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STAGE 1A
ARCHAEOLOGICAL
ASSESSMENT
EAST 50th STREET VENT
PLANT

MTA/Long Island Rail Road

East Side Access Project

839



**STAGE 1A
ARCHAEOLOGICAL
ASSESSMENT
EAST 50th STREET VENT
PLANT**

for the
**MTA/LIRR East Side Access
Project**

June 2003

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1.0 INTRODUCTION

The East Side Access (ESA) Project will provide new LIRR service to Grand Central Terminal (GCT) by connecting the Port Washington Branch and Main Line tracks adjacent to the Sunnyside Yard in Queens to the lower level of the existing 63rd Street Tunnel beneath the East River, and continuing in a new tunnel to GCT in Manhattan. The potential environmental effects of the proposed project were assessed in an Environmental Impact Statement (EIS) prepared for the project, and included an evaluation of the project's potential effects on historic and archaeological resources. The Final EIS (FEIS) for the project was published in March 2001.

As part of the EIS process, a Stage 1A Archaeological Assessment was completed by Historical Perspectives, Inc. (HPI), in 1999 (and summarized in the FEIS). This document was accepted by New York's State Historic Preservation Office (SHPO). Since that document was completed, a new Vent Plant has been proposed at East 50th Street in Manhattan. The proposed vent plant would require subsurface disturbance, which may disturb archaeological resources, if present. Therefore, an archaeological assessment was prepared for this new project element and is presented in this Stage 1A Archaeological Assessment.

This Stage 1A report 1) identifies the Area of Potential Effect (APE) for the proposed new East 50th Street Vent Plant, 2) identifies areas of potential archaeological sensitivity within the APE that may be affected by the ESA project, 3) assesses potential project effects on any such resources, and 4) provides mitigation alternatives where necessary.

1.1 Regulatory Setting: Applicable Regulations, Policies and Guidelines

Section 106 of the National Historic Preservation Act of 1966 as amended, 23 CFR 771; the guidelines developed by the Advisory Council on Historic Preservation published November 25, 1980; and the "Procedures for the Protection of Historic and Cultural Properties" as set forth in 36 CFR Part 800; require the effects of federally-assisted projects on any properties included in, or eligible for inclusion in, the National Register of Historic Places to be assessed before the project can be approved. To comply with these statutes, this archaeological assessment was prepared to identify any documented or potential significant archaeological resources within areas that may be affected by the project. The potential effects of the proposed action on archaeological resources were then analyzed, and mitigation measures, if necessary, recommended.

1.2 Project Identification – East 50th Street Vent Plant

The ESA project will connect the LIRR to Manhattan's GCT. This will be accomplished via the construction of the new tunnel in Manhattan to Park Avenue and then south under Park

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Avenue to GCT, where a new LIRR terminal would be constructed in the area of the former Madison Yard, located at the suburban level along the west side of the GCT train shed. The proposed new vent plant at East 50th Street would vent the northern half of the new LIRR terminal and the southern portion of the new Park Avenue tunnel. The proposed vent plant is the subject of this study (Figures 1 and 2).

1.3 Study Approach

The first task for this Stage 1A archaeological assessment was to define the Area of Potential Effect (APE) for the new project element. The Area of Potential Effect is the area where the proposed project could disturb potential archaeological resources, if present (Figure 2). Once the APE was defined, the scope of work was designed to:

- Establish the original site topography and evaluate any subsequent changes;
- Determine prior usage - specifically if precontact era and/or historical resources and/or their associated features existed within the project area;
- Identify the extent of prior disturbances such as grading and construction, which would have caused subsurface impacts to potential resources.

This study was designed to address two major questions. What is the likelihood that potential precontact and historic archaeological resources of significance exist within the APE; and, what is the likelihood that such resources have survived later disturbances? Sufficient information was gathered to compare, both horizontally and vertically, the precontact era past, the historical past, and the subsurface disturbance record.

To fulfill this requirement, Historical Perspectives, Inc., performed a documentary and cartographic review of the APE. Research was conducted at various institutions, such as the New York Public Library, the Columbia University Libraries, the New York Municipal Archives, the New York City Department of Buildings, and the New York City Register. Site file searches were performed at the New York State Office of Parks, Recreation, and Historic Preservation and the New York State Museum in Albany. Cultural resource reports were reviewed at the New York City Landmarks Preservation Commission (NYCLPC), as were predictive models. In addition to documentary research, field visits were undertaken for the APE. At this time, any obvious signs of disturbance were recorded and historical features were noted.

1.4 Area of Potential Effect

The Area of Potential Effect (APE) was defined as the area which may experience subsurface project construction which could affect potential archaeological resources. Potential effects could result from either cut-and-cover construction, excavations, and any other ground

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disturbing activity which would extend from the existing grade down into potentially sensitive strata. The APE is described below.

1.4.1 Vent Plant, East 50th Street

The site of the proposed Vent Plant at East 50th Street between Park and Madison Avenues encompasses both a section of the streetbed and four lots on city Block 1285 (Figure 2; Photos 1 and 2). The Vent Plant's construction will include the demolition of four five- and six-story buildings on the south side of East 50th Street. Part of the site will be excavated and the excavation will be extended below East 50th Street to the lower level of GCT to provide construction access to the planned LIRR Concourse work area.

Therefore, the APE for this project element is the proposed footprint of the ventilation facility and excavated elements, as well as potential associated staging areas. The proposed facility will be located on Lots 43, 44, 45 and 46 of Block 1285. Proposed excavated areas are located beneath Lots 45 and 46 and extend into the East 50th Street roadbed where they head east to meet the suburban level of the Grand Central Terminal. The East 50th Street roadbed north of the above four lots and extending east to the planned LIRR terminal area at GCT is also included.

1.5 Impact Evaluation Factors

The potential for disturbing archaeologically sensitive areas by excavation or compaction was used as the criterion to determine potential adverse effects and the need for additional archaeological evaluations and mitigation measures.

2.0 EAST 50TH STREET VENT PLANT ARCHAEOLOGICAL RESOURCE EVALUATION

This study addresses the archaeological potential of the proposed ventilation plant located on Block 1285 and in the roadbed of East 50th Street between Park and Madison Avenues which may experience subsurface impacts (Figure 2; Photos 1 and 2).

2.1 Environmental Setting

The history of Manhattan was in part shaped by the topography, ecology, and economic conditions that prevailed at various times. Understanding the city's geologic history aids in understanding the land-use history. During the Pleistocene period, ice advanced in North America several times. In the last 50,000 years, the Wisconsinian period, ice was 1,000 feet thick over Manhattan. Gravel and boulders deposited at the ice sheets melting margins formed Long Island about 15,000 years ago (Kieran 1982). For a brief period Manhattan was largely covered by a glacial lake. Glacial Lake Flushing occupied broad, low-lying areas

when deglaciation of the region produced vast volumes of meltwater. Higher elevations of Manhattan may have been marginal to this lake (Church and Rutsch 1984). By 12,000 years ago the lake drained and sea levels have gradually risen as glaciers retreated.

The project area is within the embayed section of the Coastal Plain which extends along the Atlantic Coast and ranges from 100 to 200 miles wide. The Manhattan prong, which includes southwestern Connecticut, Westchester County and New York City, is a small eastern projection of the New England uplands, characterized by 360 million year old highly metamorphosed bedrock (Schubert 1968). The Manhattan ridge generally rises in elevation toward the north, and sinks toward the south.

The prevalent gneissoid formation is known as Hudson River metamorphosed rock. The city is characterized by a group of gneissoid islands, separated from each other by depressions which are slightly elevated above the tide and filled with drift and alluvium. Beneath most of the project area is the Manhattan schist formation; a highly foliated mica schist known to have once outcropped throughout the island.

Historical development has altered many of the natural topographic features that once characterized Manhattan (Gratacap 1909). Soil within Manhattan is mostly glacial till, clays, sand, gravel, mud, and assorted debris (Kieran 1982). The groundwater level fluctuates with tidal variations in the river.

2.2 Contextual Overview

In order to fully understand the use of the project site through time it is necessary to develop a historical context for the ESA APE. As defined by the National Park Service, "historic contexts provide a framework for the identification, evaluation, designation, and treatment of cultural resources associated with particular themes and time periods. Historic context-based planning permits recognition of individual properties as parts of larger systems. Historic contexts also help managers and others evaluate properties within their proper levels of significance. As such, they provide both a systematized basis for comparison and a comprehensive frame of reference. In so doing, historic contexts provide cultural resource managers with a guide for rational decision-making" (Grumet 1990). The following discussions establish a contextual framework for the historical eras pertinent to the project site.

2.2.1 Precontact Context

Archaeologists have divided North American prehistory into four periods, the Paleo-Indian, Archaic, Woodland, and Contact, with the Archaic and Woodland periods generally subdivided into the Early, Middle, and Late subperiods. Changes in the precontact environment, the characteristics of precontact peoples, and the cultural artifacts that were left behind enable archaeologists to present a chronological framework for the prehistory of

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North America. What follows is a brief overview of these periods with emphasis on the characteristics of, and archaeological evidence for, each period in the New York City area.

Paleo-Indian Period (10,000 - 7,000 B.C.)

Although it is postulated that near the end of the Wisconsin glacial age the first humans crossed into the New World via a narrow land bridge in the vicinity of the Bering Strait, recent evidence suggests that the parts of the New World may have been occupied as early as 35,000 years ago. Regardless, in the metropolitan New York area evidence of human habitation only extends back to ca.10,000 B.C. These nomadic hunters, distinguished by the fluted points they created, were called Paleo-Indians.

Archaeological evidence at several camp sites in the Northeast lead scholars to suggest that seasonal patterning or perhaps territoriality commenced during the latter part of this period (Ritchie 1965). The warming climate and the new open river valleys provided ample hunting grounds. Consequently, Paleo-Indian habitation sites were frequently situated on elevated land near fresh water, particularly in the vicinity of former glacial lakes and moraines (Ritchie 1965). The closest recorded Paleo-Indian site to the project area is Port Mobil, a small camp site, recovered in Staten Island (Ritchie 1980).

Archaic Period (7,000 - 1,000 B.C.)

The transition from the Paleo-Indian period to the Archaic was marked by increased mobility and resource availability. An increase in the number and size of sites recovered from the Archaic period suggests that the human population had expanded and that Archaic peoples were becoming more settled and therefore having a greater impact on the landscape. The Lamoka, Vosburg, and Brewerton phases (recurring complexes of distinctive archaeological traits representing individual cultural groups), are among those identified in New York State by Ritchie (1980).

A number of small multi-component sites have been recovered in coastal New York. These have been found near fresh water ponds, tidal inlets, coves, and bays. Many sustain evidence of shellfish harvesting, particularly oysters and clams. No large camp site or settlement has been found within the boundaries of the five boroughs and the few Archaic sites recorded within the city are isolated finds.

Woodland Period (1,000 B.C. - ca.1600 A.D.)

The advent of ceramic technology and horticultural activity distinguish the Woodland period. Primary habitation sites, or villages, had increased in size and were permanent (year-round) settlements. Larger sites were located near fresh water sources (e.g., pond, lakes, tributaries, or rivers), while task-specific sites (e.g., shellfish gathering and/or processing, tool making), were usually situated near the location of the resource.

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Near the end of the Middle Woodland stage (ca.800-1000 A.D.), agriculture was practiced, and by the Late Woodland, cultigens had become an essential element in daily life. Late Woodland sites of the East River Tradition in Manhattan and other parts of southern New York have been noted on the high ground above high water level on tidal inlets, tidal streams, bays and coves, and other well-drained sites (Ritchie 1980; Smith 1950).

Contact Period (A.D. 1600-A.D.1800)

Using legal documents and early ethnohistoric accounts, archaeologists have learned much about the Native groups that were present upon contact with Europeans. Grumet notes that the 1610 Velasco map used the name *Manahata* as the designation for the native inhabitants of both banks of the lower Hudson River (1981). The Manhattan Indians were identified on Dutch 17th-century maps but not on many other documents. In addition, no individual Manhattan Indian was referred to by name in the documentary record.

Isaak de Rasieres reported ca.1628, that the island was "inhabited by the old Manhatesen; they are about 200 to 300 strong, women and men, under different chiefs." The Wiechquaesgeck have been identified as the denizens of northern Manhattan, as well as parts of the Bronx and Westchester County. The Manhattan and their Wiechquaesgeck relatives had few furs to trade with the Dutch. As a result, there was little motivation on either side for good relations, and Nieuw Amsterdammers probably considered the local Indians an annoyance. In addition, the sometimes cruel and often dishonest practices of European traders led to Wiechquaesgeck retaliation, which took the form of several murders between 1640 and 1642, leading to various raids and counter raids between Dutch and Indians (Grumet 1981; Kammen 1975).

The Dutch practice of trading firearms to the upriver Mahican and Mohawk, while denying guns to the Indians of the lower Hudson, left them vulnerable to attack. When a large force of Mahican or Mohawk attacked the Wiechquaesgeck and Tappan in 1643, the surviving Indians fled to the Dutch in New Jersey and Corlaer's Hook on Manhattan for protection. Governor Kieft and his advisors seized this chance to revenge themselves, and sent a force to attack the refugee camp at Pavonia (now Jersey City), massacring 80 Tappan, while another force killed another 40 Wiechquaesgeck on Manhattan. Eventually every lower Hudson native group joined in war against the Dutch, with disastrous results for European settlers. "Governor Kieft's War" ended when the Manhattan and Wiechquaesgeck sued for peace in 1644, after a series of surprise attacks on Indian villages ended in brutal massacres. Nevertheless, friction with the Dutch continued, as the Wiechquaesgeck participated in the "Peach War" (1655-1657) and the "Esopus War" (1659-1664) (Grumet 1981; Brodhead 1853; Bolton 1975).

These hostilities, coupled with the introduction of European diseases against which Native American populations had no natural protection, decimated Indian populations in the New York City area, and forced many groups to merge in order to maintain viable communities. The last of the Manhattans apparently left the island sometime after 1628, joining the

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mainland Wiechquaesgeck, where they were noted in 1680 as the *former* inhabitants of Manhattan Island (Grumet 1981).

Site File Search Results. The only Native American feature reported by Grumet in this area is the Wickquasgeck Road - a Native trail which ran from the southern tip of Manhattan to the northern tip of Manhattan. The road, which was west of the project site, was well traveled and connected settlements at the southern part of the island with those on the north (Grumet 1981). In addition, Arthur C. Parker reported traces of occupation in the area of 59th Street near First and Second Avenues (Appendix 3; New York State Museum Site #1061). The extent of the Native American presence is unknown.

2.2.2 Historic Context

New York City, with Manhattan Island as its commercial center, developed at a rapid pace over the last three centuries. An important factor was the flourishing commercial waterfront and the growth of the surrounding mercantile and later industrial ventures. The expansion and development of the waterfront along the East River began in the early 17th century. Although early Dutch trading expeditions had already been visiting the Hudson River for many years, the first settlement in New Netherland was not undertaken until 1624, under the authority of the Dutch West India Company. The purpose of this expedition was to strengthen Dutch ownership claims by occupying strategic points in the territory. Surprisingly, Manhattan was ignored in favor of Governors Island, where eight men were left to build a fort to protect the mouth of the Hudson. The main groups of colonists traveled north and established Fort Orange, now part of Albany, in an area advantageously situated for participation in the lucrative fur trade (Brodhead 1853).

Eventually, Manhattan was recognized as the strategic heart of the region and colonization began in earnest in 1625 when an expedition of Company farmers with livestock, tools and provisions arrived on the Hudson River, establishing themselves at the southern tip of Manhattan Island, with the purpose of building a fort and laying out nine Company farms, or *bouwerijen* (bow-wer-RAY-en). These *bouwerijen* were intended to supply Company personnel with agricultural provisions, so that the Manhattan post would be self-sufficient (Bachman 1969). As it was Company policy to acquire lands from native peoples in an amicable fashion, in 1626 Governor Peter Minuit purchased Manhattan Island from the local Indians for about 60 guilders worth of goods (Brodhead 1853).

The midtown region of Manhattan has maintained a diversity of neighborhoods, industries and institutions throughout the historical period. During the 17th and early 18th centuries, this region was only woodland with sparsely sited farms. The first significant development within this area was the establishment of the Boston Post Road which ran through Manhattan near the present route of Third Avenue (Church and Rutsch 1984). This section of the route was known as the Eastern Post Road, built between 1669 and 1671. This important road was the vital link to the colonial village on the island's southern tip. Early settlements in this area

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tended to cluster along this road, and the East River shorefront. As a result of this thoroughfare, the last decades of the 17th century witnessed a growth of farmsteads.

In two transactions dated to 1677, the colonial Governor, Sir Edmund Andros, deeded 60 acres north of East 70th Street to John Bassett and an adjoining 60 acres to the southeast to Cornelius Mattysen (Stokes 1928). By 1742 David Provoost, the first Protestant Episcopal bishop of New York, had taken ownership of the Basset land and the northern 30 acres of the Mattysen tract (Church and Rutsch 1984). This Provoost tract, otherwise known as Jones' Wood, became the Louvre Farm and was more intensively settled than the surrounding properties. Property in the vicinity of the East 30s belonged to Jacob Kip, and the Spring Valley Farm spanned the East 50s (WPA 1982). An important service in the area was the Dove Tavern, an early 18th century tavern formerly located at the intersection of East 67th Street and Third Avenue.

Manhattan in the American Revolution

A Quaker by the name of Robert Murray had acquired almost all of the midtown area, now Murray Hill, prior to the American Revolution. In 1776 the fleeing Continentals charged north through this area after the British invaded Manhattan. It was at Murray's mansion, located at the corner of East 30th Street and Park Avenue, that Mary Lindley Murray stalled General Howe while General Putnam's army escaped to the north (WPA 1982). British frigates were stationed near Kip's Bay (23rd to 34th Streets between Second Avenue and the East River) for the duration of the war. The British occupation of Manhattan wreaked havoc on much of this area. Woodlands were decimated and orchards pillaged and raided for wood.

After the Revolutionary War, the Common Council voted to have the Murray Hill region surveyed and divided into lots for sale. As a result, families established a hamlet called Yorkville, in the vicinity of the Post Road. This community extended north between East 60th and East 96th Streets east of Third Avenue, and was the site of a number of summer houses and estates. This settlement had good access to Newtown across the river, via the Horn's Hook - or Hell Gate - ferry across the East River. This ferry stopped at the foot of what is now East 86th Street at the East River. Yorkville eventually became a crowded section of tenements and brownstones populated by immigrants from Middle Europe (WPA 1982). The particular tract of land that encompassed the project site was surrounded by farmlands, but itself remained vacant under ownership of the Corporation of the City of New York until the 19th century (Sackersdorf 1865/1815; Spielmann and Brush 1881).

Nineteenth Century Manhattan

In 1815 the Common Council authorized the construction of Third Avenue which was to be 60 feet wide. In the 1820s the road was macadamized, improving travel conditions (Rubinson et al 1984). As a result, by the first half of the 19th century this area was being transformed into a domesticated landscape containing a few estates bordering the East River

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shore, some mixed but scattered development along or near the Post Road, and the single hamlet of Yorkville to the north.

In the 1820s the city was faced with the continued problem of how to dispose of the deceased. According to Stokes' records of the Common Council's actions, a public facility for interment was prepared in 1825 between Third and Fourth Avenues and 48th and 50th Streets (Stokes 1926). On other pages he states that the potter's field was moved to 50th Street between Fourth (now Park) Avenue and Lexington Avenue (Stokes 1918). This area was ideally suited for such a venture because of its remoteness at the time.

By 1836 there were several large estates situated in this area mostly concentrated east of Second Avenue along the East River (Colton 1836). Mt. Vernon and Spring Valley were situated east of Second Avenue in the upper 50s and lower 60s. East of Second Avenue between 40th and 47th Streets near Turtle Bay there were several more houses. A glass manufacturer stood about eight blocks southeast of what is now GCT, in the vicinity of what was then Kips Bay (Colton 1836).

Nineteenth century maps show the transformation of this area from rural to suburban and then urban (Colton 1836; Perris 1857-1862; Dripps 1866; Bromley 1879). Fast and steady growth in the area resulted in an oddly mixed land use - for example in some places small run down shanties were situated next to large opulent estates. However, in other areas the mid-19th century marked the true appearance of class-segregated neighborhoods. The industrial working class was just beginning to emerge in the 1820s-1830s. There was an influx of European immigrants at that time, and in downtown the poor inherited the abandoned homes of the uptown-moving rich, who settled in the midtown and Upper East Side areas. The city proper tapered off about 14th Street in 1825 - but by 1853 it extended much further north (NYCLPC 1983). All streets up to 42nd Street were regulated and paved by this time, and a series of villages was established including Yorkville, Manhattanville, and Harlem to the north.

By the 1830s the deplorable quality of groundwater in Manhattan was recognized as contributing greatly to the yellow fever and cholera outbreaks of the previous decades. In 1835 the city approved a plan to dam rivers upstate to create reservoirs, and pipe clean water into the city through an extensive aqueduct system. Water was piped into Manhattan, through Central Park and down Fifth Avenue into a massive receiving reservoir built in 1842 at the intersection of 42nd Street and Fifth Avenue where the New York Public Library now stands.

In the 1850s and 60s, "Manhattan north of Forty-second Street was not pleasant countryside; it was garbage dumps, shanty towns, and decrepit taverns, all punctuated by outcroppings of rock" (Lockwood 1976). One census counted more than 10,000 squatters in this area, while the *New York Times* conservatively estimated the Manhattan squatters' population at 20,000 in 1864 (Plunz 1990). Since squatting in the area slated for Central Park was widespread after 1853 when the City began acquiring private land for the park, one of Frederick Law

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Olmsted's first acts as Park Commissioner in 1857 was to remove 300 shacks from the area. The subsequent construction of Central Park had an important impact on the east side of Manhattan. The creation of the park made Fifth Avenue, which formed its eastern border, New York's new fashionable neighborhood. As a result, real estate prices and development increased there and on adjacent side streets.

As populations grew, efforts were made to improve the midtown area. DeVoor's Mill Stream, which emptied into the East River near 49th Street, was a source of health problems in the early and mid-19th century. As a result, it was covered up and piped into the East River at Turtle Bay (Rubinson et al 1984). Growth in the region slowed in conjunction with the onset of the Civil War. Furthermore, the 1863 opening of the first conscription office at East 46th Street and Third Avenue precipitated the Draft Riots when impoverished residents in the area protested their induction into the army (WPA 1982).

The midtown region was never entirely residential, but continuously had a mix of small industries and services. Some of the examples of the types of non-residential uses in this region include Columbia College at Park Avenue and 49th Street in 1857, an orphan asylum at 51st Street and Park Avenue, Mt. Sinai Hospital which was built between 1872-1904. Slaughterhouses, gas and coal yards, and other "offensive" industries thrived along the East River shoreline, and breweries, piano manufacturers, and other "lighter" industries were situated throughout the project area.

· The New York Institution for the Instruction of the Deaf and Dumb

According to the Sackersdorf map (1815/1868) the city blocks between East 48th and 50th Streets and Fourth/Park and Fifth Avenues were joined in an 11 acre parcel of land owned by the 'City Corporation of New York', which by the end of the 1820s would lease the land to the New York Institute for the Instruction of the Deaf and Dumb. Prior to occupation by the Institute, this parcel of land had been vacant.

The New York Institute for the Instruction of the Deaf and Dumb was incorporated on April 15, 1817 as the second such institution in the United States (Stokes 1928:450; NYIIDD 1893:11). At this early date 66 deaf mutes lived in Manhattan, which had a total population at the time of 120,000. While some thought to send this small group of deaf mutes to Hartford, CT, where the first U.S. deaf and dumb teaching institute had been established, the Rev. John Stanford and Dr. Samuel Akerley of New York worked to establish a facility in the New York (NYIIDD 1893:11). After petitioning the Common Council on April 27, 1818, the Institute for the Instruction of the Deaf and Dumb was established and initially allowed to occupy a room in the old Alms House at 41 Warren Street in southern Manhattan, as reported in the New York Minutes of the Common Council (M.C.C. IX:615). By July 13 of that year 13 pupils were attending the Institute for the Instruction of the Deaf and Dumb under its first president DeWitt Clinton, with only 2 students paying (Stokes 1928:450).

On Jan. 17, 1825 the Directors of the Institute for the Instruction of the Deaf and Dumb

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reported to the Common Council that 54 pupils were in attendance at the Institute at its downtown location, including 27 State pupils, 18 Charity pupils and 9 Pay pupils (M.C.C. XIV:277). The report was signed by the Institute Secretary Samuel Akerley, who is the same individual to formally petition the Common Council on Jan. 30, 1826 on behalf of the Institute for "a Donation of Land or Money for the purpose of enabling the Institution to erect Buildings wherein the Pupils may be taught Trades and to make them more useful members of Society" (M.C.C. XV:170). Initially the Common Council rejected the petition on Feb. 13, 1826, explaining that it did not wish to favor the Deaf and Dumb Asylum over other needy cases "lest it exhaust the treasury" (M.C.C. XIV:199).

By May 1, 1827 the Common Council changed its decision on the Deaf and Dumb Asylum and drew a deed of release of Common Land of the City to the Directors of the Institution "of One Acre of the aforesaid lease Lot [46], in fee, for the consideration of One Dollar" (Stokes 1928:1668; M.C.C. XVI: 320-21). This transaction was entered into the Index of Conveyance for 1827 (see Appendix 2). The one acre of land that was being donated to the institution was then augmented on June 4, 1827 by the Common Council in a lease of 4.5 acres of contiguous land on what was then Block 59, which is bounded by Fourth and Fifth Avenues and 49th and 50th Streets (Stokes 1928:1668). This additional lease of land to the Asylum is also clearly reflected in the Index of Conveyance (see Appendix 2). The project site APE falls within this original lease, as Fourth Avenue would later become Park Avenue.

When the grounds for the Asylum were first selected, the area was undeveloped and rural. Over 60 years later in 1893 the original setting for the Asylum as it appeared prior to development or construction was described as follows: "For one who sees it now [in 1893], densely built up with elegant stone structures, palatial dwellings, churches, hotels, the college [Columbia College, see below], and the Cathedral [Saint Patrick's], it is difficult to realize that this was then [in 1827] a rural spot, surrounded by green fields, woods and meadows, and reached only by country roads" (NYIIDD 1893:14).

The legislature also released \$10,000 to the institution on June 4, 1827 for the purpose of erecting a structure, provided that the institution met three conditions: (1) its directors must raise equal sums, (2) the location and plans must receive approval of the Superintendent of Common Schools and expedition accounted for to the State Comptroller, and (3) the Institution would be subject to inspection by the Superintendent of Public Schools (NYIIDD 1893:13). The cornerstone of the new of the Asylum was laid on Oct. 19, 1827 by the Hon. Azariah C. Flagg, Secretary of State, and *ex officio* Superintendent of the Common Schools on the south side of 50th Street between Fourth and Fifth Avenues (Stokes 1928:1669; NYIIDD 1893:14), and the event was duly reported in the *New York Evening Post* (Oct. 20, 1827) and the *New York Gazette & General Advance* (Oct. 22, 1827).

The building, which was completed and occupied in 1829 (Stokes 1918:955), was dedicated on Sept 30, 1829 following an address by the Rev. James Milnor (NYIIDD 1893:14). The cost to construct the Asylum exceeded the original estimates, amounting in all to \$35,000, although all added expenses were covered by amounts raised by the directors. Stokes

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(1926:1687) describes the original building of the Asylum as follows: the 'elegant building' was '110 feet long and 60 feet wide, built of brick, covered with stucco, resembling marble' and included a basement and four stories; it was spacious enough to accommodate 150 students and their instructors; it was 'ornamented in front with a beautiful colonnade, 50 foot long, occupying the center of the building'; there were 'nine acres which were handsomely laid out into lawns and gardens, planted with trees and shrubbery'. While Fifth Avenue, also called the Middle Road, was laid out by this time, East 50th Street was only partially present and Fourth Avenue and East 49th Street did not yet exist (NYIIDD 1893). Topographically, the Asylum, whose main structure lay just outside of the APE to the west, was located atop a knoll that would exist throughout the 19th century (Figure 3; Photos 3 and 4).

The main entrance of the building was defined by the colonnade facing south, indicating that the building was orientated towards East 49th Street, not East 50th Street. This can be seen in a photograph taken in 1874, which show a semicircular driveway that passes through the center of the block linking the colonnade to East 49th Street (Photo 3; Brown 1913). A smaller structure, a later addition, east of the colonnaded building lies within the APE (Ibid.). Workshops for gardening, tailoring, shoe-making, and cabinet-making are also mentioned, but it is unclear which of these were outbuildings or which were part of the original Asylum building (Figure 4; Dripps 1852).

During the 1830s and 1840s the asylum buildings at East 50th Street "were twice enlarged, and a third addition was in contemplation, when it became evident that the out-of-door space surrounding the institution would be unfavorable contracted by the construction of new streets and avenues" (NYIIDD 1893:18). Stokes reconfirms this and gives the specific dates of construction as 1834, 1838, 1846 and 1850 (Stokes 1926:1687; Stokes 1918:955; see also Carlton and Phillip 1853:247-8). These include eastern and western wings, the former of which would have been located within the APE.

By 1853 "the Directors [of the Deaf & Dumb Asylum] had acquired a title to the premises they had hitherto leased, and it was thought that it would be a wiser policy to sell their land, which had appreciated in value, and purchase a site further removed from the denser portion of the city. They accordingly, with the permission of the Commissioners of the Land Office, sold their buildings and grounds, which subsequently became the site of Columbia College, and purchased of Colonel James Monroe his beautiful country seat known as Fanwood, on Washington Heights, embracing thirty-seven and a half acres of land, and commanding a beautiful view of the Hudson River, which forms its western boundary" (NYIIDD 1893:18-19).

Columbia College

The sale of the Asylum on Block 1285 to Columbia College and the relocation of the Institution to Washington Heights are described in a number of locations (e.g., Stokes 1928:1853; Stokes 1928:356; NYIIDD 1893:19-22). The actual official transfer of the East 50th Street land and structures between the Deaf and Dumb Asylum, a number of

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intermediaries, and Columbia College is also clearly recorded in the Index of Conveyance for 1853-1857 (see Appendix 2). One of these intermediaries (George A. Hearn) briefly owned all four lots in the APE in 1855 and appears on the Record of Assessments for Manhattan's 19th Ward in that year, where each lot is valued at \$600 (New York City Register; New York Municipal Archives). By 1857 Columbia College is identified in the Record of Assessments as the owner of the four APE lots on Block 1285, each of which were then valued at \$800.

The Asylum students were transferred to their new home in Washington Heights on Dec. 4, 1856 (NYIIDD 1893:22; Stokes 1918:955; M.C.C. 1858:631), and by May 12, 1857 Columbia College had officially occupied the old Asylum structures on East 50th Street (Stokes 1928:356). This was the second home for Columbia College, which would remain in this location until 1897 (Figure 5; Photos 3 and 4). Stokes (1926:1869) describes Columbia College's new home as follows:

The new location of the College is a delightful one... The old Asylum buildings have been altered somewhat, repaired, and greatly improved. The two wings have been separated from the main building. The east wing is occupied by the Chapel and the extensive Library of the College; the center [U-shaped structure] for the recitation rooms and the residence of President King; and the west wing for the residence of some of the College Professors. A beautiful lawn slopes from the College southward down to 49th Street, and is ornamented by some fine old trees. This will be for the present the main entrance to the College, but as soon as the more extensive grounds northward to 50th Street can be graded, laid out, and properly embellished, the principal entrance will be in that direction. The site is on a commanding eminence, affording an extensive and pleasant view.

Columbia College's tenure in Midtown would not last through the 19th century, as in 1879 the Trustees of Columbia College purchase land along Broadway near West 116th Street in anticipation of their relocation to Morningside Heights in 1897. The Sanborn Insurance map of 1899 portrays the Midtown campus structures vacant, while photographs housed at Columbia University Columbian Library Archives dating from 1899 document the destruction of the old buildings.

Manhattan Elevated Trains

Following the Civil War, prosperity brought growth to midtown Manhattan. Between 1867 and 1880 four elevated train lines were built in Manhattan, the closest on Second Avenue (Parsons Brinckerhoff Quade & Douglas, Inc., et al 1991). Further changes to the midtown area occurred with the construction of the Third Avenue Elevated (el) train in 1878-1881 which brought additional people and businesses to the region. Steam powered trains traveled through Manhattan leaving soot and smoke in their trails. While the Els were relatively inexpensive and quick to build, they were noisy, interfered with street traffic, and blocked light and air from abutting properties (Ibid.). Many of the residents adjacent to these lines

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considered them a blight. But the el mobilized the city population and forever changed the city's character. Run-down neighborhoods, bisected by the opulent Beekman and Sutton Place communities, dominated the landscape north to East 59th Street.

· **Manhattan's Grand Central Terminal**

The construction of the New York and Harlem Railroad, which ran up Park Avenue by 1837, opened up the study area to further settlement (Church and Rutsch 1984). A cut was made through Murray Hill in Fourth Avenue (Park Avenue) south of 42nd Street to allow for the placement of tracks below street level for steam powered trains. In 1842 the use of steam power south of 32nd Street was outlawed, so horses were used to pull the trains instead. In 1846 the Common Council further ordered the street cut in Park Avenue south of 42nd Street to be bridged. Subsequently it was turned into Belmont Tunnel, an arched brick structure which still runs beneath Park Avenue (WPA 1982). In 1858 steam services south of 42nd Street were further banned, and there was a clear need to improve the city's transportation network.

Seizing the opportunity to capitalize on the city's need for a new railroad system, Cornelius Vanderbilt purchased New York's three rail lines: the New York & Harlem, the Hudson River, and the New York Central Railroads. He consolidated the three as the New York Central & Hudson River Railroad and planned for the construction of the Grand Central Depot at the intersection of 42nd Street and Park Avenue. The depot, designed by John B. Snook, was not of a practical design and was constantly being rearranged and enlarged. A huge iron-and-glass train shed and a rail yard were located to the north of the station (White and Willensky 1988). In 1885/86 the railroad rearranged and enlarged its yard at the depot and provided it with new interlocking switches and signals (Middleton 1977).

To the south of the depot, tracks were submerged, but to the north tracks were at street level to 68th Street, submerged between 68th and 96th Street, and then elevated. When the grade-level tracks proved unsafe, tracks north of 45th Street were also submerged. Open cuts between retaining walls allowed elevated bridges to be built across the tracks at 45th and 48th Streets, and seven more such bridges spanned the tracks between 49th and 56th Streets. Between 56th and 67th Streets the tracks were placed in a "beam tunnel" which consisted of two single-track tunnels connected for ventilation purposes, with a double-track center tunnel opened at the top to allow steam and smoke to escape (Middleton 1977). As a result, Park Avenue was widened to 140 feet with a 15-foot wide sidewalk on either side of the landscaped boulevard. A below grade station was provided at 60th Street (Ibid.).

There were numerous problems with the tracks and terminal as they existed in the 1890s. Complaints of the noise, steam, flying sparks, and hazardous conditions forced further action. In response to these complaints and as technologies improved, the tracks on Park Avenue were electrified and a roof was built over them. At the same time it was realized that the existing train depot at 42nd Street was not meeting its growing passenger demands. As a result, the terminal was rebuilt in the late 1890s, and improvements were made to the yard's

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signal and interlocking systems (Middleton 1977). The new system did little to solve the real problem in the approaches to Grand Central Depot. There was just too much traffic for the existing depot to handle.

By 1900 the terminal was servicing up to 500 trains daily. The impracticality and inadequacy of the Grand Central Depot building forced its early replacement. In conjunction with electrifying and submerging the tracks, William Wilgus, the chief engineer responsible for these changes, proposed building a new depot and generating revenues by selling and leasing the air rights over the tracks between Madison and Lexington Avenues from 42nd to 50th Streets (Jackson 1995). The firm of Reed and Stem was subsequently chosen to devise a system of ramps and tunnels separating automobile, pedestrian, train, and subway traffic around the newly proposed depot. Whitney Warren, of the architectural firm of Warren and Wetmore, was contracted to design the new GCT facade. The two teams worked together to create the extant GCT.

Building of the new terminal was completed in 1913. It is currently a National Historic Landmark, listed on the State and National Register of Historic Places, and is a New York City Landmark. The new terminal "gave the city a three-dimensional composition that was a major achievement of the City Beautiful era" (White and Willensky 1988). Capacity for trains increased threefold, and the terminal now covers three blocks between 42nd and 45th Streets. The double deck railroad yard beneath the terminal extends north to 50th Street and extends east and west of Park Avenue (and includes the west block fronts on Park Avenue between 50th and 52nd Streets), and the tracks then continue under Park Avenue to 59th Street. At that point all the tracks converge to a four-rail wide track on one level beneath Park Avenue which stays under ground until East 96th Street where it is then elevated. There are loop tracks at each level allowing for trains to turn easily rather than having to be backed out from the station platforms. Together with storage tracks, there is a total of 66 tracks on the upper level, and 57 on the lower (NYCLPC 1980). In total, the subterranean tracks span about 48 acres.

The largest and most advanced signal and interlocking system for the early 20th century was built to control Grand Central's traffic. Five separate all-electric interlocking plants were constructed for this purpose; two in the terminal's upper and lower levels near 49th Street, one just south of 50th Street just west of Lexington Avenue in the upper level yard, one in the lower level at the same location, and a fifth at 57th Street which controlled the approaches to the terminal (Middleton 1977). A building was constructed on Lexington Avenue between 49th and 50th Streets to house a large substation, and a storage battery installation for the electrification system, and another for boilers and generating equipment that supply heat and lighting to the entire terminal.

Excavations for the two-level terminal and yard extended from 23 to 46 feet deep below the surface, for as much as two blocks wide and half a mile long. Between 42nd and 50th Streets the excavation extended from Lexington Avenue to Madison Avenue and from 50th to 57th Streets excavation spanned the full width of Park Avenue (Middleton 1977). Nearly two

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million cubic yards of rock and a million cubic yards of earth were blasted, dug, and removed to fill sites to the north that were being improved. As a result of the new terminal's construction, hundreds of buildings were razed, 25 miles of water and sewer lines had to be removed or relocated, and intercepting sewers had to be built in Park Avenue from 49th to 54th Streets. A new six-foot diameter brick and concrete outfall sewer was built beneath 46th Street carrying rainfall and sewage from the terminal to the East River (Ibid.).

The lower level of the new terminal is now 40 feet below street level, and is set on concrete beds above bedrock. Steel columns and girders support the upper level tracks and platforms, and to the north of the terminal they are designed to support building foundations (NYCLPC 1980).

· Manhattan Subway Lines

Connecting with Grand Central Terminal are three levels of subway lines built in the first decades of the 20th century: the Times Square-Grand Central shuttle which is part of the original IRT line dating to 1904, the Queens line (No. 7 train) which is part of the original Steinway Tunnel line which was completed in 1907 and went into operation in 1915; and the Lexington Avenue line (No. 4/5/6 trains) which opened in 1918. Street level railway lines, or trolleys, served as a link for passengers by connecting the terminal with the rest of Manhattan. Many of the earlier subway tunnels were built by the cut and cover method, but this technique proved dangerous to pedestrian and street traffic. By the 1930s, most subways in Manhattan were tunneled below the surface.

· Twentieth Century Growth in Manhattan

As part of the planning and construction of GCT, an area of 30 city blocks became available for "air rights" development above GCT's extensive track network. As a result, the early decades of the 20th century saw extensive improvements to Park Avenue and the surrounding neighborhoods within the study area. A Park Avenue address was considered chic by those people who were displaced from Fifth Avenue by fast-growing commerce, and newly available real estate on the thoroughfare was highly valued. As a result, luxurious elevator apartment buildings catering to these residents were built along this thoroughfare. With the office building boom of the 1950s and 1960s, most of these were converted or replaced.

In the case of Block 1285, the former location of Columbia College, the majority of the block was covered by residential structures by 1910, except for the eastern end of the block underneath which the GCT tracks expanded out from the station (Sanborn). Large hotels dominated the ends of the block by the 1930s (Sanborn 1929; Bromley 1934), and by the 1970s, only four row houses were left on the entire block (the four structures within the APE), as remaining structures were razed to make way for the I.T.T. Americas building to the west and the Colgate-Palmolive building to the east (Figure 2; Bromley 1974).

2.3 Existing Conditions

A physical survey of the APE was undertaken in April, 2003. The APE consists of four structures on the south side of East 50th Street that occupy Lots 46, 45, 44 and 43 on Block 1285, located at 44 through 50 East 50th Street, respectively (Photos 1 and 2). Currently these lots are surrounded by two large office buildings on the east and west sides. Also included in the APE is that portion of the East 50th Street roadbed in front of these lots, and that portion of the East 50th Street road bed that extends east to the GCT slurry or retaining wall. Numerous manholes are present in the street bed and the south sidewalk as well. Storm drains are present in the gutters along the street, and a large vent grate was observed in the south sidewalk just west of the APE. Lots 44 and 45 have sidewalk access to basement levels, evident in red-painted trap-doors.

2.3.1 Precontact Archaeological Potential

The likelihood that precontact resources were once deposited on upland areas in proximity to fresh water within the project site is high. The higher elevations portrayed on 19th century topographic maps (Figure 3; Colton 1836; Viele 1865, 1874), would have been ideal for precontact habitation. Fresh water would have been located in the vicinity of what is now East 48th Street, close enough to provide for the needs of Native inhabitants.

Given the historic topography portrayed on 19th century maps, drawings, photographs as well as descriptions (Figure 3; Photos 3 and 4; Colton 1836; Viele 1865, 1874), it is clear that some degree of grading of the APE must have taken place. As the area of the APE has consistently been shown as a raised knoll that remained higher than surrounding streetbeds up through and including the era when Columbia College occupied the block through the end of the 19th century (Figures 3, 4 and 5; Photos 3 and 4), it is clear that the area must have been leveled. The extent of these activities is unknown, but it is highly unlikely that precontact resources, which in the Northeast tend to be shallowly buried beneath the precontact land surface, escaped disturbance by these activities. If they were deposited on the hill tops, then they would have been severely disturbed, if not entirely removed, when the basements of buildings were excavated and the knolls were subsequently truncated.

While no borings are currently available within the APE itself, several borings surrounding the APE have been taken. In sum, six soil borings in the vicinity of the APE were taken between 1999 and 2001 (Mueser Rutledge Consulting Engineers 2003). One boring, MD-5, was taken from existing grade in East 50th Street just west of the APE and revealed eight feet of fill over bedrock. Specifically, this boring had to be hand excavated down to 6.0' below grade to clear utilities before encountering another two feet of fill overlaying bedrock. The fill consisted of gray decomposed micaceous rock consisting of silt, and some fine to medium sand. The five other borings were taken from the Suburban Level of the Grand Central Terminal, approximately 46 feet below street level, located just east of the APE. All of these five borings began well below natural bedrock. In the borings taken from within the

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GCT, groundwater ranged from Elev. 308 to Elev. 309¹ (MRCE 2003: 5). Groundwater was not reached in Boring MD-5.

In their geotechnical report, Mueser Rutledge Consulting Engineers have generally categorized the subsurface of the APE as "miscellaneous fill overlying bedrock" (2003: 3). As no soil borings have yet been taken within the actual APE itself, further borings would be necessary to confirm that no original ground within the APE remains. As the borings used for the above assessment came from the already disturbed roadbed of East 50th Street and within the Grand Central Terminal, they may not reflect the conditions of possibly less-disturbed block interiors.

The boring taken in East 50th Street shows total disturbance to this area, as no original strata remain in the form of undisturbed organic materials or buried original ground surfaces indicative of a precontact living surface. Even if this location was utilized in some capacity in precontact times, it has been completely destroyed through modern razing, excavation and filling of the original landscape. Therefore, the East 50th Street roadbed has no precontact sensitivity.

It is currently unclear how much of the interior of Block 1285 was leveled after the destruction of the Columbia College buildings, as no original elevations exist for the interior of the block. It is certain that the knolls upon which the original Deaf and Dumb Asylum and Columbia College structures rested were graded to bring the entire block to the same level as the surrounding streets, as is evident today (Photos 1 and 2). While there is clear subsurface disturbance to the street beds, this would have been caused primarily by excavations for the installation of utility lines (e.g., sewer, water, electric, gas, telephone, and cable). Such subsurface disturbance may not have occurred in the interior of the block.

Three test pits were excavated beneath the foundations of the structure on Lot 44, however, and are reported in records from the Block and Lot files at the Manhattan Department of Buildings. These excavations, located at the back, middle, and front of the lot, reached a 'med.-hard rock' from 1.5 to 2 feet below the basement level, itself located seven feet below grade. This would tend to confirm the general assessment by MRCE that bedrock lies approximately eight feet below the surface. However, these test pits give no indication of the type of soil overlying bedrock.

Without soil borings to clarify existing subsurface conditions, undisturbed strata may exist in the interior of the block. However, substantial historic disturbances have impacted most of the block. While there is no direct evidence that the area was farmed in early historic times, the four lots in question were variably impacted by structures associated with the Deaf and Dumb Institution and Columbia College during the 19th century, and later construction during the 20th century (Figure 6; see also Figures 4 and 5). Most of these structures from both the 19th and 20th century had or have basements, which most likely would impact the remaining

¹ ESA Project Datum: NAVD 88, mean sea level, Sandy Hook, NJ, +300 feet

soil or fill overlaying bedrock. In particular, Lot 44 is completely covered with a structure with a basement and has no remaining sensitivity. There are few remaining areas at the back of each of the other lots that are still open yards today or that did not ever have basements (Figure 6). These include the small areas behind the early 20th century structures on Lots 43, 45 and 46 that either have open yard space or one story extensions without basements. However, precontact era sites and associated subsurface features tend to be shallow. Given that the original land surface was graded at least to street level, it is highly unlikely that any precontact era archaeological resources remain.

2.3.2 Historic Archaeological Potential

Several 19th century historic structures or features were observed on cartographic sources within the four lots within the APE, while no evidence for such structures or features were found within the East 50th Street roadbed (see Appendix 1 for the complete block and lot histories). Prior to the 19th century, no evidence was found for any development or structures within the APE.

Block 1285, and particularly the four lots that comprise the APE, was affected by both 19th and 20th century development (Figure 6). During the first half of the 19th century when Midtown was more rural in nature, the New York Institution for the Deaf and Dumb occupied the entire block. Several Institute structures impinged upon the lots in the APE. These include the east wing of the Institute, which contained a basement and was located within Lots 45 and 46. Two smaller structures of unknown function were located along the east side of the back of Lot 43. In 1857, Columbia College relocated to the grounds of the Institution and occupied some of its old structures in addition to constructing new buildings. Their new library, finished in 1882, impacted portions of the rear of Lots 44, 45 and 46 and is known to have had a basement. Additionally, a possible tunnel connected the library with the old east wing of the Institution, which continued to be used by the College as a Chapel.² This possible tunnel would have been located in the back of Lot 45.

All of the 19th century structures were built upon the natural landscape which consisted of an elevated knoll. This knoll was substantially graded by 1910 by which time Columbia had relocated to Morningside Heights and the block was redeveloped with row houses. The four structures that were constructed on the lots all have basements and originally had small back yards. Later, the building at Lot 44 was razed to make way for a new structure and small structure at the back of the lot. This entire lot is now covered by a structure with a basement. Another structure was also erected covering the western two thirds of the back of Lot 46; currently an open yard and one story structure without a basement occupy the back ten feet of the lot.

² This possible tunnel is shown as dotted lines on a map of Columbia College (Sanborn 1899; Figure 5). Some depictions of the College show above-ground walkways connecting buildings, but this does not preclude the possibility that tunnels connected the structures' basements as well.

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A soil boring from East 50th Street indicates that bedrock is currently as near as 8' below grade (Boring MD-5, Mueser Rutledge Consulting Engineers 2003). While the East 50th Street roadbed has clearly been disturbed by excavation for utilities, it is unclear the degree to which the interior of Block 1285 was also disturbed, beyond the grading it experienced at the beginning of the 20th century. Thus, small portions of each lot remain that are potentially undisturbed, albeit graded, soils. No original 19th century surfaces remain.

It is highly unlikely that any subsurface archaeological features remain from the latter half of the 19th century when Columbia College occupied the block, as the campus was by this time a highly manicured and planned facility, with undoubted access to water and sewer lines. The Deaf and Dumb Institute, however, was established while the area was still rural. Facilities such as wells, cisterns and privies would have been necessary subsurface features for the Institute. Given that the area has been graded and that bedrock is possibly within 8' of the current surface, any remains of such possible features would be severely truncated. Additionally, given that the east wing of the Institute lies within the APE (Lots 45 and 46), it is unlikely that any privies would have been located in close proximity to this structure. The function of the two additional structures that impacted Lot 43 is unknown, and it is unlikely that they had basements or subsurface impact, unless the circular structure was some type of large cistern (Figure 4). This could not be further clarified from either cartographic or documentary evidence. Nonetheless, it cannot be ruled out that subsurface features existed in the vicinity of these structures and that truncated subsurface remains exist in the potentially undisturbed portions of the APE in back of each of the four lots. The areas demarcated on Figure 6 are thus considered potentially sensitive for historic archaeological remains.

In sum, the rear yard areas that appear to have experienced some degree of subsurface disturbance include sections of each Lot as follows: The back of Lot 43 has open yard space that was graded but never had a basement; however two small structures dating from the early 19th century would have been present on the original ground surface along the eastern side of the back of the lot (Figure 4, Figure 6). Lot 44 was entirely covered by a new structure by the end of the 20th century. This entire structure has a basement. The back of Lot 45 contains a one-story extension without a basement; however, structures with basements dating from the early and later 19th century and a possible tunnel may have impacted this yard.

The back of Lot 46 is currently occupied by a one-story structure without a basement in the southwest corner and a small yard in the southeast corner that would have had little subsurface impact. However, this back area was possibly impacted by the basement of the 19th century Columbia College library (Figure 6).

2.4 Impact Assessment

The East 50th Street Vent Plant APE (Figure 2) was determined to lack any potential precontact archaeological sensitivity. The East 50th Street roadbed has experienced prior

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disturbance via the installation of buried utility pipes and lines and no longer holds any archaeological potential, precontact or historic. However, there is a slight chance that small areas of undisturbed strata may still exist in the back of three of the four lots that comprise the interior block portion of the APE (see Appendix 1 for complete block and lot histories). It is possible that these undisturbed areas could possess evidence of historic era subsurface features. Given that the early 19th century occupation of this block marks the initial development of what had up until then been an unoccupied rural zone in Manhattan makes any potential archaeological resources significant.

The proposed construction of the Ventilation Plant on East 50th Street is expected to raze and remove the four structures on Lots 43 through 46 and tunnel beneath East 50th Street to connect with the GCT. Construction under East 50th Street will have no effect on archaeological resources, as none are presumed to exist. However, there is a slight chance the proposed Ventilation Plant may affect archaeologically sensitive areas in the rear yard areas of Lots 43 through 46 (Figure 7). The specific areas of potential historic archaeological sensitivity are as follows:

- Lot 43, back of lot only. Possible subsurface shaft features associated with early to mid-19th century structures associated with the Institute for the Deaf and Dumb located along the east side of the back of the lot (Figures 4, 6 and 7; Dripps 1852).
- Lot 45, back of lot only, beneath one story addition with no basement. Possible early to mid-19th century subsurface shaft features associated with the Deaf and Dumb Institute. Subsurface impacts by the east wing of the Deaf and Dumb Institute (Figures 4, 6 and 7) and Columbia College Library would have disturbed any potential resources in those portions of the rear of the lot. The possible tunnel may have further impacted the back of the lot. Therefore, only a small section between the back of the former east wing of the Institute and the former Library remains sensitive.
- Lot 46, back of lot only, open yard space and beneath one story addition with no basement. Possible early to mid-19th century subsurface shaft features associated with the Deaf and Dumb Institute. Subsurface impacts by the Columbia College library in the late 19th century would have disturbed the very back of the lot.

2.5 Recommendations

There is the possibility that the project APE was inhabited at some time in the precontact era, but the sensitivity for precontact resources is considered virtually nonexistent due to disturbances to the precontact landscape, consisting of extensive construction and grading. The East 50th Street roadbed is not sensitive for precontact or historic archaeological resources due to lack of initial deposition and disturbances from 20th century excavations for utility lines. However, there is a slight possibility that historic 19th century shaft features still exist in the backyards (Lots 43 and 46) and under structures in the rear of the lots that lack basements (Lots 45 and 46) (see Figures 6 and 7).

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The probability of finding intact, significant resources worthy of inclusion on the National Register of Historic Places is remote. However, the possibility that *in situ* historic resources may exist in this part of Manhattan necessitates further investigation of subsurface conditions. Any potential archaeological resources in this area would be considered significant because the early 19th century occupation of this block marks the initial development of what had up until then been a rural zone in Manhattan.

If avoidance of potential resources is possible, then this is considered a viable mitigation alternative. However, if the avoidance of effect to potentially National Register eligible archaeological resources is not possible, then it is recommended that Stage 1B subsurface investigations be undertaken in the potentially sensitive areas prior to project construction to ascertain the absence and/or presence, type, and extent of archaeological resources on the site. Should National Register eligible resources be identified during testing, SHPO would be consulted before further action, such as mitigation is undertaken.

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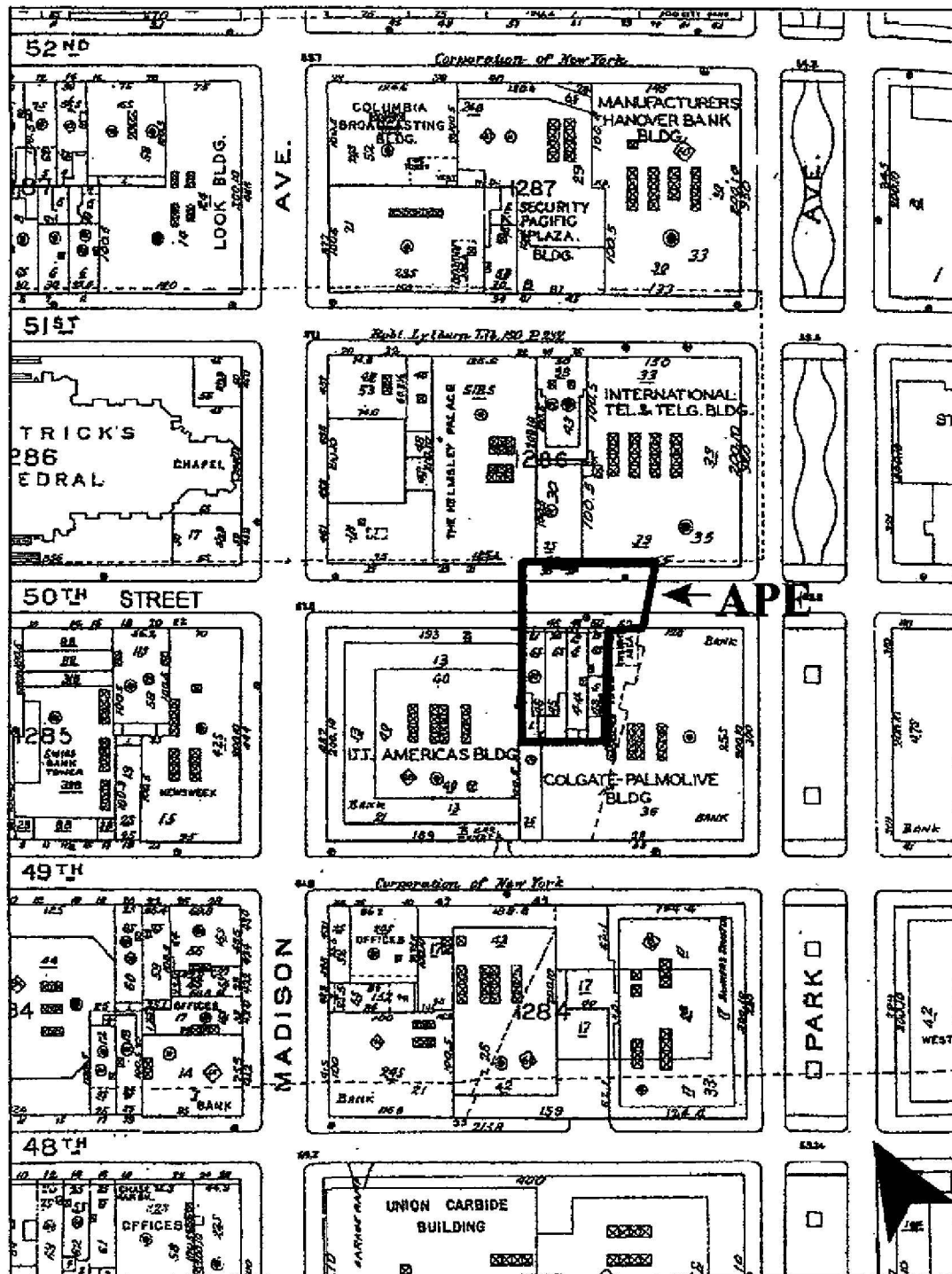


FIGURE 2: Project Site Boundary, East 50th Street Vent Plant APE.

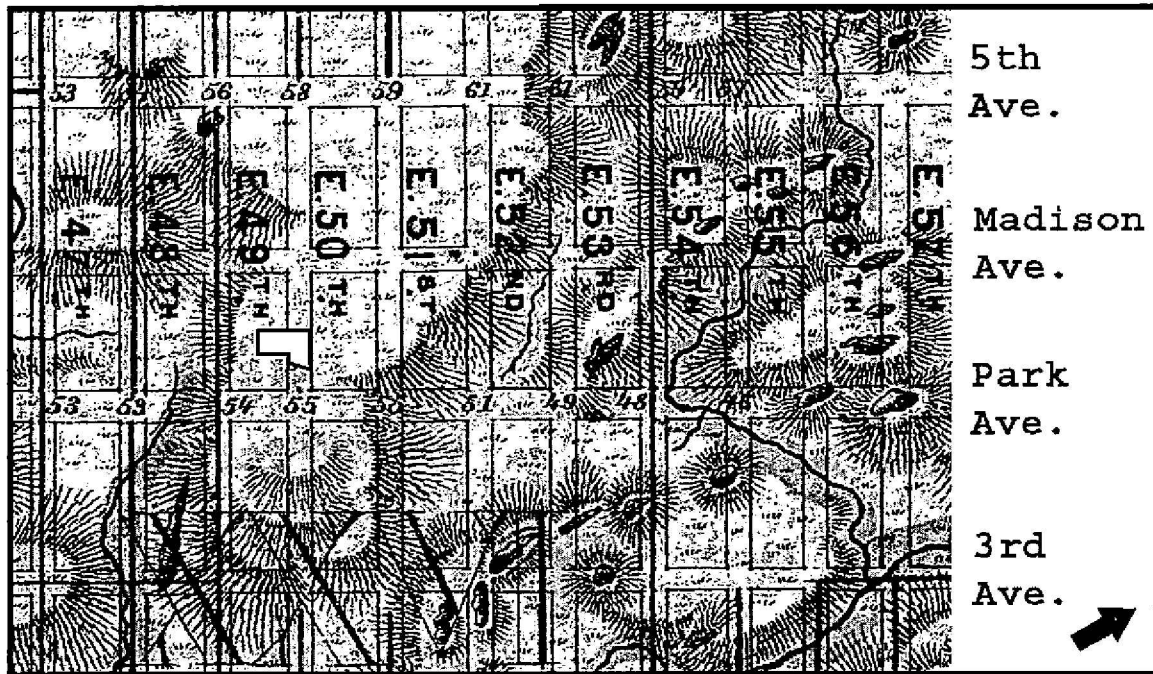


Figure 3: Project Site Location on 19th Century Topographical Plan (Viele 1865). APE is shown as white area outlined in black.

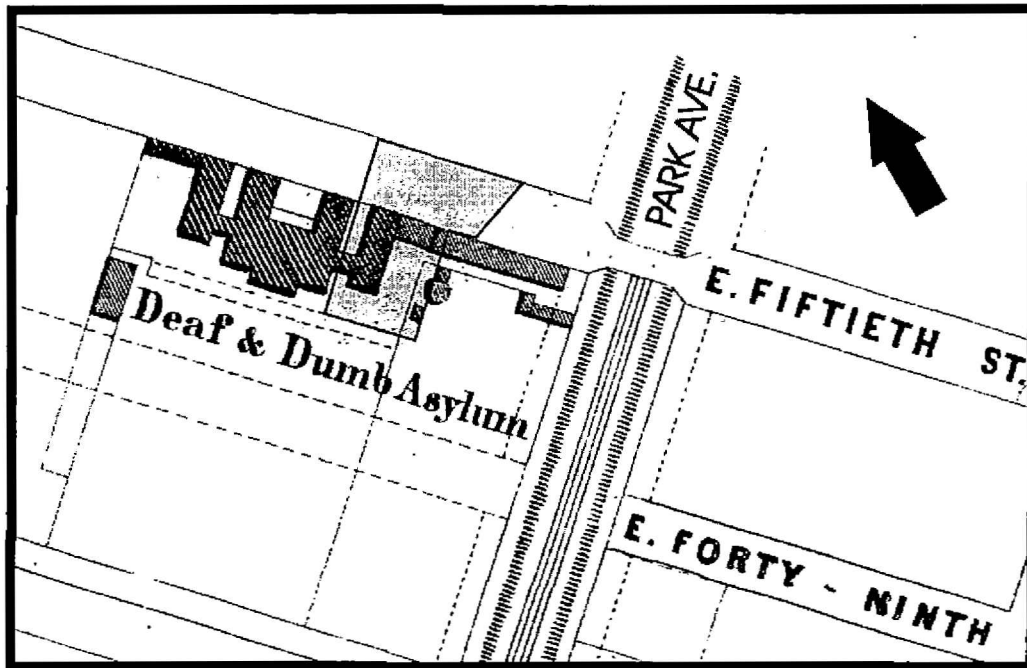


Figure 4: Project Site Location showing Institute for the Instruction of the Deaf and Dumb, Mid-19th Century (Dripps 1852). APE is shown in gray.

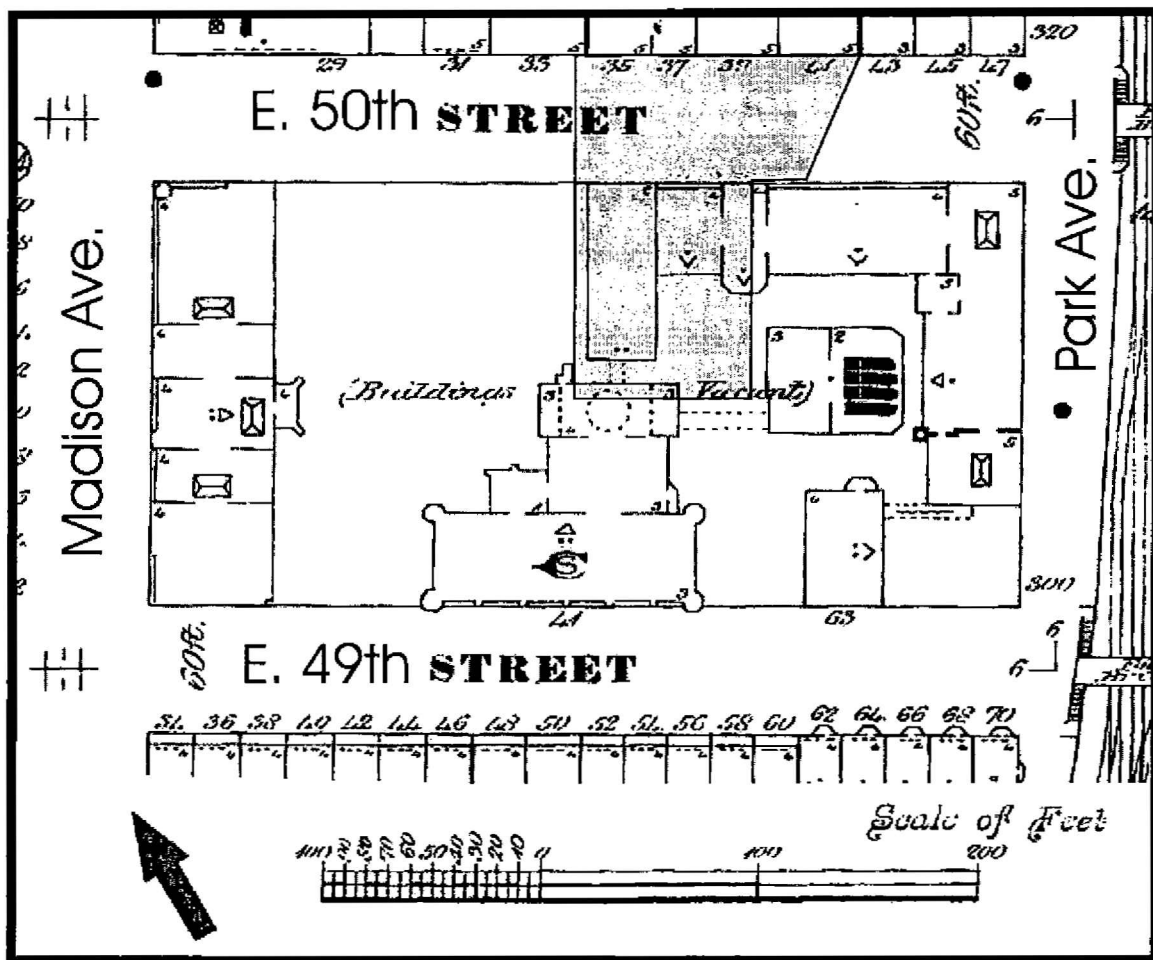
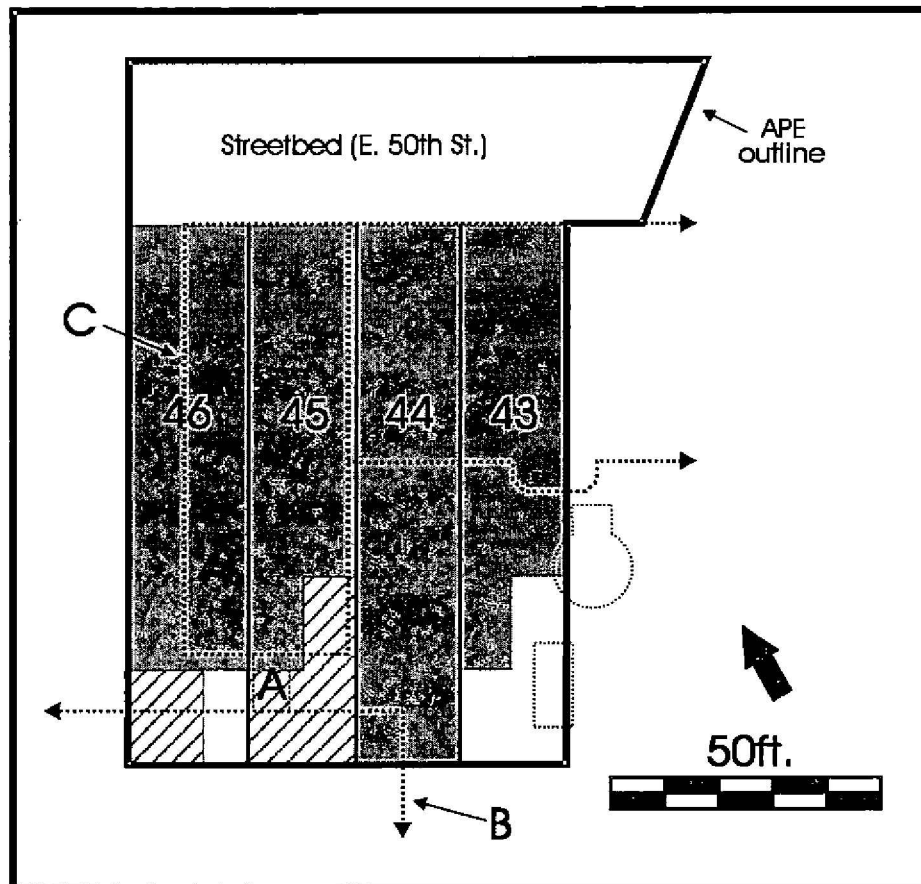


Figure 5: Project Site Location showing Vacant Columbia College Structures, Later 19th Century (Sanborn 1899). APE is shown in gray.





-  Dwellings constructed in the 20th century (all have basements).
-  One-story additions that do not have basements.
- A** Walkway or possible tunnel connecting B and C.
- B** Columbia College Library, which had a basement
- C** Eastern wing of the Deaf and Dumb Institute (which had a basement).

FIGURE 6: Historic Land Use in the APE.

Note: Two small structures along the southeast edge of Lot 43 (outlined as dotted lines) are associated with the Deaf and Dumb Institute; their function is unknown (see Dripps 1852, Figure 4). The white areas at the back of Lots 43 and 46 are open yards.

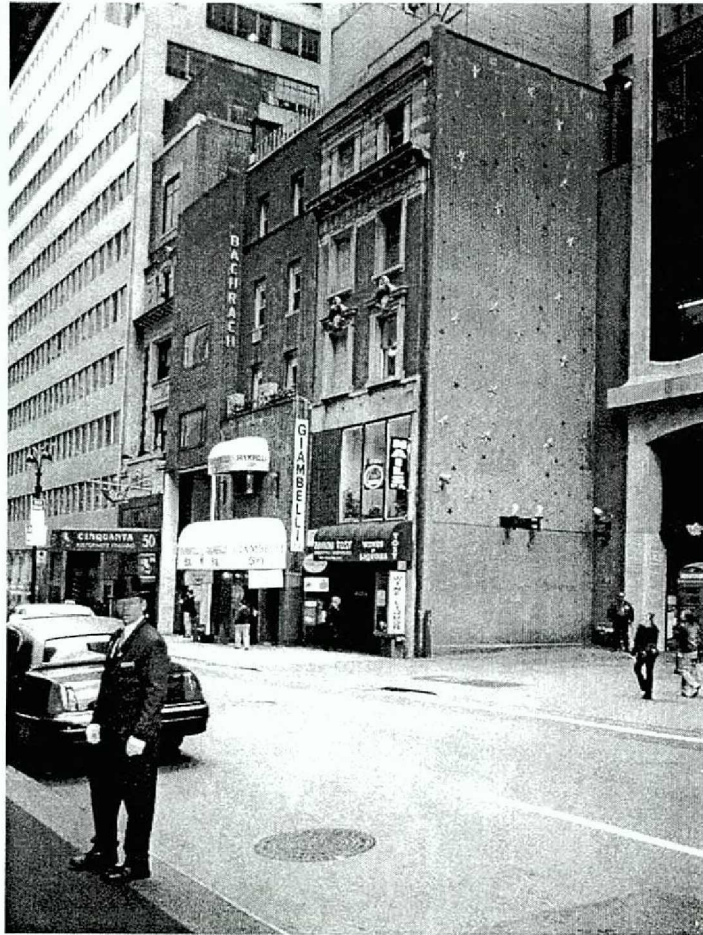


Photo 1: Project Site from the Northwest, April 2003.

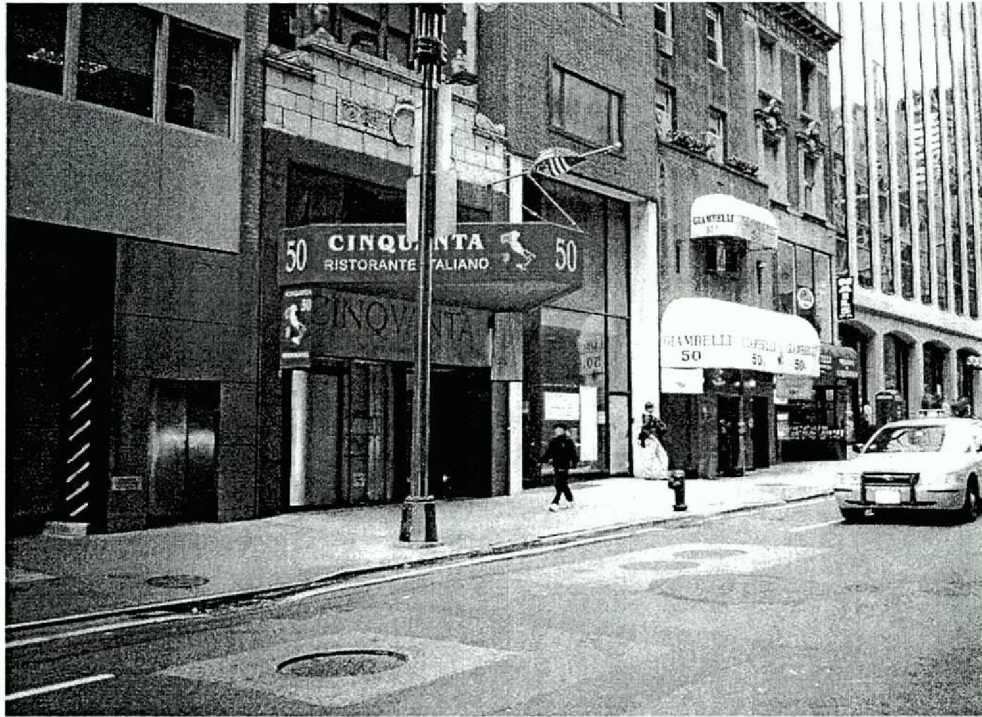
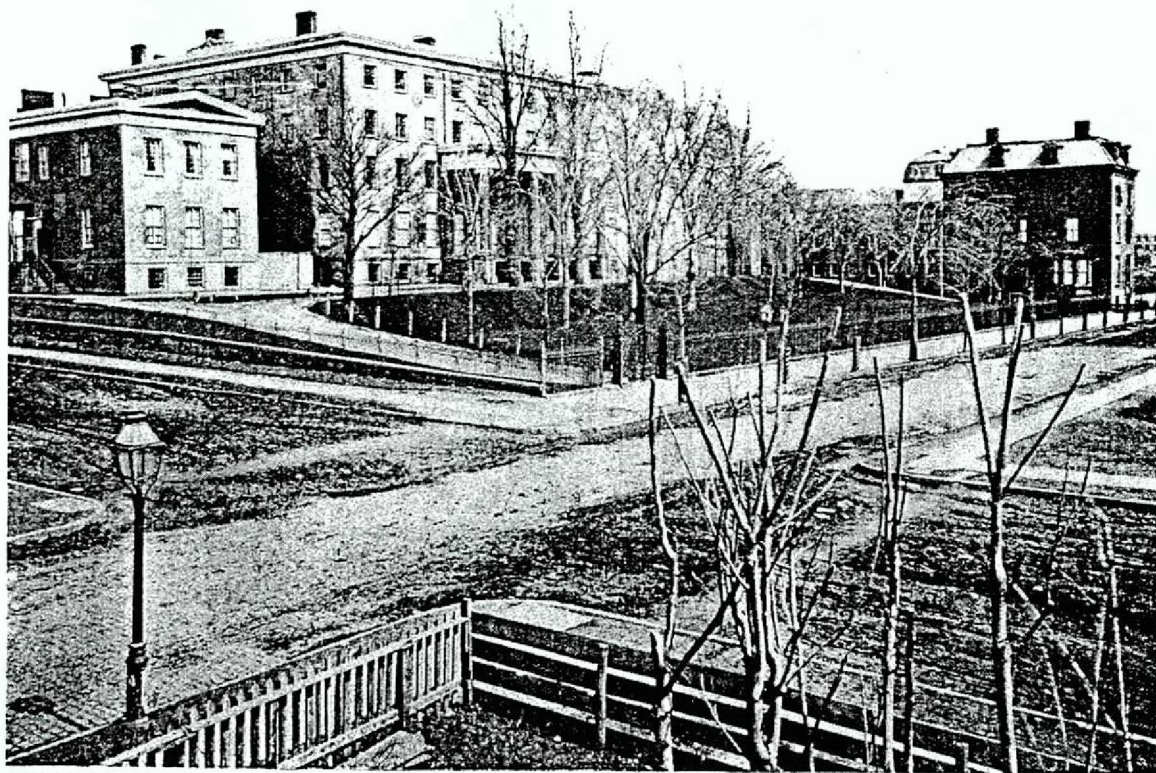


Photo 2: Project Site from the Northeast, April 2003.



COPYRIGHT, 1913, H. C. BROWN.

Rare Photograph of Columbia College at Madison Avenue and 50th Street. About 1874

Photo 3: Columbia College from the Southwest across the intersection of Madison Avenue and East 49th Street (Brown 1913). Small wing behind the trees to the right of the large structure is located on the APE; also note gradient from East 49th Street up to the structures.

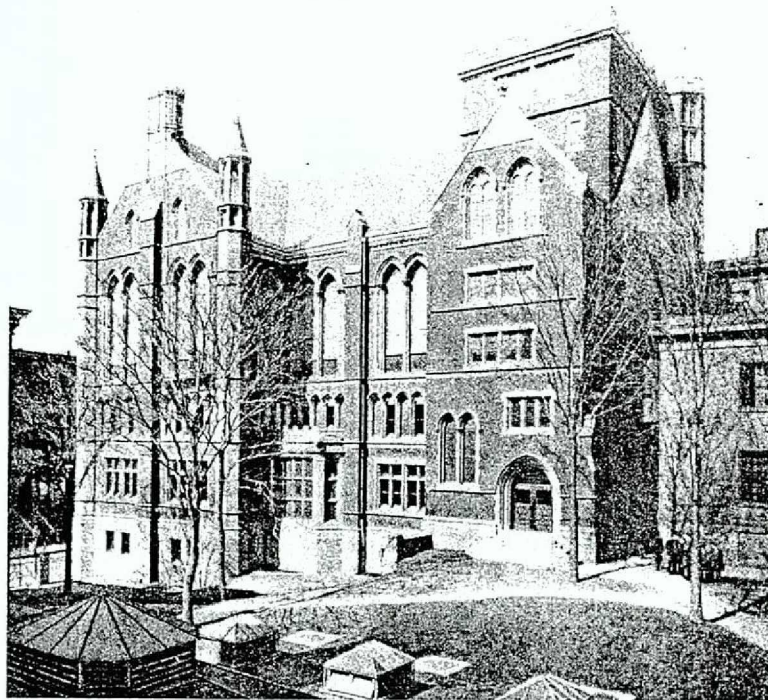


Fig. 8.
LIBRARY, OLD COLUMBIA COLLEGE.
C. C. Haight, Architect.

Photo 4: Eastern Façade of Columbia College Library, from the Northeast (Architectural Record 1898). East 49th Street is in the background; also note gradient from street level up to structures.

Appendices

Appendix 1. Block 1285 History

The following chronological history of building activity and development within the APE is based on reviews of historical and modern maps, atlases, archives and documents relating to Block 1285. The APE extends 79' feet along the south side of East 50th Street in the middle of Block 1285 between Park and Madison Avenues. It includes all of Lots 43, 44, 45 and 46 and a portion of the street bed on East 50th Street in front of these lots.

Note regarding conventions for number Manhattan city blocks: The APE appears on the block of land bounded by 49th and 50th Streets and Park and Madison Avenues. Since Madison Avenue was not part of the original city grid, the APE was originally part of a larger block that extended to Fifth Avenue. This earlier block was first numbered Block 59 of the Common Lands of the City of New York, then renamed Block 434 during the 19th century, and later changed to Block 1285 by 1897. Today there are two Block 1285s, one that contains the APE and the second on the other side of Madison Avenue (49th and 50th Streets and Madison and Fifth Avenues).

Late 18th century maps depict the area in and around the APE as undeveloped land crossed by a series of small streams draining into the East River (British Headquarters Map 1782). Most of the development in this area was focused on Turtle and Kipps Bays, which are located to the east and southeast of the APE, respectively. The APE was located west of the Old Post Road to Boston in the vicinity of Mile Marker Four, which was erected in 1769 north of what would eventually become East 46th Street and west of 3rd Avenue (Stokes 1918:960; M.C.C. VII:178). Two unnamed small roads or paths, which split off from the Old Post Road just south of Mile Marker Four, pass the APE to the west and east (British Headquarters Map 1782). Topographically, the APE was located to the northwest of Turtle Bay at a distance of approximately 3000' on a small, empty hillock overlooking a stream that flowed into Turtle Bay.

While this type of elevated natural setting would have been ideal for a Native American village, there is no indication on this map that such a settlement existed in or near the APE. The approximate location of the APE on this small hill overlooking Turtle Bay was determined using distances and orientations from Turtle Bay that were compared to similar topographic and city grid information that appear on Bridge's Adaptation of the Commissioners' Plan from 1811 (see following). Therefore, the identification of the APE on this map is not absolutely certain.

In the 1810s the APE remained undeveloped although some building activity was taking place nearby. In Bridge's Adaptation of the Commissioners' Plan (1811) two structures appear east of the APE along the Old Post Road to Boston and a scattering of structures associated with the 'Elgin Garden' were constructed west of Fifth, which is well outside the APE. In 1811 the city grid outlined in the Commissioners' Plan defined the streets

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surrounding Block 1285 in plan only. According to the Sackersdorf farm map (1815/1868) the city blocks between 48th and 50th Streets and Fourth/Park and Fifth Avenues were joined in a 11 acre parcel of land owned by the 'City Corporation', which by the end of the decade would lease the land to the New York Institute for the Instruction of the Deaf and Dumb.

A map and an atlas from the 1930s provide the first cartographic representation of the Deaf and Dumb Asylum on Block 1825 and suggest that the APE falls between two of the original Asylum structures (Colton 1836; Bradford 1838). Instead, on both of these depictions the APE falls squarely on the open grounds of the Deaf & Dumb Asylum, which is represented as an enclosed garden or space defined by a marked boundary, perhaps walls. More detailed and precise maps prepared in later years contradict this preliminary finding that the APE does not fall within the footprint of one of structures of the Deaf & Dumb Asylum.

Train tracks appear running along Fourth/Park Avenue, which is outside the APE to the east (Colton 1836; Bradford 1838). It is likely that the train bed has been sunken in the avenue as there appears to be an overpass that spans the tracks along 50th street. Well outside the APE on the eastern side of Fourth/Park Avenue is a 'Public Cemetery' [sic] on the land bound by 48th and 50th Streets and Third and Fourth Avenues. To the south of the APE along the foot of the small hill on which the APE sits, passes a stream that flows into Kipp's Bay. This small stream, which is outside the APE, flowed in an easterly direction along what is now 47th Street.

A significant amount of information is presented on the Dripps Map from 1852 about the area in and around the APE, most of which relates to the Deaf & Dumb Asylum (Figure 4). Madison Avenue had yet to be constructed by 1851, so the APE fell on the large city block between East 49th and 50th Streets and Fourth and Fifth Avenues. The eastern half of this large block contains a collection of freestanding and connected structures belonging to the Deaf & Dumb Asylum that fall in and around the APE. These structures, which border the south side of East 50th Street, stretch from Fourth Avenue to the midpoint of the original city block. According to this map, therefore, the northern half of the APE was once covered by Deaf & Dumb Asylum structures. The southern half of the APE falls in the open grounds of the asylum and contains two small asylum structures (one shaped like a keyhole, one square; see Figure 4). The function of these structures is unknown.

The largest, central structure of the asylum is U-shaped, with the opening of the 'U' facing north onto East 50th Street. To the east and west of this main central structure are two rectangular wings, which are connected to the U-shaped structure by small ells. Extending out from these wings in either directions are long rectangular buildings that front along the south side of East 50th Street. The western extension crosses into the space that would eventually become Madison Avenue. The eastern extension reaches to the corner of Fourth/Park Avenue and East 50th Street. According to the scale and orientation of this map, the central U-shaped structure falls outside the APE to the west. At least part or all of the eastern wing, however, lies in the APE, as does a portion of the long extension connected to the wing that fronts on East 50th Street. The two smaller, unnamed structures located south

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of the main asylum structure are also located inside the APE. These estimations of the relations between the APE and the asylum structures are based on calculating to scale the distances of the frontages of these structures relative to the length of the city blocks as depicted on Dripps 1852.

The companion Manhattan Record of Assessment Maps for the 19th Ward (Vol. 2, 1856) clearly label the city block bounded by East 49th and 50th Streets and Fourth/Park and Fifth Avenue as Block 'No. 434'. Madison Avenue, which would later divide this block, appears as a planned throughway. The entire block is divided into lots, which are numbered according to the system still in use today. The APE lots (43, 44, 45, 46) appear clearly in the portion of the block labeled 'Columbia College'.

Stokes (1926:1869) description of Columbia College's new home contains three important observations to add to the cartographic evidence. First, the wings of the original asylum are separated from the main U-shaped central structure, meaning that the east wing, which lies entirely in the APE, was entirely freestanding by 1857. Second, to enter the main building of the Asylum (and now the College) one would cross the center of the block from East 49th Street. This approach required one to climb a slight gradient from south to north; this is the same gradient that is clearly evident in the 1874 photograph reproduced in Brown 1913 (Photo 3). Third, the high point described in this passage is the same hillock represented in many of the early topographical maps of the area (e.g., Colton 1836, Viele 1865). The passage provides some hint that this elevation in the northern half of the block would eventually be leveled.

Perris 1857-62 reconfirms the first of these observations regarding the location of the east wing of the original Asylum structures in regard to the APE. This valuable map was prepared to scale, so it is generally possible to locate with some precision structures and features that are located in the APE. The central U-shaped structure seen on Dripps 1852, for example, does in fact fall outside the APE to the west. The rectangular wing lying to the east of the U-shaped structure, however, lies entirely within the APE. This structure measures roughly 80' x 20', with the longer dimension oriented north/south. On this map the wing is no longer connected to the U-shaped structure. A ca. 50' portion of the long, narrow structure that extends from this eastern wing to the corner of the block on East 50th Street and Fourth/Park Avenue also falls in the APE. The two freestanding structures that appeared in Dripps 1852 in the APE are no longer represented in this map.

Egbert Viele's sanitary and topographical map of Manhattan (1865; Figure 3) shows the topography of Manhattan superimposed onto the original Commissioners' Plan (1811). There are no structures represented on the Viele Map. Madison Avenue now appears clearly between Fourth/Park and Fifth Avenues. The small hill on which the APE sits is still clearly defined (see Colton 1836). While a sewer line is represented running the length of East 49th Street, East 50th Street is empty, which means that the street bed portion of the APE remained undisturbed as of 1865.

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Two years later in Matthew Dripps' Map of 1867 Columbia College remains much the same as it did in the 1850s, meaning that the northern portion of the APE contains some of the original Asylum structures while the southern half of the APE remains empty of structures. A new rectangular structure appears outside the APE along East 49th street on the southern edge of Block 1285. The same can be said of Egbert Viele's Atlas of 1874, meaning the APE remains unchanged at this time.

By 1879 a new Columbia College building appears on Block 1285 that fronts on Madison Avenue between East 49th and 50th Streets (Bromley 1879). Stokes (1928:356) identifies this addition as Hamilton Hall. This building replaces the rectangular western wing that stood alongside the U-shaped central building represented originally in Dripps 1852. This new structure falls outside the APE.

By 1885 a second new Columbia College building appears along the southern edge of the APE that fronts on East 49th (Robinson 1885). While the majority of this structure lies in the southern half of the block (i.e., outside the APE), a small portion of a northern wing extends approximately 18' into the APE. This building, which serves as the main library for the College, appears in a photograph published in The American Record in 1898. In the photograph the slope of the original gradient in the block is still visible, meaning that the APE had not been graded before this building was erected.

The Bromley Atlas of 1897, which was prepared the year before The American Record photograph was taken, suggests that Block 1285 was nevertheless undergoing some significant changes at the end of the 19th century. Some of these changes clearly affected the APE. First, in Bromley 1897 the block itself for the first time is labeled '1285' (not 434). Second, the central U-shaped structure that appeared originally on Colton 1836 is no longer depicted, and the space where it once stood remains empty. The rectangular structure or eastern wing that stood alongside the U-shaped central building described originally in Dripps 1852 is still present in the APE as is a portion of the connected structure that extends along East 50th Street. The rear, or northern portion of the new College Library that first appeared in Robinson 1885 on the south half of Block 1285, is still present in the southern end of the APE. Finally, another new Columbia College structure appears on this map in the closed space in the middle of the eastern end of the block. Based on the scaled measurements of this new structure it is unlikely that it extended onto the southeastern corner of the APE.

By 1899 all the structures on Block 1285 are labeled 'Buildings Vacant' (Sanborn 1899; Figure 5). By using scaled measurements it is possible to overlay the location of the APE with significant accuracy on Sanborn 1899 in order to detail the structures that lay inside the APE at this time. The buildings present are the same as those described above in relation to Bromley 1897 (i.e., the entire original eastern wing, a 45' portion of the extension that borders East 50th Street, and roughly 17' of the rear of the new structure that fronts on East 49th Street). The new building first described in Bromley 1897 lies outside the APE to the southeast. East 50th Street is shown 50' wide with a 6" water pipe running through it.

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Sanborn 1899 depicts parallel dashed lines connecting structures within the APE. A drawing of the College on file at the Columbia University Columbian Library Archives show elevated walkways connecting these structures at the second or third stories; however this does not preclude the possibility that there may also have been tunnels connecting these structures as well. The first runs north/south and connects the back of the original east wing that fronts on East 50th Street with the rear of the College Library that fronts on East 49th Street. The entire length of this short tunnel lies inside the APE (see A, Figure 6).

The vacant buildings depicted in Sanborn 1899 are no longer present on Block 1285 in the Sanborn series of Insurance Maps from 1910. In their place are two rows of 26 structures stretching across the middle of the block and across the APE. The western end of the block is occupied by a hotel (outside the APE) and the eastern end is open to below where the sunken train tracks on Park Avenue have been widened into the footprint of Block 1285 (outside the APE). Lots 43, 44, 45 and 46, which are in the APE, each contain a new building. They are identical in construction: each is shown as a five story dwelling with a basement. Small yards are present at the back of each lot. A 6" water pipeline runs down the center of East 50th Street. Sidewalks are not represented on this map.

One year later on the Bromley 1911 atlas the APE is the same as in Sanborn 1910, except that this atlas lists the frontage for each lot. In the APE, Lots 43 and 44 each measure 19' across, Lot 45 measures 20', and Lot 46 measures 21'. Sidewalks are not represented on this map. The Hyde atlas of 1913 also contains the same information that appears on Sanborn 1910, except that this atlas shows a front stair (or stoop) in front of each structure in the APE. These stoops reach out onto the sidewalk approximately 10' from the front of each building. The sidewalk itself is 15' wide.

On the Sanborn map from 1929 the APE is slightly changed from Sanborn 1910, Bromley 1911 and Hyde 1913. An elevator has been added to the structure on Lot 43, and the back of Lot 46 is now entirely covered by a one story structure. Additionally, Lots 43, 45 and 46 are now classified as containing stores as well as dwellings. A fire hydrant is shown between Lots 43 and 44 on the south side of East 50th Street and a 20" water pipe has been placed under East 50th Street. The structure on Lot 42 (bordering the APE to the east) is no longer depicted, and a large 'Apartment Hotel' dominates the eastern end of Block 1285, outside of the APE. Between the rear or western end of the Apartment Hotel and the eastern edge of the APE appear two 'fire pumps' just outside the APE.

The APE is again changed slightly by the time the Bromley atlas of 1934 was produced. Only the west half of the yard in the back of Lot 46 is shown with a structure, where the previous Sanborn map showed the entire back yard covered. The structures on Lots 43, 45 and 46 are portrayed built out to the inner (i.e., the southern) edge of the sidewalk. A fire hydrant is also located on the sidewalk in front of Lots 43 and 44. The large structure that dominates the eastern end of Block 1285 is now labeled 'Sherry's', and remains outside of the APE.

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The Sanborn 1951 map is more like the earlier Sanborn 1929 map than the later Bromley atlas of 1934. Again, the back of Lot 46 is shown entirely covered by a one story structure. Lot 43 is still labeled as a store and dwelling with an elevator, but Lots 44, 45 and 46 are specifically labeled as stores plus apartments with only stairs.

The APE is slightly changed in Bromley 1974. A new five story structure appears on Lot 44. Together with a small one story structure at the back, these structures cover the entire lot. These structures are not depicted as having basements. The one story structure at the back of Lot 46 is shown only covering the western two thirds of the back of the lot. This back structure has never been shown with a basement. Lots 43 and 45 remain unchanged from previous depictions, except that the front of Lot 43 is shown with six rather than five stories.

All other single-lot structures outside the APE on Block 1285 have been removed and two large structures dominate the eastern and western ends of the block by 1974 (Bromley). This means that the four structures in the APE are the only single-lot structures left on the block. There is a dotted line that dissects Block 1285 across its eastern end. The line is oriented northeast/southwest and extends into Block 1284 to the south. This line, which passes just outside the APE to the east, demarcates the underground retaining or slurry wall that defines the western limits of the train tracks leading into Grand Central Station. On the final Sanborn (Figure 2) 2001 map, the two large buildings bounding the APE on either end of Block 1285 have been labeled 'I.T.T. Americas Bldg.' to the west and 'Colgate-Palmolive Bldg.' to the east. The APE otherwise remains unchanged.

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Appendix 2. Conveyances

Block Index of Reindexed Conveyances

Section 5, Block 1285 (formerly block 59 of the Common Lands of the City of New York)

Reference: Farm Histories, Map of Tracts and Farms (Plate XVIII, R.D. 358)

Grantors	Grantees	Date	Liber	Page	Lot	Remarks
No Instruments of Record		1654-1826			43, 44, 45, 46	
The Major Alderman and Commonalty of the City of New York	New York Institution for the Instruction of the Deaf and Dumb	Dec. 27, 1827	230	221	46	
The Major Alderman and Commonalty of the City of New York	New York Institution for the Instruction of the Deaf and Dumb	Nov. 24, 1828	245	39	Block 1285	
No Instruments of Record		1829-1844			43, 44, 45, 46	
The Major Alderman and Commonalty of the City of New York	New York Institution for the Instruction of the Deaf and Dumb	May 19, 1845	461	383	not lotted	lease
The Major Alderman and Commonalty of the City of New York	New York Institution for the Instruction of the Deaf and Dumb	May 19, 1845	461	384	not lotted	lease
No Instruments of Record		1846-1849			43, 44, 45, 46	
The Major Alderman and Commonalty of the City of New York	New York Institution for the Instruction of the Deaf and Dumb	Jun. 21, 1850	546	403	not lotted	
New York Institution for the Instruction of the Deaf and Dumb; Winthrop, Henry & Margaret-Louisa; Hicks, Charlotte B. and Almy T.	Agreement	Apr. 14, 1853	633	237	not lotted	
New York Institution for the Instruction of the Deaf and Dumb	Hearn, George A.	Jun. 23, 1853	643	332	43, 44	
New York Institution for the Instruction of the Deaf and Dumb	Van Wagenen, Garrit; Betts, William; Jones, Edward	Dec. 2, 1856	720	384	44, 45, 46	
Van Wagenen, Garrit; Betts, William; Jones, Edward	Trustees of Columbia College in the City of New York	Apr. 22, 1857	727	378	44, 45, 46	

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VENT PLANT, EAST 50TH STREET, LIRR EAST SIDE ACCESS PROJECT

Hearn, George A.; Hearn, Eliza Ann	Trustees of Columbia College in the City of New York	Jun. 22, 1857	734	477	43, 44	
Columbia College	Parsons, Frank J.	Jan. 18, 1899	58	254	43, 44, 45, 46	
Parsons, Frank J.	University Real Estate Co.	Jan. 20, 1899	59	376	43, 44, 45, 46	
University Real Estate Co.; Stone, Annie; Stone, Ellen J.; Grinnell, Sarah J.; Bond and Mortgage Guarantee Co.; Title Guarantee and Trust Co.	Agreement	Mar. 30, 1899	58	334	43, 44, 45, 46	
University Real Estate Co.	Lyons, Jeremiah C.	Jun. 22, 1899	62	180	43, 44, 45, 46	
Title Guarantee and Trust Co.	University Real Estate Co.	Jun. 22, 1899	62	178	43, 44, 45, 46	release of mortgage, 1.85, mp.227
University Real Estate Co.; Stone, Annie; Stone, Ellen J.; Grinnell, Sarah J.; Title Guarantee and Trust Co.; Bond and Mortgage Guarantee Co.; Farley, John T.; Buck, Charles; Hirsch, Edward; Hirsch, Henry; Lyons, Jeremiah C.; Berkeley, Thomas; White, John S.; White, Georgie R.; Washington Life Insurance Co.;	Agreement	Jun. 27, 1899	62	185	43, 44, 45, 46	
Buck, Charles; Lyons, Jeremiah C.	Agreement	Aug. 19, 1899	65	13	43	

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Title Guarantee and Trust Co.	Lyons, Jeremiah C.	Dec. 20, 1900	70	479	43, 44	release of mortgage, l.87, mp.419
Title Guarantee and Trust Co.	Lyons, Jeremiah C.	Dec. 20, 1900	70	483	43, 44	release of mortgage, l.87, mp.422
Lyons, Jeremiah C.; Lyons, Susie T.	Hogan, Genevra W.	Dec. 20, 1900	69	387	43	
Lyons, Jeremiah C.; Lyons, Susie T.	Gilbert, Clinton	Dec. 20, 1900	70	484	44	
Gilbert, Clinton	Gilbert, Margaret B.	Dec. 20, 1900	69	386	44	
Lyons, Jeremiah C.; Lyons, Susie T.	Mohlman, Louise C.	Apr. 1, 1901	73	208	46	
Title Guarantee and Trust Co.	Lyons, Jeremiah C.	Apr. 1, 1901	72	330	46	release of mortgage, l.87, mp.419
Lyons, Jeremiah C.; Lyons, Susie T.	Ranger, Jessica M.	May 1, 1901	74	240	45	
Title Guarantee and Trust Co.; Guaranty Trust Co. New York; Emigrant Industrial Savings Bank; Mutual Life Insurance Co. New York; New York Life Insurance Co.; Lawyers Mortgage Insurance Co.; Berkeley School; PLUS 30 individual parties	Agreement	Jan. 22, 1903	87	207	43, 44, 45, 46	
Title Guarantee and Trust Co.; Guaranty Trust Co. New York; Emigrant Industrial Savings Bank; Mutual Life Insurance Co. New York;	Agreement	Jan. 22, 1903	87	210	43, 44, 45, 46	

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VENT PLANT, EAST 50TH STREET, LIRR EAST SIDE ACCESS PROJECT

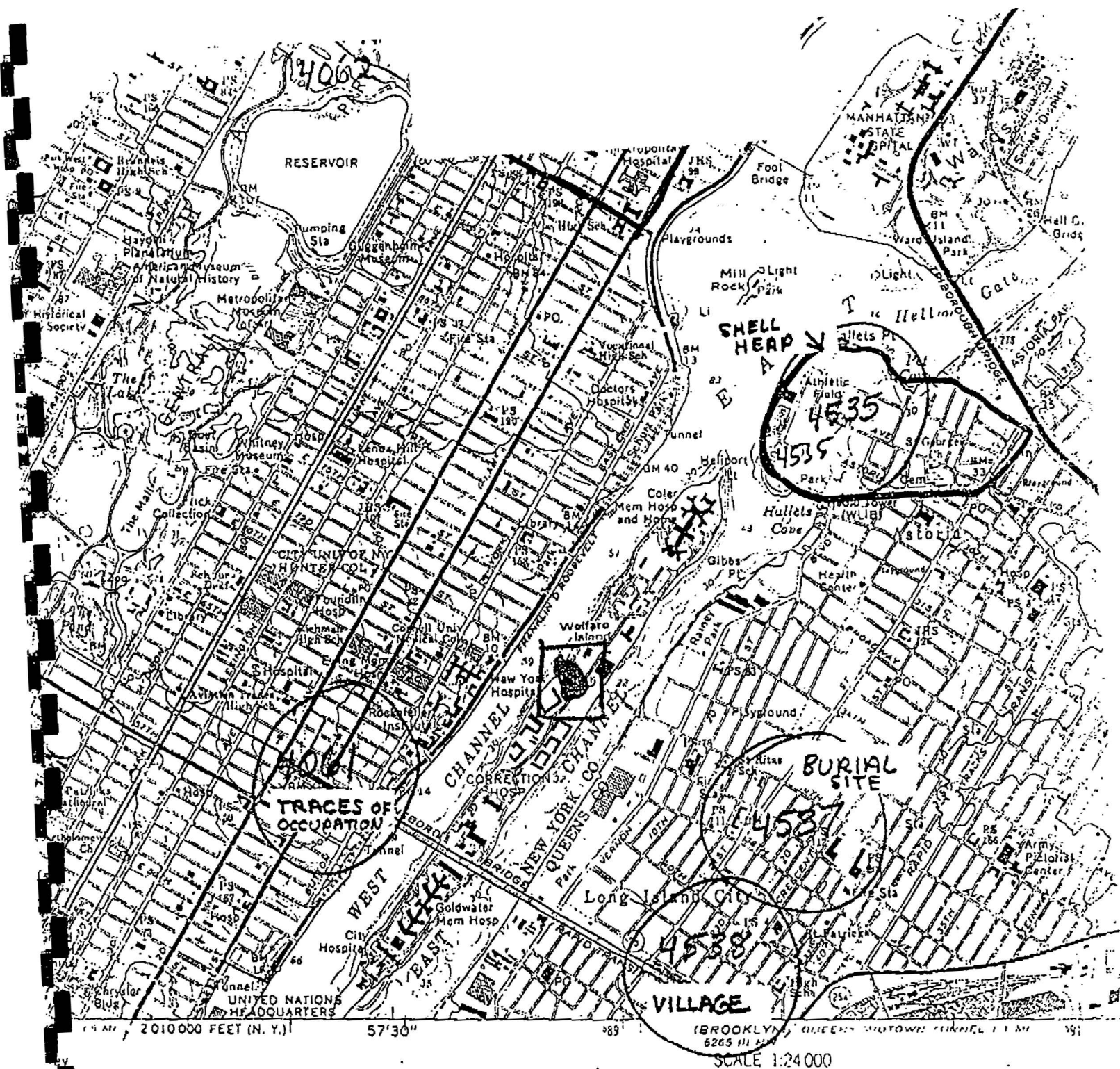
New York Life Insurance Co.; Lawyers Mortgage Insurance Co.; Berkeley School; PLUS 30 individual parties						
Title Guarantee and Trust Co.; Guaranty Trust Co. New York; Emigrant Industrial Savings Bank; Mutual Life Insurance Co. New York; New York Life Insurance Co.; Lawyers Mortgage Insurance Co.; Berkeley School; PLUS 30 individual parties	Agreement	Jan. 22, 1903	87	213	43, 44, 45, 46	
Title Guarantee and Trust Co.; Guaranty Trust Co. New York; Emigrant Industrial Savings Bank; Mutual Life Insurance Co. New York; New York Life Insurance Co.; Lawyers Mortgage Insurance Co.; Berkeley School; PLUS 30 individual parties	Agreement	Jan. 22, 1903	87	226	43, 44, 45, 46	

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Title Guarantee and Trust Co.; Guaranty Trust Co. New York; Emigrant Industrial Savings Bank; Mutual Life Insurance Co. New York; New York Life Insurance Co.; Lawyers Mortgage Insurance Co.; Berkeley School; PLUS 30 individual parties	Agreement	Jan. 22, 1903	87	216	43, 44, 45, 46	
Title Guarantee and Trust Co.; Guaranty Trust Co. New York; Emigrant Industrial Savings Bank; Mutual Life Insurance Co. New York; New York Life Insurance Co.; Lawyers Mortgage Insurance Co.; Berkeley School; PLUS 30 individual parties	Agreement	Jan. 22, 1903	87	219	43, 44, 45, 46	
Mohlman, Louise C.	Burnham, Elizabeth C.	Jul. 16, 1903	92	213	46	
May, Jessica	Milton, Mildred A.	Nov. 20, 1906	128	344	45	
Overshiner, Jessica May	Milton, Mildred A.	Nov. 20, 1906	128	344	45	
Ranger, Jessica May	Milton, Mildred A.	Nov. 20, 1906	128	344	45	
No Instruments of Record		1907-1917			43, 44, 45, 46	

Phase 1A Archaeological Resource Evaluation
VENT PLANT, EAST 50TH STREET, LIRR EAST SIDE ACCESS PROJECT

Appendix 3. Site File Search Results, NYCLPC, NYSOPRHP and NYSM



Is T-4567,
453, T-5458,
erial photographs

66
274, 745,
ational purposes

mid zone.

shown in blue

UTM GRID AND 1979 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

all Parker Sites

N.V.S.M. SENSITIVITY EVALUATION WILL BE
SENT TO YOU

CONTOUR INTERVAL 10 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929
DEPTH CURVES AND SOUNDINGS IN FEET—DATUM IS MEAN LOW WATER
THE RELATIONSHIP BETWEEN THE TWO DATUMS IS VARIABLE
SHORELINE SHOWN REPRESENTS THE APPROXIMATE LINE OF MEAN HIGH WATER
THE AVERAGE RANGE OF TIDE IS APPROXIMATELY 2 FEET
4 FEET IN THE HUDSON RIVER AND 5.7 FEET IN THE EAST RIVER

ROOSEVELT ISLAND PROT.

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

Antoni D. L.

NEW YORK STATE MUSEUM: OFFICE OF THE STATE ARCHEOLOGIST
PREHISTORIC SITE FILE: FILE USE REQUEST FORM
PROJECT SCREENING FILE

NAME HARTGEN % HISTORICAL PERSPECTIVES, INC.
ADDRESS P.O. BOX 331, RIVERSIDE, CONNECTICUT 06831
AC PHONE # 518 283-0534
AGENCY/COMPANY/INSTITUTION REPRESENTED HARTGEN/HISTORICAL PERSPECTIVES

The screening file gives site locations within generalized .5 mile circles.

PURPOSE OF REQUEST: (Identify the proposed project and contractor, indicate the nature of the work, depth and extent of ground disturbance)

EVENTUAL DISTRIBUTION OF DATA: (Specify range of data use and distribution, publication, reproduction, etc.).

REQUESTED APPOINTMENT:

1st Choice _____ 2nd Choice _____
date time (or any) date time (or any)
(Appointments are on the hour between 9 a.m. and 12 noon on Wednesday of each week. Mail this request at least two weeks in advance of the appointment date. You will be notified by mail of your appointment date and time).

U.S.G.S. 7.5' MAPS REQUESTED: (indicate 15' maps)

CENTRAL PARK

FOR THE FOLLOWING attach the project map, site data list and self-addressed envelope to this request. Responses will be mailed or provided on the following day.

The following site(s) may be within
or adjacent to the project area.
If so, please provide the
location of:
SITE #. 7.5' MAP

☒ Please provide a sensitivity
rating for the attached
project area.

4061 CENTRAL PARK
4535 CENTRAL PARK
4537 CENTRAL PARK
4538 CENTRAL PARK

I understand that the information
provided is to be used solely for the
preparation of an environmental impact
statement as required by State or Federal
law.

A. C. Stanley-Brown 5 July 1981
(Signature) (Date)

NEW YORK STATE MUSEUM
CULTURAL EDUCATION CENTER
ALBANY, NEW YORK

NYSM SITE #	OTHER SITE #'S	SITE NAME	TIME PERIOD	SITE TYPE	SOURCE OF DATA	15' QUAD NAME	7.5' QUAD NAME	REPORTER NAME	PROJECT NAME OR #
61	ACP NYRK- (UN NUMBERED)	---	---	TRACES OF OCCUPATION	---	HARLEM	CENTRAL PARK	PARKER	---
535	ACP GUNS-12	---	---	SHELL HEAP	---	//	//	//	---
537	ACP GUNS-14	---	---	BURIAL	---	//	//	//	---
38	ACP GUNS	---	---	VILLAGE	---	//	//	//	---