

(see Figure 3.5a). In western Jersey City, the 1880 Spielmann & Brush map indicates that land west of James Street (present-day James Avenue) was marsh land (see Figure 3.5a). Kearny in 1880 also remained marsh land bisected by railroads, turnpikes, and the Jersey City Waterworks pipelines (see Figure 3.5a). North of Hoboken, reclaimed land is not indicated on the 1880 Spielmann & Brush map except for limited areas surrounding existing docks (see Figure 3.5c). South of Jersey City, development was concentrated on the spine of Bergen Neck and uplands at Communipaw and Constable Hook. The 1873 Hopkins Atlas shows both existing and proposed streets in the Greenville section of Jersey City and in Bayonne, as well as the routes of the Morris Canal and the CRRNJ (Hopkins 1873). In Bayonne, no buildings are depicted proximate to the CRRNJ except for rail stations. Near the Morris Canal, between Centre and Grand streets and east of Avenue E, dwellings are depicted along the west side of the CRRNJ tracks (Hopkins 1873). The CRRNJ brought both industrial development and tourism to Bayonne, which became a boating and yachting center during the late nineteenth century. In the 1880s, the construction of paint, zinc, and chemical factories on Constable Hook and petroleum plants and tank farms in southern Bayonne spurred population growth. Between 1880 and 1890, Bayonne's population increased from 800 to 5,500 (Richard Grubb & Associates, Inc. 1998: 22). In the Greenville section of Jersey City, land surrounding the CRRNJ is depicted as undeveloped in 1873 (Hopkins 1873). The CRRNJ is depicted crossing the Morris Canal's Fiddler's Elbow on the Bayonne/Greenville boundary (Hopkins 1873). In 1889, the CRRNJ built a new terminal at Communipaw to replace its existing terminal. Several buildings are depicted in 1873 west of the terminal on the east side of the CRRNJ tracks at the intersection of Communipaw Avenue and Dudley Street (Hopkins 1873: Plate M).

With advances in rail transport, the Morris Canal eventually became obsolete, and by 1871 its ROW had been acquired by the Lehigh Valley Railroad (LVRR). Through this acquisition the LVRR secured the Morris Canal's valuable terminal properties on the Hudson River at Paulus Hook. While the LVRR acquired the charters of the Perth Amboy and Bound Brook and the Bound Brook and Easton railroads and began construction of its New Jersey Division it considered ways to maximize the productivity of the canal's ROW (Greenberg and Fischer 1997: 66-67). Initially, the railroad envisioned filling in the canal, erecting bridges over the Passaic and Hackensack rivers, and running tracks into Jersey City on the old canal ROW (New York Times 1886: 2). Such a plan, however, required the abandonment of the waterway, for which state sanction was not forthcoming. In 1881, the state allowed the installation of the Standard Oil Company of New Jersey's Olean-Bayonne Oil Pipeline. The LVRR also worked to develop the canal's water assets. The LVRR secured contracts with Newark, Bayonne, and other communities to deliver drinking water to local distribution systems (McAneny, Jr. 1891: 659). The LVRR conveyed its contracts to the East Jersey Water Company, established specifically to construct the necessary aqueducts (McAneny 1891: 656, 658-659). For the Bayonne contract, an East Jersey Water Company subsidiary called the New York & New Jersey Water Company embedded a 30-inch pipeline into the Morris Canal towpath in 1896 (McAneny 1891: 658; New York Times 1896). In 1889, the LVRR built a terminal in Jersey City adjacent to the CRRNJ terminal.

The growth of Jersey City prompted improvements to its infrastructure, including the construction of a new network of stormwater and sewer lines under the city streets, together with sewer outfalls into the Hackensack River (Hopkins 1908). Among proposals for the development of Jersey City was an extensive land reclamation plan for marshland along Newark Bay (Muirhead 1910). Public health concerns in the late nineteenth and early twentieth centuries resulted in an extensive drainage infrastructure constructed in the Meadowlands tidal marsh by the Bergen and Hudson County Mosquito Commissions. The drainage system included the excavation of a network of ditches and the installation of tide gates at the confluences of creeks or ditches emptying into the Hackensack River (Hunter Research, Inc. 2009: 5-52). Early twentieth century viewpoints on the Meadowlands focused on land reclamation through filling and land making methods designed to raise the land above the high-tide level (Marshall 2004:10). River dredging programs begun in the late nineteenth century by the U.S. Army Corps of Engineers provided some material for in-filling of marshlands; municipal garbage, construction debris, and excavation spoils provided other material (Marshall 2004:10). These efforts resulted in the creation of made land in eastern Bergen and western Hudson counties along the lower Hackensack and lower Passaic rivers. Portions of the Kearny Peninsula were reclaimed as a

result of these efforts. In the late nineteenth century, the Paterson & Newark Railroad, the DL&WRR, and the Pennsylvania Railroad crossed the Kearny Peninsula en route to Jersey City; however, most of the reclaimed land remained undeveloped (Figure 3.6; Hopkins 1909).

Along the Hudson River waterfront, improvements to the DL&WRR terminal were underway after two fires destroyed the southern third of the freight yard and the passenger terminal in 1904 and 1905, respectively. The disasters gave the railroad the opportunity to rebuild and reconfigure both the freight and passenger yards (Taber and Taber 1981: 436). The new passenger terminal opened on February 25, 1907, and the rebuilding of the yard facilities was substantially completed by 1912 (Taber and Taber 1980: 29: 29). Later relevant changes to the facility included construction of a new electric power generating plant on the site of the old cement storage house at the head of the Long Slip (Sanborn Map Company 1927; Lynn Drobbin and Associates 1997a: 22). The old produce company buildings located along Henderson Street were taken over, demolished, and replaced with facilities and offices for the Pullman Company's fleet of luxury rail cars, including a set of concrete bumper blocks at the ends of the yard stub tracks (Sanborn Map Company 1927). This section of the terminal retains the name "Pullman Yard." By 1908, a new ferry terminal was constructed; now owned by the DL&WRR (Hopkins 1909). The former terminal had burned in 1905 and was replaced by a several ferry concourses and a new train concourse (Richard Grubb & Associates, Inc. 1996).

Development of the tidal marsh areas in western Hoboken continued through the early 1890s, as additional areas of the meadows were filled in and railroad development projects were completed. An 1891 map of the region depicts land created by draining portions of the marsh (Bien 1891). As late as the 1890s northern Hudson County and southern Bergen County remained primarily rural, with woodlots covering the northeastern half of Fairview Borough and northeastern North Bergen Township (Beers 1891; Bien and Vermeule 1891; U.S.G.S. 1888, 1898; Vermeule 1889). Subdivisions had been planned but not yet constructed during the late nineteenth century (Richard Grubb & Associates, Inc. 1995:6-10). In the 1900s, while the DL&WRR was improving and rebuilding its terminal facilities, the Hudson & Manhattan Railroad (H&MRR) was busy boring a tube beneath the Long Slip and adjoining rail yards for an underground connection between the Hoboken and Erie railroad terminals. This section of the H&MRR (present-day Port Authority Trans-Hudson Corporation [PATH]) tubes opened in February 1908, providing rapid transit links between the various Jersey City passenger rail stations and Manhattan (New York Times 1909: 3).

Industrial and commercial development of the northeastern portion of the Kearny Peninsula began in the early 1900s with the construction of the Koppers Seaboard Coke and Byproducts Company. The Koppers facility operated from 1917 to 1974 and conducted coke production, by-product recovery, and gas cleaning/conditioning (Figures 3.7a, 3.8; Hopkins 1934; NEIR 1953, 1954, 1966, 1979; NJDEP 1930; Leir 2012; Hornsby and Sawchuck 1999). Post-World War I commercial, residential and industrial development throughout the Project Area was influenced by rapidly expanding automotive transportation. The opening of the Holland Tunnel in 1927 signaled the beginning of a complex road network in and around Jersey City to provide access to New York City. Anticipated completion of the Holland Tunnel required construction of new routes to feed the tunnel, such as U.S. Routes 1 & 9 and the Pulaski Skyway. The Lincoln Tunnel opened in 1937 providing a direct route between Weehakwen and Manhattan. In 1952, the New Jersey Turnpike was constructed through northeastern New Jersey.

Following a short period of improved business conditions brought about by World War II, the DL&WRR experienced increasing financial losses during the 1950s (Taber and Taber 1981: 425). A deepening economic recession in 1957 and 1958 was especially hard, eroding freight revenues for all eastern carriers (Baer, et al 1994: 368). In April 1959, the DL&WRR petitioned the New Jersey Board of Public Utilities to stop passenger service on all but its Boonton Branch (Grow 1979: 83). Management also approved a merger with the rival Erie Railroad in 1959. The consolidation of the two lines took effect on October 17, 1960, forming the Erie-Lackawanna Railroad (E-LRR). After declaring its final bankruptcy in June 1972, the E-LRR freight operations merged into the Consolidated Railroad Corporation (Conrail) on April 1, 1976 (Taber and Taber 1980: 147). Conrail abandoned most of its Jersey City terminal properties, including the E-LRR freight yards, and sold off the lands. In the

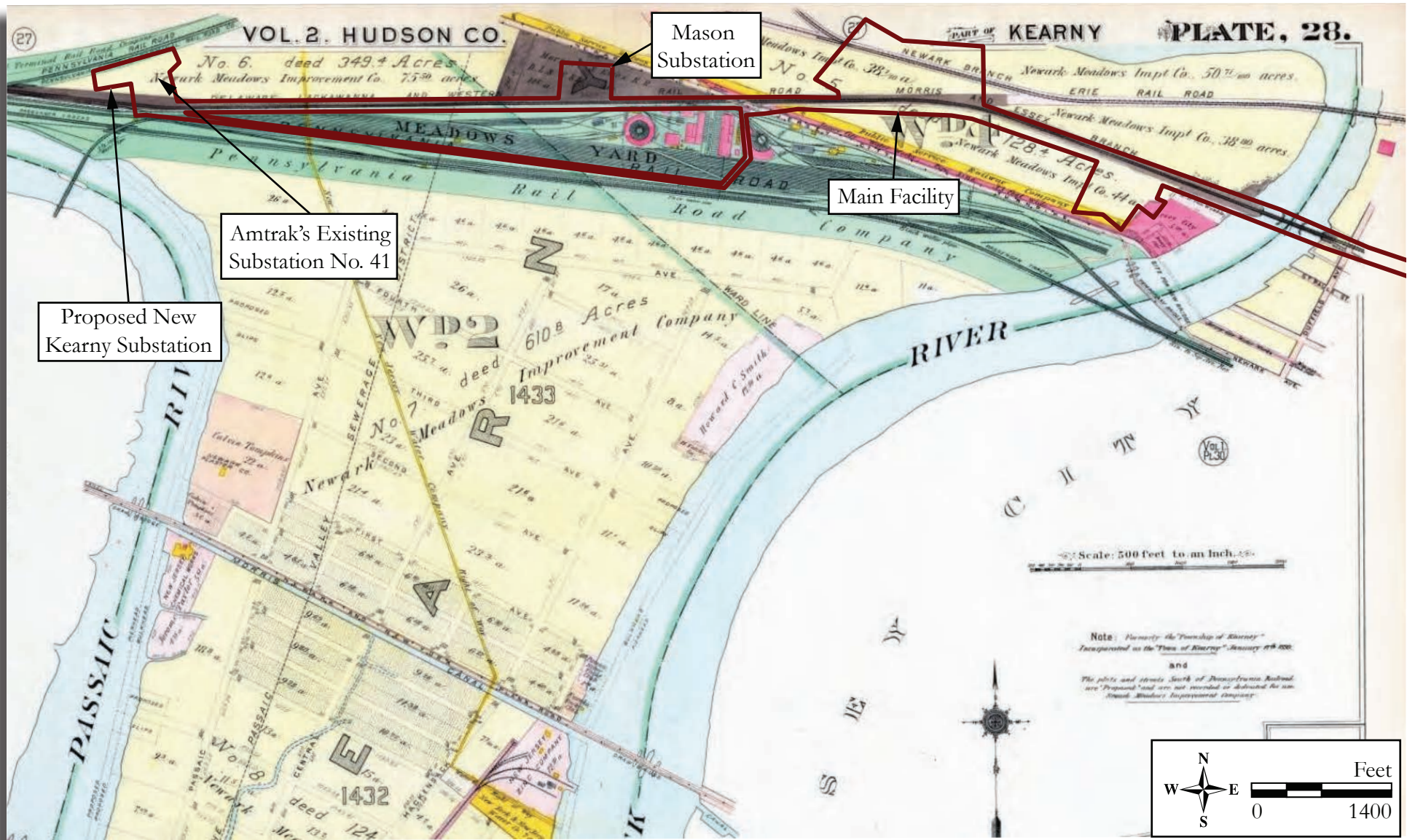


Figure 3.6: 1909 G. M. Hopkins Co., Atlas of Hudson County, New Jersey, Volume II.

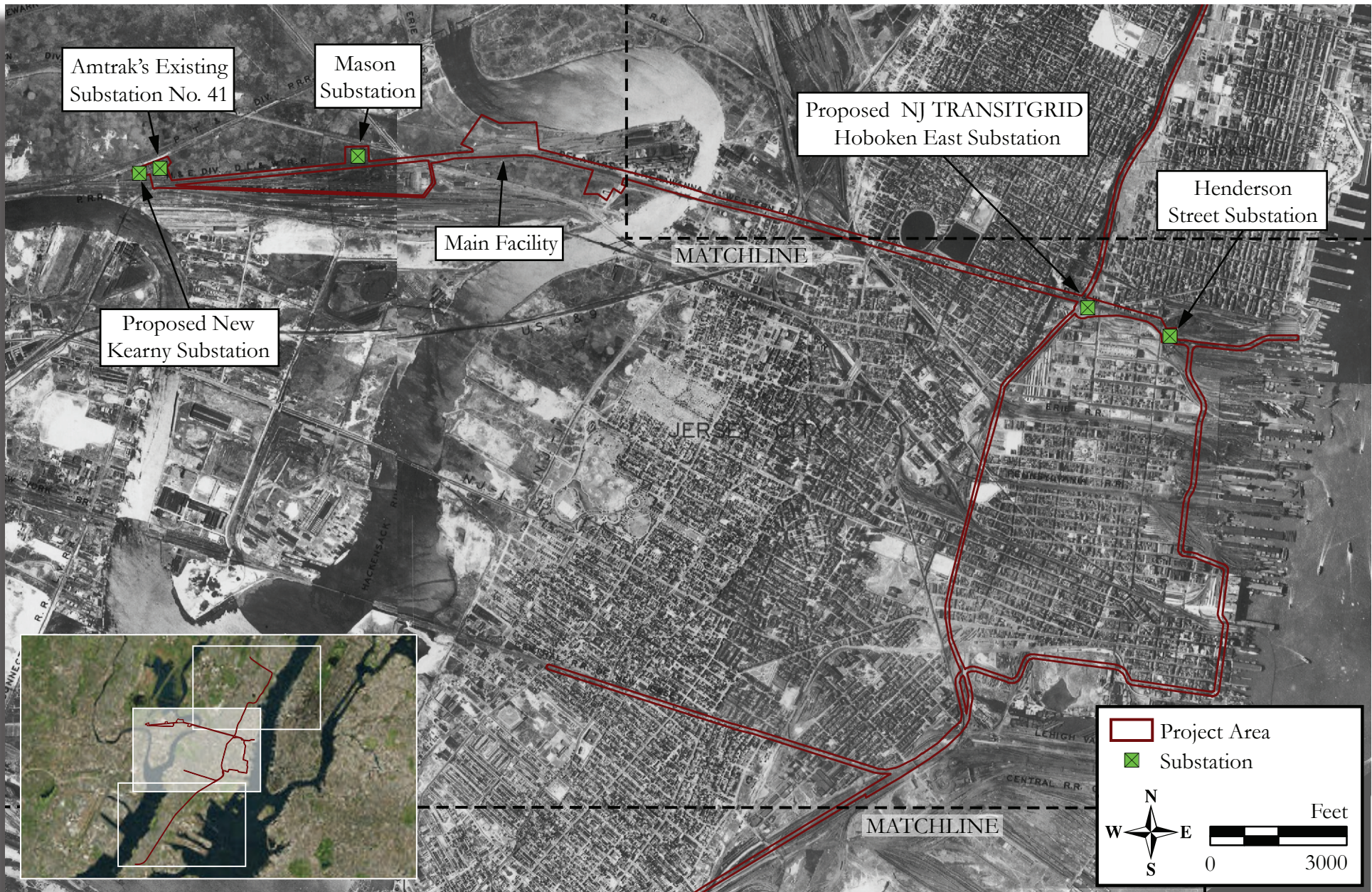


Figure 3.7a: 1930 Aerial photograph of the APE (NJDEP 1930).



Figure 3.7b: 1930 Aerial photograph of the APE (NJDEP 1930).

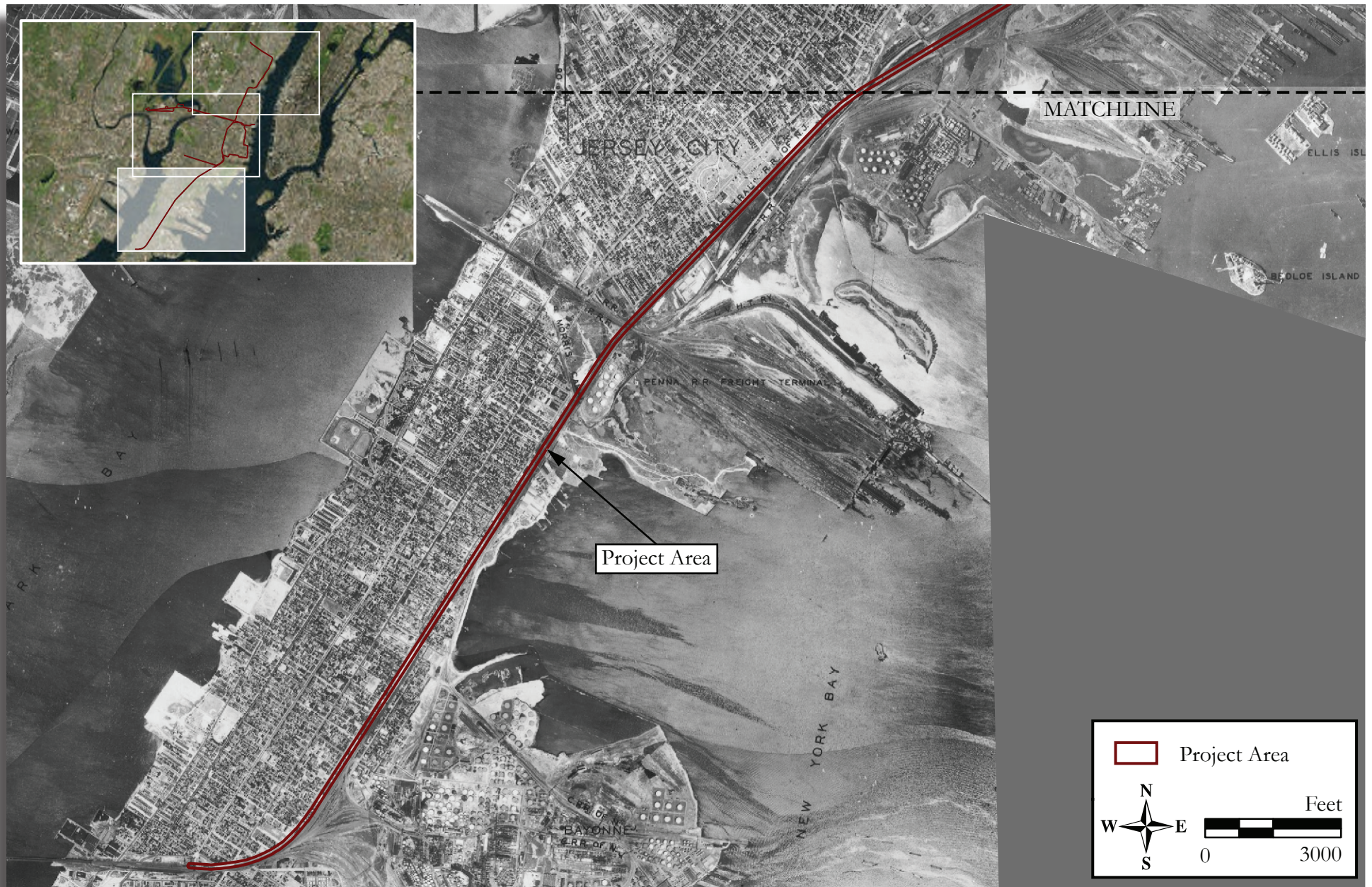


Figure 3.7c: 1930 Aerial photograph of the APE (NJDEP 1930).

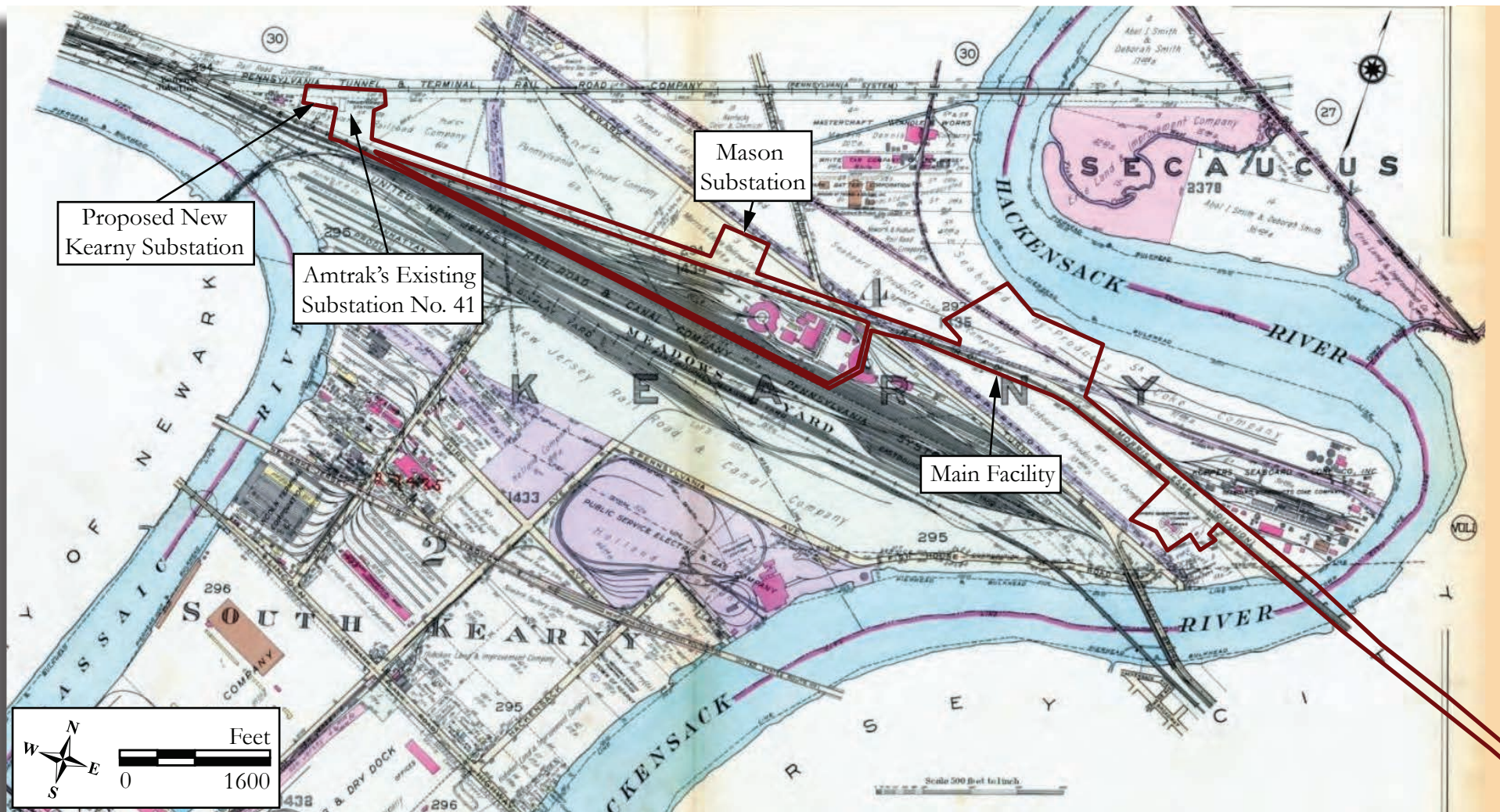


Figure 3.8: 1934 G.M. Hopkins Co., Atlas of Hudson County, New Jersey, Volume II.

1980s, the Newport Development Associates demolished the remains of the yard to build a high-rise apartment complex (Lynn Drobbin and Associates 1997a: 26). Today, lands immediately south of the Long Slip contain big box retail buildings, expansive parking lots, roadways, and the HBLR.

The HBLR began operation in 2000, with the first opened segment connecting Bayonne with Jersey City (Darlington and Pirmann 2012). Today the light rail system consists of a main line from Bayonne north through the Project Area to Union City, where it continues west into North Bergen. The rail line also has a western spur that begins in Communipaw and continues to West Bergen. In certain areas, the HBLR utilizes the former ROW of the CRRNJ and the Morris Canal (Darlington and Pirmann 2012). The contemporary landscape throughout the Project Area reflects the continued impacts of highway construction, mass transit systems including the HBLR, and expansion in the New York City metropolitan area. Convenient access to Manhattan by rail and by car has created regular demand for residential and commercial development throughout these municipalities into the twenty-first century.

4.0 HISTORIC ARCHITECTURAL RESOURCES BACKGROUND STUDY AND EFFECTS ASSESSMENT – PROJECT COMPONENTS A THROUGH F

Due to the different survey methodologies employed for Project Components A through F as compared with Project Component G, the HARBS and EA report has been divided into multiple sections. Section 4 of the report covers Project Components A through F. Though the APE encompasses all project components, figures in this section will only depict the A through F components of the APE [APE (A-F)] (see Figure 2.1). Research and analysis related to Project Component G can be found in Section 5 below. For a more detailed explanation of the methodology employed for this HARBS and EA report, see Section 2.3.

4.1 Summary of Prior Architectural Investigations

Background research was conducted to determine if any previously identified architectural resources exist within the APE (A-F). Research was conducted at the NJHPO in Trenton to identify resources within the APE (A-F) that are listed in or eligible for listing in the NJR and NR, and to review previously completed cultural resources survey reports. Previous historic sites surveys and regulatory surveys on file at the NJHPO were reviewed for information concerning prior surveys of the area. Municipal planning documents were also reviewed to identify local historic preservation planning efforts and historic resources identified by local governments as essential to the growth and development of the community.

Known Historic Properties

Background research conducted at the NJHPO indicated that 39 previously identified historic resources are located within the APE (A-F), including 16 historic districts and 23 historic properties. The Jersey City Reservoir 2 & 3 Complex (NJHPO Opinion: 10/15/1991; NJR: 4/10/2002; NR: 8/27/2012) is located within a portion of the Jersey City Water Works Historic District; however the historic resource's boundaries do not extend into the APE (A-F) and therefore project impacts to the resource were not evaluated as a part of the HARBS. Of the 39 previously identified resources, one, the Covert/Larch Historic District (NJHPO Opinion: 3/10/1999), has been demolished. The remaining 38 resources are identified in Table 4.1 below and discussed in detail in Section 4.3. Figures 4.1a-b show the locations of the 38 previously identified resources within the APE (A-F).

Planning Surveys

In 1985, Mary B. Dierickx Architectural Preservation completed the Phase 2 Survey of Wards C, D, and E in Jersey City. The purpose of the survey was to identify a list of properties and districts recommended eligible for listing in the NR. These properties were selected from the larger-scale Phase I Survey of buildings 50 years or older within Jersey City. Of the numerous properties identified, nine were located within the APE (A-F): 116 Jefferson Avenue; 69 Waverly Street; Belvedere Court Apartments; 34-36 Covert Street; 91 Larch Street; General Pulaski Skyway; 319 Coles Street (now known as Holbrook Manufacturing Company); the Continental Can Company Complex; and the Lackawanna Warehouse and Viaduct. The buildings at 116 Jefferson Avenue, 69 Waverly Street, 34-36 Covert Street, and 91 Larch Street have been demolished since the time of the survey. The remaining five properties are discussed in detail in Section 4.3.

The Jersey City Master Plan, drafted in 2000, has a preservation element. The plan identifies the nine properties identified in the Phase 2 Survey as being potentially eligible for listing in the NR (JDCPC 2000: Attachment A).

The Hoboken Historic Sites Survey, conducted from 1978 to 1981, identifies numerous properties in Hoboken. Many of these properties are located within the Southern Hoboken Historic District, but the survey does not generally focus on industrial properties like the majority of those in the APE (A-F) (Florio 1978-81).

Table 4.1: Previously identified historic resources.

Resource ID	Property Name/Address	Municipality	NR Current Status
1	Old Main Delaware, Lackawanna and Western Railroad Historic District	Multiple	Eligible (NJHPO Opinion: 9/24/1996)
2	Pennsylvania Railroad New York to Philadelphia Historic District	Multiple	Eligible (NJHPO Opinion: 10/2/2002)
3	Pennsylvania Railroad New York Bay Branch Historic District	City of Newark	Eligible (NJHPO Opinion: 4/22/2005)
4	Essex Generating Station	Town of Kearny; City of Newark	Eligible (NJHPO Opinion: 3/23/2015)
5	Public Service Electric and Gas Company (PSE&G) Kearny-Essex-Marion Interconnection Historic District	Town of Kearny; City of Jersey City	Eligible (NJHPO Opinion: 12/31/2013)
6	Jersey City Water Works Historic District	Multiple	Eligible (NJHPO Opinion: 1/20/2003)
7	Hackensack River Lift Bridges Historic District	Town of Kearny; City of Jersey City	Eligible (NJHPO Opinion: 5/3/2002)
8	People's Gas Light Company/PSE&G Marion Office Historic District	City of Jersey City	Eligible (NJHPO Opinion: 3/10/1999)
9	Delaware, Lackawanna and Western Railroad Boonton Line Historic District	Multiple	Eligible (NJHPO Opinion: 9/18/2008)
10	US Route 1 Extension [Pulaski Skyway] Historic District	Multiple	Listed (NJR: 6/13/2005; NR: 8/12/2005)
11	US Routes 1 & 9 Historic District	Multiple	Eligible (NJHPO Opinion: 3/8/1996)
12	New Jersey Midland Railway/New York, Susquehanna and Western Railroad Historic District	Multiple	Eligible (NJHPO Opinion: 4/25/2006 & 1/30/2015)
13	Erie Railroad Main Line Historic District	Multiple	Eligible (NJHPO Opinion: 2/20/2003)
14	Erie Railroad Bergen Archways Historic District	City of Jersey City	Eligible (NJHPO Opinion: 4/27/2000)
15	Hudson and Manhattan Railroad Transit System (PATH) Historic District	Multiple	Eligible (NJHPO Opinion: 3/4/2002)
16	Southern Hoboken Historic District	City of Hoboken	Eligible (NJHPO Opinion: 2/28/1991)
17	Substation 4	Town of Kearny	Eligible (NJHPO Opinion: 9/12/1994)
18	Edison Battery Company Property	Town of Kearny	Eligible (NJHPO Opinion: 4/8/2008)
19	Jersey City Water Works Pipeline	City of Jersey City	Eligible (NJHPO Opinion: 5/7/1999)
20	PSE&G Kearny Generating Station	Town of Kearny	Eligible (NJHPO Opinion: 5/3/2002)
21	Lower Hack Draw Bridge	Town of Kearny; City of Jersey City	Eligible (NJHPO Opinion: 9/18/1996)
22	Wittpenn Bridge [SI&A #0909150]	Town of Kearny; City of Jersey City	Eligible (NJHPO Opinion: 2/7/2001)
23	Pennsylvania Railroad Harsimus Branch (Conrail/CSX) Bridge over the Hackensack River	Town of Kearny; City of Jersey City	Eligible (NJHPO Opinion: 5/3/2002)
24	Pennsylvania Railroad (PATH) Bridge over Hackensack River	Town of Kearny; City of Jersey City	Eligible (NJHPO Opinion: 5/3/2002)
25	St. Peter's Cemetery	City of Jersey City	Eligible (NJHPO Opinion: 6/18/1996)
26	West End Interlocking Tower	City of Jersey City	Eligible (NJHPO Opinion: 1/20/1999)

Table 4.1; cont.

Resource ID	Property Name/Address	Municipality	NR Current Status
27	West-End Through Truss Bridges	City of Jersey City	Eligible (NJHPO Opinion: 3/31/1997)
28	Old and New Bergen Tunnels	City of Jersey City	Eligible (NJHPO Opinion: 5/8/1998)
29	JFK Boulevard Bridge [SI&A # 0951170]	City of Jersey City	Eligible (NJHPO Opinion: 4/27/2000)
30	Erie Railroad Bergen Hill Tunnel [aka Long Dock Tunnel]	City of Jersey City	Eligible (NJHPO Opinion: 4/27/2000)
31	Palisade Avenue Bridge [SI&A # 0951165]	City of Jersey City	Eligible (NJHPO Opinion: 4/27/2000)
32	Jersey City High School [William Dickinson High School]	City of Jersey City	Listed (NJR: 12/23/1981; NR: 6/1/1982)
33	Holbrook Manufacturing Company	City of Jersey City	Eligible (NJHPO Opinion: 2/28/1991)
34	Continental Can Company Complex	City of Jersey City	Eligible (NJHPO Opinion: 5/30/1997)
35	Lackawanna Warehouse and Viaduct	City of Jersey City	Eligible (NJHPO Opinion: 5/16/1995)
36	Grove Street Bridge	City of Jersey City	Eligible (NJHPO Opinion: 1/20/1999)
37	Engine Company #3, Truck #2 Firehouse	City of Jersey City	Listed (NJR: 2/9/1984; NR: 3/30/1984)
38	Erie-Lackawanna Terminal	City of Hoboken	Listed (NJR: 12/7/2004; NR: 2/17/2005)

NR: National Register of Historic Places

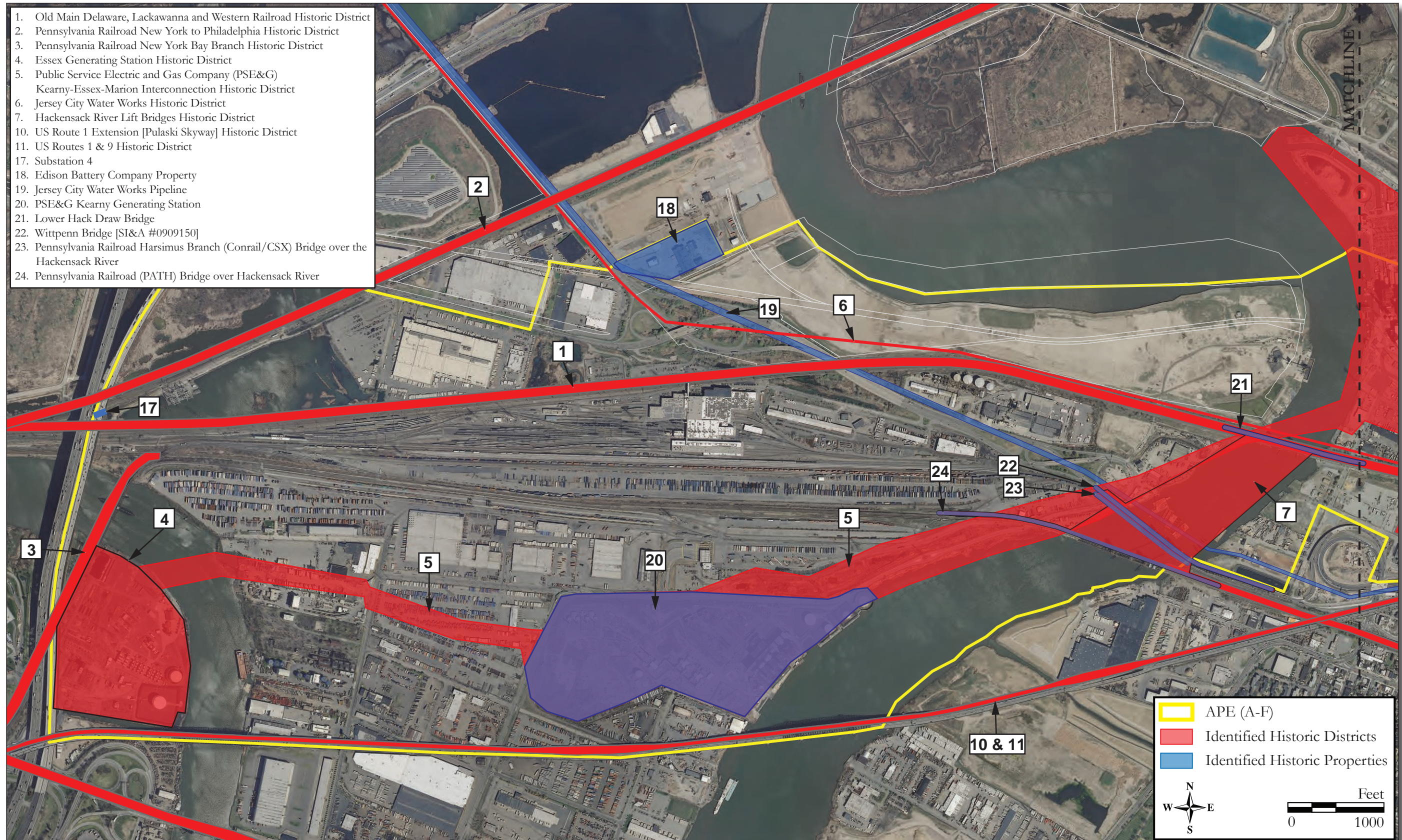
NJR: New Jersey Register of Historic Places

NJHPO: State Historic Preservation Office

In 2004, the City of Hoboken drafted a Master Plan. The plan notes the importance of the Southern Hoboken Historic District, the Old Main Delaware, Lackawanna and Western Railroad Historic District, and the Erie-Lackawanna Terminal (PPSA 2004: 121). The plan also discusses the importance of historic industrial buildings in Hoboken, which were not generally surveyed for the 1978 to 1981 Historic Sites Survey. The master plan states the need for more comprehensive documentation and study of Hoboken's remaining industrial resources to assist community planning and redevelopment efforts, due to the important role that industry played in Hoboken's history and development (PPSA 2004: 122).

In 2010, the City of Hoboken completed a reexamination of its 2004 Master Plan. The reexamination document specifically calls for the adaptive reuse of the Erie-Lackawanna Terminal's ferry concourse, noting its strong potential to draw people into Hoboken (EFB 2010: 18). The report also mentions the importance of the R. Neumann & Co. Factory Complex. Overseen by the Neumann Leather Tenants Association, the building is significant as one of the few remaining intact factories in the city. The plan notes that the complex has been successfully reused by industrial artisans, artists, and musicians, who organized to keep the building from being redeveloped as residential/mixed use property. The city identifies this type of continued use of industrial buildings as a rare and strong example in Hoboken and one that should be emulated (EFB 2010: 32-33). These resources are discussed further in Section 4.3.

There has not been a comprehensive historic sites survey completed in Kearny. In 2008, the Town of Kearny completed a reexamination of its 1991 Master Plan Revision (Heyer, Gruel & Associates 2008). The reexamination report does not contain a Historic Preservation Element and does not specifically identify any historic properties in Kearny.



1. Old Main Delaware, Lackawanna and Western Railroad Historic District
2. Pennsylvania Railroad New York to Philadelphia Historic District
3. Pennsylvania Railroad New York Bay Branch Historic District
4. Essex Generating Station Historic District
5. Public Service Electric and Gas Company (PSE&G) Kearny-Essex-Marion Interconnection Historic District
6. Jersey City Water Works Historic District
7. Hackensack River Lift Bridges Historic District
10. US Route 1 Extension [Pulaski Skyway] Historic District
11. US Routes 1 & 9 Historic District
17. Substation 4
18. Edison Battery Company Property
19. Jersey City Water Works Pipeline
20. PSE&G Kearny Generating Station
21. Lower Hack Draw Bridge
22. Wittpenn Bridge [SI&A #0909150]
23. Pennsylvania Railroad Harsimus Branch (Conrail/CSX) Bridge over the Hackensack River
24. Pennsylvania Railroad (PATH) Bridge over Hackensack River

▭ APE (A-F)
▭ Identified Historic Districts
▭ Identified Historic Properties

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Figure 4.1a: Aerial photograph depicting previously-identified historic resources within the APE (A-F) (NJGIS Digital Orthographic Imagery, 2012).

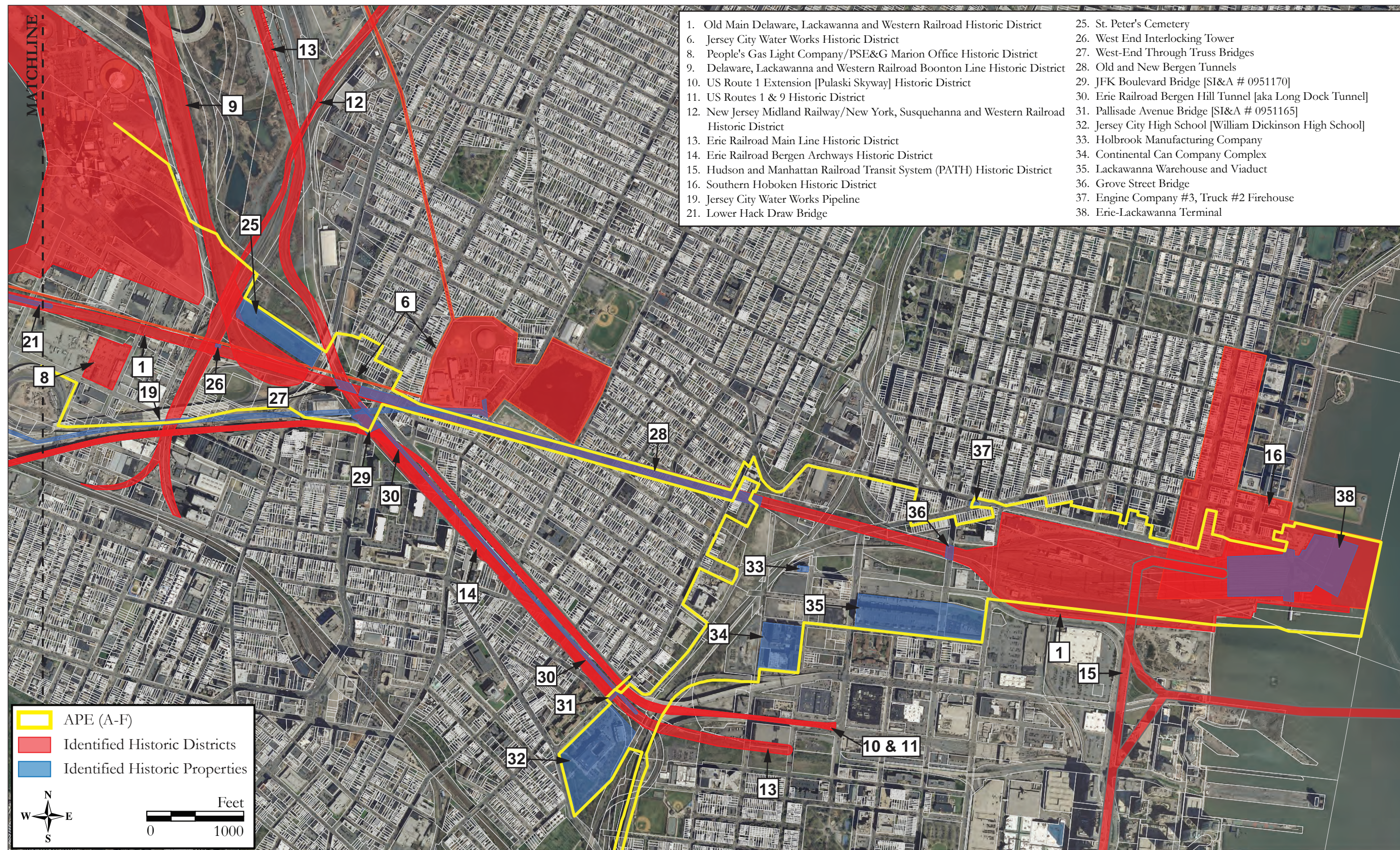


Figure 4.1b: Aerial photograph depicting previously-identified historic resources within the APE (A-F) (NJGIS Digital Orthographic Imagery, 2012).

Regulatory Surveys

More than 80 previous cultural resources surveys have been completed within 1,000 feet of the APE (A-F). The surveys were primarily associated with proposed road and infrastructure improvements and the construction or upgrading of wireless telecommunications facilities. Due to the exceedingly large number of previous surveys, only those within or adjacent to the APE (A-F), which identified historic architectural resources, will be discussed here. Previously identified resources without formal opinions of eligibility, which were surveyed at the intensive-level for this report, are discussed in Section 4.2, and NJHPO survey forms for these properties can be found in Attachment D. All previously-identified NJR and NR-eligible and listed historic architectural resources are discussed in detail in Section 4.3.

More than 55 of these cultural resources surveys identified historic architectural resources within or adjacent to the APE (A-F). Many of these surveys focused on the continued study of the history, preservation, and ongoing restoration and upkeep of the NJR and NR-listed Erie-Lackawanna Terminal (CRMS 1978; Richard Grubb & Associates, Inc. 2009; Ford Farewell Mills and Gatsch 1994; Beyer Blinder Belle Architects & Planners 2002, 2005; Hayles & Howe, Inc. 2004; Lynn Drobbin and Associates 1997a, 2001; TAMS Consultants, Inc. 1993; JHPA 1990; and Marshall 1981). In addition, several surveys identified historic properties and districts in the vicinity of the Erie-Lackawanna Terminal. Identified historic resources included the terminal, as well as the NR-eligible Southern Hoboken Historic District, Old Main DL&WRR Historic District, and PATH Historic District, and the NJR and NR-listed Engine Company #3, Truck #2 Firehouse (Heritage Studies 1982; Kraft 1978, 1979; Dolan Research, Inc. 1997; Geismar 1998; ARCH2 2001a, 2002b, 2002c, 2002d; Louis Berger & Associates, Inc. 1983; Richard Grubb & Associates, Inc. 2003, 2006a, 2009; RGA 2015; Lynn Drobbin and Associates 1995a, 1995b, 1998, 2001; CRCG 2003; Parsons Brinkerhoff 1992).

Multiple studies have been conducted in relation to proposed wireless communications projects within the APE (A-F), several of which also identified the Erie-Lackawanna Terminal, the Southern Hoboken Historic District, the Old Main DL&WRR Historic District, and the Engine Company #3, Truck #2 Firehouse (ARCH2 2002a, 2002b, 2002c, 2002d; A&HC 2004a). These surveys also examined the NR-eligible Old and New Bergen Tunnels and the Lackawanna Warehouse and Viaduct (ARCH2 2002a; A&HC 2004a). One wireless communications report identified the NJR and NR-listed US Route 1 Extension [Pulaski Skyway] Historic District and the NR-eligible US Routes 1 & 9 Historic District (Richard Grubb & Associates, Inc. 2002b).

Two wireless communications reports identify above-ground resources more than 50 years of age within the APE (A-F) which had not been previously identified as listed in or eligible for the NJR and NR (A&HC 2004a; ARCH2 2002a). A 2002 report by ARCH2 identified the R. Neumann & Co. Manufactory at 300 Observer Highway, the former Caulfield Association Building at 3-5 Henderson Street, and the commercial building at 497-499 Observer Highway (now the Fields Development Group Building) in Hoboken, as well as the Kobrnick Coffee Company Building at 693-697 Luis Marin Boulevard in Jersey City (ARCH2 2002a). A 2004 study by Archaeological & Historical Consultants, Inc. (A&HC) identified the industrial building at 833 Jersey Avenue (most recently in use as the National Retail Transportation Building) in Jersey City (A&HC 2004a). Concise, one-page historic survey forms were completed for each property, and all identified properties were recommended not eligible for listing in the NR by the respective consultant. As the buildings are located within the APE (A-F) for the current project, all five were surveyed at the intensive-level for this HARBS and EA report.

Previous cultural resources surveys also identified several listed and eligible resources located to the south of Hoboken, along the Palisades in Jersey City. These include the above-mentioned Lackawanna Warehouse and Viaduct and portions of the US Routes 1 & 9 Historic District and the US Route 1 Extension Historic District, as well as the NR-eligible Continental Can Company Complex and Holbrook Manufacturing Company, and the NJR and NR-listed Jersey City High School [William Dickinson High School] properties (Kardas and Larrabee 1979; Mary B. Dierickx Architectural Preservation Consultants 1997; Lichtenstein Consulting Engineers 1998; Lynn Drobbin and Associates 1998; Parsons Brinkerhoff 1992; PAL 2010). One of these surveys, conducted by the Public Archaeology Laboratory (PAL) in 2010, identified several of the above-listed properties as well

as the NR-eligible Erie Railroad Main Line Historic District, which runs northwest parallel to the US Routes 1 & 9 Historic District and the US Route 1 Extension Historic District through the APE (A-F) in Jersey City (PAL 2010).

Multiple surveys identify the Erie Railroad Main Line Historic District, along with the many associated individually eligible properties and historic districts (FTA 2008; Richard Grubb & Associates, Inc. 2006, 2008). In 2008, Richard Grubb & Associates, Inc. conducted a cultural resources investigation associated with improvements to Conrail's Erie Bergen Hill Tunnel and Waldo Yard Tunnel in Jersey City. The report identified six eligible and listed resources that are within the APE (A-F) for the present project, including the Erie Railroad Main Line Historic District and several associated districts and resources. The associated NR-eligible resources included the Erie Railroad Bergen Archways Historic District, the Erie Railroad Bergen Hill Tunnel, and the West End Through Truss Bridges. The report also identified the Old Main DL&WRR Historic District and the NR-eligible St. Peter's Cemetery. As a result of the investigation, the project was found to have an adverse impact on the Bergen Hill Tunnel, as well as the Erie Railroad Main Line Historic District, due to alterations proposed for the interior lining of the historic tunnel. Suggested mitigation measures included context-sensitive design and Historic American Engineering Record (HAER) recordation of the tunnels (Richard Grubb & Associates, Inc. 2008).

St. Peter's Cemetery has been identified in numerous cultural resources reports (NJDOT 1980; FTA 2008a, 2008b; Geismar 1992; Kise Franks & Straw 1995). The 2008 Final Environmental Impact Statement for the Access to the Region's Core (ARC) project, which identified the cemetery, also identified several NR-eligible railroad historic districts within the APE (A-F) for the current project. These include the Old Main DL&WRR Historic District, the Pennsylvania Railroad New York to Philadelphia Historic District, the Erie Railroad Main Line Historic District, the DL&WRR Boonton Line Historic District, and the New York, Susquehanna and Western Railroad Historic District (FTA 2008b). The Hackensack River Lift Bridges Historic District and the Lower Hack Draw Bridge within it, the West End Interlocking Tower, the PSE&G Marion Office Historic District, and the Edison Battery Company property, all eligible resources within the APE (A-F) for the current project, were also identified in this report. The APEs for both projects overlap in portions of Jersey City and the Town of Kearny (FTA 2008b). Many of these resources were also identified in a 2009 Langan Engineering report regarding the Standard Chlorine Chemical Company Site, an archaeological site located in the vicinity of the Edison Battery Company Property in the northwest portion of the APE (A-F) for the current project and the Portal Bridge Capacity Enhancement Project (Langan Associates 2009; FRA 2008).

The ARC and Portal Bridge projects also identified Substation 4 as a NR-eligible resource. Substation 4, along with its sibling, Substation 3, was researched in detail in relation to the Seaucus Transfer Project (NJTRANSIT 1994). The substations are surviving components of the Penn Station project, undertaken by the Pennsylvania Railroad in the early twentieth century to provide uninterrupted access to Manhattan. As a result of the 1994 report, both substations were found eligible for listing in the NJR and NR (Hall 1994a).

The Hackensack River Lift Bridges Historic District and the individual bridges within it were identified in a few additional surveys (RBA 2001, 2004; Richard Grubb & Associates, Inc. 2002b, 2007a; Lynn Drobbin and Associates 2008). The historic district, along with the NR-eligible Pennsylvania Railroad Harsimus Branch (Conrail/CSX) Bridge over the Hackensack River and the Pennsylvania Railroad Bridge (PATH) over the Hackensack River, were surveyed at the intensive-level by Richard Grubb & Associates, Inc. in 2002. It was this survey that led to the bridges and the larger Historic District receiving opinions of eligibility from the NJHPO. The other two bridges in the district, the Lower Hack Draw Bridge and the Wittpenn Bridge, had received prior opinions of eligibility. As adverse effects were anticipated for the historic district and several contributing bridges, context-sensitive design and HAER recordation were recommended as potential mitigation options. The intensive-level survey identified one other resource within the APE (A-F) for the current project, the Nabisco Warehouse at 228 Broadway in Jersey City, but this resource was not recommended eligible for listing

in the NJR or NR (Richard Grubb & Associates, Inc. 2002b). The resource was reexamined as a part of the current survey, and the updated survey form is located in Attachment D.

In addition to identifying the Hackensack River Lift Bridges Historic District, and three of the four bridges within it, a 2004 survey by the RBA Group identified the NR-eligible PSE&G Kearny Generating Station within the APE (A-F) for the current project (RBA 2004). One previously-unevaluated resource, the Pennsylvania Avenue Food Distribution/Warehouse Complex at 123-125 Pennsylvania Avenue, was also identified as a part of this survey. The RBA Group did not recommend the complex as eligible for listing in the NJR and NR (RBA 2004: 12-13). The resource was reexamined as a part of the current survey, and an updated survey form can be found in Attachment D.

Two additional previously-identified historic resources cross through the western and central portions of the APE (A-F): the Jersey City Water Works Pipeline and the Jersey City Water Works Historic District. The pipeline and district have been extensively studied, mapped, and documented over the past 15 years (Richard Grubb & Associates, Inc. 2002b, 2007b; RBA 2001, 2004, 2006, 2007, 2009; Langan Engineering 2009).

RGA recently conducted a HARBS for NJ TRANSIT's Hoboken Yard Major Electrical Repairs project, which proposes to undertake repairs and resiliency improvements to the Hoboken Terminal Yard Power assets damaged by Super Storm Sandy. Impacts associated with this proposed project consisted primarily with the installation of 36 monopoles located on both sides of the NJ TRANSIT ROW from the Erie-Lackawanna Terminal at the east end of the project area to Harrison Street at the west end of the project area. The monopoles are proposed to be 60 feet in height, and the APE for the project is similar to the APE (A-F) for the current project east of the Palisades. The report identified ten NR-eligible and listed resources, all of which are identified in the current survey. Of the 12 additional identified properties over 50 years of age, ten are also located within the APE (A-F) for this survey. All ten of these resources were examined as a part of the current survey as well, and intensive-level survey forms for these resources are located in Attachment D. Of the resources, only the R. Neumann & Co. Factory Complex was found to be eligible for listing in the NJR and NR. This resource is discussed in further detail in Section 4.3 along with all of the previously identified eligible and listed resources noted above.

NJ TRANSIT Historic Railroad Bridge Survey

The NJ TRANSIT Historic Railroad Bridge Survey was completed in 1991 as a joint effort between NJ TRANSIT and DeLeuw, Cather and Company. The survey identified historic railroad bridges along commuter rail lines in New Jersey which are either owned or maintained by NJ TRANSIT. Of the many bridges surveyed, 16 railroad-related historic resources were identified within the APE (A-F) for the current project. Of these resources, seven were recommended eligible for listing in the NR: the Grove Street Bridge; the Old Bergen Tunnel; the New Bergen Tunnel; the West End Baltimore Truss Bridges; the Duffield Avenue Bridge; and the Lower Hack Draw Bridge (DeLeuw, Cather and Company 1991). All seven resources are located within the Old Main DL&WRR Historic District and six of them are individually eligible for listing in the NR. The Duffield Avenue Bridge is considered an element of the larger Lower Hack Draw Bridge and does not have a standalone opinion of eligibility. The eligible resources are discussed in detail in Section 4.3.

New Jersey Historic Bridge Survey

The New Jersey Historic Bridge Survey was sponsored by the New Jersey Department of Transportation (NJDOT). All bridges in the state built prior to 1947 were surveyed and assessed as to their eligibility for listing in the NJR and NR. Eleven bridges within the APE (A-F) for the current project were surveyed, six of which were recommended as individually eligible for listing in the NJR and NR: the US 1 & 9 Pulaski Skyway over Hackensack Meadows; NJ 139 over Conrail Bergen Archways Line; NJ 139 Eastbound (12th Street Viaduct); NJ 7 over Hackensack River; Palisade Avenue over Conrail Bergen Archways; and JFK Boulevard over Conrail Bergen Archways (A.G. Lichtenstein & Associates, Inc. 1994). Of these six resources, four have formal opinions of eligibility from the NJHPO. The NJ 139 Bridge over the Conrail Bergen Archways Line and the 12th Street Viaduct, while not individually eligible for listing in the NJR and NR, are contributing resources within the NJR and NR-listed

US Route 1 Extension [Pulaski Skyway] Historic District, and the NR-eligible Erie Railroad Bergen Archways Historic District and Erie Railroad Main Line Historic District. All 11 identified bridges are contributing resources to at least one historic district within the APE (A-F). The individually eligible bridges and the relevant eligible and listed historic districts are all discussed in detail in Section 4.3.

New Jersey Historic Roadway Survey

The New Jersey Historic Roadway Survey identified one historic Highway Era road within the APE (A-F): the Pulaski Skyway (KSK Architects Planners Historians, Inc. 2011: 169). The Pulaski Skyway is significant for its associations with its chief designer, engineer Sigvald Johannesson, for embodying a distinctive type and method of construction, and for its role in the development and expansion of the highway system in the state of New Jersey (KSK Architects Planners Historians, Inc. 2011: 100). The Pulaski Skyway is a contributing resource within the NJR and NR-listed US Route 1 Extension [Pulaski Skyway] Historic District, discussed in further detail in Section 4.3.

4.2 Survey of Historic Architectural Resources

Work for the HARBS report included an intensive-level architectural field survey conducted on May 9, 2016 and consisted of an examination of resources more than 50 years of age in the APE (A-F). Fieldwork reconnaissance identified 48 previously unevaluated resources within the APE (A-F) which possessed sufficient architectural integrity to warrant recordation on individual survey forms. Intensive-level historic architectural surveys were completed for these 48 resources (see Attachment D). In Hoboken, the surveyed resources generally consisted of late-nineteenth and early-twentieth-century industrial buildings and complexes erected on made land that was advantageously situated adjacent to the railroad ROW. In Kearny, resources consisted of industrial sites and complexes that utilized the available open land and the numerous transportation routes that traverse the area. Resources in Jersey City included a mixture of late nineteenth and early twentieth century residential, commercial and municipal buildings related to the ongoing growth and expansion of the Heights area of Jersey City over that period of time.

While conducting the field survey, a small railroad-related concrete structure was identified on the west side of the Hackensack River, adjacent to the NR-eligible Pennsylvania Railroad (PATH) Bridge over the Hackensack River. The structure is located within the boundaries of the NR-eligible Hackensack River Lift Bridges Historic District. Preliminary research revealed that the structure is an example of a Pennsylvania Railroad “relay house,” likely constructed during the first half of the twentieth century. Relay houses stored the carrier’s telecommunications or signaling equipment. As an example of a common railroad-related building type, the resource is not likely individually eligible for listing on the NR. Due to its location below the Pennsylvania Railroad (PATH) Bridge, the building likely relates to the Pennsylvania Railroad’s construction and use of the railroad bridge. As such, the relay house may be a contributing resource within the Hackensack River Lift Bridges Historic District, to which the Pennsylvania Railroad (PATH) Bridge also contributes. The assessment of previously-unsurveyed resources located within historic districts is beyond the scope of this study. As such, an individual survey form was not prepared for this structure as a part of this report. Project effects on the historic district as a whole are assessed in Section 4.4.

During the course of this survey, two surveyed resources were identified and recommended as individually eligible for listing in the NJR and NR: Belvedere Court and the R. Neumann & Co. Factory Complex (RGA25 and RGA48; Figures 4.1a-b). These resources are discussed in detail in Section 4.3.

Figures 4.2a-b show the locations of the 48 resources more than 50 years of age identified within the APE (A-F) and surveyed at the intensive level. The intensive-level architectural survey, including individual building descriptions, historical development, and assessments of significance, integrity, and NR eligibility, has been conducted in accordance with the NJHPO Guidelines for Architectural Survey (NJHPO 1999) and has been compiled on the NJHPO Intensive Level Architectural Survey Forms located in Attachment D. Table 4.2 summarizes the architectural properties identified during the survey for this report.



Figure 4.2a: Aerial photograph depicting the location of surveyed resources within the APE (A-F) (NJGIS Digital Orthographic Imagery, 2012).

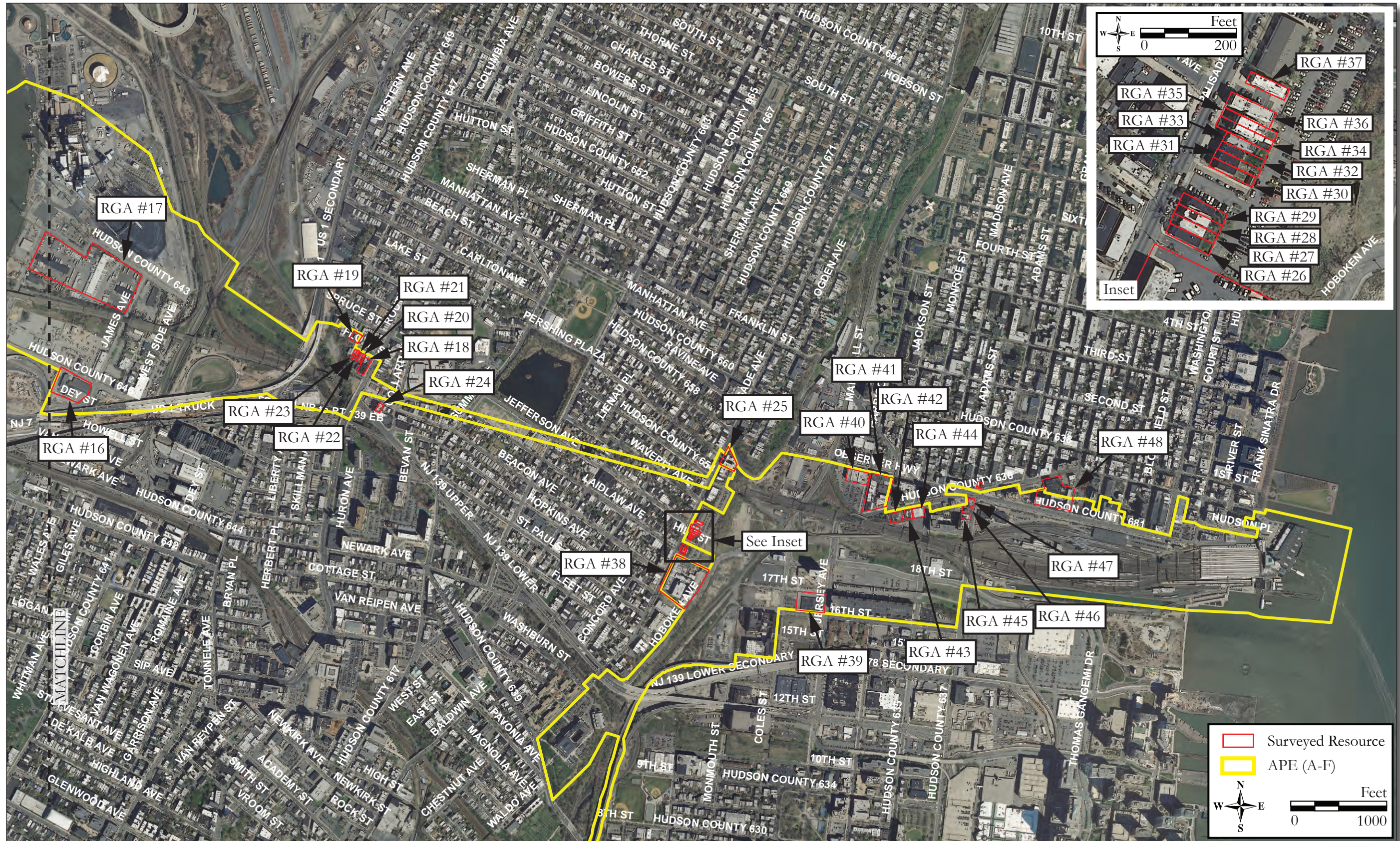


Figure 4.2b: Aerial photograph depicting the location of surveyed resources within the APE (A-F) (NJGIS Digital Orthographic Imagery, 2012).

Table 4.2: Summary of surveyed historic architectural properties.

Resource ID	Property Name/Address	Municipality	Previous Survey	Eligibility
RGA01	CSX Intermodal Police Headquarters/25 Pennsylvania Avenue	Town of Kearny	Previously un-surveyed	Recommended not eligible
RGA02	31 Pennsylvania Avenue	Town of Kearny	Previously un-surveyed	Recommended not eligible
RGA03	60-70 Pennsylvania Avenue	Town of Kearny	Previously un-surveyed	Recommended not eligible
RGA04	115 Jacobus Avenue	Town of Kearny	Previously un-surveyed	Recommended not eligible
RGA05	Syncon Resins/89 Jacobus Avenue	Town of Kearny	Previously un-surveyed	Recommended not eligible
RGA06	Syncon Resins/81 Jacobus Avenue	Town of Kearny	Previously un-surveyed	Recommended not eligible
RGA07	Lloyd A. Fry Roofing Company/55 Jacobus Avenue	Town of Kearny	Previously un-surveyed	Recommended not eligible
RGA08	58 Jacobus Avenue	Town of Kearny	Previously un-surveyed	Recommended not eligible
RGA09	Egyptian Lacquer Manufacturing Company Kearny Plant/64-84 Jacobus Avenue	Town of Kearny	Previously un-surveyed	Recommended not eligible
RGA10	48 Third Street	Town of Kearny	Previously un-surveyed	Recommended not eligible
RGA11	286 Central Avenue	Town of Kearny	Previously un-surveyed	Recommended not eligible
RGA12	Public Service Electric and Gas Company (PSE&G) Third Street Substation	Town of Kearny	Previously un-surveyed	Recommended not eligible
RGA13	123 Pennsylvania Avenue	City of Jersey City	Recommended not eligible (RBA 2004).	Recommended not eligible
RGA14	Owens-Corning Trumbull Kearny Plant/1249 Newark-Jersey City Turnpike	City of Jersey City	Previously un-surveyed	Recommended not eligible
RGA15	133 Halleck Avenue	City of Jersey City	Recommended not eligible (Richard Grubb & Associates, Inc. 2002b)	Recommended not eligible
RGA16	United Parcel Service Distribution Center/441-465 St. Paul's Avenue	City of Jersey City	Previously un-surveyed	Recommended not eligible
RGA17	Old Dominion Freight Line Company /136 Duffield Avenue	City of Jersey City	Previously un-surveyed	Recommended not eligible
RGA18	3139-3149 John F. Kennedy Boulevard	City of Jersey City	Previously un-surveyed	Recommended not eligible
RGA19	20 Floyd Street	City of Jersey City	Previously un-surveyed	Recommended not eligible
RGA20	9 Floyd Street	City of Jersey City	Previously un-surveyed	Recommended not eligible
RGA21	13 Floyd Street	City of Jersey City	Previously un-surveyed	Recommended not eligible
RGA22	15 Floyd Street	City of Jersey City	Previously un-surveyed	Recommended not eligible
RGA23	17 Floyd Street	City of Jersey City	Previously un-surveyed	Recommended not eligible

Table 4.2; cont.

Resource ID	Property Name/Address	Municipality	Previous Survey	Eligibility
RGA24	251 Beacon Avenue	City of Jersey City	Previously un-surveyed	Recommended not eligible
RGA25	Belvedere Court /264-270 Palisade Avenue	City of Jersey City	Recommended eligible (Mary B. Dierickx Architectural Preservation 1985)	Recommended eligible
RGA26	188 Palisade Avenue	City of Jersey City	Previously un-surveyed	Recommended not eligible
RGA27	190 Palisade Avenue	City of Jersey City	Previously un-surveyed	Recommended not eligible
RGA28	192 Palisade Avenue	City of Jersey City	Previously un-surveyed	Recommended not eligible
RGA29	194 Palisade Avenue	City of Jersey City	Previously un-surveyed	Recommended not eligible
RGA30	200 Palisade Avenue	City of Jersey City	Previously un-surveyed	Recommended not eligible
RGA31	202 Palisade Avenue	City of Jersey City	Previously un-surveyed	Recommended not eligible
RGA32	204 Palisade Avenue	City of Jersey City	Previously un-surveyed	Recommended not eligible
RGA33	206 Palisade Avenue	City of Jersey City	Previously un-surveyed	Recommended not eligible
RGA34	208 Palisade Avenue	City of Jersey City	Previously un-surveyed	Recommended not eligible
RGA35	210 Palisade Avenue	City of Jersey City	Previously un-surveyed	Recommended not eligible
RGA36	212 Palisade Avenue	City of Jersey City	Previously un-surveyed	Recommended not eligible
RGA37	214-216 Palisade Avenue	City of Jersey City	Previously un-surveyed	Recommended not eligible
RGA38	Christ Hospital /176 Palisade Avenue	City of Jersey City	Previously un-surveyed	Recommended not eligible
RGA39	National Retail Transportation Inc. Building/ 815 Jersey Avenue	City of Jersey City	Recommended not eligible (Archaeological & Historical Consultants, Inc. 2004)	Recommended not eligible
RGA40	Hoboken Business Center/ 50 Harrison Street	City of Jersey City	Previously un-surveyed	Recommended not eligible
RGA41	R.B. Davis Company Plant/ Harrison Street, Newark Street, Jackson Street & Observer Highway	City of Jersey City	Previously un-surveyed	Recommended not eligible
RGA42	Windsor Wax Company/ 611-619 Newark Street	City of Jersey City	Previously un-surveyed	Recommended not eligible
RGA43	601 Newark Street	City of Jersey City	Previously un-surveyed	Recommended not eligible
RGA44	Hoboken Beer & Soda Outlet/ 559 Newark Street	City of Jersey City	Previously un-surveyed	Recommended not eligible
RGA45	Kobrick Coffee Company/ 693 Luis Marin Boulevard	City of Jersey City	Recommended not eligible (Arch ² , Inc. 2002)	Recommended not eligible
RGA46	3-5 Henderson Street	City of Hoboken	Recommended not eligible (Arch ² , Inc. 2002)	Recommended not eligible
RGA47	Fields Development Group Building/Newark Street and Henderson Street	City of Hoboken	Recommended not eligible (Arch ² , Inc. 2002)	Recommended not eligible
RGA48	R. Neumann & Co. Factory Complex/ 300 Observer Highway	City of Hoboken	Recommended not eligible (Arch ² , Inc. 2002)	Recommended eligible

4.3 Identification of Historic Properties

Of the 38 previously-identified historic resources and the 48 newly-identified resources surveyed at the intensive level within the APE (A-F), the HARBS found that 40 of these resources are eligible for or listed in the NJR and NR. The 40 resources consist of three historic properties and one historic district listed in the NJR and NR, and 15 historic districts and 21 historic properties eligible for listing in the NR. The locations of the 40 resources can be seen on Figures 4.3a-b. Plates 4.1 through 4.57 show the resources and are referenced on Figures 4.3a-b. Several plate captions have been edited to remove the word “transmission” and need to be updated in InDesign (see Plate Captions Word doc).

The previously-identified historic resources are listed as follows:

The Old Main Delaware, Lackawanna and Western Railroad Historic District (NJHPO Opinion: 9/24/1996)

The Old Main Delaware, Lackawanna and Western Railroad (DL&WRR) Historic District is eligible for the NJR and NR under Criteria A and C for its associations with Suburbanization, Transportation (commuter, passenger, and freight traffic), Engineering, and Architecture (Guzzo 1996a) (see Plates 4.1-4.17). The Morris & Essex Railroad (M&ERR), the predecessor to the DL&WRR, was constructed in 1837 and was instrumental in linking Morristown and points west with the greater New York area. The M&ERR was absorbed by the DL&WRR in 1868. Initially used for both passenger and freight service, the M&ERR was soon used exclusively for commuter service after the completion of the Boonton Cut-off in 1870. Initially, the M&ERR used the Erie Bergen Hill Tunnel to reach its own terminal in Hoboken. Later the DL&WRR opened its own tunnel above and slightly north of the Erie Bergen Hill Tunnel in 1877. A second parallel tunnel was completed in 1908 and two new through truss bridges were constructed to span the M&ERR tracks at the tunnel’s western entrance. The period of significance of the historic district dates from the mid-1850s to circa 1930. The historic district boundaries generally conform to the historic ROW, though the width varies in select areas, and extend from the line’s eastern terminus at the Hoboken Terminal in Jersey City, Hudson County to the Borough of Washington, Warren County, where it departs the historic route of the M&ERR to follow the historic route of the Warren Railroad through the communities of Buttzville, Manunka Chunk, and Delaware, all located in White Township, Warren County, continuing generally northwest and crossing the Delaware River north of the community of Columbia in Knowlton Township, Warren County, into Pennsylvania. The historic district extends over 80 miles across New Jersey, from the Hudson River at the east end to the Delaware River at the west end. Numerous contributing resources have been identified within the Old Main DL&WRR Historic District. Contributing property types include railroad stations, bridges, tunnels, interlocking towers and signal equipment, culverts, catenary and electrical system structures, civil engineering features (cuts, fills, embankments, retaining walls), railway yard facilities, and branch or side tracks.

Pennsylvania Railroad New York to Philadelphia Historic District (NJHPO Opinion: 10/2/2002)

The Pennsylvania Railroad New York to Philadelphia Historic District (PRRHD) is a linear historic district extending from New York to Philadelphia (see Plates 4.18-4.28). The PRRHD is eligible for the NJR and NR under Criterion A in the areas of Transportation, Engineering, and Commerce, and under Criterion C for its “distinctive and characteristic array of surviving cuts, embankments, grade separations, overgrade and undergrade bridges and culverts, stations, interlocking towers, and overhead catenary system” (Guzzo 2007). The period of significance for the district is 1863-1966, reflecting an annual increase to maintain the 50 year cut-off (Saunders 2015c).

Pennsylvania Railroad New York Bay Branch Historic District (NJHPO Opinion: 4/22/2005)

The Pennsylvania Railroad New York Bay Branch Historic District is eligible for listing in the NJR and NR under Criterion A in the area of Transportation for its contribution to the state’s industrial, commercial, and urban expansion (see Plate 4.1). The district is also eligible under Criterion C in the area of Engineering and for the district’s significant collection of contributing bridges, culverts, yards, and surviving overhead electrified catenary system (Guzzo 2005). Built in sections between 1889 and 1904 as part of the PRR’s massive and comprehensive program to reach the Port of New York, the

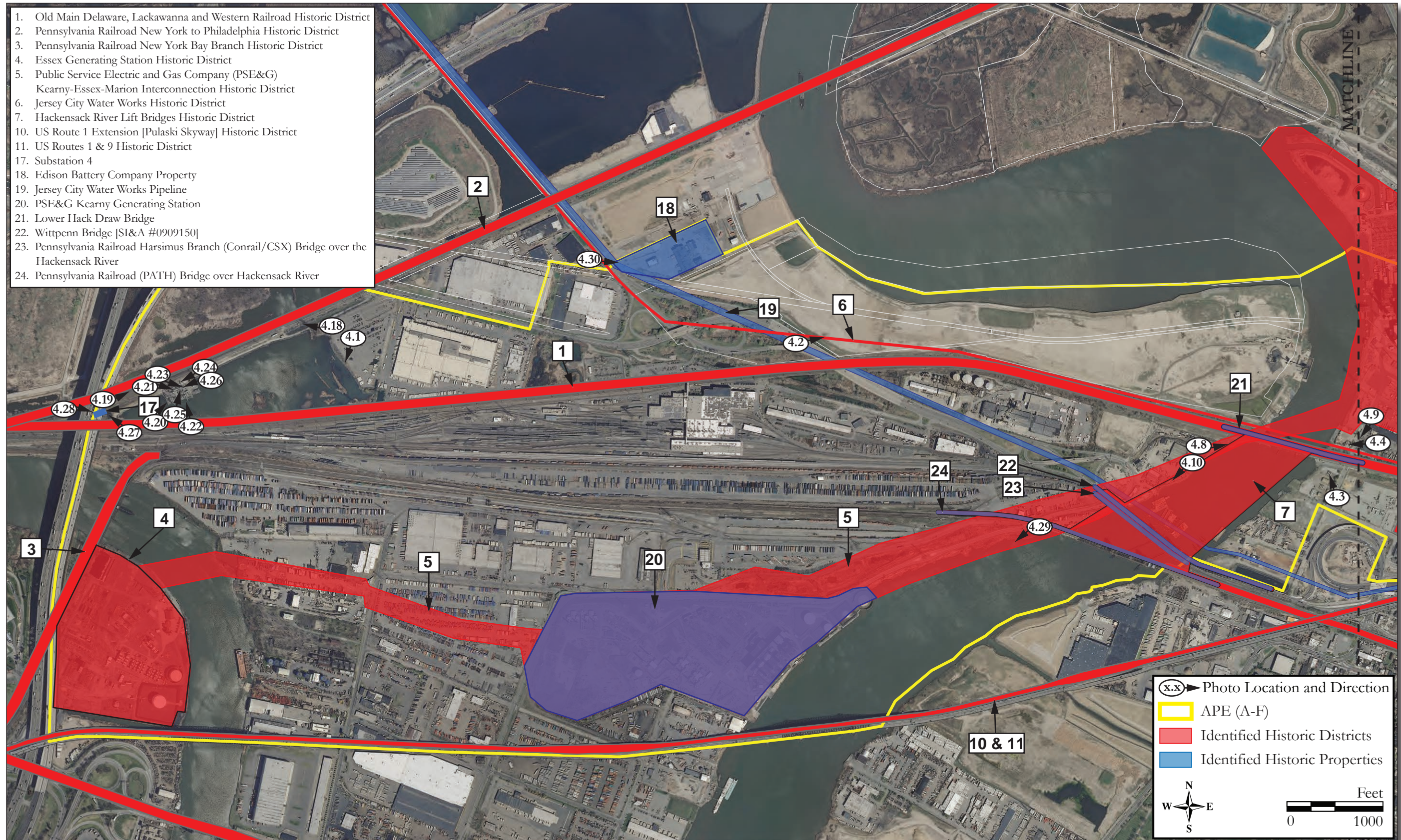


Figure 4.3a: Aerial photograph depicting the location of eligible and listed resources within the APE (A-F), and photograph locations and directions (NJGIS Digital Orthographic Imagery, 2012).

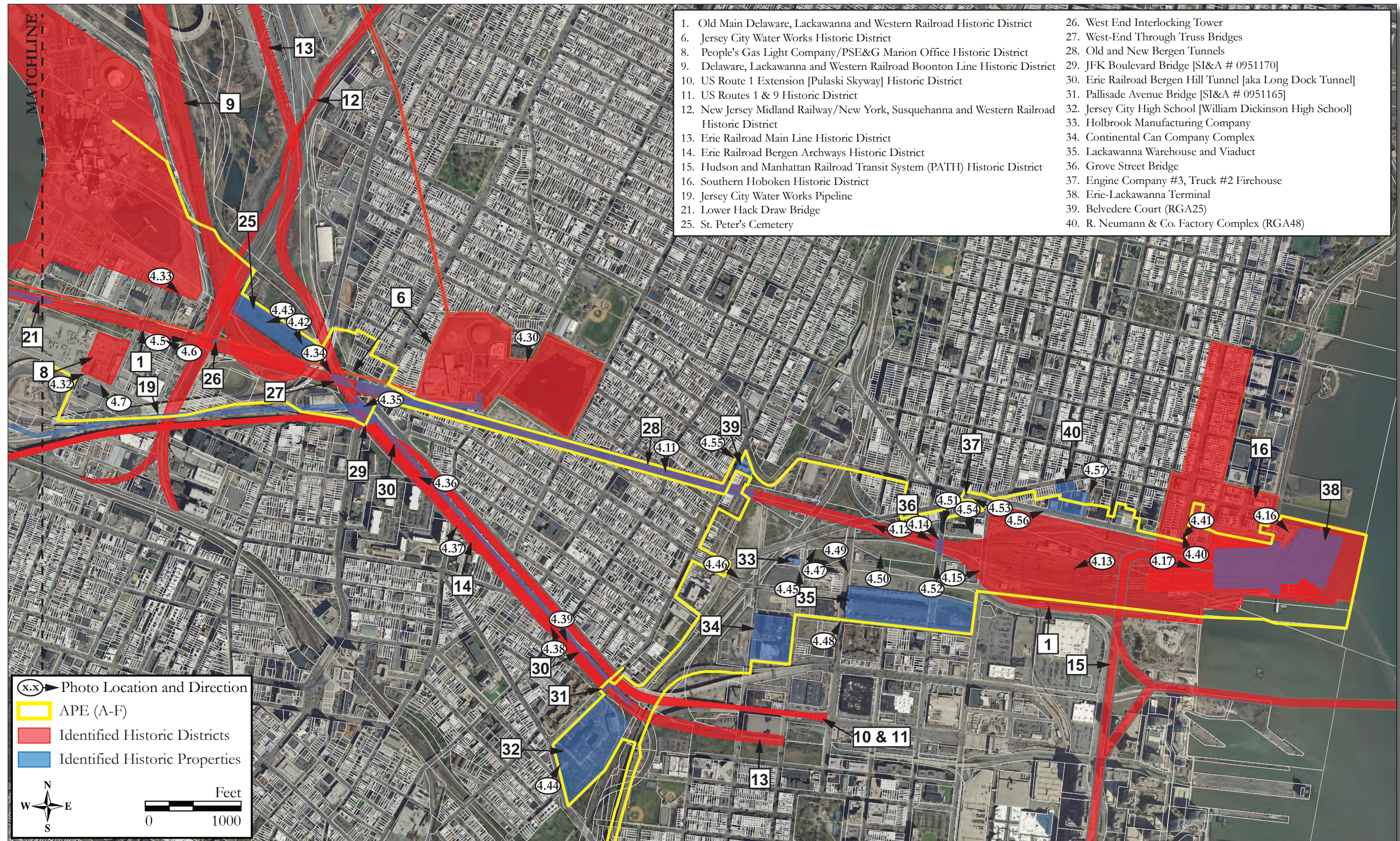


Figure 4.3b: Aerial photograph depicting the location of eligible and listed resources within the APE (A-F), and photograph locations and directions (NJGIS Digital Orthographic Imagery, 2012).



Plate 4.1: Overview, Town of Kearny, looking across Cedar Creek Marsh toward the Old Main DL&WRR Historic District, now the Morris & Essex line, with the Passaic River, the PRR New York Bay Branch Historic District, the US Route 1 Extension Historic District, the US Route 1&9 Historic District, and the PSE&G Kearny-Essex-Marion Interconnection Historic District in the background.

Photo view: Southwest

Photographer: Allee Davis

Date: October 15, 2015



Plate 4.2: Overview, Town of Kearny, looking across the Koppers Coke Peninsula Redevelopment Area and the proposed Main Facility Site toward the Hackensack River.

The Old Main DL&WRR Historic District, where the proposed electrical line will travel east to Jersey City is visible at right. The Jersey City Water Works Historic District and Jersey City Water Works Pipeline are located below ground at the center of the image. Numerous historic properties are visible in the background, including the Hackensack River Lift Bridges Historic District and the

PSE&G Kearny-Essex-Marion Interconnection Historic District. The Manhattan skyline is visible in the distance.

Photo view: South; Photographer: Lynn Alpert; Date: June 23, 2016



Plate 4.3: Overview, City of Jersey City, along the east bank of the Hackensack River with a view of the Old Main DL&WRR Historic District.

Photo view: Northwest

Photographer: Allee Davis

Date: October 15, 2015



Plate 4.4: Overview of the Old Main DL&WRR Historic District, City of Jersey City.

Photo view: West

Photographer: Allee Davis

Date: October 15, 2015



Plate 4.5: Overview of the Old Main DL&WRR Historic District with the West End Interlocking Tower visible in the background, City of Jersey City.

Photo view: Northeast

Photographer: Allee Davis

Date: October 15, 2015



Plate 4.6: Overview of the Old Main DL&WRR Historic District, City of Jersey City.

Photo view: Northwest

Photographer: Allee Davis

Date: October 15, 2015



Plate 4.7: Overview, City of Jersey City, with a view of the People's Gas Light Company/PSE&G Marion Office Historic District and the Lower Hack Draw Bridge in the Old Main DL&WRR Historic District.

Photo view: Northwest

Photographer: Allee Davis

Date: October 15, 2015



Plate 4.8: General view of the Lower Hack Draw Bridge along the Old Main DL&WRR Historic District as it crosses the Hackensack River, Town of Kearny.

Photo view: Northeast

Photographer: Allee Davis

Date: October 15, 2015



Plate 4.9: General view of the east approach to the Lower Hack Draw Bridge along the Old Main DL&WRR Historic District right-of-way where it crosses Duffield Avenue, City of Jersey City.

Photo view: Southwest

Photographer: Allee Davis

Date: October 15, 2015



Plate 4.10: General view of the Wittpenn Bridge and the Pennsylvania Railroad Harsimus Branch (Conrail/CSX) Bridge, part of the Hackensack River Lift Bridges Historic District, over the Hackensack River, Town of Kearny.

Photo view: Southeast

Photographer: Allee Davis

Date: October 15, 2015



Plate 4.11: General view of the residential neighborhood atop the underground tunnel of the Old Main DL&WRR Historic District at the intersection of Waverly Street and Baldwin Avenue, City of Jersey City.

Photo view: South

Photographer: Allee Davis

Date: October 15, 2015



Plate 4.12: View from within the Old Main DL&WRR Historic District toward Palisades, with the Old and New Bergen Tunnels in the background, City of Hoboken and Jersey City.

Photo view: Southwest

Photographer: Laura Cushman

Date: December 22, 2015



Plate 4.13: View from within the Old Main DL&WRR Historic District, showing the route of the proposed electrical line with the Lackawanna Warehouse visible in background at left, City of Jersey City.

Photo view: Southwest

Photographer: Laura Cushman

Date: December 22, 2015



Plate 4.14: View from within the Old Main DL&WRR Historic District, showing the route of the proposed electrical line and the Grove Street Bridge, City of Hoboken and Jersey City.

Photo view: Southeast

Photographer: Laura Cushman

Date: December 22, 2015



Plate 4.15: View of the Henderson Street Substation and the Old Main DL&WRR Historic District, City of Jersey City.

Photo view: Northeast

Photographer: Allee Davis

Date: October 15, 2015



Plate 4.16: View of the Erie-Lackawanna Terminal from Erie-Lackawanna Park within the Southern Hoboken Historic District, City of Hoboken.

Photo view: Southeast

Photographer: Lynn Alpert

Date: February 11, 2016



Plate 4.17: View from within the Old Main DL&WRR Historic District showing the train shed at left and the Erie-Lackawanna Terminal in the left background, City of Hoboken.

Photo view: Southeast

Photographer: Laura Cushman

Date: December 22, 2015



Plate 4.18: Overview, Town of Kearny, looking toward the Pennsylvania Railroad New York to Philadelphia Historic District.

Photo view: Northwest

Photographer: Allee Davis

Date: October 15, 2015



Plate 4.19: Overview, Town of Kearny, looking toward the Pennsylvania Railroad New York to Philadelphia Historic District with the Substation 41 at right.

Photo view: Northeast

Photographer: Lynn Alpert

Date: September 13, 2016



Plate 4.20: Overview of Substation 41, with the Old Main DL&WRR Historic District visible in the background.

Photo view: Northeast

Photographer: Lynn Alpert

Date: September 13, 2016



Plate 4.21: Overview of Substation 41, with the Pennsylvania Railroad New York to Philadelphia Historic District right-of-way visible in the background.

Photo view: Southeast

Photographer: Lynn Alpert

Date: September 13, 2016



Plate 4.22: View of steel support structures, concrete pads, and transformers within Substation 41, with the Pennsylvania Railroad New York to Philadelphia Historic District right-of-way visible in the background.

Photo view: Northwest

Photographer: Lynn Alpert

Date: September 13, 2016



Plate 4.23: Detail of modern transformer mounted on a rail system and concrete pad within Substation 41.

Photo view: Southwest

Photographer: Lynn Alpert

Date: September 13, 2016



Plate 4.24: View of steel support structures and two extant late 1920s transformers.

Photo view: Southwest

Photographer: Lynn Alpert

Date: September 13, 2016



Plate 4.25: Detail of General Electric Company transformer with part of the American Brown Boven Company transformer at right.

Photo view: Northeast

Photographer: Lynn Alpert

Date: September 13, 2016



Plate 4.26: Detail of circa 1930 "CARNEGIE H USA" I-beam within the steel structural system, located immediately west of the extant transformers.

Photo view: Southwest

Photographer: Lynn Alpert

Date: September 13, 2016



Plate 4.27: View of Substation 4, looking toward the Pennsylvania Railroad New York to Philadelphia Historic District right-of-way.

Photo view: Northwest

Photographer: Lynn Alpert

Date: September 13, 2016



Plate 4.28: Detail of Substation 4's inscribed limestone panel on the primary elevation.

Photo view: Southeast

Photographer: Lynn Alpert

Date: September 13, 2016



Plate 4.29: General view toward the Hackensack River, with a view of the US Route 1 Extension Historic District, the US Route 1&9 Historic District, and the PSE&G Kearny-Essex-Marion Interconnection Historic District, with the Kearny Generating Station at right, Town of Kearny.

Photo view: Southwest

Photographer: Allee Davis

Date: October 15, 2015



Plate 4.30: Overview along Summit Avenue within the Jersey City Water Works Historic District, looking toward the project area where the proposed electrical line would be run underground, City of Jersey City.

Photo view: South

Photographer: Lynn Alpert

Date: June 23, 2016



Plate 4.31: General view of the Edison Battery Company Property, Town of Kearny.

The Jersey City Water Works Historic District and the Jersey City Waterworks Pipeline are located below ground near the entrance to the property.

Photo view: East

Photographer: Lynn Alpert

Date: June 23, 2016



Plate 4.32: Overview, City of Jersey City, with a general view of the People's Gas Light Company/PSE&G Marion Office Historic District.

Photo view: Northeast

Photographer: Allee Davis

Date: October 15, 2015



Plate 4.33: Overview along Van Keuren Avenue looking toward the DL&WRR Boonton Line Historic District, City of Jersey City.

Photo view: Northeast

Photographer: Allee Davis

Date: October 15, 2015



Plate 4.34: View of the West-End Through Truss Bridges and entrance to the Erie Railroad Bergen Hill Tunnel within the Erie Railroad Main Line Historic District, City of Jersey City.

JFK Boulevard Bridge and the entrance to the Erie Railroad Bergen Archways Historic District are at right, behind the truss bridges.

Photo view: Southeast

Photographer: Lynn Alpert

Date: June 23, 2016



Plate 4.35: General view of the JFK Boulevard Bridge above the Erie Railroad Bergen Archways Historic District, City of Jersey City.

Photo view: Northwest

Photographer: Lynn Alpert

Date: June 23, 2016



Plate 4.36: General view of the Bevan and St. Paul Avenues Bridge over the Erie Railroad Bergen Archways Historic District, City of Jersey City.

Photo view: Northwest

Photographer: Lynn Alpert

Date: June 23, 2016



Plate 4.37: General view of the eastern wall of the Summit Avenue Bridge where it crosses the Erie Railroad Bergen Archways Historic District, City of Jersey City.

Photo view: Northeast

Photographer: Lynn Alpert

Date: June 23, 2016

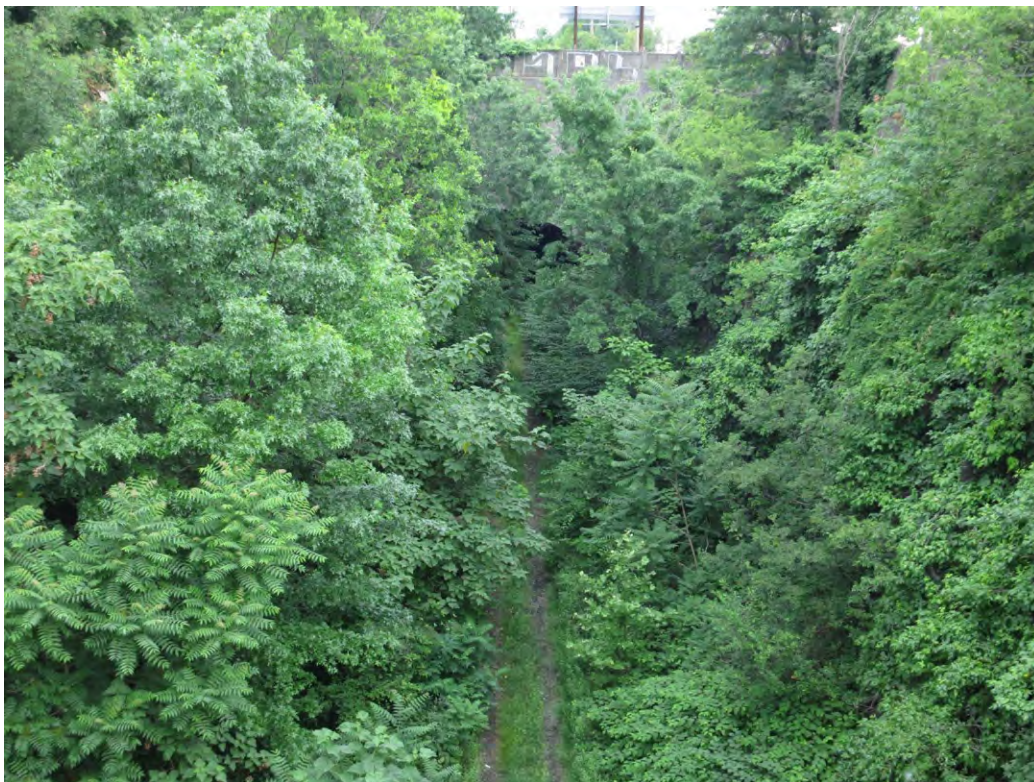


Plate 4.38: Overview of the Erie Railroad Bergen Archways Historic District, with the Central Avenue Bridge and Tunnel visible in the background, City of Jersey City.

Photo view: Northwest

Photographer: Lynn Alpert

Date: June 23, 2016



Plate 4.39: Overview of the Erie Railroad Bergen Archways Historic District, looking toward the Palisade Avenue Bridge, City of Jersey City.

Photo view: Southeast

Photographer: Lynn Alpert

Date: June 23, 2016



Plate 4.40: View from Observer Highway toward the southern end of the Southern Hoboken Historic District, City of Hoboken.

Photo view: Northwest

Photographer: Lynn Alpert

Date: February 11, 2016



Plate 4.41: View toward the proposed electrical line location within the Old Main DL&WRR Historic District, from the south end of the Southern Hoboken Historic District, City of Hoboken.

Photo view: Southwest

Photographer: Lynn Alpert

Date: February 11, 2016



Plate 4.42: General view of St. Peter's Cemetery, City of Jersey City.

Photo view: Southeast

Photographer: Allee Davis

Date: October 15, 2015



Plate 4.43: General view of St. Peter's Cemetery, City of Jersey City.

Photo view: Northwest

Photographer: Allee Davis

Date: October 15, 2015



Plate 4.44: General view of Jersey City High School, City of Jersey City.

Photo view: North

Photographer: Allee Davis

Date: October 15, 2015



Plate 4.45: General view of the Holbrook Manufacturing Company at the intersection of 18th Street and Cole Street, City of Jersey City.

Photo view: North

Photographer: Allee Davis

Date: October 15, 2015



Plate 4.46: General view toward the Continental Can Company Complex looking down from the bluff, City of Jersey City.

Photo view: Southeast

Photographer: Lauren Szeber

Date: February 9, 2016



Plate 4.47: View from the Holbrook Manufacturing Company toward the Old Main DL&WRR Historic District and the project area, City of Jersey City.

Photo view: Northeast

Photographer: Lynn Alpert

Date: February 16, 2016



Plate 4.48: View of the Lackawanna Warehouse and Viaduct, City of Jersey City.

Photo view: Southeast

Photographer: Lynn Alpert

Date: February 11, 2016



Plate 4.49: Overview of the APE along Jersey Avenue with a view of the Lackawanna Warehouse and Viaduct, Jersey City.

Photo view: Southeast

Photographer: Allee Davis

Date: October 15, 2015



Plate 4.50: View from the Lackawanna Warehouse and Viaduct, City of Jersey City, looking toward the DL&WRR Historic District and the City of Hoboken.

Photo view: North

Photographer: Lynn Alpert

Date: February 11, 2016



Plate 4.51: View of the Grove Street Bridge with the Lackawanna Warehouse visible in the background, on the opposite side of the Old Main DL&WRR Historic District, City of Jersey City.

Photo view: Southwest

Photographer: Lynn Alpert

Date: February 16, 2016



Plate 4.52: View of the Grove Street Bridge carrying the Morris & Essex line, City of Jersey City.

Photo view: North

Photographer: Allee Davis

Date: October 15, 2015



Plate 4.53: View of Engine Company #3, Truck #2 Firehouse, City of Hoboken.

Photo view: Northwest

Photographer: Lynn Alpert

Date: February 11, 2016



Plate 4.54: View from Engine Company #3, Truck #2 Firehouse toward the Old Main DL&WRR Historic District, City of Hoboken.

Photo view: Southeast

Photographer: Lynn Alpert

Date: February 11, 2016



Plate 4.55: View of Belvedere Court, City of Jersey City.

Photo view: Southeast

Photographer: Lauren Szeber

Date: May 9, 2016



Plate 4.56: View of the R. Neumann & Co. Factory Complex, City of Hoboken.

Photo view: Northeast

Photographer: Lynn Alpert

Date: February 16, 2016



Plate 4.57: View of the R. Neumann & Co. Factory Complex toward the DL&WRR Historic District, City of Hoboken.

Photo view: Southwest

Photographer: Lynn Alpert

Date: February 16, 2016