

**September 2007**

**Prepared for:**

MTACC

**Stage IA Archaeological Assessment for  
the 37<sup>th</sup> Street Ventilation Facility,  
East Side Access**

**New York City, New York**

**Prepared by:**

**URS**

Burlington, New Jersey

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East Side Access**

**New York City, New York**

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## Abstract

URS Corporation conducted a Stage IA archaeological assessment in support of the construction of a proposed 37<sup>th</sup> Street Ventilation Facility as part of the East Side Access Project, located in the borough of Manhattan. Two options have been proposed for the ventilation facility location. The first option would locate it within the sidewalk on both the northwest and southwest corners, at the intersection of 37<sup>th</sup> Street and Park Avenue. The second option would locate the facility within the sidewalk on the southwest corner, at the intersection of 37<sup>th</sup> Street and Park Avenue. The goal of the study was to provide information on the potential for the two project areas to contain intact and original soil surfaces. This information was needed in order to determine if proposed construction activities would extend to a depth that would encounter intact prehistoric and/or historic surfaces that may contain archaeological resources.

Background research indicated that pre-European sites on Manhattan are not common, as subsequent development has obliterated them. This appears to be the case in the project area. Previous studies of both prehistoric and Contact period settlement patterns within the region have indicated that the preferred locations for occupation were elevated and well-drained areas within 150 to 1,000 feet of freshwater sources. Although early historic maps (Viele 1859 and Bridges 1811) indicated that the project area was originally located on a hilltop, it is not considered to be sensitive for prehistoric cultural resources because of its distance from a freshwater source (0.5 to 0.8 miles). Therefore, the potential for locating intact prehistoric cultural deposits is low.

Historical background research indicated that the project area and its vicinity was once a patchwork of eighteenth-century farms and country estates owned by wealthy New Yorkers. There is ample cartographic and historical evidence that shows the proposed location for the two ventilation shaft facility options are within the original site of Inclenberg, the country mansion of Robert Murray. Murray built the house on the crest of the highest hill on Manhattan in 1760. The farm and house became renowned for playing a part in the Battle of New York during the Revolutionary War. When the street grid was superimposed over the Murray farm in 1811, the house was located within Fourth Avenue (now Park Avenue). The street grid remained solely on paper and the Murray farm remained a farm until the house burned down in 1834 or 1835. There is a moderate potential for locating intact historic cultural deposits and a variety of features once associated with the Murray mansion and farm. If subsequent activities have not impacted these deposits and features, then they have the potential to address research issues regarding the nature of early residential and farmstead occupation and lifeways in this section of the city. The types of deposits and archaeological features that may potentially provide valuable information are foundation remnants of the mansion or outbuildings, fence posts, paths, traces of landscaping, and sheet-midden scatter (yard trash). Therefore, a Stage IB in the form of archaeological monitoring during construction is recommended in order to determine the absence or presence of potential intact cultural deposits.

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## Introduction and Project Description

URS Corporation (URS) conducted a Stage IA archaeological assessment in support of the construction of a proposed 37<sup>th</sup> Street Ventilation Facility as part of the East Side Access Project, located in the borough of Manhattan (Figure 1.1). Two options have been proposed for the ventilation facility location. The first option would locate it within the sidewalk on both the northwest and southwest corners, at the intersection of 37<sup>th</sup> Street and Park Avenue (Figure 1.2). The second option would locate the facility within the sidewalk on the southwest corner, at the intersection of 37<sup>th</sup> Street and Park Avenue (see Figure 1.2). The goal of the study was to provide information on the potential for the two project areas to contain intact and original soil surfaces. This information was needed in order to determine if proposed construction activities would extend to a depth that would encounter the intact prehistoric and/or historic surfaces that may contain archaeological resources.

All work for this project was conducted in accordance with the National Historic Preservation Act of 1966, as amended, and the Advisory Council on Historic Preservation's "Protection of Historic and Cultural Properties" (36 CFR 800). In addition, the study was performed in compliance with the City Environmental Quality Review (CEQR) (Executive Order No. 91 of 1977). This work was also conducted pursuant to the New York state guidelines for such projects, and pursuant to the New York City Landmarks Preservation Commission's (NYCLPC) established guidelines for Stage IA archaeological work in New York City, dated April 12, 2002. The cultural resource specialists who performed this work satisfy the qualifications specified in 36 CFR 61, Appendix A.

Edward Morin, RPA, served as the project's Principal Investigator, while Historian Ingrid Wuebber conducted the background research. Lynda Bass prepared the graphics for the report, and Paul Elwork edited the text for style and consistency.

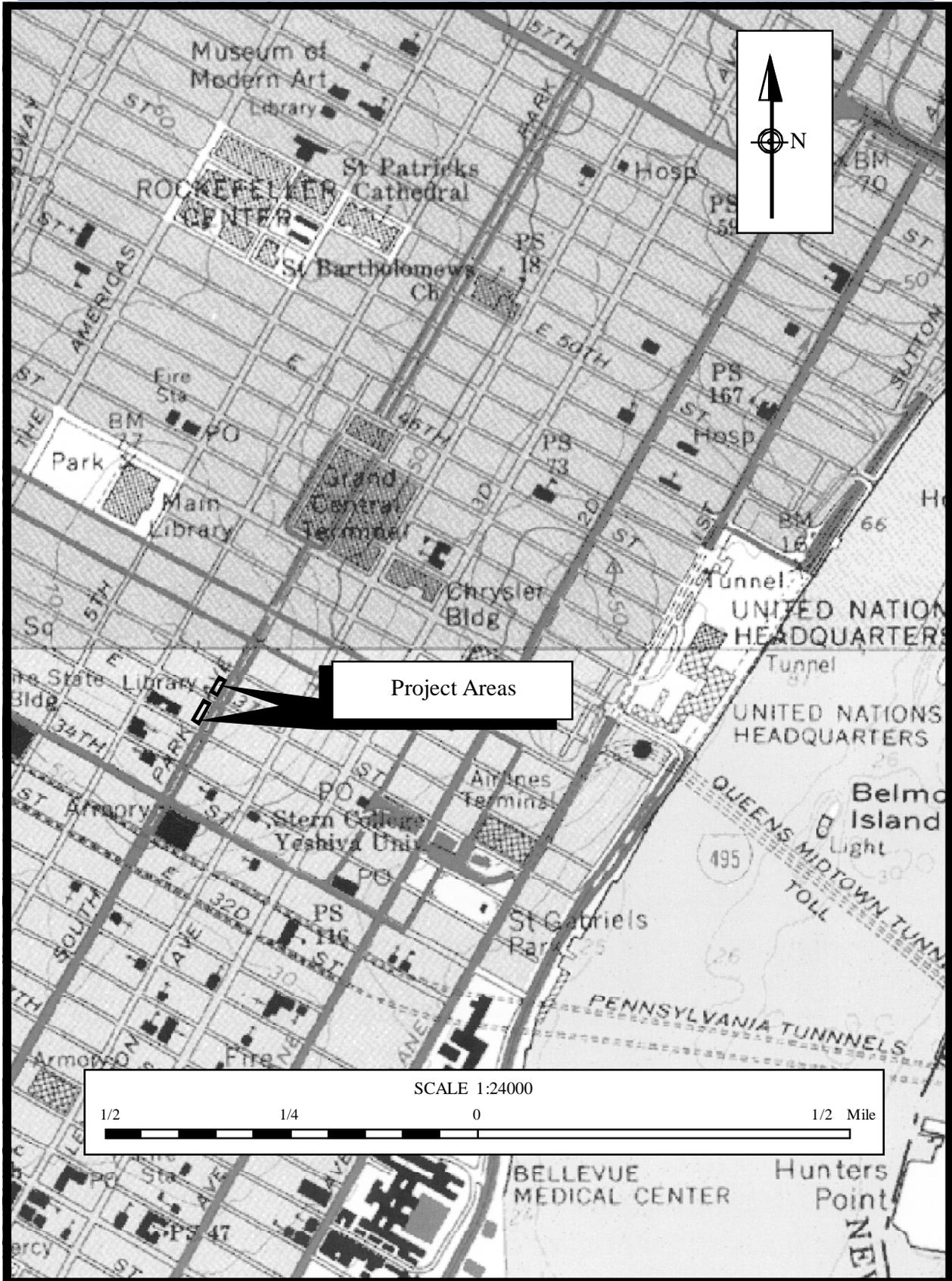


Figure 1.1 Project area locations (Source: Portion of 7.5 - minute topographic map, Central Park and Brooklyn, New York Quadrangles, Maptech 1979).

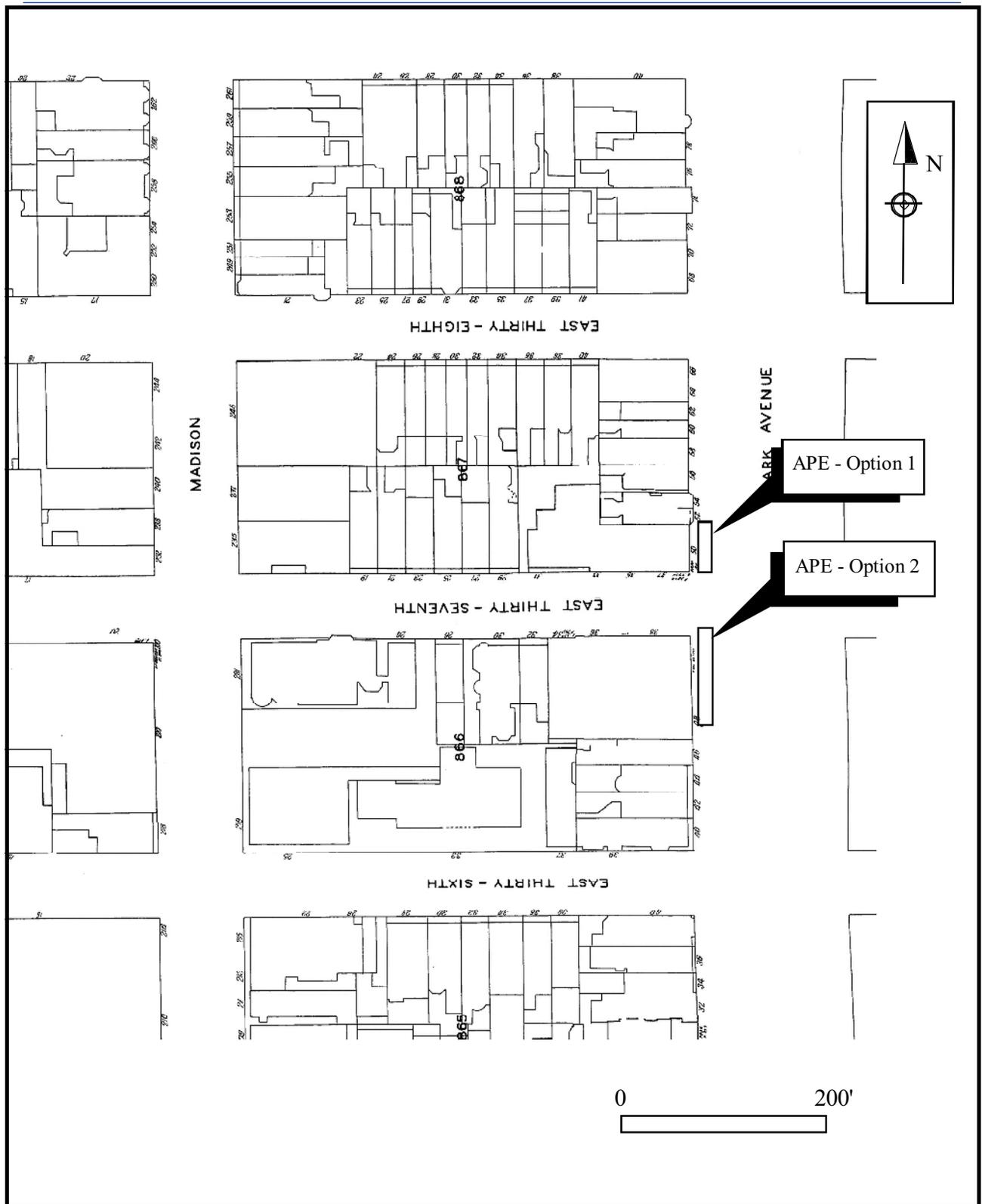


Figure 1.2 Areas of potential effects, Options 1 and 2.

**2**  
**Methods**

Researching the history of properties located within the two options for the proposed ventilation facility entailed gathering supplemental information to add to previous research performed for the proposed ventilation shaft on the west side of Park Avenue, between 37<sup>th</sup> and 38<sup>th</sup> Streets. Therefore, research material previously obtained from the Landmarks Preservation Commission at 1 Centre Street and the New York Public Library was supplemented with additional maps, newspaper articles, and historical texts from the New York Public Library and the New Jersey State Library.

## Prehistoric and Historic Background

### PREHISTORIC PERIOD

Archaeological traces of settlement in the greater New York City area extend back to the Paleo-Indian period, circa 11,000 to 10,000 B.P. (Cantwell and Wall 2001:40ff). Environmental conditions during the Paleo-Indian period were characterized by a dramatic reduction in sea level (300 feet) that left present-day coastal New York 120 miles inland from the paleo-coast making New York City less attractive for settlement. The Paleo-Indians were highly mobile hunters and gatherers, moving about the landscape exploiting available food and lithic resources. They did not build permanent villages or stay in one place long enough for substantial archeological deposits to accumulate. As a result, these sites tend to be shallow and ephemeral (Cantwell and Wall 2001). High mobility among Paleo-Indian groups, the rise of coastal waters during the late Holocene, and extensive urban development of riverine and coastal settings all contribute to the rarity of Paleo-Indian sites.

Despite the rarity of sites, artifacts indicate that Paleo-Indians inhabited the New York area. A total of 21 fluted projectile points—as well as 120 other stone tools—were recovered from the general vicinity of Port Mobil and surrounding beaches on Staten Island (Cantwell and Wall 2001). Several other Paleo-Indian projectile points were recovered from various sites on Long Island; three of these were made from local lithic materials, indicating intensive occupation of the area (Saxon 1978 in Strong 1997:37).

The Archaic period (10,000–3,700 B.P.) was characterized by changes in social organization and technology. Sea level was rising throughout this period as the glaciers melted and receded; thus, much of the information concerning settlement of the coastal plain has been lost to inundation. No sites dating to the Early Archaic Period (10,000-8,000 B.P.) have been documented in New York City since it was still inland during this time. A few sites have been found on Staten Island, Ward's Point and Old Place. In addition, possible Early Archaic components have been documented at the Wading River, Jamesport, and Stony Brook sites (Ritchie 1959). The Wards Point Site, at the southern end of Staten Island, is one example of an Early Archaic site; the site consisted of hearth features, diagnostic projectile points, and numerous cutting tools (Ritchie 1994, Cantwell and Wall 2001).

Settlement continued throughout the Early Archaic period, accompanied by a steady increase in population. Changes in the environment during the Middle Archaic (8,000-6,000 B.P.) led to a seasonal pattern of migratory land use. People moved from resource base to resource base, exploiting seasonal runs of fish, stands of nuts, and migrations of fowl. A shift to more intensive exploitation of estuaries and bays occurred. By the time of the Middle Archaic, people systematically exploited the coastal resources of Manhattan. The Middle Archaic sites found in the lower Hudson Valley area are, for the most part, shell middens whose compact nature and waterfront location protected many from destruction during eighteenth- and nineteenth-century development (Cantwell and Wall 2001:54). Dogan Point is an example of a massive shell midden with a well-defined Middle Archaic component on the Hudson River, north of New York City (Brennan 1974 and Classen 1994, 1995). Technological changes during the Middle Archaic included the introduction of ground-stone tools and stemmed projectile points.

Increased social complexity, larger seasonal camps, and more intensive exploitation of riverine settings characterized the Late Archaic (6,000-3,700 B.P.). The increase in numbers of sites and their distribution in a larger variety of environmental settings may be interpreted as indicating an increase in population during the Late Archaic. The technological changes from this period were marked by the introduction of steatite cooking vessels, as well as greater diversity of projectile point types. People used a variety of small projectile points, as well as a number of large bifacial blades. Many of the Late Archaic sites, like those of the Middle Archaic, in the area are also shell middens (Cantwell and Wall 2001:57), although intact Archaic sites of any period are scarce in New York City. The available evidence that comes from two sites (Tubby Hook and Inwood) located at the northern end of Manhattan along the Hudson River, suggests that people had established seasonal rounds by the Late Archaic (Cantwell and Wall 2001:57 and 59). Large groups occupied base camps during the summer; groups split up during other seasons to visit smaller hunting, fishing, or plant procurement stations.

The period of transition (Transitional, 3,700-2,700 B.P.) between the Archaic and Woodland periods saw an increase in social complexity marked by greater emphasis on mortuary traditions and is associated with a culture known as Orient in New York City and in the surrounding region. An adoption of a more sedentary way of life occurred during this transitional period, corresponding to the commencement of horticultural practices and the introduction of pottery carved out of soft stone known as soapstone or steatite. However, the period's "...defining characteristic was a distinctive style of artifact, one we now call "Orient fishtail," which had been turning up all over New York City and the surrounding coastal areas...These tools...were long, slender, and waisted, extending in a flaring "tail," usually chipped out of local white quartz or quartzite." (Cantwell and Wall 2001:62-63). A great amount of evidence for the Orient culture no longer exists within the heavily developed urban areas. To date the best evidence has been located on eastern Long Island at Brown's Hill near Orient Point, Jamesport, Sugar Loaf Hill and Stony Brook.

Increasing sedentism and reliance on plant food sources, characteristic of the Late Archaic, continued during the Woodland period (2,700-400 B.P.). The most distinctive and important technical innovation that is diagnostic of the onset of the Woodland period is the advent of pottery manufacture and its use. It is apparent that Woodland period inhabitants of the coastal New York region relied heavily on the abundant shellfish resources of coastal bays (Black 1981: 10). Shell midden sites are particularly common in coastal zones of the lower Hudson Valley (Harrington 1909; Schaper 1989). Extensive shell midden sites, many of them multi-component, have been reported in the Pelham Bay Park area, as well as at Throgs Neck. Woodland ceramics typical of the coastal region are described in the Milo Rock Shelter report, where they were found along with well preserved remains of shellfish (oyster, clam, and whelk), sturgeon, white-tailed deer, box turtle, and small mammals.

The shelters of these native peoples were most similar in form to what is commonly referred to as a wigwam; that is, shelters made from tree limbs and branches secured into the ground and fastened at their tops to create a dome-like shape. These ribbed structures were then covered in bark, reeds, and earth with small ventilation holes at the pinnacles to release smoke from interior fires (Wilson 1969 [1902]: 14). Animal skins were often used to cover the open entrances to these shelters.

Agriculture became established in the Northeast during the Late Woodland period (after 1000 A.D.), but the timing of the subsistence switch by coastal peoples from complete dependence on hunting and gathering to mixed foraging and agriculture is a matter of debate among archaeologists. By the time of European settlement in the early seventeenth century, native people kept well-established fields in which they grew the triad of corn, beans, and squash, along with some other domesticated plants. The Munsees—part of a larger group now called the Delaware or Lenape—occupied Lower Manhattan in the early seventeenth century (Cantwell and Wall 2001). Small, permanent communities characterize the Munsee settlement pattern, along with temporary sites for the collection of particular resources (Cantwell and Wall 2001:114). The Munsees farmed on a small scale, but also utilized the plant and animal resources of the land. Early writers described their fields and the large palisaded settlements that accompanied them (e.g. Van der Donck 1968), but archaeologists do not agree as to the temporal depth of this village-settlement pattern. Some see the pattern as extending back for several hundred years; others see it as a response to European trade (Cantwell and Wall 2001:94–95).

Pre-European sites on Manhattan are not common, however, as subsequent development has obliterated them; this appears to be the case in the project area. Although the project area was located on a hilltop (as depicted on an 1859 topographic map of the city), the New York City Landmarks Preservation Commission did not identify it as being sensitive for prehistoric cultural resources (NYCLPC 1982), possibly due to its distance from a freshwater source (0.8 miles) and subsequent urban development within the Murray Hill area that consisted of laying out new streets, associated utility lines, and the construction of structures. All of these factors would have altered the landscape and impacted potential prehistoric cultural resources; therefore, the potential for locating intact prehistoric cultural deposits is low.

## **HISTORIC PERIOD**

Midtown Manhattan was once a patchwork of eighteenth-century farms and country estates owned by wealthy New Yorkers. The project area is located on the top of a hill from which the neighborhood derived its name—Murray Hill. The imposition of the street grid on Manhattan in 1811 established the current alignment of Fourth Avenue (now Park Avenue). Both options for the location of ventilation facilities are located entirely within the original

140-foot-wide right of way (ROW) of Park Avenue. The Park Avenue of the present day had its beginnings as a railroad ROW. Beginning in 1832, the construction of the New York and Harlem Railroad along the center of Fourth Avenue accelerated the inexorable expansion of the city into the project area. Ground was broken for the railroad tracks early in 1832 at 32<sup>nd</sup> Street. Fourth Avenue north of 34<sup>th</sup> Street was still a narrow unpaved road that wound through sparsely settled farmland and shantytowns. Construction crews were forced to cut their way through the solid schist of Murray Hill from 33<sup>rd</sup> to 41<sup>st</sup> Streets. Fourth Avenue was widened to 140 feet to accommodate the horse-drawn railroad. In 1848, the open cut was filled in so that Fourth Avenue could be opened up to 38<sup>th</sup> Street. Plans were made to create a park in the 40-foot-wide center of the avenue, between 34<sup>th</sup> and 38<sup>th</sup> Streets. The connection of Park Avenue to the affluent avenues to the west set the stage for Murray Hill's rapid development in the 1850s and 1860s (Harris and Presa 2002:9; *New York Times*, January 27, 1935, page N1; September 15, 1935, page E11; June 14, 1936, page RE1).

#### *Inclenberg and the Murray Hill Farm, Circa 1762–1844*

The Murray Hill neighborhood traces its origins back to the country estate of Robert Murray, a Quaker and wealthy shipping merchant in the decades before the Revolutionary War. The Murray family named their country home after the hill it sat on, "Inclenberg," a Dutch name meaning "Fire Beacon Hill." During the period when the Dutch controlled Manhattan, beacons were used to warn the inhabitants of New Amsterdam at the approach of armed Native-American parties.

Robert Murray was fortunate to arrive in New York in 1753, when the city was experiencing a war-fueled economic boom that lasted until 1760. He had already prospered as a miller and merchant in Pennsylvania. In New York, Robert Murray invested his capital in a variety of enterprises. He acquired three merchant vessels and had shares in a fourth. He built a wharf on the East River at Wall Street. He became a major underwriter in the marine insurance business. His retail store was an outlet for the goods he imported. Like many of his mercantile colleagues in the 1750s and 1760s, Robert Murray had a townhouse on Pearl Street near his commercial interests and established a "gentleman's farm" north of the city. Being one of the most successful merchants of his day, he was able to satisfy his desire to build one of the city's finest mansions (Monaghan 1998:10–20).

The city of New York owned the land Robert Murray chose for his countryseat as common land. Robert leased just under 30 acres lying in the territory between the [Eastern] Post Road (abandoned when the city grid was imposed) and the Bloomingdale Road (the future path of Broadway). Only a few houses were present in this part of the island. On the present-day city grid, the farm's southern boundary was located a few feet south of 33<sup>rd</sup> Street and extended north to a cross road between 42<sup>nd</sup> and 43<sup>rd</sup> streets that connected the Post Road to the Bloomingdale Road. At its widest part, it stretched from Lexington Avenue to a point between Madison and Fifth Avenues. By 1762, Robert Murray had built his mansion on the crest of the hill that would bear his name. The Murray mansion was the scene for lavish entertaining and was a stop for every distinguished foreign traveler passing through New York. If it were still standing today, the mansion would straddle Park Avenue just south of 37<sup>th</sup> street (Harris and Presa 2002: 7; Monaghan 1998:3–4; Spielmann & Brush 1881) (Figure 3.1).

The Murray mansion was reached from the Post Road—down an allee of magnolias, elms, spruce, and Lombardy poplars that gave way to wide lawns bordered by extensive gardens. Orchards of cherry, pear, and peach trees, and cultivated fields spread across the remainder of the country estate. The spacious mansion surrounded on three sides by broad verandas looked out over Kips Bay and the East River. A barn, stable, and kitchen were situated close to the house. In the spring of 1773, and again in 1774, the house and farm was advertised to let for the summer season (Bliven 1956:33; Bridges 1811; Monaghan 1998:21–22; Murray 1773; Murray and Murray 1774).

#### *Inclenberg's Role in the American Revolution*

In late June 1776, the British fleet sailed into New York Harbor to begin a campaign that would establish their base of operations on Manhattan Island. The American army had spent months cobbling together a defensive system of forts, redoubts, barricades, gun emplacements, and trenches up and down Manhattan Island. However, it was too large an area to effectively defend against a large invading force.

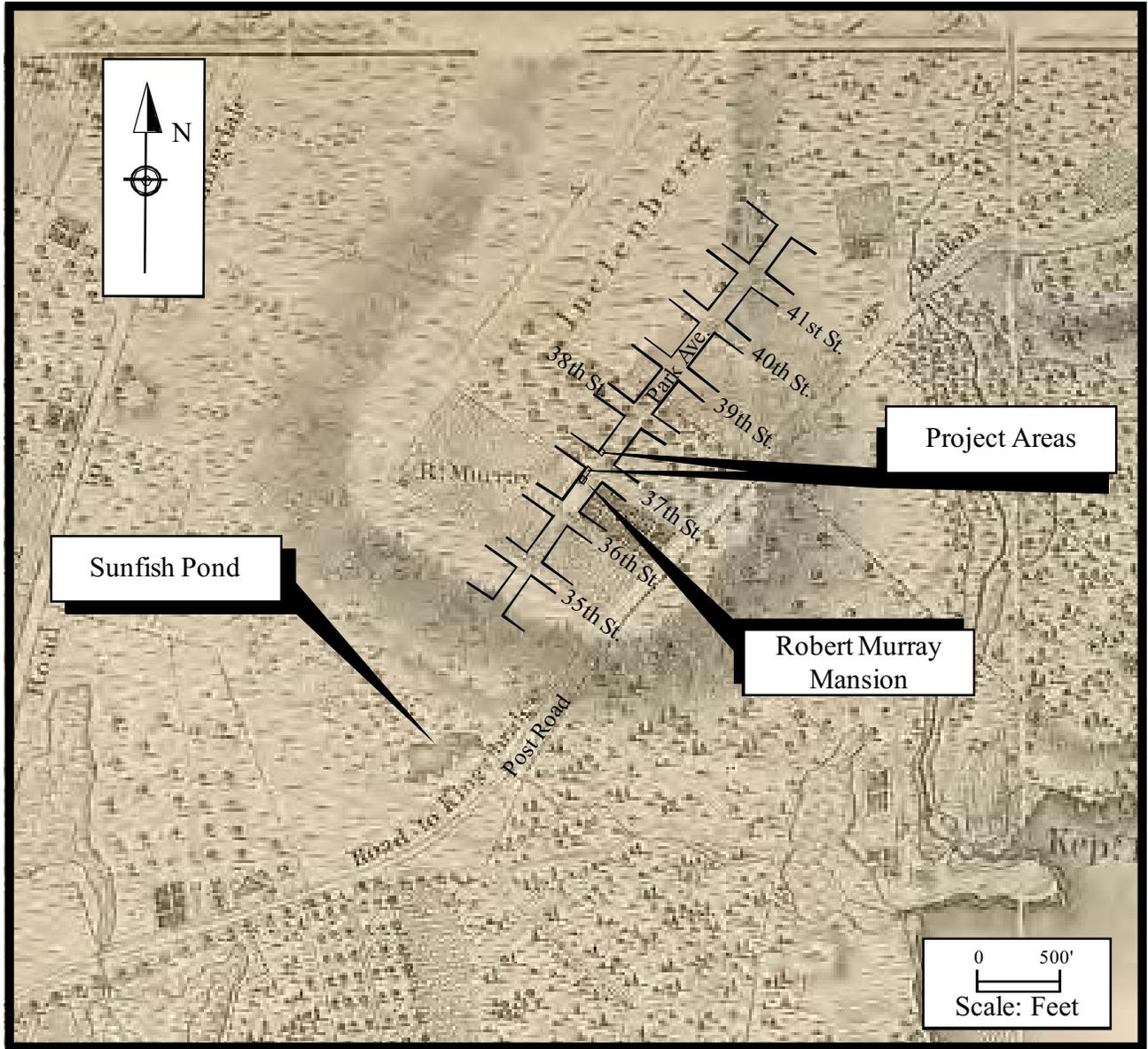


Figure 3.1 Topographical map of Murray Hill farm and vicinity (Source: Ratzer 1776).

On Sunday morning, September 15, British warships entered Kip's Bay with a landing force of about 4,000 men under the command of Lieutenant General Sir Henry Clinton, the son of a former Royal Governor of New York. Militarily, the Post Road—the city's main north-south road—was the most strategic highway on the island. Its seizure became the first objective in General Howe's plan of action. The shoreline of Kip's Bay at that time reached as far west as a point now located between First and Second Avenues on 34<sup>th</sup> Street. The cove was less than 400 feet deep, and it ran from what is now 32<sup>nd</sup> Street to about 38<sup>th</sup> Street. The ground rose gradually at first and then abruptly ascended to the flat top of Inclineburg. The distance from the Kip's Bay shore to the Post Road on Inclineburg was not more than 600 yards (Bliven 1956:33–35).

Shortly before eleven o'clock the entire line of warships fired their cannons at the shoreline. A brigade of inexperienced, hungry, and tired recruits was responsible for defending Kip's Bay. The militiamen cowered in their trenches. One soldier described the American defensive works at Kip's Bay as "nothing more than a ditch dug along the bank of the river with the dirt thrown towards the water" (Joseph Plumb Martin, 1830, as quoted in Schechter 2002:181–182).

Shots whistled over their heads because the American trenches were so close and below the level of the ships' cannons and guns. Unable to take anymore of the nerve-shattering bombardment, the American militiamen ran for safe ground. Their flight touched off a panic that spread along the line. By the time the hour-long shelling ended, only a few men farthest away from the firing remained in position. The British landing forces encountered virtually no resistance (Bliven 1956:30–37).

The bombardment could be heard all over Manhattan Island. Washington was at his headquarters at the Morris-Jumel house in Harlem, about four miles from Kips Bay. Washington gives an account of what happened next:

As soon as I heard the firing, I rode with all possible dispatch towards the place of landing, where to my great surprise and mortification I found the troops that had been posted in the lines retreating with the utmost precipitation and those ordered to support them flying in every direction, and in the greatest confusion, notwithstanding the exertions of their generals to form them. I used every means in my power to rally and to get them into some order; but my attempts were fruitless and ineffectual; and on the appearance of a small party of the enemy, not more than sixty or seventy, their disorder increased, and they ran away in the greatest confusion, without firing a single shot [as quoted in Johnston 1971 (1878):236n].

In their panic, many soldiers had thrown down their weapons. The woods and roads of Manhattan were filled with men hurrying in every direction except toward Kip's Bay to reinforce the defensive positions. Washington and his commanders attempted to stem the tide of retreat in the area now occupied by the New York Public Library. Washington became so enraged that he rode among his retreating troops, screaming and cursing, swinging his sword and waving his pistols, but nothing could stop their flight (Bliven 1956:45–46; Schechter 2002:185).

General Howe's plan assumed that the Americans would oppose the landing. Therefore, the landing force would need to strengthen their position within its initial beachhead, hold it against possible counterattack, and guard its perimeter while the artillery and all the British forces landed, before attempting to move toward the next objective. Despite the lack of opposition, British commanders stuck to the original plan. The landing was completed just before five o'clock (Bliven 1956:40).

The British invasion at Kip's Bay left 3,500 American troops in the southern end of Manhattan in imminent danger of being captured (Wertenbaker 1948:96). General Putnam galloped south to his troops and, with the aid of Aaron Burr, marched a two-mile column of men 12 miles up the west side of Manhattan to safety in Harlem Heights. To the Americans' surprise, they marched past the critical point—opposite Kip's Bay—without encountering a single British soldier (Bliven 1956:51, 57–58; Schechter 2002:188).

Once the beachhead was secured, the British took control of a section of the Post Road from below Sunfish Pond to north of the Murray mansion's driveway—thus securing Inclineburg (Schechter 2002:184–185).

At Mary Murray's invitation, Howe (with Clinton, Cornwallis, and a few other officers) had refreshments in the Murray mansion. A romantic legend quickly arose that Mary Murray and her daughters, Susanna and Beulah, utilized their feminine wiles to delay the British officers with wine and cakes, thus allowing Putnam's men time to

escape (Figure 3.2). Their supposed Patriot leanings are ironic, because Robert Murray, ever the shrewd businessman, carried on trade with both the Continental and the British Armies (Bliven 1956:61).

In the military journal kept by Dr. James Thatcher, a surgeon in the American Army, the events of September 15 are set down a few days after they occurred. Thatcher reported the circumstances surrounding General Putnam's retreat up along the west side of Manhattan Island:

It so happened that a body of about eight thousand British and Hessians were at the same moment advancing on the road, which would have brought them in immediate contact with General Putnam, before he could have reached the turn into the other road. Most fortunately, the British generals, seeing no prospect of engaging our troops, halted their own, and repaired to the house of Mr. Robert Murray, a Quaker and friend of our cause; Mrs. Murray treated them with cake and wine, and they were induced to tarry two hours or more, Governor Tryon frequently joking about her American friends. By this happy incident General Putnam, by continuing his march, escaped an encounter with a greatly superior force, which must have proved fatal to his whole party. One half-hour, it is said, would have been sufficient for the enemy to have secured the road at the turn, and entirely cut off General Putnam's retreat. It has since become almost a common saying among our officers, that Mrs. Murray saved this part of the American army [Thatcher 1823].

The American army may have credited Mary Murray with delaying the British officers from carrying out their battle plan, but in reality she did not influence Howe's invasion plan. Howe had specifically ordered his troops to wait on Inclenberg until the entire landing was completed. Once ashore, the British army went into the next phase of their attack. Furthermore, Mrs. Murray could not have known that General Putnam was escaping with his men along the west side of the island (Bliven 1956:61). Yet, historical lore persisted in linking Mary Murray's entertainment with the escape of Putnam's division. In 1926, the Mary Murray Chapter of the Daughters of the American Revolution erected a tablet on Park Avenue to mark the location of the Murray mansion and commemorate her service in the Revolutionary War (Johnston 1971 [1878]:235–239; Schechter 2002:189–190).

During the period of the British occupation of New York, from 1776 to 1783, British officers were frequent guests at Inclenberg. Robert Murray's business thrived as a purveyor of luxury items to the British. Following the war, the Murray family came under intense suspicion for their perceived unpatriotic activities and associations. His close ties to the Chamber of Commerce, which he helped establish in 1768, and his public service as the governor of New York Hospital and a commissioner of the Bridewell Alms House, allowed Robert Murray to weather the postwar accusations. Robert Murray's eldest son Lindley was sent into exile in England in 1784, as a sort of scapegoat, to protect the family's property and reputation (Monaghan 1998:59, 62–67, 84). In 1787, Lindley Murray published the first of a dozen books; his *Grammar* and *English Reader* textbooks made him one of the largest-selling authors in the world in the first half of the nineteenth century (Monaghan 1992:4, 121; Schechter 2002:273, 383–384).

Robert Murray died suddenly of a heart attack or stroke in 1786 at the age of 65. His wife Mary Lindley Murray had died in 1780. Robert Murray's five children—Lindley, Mary, John, Beulah, and Susannah—inherited the bulk of his estate. Robert left Inclenberg to his youngest child Susannah, the wife of Captain Gilbert Colden Willett, a Loyalist physician. In 1799, Gilbert Willett bought the Inclenberg estate from the city of New York for just over £907 (*New York County Deed Book* 118:630). All the other Murray heirs had established homes elsewhere, but must still have looked upon Inclenberg as the Murray family homestead (Monaghan 1998:108; *New York Times*, June 7, 1914, page sm2).

Gilbert Willett was set up in business by Susannah's uncle, John Murray, who had been Robert's business partner for many years. The enterprise failed. As part of the bankruptcy settlement, Gilbert sold Inclenberg to his wife's uncle in 1800 (*New York Deed Book* 118:631; Monaghan 1998:109). John Murray had married Hannah Lindley, a cousin of his sister-in-law Mary Lindley Murray. John and Hannah had four children: John R. Murray, Susan (who married William Ogden), Mary, and Hannah. John Murray had a large house on Pearl Street, as befitted a successful merchant and banker. His household was immortalized in the letters of Harriet and Maria Trumbull. The Trumbull sisters were the daughters of a Connecticut governor and the nieces of painter John Trumbull. During an extended visit to New York in 1801, the Trumbull sisters wrote admiringly of their rich and cultured acquaintances, Mary and Hannah Murray. In 1806, John Murray commissioned his friend John Trumbull to paint a portrait of Murray's youngest daughters. Today *The Misses Mary and Hannah Murray* hangs in the Smithsonian American Art



Figure 3.2 Mrs. Murray entertaining General Howe and British officers (Source: Abbey 1876).

Museum. Mary and Hannah, exemplars of the New Republic's cultured elite, are portrayed with sheet music and drawing books in hand. When John Murray died in 1808, Inclenberg became the home for his widow Hannah and all of his children. Special apartments were created for Mary and Hannah, who remained unmarried (Monaghan 1998:119).

Eight years later, in 1816, the children of John Murray confirmed their title to all the land that comprised the Murray Hill farm. The farm was entrusted to Mary and Hannah so that they could rent it out and use the proceeds to support their mother (*New York Deed Book* 118, 445, 694, 697). The Murray sisters advertised to find a tenant for their former home in 1818. The Murray Hill farm was three and a half miles outside the city, but easily accessible. The house came with four acres of ground divided into a garden, orchard, and lawn. The property included a stable, carriage house, various outhouses, and a "well of good water." The roomy house was ideal for "a gentleman's summer residence, a boarding school, or public house." The fruits and vegetables raised on this small parcel of land could earn enough in the city markets to pay for the rent (Murray and Murray 1818) (Figure 3.3).

Inclenberg burned down in 1835. The Murrays immediately began selling off parts of the old farm. In 1835, the first sale was made to a congregation of the Reformed Protestant Dutch Church, who built the South Reformed Dutch Church on the southwest corner of Madison Avenue and East 38<sup>th</sup> Street. Before the year was out, the Murray heirs had sold off lots on both sides of Fourth Avenue (*New York Deed Book* 338:150).

Hannah Murray—the unmarried sister of John, Susan, and Mary—died in 1836 (Monaghan 1998:119–120; *New York Will Book* 75:492). John and his sister Mary Murray transferred the Murray Hill property, still in their possession, to their sister Susan Ogden, who had been widowed. When the chancery court partitioned the Murray estate in 1842, it was awarded to Mary Murray (*New York Deed Books* 388:150; 431:206).

#### *Murray Hill Development*

Mary Murray was about 60 years old when she gained control of the family farm. She had witnessed many of the rapid changes that had affected downtown residential neighborhoods following commercial intrusions. Open uptown tracts were a considerable temptation for a restless, unsentimental upper class anxious to invest in rapidly changing tastes in architecture and interior design by moving to "new residential enclaves" (Homburger 2002:62–63). Mary Murray resolved to develop Murray Hill as a more-stable neighborhood for the city's wealthy elite. In 1847, she drew up the Murray Hill Restrictive Agreement. The agreement limited construction to brick or stone dwellings, churches, and private stables (Harris and Presa 2002:4). The affected area was located on both sides of 34<sup>th</sup> Street, up to the south side of 38<sup>th</sup> Street and between the former alignments of the Eastern Post Road and Middle Post Road. Lexington Avenue and Madison Avenue supplanted these early roads, but were laid out according to the 1811 grid. Therefore, sections of Lexington and Madison were vulnerable to commercial development. At this time, Manhattan's most-exclusive neighborhood was still located in the lower portions of Second and Fifth Avenues, from Washington Square to 23<sup>rd</sup> Street. Union Square was still a center of fashion and the northern extent of Murray Hill was considered to be delightfully rural. Just a generation before, a glass factory had operated near Murray Hill, and a small hamlet of workers was located nearby (*New York Times*, November 2, 1881, page 5).

Wealthy New Yorkers built their mansions along Fifth Avenue and led the march uptown. The rolling countryside north of the city was drastically modified through the leveling of hills and the filling of wetlands as the city inexorably marched uptown, guided by the grid plan. Downtown churches, finding their wealthy congregations moving ever farther northward in the 1840s and 1850s, sometimes leapfrogged ahead of residential development. Such was the case with the Brick Presbyterian Church. It had occupied a corner near City Hall Park since 1767. In 1856, the old church was sold off and a new church established on the northwest corner of Fifth Avenue and 37<sup>th</sup> Street. Church leaders chose a prime location beyond the built-up section of New York. East 37<sup>th</sup> Street was located on the brow of Murray Hill, making it the most desirable street in the neighborhood. Construction of the new church, the most expensive building in New York, established Murray Hill as the next real estate hotspot (Lockwood 1976:222–223). Murray Hill offered residents a healthier prospect with unobstructed access to sunshine, fresh air, and good drainage. Coventry Wadell was the first to build a mansion in the Murray Hill neighborhood. His grand Gothic Revival mansion was built on the west side of Fifth Avenue, between 37<sup>th</sup> and 38<sup>th</sup> Streets. An 1852 map illustrates the very beginnings of residential development in the Murray Hill neighborhood (Figure 3.4); only a few structures were located on the project area blocks (Dripps 1852). In 1853, the construction

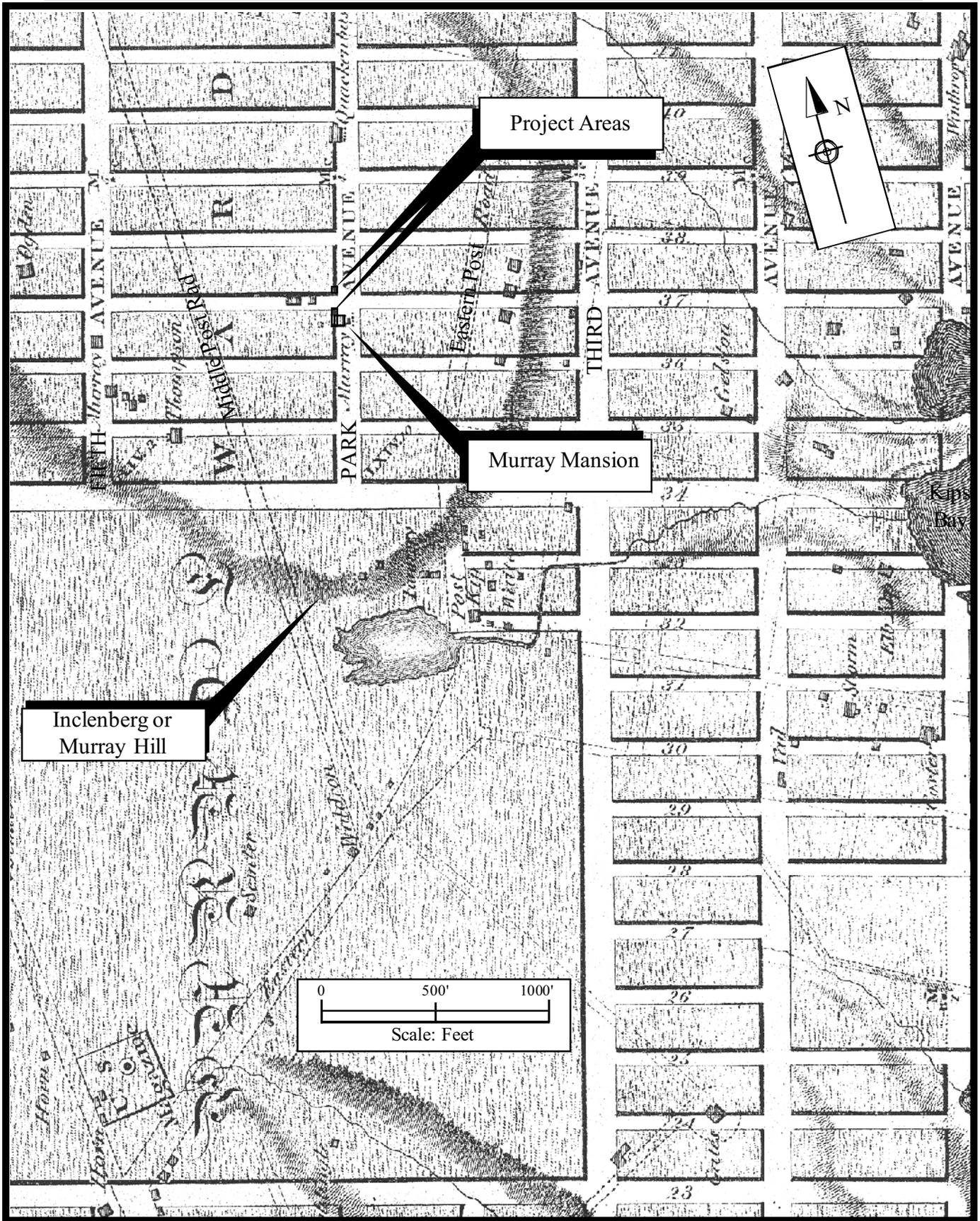


Figure 3.3 City grid superimposed over Murray Hill (Source: Bridges 1811).

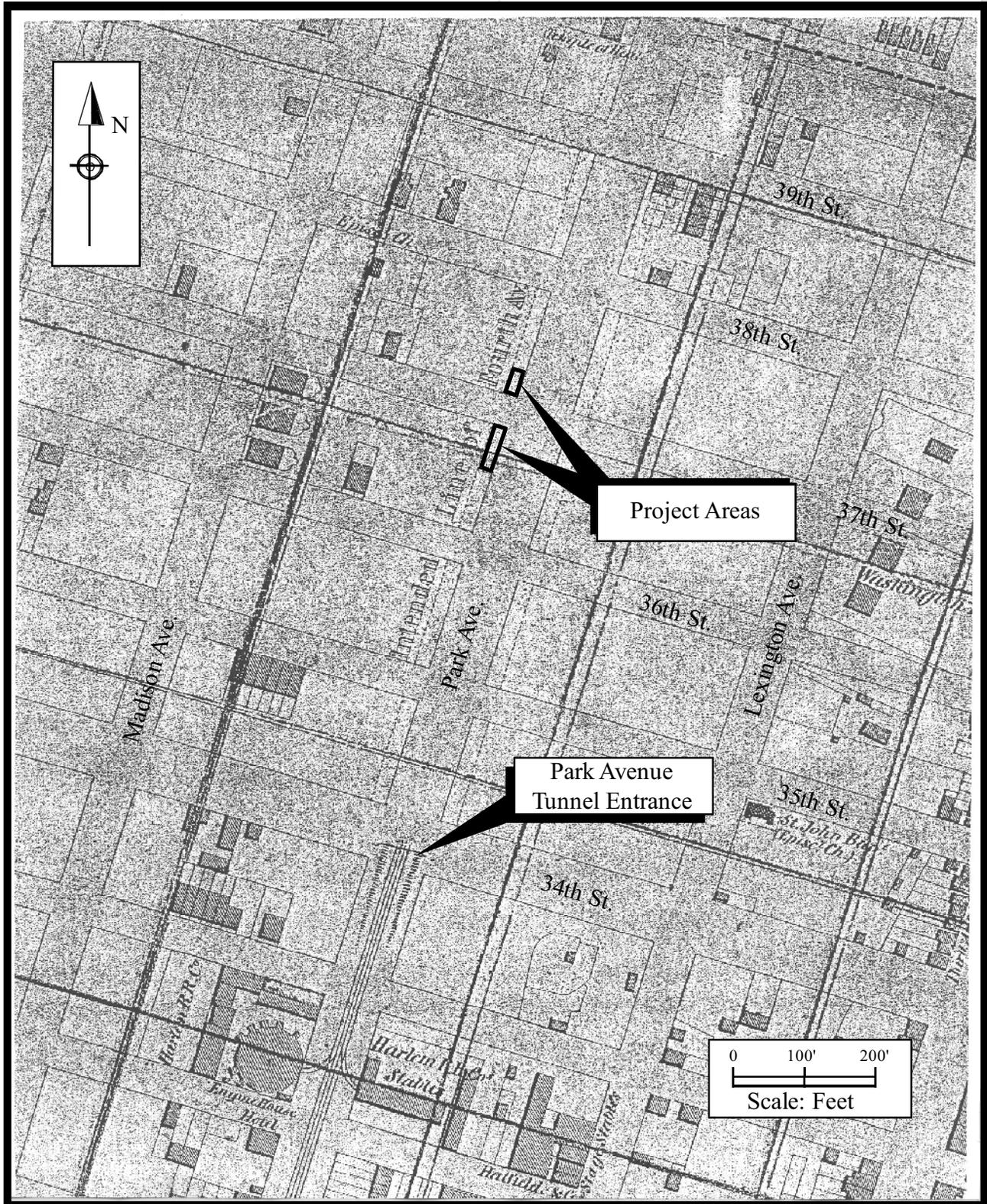


Figure 3.4 Project areas and vicinity in 1852 (Source: Dripps 1852).

of sewers were authorized along East 37<sup>th</sup> Street between Madison Avenue and Fourth Avenue (*New York Times*, March 10, 1853, page 6). East 37<sup>th</sup> Street between Fifth and Sixth Avenues became highly prized because a deed covenant required the brownstone townhouses to have seven-foot-deep front gardens. Another wealthy pioneer in Murray Hill was Isaac Newton Phelps, who built three brownstone mansions on the east side of Madison Avenue between 36<sup>th</sup> and 37<sup>th</sup> Streets in the early 1850s (Harris and Presa 2002:10; *New York Times*, June 7, 1914, page sm2; Lockwood 1976:225–227). By 1860, wealthy New Yorkers had made Fifth Avenue the preeminent avenue for mansion dwellers, stretching in a continuous line from Washington Avenue to the crest of Murray Hill at 37<sup>th</sup> Street (Lockwood 1976:177). The incursion of commercial tenants into the Union Square area in the 1860s touched off an exodus of affluent residents into Murray Hill, sheltered from intrusive elements by the Restrictive Agreement (Lockwood 1976:290). Murray Hill experienced intense building during the 1860s and 1870s (Figure 3.5). By 1880, only four vacant lots remained in the neighborhood (Brunner 1880:863; Robinson 1885).

#### *Fourth Avenue Becomes Park Avenue*

The New York & Harlem Railroad was chartered in 1831. The following year, the railroad laid its tracks along Fourth Avenue, a narrow unpaved road passing through sparsely settled farmland and shantytowns set amongst the uneven terrain of Manhattan, several miles north of the settled parts of the city. Construction began at 32<sup>nd</sup> Street and immediately encountered the rail line's first great obstacle—Murray Hill. As previously noted, construction crews were forced to cut their way through the schist of Murray Hill from 33<sup>rd</sup> to 41<sup>st</sup> Streets. Fourth Avenue was widened from 100 to 140 feet to accommodate the horse-drawn railroad. By 1834, the New York & Harlem Railroad reached the village of Yorkville at 84<sup>th</sup> Street. It reached Harlem after blasting a tunnel through Mount Prospect in 1837, the same year the railroad purchased its first steam locomotive. Its southern terminal was located at the intersection of the Bowery and Prince Street (Collins 1930:44). Residents of Lower Manhattan blocked the operation of steam locomotives in the built-up parts of New York, fearing accidents and explosions. Steam locomotives pulled trains into the city as far south as 42<sup>nd</sup> street and then switched to horsepower. The railroad's horse stables were located on the west side of Fourth Avenue between 32<sup>nd</sup> and 33<sup>rd</sup> Streets. In 1857, the New York & Harlem built depots on the west side of Fourth Avenue between 26<sup>th</sup> and 27<sup>th</sup> Streets. The railroad used horsepower from 1858 until 1871 (Trager 1990:8).

With the growth of population, the railroad became a dangerous impediment to east and west cross traffic (Collins 1930:64). The presence of the railroad also retarded the use of Fourth Avenue for residential purposes. Shantytowns and factories dotted Fourth Avenue. The East Side was home to exclusive residential enclaves—such as Grammercy Park and Murray Hill—and squalid tenement districts—such as the Gashouse area, below 32<sup>nd</sup> Street. One neighborhood gang, the Fourth Avenue Tunnel Gang, used the railroad tunnel under Park Avenue between 32<sup>nd</sup> and 42<sup>nd</sup> Streets as their hideout (Kisseloff 1989:384–385). In 1848, the open cut through Murray Hill was filled in so that Fourth Avenue could be opened up to 38<sup>th</sup> Street (see Figure 3.4). The connection of Park Avenue to the affluent avenues to the west set the stage for Murray Hill's rapid development in the 1850s and 1860s (Harris and Presa 2002:9; *New York Times*, January 27, 1935, page N1; September 15, 1935, page E11; June 14, 1936, page RE1). Because of the rail line, Fourth Avenue held little appeal as a residential street for those who could afford to live elsewhere. The first step in the transformation of Fourth Avenue into Park Avenue began in 1872, when the tracks were lowered (Collins 1930:88). Streetcars ran through the Park Avenue tunnel until 1935, when the tunnel was converted for automobile use and reopened in 1937 (Watson 1976:84–85). In 1888, Fourth Avenue was renamed Park Avenue north of 32<sup>nd</sup> Street, although its appearance had not yet seemed to warrant the name change. The use of steam locomotives necessitated large openings in Park Avenue for ventilation (Collins 1930:73–74). The present appearance of Park Avenue, with its center malls, occurred after the trains were electrified, thus eliminating the coal smoke that enshrouded the avenue (Figure 3.6). Toward the close of the nineteenth century, the exclusive residential nature of Fifth Avenue was broken in the section between 23<sup>rd</sup> and 57<sup>th</sup> Streets by the incursion of businesses. Affluent residents of the neighborhood moved to the elegant apartment hotels rising along Park Avenue after 1910 (Collins 1930:79–80, 106).

#### *The Neighborhood Changes*

The first serious challenge to the Murray Hill Restrictive Agreement came in the form of apartment houses erected on 34<sup>th</sup> Street, at the corner of Lexington Avenue. Though some Murray Hill residents expressed concern, the alarm was not sufficient to try to block construction. However, when plans for the 12-story Cameron Office Building at the corner of Madison and 34<sup>th</sup> were announced in 1908, J. P. Morgan led a neighborhood crusade to try to prevent

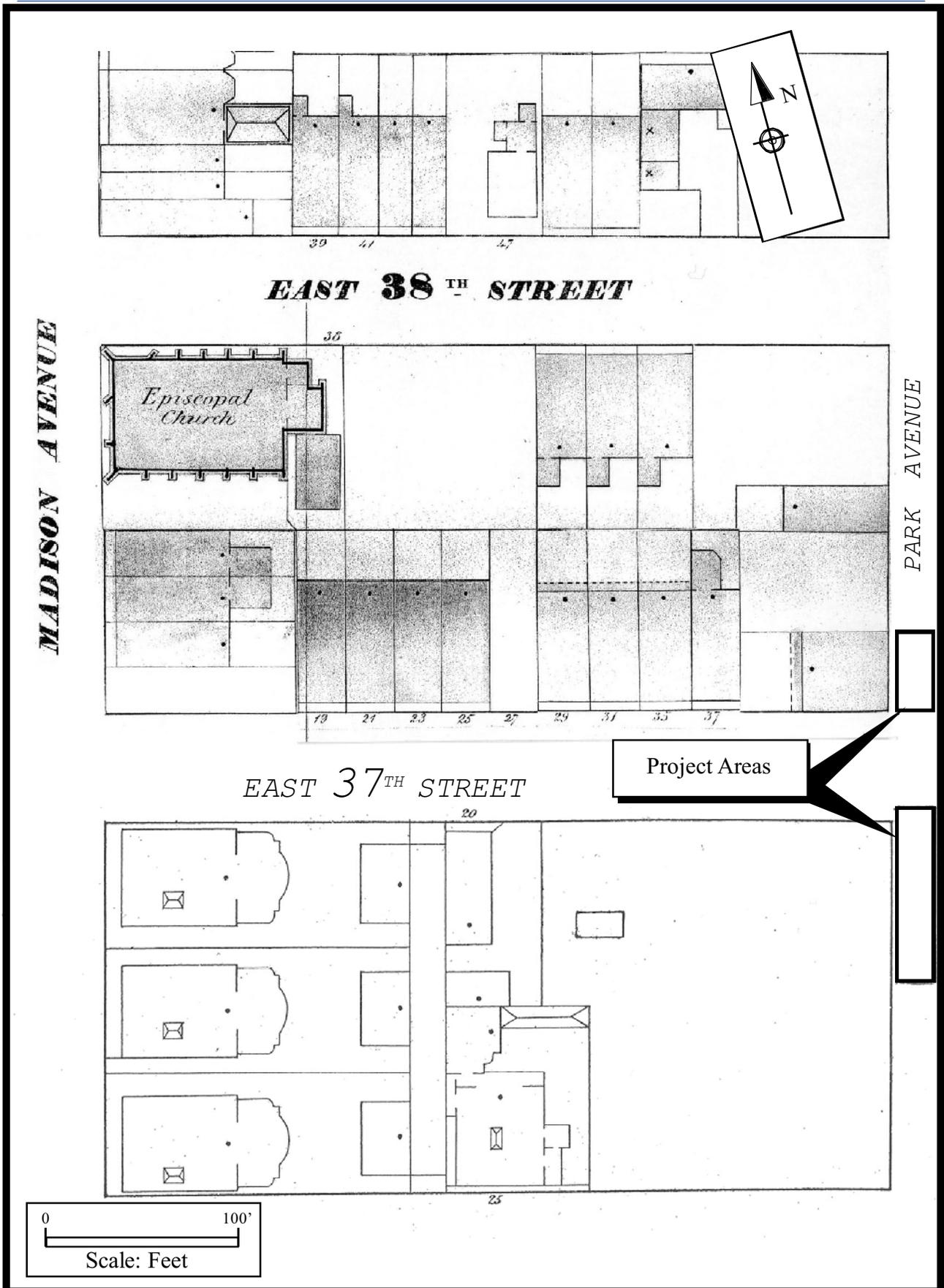


Figure 3.5 Project areas and vicinity, circa 1859 (Source: Perris 1857—1862).

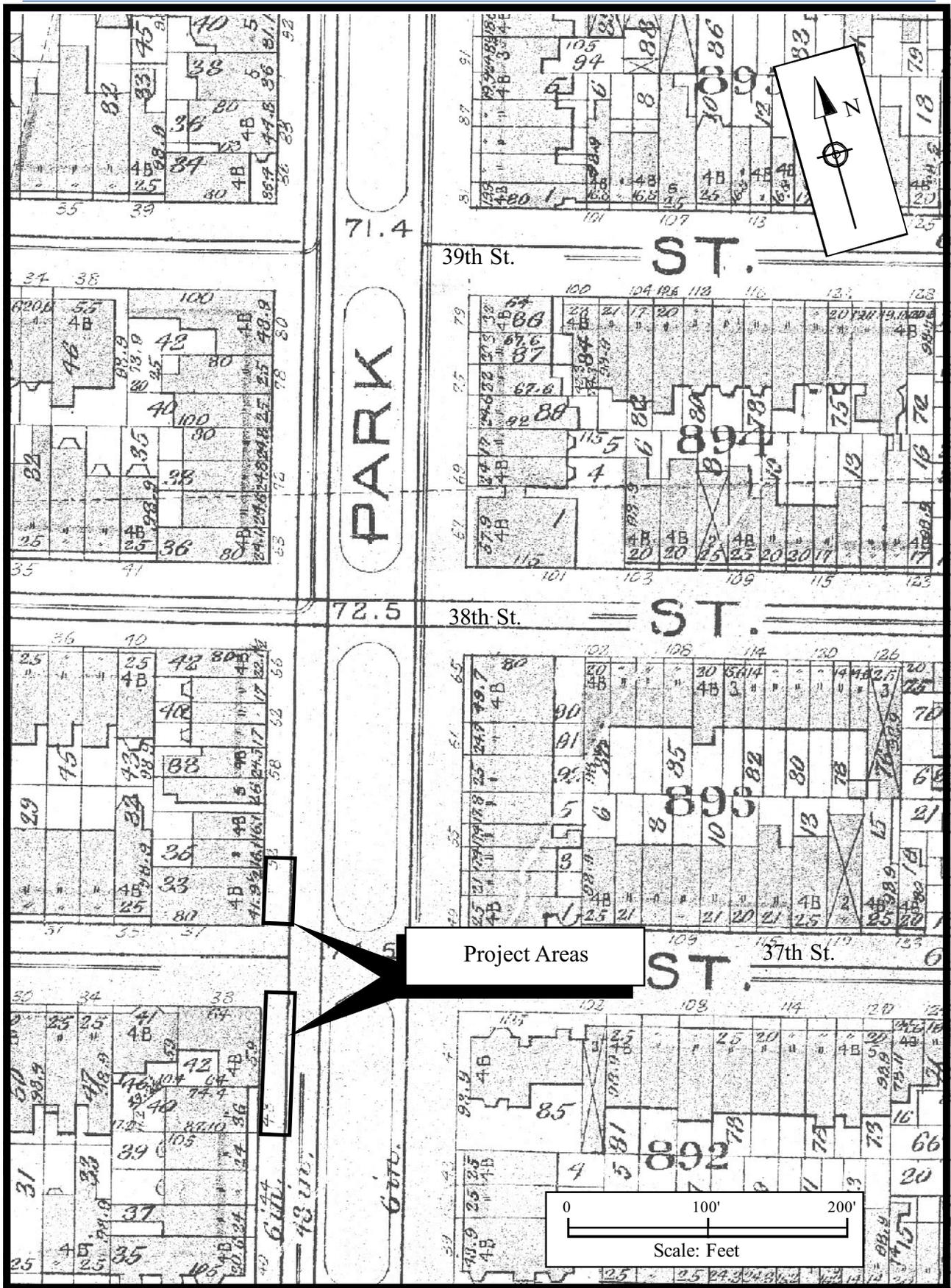


Figure 3.6 Project areas and vicinity, circa 1897 (Source: Bromley and Bromley 1897).

its construction. The skyscraper builders were victorious. Three years of court battles ended in a ruling in the State Supreme Court to uphold the right to build tall commercial buildings (i.e., 12 to 16 stories high) at the edges of the restricted zone (*New York Times*, June 7, 1914, page sm2).

In 1914, about 400 private homes were located within the Murray Hill restricted zone, or just outside it. Unlike previous generations of affluent New Yorkers, residents of Murray Hill expressed considerable loyalty to their neighborhood. It was not unusual to find families who had remained in the same home for many years. Despite the commercial encroachment surrounding them, many had decided to stay and fight to preserve Murray Hill as a residential enclave. The Murray Hill Association was incorporated in 1914 to coordinate efforts to enforce the clauses of the 1847 Restrictive Agreement (*New York Times*, June 7, 1914, page sm2).

In 1911, George F. Baker and his family went so far as buy an unrestricted lot at the northwest corner of Madison Avenue and 38<sup>th</sup> Street for a million dollars in order to prevent the construction of a tall apartment house. The Bakers lived in neighboring homes and did not want the character of their block to change. Unable to interest anyone in building a mansion on the lot, Baker erected a four-story professional office building, more in keeping with the scale of the neighborhood (*New York Times*, June 7, 1914, sm2). Despite his best efforts, the intrusion of Baker's office building broke the ban. Other wealthy residents turned their properties over to commercial interests before retreating to uptown precincts. Cornelius Vanderbilt left his Murray Hill home on Fifth Avenue at 34<sup>th</sup> Street and moved up Fifth Avenue to a new mansion at 57<sup>th</sup> Street. The former Vanderbilt home was converted into the Princeton Club. Cornelius Vanderbilt's son Alfred inherited the property and replaced the building with a hotel in 1912. Murray Hill residents were not pleased to learn a large hotel was going up in their neighborhood, but 34<sup>th</sup> Street was already a busy cross town thoroughfare with a streetcar line, and many of the houses had been converted into commercial properties (*New York Times*, January 23, 1916, page 16; October 16, 1925, page 1; July 7, 1929, page 136). Park Avenue in the vicinity of the project area had witnessed the replacement of single-family townhouses on corner lots with apartment buildings or apartment hotels. Some mansions survived because they were repurposed for institutional occupants.

#### *Development of the Park Avenue Streetscape: Southwest Corner of Park Avenue and East 37<sup>th</sup> Street*

The proposed Park Avenue shaft at the southwest corner of Park Avenue and East 37<sup>th</sup> Street is located under the sidewalk and roadway that today fronts the Union League Club at 48 Park Avenue. Throughout the 1850s, the west side of Park Avenue between 36<sup>th</sup> and 37<sup>th</sup> Streets remained vacant. The block between East 37<sup>th</sup> and East 38<sup>th</sup> Streets had witnessed more building activity. A structure was built on the northwest corner of Park Avenue and East 37<sup>th</sup> Street sometime between 1852 and 1859 (Dripps 1852; Perris 1857–1862) (see Figure 3.5).

The area on the southwest corner of Park Avenue and East 37<sup>th</sup> Street currently occupied by the Union League Club was originally the site of four buildings (34, 36, and 38 East 37<sup>th</sup> Street and 48 Park Avenue) (see Figure 3.6). The proposed Park Avenue shaft would front the original buildings at 38 East 37<sup>th</sup> Street and 48 Park Avenue. Oliver Burr Jennings owned the five-story townhouse at 48 Park Avenue. Jennings had made his fortune in dry goods during the California Gold Rush. He was an early investor in the Standard Oil Company, and was related in marriage to the Rockefellers. When he died at the age of 67, he was worth \$10 million. His unmarried daughter Annie Burr Jennings continued to live in the townhouse (*New York Times*, February 13, 1896, page 4; *New York Times*, February 26, 1893, page 16).

Robert Winthrop, a banker and stockbroker who died in 1892 at the age of 60, owned the house that occupied the southwest corner of East 37<sup>th</sup> Street and Park Avenue (38 East 37<sup>th</sup> Street) (Figure 3.7). His wife and children continued to live in the townhouse. When Robert Winthrop's widow died in 1925, she left an estate in excess of \$14 million (*New York Times*, November 20, 1892, page 5; *New York Times*, April 17, 1912, page 13; *New York Times*, December 16, 1927, page 25).

In 1926, J. P. Morgan acquired the Winthrop mansion. Morgan was very active in the acquisition of properties on the block, because he wanted to control the development on the block where his residence and library were located. Morgan also acquired 48 and 50 Park Avenue (*New York Times*, January 14, 1926, page 44; *New York Times*, July 20, 1929, page 31). Initially, plans called for a \$550,000-, 15-story apartment house to be built on the southwest corner, but instead Morgan sold the site to the Union League to build a new 11-story club building (Figure 3.8).

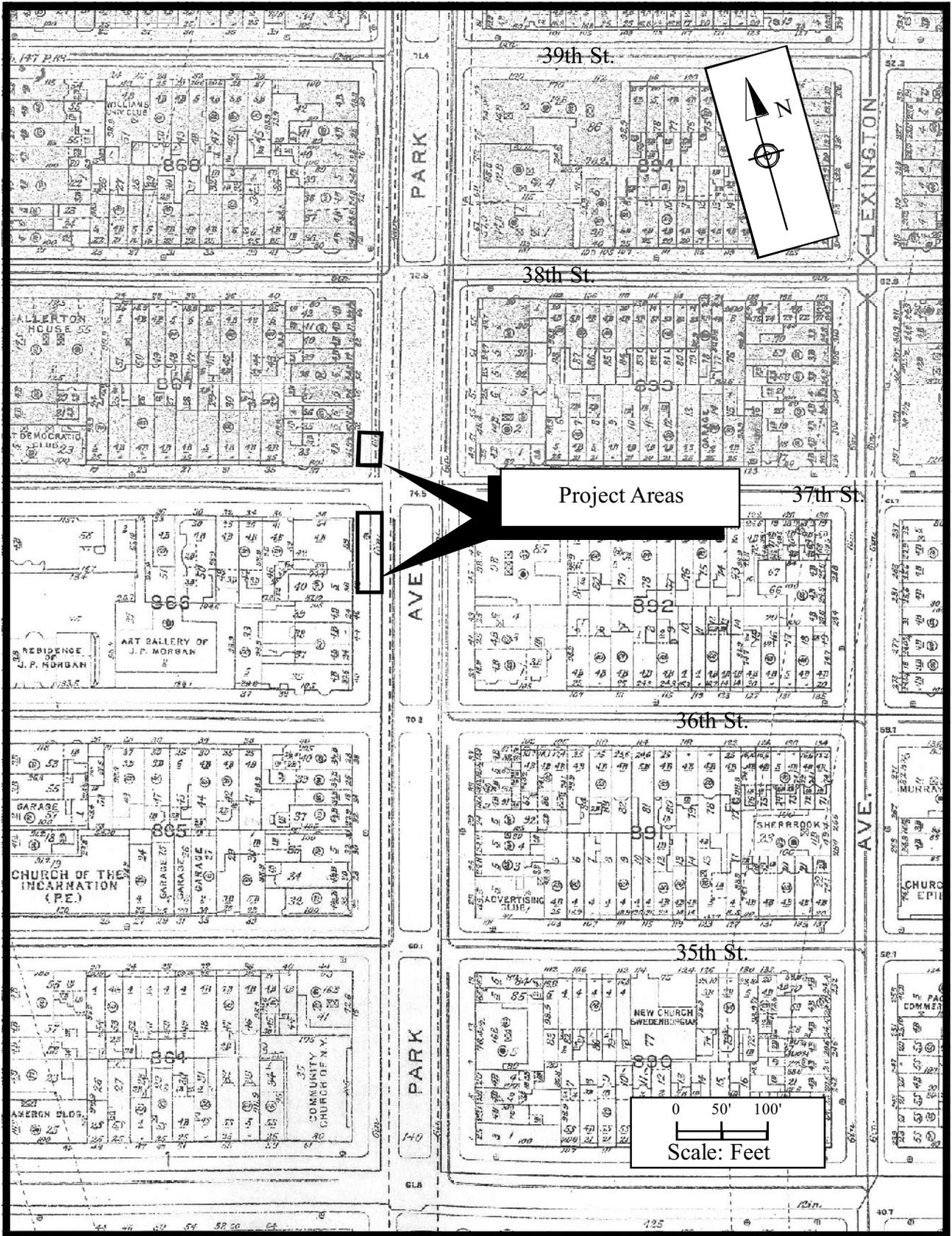


Figure 3.7 Project areas and vicinity, circa 1925 (Source: Bromley and Bromley 1925).

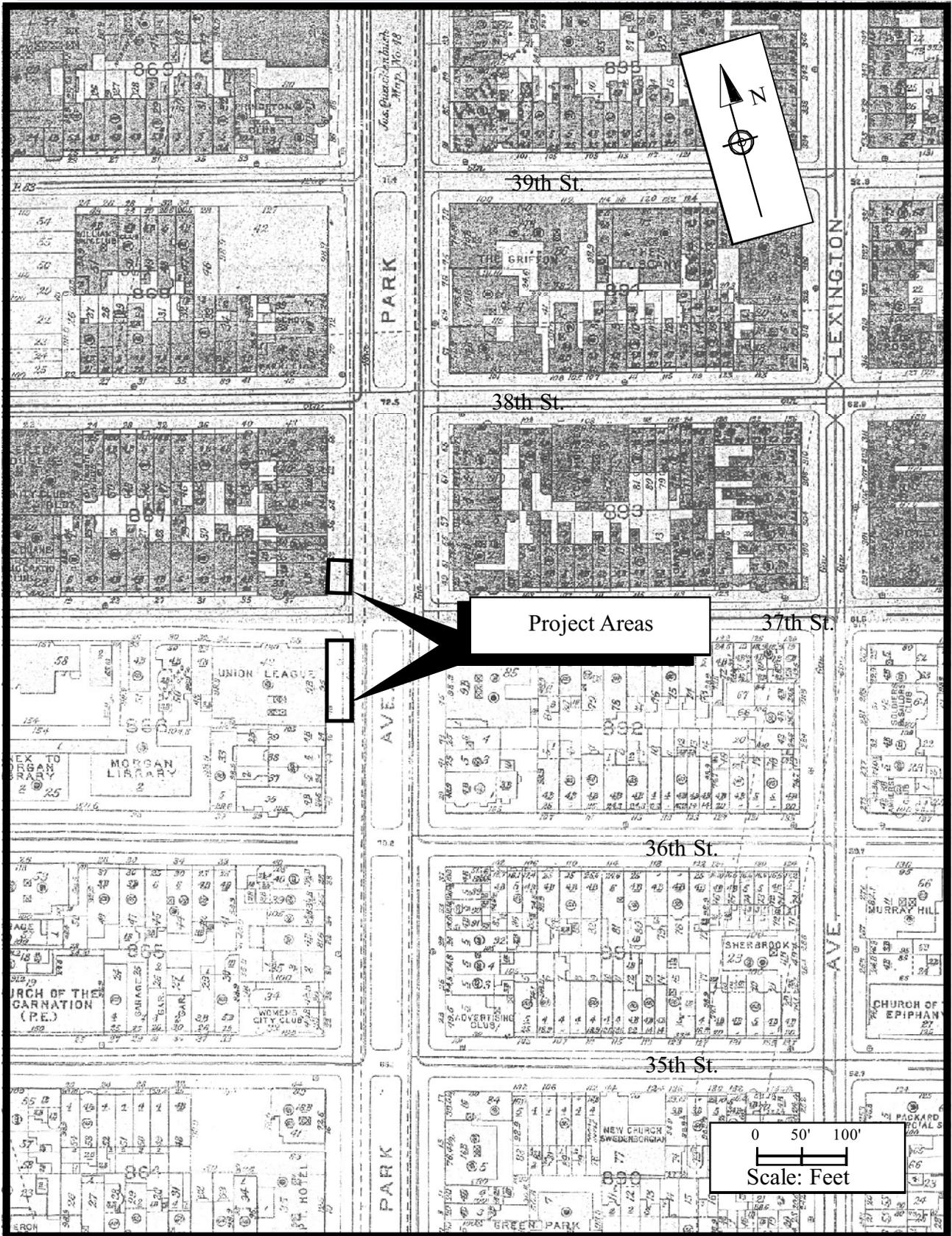


Figure 3.8 Project areas and vicinity, circa 1934 (Source: Bromley and Bromley 1934).

The four townhouses on the property were torn down at the end of 1929 (*New York Times*, January 24, 1928, page 52; *New York Times*, June 6, 1929, page 53; *New York Times*, September 17, 1929, page 60).

*Development of Park Avenue Streetscape: Northwest Corner of Park Avenue and East 37<sup>th</sup> Street*

The proposed Park Avenue shaft at the northwest corner of Park Avenue and East 37<sup>th</sup> Street is located under the sidewalk and roadway that today would front a 16-story building at 50 Park Avenue and a 22-story building at 52 Park Avenue.

A dramatic change to the streetscape of Park Avenue began in the era between the world wars, when single-family townhouses and mansions gave way to luxury apartments and hotels. In 1939, builder Louis Cowan bought up four townhouses on the northwest corner to assemble an 11,000-square-foot parcel, on which he built an 18-story apartment house. This project called for the destruction of the Charles Coster mansion at 50 Park Avenue. Coster was an accountant for J. P. Morgan & Company (*New York Times*, June 15, 1939, page 47) (Figure 3.9). The Murray Apartments, built in 1940 on the southwest corner of Park Avenue and 38<sup>th</sup> Street, today operates as the Kitano Hotel (*New York Times*, October 24, 1925, page 26; Trager 1990:284).

The 21-story luxury condominium building that now occupies the lots at 52 and 54 Park Avenue was built in the 1980s (*New York Times*, May 31, 1998, page 14). Wealthy New Yorkers had built their townhouses on these lots when Murray Hill was built up in the 1860s and 1870s. In 1899, the heiresses of Howard Potter's estate altered their four-story home at 52 Park Avenue and the adjoining four-story townhouse at 54 Park Avenue into five-story dwellings. Over the next 25 years, the Potter family alternately occupied or leased out their townhouses (*New York Times*, August 19, 1898, page 10; February 19, 1899, page 10; October 2, 1904, page 16; January 23, 1906, page 2; July 24, 1922, page 11). The Potter family sold their townhouse at 54 Park Avenue to Dr. George Evans Jr. in 1923 (*New York Times*, August 8, 1923, page 26).

Dr. Evans maintained his residence and professional office at 54 Park Avenue. He also rented office space to other doctors (*New York Times*, August 15, 1926, page E7; March 16, 1930, page N4). By 1953, the buildings at 52–54 Park Avenue were described as apartment houses. They were sold to a construction company in 1953 to make way for a new 15-story apartment building (*New York Times*, January 22, 1953, page 39).

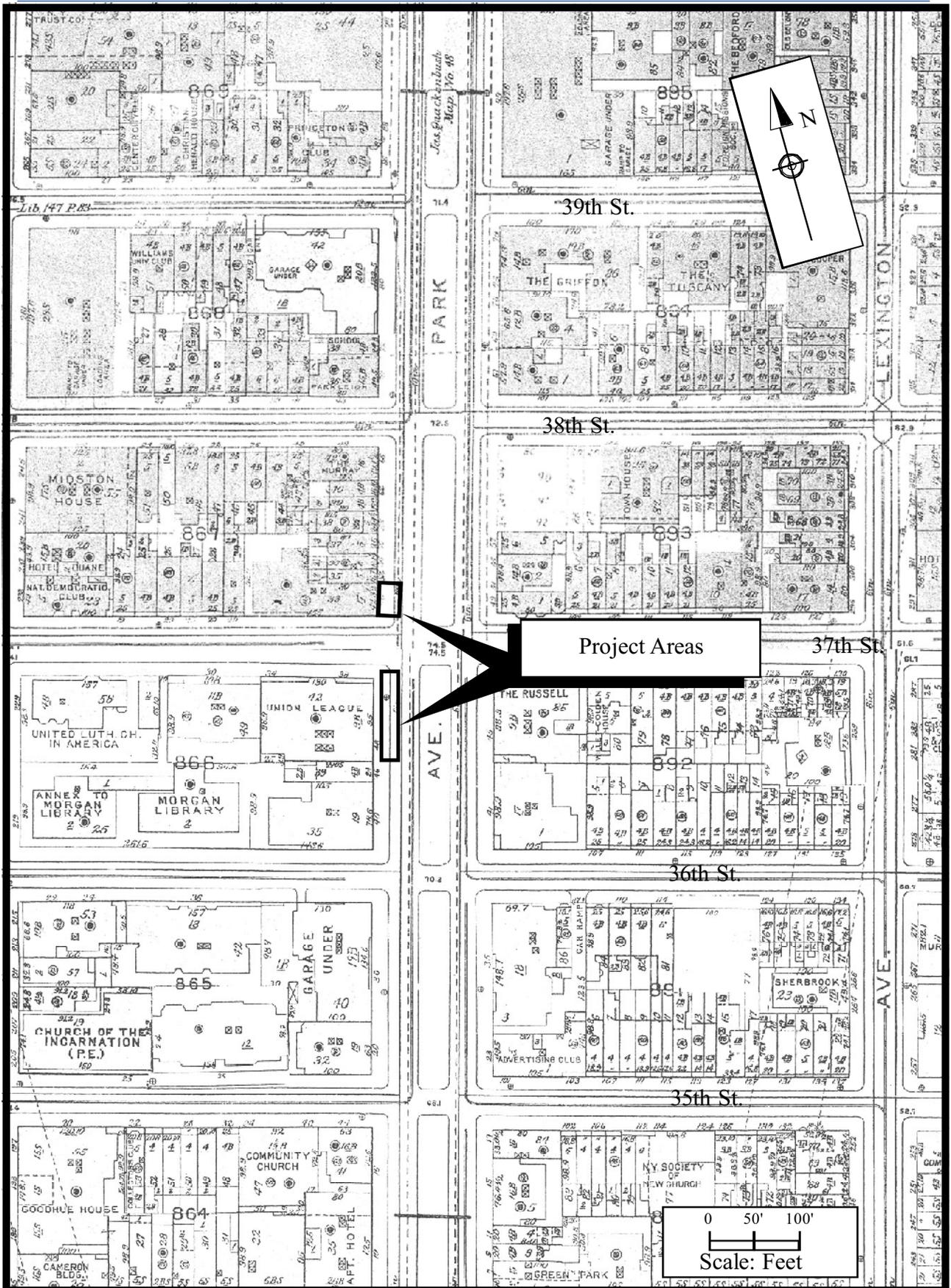


Figure 3.9 Project areas and vicinity, circa 1955 (Source: Bromley and Bromley 1955).

## Conclusions and Recommendations

Pre-European sites on Manhattan are not common, as subsequent development has obliterated them; this appears to be the case in the present project area. Previous studies of both prehistoric and Contact period settlement patterns within the region have indicated that the preferred locations for occupation were elevated and well-drained areas within 150 to 1,000 feet of freshwater sources. Although early historic maps (Viele 1859 and Bridges 1811) indicated that the project area was originally located on a hilltop, it is not considered to be sensitive for prehistoric cultural resources because of its distance from a freshwater source (0.5 to 0.8 miles). Therefore, the potential for locating intact prehistoric cultural deposits is low.

The historical background research indicated that the project area and its vicinity was once a patchwork of eighteenth-century farms and country estates owned by wealthy New Yorkers. There is ample cartographic and historical evidence that shows the proposed location for the two ventilation shaft facility options within the original site of Inclenberg, the country mansion of Robert Murray. Murray built the house on the crest of the highest hill on Manhattan in 1760. The farm and house became renowned for playing a part in the Battle of New York during the Revolutionary War. When the street grid was superimposed over the Murray farm in 1811, the house was located within Fourth Avenue (now Park Avenue). The street grid remained solely on paper, and the Murray farm remained a farm until the house burned down in 1834 or 1835. Around the same time, the New York & Harlem Railroad laid down its double tracks up along Fourth Avenue and through Murray Hill. There is a moderate potential for locating intact historic cultural deposits and a variety of features once associated with the Murray mansion and farm. If subsequent activities have not impacted these deposits and features, then they have the potential to address research issues regarding the nature of early residential and farmstead occupation and lifeways in this section of the city. The types of deposits and archaeological features that may potentially provide valuable information are foundation remnants of the mansion or outbuildings, fence posts, paths, traces of landscaping, and sheet-midden scatter (yard trash). Therefore, a Stage IB in the form of archaeological monitoring during construction is recommended in order to determine the absence or presence of potential intact cultural deposits.

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1990        *Park Avenue Street of Dreams*. Atheneum Macmillan, New York.
- Van der Donck, Adriaen  
1968        *A Description of the New Netherlands*. Edited by Thomas F. O'Donnel. Syracuse University Press, Syracuse, New York.
- Viele, Egbert Ludovicus  
1859        *Map of the City of New York from the Battery to 80<sup>th</sup> Street, Showing the Original Topography of Manhattan Island*. E.L. Viele, New York.
- Watson, Edward B.  
1976        *New York Then and Now: 83 Manhattan Sites Photographed in the Past and in the Present*. Dover Publications, New York.
- Wertenbaker, Thomas Jefferson  
1948        *Father Knickerbocker Rebels: New York City During The Revolution*. Charles Scribner's Sons, New York.
- Wecter, Dixon  
1937        *The Saga of American Society: A Record of Social Aspiration, 1607–1937*. Charles Scribner's Sons, New York.
- Wilson, Rufus Rockwell  
1969 [1902]    *Historic Long Island*. Empire State Historical Publications Series, No. 66. Port Washington, Long Island, New York: Ira J. Friedman, Inc.

**Appendix A**  
**Resumes of Key Personnel**



## Ingrid Wuebber

Research Historian

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### Areas of Expertise

Section 106 of the National  
Historic Preservation Act  
Historic Preservation  
Research  
Public Outreach

### Years of Experience

With URS: 7 Years  
With Other Firms: 19 Years

### Education

B.A./1979/Douglass College,  
Rutgers University/Archaeology

### Overview

Ms. Wuebber has over 25 years experience researching, analyzing, and writing contextual and site-specific histories for industrial, military, transportation, commercial, and residential properties in the Northeast, Mid-Atlantic, Southeast, and Midwest.

### Project Specific Experience

***Phase IA Archeological Investigation, Rehabilitate Battery Weed Seawall and Dock, Fort Wadsworth Unit, Gateway National Recreation Area, Staten Island, New York***, conducted for the National Park Service, Denver Service Center. Research Historian responsible for documentary, cartographic and photographic research for developing a program for the assessment of archaeological resources at Battery Weed in Fort Wadsworth, Staten Island, New York. The goal of the investigation was to collect and synthesize documentary information regarding the prehistory and history of the project area; prepare a series of recommendations for further archaeological work, to include field testing if required; and to prepare a project report documenting the investigation for use by National Park Service personnel.

***Modified Phase I Cultural Resources Inventory, Floyd Bennett Field, Jamaica Bay Unit, Gateway National Recreation Area, Brooklyn, New York***, conducted for the National Park Service, Denver Service Center. Principal Investigator for a cultural resources inventory in support of the proposed replacement of aging electrical cables. The goals of the investigations were to 1) identify areas of disturbance and fill that may be excluded from further investigation; and 2) identify areas with the potential for prehistoric and historic archaeological sites that should be avoided or mitigated during the replacement of the electrical cables.

***Phase I Archeological Investigations within the Gateway National Recreation Area at the Jacob Riis Bathhouse, Jamaica Bay Unit***, New York, conducted for the National Park Service, Denver Service Center. Research Historian responsible for conducting documentary, cartographic, and photographic research for archaeological investigations at the Jacob Riis Bathhouse, Breezy Point, New York. Excavations through the concrete floor of the courtyard revealed heavily disturbed sandy fill related to the construction of the bathhouse. Disturbance included numerous utilities and a buried roadbed composed of oiled clinker and gravel. No further work was recommended since the investigations revealed that the development of the courtyard would not impact any archeological deposits.

***Phase I Archeological Investigations within the Gateway National Recreation Area at the Jamaica Bay Wildlife Refuge, Broad Channel Island, Jamaica Bay Unit, New York***, conducted for the National Park Service, Denver Service Center. Research Historian responsible for conducting documentary, cartographic, and photographic research for the archaeological investigations at the Visitor Contact Station and Building 101



of Jamaica Bay Wildlife Refuge. Excavations revealed levels of recently disturbed soil capping a thick layer of landfill. The recovered artifacts consisted of architectural/structural material (with a small number of container glass fragments). No further work was recommended because the investigations indicated that proposed development of the two sites would not impact any archaeological deposits.

***Historic American Engineering Recordation of Alexander Road Bridge, West Windsor Township, New Jersey***, conducted for the New Jersey Department of Transportation. Historian for the HAER of this contributing structure within the National Register Eligible Pennsylvania Railroad District. Project included photographic documentation and historical and technical report.

***Historic American Engineering Record Survey of the Frankfurt Avenue Bridge, Egg Harbor, New Jersey***, conducted for the New Jersey Department of Transportation. Historian for the HAER recordation of this National Register Eligible Property. Project included photographic documentation and historical report.

***Addendum, Phase IA Archaeological Study, 3-7 Wooster Street, Borough of Manhattan, New York City, New York***, conducted for Extended Management Company, Inc., Newark, New Jersey. Research Historian responsible for conducting documentary, cartographic, and photographic research for an addendum Phase IA study in order to provide additional background research to adequately address revisions requested by the New York City Landmarks Preservation Commission to another firm's previously conducted study.

***Phase IA Archaeological Assessment of the Shaft 17B Complex in Sunnyside, Queens, New York***, conducted for Jenny Engineering Corporation, Springfield, New Jersey. Research Historian responsible for conducting documentary, cartographic, and photographic research for an archaeological assessment of a 63,950 square foot area for a proposed shaft complex. The study provided information on the potential for the presence of archaeological resources within the site that are associated with British military occupation during the Revolutionary War.

***Phase IA Documentary Study, East Side Access Ventilation Shaft, 38<sup>th</sup> Street, New York, New York***, conducted for the MTA New York City Transit/Long Island Railroad. Research historian responsible for documentary, cartographic and photographic research of a proposed site for a ventilation shaft in a 25 x 100-foot lot. The purpose of the study is to provide information on the nature, location, and extent of intact and original soil surfaces within the project area and the depth of 20<sup>th</sup>-century fills above these surfaces. This information is needed in order to determine if proposed construction activities will extend to a depth that will encounter the historic and/or prehistoric surfaces that may contain archaeological resources. Conducted for the MTA New York City Transit/Long Island Railroad

***Cultural Resources Assessment, 1440 Story Avenue, Bronx, New York***, conducted for the MTA New York City Transit. Research Historian responsible for documentary, cartographic and photographic research of a



12-acre site proposed for a warehouse. The study provided information on the potential for the presence of archaeological resources within the site.

***Phase IB Archaeological Field Investigation, 101-117 Worth Street, New York, New York***, conducted for AKRF, New York, New York. Research Historian responsible for conducting documentary, cartographic, and photographic research for Phase IB archaeological investigations of mid 19<sup>th</sup> to mid 20<sup>th</sup> century foundation remains and yard areas. Responsible for budgeting and design of research, direction of fieldwork, laboratory analysis, and report preparation. The Phase IB investigation consisted of both machine-excavated test trenches and hand-excavated test units, as well as monitoring of construction activities within a 150 x 260-foot site in lower Manhattan. The test trenches were utilized to determine the presence or absence of early intact surfaces, foundations, and/or shaft features within the project area. Test units were then used to further investigate potential intact surfaces and features encountered during trench excavation. The archaeological monitoring of construction activities afforded a wider exposure of the project area than otherwise provided by the excavation of test units and test trenches. The investigation identified two sections of intact stonewalls associated respectively with the Broadway Tabernacle Church (1835 – 1857) and a late-nineteenth-century commercial building, along with the truncated remains of a mid-nineteenth-century well and a buried Holocene surface.

### **Professional Societies/Affiliations**

Society for Industrial Archaeology  
New Jersey Archaeological Society  
National Genealogical Society

### **Chronology**

1999–present: URS Corporation  
1983–1999: Louis Berger



## Edward M. Morin, M.S., RPA

Program Manager/Senior Archaeologist

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### Areas of Expertise

Cultural Resource Management Studies  
Section 106 of the National Historic Preservation Act  
Archaeological Surveys and Excavations  
Historic Preservation  
Regulatory Agency Liaison and Coordination  
Public Outreach

### Years of Experience

With URS: 8 Years  
With Other Firms: 20 Years

### Education

M.S./1980/Rensselaer Polytechnic Institute/Archaeology  
M.A./1978/St. Louis University/American Studies  
B.A./1975/Westfield State College/History

### Continuing Education

*4-Hour Field/Construction Safety Training (OSHA 29 CFR 1926)* (URS HS&E 12/1/2006)  
*8-Hour Annual OSHA Refresher Course* (URS HS&E, 11/15/2006)  
*Two-Day Seminar in NEPA, Project Development & Section 4(f)* (FHWA, Trenton, New Jersey, 2002)  
*Cultural Resource Management in New York State* (Office of Parks, Recreation and Historic Preservation, Niagara, Canada, 2001)  
*Section 106 Principles and Practices* (SRI Foundation, Dover, Delaware, 2000)

### Registration/Certification

Register of Professional Archaeologists

### Overview

Mr. Morin has over 28 years of experience in conducting and supervising urban archaeological investigations. He has directed archaeological and historical assessments, National Register evaluations, and archaeological data recovery efforts. Prior to joining URS, Mr. Morin served as Staff Archeologist with the National Park Service, Denver Service Center, Applied Archeology Center, and Senior Archaeologist for Louis Berger & Associates, Inc. In those positions, his responsibilities included conducting and contracting archaeological investigations at historic and industrial sites within the Northeast, and Mid Atlantic States; budgeting and design of research; direction of fieldwork, laboratory analysis, and report preparation; and project management. Mr. Morin's particular expertise is in the area of historic urban and industrial archaeology.

### Examples of Relevant Experience

***Phase IB Investigations of the Atlantic Yards Arena and Redevelopment Project, Brooklyn, New York***, conducted for Forest City Ratner Companies. Project Manager for subsurface investigations that entailed the excavation of eight test trenches within two areas in Block 1119, Lot 1, and three test trenches in Block 1127, Lots 55 and 56. Since no evidence of either intact deposits or features was encountered, no further work is recommended for this area.

***Geoarchaeological Assessment for Sunnyside, Queens Rail Complex (Queens Area 12), MTA/LIRR East Side Access Project, Construction Contract CH053, Queens, New York***, conducted for MTA New York City Transit/Long Island Railroad. Principal Investigator for conducting a geoarchaeological assessment within Area 12 of the Sunnyside Yards Railroad Complex in Queens, New York. The goal was to provide the necessary information on the nature, location, and extent of intact and original soil surfaces within Area 12 and the depth of twentieth-century fills above these surfaces. Wholly or partially intact surface horizons marking the original land surface were identified at six locations. Therefore, additional investigations (Stage 1B) were recommended in order to determine the presence/absence of cultural deposits within the two locations of Area 12 that retain intact soils.

***Spring Street Church Site, New York, New York***, conducted for Bayrock/Sapir Organization, LLC. Project Manager for the investigation of human skeletal remains from 242-246 Spring Street. These investigations were requested by the New York City Department of Buildings (DOB) and New York City Landmarks Preservation Office (LPC). The specific goals of the archaeological examinations were to recover previously identified human remains and to determine whether or not additional, potentially intact burials or related funerary features and artifacts were contained within portions of the site. The process involved eight primary steps or stages of work, including: 1) detailed background research regarding the sequence of



historical occupation of the site; 2) the identification of potential descendant populations; 3) the collection and documentation of known skeletal remains; 4) the controlled investigation of previously unexcavated, or partially excavated portions of the site to verify the presence or absence of additional human remains or burials; 5) the exhumation and documentation of any intact historic burials that may be present; 6) the analysis and inventorying of all human remains recovered from the site (including materials previously collected by the ME staff); 7) the reburial of recovered skeletal remains in a manner to be decided in consultation with any identified descendant population; and 8) the preparation of a final project report.

***East Side Access Project***, conducted for MTA New York City Transit/Long Island Railroad. Project Archaeologist responsible for helping to develop a Construction Protection Plan (CPP) and an Advance Field Testing Plan (AFTP) for the protection of historic structures and archaeological resources during the course of the project.

***Phase III Data Recovery of an 18<sup>th</sup> Century Section of Battery Wall, Battery Park, New York, New York***, conducted for Dewberry/LMS. Co-Principal Investigator for data recovery investigation of the remains of an 18<sup>th</sup> century stonewall associated with the Battery that once protected Fort George in Lower Manhattan.

***Phase IA Documentary Study, East Side Access Ventilation Shaft, Park Avenue, New York, New York***, conducted for AKRF and the MTA New York City Transit/Long Island Railroad. Principal Investigator for conducting a documentary study of a proposed site for a ventilation shaft. The purpose of the study was to provide information on the nature, location, and extent of intact and original soil surfaces within the project area and the depth of 20<sup>th</sup>-century fills above these surfaces. This information was needed in order to determine if proposed construction activities would extend to a depth that would encounter the historic and/or prehistoric surfaces that might contain archaeological resources.

***Phase IA Archeological Investigation, Rehabilitate Battery Weed Seawall and Dock, Fort Wadsworth Unit, Gateway National Recreation Area, Staten Island, New York***, conducted for the National Park Service, Denver Service Center. Principal Investigator for developing a program for an archaeological resources investigation at Battery Weed in Fort Wadsworth, Staten Island, New York. The goal of the investigation was to collect and synthesize documentary information regarding the prehistory and history of the project area; prepare a series of recommendations for further archaeological work, to include field testing if required; and to prepare a project report documenting the investigation for use by National Park Service personnel.

***Modified Phase I Cultural Resources Inventory, Floyd Bennett Field, Jamaica Bay Unit, Gateway National Recreation Area, Brooklyn, New York***, conducted for the National Park Service, Denver Service Center. Principal Investigator for a cultural resources inventory in support of the proposed replacement of aging electrical cables. The goals of the investigations were to 1) identify areas of disturbance and fill that may be excluded from further investigation; and 2) identify areas with the potential



for prehistoric and historic archaeological sites that should be avoided or mitigated during the replacement of the electrical cables.

***Addendum, Phase IA Archaeological Study, 3-7 Wooster Street, Borough of Manhattan, New York City, New York***, conducted for Extended Management Company, Inc., Newark, New Jersey. Principal Investigator for an addendum Phase IA study in order to provide additional background research to adequately address revisions requested by the New York City Landmarks Preservation Commission to another firm's previously conducted study.

***Phase IA Archaeological Assessment of the Shaft 17B Complex in Sunnyside, Queens, New York***, conducted for Jenny Engineering Corporation, Springfield, New Jersey. Principal Investigator for conducting and archaeological assessment of a 63,950 square foot area for a proposed shaft complex. The study provided information on the potential for the presence of archaeological resources within the site that are associated with British military occupation during the Revolutionary War.

***Phase IA Documentary Study, East Side Access Ventilation Shaft, 38<sup>th</sup> Street, New York, New York***, conducted for the MTA New York City Transit/Long Island Railroad. Principal Investigator for conducting a documentary study of a proposed site for a ventilation shaft in a 25 x 100-foot lot. The purpose of the study was to provide information on the nature, location, and extent of intact and original soil surfaces within the project area and the depth of 20<sup>th</sup>-century fills above these surfaces. This information was needed in order to determine if proposed construction activities would extend to a depth that would encounter the historic and/or prehistoric surfaces that might contain archaeological resources.

***Phase I Archeological Investigations within the Gateway National Recreation Area at the Jacob Riis Bathhouse, Jamaica Bay Unit, New York***, conducted for the National Park Service, Denver Service Center. Principal Investigator for conducting archaeological investigations at the Jacob Riis Bathhouse, Breezy Point, New York. Excavations through the concrete floor of the courtyard revealed heavily disturbed sandy fill related to the construction of the bathhouse. Disturbance included numerous utilities and a buried roadbed composed of oiled clinker and gravel. No further work was recommended since the investigations revealed that the development of the courtyard would not impact any archeological deposits.

***Phase I Archeological Investigations within the Gateway National Recreation Area at the Jamaica Bay Wildlife Refuge, Broad Channel Island, Jamaica Bay Unit, New York***, conducted for the National Park Service, Denver Service Center. Principal Investigator for conducting archaeological investigations at the Visitor Contact Station and Building 101 of Jamaica Bay Wildlife Refuge. Excavations revealed levels of recently disturbed soil capping a thick layer of landfill. The recovered artifacts consisted of architectural/structural material (with a small number of container glass fragments). No further work was recommended because the investigations indicated that proposed development of the two sites would not impact any archaeological deposits.



***Cultural Resources Assessment, 1440 Story Avenue, Bronx, New York,*** conducted for the MTA New York City Transit. Principal Investigator for conducting documentary study of a 12-acre site proposed for a warehouse complex. The study provided information on the potential for the presence of archaeological resources within the site.

***Phase IB/II Archaeological Field Investigation, 101-117 Worth Street, New York, New York,*** conducted for AKRF, New York, New York. Principal Investigator for Phase IB archaeological investigations of mid 19<sup>th</sup> to mid 20<sup>th</sup> century foundation remains and yard areas. Responsible for budgeting and design of research, direction of fieldwork, laboratory analysis, and report preparation. The Phase IB investigation consisted of both machine-excavated test trenches and hand-excavated test units, as well as monitoring of construction activities 150 x 260-foot site in lower Manhattan. The investigation identified two sections of intact stonewalls associated respectively with the Broadway Tabernacle Church (1835 – 1857) and a late-nineteenth-century commercial building, along with the truncated remains of a mid-nineteenth-century well and a buried Holocene surface.

***Reconstruction of the Stone Street Historic District, New York, New York,*** conducted for the New York City Department of Design and Construction. Principal Investigator for archaeological monitoring of the Stone Street reconstruction project. Provided the oversight and inspection of an archaeological contractor conducting monitoring services associated with the installation of a water main, catch basins and streetscape improvements.

1983 – 1991 Archaeologist, Louis Berger & Associates, Inc.

***Phase II Archaeological Investigation of the Washington Street Urban Renewal Area, Site I, for Shearson Lehman/American Express, New York, New York,*** conducted for the New York City Public Development Corporation. Field Supervisor responsible for conducting the day-to-day excavations and crew supervision at the site, in addition to involvement with analysis and write up. Involved the testing of nineteenth century industrial and commercial remains in a 450 x 500-foot project area. It was the first West Side archaeological site systematically tested in lower Manhattan.

***Phase III Mitigation of Barclays Bank, 100 Water Street, New York, New York,*** conducted for London and Leeds Corporation. Crew Chief responsible for the supervision of a six-person archaeological field crew, in addition to involvement with analysis and report write up. Involved the mitigation of late seventeenth to early nineteenth century domestic deposits and structural remains on a 100 x 200-foot site for the proposed construction of the Barclays Bank Office Tower.

## **Professional Societies/Affiliations**

Professional Archaeologists of New York City  
Council for Northeast Historical Archaeology, Board Member  
Society for Historical Archaeology, Associate Journal Editor  
Society for Industrial Archaeology  
Archaeological Society of New Jersey