cherry Alley. The surrounding area is a densely settled, primarily residential neighborhood. East of the building, across Cherry Alley is the single story office of the New Kensington Park Authority and an adjoining municipal parking lot. A group of four brick, single and multi-family houses are located across Tenth Street from the hotel. The predominant building type on Third Avenue north of the hotel is the brick, two and two and one-half story house.

The hotel consists of a two and one-half story, hip roofed block with a single story, flat roofed block adjoining its east end wall. The first story is presently sheathed in stucco, while the upper stories are sheathed in beige brick. The primary facade of the building extends along the north side of Tenth Street. The upper stories of the block retain historic fenestration, while the fenestration of the first story has been altered. Upper stories are fenestrated with regularly spaced one over one, double hung sash windows with stone sills and lintels. First story windows include paired single light, rectangular windows on the west end wall and west end of the south facade, and two pairs of narrow, oblong, single light windows in the eastern portion of the south facade wall. Projecting from the south, east and west roof slopes of the block are gabled dormers. Each of these dormers has a boxed cornice with return, walls sheathed in vinyl siding, and a small one over one, double hung window. These windows appear to be recent replacements of larger historic windows. The main block of the building has three door openings along its south facade. At the southwest corner of the block, the corner has been cut away with the upper stories supported by a square stuccoed pillar. Recessed behind this pillar are single doors on the west and south sides of the block. The main entry is centered on the south wall. This single light door is flanked by 8-light, three-quarter length sidelights. The door is sheltered by a metal shed awning. A third entry is located at the east end of the south wall and contains a three light, metal door, surmounted by a single light transom.

The central bay on the south wall contains gallery porches in the second and third story. These porches are sheltered by metal awnings. Both gallery porches have wrought-iron balustrades. The second story bay contains three, single light, full-height windows, while the third story bay has a door topped by a single light transom and flanked by windows. The roof junction of the main block is marked by a boxed cornice. A square brick chimney with corbeled cap projects from the south end of the roof ridge of the main block.

The south wall of the building is fenestrated with two one over one, double hung windows in its third story. A painted sign on the third story wall identifies the building as the Hotel Weber. Adjoining the lower portion of the south wall of the block is a single story, flat roofed, three bay addition. This addition has a recessed entry bay at the west end of its south wall. This bay contains a pair of glass doors set in a metal frame. The west end of the wall contains three oblong, single light windows. The walls of the addition are sheathed in stucco, and the flat parapet has concrete slab capstones. An aluminum wire mesh fence adjoins the parapet wall. A prefabricated, gable roofed, metal walled storage shed adjoins the east wall of the main block at the west end of the roof.

Changes to the first story of the Washington Hotel have compromised its architectural integrity. As noted, these changes include alteration of fenestration types and pattern, alteration of door openings, and covering of historic sheathing materials. As a result, the building no longer possesses integrity of design, materials, and workmanship. It retains integrity of location, setting, and feeling. Despite these changes, it retains associations with the early twentieth century time of its construction and is recommended as a contributing resource within the potential New Kensington Historic District.

HISTORICAL NARRATIVE:

The Washington Hotel was first shown on the 1911 Sanborn fire insurance map of New Kensington, suggesting a construction date of about that time. At that time, the building was indicated as apartments. On the 1915 Sanborn map, the Third Avenue side of the building is indicated as a grocery and meat market, while the rear is shown as flats. In the 1928 New Kensington City Directory, the building was listed as the Washington Hotel. William Wachtler was proprietor. By 1940, its name had changed to the Hotel Webber Restaurant and Bar. Stephen Webber was listed as proprietor.

The first identified transaction involving the land on which the hotel is located occurred in 1906 when Mead and Etta Miller sold the parcel to Emil and Lena Redman of McKeesport for $100.00 (Westmoreland County Deed Book 426:286, July 2, 1906). Five years later, Emil and Lena Redman sold the parcel to Reinhard C. Prebe for $1.00 and other various considerations (Westmoreland County Deed Book 494:562, January 10, 1911). This may have been a part of a mortgage transaction because Prebe soon sold the parcel back to Lena Redman for $1.00 and other various considerations (Westmoreland County Deed Book 464:564, January 16, 1911). In 1937 Lena Redman sold the parcel to Steven and Eugenia Weber for $23,500.00 (Westmoreland County Deed Book 988:354, February 1, 1937). After Steven Weber's death in December 1956, sole ownership passed to his wife, and after Eugenia Weber's death in 1979, the property passed to her estate. In August 1979, Alphonse C. Weber, executor of the estate, transferred ownership of the property to himself and his wife Elaine (Westmoreland County Deed Book 2332:1018, August 20, 1979).

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM--PHOTO/SITE PLAN SHEET

89A

Pennsylvania Historical and Museum Commission
Bureau of Historic Preservation
Box 1026, Harrisburg, PA 17108-1026

Survey Code/Tax Parcel/Other No.: 24-3-15-119 County: Westmoreland
Municipality: New Kensington Address: 304-306 Tenth Avenue
Historic Name/Other Name: Stenger, Michael and Cynthia Houses

SITE PLAN

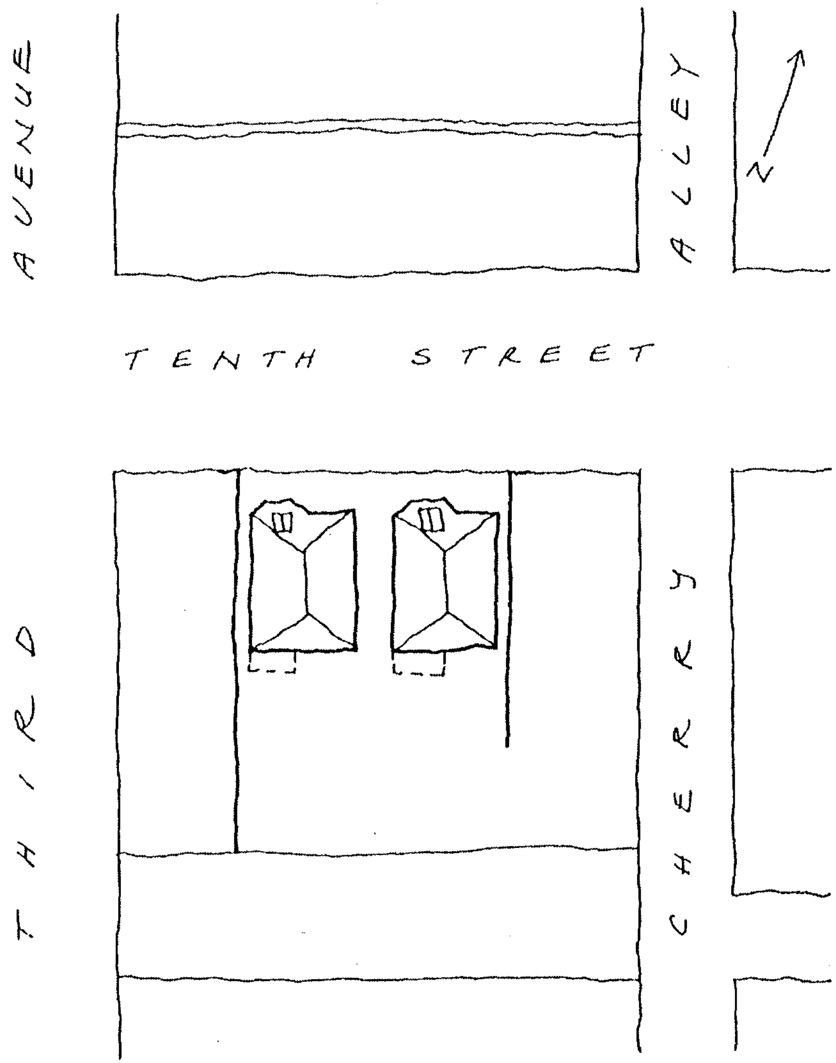
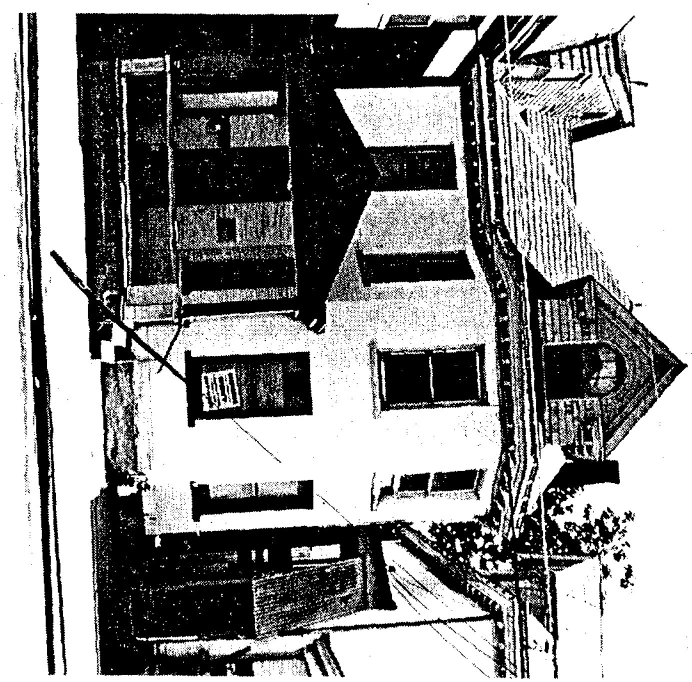


PHOTO INFORMATION

Attach Photo Here



Number	Description of View	Direction of Camera
1	306 Tenth Avenue, North facade	S

Photographer Name: Douglas C. McVarish Date: July 1993
Negative Location: John Milner Associates, Inc. 309 N. Matlack Street, West Chester, PA 19380

See reverse for additional instruction

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM--DATA SHEET 89B
Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

IDENTIFICATION AND LOCATION

Survey Code: ______ Tax Parcel/Other No.: 24-3-15-119

County: 1. Westmoreland 1 2 9 2. ______

Municipality: 1. New Kensington 2. ______

Address: 304-306 Tenth Avenue

Historic Name: ______

Other Name: Stenger, Michael and Cynthia Houses

Owner Name/Address: ______

Owner Category: X Private ___ Public-local ___ Public-state ___ Public-federal

Resource Category: X Building ___ District ___ Site ___ Structure ___ Object

Number/Approximate Number of Resources Covered by this Form: 2

USGS Quad: 1. New Kensington 2. ______

UTM References: A. 17 604340 4491175 C. ______

B. ______ D. ______

HISTORIC AND CURRENT FUNCTIONS

Historic Function Category:	Subcategory	Code:
A. Domestic	Single dwelling	0 1 A
B.		
C.		
D.		

Particular Type: A. Houses
B. ______
C. ______
D. ______

Current Function Category:	Subcategory:	Code:
A. Domestic	Multiple dwelling	0 1 B
B.		
C.		
D.		

PHYSICAL DESCRIPTION

Architectural Classification: A. Colonial Revival 5 1
B. ______ C: ______
D. ______ Other: ______

Exterior Materials:

		Code			Code
Foundation	Concrete	6 5	Roof	Slate	4 5
Walls	Brick	3 0	Walls		
Other	Porch: Wood	2 0	Other	Dormer wall: wood shingle	2 2

Structural System: 1. Wood--light frame 1 4 2. ______

Width: 2 Bay B Depth: 2 Rooms ___ Stories/Height 2½ B

HISTORICAL INFORMATION

Year Built: X C. 1985 to X C. 1900 Additions/Alterations Dates: X C. 1911 ; ___ C. ______

Basis for Dating: _____ Documentary _____ Physical

Explain: The Stenger Houses are first depicted on a 1900 Sanborn insurance map of New Kensington. By 1911, the bay windows on the front of the houses had been added.

Cultural/Ethic Affiliation: 1. ______ 2. ______

Associated Individuals: 1. ______ 2. ______

Associated Events: 1. ______ 2. ______

Architects/Engineers: 1. ______ 2. ______

Builders: 1. ______ 2. ______

MAJOR BIBLIOGRAPHICAL REFERENCES

Westmoreland County Deed Books. Westmoreland County Courthouse, Greensburg, Pennsylvania.

PREVIOUS SURVEY, DETERMINATIONS

EVALUATION (Survey Director/Consultants Only)

Individual NR Potential: _____Yes X No Context(s): Aluminum Industry in Westmoreland and Allegheny Counties, 1888-1945

Contributes to Potential District X Yes _____No District Name/Status New Kensington Historic District/Recommended

Explain:

THREATS

Threats: 4 1. None 2. Public Development 3. Private Development 4. Neglect 5. Other

Explain: Both houses are now rental properties and have not been well maintained.

SURVEYOR INFORMATION

Surveyor Name/Title: Douglas C. McVarish, Project Architectural Historian Date: July 1993

Project Name: Historic Resources Survey of the Aluminum Industry in Westmoreland and Allegheny Counties, PA

Organization: John Milner Associates, Inc. Telephone: (215) 436-9000

Street and No. 309 North Matlack Street

City, State: West Chester, Pennsylvania Zip Code: 19380

Additional Survey Documentation: ______

Associated Survey Costs: ______

PENNSYLVANIA HISTORICAL RESOURCE SURVEY FORM–NARRATIVE SHEET

89C

Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

Survey Code: ________ Tax Parcel/Other No.: 24-3-15-119

County: Westmoreland Municipality: New Kensington

Address: 304-306 Tenth Avenue

Historic/Other Name: Stenger, Michael and Cynthia Houses

PHYSICAL DESCRIPTION:

The Stenger Houses are two identical two and one-half story stuccoed dwellings located in a row of residential buildings on the south side of Tenth Street east of Third Avenue. The surrounding area is a densely settled residential neighborhood with a mixture of wood framed and brick single and multiple unit houses. These houses are set closely together and are situated close to the sidewalk.

The Stenger Houses consist of two, rectangular brick, two and one-half story hip roofed blocks with full-height canted facade bay, front entry porch, and rear porch. Fenestration consists of regularly spaced one over one, double hung windows. These windows have stone sills and elongated brick stretcher lintels. The west side of the facade consists of a three sided, canted bay, each bay fenestrated with single windows on the first and second story. Gabled dormers are situated on the north and east roof slopes of each house. These dormers have arched window openings, shingled walls, plain modillions, and a boxed cornice with returns. The primary entrance to the houses is situated in the east bay of the facade. These doors are surmounted by single light transoms and are sheltered by a gabled front, single bay entry porch. These porches have square porch posts, resting on concrete pedestals, and concrete block base and side steps.

The two houses are joined by a stairway between them. This stairway, wood framed with a corrugated metal roof canopy, provides access to second story doors on the side wall of each house. Number 306 Tenth Avenue has a single double hung, one over one sash window on its east wall. The rear of both houses was inaccessible. Both houses have a concrete foundation, surmounted by a brick water table. A rectangular brick chimney protrudes from the west roof slope of the two houses. The boxed cornice of each house is elaborated by plain modillions beneath the cornice and ornamental exposed rafter ends above the cornice. The roofs are sheathed in slate, and the apex of the roof is marked by a simple metal finial.

The two houses are in fair condition. Maintenance appears to have suffered in recent years. No major changes have been made to the exterior of either house. Both possess integrity of location, design, setting, materials, workmanship, and feeling. Both continue to convey associations with the early 20th century period of their construction.

HISTORICAL NARRATIVE:

The Stenger Houses are first depicted on the 1900 Sanborn insurance map of New Kensington. Originally, the buildings lacked the bay windows on the facade. These are first shown on the 1911 Sanborn map. In 1928, three men are listed as residing in 304 Tenth Street. Charles E. Gruver was a machinist; Clarence L. Buchanan was a glassworker for Pittsburgh Plate Glass; and Guy H. Green was an ironworker. In 1940, John McFadden, an Alcoa factory worker, resided at 304 Tenth Street. In 1928, W. Alf DeHart, a machinist's helper lived at 306 Tenth Street. In 1940, Maudie Twyford, for whom no profession is listed, resided there.

The earliest identified owner of both properties was Susan McCarty. After her death, both properties passed to her heirs. Number 3064 Tenth Avenue was bequeathed to Mary Hetty McCarty and 304 Tenth Avenue was bequeathed to Ella Agnes and John Little. On July 1, 1916, the Littles sold the parcel at 304 Tenth Avenue to Mary Hetty McCarty for $3,500.00 (Westmoreland County Deed Books 575:344, July 1, 1916). On July 17, 1919, Mary Hetty McCarty sold both parcels to Lena Redman. Each parcel was sold for $5,000.00 (Westmoreland County Deed Books 641:568, 570, July 17, 1919). Lena Redman subsequently sold both parcels to Charles and Lottie Lodowski (Westmoreland County Deed Books 1064:424). In 1978, the Lodowskis sold the parcels to their son, Robert N., for the token sum of $1.00 (Westmoreland County Deed Book 2293:309, July 17, 1978). Robert and Valentine Lodowski sold the parcels to their present owners in October 1990 for $20,000.00 (Westmoreland County Deed Book 2982:607, October 25, 1990). The Stegners operate both houses as apartment buildings.

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM--PHOTO/SITE PLAN SHEET

89A

Pennsylvania Historical and Museum Commission
Bureau of Historic Preservation
Box 1026, Harrisburg, PA 17108-1026

Survey Code/Tax Parcel/Other No.: 24-3-15-120 County: Westmoreland
Municipality: New Kensington Address: 308 Tenth Street
Historic Name/Other Name: Czepull, Elizabeth House

SITE PLAN

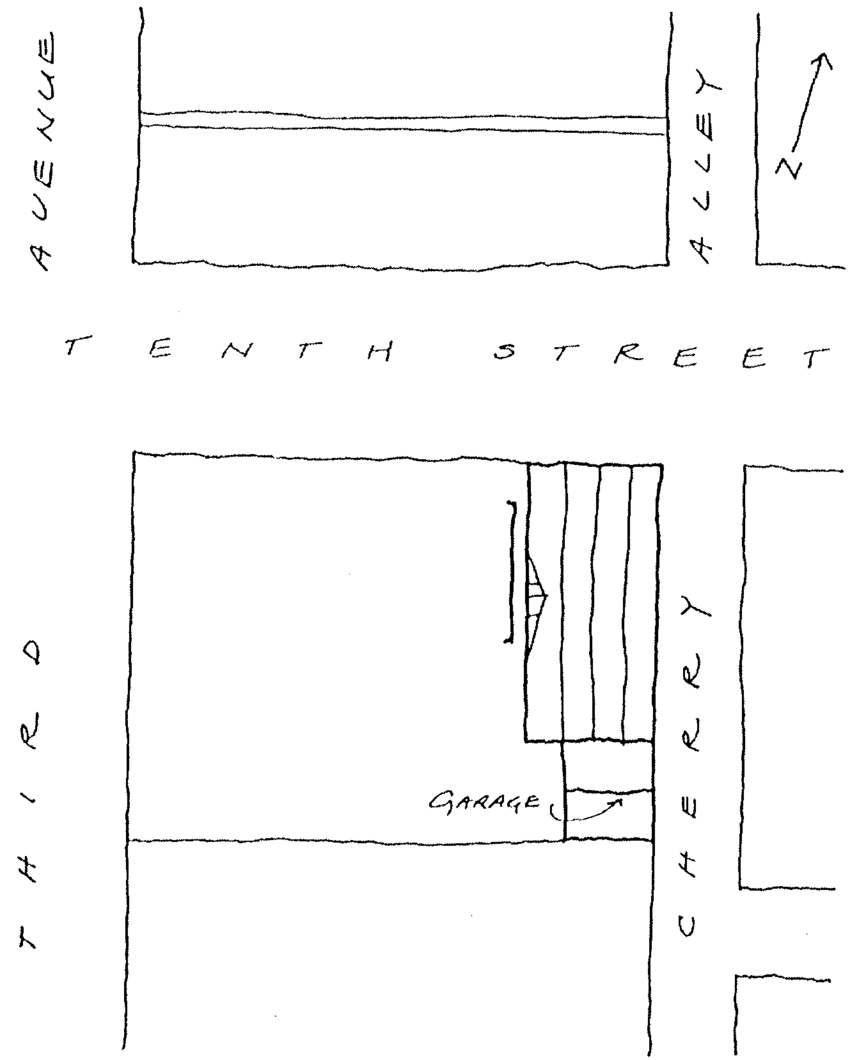
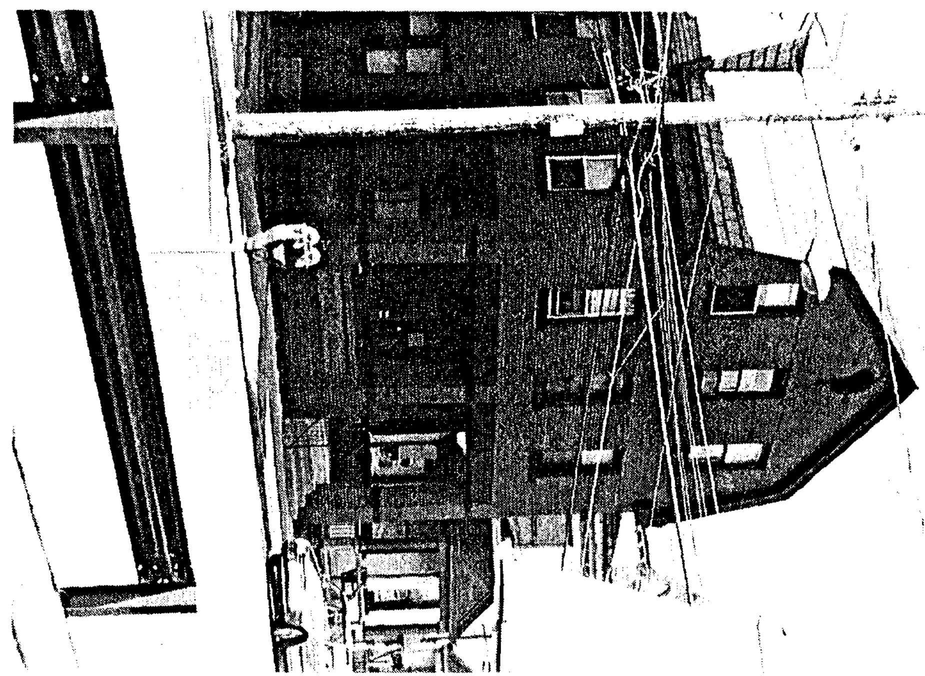


PHOTO INFORMATION

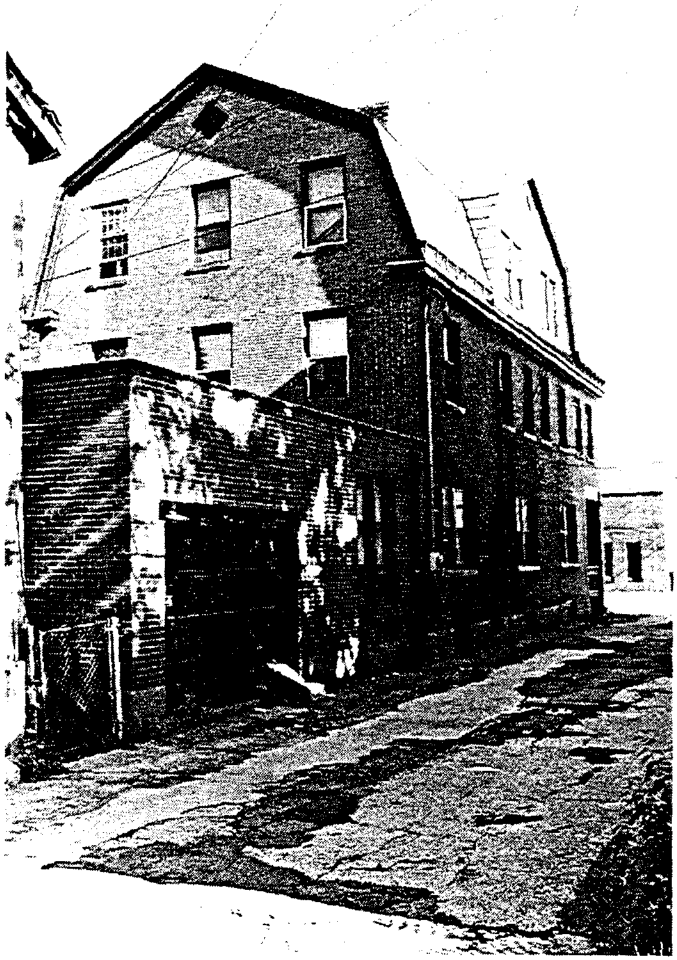
Attach Photo Here



Number	Description of View	Direction of Camera
1	Facade and portion of East side	SW
2	Rear and portion of East side	NW

Photographer Name: Douglas C. McVarish Date: July 1993
Negative Location: John Milner Associates, Inc. 309 N. Matlack Street, West Chester, PA 19380

See reverse for additional instruction



PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM--DATA SHEET 89B
Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

IDENTIFICATION AND LOCATION

Survey Code: ____ Tax Parcel/Other No.: 24-3-15-120

County: 1. Westmoreland 1 2 9 2. ____

Municipality: 1. New Kensington 2. ____

Address: 308 Tenth Street

Historic Name: Czepull, Elizabeth House

Other Name: ____

Owner Name/Address: National Builders and Acceptance Corp., 227 West Eighth Avenue, Homestead, PA 15120

Owner Category: X Private ___ Public-local ___ Public-state ___ Public-federal

Resource Category: X Building ___ District ___ Site ___ Structure ___ Object

Number/Approximate Number of Resources Covered by this Form: 1

USGS Quad: 1. New Kensington West 2. ____

UTM References: A. 17 604340 4491180 C. ____ B. ____ D. ____

HISTORIC AND CURRENT FUNCTIONS

Historic Function Category:	Subcategory	Code:
A. Domestic	Multiple dwelling	0 1 B
B.		
C.		
D.		

Particular Type: A. Boarding house
B. ____
C. ____
D. ____

Current Function Category:	Subcategory:	Code:
A. Domestic	Multiple dwelling	0 1 B
B.		
C.		
D.		

PHYSICAL DESCRIPTION

Architectural Classification: A. ____
B. ____ C: ____
D. ____ Other: Gambrel roofed mulit-unit residence 8 0

Exterior Materials: Foundation Concrete 6 5 Roof Slate 3 0
Walls Brick 3 0 Walls ____
Other Sandstone 4 2 Other ____

Structural System: 1. Masonry: brick 2 1 2. ____

Width: 3 Bays C Depth: c. 65 feet ___ Stories/Height 2½ B

HISTORICAL INFORMATION

Year Built: X C. 1915 to X C. 1921 Additions/Alterations Dates: ___ C. ______; ___ C. ______

Basis for Dating: X Documentary _____ Physical

Explain: The Czepull House is not shown on a 1915 Sanborn insurance map if New Kensington. It is shown on the 1921 edition of the map.

Cultural/Ethic Affiliation: 1. ____________ 2. ____________

Associated Individuals: 1. ____________ 2. ____________

Associated Events: 1. ____________ 2. ____________

Architects/Engineers: 1. ____________ 2. ____________

Builders: 1. ____________ 2. ____________

MAJOR BIBLIOGRAPHICAL REFERENCES

Westmoreland County Deed Books. Office of the Registrar of Deeds. Westmoreland County Courthouse, Greensburg, Pennsylvania.

PREVIOUS SURVEY, DETERMINATIONS

EVALUATION (Survey Director/Consultants Only)

Individual NR Potential: _____Yes X No Context(s): Aluminum Industry in Westmoreland and Allegheny Counties, 1888-1945

Contributes to Potential District X Yes _____No District Name/Status New Kensington Historic District/Recommended

Explain: Similar to the Redman Apartments, the Czepull House is a good example of the larger residential buildings in the potential district.

THREATS

Threats: 1 1. None 2. Public Development 3. Private Development 4. Neglect 5. Other

Explain: Building appears to be relatively well maintained and continues to be used as an apartment building/rooming house.

SURVEYOR INFORMATION

Surveyor Name/Title: Douglas C. McVarish, Project Architectural Historian Date: July 1993

Project Name: Historic Resources Survey of the Aluminum Industry in Westmoreland and Allegheny Counties, PA

Organization: John Milner Associates, Inc. Telephone: (215) 436-9000

Street and No. 309 North Matlack Street

City, State: West Chester, Pennsylvania Zip Code: 19380

Additional Survey Documentation: ____________

Associated Survey Costs: ____________

PENNSYLVANIA HISTORICAL RESOURCE SURVEY FORM–NARRATIVE SHEET

Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

Survey Code: ______ Tax Parcel/Other No.: 24-3-15-120

County: Westmoreland Municipality: New Kensington

Address: 308 Tenth Street

Historic/Other Name: Czepull, Elizabeth House

PHYSICAL DESCRIPTION:

The exterior detailing of the Czepull House is similar to, though less elaborate than, the Redman Apartments. The use of a gambrel roof and gambrel side dormers suggests that both buildings were designed by a common architect. The Czepull House is located at the east end of a row of four residential buildings on the south side of Tenth Street east of Third Avenue. The surrounding area is a densely settled residential neighborhood consisting primarily of brick, two and two and one-half story, single and multi-family houses. East of the Czepull House is the western edge of the New Kensington Central Business District.

The Czepull House is located at the southwest corner of Tenth Street and Cherry Alley. The house adjoins the two streets and lacks a front, rear, or side yard. The house consists of a rectangular, two and one-half story, brick block with a single story, flat roofed, garage addition adjoining its south wall. The north facade of the house is three bays wide. Its first story is marked by a porch, rear wall of which is recessed from the plane of the upper two stories. This two bay porch has a solid brick balustrade with brick panels and brownstone capstones. Square brick porch piers have brownstone bases and rise from brick pedestals. Concrete steps with a modern wrought-iron railing provide access to the porch. The front door is situated in the west bay of the first story. This wood door is flanked by two-thirds length sidelights and surmounted by a one light transom. The east bay of the first story facade is fenestrated with a single light, rectangular window, surmounted by a single light transom. The remainder of block is primarily fenestrated with regularly set, one over one, double hung, sash windows with stone sills. An oculus window is situated near the apex of the north facade wall. This window is set within a circular brick frame with brownstone voussoirs at the compass points. A diamond-shaped window is situated near the apex of the south facade wall. A gambrel roofed dormer projects from the east roof slope. This dormer is fenestrated with two, paired one over one, double hung windows. Centered above these windows is a diamond-shaped window. The dormer wall is sheathed in wood shingles. A second door is located near the center of the east wall of the block. This wood door is surmounted by a single light transom.

The house has a concrete foundation, and its walls are laid in stretcher bond brown brick. The roof junction is marked by a boxed cornice with short returns. A second wood cornice, supported by simple brackets, extends along the lower roof slope on the sides of the house. The roof is sheathed in slate.

A garage addition projects from the south wall of the block. This flat roofed addition has walls sheathed in red brick that is laid in stretcher bond. The east wall is fenestrated with a pair of one over one, double hung sash windows. At the south end of the east wall is an wood, overhead garage door. The garage has a poured concrete foundation and a roof parapet capped with concrete slabs. Its roof material is not visible.

The garage addition, not visible from the street, does not compromise the basic architectural integrity of the building exterior. The building possesses integrity of location, design, setting, materials, workmanship and feeling. It clearly conveys associations with its early 20th century date of construction.

HISTORICAL NARRATIVE:

The building is first shown on a 1921 Sanborn map of New Kensington. It was probably constructed shortly before that date. Both the 1928 and 1940 New Kensington City Directory indicate that the building was owned by Mrs. Elizabeth Czepull who provided furnished rooms. Tenants in 1928 included a carpenter and a student.

The earliest identified transactions involving the parcel of land now occupied by 308 Tenth Street occurred in 1913 when ownership of the parcel was conveyed to Lena Redman in two separate transactions. Logan Trust Company, guardian of the estate of Susan H. McCarty, sold a 2/3 share in the property for $2,666.66.00 (Westmoreland County Deed Book 531:225, October 17, 1913). The estate of Hugh S. McCarty sold the remaining 1/3 share for $1,333.33.00 (Westmoreland County Deed Book 531:227, October 20, 1913). Three years later, Lena Redman and her husband Emil sold the parcel to Caroline Czepull in an unrecorded transaction. In September 1916, Caroline Czepull and her husband Frank transferred ownership of the parcel to Elizabeth Czepull for the token sum of $1.00 (Westmoreland County Deed Book 594:504, September 12, 1916). The parcel remained in the Czepull family until 1964. In that year, Howard and Juliet Imm and Edith and Walter L. Cooper, heirs of Elizabeth Czepull, sold the property to Ralph and Elizabeth Canning for $44,500.00 (Westmoreland County Deed Book 1889:67, July 13, 1964). In 1973, P.J. London, Ltd. sold the property to the National Builders and Acceptance Corporation for $35,000.00 (Westmoreland County Deed Book 2144:1018, December 21, 1973).

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM--PHOTO/SITE PLAN SHEET

89A

Pennsylvania Historical and Museum Commission
Bureau of Historic Preservation
Box 1026, Harrisburg, PA 17108-1026

Survey Code/Tax Parcel/Other No.: 24-3-15-118 County: Westmoreland
Municipality: New Kensington Address: 302 Tenth Avenue
Historic Name/Other Name: Redman Apartments

SITE PLAN

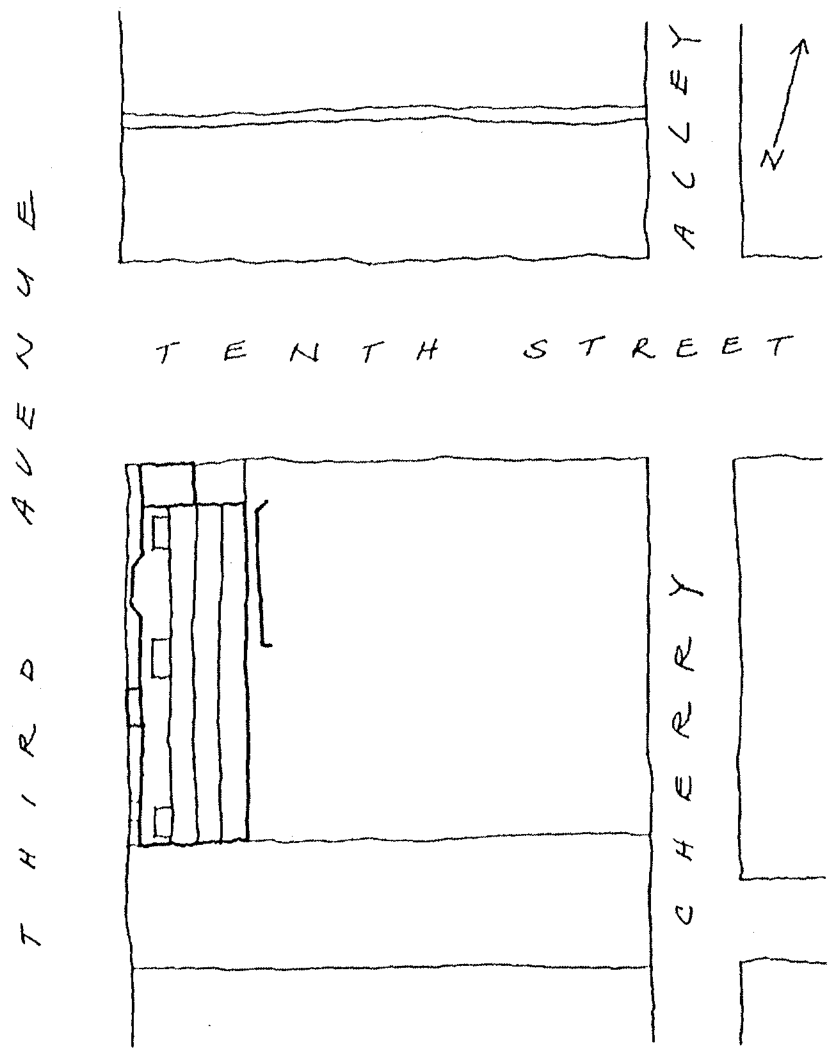


PHOTO INFORMATION

Attach Photo Here

Number	Description of View	Direction of Camera
1	North Facade	S
2	West side and South wall	NE

Photographer Name: Douglas C. McVarish Date: July 1993
Negative Location: John Milner Associates, Inc. 309 N. Matlack Street, West Chester, PA 19380

See reverse for additional instruction

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM--DATA SHEET 89B
Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

IDENTIFICATION AND LOCATION

Survey Code: ____ Tax Parcel/Other No.: 24-3-15-118

County: 1. Westmoreland 1 2 9 2. ____

Municipality: 1. New Kensington 2. ____

Address: 302 Tenth Avenue

Historic Name: Redman Apartments

Other Name: ____

Owner Name/Address: Ernest and Patricia Bassett, 1164 Constitution Boulevard, New Kensington, Pennsylvania 15068

Owner Category: X Private ____ Public-local ____ Public-state ____ Public-federal

Resource Category: X Building ____ District ____ Site ____ Structure ____ Object

Number/Approximate Number of Resources Covered by this Form: 1

USGS Quad: 1. New Kensington 2. ____

UTM References: A. 17 604305 4491180 C. ____
B. ____ D. ____

HISTORIC AND CURRENT FUNCTIONS

Historic Function Category:	Subcategory	Code:
A. Domestic	Multiple dwelling	0 1 B
B.		
C.		
D.		

Particular Type: A. Apartment building
B.
C.
D.

Current Function Category:	Subcategory:	Code:
A. Domestic	Multiple dwelling	0 1 B
B.		
C.		
D.		

PHYSICAL DESCRIPTION

Architectural Classification: A. Mixed 9 0
B. ____ C: ____
D. ____ Other: ____

Exterior Materials: Foundation Stone 4 0 Roof Slate 4 5
Walls Brick 3 0 Walls ____
Other Balconies: iron 5 1 Other ____

Structural System: 1. Masonry: brick 2 1 2. ____

Width: 2 Bay B Depth: c. 90 feet Stories/Height 2½ B

HISTORICAL INFORMATION

Year Built: _X_ C. 1915 to ____ C.____ Additions/Alterations Dates: ___C. ________; ___C. ______

Basis for Dating: _X_ Documentary ____ Physical

Explain: Redman Apartments are not shown on the 1911 Sanborn map of New Kensington. The building is shown on the 1915 map.

Cultural/Ethic Affiliation: 1. ____________ 2. ____________

Associated Individuals: 1. ____________ 2. ____________

Associated Events: 1. ____________ 2. ____________

Architects/Engineers: 1. ____________ 2. ____________

Builders: 1. ____________ 2. ____________

MAJOR BIBLIOGRAPHICAL REFERENCES

Sanborn Map Company. *Insurance Map of New Kensington, Pennsylvania.* New York: Sanborn Map Company, 1911 and 1915 editions.

Westmoreland County Deed Books. Office of the Registrar of Deeds. Westmoreland County Courthouse, Greensburg, Pennsylvania.

PREVIOUS SURVEY, DETERMINATIONS

EVALUATION (Survey Director/Consultants Only)

Individual NR Potential: ____Yes _X_No Context(s): Aluminum Industry in Westmoreland and Allegheny Counties, 1888-1945

Contributes to Potential District _X_Yes ____No District Name/Status New Kensington Historic District/Recommended

Explain:

THREATS

Threats: _1_ 1. None 2. Public Development 3. Private Development 4. Neglect 5. Other

Explain: Building continues in historic apartment use and is relatively well maintained.

SURVEYOR INFORMATION

Surveyor Name/Title: Douglas C. McVarish, Project Architectural Historian Date: July 1993

Project Name: Historic Resources Survey of the Aluminum Industry in Westmoreland and Allegheny Counties, PA

Organization: John Milner Associates, Inc. Telephone: (215) 436-9000

Street and No. 309 North Matlack Street

City, State: West Chester, Pennsylvania Zip Code: 19380

Additional Survey Documentation: ____________

Associated Survey Costs: ____________

PENNSYLVANIA HISTORICAL RESOURCE SURVEY FORM–NARRATIVE SHEET

89C

Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

Survey Code: ____________ Tax Parcel/Other No.: 24-3-15-118

County: Westmoreland Municipality: New Kensington

Address: 302 Tenth Street

Historic/Other Name: Redman Apartments

PHYSICAL DESCRIPTION:

Redman Apartments is a rectangular brick, two and one half story, gambrel roofed block, situated at the southeast corner of Third Avenue and Tenth Street. The general surroundings of the building is a densely developed residential section of single and multi-family houses. East of the building are three brick houses presently converted to apartments. South of the apartment block is a row of gable roofed houses and duplexes. Across Tenth Street is the large brick Hotel Washington, and across Third Avenue are additional brick single family houses. These houses and apartments generally have little or no yard and adjoin the sidewalks.

The facade of the elaborately detailed Redman Apartments faces Tenth Street and is dominated by a rectangular, three story, three level, two bay brick porch. The east bay of the porch is open on all three levels, while the west bay is enclosed. First story openings are segmentally arched with the arches formed by two brick header courses. The west first story bay is fenestrated with three one over one, double hung sashes, situated within a segmentally arched frame. Second story porch fenestration consists of four, tall, one over one, double hung sash windows. Third story fenestration consists of four, shorter, one over one, double hung sash windows. All of the facade windows have stone sills. Square brick porch piers with brownstone bases rise from square brick pedestals. The first cornice level is decorated with corbeled brickwork. Stone steps lead to the recessed first story entrance bay. The main entry door is located at the rear of this bay. The door is flanked by half length, leaded glass sidelights with wood panels below and is surmounted by a three light, leaded glass transom. A second door is located on the west wall of the entry bay. Second and third story doors are situated on the west walls of the porch. Both of these doors have modern metal screened doors. The rear of both the second and third story porches is fenestrated with a single light picture window, surmounted by a leaded glass transom. The porch has an overhanging flat roof. The gambrel end of the block projects slightly to the sides and top of the porch. An oculus window is situated in the north gable peak.

The west wall of the apartment block is divided into six bays. Projecting from the plane of the wall is a canted, three sided bay, a hipped entrance hood, and a shed roofed, second and third story porch. The canted bay is situated near the north end of the west wall. The canted sides of the bay are fenestrated with tall, narrow, one over one, double hung windows with stone sills and lintels. The first story of the outer side of the bay is fenestrated with a wide single light window, surmounted by a stained glass transom. The second story is fenestrated with a single wide, one over one, double hung sash window. A gambrel wall dormer surmounts the canted bay. This dormer is fenestrated with paired one over one, double hung sash windows. A second and third story, shed roofed porch projects from the south end of the west wall. This porch is ornamented with wrought-iron railings. Access to the porch is through paired 15 light doors, surmounted by a single light transom. Beneath the porch is a single light rectangular window with a three light stained glass transom. Near the center of the west wall is a hipped roof, single bay entry porch. This porch has corner brick piers with concrete caps and a copper roof. A nine pane door with six-light sidelights and four light stained glass transom is sheltered by the hood.

Fenestration of the west wall of the block consists primarily of one over one, double hung sash windows. Projecting from the west slope of the gambrel roof are three shed roofed dormers. Each appears to have originally been fenestrated with paired one over one, double hung windows, although the fenestration of the central dormer has been altered. In addition to the door openings mentioned in the preceding paragraph, the west wall has a single-leaf door south of the canted bay and a garage opening at the south end of the wall. The first-mentioned door has a single light transom. The garage opening is fenestrated with paired, vertical boarded, side hinged garage doors. The south wall of the block is blank except for a diamond-shaped window, situated near the peak of the roof. This window is set within a brick header frame. A gambrel roofed dormer projects from the east roof slope of the block.

PHYSICAL DESCRIPTION:

The block has a rusticated coursed stone foundation. This foundation is fenestrated by single light rectangular windows protected by vertical iron bars. The foundation is topped by a stone water table. The walls are laid in multi-colored brown, stretcher bond brick. The roof junction is marked by a boxed cornice. The roof is primarily sheathed with slate, although portions of the lower roof slope are sheathed in asphalt shingles.

Redman Apartments are in good condition. Most of its exterior decoration is intact, and the building continues in its historic use as an apartment building. The building possesses integrity of location, design, setting, materials, workmanship, and feeling. It clearly conveys associations with its early 2oth century date of construction.

HISTORICAL NARRATIVE:

The building is not shown on a 1911 Sanborn map of New Kensington. It is first shown on a 1915 Sanborn map. The 1928 New Kensington City Directory listed the building as the residence of Emil H. Redman, a tinworker, and John Boeltz, the proprietor of the Allegheny Valley Restaurant. The 1940 directory listed the building as the Redman Apartments, owned by Lena Redman, widow of Emil.

The earliest identified transaction involving the parcel occurred in 1913 when the Logan Trust Company, guardian of the estate of David Holmes McCarty, Jr., sold a 2/3 interest in the property to Lena Redman for $2,666.66 (Westmoreland County Deed Book 531:225, October 17, 1913). In 1938, Lena Redman sold the property to Marie Redman Mick and Helen Redman Patterson for the token sum of $1.00 (Westmoreland County Deed Book 1037:216, July 1, 1938). In an unrecorded transaction, Marie Redman Mick may have acquired complete ownership of the parcel. In 1941, she and her husband, Ronald C. of Cleveland, Ohio, sold the parcel to Emily Redman Twyford for $500.00 (Westmoreland County Deed Book 1089:594, May 31, 1941). The following year, Emily Redman Twyford and her husband Wesley sold the parcel to T. Dale Stewart for $23,0000.00 (Westmoreland County Deed Book 1114:32, February 21, 1942). The property remained in the Stewart family until 1980 when T. Dale and Letitia Stewart and other Stewart family members sold it to the current owners for $1.00 and other various considerations (Westmoreland County Deed Book 2375:260, December 23, 1980).

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM--PHOTO/SITE PLAN SHEET 89A

Pennsylvania Historical and Museum Commission
Bureau of Historic Preservation
Box 1026, Harrisburg, PA 17108-1026

Survey Code/Tax Parcel/Other No.: 24-3-11-53 County: Westmoreland
Municipality: New Kensington Address: 1080 Third Avenue
Historic Name/Other Name: Paskiewicz, William House

SITE PLAN

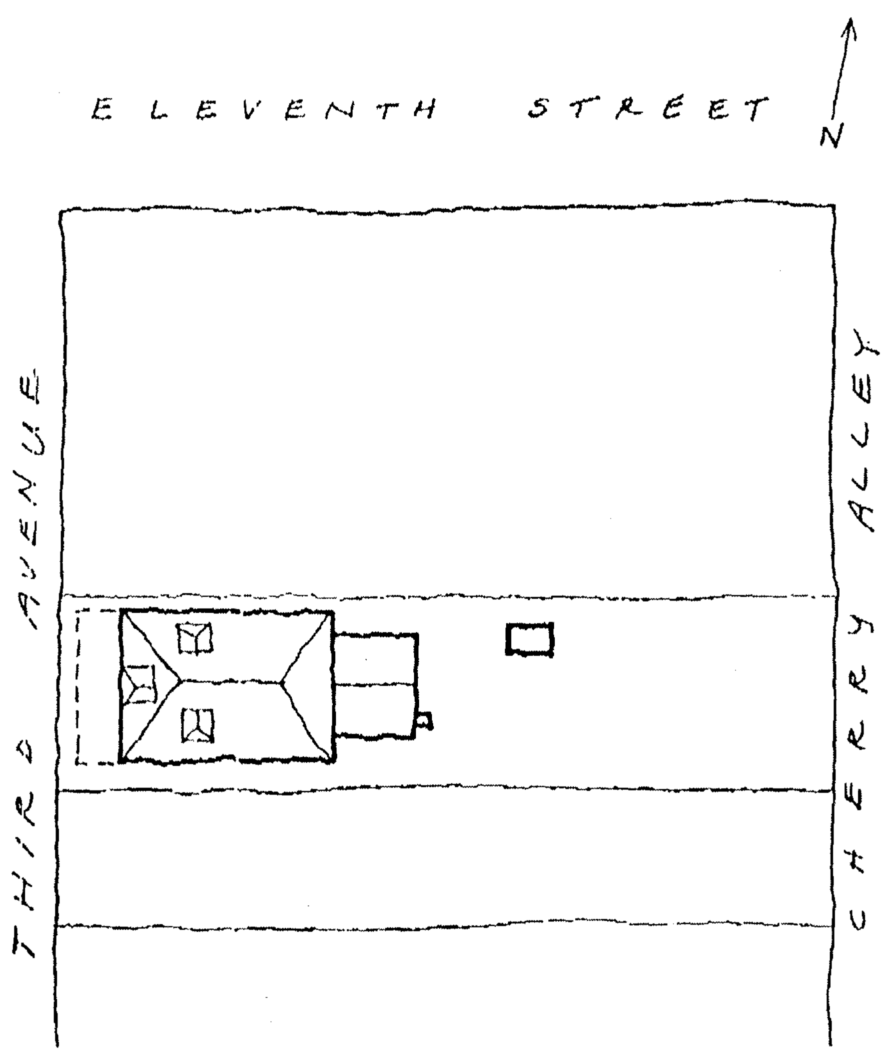


PHOTO INFORMATION

Attach Photo Here

Number	Description of View	Direction of Camera
1	West facade and South side	East
2	Rear and South side	West

Photographer Name: Douglas C. McVarish Date: July 1993
Negative Location: John Milner Associates, Inc. 309 N. Matlack Street, West Chester, PA 19380

See reverse for additional instruction

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM--DATA SHEET 89B
Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

IDENTIFICATION AND LOCATION

Survey Code: ____ Tax Parcel/Other No.: 24-3-11-53

County: 1. Westmoreland 1 2 9 2. ____

Municipality: 1. New Kensington 2. ____

Address: 1080 Third Avenue

Historic Name: Paskiewicz, William House

Other Name: Paskey, Helen House

Owner Name/Address: Helen P. Paskey, 1080 Third Avenue, New Kensington, PA 15068

Owner Category: X Private ____ Public-local ____ Public-state ____ Public-federal

Resource Category: X Building ____ District ____ Site ____ Structure ____ Object

Number/Approximate Number of Resources Covered by this Form: 2

USGS Quad: 1. New Kensington West 2. ____

UTM References: A. 17 604275 4490280 C. ____ B. ____ D. ____

HISTORIC AND CURRENT FUNCTIONS

Historic Function Category:	Subcategory	Code:
A. Domestic	Single dwelling	0 1 A
B.		
C.		
D.		

Particular Type: A. House
B. ____
C. ____
D. ____

Current Function Category:	Subcategory:	Code:
A. Domestic	Single dwelling	0 1 A
B.		
C.		
D.		

PHYSICAL DESCRIPTION

Architectural Classification: A. Prairie School: American Four Square 6 1
B. ____ C: ____
D. ____ Other: ____

Exterior Materials:

		Code			Code
Foundation	Concrete	6 5	Roof	Asphalt	6 3
Walls	Brick	3 0	Walls		
Other			Other		

Structural System: 1. Masonry: brick 2 1 2. ____

Width: 2 Bay B Depth: 2 Rooms B Stories/Height 2½ B

HISTORICAL INFORMATION

Year Built: X C. 1915 to X C. 1921 Additions/Alterations Dates: ___C. ________; ___C. ______

Basis for Dating: X Documentary _____ Physical

Explain:

House is not shown on 1915 Sanborn insurance map but is shown on 1921 Sanborn insurance map.

Cultural/Ethic Affiliation: 1. Polish 2. ____

Associated Individuals: 1. ____ 2. ____

Associated Events: 1. ____ 2. ____

Architects/Engineers: 1. ____ 2. ____

Builders: 1. ____ 2. ____

MAJOR BIBLIOGRAPHICAL REFERENCES

Sanborn Map Company. Insurance Maps of New Kensington, Pennsylvania. 1915 and 1921 editions. New York: Sanborn Map Company.

Westmoreland County Deed Books. Westmoreland County Courthouse. Greensburg, Pennsylvania.

PREVIOUS SURVEY, DETERMINATIONS

EVALUATION (Survey Director/Consultants Only)

Individual NR Potential: _____Yes X No Context(s): Aluminum Industry in Westmoreland and Allegheny Counties, 1888-1945

Contributes to Potential District X Yes ____No District Name/Status New Kensington Historic District/Recommended

Explain: Recommended eligible for the National Register. District contains a significant concentration of early 20th century single and multiple family residences.

THREATS

Threats: 1 1. None 2. Public Development 3. Private Development 4. Neglect 5. Other

Explain: Building is well-maintained and continues to be used as a single family house.

SURVEYOR INFORMATION

Surveyor Name/Title: Douglas C. McVarish, Project Architectural Historian Date: July 1993

Project Name: Historic Resources Survey of the Aluminum Industry in Westmoreland and Allegheny Counties, PA

Organization: John Milner Associates, Inc. Telephone: (215) 436-9000

Street and No. 309 North Matlack Street

City, State: West Chester, Pennsylvania Zip Code: 19380

Additional Survey Documentation: ____

Associated Survey Costs: ____

PENNSYLVANIA HISTORICAL RESOURCE SURVEY FORM--NARRATIVE SHEET

89C

Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

Survey Code: ______

Tax Parcel/Other No.: 24-3-11-53

County: Westmoreland

Municipality: New Kensington

Address: 1080 Third Avenue

Historic/Other Name: Paskiewicz, William House

PHYSICAL DESCRIPTION:

The Paskiewicz House is the best preserved, and most elaborately detailed, of a group of similar hip roofed, brick houses, lining the east side of the 1000 block of Third Avenue in New Kensington. This group of houses is situated west of the New Kensington central business district and comprises a portion of the remnant of a once larger residential neighborhood that provided housing for workers in the New Kensington Alcoa Works and other industrial enterprises in New Kensington. The houses in the 1000 block maintain a consistent setback and are closely spaced, separated only by narrow alleys.

The front porch of the house adjoins the sidewalk on the east side of Third Avenue. The rear yard contains a concrete driveway and a fenced area, containing a garden and prefabricated garden shed.

The house consists of a two and one-half story, brick, hip roofed, square block with a narrower, gabled two and one-half story ell adjoining the east wall of the main block. The facade of the main block is constructed of buff brick, while the remaining walls are constructed of red brick. Fenestration consists of a variety of window types. The north first story bay on the west facade contains a single light picture window surmounted by a leaded stained glass transom. Second story facade windows have been altered. The original sashes have been replaced by sliding, three light windows, although the original lozenge-patterned leaded transoms remain. The remaining fenestration consists primarily of one over one, double hung sash windows. Most windows have stone sills and lintels. Hipped dormers project from the west, north, and south roof slopes. Each of these dormers is fenestrated with a pair of one over one windows. The main entry door is situated in the south bay of the west facade. The door surround contains a leaded glass transom and half-length leaded glass sidelights. The door is sheltered by a hip roofed, two bay, full-width front porch. This porch has a solid paneled brick balustrade. Porch piers rise from brownstone plinths. The square brick piers have corbeled bases and capitals.

A two-and-one half story, gable roofed ell projects from the center of the rear wall of the block. The rear wall of the main block is fenestrated with one over one, double hung windows on either side of the ell projection. The ell is fenestrated with one over one windows on each side, and a door is situated in the south bay of its east wall. This door is sheltered by an aluminum awning. The roof of this ell is marked by a boxed cornice with returns.

A tall brick chimney with corbeling near its top projects from the north roof slope of the main block. A shorter brick chimney with corbeled cap, topped with stone coping, projects from the north slope of roof of the rear ell. The foundation of the house is constructed of concrete block, and its roof is sheathed in asphalt shingles.

A prefabricated, gabled wood framed garden shed is situated in the rear yard of the house. This shed was probably erected about 1980.

Despite some alteration of fenestration, the Paskiewicz House exhibits a high level of architectural integrity. The house retains integrity of location, design, setting, materials, workmanship, and feeling. It convincingly conveys associations to its early 20th century date of construction.

HISTORICAL NARRATIVE:

The house was constructed on the site of a three story wood framed house shown on a 1911 Sanborn map of New Kensington. On a 1915 map, this house is no longer shown. The present house is first shown on a 1921 Sanborn map.

The 1940 New Kensington City Directory indicates that William and Paul Paskey, both residents of the house, were employed as factory workers by Alcoa.

The land on which the house at 1080 Third Avenue in New Kensington was built was sold by the Burrell Improvement Company to Frans Trettel in 1891 (Westmoreland County Deed Book 208:63, August 7, 1891). Trettel subsequently sold the parcel of land to William Paskiewicz in 1907 for $3,100.00 (Westmoreland County Deed Book 439:66, May 18, 1907). In August 1927, William Paskiewicz and his wife Lizzie sold the property to Jerome Sullivan for $1.00 (Westmoreland County Deed Book 827:430, August 1, 1927). This transaction may have been intended, either as settlement of ownership or as part of a mortgage on the property, because later the same month the property was sold back to the Paskiewiczes for the same sum (Westmoreland County Deed 828:540, August 21, 1927).

Lizzie Paskiewicz died on May 17, 1939, and William died on February 22, 1962. After William's death, title to the property passed to his son Paul Paskey. In 1978, Paul Paskey sold the property to Richard J. and Ellen Paskey for $1,000.00 (Westmoreland County Deed Book 2284:1075, May 1, 1978). Richard J. Paskey subsequently sold the property to his mother, Helen P. Paskey, its current owner (Westmoreland County Deed Book 2409:478, November 12, 1981).

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM--PHOTO/SITE PLAN SHEET

89A

Pennsylvania Historical and Museum Commission
Bureau of Historic Preservation
Box 1026, Harrisburg, PA 17108-1026

Survey Code/Tax Parcel/Other No.: 24-3-15-135 County: Westmoreland
Municipality: New Kensington Address: 324 Tenth Street
Historic Name/Other Name: Rorabaugh Block

SITE PLAN

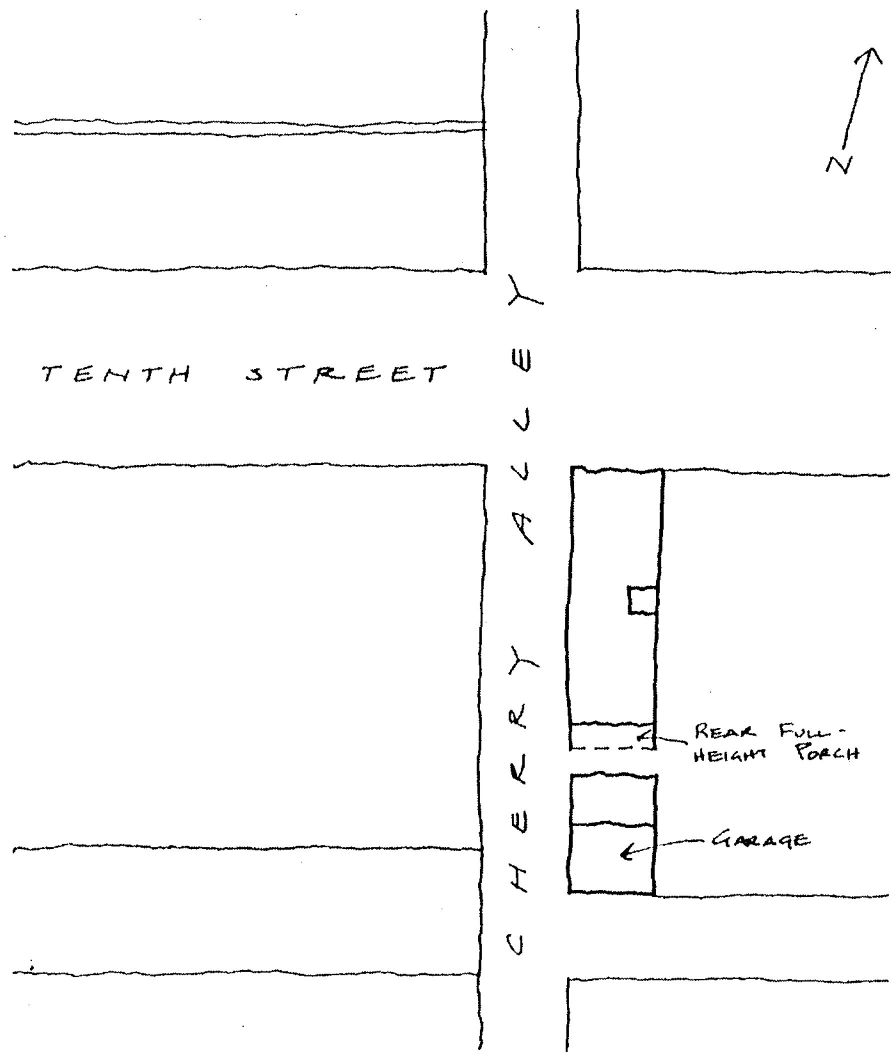


PHOTO INFORMATION

Attach Photo Here

Number	Description of View	Direction of Camera
1	North facade and East wall	SW

Photographer Name: Douglas C. McVarish Date: July 1993
Negative Location: John Milner Associates, Inc. 309 N. Matlack Street, West Chester, PA 19380

See reverse for additional instruction

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM–DATA SHEET 89B
Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

IDENTIFICATION AND LOCATION

Survey Code: ______ Tax Parcel/Other No.: 24-3-15-135

County: 1. Westmoreland 1 2 9 2. ______

Municipality: 1. New Kensington 2. ______

Address: 324 Tenth Street

Historic Name: Rorabaugh Block

Other Name: Penn Washer and Appliance Service

Owner Name/Address: Clyde and Mary Haslett, 324 Tenth Street, New Kensington, PA 15068

Owner Category: X Private ___ Public-local ___ Public-state ___ Public-federal

Resource Category: X Building ___ District ___ Site ___ Structure ___ Object

Number/Approximate Number of Resources Covered by this Form: 1

USGS Quad: 1. New Kensington West 2. ______

UTM References: A. 17 604360 4491160 C. ______
B. ______ D. ______

HISTORIC AND CURRENT FUNCTIONS

Historic Function Category:	Subcategory	Code:
A. Commerce/Trade	Business	0 2 A
B. Domestic	Single dwelling	0 1 A
C.		
D.		

Particular Type: A. Electrical contractor
B. Apartment
C. ______
D. ______

Current Function Category:	Subcategory:	Code:
A. Commerce/Trace	Business	0 2 A
B. Domestic	Single dwelling	0 1 A
C.		
D.		

PHYSICAL DESCRIPTION

Architectural Classification: A. Italianate 4 2
B. ______ C: ______
D. ______ Other: ______

Exterior Materials:
Foundation Brick 3 0 Roof Asphalt 6 3
Walls Brick 6 5 Walls ______
Other Wood 2 0 Other ______

Structural System: 1. Masonry--brick 2 1 2. ______

Width: 2 Bays B Depth: c. 65 feet ___ Stories/Height 3 C

HISTORICAL INFORMATION

Year Built: _X_ C. _1910_ to _ C.____ Additions/Alterations Dates: _1987_ C. ______; ____C. ______

Basis for Dating: _____ Documentary _X_ Physical

Explain: Date plaque in parapet.

Cultural/Ethic Affiliation: 1. ______ 2. ______

Associated Individuals: 1. ______ 2. ______

Associated Events: 1. ______ 2. ______

Architects/Engineers: 1. ______ 2. ______

Builders: 1. ______ 2. ______

MAJOR BIBLIOGRAPHICAL REFERENCES

Polk, R.L. and Company. *Polk's New Kensington City Directory.* Pittsburgh: R.L. Polk, 1928, 1940.

Westmoreland County Deed Books. Westmoreland County Courthouse, Greensburg, Pennsylvania.

PREVIOUS SURVEY, DETERMINATIONS

EVALUATION (Survey Director/Consultants Only)

Individual NR Potential: _____Yes _X_ No Context(s): _Aluminum Industry in Westmoreland and Allegheny Counties, 1888-1945_

Contributes to Potential District _X_ Yes ____No District Name/Status _New Kensington Historic District/ Recommended_

Explain: This neighborhood commercial building is typical of early 20th century commercial buildings on the edge of this predominately residential district.

THREATS

Threats: _1_ 1. None 2. Public Development 3. Private Development 4. Neglect 5. Other

Explain: Building remains in active commercial use.

SURVEYOR INFORMATION

Surveyor Name/Title: _Douglas C. McVarish, Project Architectural Historian_ Date: _July 1993_

Project Name: _Historic Resources Survey of the Aluminum Industry in Westmoreland and Allegheny Counties, PA_

Organization: _John Milner Associates, Inc._ Telephone: _(215) 436-9000_

Street and No. _309 North Matlack Street_

City, State: _West Chester, Pennsylvania_ Zip Code: _19380_

Additional Survey Documentation: ______

Associated Survey Costs: ______

PENNSYLVANIA HISTORICAL RESOURCE SURVEY FORM–NARRATIVE SHEET

Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

Survey Code: ______ Tax Parcel/Other No.: 24-3-15-135

County: Westmoreland Municipality: New Kensington

Address: 324 Tenth Street

Historic/Other Name: Rorabaugh Block

PHYSICAL DESCRIPTION:

This tall, narrow, brick, three story commercial block is located on the south side of Tenth Street and on the east side of Cherry Alley. West of the building is a group of brick residential buildings, presently all used as apartments. On the east side is a vacant lot. On a 1956 Sanborn map, this lot is shown as occupied by a two story, masonry block that housed a restaurant. Across Tenth Street from the block is a municipal parking lot. The Rorabaugh Block is situated at the west edge of the New Kensington central business district. This district is concentrated along Fourth and Fifth avenues.

The building adjoins the Tenth Street sidewalk and Cherry Alley. A tall, solid wood fence projects from the northeast corner of the block and encloses the street frontage of the adjacent vacant lot. In form and detailing the Rorabaugh Block is a typical early 20th century commercial block with recessed entry bay and elaborated brick cornice. The corners of the north facade are defined by full-height brick corner piers with stone bases and stone plaques marking the top of the first story. The first story is delineated by a pressed metal cornice with a pent roof and dentils. Typical of early 20th century storefronts, large rectangular display windows flank a recessed entry. Beneath these display windows are ceramic tile panels. The entry door is contained within a double recess. The side walls of the outer portion of the recess are fenestrated with large display windows, and the wood, single light door is contained within a second, shallow recess. The side walls of this recess are also fenestrated with single light display windows. At the east end of the facade is a door leading to a stairway that provides access to the upper stories of the block. This door has an etched, frosted glass light in its upper section and two panels below. It is surmounted by a single light, etched frosted glass transom. The second and third stories of the facade contain two one over one, double hung windows. These windows are replacements of larger windows, and the sides of the original window frames have been enclosed. The replacement windows have stoned sills and lintels. Fenestration of the west and south sides of the block consists of one over one, double hung windows.

The portion of the facade above the second story windows is decorated with an ornamental brick band, constructed of stretcher and header string courses. The cornice is marked by an elaborate stepped brick parapet, ornamented by corbeled brick work and central corbeled string courses. A raised central section of the parapet is defined by paneled piers and contains within it a date plaque. The elaborate brickwork of the central cornice is continued in the corner piers. The summits of these piers are marked by corbeling and recessed panels. The roofline of the block steps downward toward the rear. Adjoining the rear wall of the block is a three story, three level, wood and steel framed, shed roofed porch. Two doors are situated in the first story of the rear wall of the block. The block is sheathed in brick laid in 7-course American bond. The roof is sheathed in asphalt.

South of the Rorabaugh Block on the east side of Cherry Alley is a two part brick garage block. The northern portion of this block has a flat roof and a sliding wood garage door on its west wall. The southern portion of garage is one and one-half stories in height and has a gabled roof. This portion of the garage has an entry door on its west wall. Construction detailing suggests that the garage was also constructed in the early 20th century.

The major alterations made to the Rorabaugh Block were the alteration of fenestration of the facade and the boarding up of some openings on the west wall. Despite these changes, the building remains little altered from its historic appearance. Particularly notable is the survival of its historic display windows and main entry bay. The Rorabaugh Block possesses integrity of location, design, setting, materials, workmanship, and feeling. It clearly conveys associations with its early 20th century date of construction.

HISTORICAL NARRATIVE:

The 1928 New Kensington City Directory indicates that this building was occupied by Rorabaugh, Electric Contractor. In 1940, this building was listed as occupied by Harry C. Rorabaugh, electrical contractor.

The land on which this building is located was sold by Frank M. Curtis to Harry C. Rorabaugh for $1,750.00 in 1910 (Westmoreland County Deed Book 480:33, August 4, 1910). Harry C. Roranaigh and his wife Minnie sold the building to Merrill and Jessye Rorabaugh and Harry C. Rorabaugh, Jr. and his wife Ruth for $10,000.00 in 1938 (Westmoreland County Deed Book 1022:512, May 6, 1938). The Rorabaughs subsequently sold the property to Clyde S. Hallett and Louis Rutkowski for $23,000.00 (Westmoreland County Deed Book 1774:216). Louis Rutkowski died in July 1979, and later that year, Ruth Rutkowski, his executrix, sold the half interest in the building to Clyde Haslett for $10,000.00 (Westmoreland County Deed Book 2337:1145, October 15, 1979).

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM--PHOTO/SITE PLAN SHEET 89A

Pennsylvania Historical and Museum Commission

Bureau of Historic Preservation

Box 1026, Harrisburg, PA 17108-1026

Survey Code/Tax Parcel/Other No.: 24-3-15-103 County: Westmoreland

Municipality: New Kensington Address: 209 Ninth Street

Historic Name/Other Name: Skegas, George Block

SITE PLAN

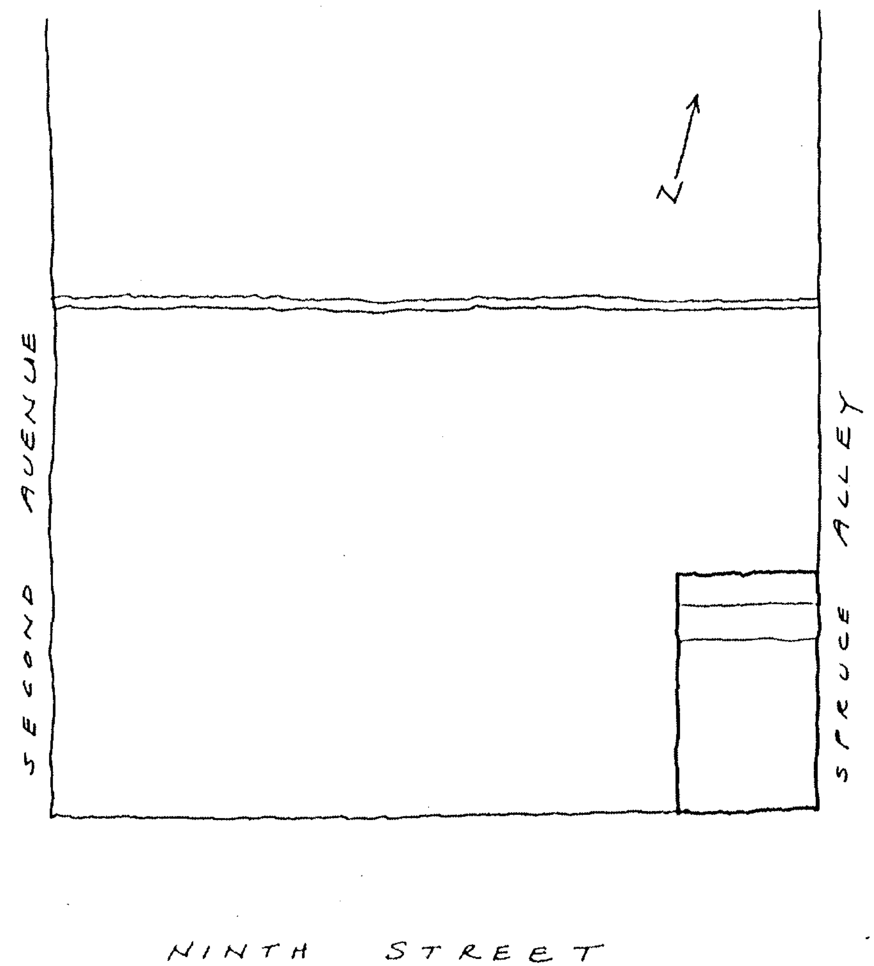


PHOTO INFORMATION

Attach Photo Here

Number	Description of View	Direction of Camera
1	South facade and East side	NW

Photographer Name: Douglas C. McVarish Date: July 1993

Negative Location: John Milner Associates, Inc. 309 N. Matlack Street, West Chester, PA 19380

See reverse for additional instruction

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM–DATA SHEET 89B

Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

IDENTIFICATION AND LOCATION

Survey Code: ______ Tax Parcel/Other No.: 24-3-15-103

County: 1. Westmoreland 1 2 9 2. ______

Municipality: 1. New Kensington 2. ______

Address: 209 Ninth Street

Historic Name: Skegas, George Block

Other Name: Nu-Ken Tavern

Owner Name/Address: Karolyn Krail, 230 Parke Street, Aberdeen, Maryland 21061

Owner Category: X Private ___ Public-local ___ Public-state ___ Public-federal

Resource Category: X Building ___ District ___ Site ___ Structure ___ Object

Number/Approximate Number of Resources Covered by this Form: 1

USGS Quad: 1. New Kensington West 2. ______

UTM References: A. 17 604360 4491020 C. ______

B. ______ D. ______

HISTORIC AND CURRENT FUNCTIONS

Historic Function Category:	Subcategory	Code:
A. Commerce/Trade	Specialty store	0 2 E
B.		
C.		
D.		

Particular Type: A. Grocery store

B. ______

C. ______

D. ______

Current Function Category:	Subcategory:	Code:
A. Commerce/Trade	Restaurant	0 2 G
B.		
C.		
D.		

PHYSICAL DESCRIPTION

Architectural Classification: A. Moderne 7 1

B. ______ C: ______

D. ______ Other: ______

Exterior Materials:

Foundation	Brick	3 0	Roof	Asphalt	6 3
Walls	Brick	3 0	Walls	Ceramic tile	6 7
Other			Other		

Structural System: 1. Masonry: brick 2 1 2. ______

Width: 3 Bays C Depth: 2 Rooms ___ Stories/Height 2 B

HISTORICAL INFORMATION

Year Built: X C. 1935 to _ C.___ Additions/Alterations Dates: ____ C. _____; ____C. _____

Basis for Dating: _____ Documentary X Physical

Explain: Date plaque in facade parapet lists construction date.

Cultural/Ethic Affiliation: 1. __________ 2. __________

Associated Individuals: 1. __________ 2. __________

Associated Events: 1. __________ 2. __________

Architects/Engineers: 1. __________ 2. __________

Builders: 1. __________ 2. __________

MAJOR BIBLIOGRAPHICAL REFERENCES

Polk, R.L. and Company. *Polk's New Kensington City Directory.* Pittsburgh: R.L. Polk, 1928, 1940.

PREVIOUS SURVEY, DETERMINATIONS

EVALUATION (Survey Director/Consultants Only)

Individual NR Potential: _____Yes X No Context(s): Aluminum Industry in Westmoreland and Allegheny Counties, 1888-1945

Contributes to Potential District X Yes ____No District Name/Status New Kensington Historic District/ Recommended

Explain: The commercial buildings along Ninth Street near Third Avenue include neighborhood commercial enterprises that served the residential population of the Third Avenue neighborhood.

THREATS

Threats: 1 1. None 2. Public Development 3. Private Development 4. Neglect 5. Other

Explain: Building is apparently still in active use as a tavern and is relatively well maintained.

SURVEYOR INFORMATION

Surveyor Name/Title: Douglas C. McVarish, Project Architectural Historian Date: July 1993

Project Name: Historic Resources Survey of the Aluminum Industry in Westmoreland and Allegheny Counties, PA

Organization: John Milner Associates, Inc. Telephone: (215) 436-9000

Street and No. 309 North Matlack Street

City, State: West Chester, Pennsylvania Zip Code: 19380

Additional Survey Documentation: __________

Associated Survey Costs: __________

PENNSYLVANIA HISTORICAL RESOURCE SURVEY FORM–NARRATIVE SHEET

Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

Survey Code: ____________ Tax Parcel/Other No.: 24-3-15-103

County: Westmoreland Municipality: New Kensington

Address: 209 Ninth Street

Historic/Other Name: Skegas, George Block

PHYSICAL DESCRIPTION:

The George Skegas Block is typical of small-scale commercial buildings along the north side of Ninth Street west of the New Kensington central business district. Immediately west is the linear facade of Dyke Automotive Store. Across an alley east of the block is a post-World War II gas station. East of Third Avenue is a row of attached brick, two story, commercial buildings. The south side of Ninth Street was included in New Kensington's urban renewal area and presently is occupied by a strip shopping center and single story office building.

The block is located at the northwest corner of Ninth Street and Spruce Alley and adjoins the sidewalks of both streets. The rectangular two story building is faced in buff brick. The building faces south toward Ninth Street. Facade fenestration consists of three one over one, double hung windows, equally spaced across the second story facade. Fenestration of the east wall consists of three one over one, double hung sashes and one, modern two over two, double hung sash with horizontal muntins. Window sills are formed by vertical brick headers. The primary door to the building is constructed of metal, pierced by a single light, is centered on the facade, and is situated in a canted recess. The first floor facade is sheathed in vertical board paneling and is trimmed in ceramic tile. The vertical board paneling is also used to sheath the south bay of the east wall. A pent roof sheathed in asphalt shingles shelters the first story facade. Two other doors are situated at the north end of the east wall. One contains four wood panels, while the other has two panels and two lights. Both are set in shallow recesses and are surmounted by transoms, presently enclosed.

The upper facade wall is defined by two corbeled brick string courses, consisting of vertical brick stretchers. The upper string course marks the parapet line. Between these two corbeled string courses is a flush string course consisting of vertical brick stretchers and square stone panels. The facade parapet is crenelated. In the center of the parapet is a plaque, denoting the building as the G. Skegas Block constructed in 1935. The facade parapet and side parapets are topped with concrete slab capstones. A square brick chimney with pyramidal cap projects from the center of the east wall of the block. An equipment penthouse projects from the rear of the roof. An illuminated plastic sign projects from the facade and contains the following information: "Nu-Ken Tavern City Parking." The bottom half of the sign contains a Coca-Cola logo.

The Skegas Block is in generally good condition. The most notable changes have been the alteration of the first story by its sheathing in vertical board paneling. Despite changes, the building retains integrity of location, design, setting, materials, workmanship, and feeling. It is a typical small-scale commercial building of its period, incorporating the Moderne design element of a ceramic panel first-story facade. It clearly conveys associations with the 1930s era of its construction.

HISTORICAL NARRATIVE:

The 1928 New Kensington City Directory indicates that a former building on this site was the John Rosse Restaurant. A new building was apparently erected in 1935 by George Skegas. In 1940, Skegas was listed as operating a grocery store in the building.

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM--PHOTO/SITE PLAN SHEET

Pennsylvania Historical and Museum Commission
Bureau of Historic Preservation
Box 1026, Harrisburg, PA 17108-1026

Survey Code/Tax Parcel/Other No.: ____ County: Westmoreland
Municipality: Arnold Address: (See 89B)
Historic Name/Other Name: Arnold Historic District

SITE PLAN

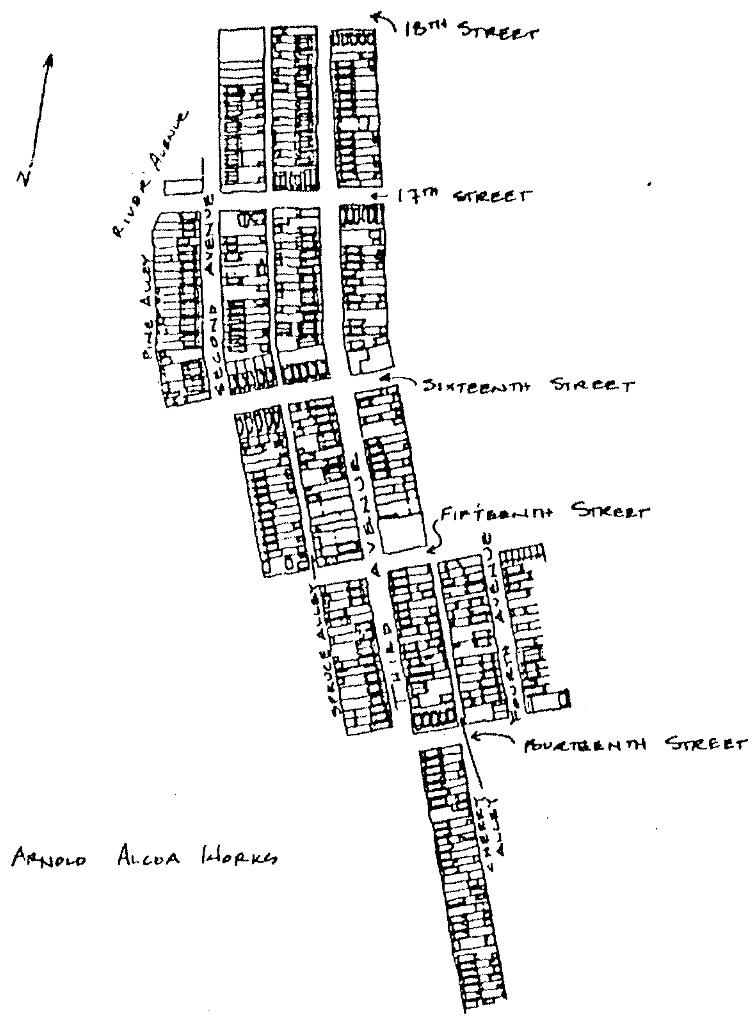


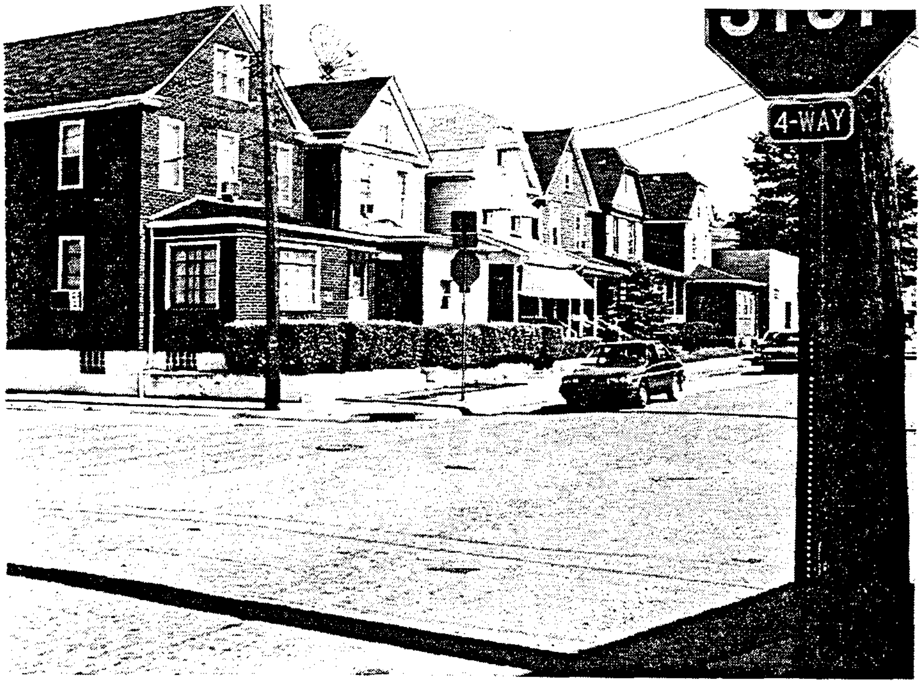
PHOTO INFORMATION

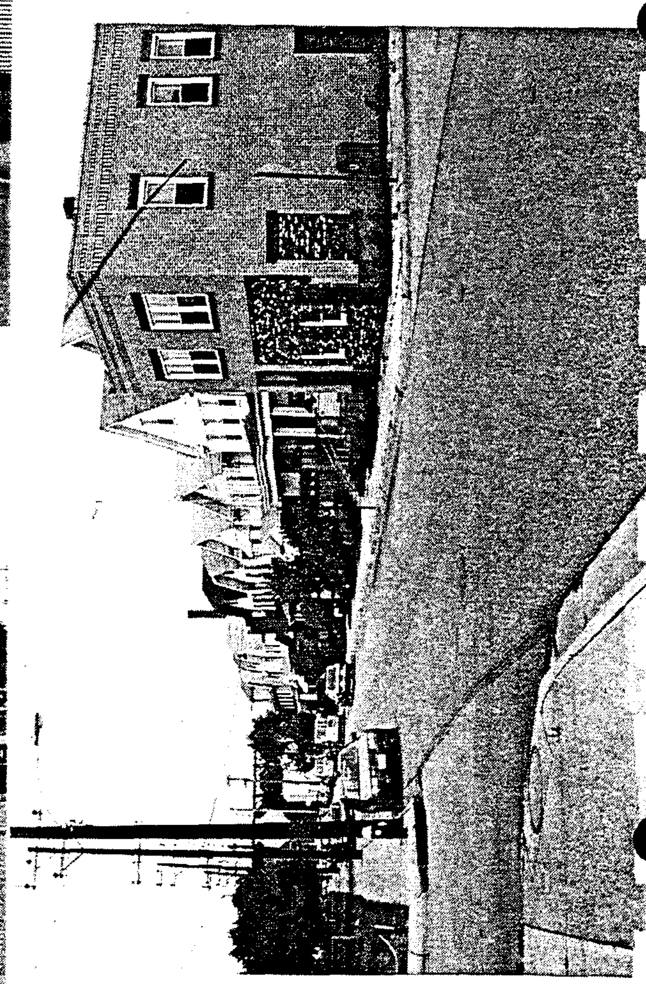
Attach Photo Here

Number	Description of View	Direction of Camera
1	East side, 1300 block of Third Avenue	NE
2	East side, Third Avenue from Fourteenth Street	SE
3	East side, Third Avenue, South of Fifteenth Street	NE
4	West side, Third Avenue at Fifteenth Street	NW
5	West side, Third Avenue at Seventeenth Street	NE
6	West side, Third Ave., North of Seventeenth St.	NW
7	East side, Riverside Ave., South of Sixteenth St.	NE
8	Sixteenth Street, West of Third Avenue	NW
9	Eighteenth Street, West of Third Avenue	NW
10	West side, Fourth Avenue, North of Fourteenth St.	NW

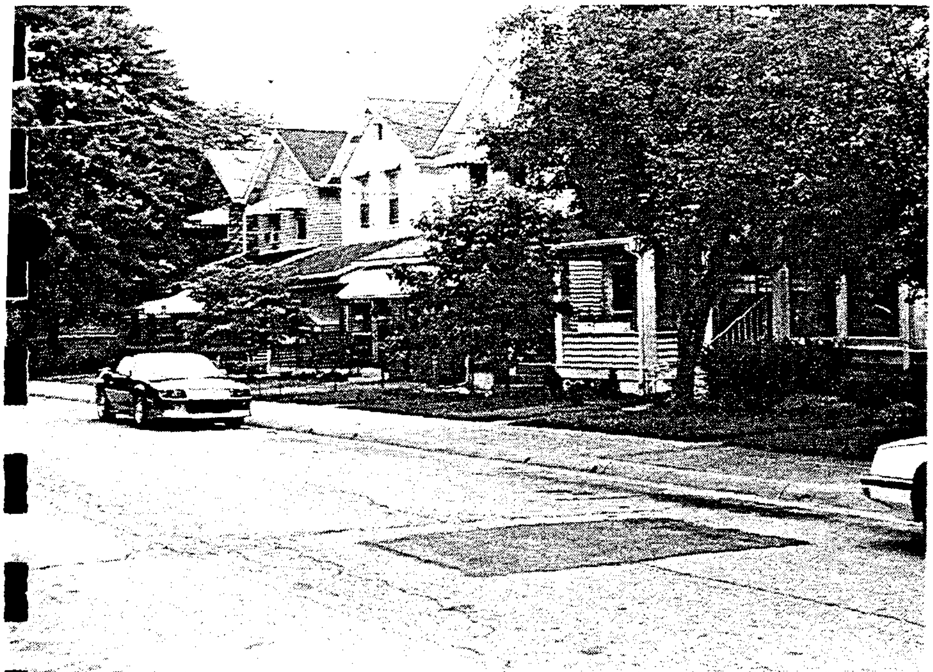
Photographer Name: Douglas C. McVarish Date: July 1993
Negative Location: John Milner Associates, Inc. 309 N. Matlack Street, West Chester, PA 19380

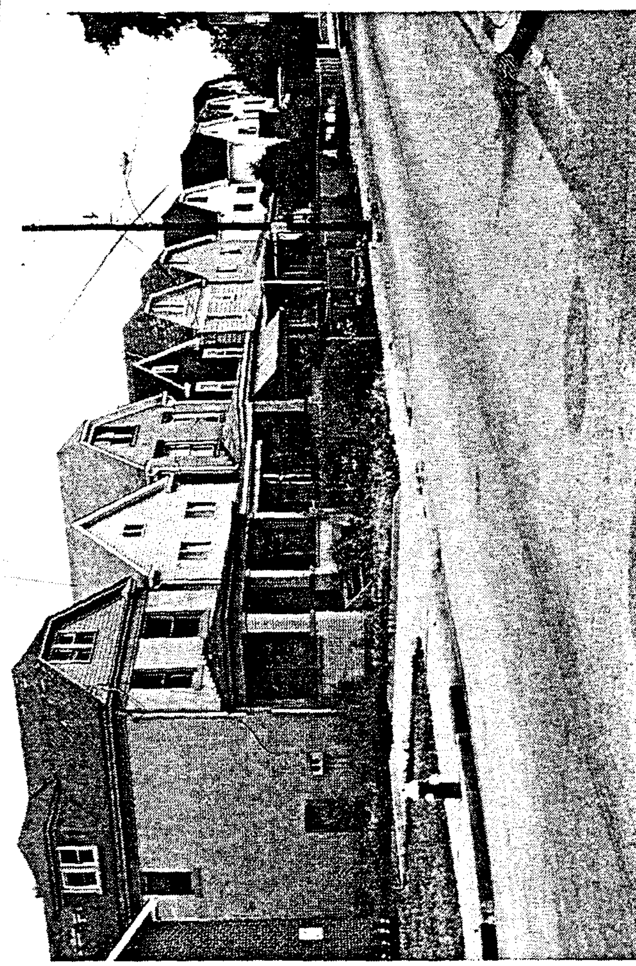
See reverse for additional instruction


4-WAY




Howard Home Center





PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM--DATA SHEET 89B
Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

IDENTIFICATION AND LOCATION

Survey Code: ______ Tax Parcel/Other No.: ______

County: 1. Westmoreland 1 2 9 2. ______

Municipality: 1. Arnold 2. ______

Address: Third Ave. from the New Kensington-Arnold boundary to Eighteenth St., Fourth Ave. from Fourteenth St. to Fifteenth St., Spruce Alley from Fourteenth St. to Fifteenth St., Riverside Ave. from Fifteenth St. to Eighteenth St., Fourteenth St., from Third Ave. to Fourth Ave., Fifteenth St. from Riverside Ave. to Third Ave., Sixteenth St. from Riverside Ave. to Third Ave., Seventeenth St. from Riverside Ave. to Fourth Ave., and Eighteenth St. from Third Ave. to Fourth Ave.

Historic Name: ______

Other Name: Arnold Historic District

Owner Name/Address: Multiple

Owner Category: X Private ___ Public-local ___ Public-state ___ Public-federal

Resource Category: ___ Building X District ___ Site ___ Structure ___ Object

Number/Approximate Number of Resources Covered by this Form: c. 220

USGS Quad: 1. New Kensington West 2. ______

UTM References							
A.	17	604180	4491720	C.	17	604150	4492510
B.	17	603960	4492500	D.	17	604245	4491960

HISTORIC AND CURRENT FUNCTIONS

Historic Function Category:	Subcategory	Code:
A. Domestic	Single dwelling	0 1 A
B. Domestic	Multiple dwelling	0 1 B
C. Commerce/Trade	Business	0 2 A
D.		

Particular Type: A. House
B. Duplex
C. Store
D. ______

Current Function Category:	Subcategory:	Code:
A. Domestic	Single dwelling	0 1 A
B. Domestic	Multiple dwelling	0 1 B
C. Commerce/Trade	Business	0 2 A
D.		

PHYSICAL DESCRIPTION

Architectural Classification: A. Other: Gable front side hall plan 8 0

B. Late Victorian 4 0 C: Prairie School: American Four Sq. 6 1

D. Other: Jerkinhead gable front side hall plan 8 0 Other: ______

Exterior Materials: Foundation Concrete 6 5 Roof Asphalt 6 3

Walls Wood: weatherboard 2 1 Walls Synthetics: vinyl 7 2

Other Walls: brick 3 0 Other ______

Structural System: 1. Timber--light frame 1 4 2. ______

Width: 2 Bay B Depth: 2 Rooms B Stories/Height 2-2½ B

HISTORICAL INFORMATION

Year Built: _X_ C. 1905 to _X_ C. 1928 Additions/Alterations Dates: X C. 1970 ; ___C. ______

Basis for Dating: _X_ Documentary _X_ Physical

Explain: Residential sections of Arnold are first depicted on the 1905 Sanborn insurance map, suggesting development shortly before that date. The expansion of the residential district is depicted on Sanborn maps to 1928. In recent years, many of the houses have been altered with the enclosure of porches, the alteration of fenestration, and re-siding in vinyl or aluminum siding.

Cultural/Ethic Affiliation:	1. Italian	2. Polish
Associated Individuals:	1.	2.
Associated Events:	1. Aluminum Company of America	2.
Architects/Engineers:	1.	2.
Builders:	1.	2.

MAJOR BIBLIOGRAPHICAL REFERENCES

R.L Polk and Company. *Polk's New Kensington City Directory.* Pittsburgh: R.L. Polk and Company, 1928 and 1940 editions.

Sanborn Map Company. *Insurance Map of New Kensington, Pennsylvania.* New York: Sanborn Map Company, 1905, 1911, 1915, 1921, and 1928 editions.

Women's Club of New Kensington. *Lore of Yore: A History of New Kensington, Arnold and Lower Burrell.* New Kensington, Pennsylvania: Women's Club of New Kensington, 1986.

PREVIOUS SURVEY, DETERMINATIONS

EVALUATION (Survey Director/Consultants Only)

Individual NR Potential: ____Yes _X_No Context(s): Aluminum Industry in Westmoreland and Allegheny Counties, 1888-1945

Contributes to Potential District _X_Yes ____No District Name/Status Arnold Historic District/Recommended

Explain:

THREATS

Threats: _1_ 1. None 2. Public Development 3. Private Development 4. Neglect 5. Other

Explain: District remains largely intact with continuing residential occupancy.

SURVEYOR INFORMATION

Surveyor Name/Title: Douglas C. McVarish, Project Architectural Historian Date: July 1993

Project Name: Historic Resources Survey of the Aluminum Industry in Westmoreland and Allegheny Counties, PA

Organization: John Milner Associates, Inc. Telephone: (215) 436-9000

Street and No. 309 North Matlack Street

City, State: West Chester, Pennsylvania Zip Code: 19380

Additional Survey Documentation:

Associated Survey Costs:

PENNSYLVANIA HISTORICAL RESOURCE SURVEY FORM–NARRATIVE SHEET

Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

Survey Code: ______ Tax Parcel/Other No.: ______

County: Westmoreland Municipality: New Kensington

Address: Third Ave. from the New Kensington-Arnold boundary to Eighteenth St., Fourth Ave. from Fourteenth St. to Fifteenth St., Spruce Alley from Fourteenth St. to Fifteenth St., Riverside Ave. from Fifteenth St. to Eighteenth St., Fourteenth St. from Third Ave. to Fourth Ave., Fifteenth St. from Riverside Ave. to Third Ave., Sixteenth St. from Riverside Ave. to Third Ave. Seventeenth St. from Riverside Ave. to Fourth Ave. and Eighteenth St. from Third Ave. to Fourth Ave.

Historic/Other Name: Arnold Historic District

PHYSICAL DESCRIPTION:

The Arnold Historic District consists of the grid of streets located east and north of the Alcoa Arnold Works. The southwestern portion of the district adjoins the Alcoa Works and is separated from it by a high chain link fence. The southern boundary of the district is the New Kensington boundary line, and the north boundary is a park and baseball field, located north of Eighteenth Street. The irregular eastern boundary was chosen to reflect changing patterns of land use. Within the district, the prominent land use is residential. Apart from the east side of the district, the predominant land use is commercial. This commercial area is more appropriately considered a part of the Arnold central business district.

A majority of the blocks within the district consist of closely spaced rows of houses with common massings, plans and setbacks. The rear yards and garages of many of these houses adjoin alleys. Scattered commercial buildings are also situated within the district. The most significant concentrations of commercial buildings are located on the west side of Third Avenue north of its intersection with Fifteenth Street and in the 1400 block of Fourth Avenue. One major institutional building is located within the district, the simplified Beaux-Arts style Ukrainian Citizens Club, located at the northeast corner of Fourth Avenue and Fourteenth Street.

Most of the houses within the district are situated close to the street. Narrow front yards separate the house from the sidewalk, and the boundary with the sidewalk is often marked by low hedges. The predominant construction material of houses in the district is wood, although many of the houses are presently sheathed in vinyl or aluminum. Within the district, four house types predominate. The first is the duplex, found in greatest numbers on the west side of Third Street. These duplexes may be among the earliest houses in the area. Many are shown on the 1905 Sanborn map of Arnold and were probably constructed shortly before the publication of that map. These duplexes are generally two and one half-stories in height and four bays wide. Entry doors to each half of a house are situated in the outside facade bays. The eaves front facade has a center front gable and a full width, hip roofed, single story front porch. Fenestration generally consists of one over one, double hung windows. Most of these porches are constructed of wood, although lesser numbers are constructed of brick. A few porches display Victorian vernacular detailing, including turned porch posts and porch brackets. Most of the duplexes are sheathed in wood shingles or replacement vinyl or aluminum siding, although a few, including the Vrudny House at 1421-1423 Third Street, are constructed of brick.

A second house type found in relatively small numbers in the district is the two and one-half story, hip roofed, wood framed house with central hip roofed dormer. These houses are found in the 1300 and 1600 blocks of Third Avenue. Several of these houses are two bay wide, single family units, while others are four bay wide duplexes. These houses are generally sheathed in weatherboard and have a full width, single story hip roofed facade porch. The houses generally also have a hip roofed, two story rear ell. Fenestration generally consists of one over one, double hung windows. These houses are among the earlier residences within the district and, according to Sanborn maps, were probably constructed by 1915.

PHYSICAL DESCRIPTION:

The majority of the houses within the district are either gable front or jerkinhead gable front, wood framed blocks. These houses are primarily wood framed and are either two or two and one-half stories in height. Rows of similar houses are situated on numbered cross streets and along Riverside Avenue. Generally, each row consists either of jerkinhead gable or gable fronted houses, although a few rows mix the two types. These houses are predominantly two bays in width and two rooms in depth. A few houses, such as the brick clad house at the southeast corner of Third Avenue and Fourteenth Street, are three bays in width. Most of the houses have full-width hip roofed facade porches, although lesser numbers have full width shed roofed porches. Fenestration consists primarily of one over one, double hung windows. Some of the jerkinhead gabled houses are fenestrated with a single, rectangular window in the center of the second story facade (e.g. the Potts House at 217 Sixteenth Street.) Although some of these houses were constructed in the early 1910s, most were probably constructed in the late 1910s and early 1920s to accommodate the expansion of Alcoa's workforce in Arnold.

A few houses do not fit the patterns indicated above. For example, a two story, two bay, wood framed, eaves front house is located on the north side of Fifteenth Street, west of Third Avenue, and several single story, gable roofed, wood framed houses are found elsewhere in the district. These atypical buildings may have been constructed to fill lots that remained vacant after the primary development of the district or to replace earlier houses.

Although the large majority of the buildings within the district are houses, commercial and institutional buildings are also represented and are scattered along Third and Fourth avenues. As noted, a significant concentration of commercial buildings is located on the west side of Third Avenue, north of Fifteenth Street. Two of these buildings are wide, two story flat roofed warehouse blocks, constructed of concrete blocks. These functional, vernacular buildings were probably constructed in the 1930s or 1940s. The building at the corner of Fifteenth Street and Third Avenue is typical of neighborhood commercial buildings found throughout Arnold and New Kensington. The building, which presently houses the Howard Home Center, is decorated with patterned brick panels above its second story windows and a corbeled brick cornice. Fenestration consists of one over one sash windows with concrete sills and lintels. Typical of such buildings, the first story storefront has been altered and modernized. This building probably dates to the 1920s. A later commercial building converted to an apartment block is located at the northeast corner of Third Avenue and Seventeenth Street. This narrow, two story, brick block is also fenestrated with one over one windows. Its cornice is emphasized with recessed string courses consisting of vertical stretchers and headers.

The major institutional building within the district is the Ukrainian Citizens Club situated at the northeast corner of Fourth Avenue and Fourteenth Street. This building with its simplified Beaux-Arts styling features the most elaborate brick work of any building within the district. This building was constructed in 1923.

The general level of integrity of the district is high. Although many of the houses have been altered, these alterations are relatively minor. Frequent alterations include enclosure of porches, alteration of a portion of the fenestration, and sheathing in vinyl or aluminum siding. Noncontributing resources within the district are few. Among the noncontributing buildings is a brick apartment block at the southeast corner of Seventeenth Street and Riverside Avenue, probably constructed in about 1960, and a garden apartment complex on Fourteenth Street, probably constructed at about the same time. These and other noncontributing buildings constitute less than three percent of the total buildings in the district. In general, the district possesses integrity of location, design, setting, materials, workmanship, and feeling. Its integrity of association is sufficient to portray its historic significance as an early 20th century neighborhood.

HISTORICAL NARRATIVE:

Although the first settlement of the area that became the city of Arnold occurred in the late 18th century, substantial growth did not begin until the late 19th century. The transformation of the area from a rural area to a small industrial city began with the establishment of the Chambers Glass Company factory in 1891. This factory was erected at the same time other industries were constructing plants in New Kensington, most notably the Pittsburgh Reduction Company (present Aluminum Company of America). Job opportunities in the glass plant attracted the first influx of immigrants to Arnold. These first immigrants, trained in glass manufacturing, were primarily of Belgian descent (Women's Club of New Kensington: 1986:78).

Arnold began to grow as the result of the expansion of the glass works north of Drey Street. Within a short time after the establishment of the factory, several thousand people were living on land surrounding the glass plant. Housing was desperately needed for the immigrant glass workers, and the company contracted with the Kensington Improvement Company to erect houses to accommodate them. Within one hundred days, one hundred houses had been built (Women's Club of New Kensington 1986:86).

A portion of this early residential development occurred in the district area and is depicted on a 1905 Sanborn insurance map. This map shows wood framed duplexes on the west side of the 1700 block of Third Avenue and the 1700 block of Second Avenue (present Riverside Avenue). North of Eighteenth Street, little development had occurred. Additional houses were located on the south side of Seventeenth Street between Second and Third avenues. By 1911, scattered houses had been constructed on the east side of Third Street north of the New Kensington city line. Scattered duplexes were located on the west side of the 1500 and 1600 blocks of Third Avenue and the west side of Second Avenue, north and south of Fifteenth Street.

Residential development increased in subsequent years as a result of the development of the Arnold Alcoa Works on the Allegheny riverfront north of the New Kensington boundary line. In 1912, the company acquired 26 acres of land in Arnold, and the first Arnold plant was completed and began operation in 1913. The following year the foil mill and the machine shop was completed. In 1915 the Arnold tube mill began operation (Women's Club of New Kensington 1986:86). By 1915, almost all the lots on the east side of Third Avenue from the New Kensington boundary line to Fifteenth Street were occupied by houses. North of Fifteenth Street, Third Avenue was less heavily developed. The west side of Second Avenue from Fifteenth Street to Seventeenth Street was almost completely developed with houses by 1915. The east side of Second Avenue was less heavily developed. The south side of Seventeenth Street east of Third Avenue and the north side of Sixteenth Street at Third Avenue were also developed.

Construction at the Arnold Alcoa Works continued in subsequent years. In 1916, an addition was made to the foil mill, and another addition was made in 1919. In 1922, the extrusion building was completed, and an addition to the extrusion building, a new melting room, and a magnesium rolling mill were built the following year. Additions were made to the rolling mill in 1925 and 1926 (Women's Club of New Kensington 1986:86). By 1921, most of the empty lots in the southern portion of Third Avenue had been developed with houses. The east side of Third Avenue between Fifteenth Street and Seventeenth Street was still lightly developed. Intensive development had occurred in the 1400 block of Fourth Avenue. The east side of the 1500 and 1600 block of Second Avenue was still undeveloped. By 1928, most of the previously undeveloped parcels within the district had been developed with houses.

The 1928 and 1940 directories indicates that the predominant employers of residents of the district were Alcoa and the glass works. As would be expected, the southern portion of the district, in close proximity to the Alcoa Works, contained a preponderance of Alcoa workers, while larger numbers of glass workers lived in houses at the north end of the district (R.L. Polk and Company 1928, 1940).

The district is recommended eligible for the National Register under criteria A and C. Under Criterion A, the district is significant as a major residential area for workers at the Arnold and New Kensington Alcoa Works and is recommended eligible as part of a multiple resources nomination of aluminum industry related resources in New Kensington and Arnold. This industry was nationally significant. Other related resources recommended eligible for inclusion in the multiple resources nomination include a residential and commercial district in New Kensington, aluminum company production office and research facilities, as well as housing constructed to accommodate World War II aluminum workers. The district is also recommended eligible under Criterion C of the National Register as representing a significant and distinguishable entity whose components may lack individual distinction. Although few if any of the resources within the district appear individually eligible for National Register listing, together they form a cohesive district that represents an early Arnold neighborhood, a place of residence for some of the workers at the Arnold and New Kensington Alcoa works.

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM--PHOTO/SITE PLAN SHEET

89A

Pennsylvania Historical and Museum Commission
Bureau of Historic Preservation
Box 1026, Harrisburg, PA 17108-1026

Survey Code/Tax Parcel/Other No.: 2-2-7-411 County: Westmoreland
Municipality: Arnold Address: 1402 Fourth Avenue
Historic Name/Other Name: Ukrainian Citizens Club

SITE PLAN

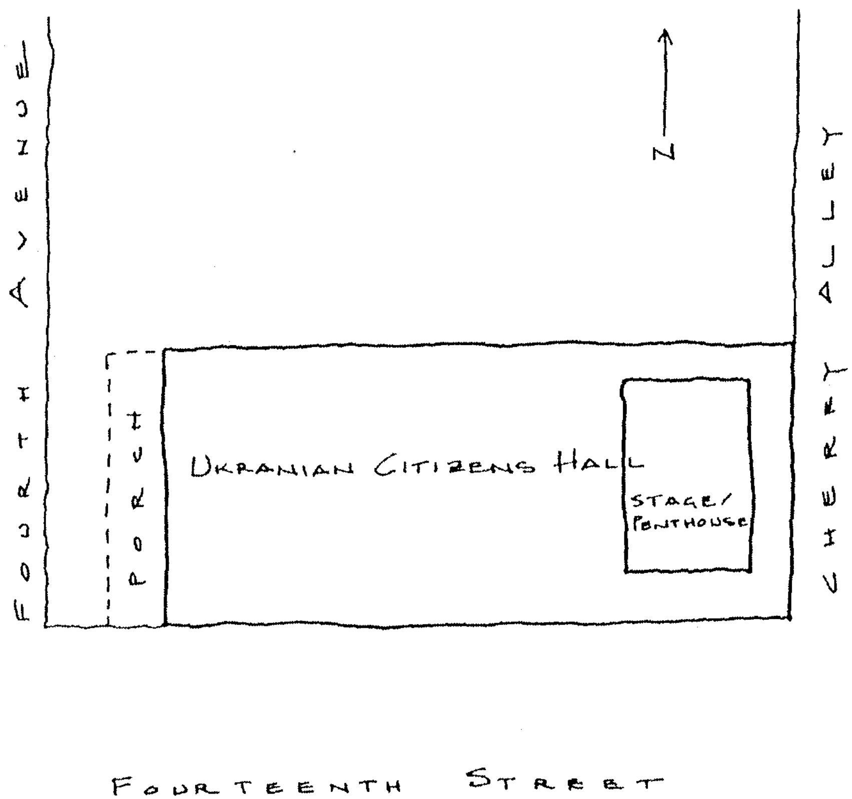
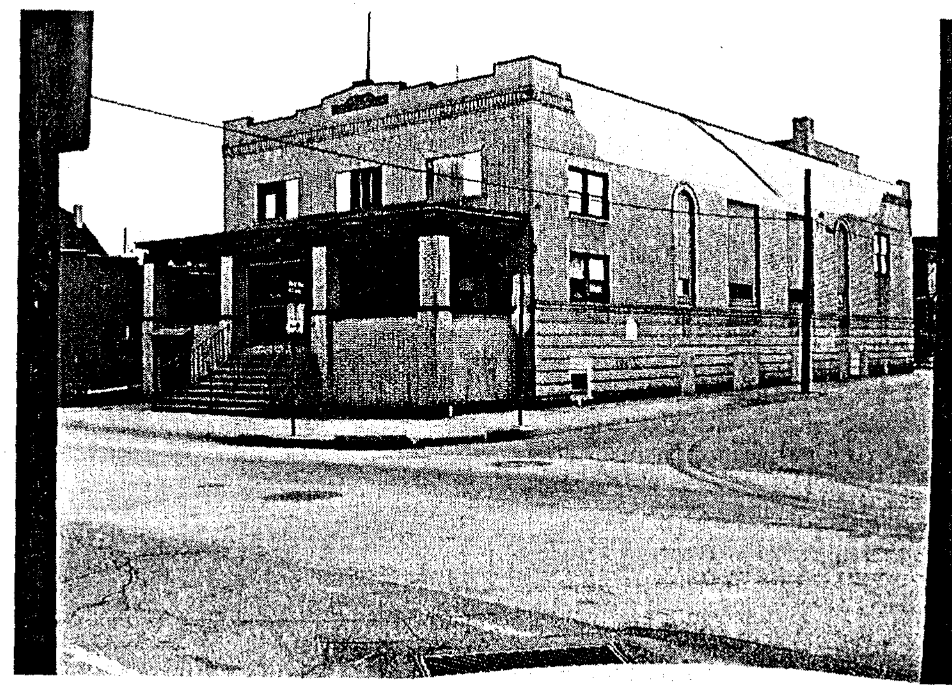


PHOTO INFORMATION

Attach Photo Here



Number	Description of View	Direction of Camera
1	West facade and South wall	NE
2	Rear and South wall	NW

Photographer Name: Douglas C. McVarish Date: July 1993
Negative Location: John Milner Associates, Inc. 309 N. Matlack Street, West Chester, PA 19380

See reverse for additional instruction

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM–DATA SHEET 89B

Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

IDENTIFICATION AND LOCATION

Survey Code: ______ Tax Parcel/Other No.: 2-2-7-411

County: 1. Westmoreland 1 2 9 2. ______

Municipality: 1. Arnold 2. ______

Address: 1402 Fourth Street

Historic Name: Ukrainian Citizens Club

Other Name: ______

Owner Name/Address: Ukrainian Citizens Club, 1402 Fourth Avenue, Arnold, Pennsylvania 15068

Owner Category: X Private ___ Public-local ___ Public-state ___ Public-federal

Resource Category: X Building ___ District ___ Site ___ Structure ___ Object

Number/Approximate Number of Resources Covered by this Form: 1

USGS Quad: 1. New Kensington West 2. ______

UTM References: A. 17 604240 4491980 C. ______

B. ______ D. ______

HISTORIC AND CURRENT FUNCTIONS

Historic Function Category:	Subcategory	Code:
A. Social	Meeting hall	0 3 A
B.		
C.		
D.		

Particular Type: A. ______
B. ______
C. ______
D. ______

Current Function Category:	Subcategory:	Code:
A. Vacant/Not in Use		9 8
B.		
C.		
D.		

PHYSICAL DESCRIPTION

Architectural Classification: A. Beaux-Arts Classicism 5 6

B. ______ C: ______

D. ______ Other: ______

Exterior Materials:

		Code			Code
Foundation	Brick	3 0	Roof	Other: not visible	8 0
Walls	Brick	3 0	Walls		
Other			Other		

Structural System: 1. Masonry--brick 2 1 2. ______

Width: 3 Bays C Depth: c. 100 feet Stories/Height 2 B

HISTORICAL INFORMATION

Year Built: ____ C. 1923 to _ C.____ Additions/Alterations Dates: ____ C. ______; ____C. ______

Basis for Dating: ______ Documentary X Physical

Explain: Date plaque in facade parapet.

Cultural/Ethic Affiliation: 1. Ukrainian 2. ______

Associated Individuals: 1. ______ 2. ______

Associated Events: 1. ______ 2. ______

Architects/Engineers: 1. ______ 2. ______

Builders: 1. ______ 2. ______

MAJOR BIBLIOGRAPHICAL REFERENCES

PREVIOUS SURVEY, DETERMINATIONS

EVALUATION (Survey Director/Consultants Only)

Individual NR Potential: ____Yes X No Context(s): Aluminum Industry in Westmoreland and Allegheny Counties, 1888-1945

Contributes to Potential District X Yes ____No District Name/Status Arnold Historic District/Recommended

Explain: Building is probably indicative of the historic ethnic composition of the surrounding area.

THREATS

Threats: 4 1. None 2. Public Development 3. Private Development 4. Neglect 5. Other

Explain: Building is pesently vacant and may be deteriorating.

SURVEYOR INFORMATION

Surveyor Name/Title: Douglas C. McVarish, Project Architectural Historian Date: July 1993

Project Name: Historic Resources Survey of the Aluminum Industry in Westmoreland and Allegheny Counties, PA

Organization: John Milner Associates, Inc. Telephone: (215) 436-9000

Street and No. 309 North Matlack Street

City, State: West Chester, Pennsylvania Zip Code: 19380

Additional Survey Documentation: ______

Associated Survey Costs: ______

PENNSYLVANIA HISTORICAL RESOURCE SURVEY FORM–NARRATIVE SHEET

89C

Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

Survey Code: ______ Tax Parcel/Other No.: 2-2-7-411

County: Westmoreland Municipality: Arnold

Address: 1402 Fourth Avenue

Historic/Other Name: Ukrainian Citizens Club

PHYSICAL DESCRIPTION:

The Ukrainian Citizens Club is located in a mixed residential and commercial district west of Arnold's central business district. The building occupies a prominent corner lot at the intersection of Fourteenth Street and Fourth Avenue. Immediately north is a single story commercial building, and immediately west is a small parking area. The building adjoins the sidewalks along Fourteenth Street and Fourth Avenue.

This large two story, brick club building is three bays wide and six bays deep. The lower walls are laid in stretcher bond, while the upper walls are laid in a variant of Flemish bond. The walls of the building are marked by a variety of ornamental brickwork. The lower portions of the side and rear walls are marked by six recessed brick string courses. Surmounting these string courses is a water table formed by two rows of projecting brick headers. Above second story facade openings are rectangular panels with bricks arranged in a basket weave pattern. Above these panels are string courses marking the parapet junction. Lowest on the wall are two courses formed by projecting stretchers. These courses are surmounted by a flush band, formed by vertical stretchers. This band is surmounted by a projecting band, formed by two rows of vertical headers. These string courses also ornament the rear wall of the block and the front and rear portions of the side walls. The central portion of the side walls is unornamented and is sheathed in brick of a contrasting color. The parapet is stepped and contains a center peaked section in which is set a plaque indicating the building name and date of construction. The parapet is topped with concrete slab capstones.

Fenestration of the block has been altered from its original configuration. Second story windows on the west facade have been boarded over. These window openings are set within a frame formed by brick headers and corner blocks. Large rectangular single light picture windows, centered between two oblong windows and beneath a single light transom, flank the central entry. The central bays on the south wall consist of two oblong openings, flanked by two arched openings. Original windows have been replaced by glass blocks. Other window openings on the sides and rear of the block are fenestrated by paired and single one over one, double hung sash windows.

The principal entry to the building is contained in a recessed central bay on the west facade. Within this recessed bay are two pairs of glass doors set within wood frames. The principal entry is sheltered by a three bay, hip roofed porch. This raised porch has a solid brick balustrade, square brick piers, and exposed ornamental rafter ends. Concrete steps with outward curving wrought-iron railings provide access to the central bay of the porch. An additional set of doors is located at the north end of the porch foundation. These wood doors are sheltered by a shed hood. Two additional double door openings are situated at the north and south ends of the rear wall of the building.

A brick penthouse projects from the rear of the roof of the building. This penthouse was apparently associated with a stage, shown on Sanborn maps of the building. Projecting from the southwest corner of the penthouse is a square brick chimney.

The building is presently vacant. Despite its lack of use and alterations, most notably changes in fenestration, the building retains a high level of architectural integrity. The building possesses integrity of location, design, setting, materials, workmanship, and feeling and conveys associations with its 1920s date of construction.

HISTORICAL NARRATIVE:

According to a date plaque in the parapet, the Ukrainian Citizens Club was constructed in 1923. This building provided a meeting place for one of the ethnic groups in Arnold. Although fewer in number than Poles or Italians, the Ukrainians were present in significant numbers and provided a portion of the work force at the glass factories and aluminum works that employed much of the city's population.

PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM--PHOTO/SITE PLAN SHEET

Pennsylvania Historical and Museum Commission
Bureau of Historic Preservation
Box 1026, Harrisburg, PA 17108-1026

Survey Code/Tax Parcel/Other No.: 2-2-7-253 County: Westmoreland
Municipality: Arnold Address: 1521-1523 Third Avenue
Historic Name/Other Name: Dopler, Gregory S. and Cynthia House

SITE PLAN

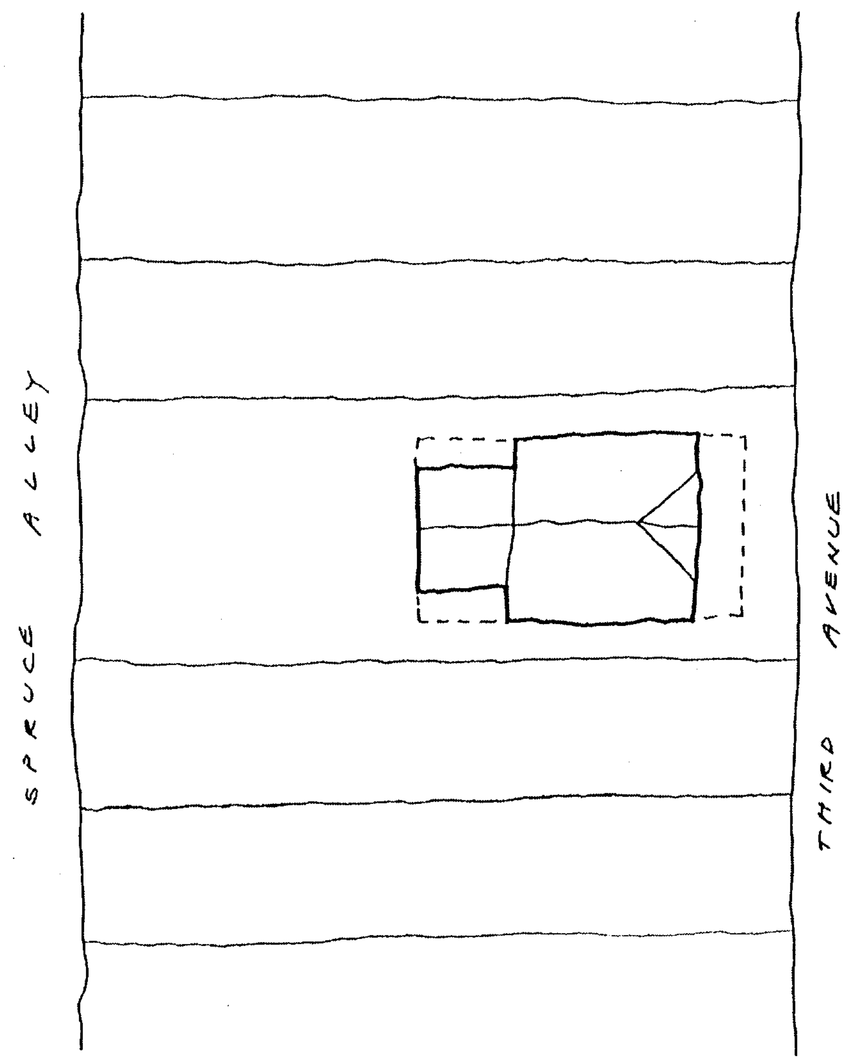


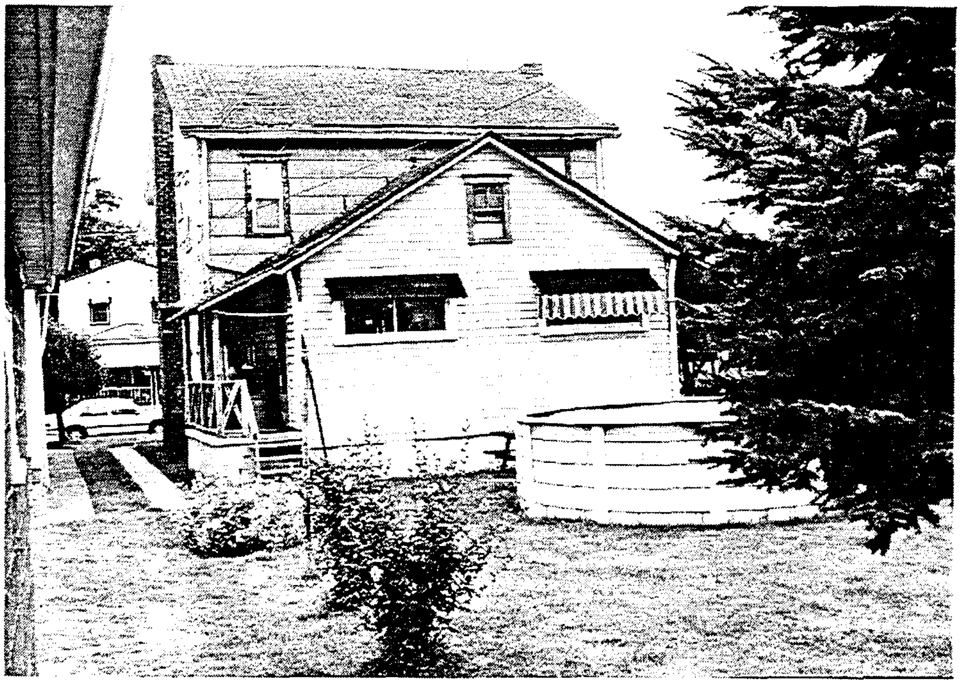
PHOTO INFORMATION

Attach Photo Here

Number	Description of View	Direction of Camera
1	Facade and South side	West
2	Rear and North side	East

Photographer Name: Douglas C. McVarish Date: July 1993
Negative Location: John Milner Associates, Inc. 309 N. Matlack Street, West Chester, PA 19380

See reverse for additional instruction



PENNSYLVANIA HISTORIC RESOURCE SURVEY FORM--DATA SHEET **89B**

Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

IDENTIFICATION AND LOCATION

Survey Code: ______ Tax Parcel/Other No.: 2-2-7-253

County: 1. Westmoreland 1 2 9 2. ______

Municipality: 1. Arnold 2. ______

Address: 1521-1523 Third Street

Historic Name: ______

Other Name: Dopler, Gregory S. and Cynthia House

Owner Name/Address: Gregory S. and Cynthia Dopler, 17 Rizzi Drive, Irwin, Pennsylvania 15642

Owner Category: X Private ___ Public-local ___ Public-state ___ Public-federal

Resource Category: X Building ___ District ___ Site ___ Structure ___ Object

Number/Approximate Number of Resources Covered by this Form: 1

USGS Quad: 1. Arnold 2. ______

UTM References: A. 17 604060 4492220 C. ______

B. ______ D. ______

HISTORIC AND CURRENT FUNCTIONS

Historic Function Category:	Subcategory	Code:
A. Domestic	Multiple dwelling	0 1 B
B.		
C.		
D.		

Particular Type: A. Duplex

B. ______

C. ______

D. ______

Current Function Category:	Subcategory:	Code:
A. Domestic	Multiple dwelling	0 1 B
B.		
C.		
D.		

PHYSICAL DESCRIPTION

Architectural Classification: A. Late Victorian 4 0

B. ______ C: ______

D. ______ Other: ______

Exterior Materials: Foundation Stone 4 0 Roof Asphalt 6 3

Walls Wood: weatherboard 2 1 Walls ______

Other ______ Other ______

Structural System: 1. ______ 2. ______

Width: 4 bays D Depth: 2 rooms Stories/Height 2 B

HISTORICAL INFORMATION

Year Built: X C. 1905 to ____ C.____ Additions/Alterations Dates: X C. 1970 ; ___C. ______

Basis for Dating: X Documentary X Physical

Explain: Property was part of large tract purchased in 1898. Individual parcel was sold in 1907, suggesting that a house was erected shortly before that date. Exterior windows of rear ell suggest c. 1970 alterations.

Cultural/Ethic Affiliation: 1. Polish 2. ____

Associated Individuals: 1. ____ 2. ____

Associated Events: 1. ____ 2. ____

Architects/Engineers: 1. ____ 2. ____

Builders: 1. ____ 2. ____

MAJOR BIBLIOGRAPHICAL REFERENCES

Westmoreland County Deed Books. Westmoreland County Courthouse, Greensburg, Pennsylvania.

PREVIOUS SURVEY, DETERMINATIONS

EVALUATION (Survey Director/Consultants Only)

Individual NR Potential: ____Yes X No Context(s): Aluminum Industry in Westmoreland and Allegheny Counties, 1888-1945

Contributes to Potential District X Yes ____No District Name/Status Arnold Historic District/Recommended

Explain:

The Arnold Historic District contains a significant and identifiable concentration of early 20th century vernacular houses, built to accommodate workers in nearby aluminum and glass manfacturing facilities.

THREATS

Threats: 1 1. None 2. Public Development 3. Private Development 4. Neglect 5. Other

Explain: Building continues in its historic role as a duplex and is relatively well maintained.

SURVEYOR INFORMATION

Surveyor Name/Title: Douglas C. McVarish, Project Architectural Historian Date: July 1993

Project Name: Historic Resources Survey of the Aluminum Industry in Westmoreland and Allegheny Counties, PA

Organization: John Milner Associates, Inc. Telephone: (215) 436-9000

Street and No. 309 North Matlack Street

City, State: West Chester, Pennsylvania Zip Code: 19380

Additional Survey Documentation: ____

Associated Survey Costs: ____

PENNSYLVANIA HISTORICAL RESOURCE SURVEY FORM–NARRATIVE SHEET

Pennsylvania Historical and Museum Commission, Bureau for Historic Preservation

Survey Code: ______ Tax Parcel/Other No.: 2-2-7-253

County: Westmoreland Municipality: Arnold

Address: 1521-1523 Third Avenue

Historic/Other Name: Dopler, Gregory S. and Cynthia House

PHYSICAL DESCRIPTION:

The Dopler House is situated on the west side of Third Street in Arnold. The surrounding area is a densely settled residential district with streets arranged in a grid pattern. Three types of vernacular house designs predominate in the surrounding area: two story, gable fronted blocks; two story, jerkinhead gable fronted blocks; and two story, eaves fronted duplexes with central front gable. The Dopler House is a well-preserved example of the third type of house.

The Dopler House is set close to the sidewalk and maintains the consistent setback of most of the houses on the west side of Third Avenue. Concrete walks extend from the sidewalk to two sets of wooden steps, and a concrete walk extends along the north wall of the house and provides access to the rear yard. The flat lot is predominantly open with a few mature trees at its south and west boundaries.

The house is a two-story, eaves fronted, gable roofed, wood framed duplex with a central front gable and one and one-half story gabled rear ell. Fenestration consists primarily of regularly spaced one over one, double hung sash windows with wood shelf lintels. The rear wall of the ell is fenestrated with paired, two light sliding windows and a small two over two, double hung window in the gable peak. Two front entry doors are situated at either end of the first story facade. Each of these doors is pierced by a single rectangular light in its upper section. The lower portion of each door is ornamented with patterned wood panels. Both front doors are sheltered by a single story, four bay, hip roofed porch. The porch roof is supported by turned wood porch posts, ornamented with simple, scrollsaw cut brackets. The porch balustrade is a recent replacement, fabricated from wrought iron. Additional doors are situated on the north and south walls of the rear ell and are sheltered by wood framed porches beneath the roof eaves.

The house is primarily sheathed in novelty siding. The rear wall of the main block is sheathed in asphalt shingles. The central front gable is sheathed in scalloped wood shingles. Two windows pierce the gable and are set within a peaked wood surround. Exterior end, square, brick chimneys adjoin the center of the north and south wall of the main block of the house, respectively. The foundation is constructed of rubble, and the roof of both the porch and the main block of the house is sheathed in asphalt shingles.

The Dopler House possesses integrity of location, design, setting, materials, workmanship, and feeling. One of the best preserved early 20th century duplexes in Arnold, it convincingly conveys associations with its time of construction.

HISTORICAL NARRATIVE:

The 1940 New Kensington City Directory indicates that both halves of this house were occupied by Alcoa factory workers. Joseph Frash, the owner of the duplex, lived in 1521 Third Avenue, and William C. Barnett lived in 1523 Third Avenue.

The land on which the Dopler House was constructed was part of a large tract of land sold by the Kensington Improvement Company, developers of the area which later became Arnold, to William J. McCandless in 1898. McCandless acquired a large number of lots in Blocks 23, 24, and 25 of the original subdivision of land for $40,000.00. He, in turn, sold individual parcels of this land, possibly after having houses erected on the lots (Westmoreland County Deed Book 265:457, January 17, 1898).

McCandless sold the parcel on which the Dopler House is located to Vladek and Ignacz Wojciechowski for $2,500.00 in 1907 (Westmoreland County Deed Book 441:172, July 5, 1907). Two years later, Ignacz and Anna Wojciechowski sold the same parcel to Wladek and Frances Kunarzewksi for $1,200.00 (Westmoreland County Deed Book 446:220, May 1, 1909). In 1916 the Kunarzewskis sold the same parcel to Balbina Lachicka for $3,000.00 (Westmoreland County Deed Book 580:462, February 5, 1916). Lachicka owned the property for 17 years. In 1933, she sold it to Joseph and Francis Frash for $1.00 and other various considerations (Westmoreland County Deed Book 954:152, December 12, 1933). The Frashes sold the parcel to Stanley and Pauline Bilicki for $2,000.00 (Westmoreland County Deed Book 1069:288, May 27, 1940). Stanley Bilicki and his wife owned the parcel for 40 years before selling it to their two sons, Chester and John S., for $1.00 (Westmoreland County Deed Book 2353:908: April 17, 1980). Two years later, Chester Bilicki conveyed his half interest in the property to John S. Bilicki for $6,000.00 (Westmoreland County Deed Book 2422:614, February 9, 1982). John Bilicki and his wife Ethel sold the property to its current owners, Gregory and Cynthia Dopler for $16,000.00 (Westmoreland County Deed Book 2623:494, February 5, 1985).

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