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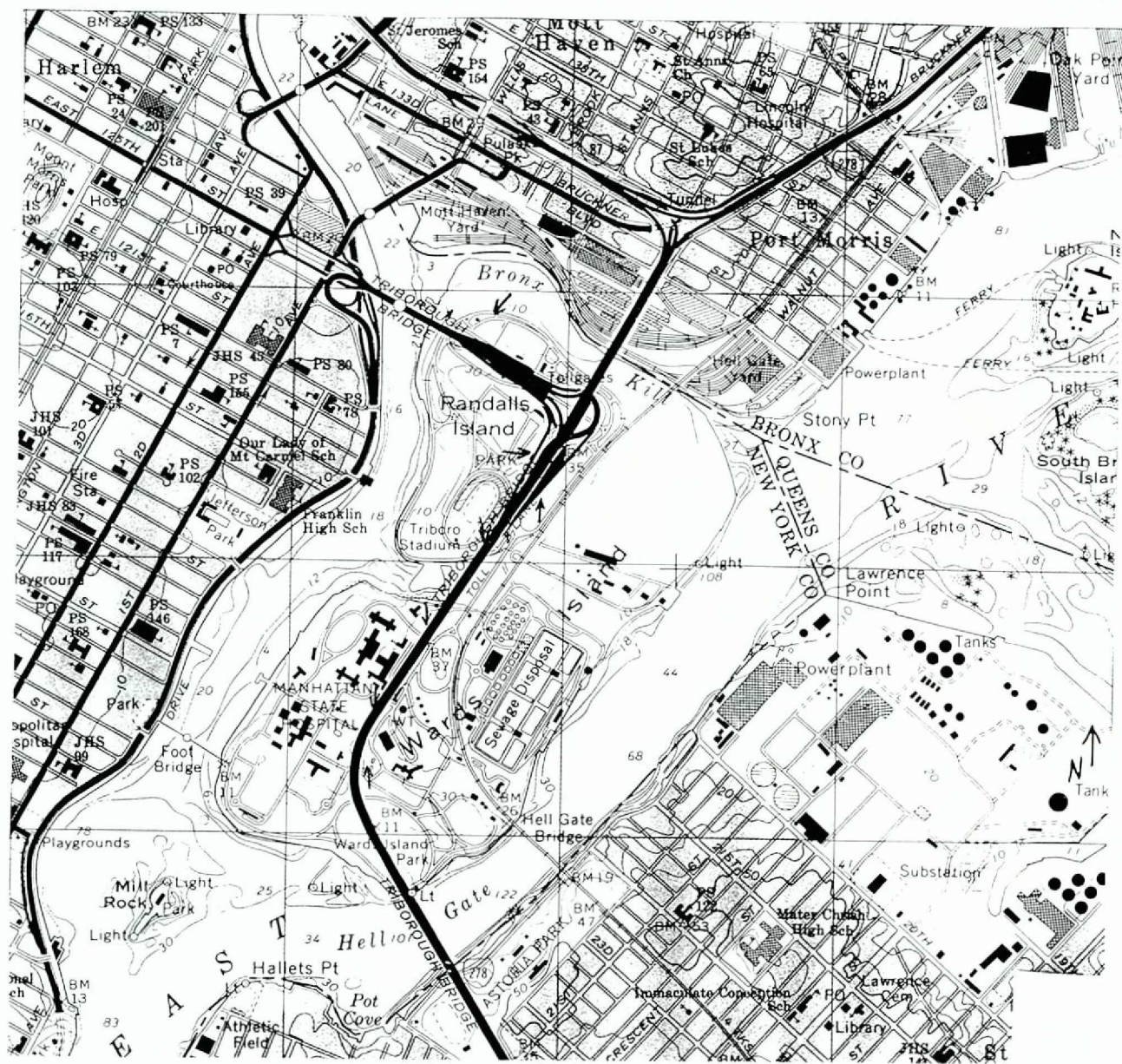
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March 2001

TRIBOROUGH BRIDGE AND TUNNEL AUTHORITY
TRIBOROUGH BRIDGE REHABILITATION PROJECT
RANDALL'S AND WARD'S ISLANDS, MANHATTAN
PHASE IA ARCHAEOLOGICAL ASSESSMENT REPORT

LA-CEQR-M

~~6028 BBR 878 AB~~



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March 8, 2001

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EXECUTIVE SUMMARY

Generally, in order to make a recommendation for archaeological testing, it is necessary to determine first of all the age and nature of possible remains in the project area and then, if it is determined that significant archaeological remains may be present, whether or not successive construction episodes in the past have negatively impacted them. If no evidence of subsurface disturbance is discovered during the phase IA archaeological assessment, and the research determines that possible remains have the potential to yield significant historical information, a recommendation for field testing is made in order to determine the presence or absence of such remains on the project sites.

This evaluation of the archaeological sensitivity of project sites involved in the rehabilitation of the Triborough Bridge on Randall's and Ward's Islands, and made for the MTA Bridges and Tunnels, presents the following conclusions and recommendations:

With respect to prehistoric periods, the map of inventoried prehistoric archaeological sites compiled by the Office of Parks, Recreation and Historic Preservation shows that the likelihood of prehistoric use of the project sites is very low as no prehistoric sites have been located on Randall's or Ward's Islands.

With respect to historic periods, there was no substantial building on the islands -- beyond a few farmsteads not located in the project areas -- before the middle of the 19th century (fig. 27A & B and 28). From 1847 until the present the islands, now joined by landfill, have been the site of a series of public and charitable institutions, but those formerly located in or near the project sites were demolished for the construction of the Triborough Bridge.

Although there is no evidence for historic buildings in the project sites, there is a strong possibility that 19th century burials were located in two of the these areas, C and E (figs. 1 and 2). The islands were the site of two potter's fields where indigent persons were buried from ca. 1843 to 1868. Although neither cemetery was indicated on contemporary maps, 19th documents indicate that the approximate locations of the potter's fields were at the southern ends of Randall's and Ward's islands. Burials have been found in both these areas during the construction of the Triborough Bridge and in the 1990s, during the installation of a chilled water line for Building 102 of the Manhattan Psychiatric Center.¹ There is no evidence for subsurface disturbance in project sites C and E and they are therefore considered archaeological sensitive.

In the remaining areas, A, B, and D, there was extensive subsurface disturbance, and these areas are therefore not considered archaeologically sensitive.

The writer would like to thank for their valuable assistance Tomb Bach, TBTA; Walter Camargo, Plant Superintendent, Manhattan Psychiatric Center; Michael Greenman, C.P.G., Deputy Director,

¹ Greenhouse Consultants Inc., 1994.

City of NY, Department of Design and Construction; Gary Guttman, Project Manager, New York
State Dormitory Authority; Darya Kreis, Philip Habib & Associates; Anna Pluta-Migoya, P.E.,
Assistant Facility Engineer, MTA Bridges and Tunnels; Daniel Pagano, Archaeologist, Landmarks
Preservation Commission; Laura Rosen, Administrator, Special Archive Public Affairs, MTA Bridges
and Tunnels; Steve Rudd, Project Manager, Chas. H. Sells Inc.

II. SITE AREA

The Triborough Bridge and Tunnel Authority (TBTA) is proposing a rehabilitation and reconfiguration of portions of the Triborough Bridge, which provides access between the Bronx, Manhattan, Queens, and Randall's and Ward's Islands (front cover and figs. 1 and 2).

In order to comply with the OPRHP Project Review 00PR4506, the present Phase IA sensitivity assessment and initial field inspection makes a determination concerning the possibility that the project sites may be located in the area of potential archaeological sites of historic significance and whether or not the proposed construction will have a negative impact on these potential sites.

The areas² under consideration are,

on Randall's Island:

Site A, a new ramp running north and west of the present MTA Bridges and Tunnels shops, north of the Manhattan toll Plaza, in the area now occupied by a roadway (figs. 3-5 and maps 1-2);

Site B, the widening of the Queens toll plaza east (figs. 6-8 and map 3) and west (figs. 9-12 and maps 3-4) of the bridge, the east side now largely occupied by a parking lot, the west occupied by roadways, landscaped areas and access ramp to the bridge;

Site C, a ramp immediately east of the southern end of Downing Stadium (fig. 13 and maps 3 and 5), beginning on the east side of the bridge and feeding into a new auxiliary lane running west of the existing highway (figs. 14-16);

on Ward's Island,

Site D, the continuation of the new auxiliary lane west of the existing highway (figs. 17-19 and maps 6-11) and

Site E, a ramp at its southern end, beginning east of the bridge (figs. 20-21 and map 11).

² These are the writer's designations of the project sites.

III. ENVIRONMENTAL SETTING

Today the dominant structures on Randall's and Ward's Islands are the Triborough and Connecting Railroad bridges (figs. 22, 23 and 24). Opened in 1938, the Triborough Bridge runs from Manhattan to Randall's Island in a line approximately parallel to the northern side of the island, then makes two right angled turns, one north to the Bronx, the second south nearly to the end of Ward's island. It then curves southeast, crossing the Hell Gate to Queens. The New York Connecting Railroad Bridge (1914-17) runs roughly parallel to the Triborough Bridge from the Bronx and over Randall's Island, then diverges from the Triborough and crosses Hell Gate over the Hellgate Bridge. There was also once a footbridge between the Triborough and Hell Gate Bridges, over Little Hell Gate (see below). The offices and shops of the Triborough Bridge and Tunnel Authority and Downing Stadium are the principal buildings on Randall's Island. The pavilions of the Manhattan State Psychiatric Center are spread over the northwestern quarter of Ward's Island, while the Ward's Island Disposal Plant occupies a large area east of the hospital and the stadium. Large tracts of both islands are open, either undeveloped or recreational parkland.

Originally comprising some 100 acres, today Randall's island is approximately 195 acres.³ Ward's Island now covers 255 acres.⁴ There was also a third island, called Sunken Meadow, immediately east of Randall's island. Randall's and Ward's islands were once separated by a waterway called Little Hell Gate while Randall's island was separated from the Bronx by the Bronx Kill. Now but a narrow channel, the Bronx Kill was once about as wide as the East River at 125th Street. The East River branches around the island. The western branch is called the Harlem River. The treacherous bend southwest of Wards Island is called Hell Gate. The 1851 USCS map marks and names the many rocks that made this stretch of water so dangerous (fig. 27B).

Randall's Island, Ward's Island and Sunken Meadow are today a single island. The filling of the waterways that separated the islands from each other and the Bronx and resulted in the narrowing of the east branch of the East River began ca. 1938 (fig. 23). At first, two seawalls extending northward from the northeast corner of Ward's island and from a point near the Hellgate Bridge were erected. These seawalls in time encircled Sunken Meadow and formed the edge of the landfill. The progress may be seen in the 1938 aerial view, the 1947 USGS map (fig. 24), which shows Sunken Meadow joined now to Ward's Island, and the sketch map in a 1956 New York Times article which announced that the forty-six acres of Sunken Meadow would be added to Randall's island by filling in the part of Little Hell Gate that separated the two. At that time, Sunken Meadow was not inhabited. The most recent episode of land filling, during the 1990s, was in the swampy area between the Triborough and the Hell Gate Bridges where a footbridge used to run.⁵ Today only a narrow inlet on the west remains

³ "Toward North Brother Island," Institute on Man & Science 1978 (Municipal Reference Library, VF NYC Islands, Randall's Island)

⁴ Board of Ed 1968, 18.

⁵ Gary Guttman, pers. comm., Jan. 28, 2001.

of the Little Hell Gate (figs. 15-16).

Richmond describes Randall's island as originally largely swamp and granite hills.⁶ But during the 19th century, with the establishment of the various charitable institutions, orchards and farms were established.

A soil boring taken near project site A recorded a surface elevation of 15', the top 5' consisting of miscellaneous fill. Below this was brown silt with traces of clay and little to some fine sand with traces of gravel -- a typically lacustrine deposit. Soil borings at the northern end of Randall's island in the area now used for playing fields penetrated fills varying in depth from 13' to 29'.

Topographic maps show a ridge running parallel to the northern end of the island (fig. 25). The Triborough Bridge now runs roughly along this line. Northwest of it was marshland, as also at the southeastern end of the island, where there was a creek (figs. 26 and 1880 Colton). In the mid-19th century, the southern tip of the island was occupied by orchards (fig. 26).

In the center of Ward's Island there was once a cluster of four small, steep-sided hills (fig. 27). A steep ridge on the east side of the island still appears on the 1887 map, southeast of the Male Lunatic Asylum (fig. 32). A cliff or bluff on the shore in the middle of the eastern shore of Ward's Island marked "Negro Pt. Bluff" overlooked the river (fig. 27A). The southeast was largely salt marsh.

⁶ Richmond 1872, 562.

IV. HISTORY OF WARD'S AND RANDALL'S ISLANDS TO THE MID-19TH CENTURY

A. Ward's Island

The map of inventoried prehistoric archaeologic sites compiled by the Office of Parks, Recreation and Historic Preservation shows no prehistoric sites on either Randall's or Ward's Islands.

The Mayrechkeniockkingh Indian Chiefs, Seyseys and Numers sold Ward's Island, which they called *Tekenas* meaning perhaps "uninhabited place" to Wouter Van Twiller in 1637.⁷ The translation of this name is uncertain. Several meanings are possible including forest, uninhabited track, and wild land.⁸

Twiller used Ward's Island only to graze his livestock and did not reside there. His cowherd was the giant Danish farmer Barent Jansen Blom who earned the nickname Groot Barent or Great Barent. The first European names of both Randall's and Ward's Islands were based on this man's name: Great Barent Island for Ward's; Little Barent Island for Randall's. Those names were corrupted to Great and Little Barnes or Barn Island(s) (fig. 28). In the 1730 Montgomerie Charter, Ward's Island appeared as Great Barn Island.⁹

The English confiscated Ward's Island from the Dutch States General and in 1664 awarded it, along with Randall's Island, to Thomas Delavall of Harlem (d. 1682), a collector of customs.¹⁰ Thomas Delavall left his land to his son-in-law William Dervall. In 1687, Thomas Parcell bought the island and it remained in his family for 75 years. It was also then called Parcell's Island.¹¹ In 1767, Thomas Bohanna purchased land here and briefly gave his name to the island. The Bohanna property, comprising 140 acres and his home, was sold to Benjamin Hildreth in 1772, who sold it to William Lownds in 1785. The other half of the island was purchased by John William Pinfold.¹²

⁷ Board of Ed 1968, p. 7.

⁸ Grumet 1981, 56.

⁹ Hoffman 1862, p. 148; American Scenic... 1923, p. 33.

¹⁰ Smith 1962, p. 100; Valentine's Manual 1855, p. 493.

¹¹ Greenhouse Consultants 1994, 27. They cite an earlier study (not available at either the LPC or the Municipal Reference Library) by Rutsch, E.D. and R.L. Porter, *Stage I Cultural Resources Survey of the Proposed Sludge Storage Lagon... Wards Island*. Historic Conservation & Interpretation, 1980.

¹² A classified advertisement offers the "...southern half of Great Barn Island, commonly called Bohana's Island, to be sold at Public Auction on the 20th Day of November next ... at the Merchants Coffee House (...) 140 acres ... several convenient buildings on it," also wood, an

During the Revolutionary War, Ward's Island was occupied by British troops.¹³

In 1806, Captain William Lowndes' estate was sold to Jasper Ward. It consisted of "half the Island situated at Hell Gate...150 acres ...large dwelling... valuable building stone quarry, of the best kind of hard blue stone...a wharf and creek near the house."¹⁴ Pinfold's half was purchased by John Molenaar, then by Bartholomew Ward. Since that time, the island has been called after these owners. The Wards sold parcels to a number of individuals.

In 1811, a cotton mill, marked "Factory" on the 1811 Bridges Map, stood on the island and "Ward's Bridge" connected the island to 114th Street in Manhattan (fig. 28). No buildings are shown on the project sites.

New York City purchased large tracts of Ward's island by a series of conveyances in 1851-52 and 1855, by which time it had acquired approximately half the island.¹⁵

B. Randall's Island

The Indian name for Randall's Island was Minnahanouth.¹⁶

The English confiscated Randall's Island from the States General and awarded it to Thomas Delavall (see above). When Delavall's great grandson, Elias Pipon, came from England in 1732 to claim his inheritance, he built a house on Randall's Island and renamed it Belle Isle.¹⁷

Randall's Island was henceforth named after its successive owners. After Pipon sold it to St. George Talbot, who resided here from 1747 to 1765, it was known as Talbot Island. Talbot left the land to the

orchard, and "many fruit trees" (*The New York Journal*, Oct. 30, 1772; collected in Kelby, W., Notes on Wards Island, MSS notes, New York Historical Society). Greenhouse 1994, p. 27, states that Bohanna sold 140 acres on the *northern* half of the island in 1772. See also American Scenic 1923, p. 33.

¹³ American Scenic...1923, p. 34.

¹⁴ Kelby MSS.

¹⁵ American Scenic... 1923, 34.

¹⁶ American Scenic and Historic Preservation Society 28th Annual Report, pp. 33-34. The author cites Beauchamp's *Aboriginal Place Names* for the translation of the Indian names. The historical summary in this section is largely taken from this source.

¹⁷ Valentine's Manual 1855, p. 494.

Society in Great Britain for Propagating the Gospel in Foreign Parts. They sold it to John Montresor. Montresor, a military surveyor who created the famous New York City map that bears his name. Montresor resided on the island from 1772 through the British occupation during the Revolutionary War, when British troops were stationed here. During his tenure it was called "Montresor's Island." The Americans attempted unsuccessfully to capture the island in 1776. In 1777, all Montresor's buildings and outhouses were burnt.

Montresor returned to England in 1783. The City of New York confiscated his property and sold it to Samuel Ogden, in 1784, who sold it to Jonathan Randall (or John Randall, or Jonathan Randel).¹⁸ Randall purchased both Randall's Island and Sunken Meadow and moved with his family to the island which still bears his name. It remained in the Randall family until 1835 when it was conveyed to New York City for \$60,000.

¹⁸ The article cited in note 6 above gives "John Randall" as the name of the purchaser. In Seitz 1996, p. 164, it is Jonathan Randel, in Smith 1962, p. 101, Jonathan Randall.

V. HISTORY OF WARD'S AND RANDALL'S ISLANDS FROM THE MID-19TH CENTURY TO THE PRESENT

The potters fields which existed on both islands during the mid 19th century will be treated separately, below.¹⁹

In this section, the institutions built on Randall's and Ward's Islands during the second half of the 19th century will be briefly described.

A. Ward's Island:

The first public institution to be located on Ward's Island was created by the Commissioners of Emigration. This body, formed in 1847, consisted of six citizens and ex-officio, the mayors of New York and Brooklyn as well as the Presidents of the German Society and the Irish Emigrant Society.²⁰ Their purpose was to create an institution to receive immigrants landing at New York.

The Commissioners leased part of Ward's island in 1848 then purchased 121 acres "including the whole of the water front to New York City" i.e. on the western side of the island where the buildings were later situated.²¹ The 1852 Serrell map indicates that the Commissioners of Emigration also owned four lots at the southeastern end of the island (also indicated on the 1885 Robinson map, fig. 31, lots 28 to 31).

None of the buildings associated with this institution were in the area of the project sites. They included the Verplanck Hospital, the largest structure; the refuge itself, which could accommodate 450 destitute individuals, a large number of whom were women and children; a nursery; an insane asylum; a Roman Catholic and a Protestant chapel, and residences for the physicians and superintendent (fig. 1885 Robinson).²²

¹⁹ The cemeteries are mentioned, without further details, in several places including Smith 1962, p. 102; "Toward North Brother Island," N/A, 1978.

²⁰ Richmond 1872, p. 551.

²¹ Ibid., p. 554.

²² Ibid., pp. 554-556. The 1851 USC & GS map (fig. 27A) shows three structures on the west side of the island but it is uncertain whether these were already part of it because they are not labeled and do not correspond to the plans of the later buildings seen on the 1860 Valentine's Manual map (fig. 29) or on the 1885 Robinson (fig. 31). But four of the rectangular buildings on the 1860 Valentine's map at the northern end of the eastern row may correspond to the hospital wards shown on the 1885 Robinson.

The buildings of the Emigration Hospital and Refuge were turned over to the Insane Asylum in the 1880s. New York State took over the institution in 1895. None of the original buildings of this complex still exists.

The Inebriate Asylum opened in 1868 on the southeast side of the island (fig. 30). Disabled and indigent Civil War veterans were also housed here, since the facilities were not fully occupied by inebriates.²³ In 1875 the asylum was taken over by the homeopathic hospital although the building on Ward's Island may not have been converted to that purpose until after 1880.²⁴ The homeopathic hospital was not in the area of the projects sites.

Built between 1880 and 1885, the men's hospital, labeled "Insane Asylum" (fig. 31) then "Male Lunatic Asylum" (figs. 32 and 33), was torn down in the 1950s. The Mabon Building (figs. 2 and 34), which still exists, was built during the 'teens or 'twenties directly south of the Insane Asylum and overlapped the final decades of that building.

Two burials discovered in the area formerly occupied by the front garden of the insane asylum must predate it. They came to light during the excavation of a trench approximately 6 feet wide and 8 feet deep for two 24 inch pipes to run side-by-side from the power plant of the Manhattan Psychiatric Center to Building 102 of the Center.²⁵ The burials contained no chronologically diagnostic finds. Greenhouse 1994 suggested that they date around the mid 19th century and the individuals were from the Emigration Refuge, the Inebriate Asylum cum Civil War veterans home, or from the old Insane Asylum associated with the emigration refuge (fig. 31).²⁶ If so, they probably do not belong to the period between ca. 1850 and 1868, since during those years there was a potters field on Ward's Island where they could have been interred in individual, marked graves. Riis reported that in 1891, the city allocated \$50 for funeral expenses for honorably discharged military personnel, but a "decent funeral" cost double that amount.²⁷ The potters fields were not used only for the interment of the anonymous dead but also served those who could not afford a better final resting place. This applied especially to residents of the island's institutions.

A third burial was discovered digging for a water main break behind the Mabon Building in 1995. W. Camargo stated that he saw only a skull and that it was "thrown back in the hold".²⁸ The police's

²³ Richmond 1872, pp. 557, 559.

²⁴ Jackson, ed. "homeopathy", p. 554.

²⁵ Walter Camargo, Plant Superintendent, Manhattan Psychiatric Center, pers. comm., Feb. 28, 2001.

²⁶ Greenhouse 1994, 29.

²⁷ Riis 1891, p. 45.

²⁸ Walter Camargo, pers. comm. Feb. 28, 2001.

street crimes unit determined that investigation was not warranted because the remains were not recent.

The Manhattan State Hospital for the Insane -- the predecessor of the Manhattan Psychiatric Center -- was founded in 1860 and the first buildings were completed in 1871. By 1899, it was the world's largest mental institution, with 4393 patients.²⁹ But by 1930, many of the buildings had deteriorated and become unsafe. It was suggested that they be torn down and the area converted for recreational purposes. None of the old buildings survived.

In the 1920s to 1930s, land was also set aside for the sewer plant and a right-of-way was laid out for the Triborough Bridge (begun 1929, fig. 34).³⁰ In 1935, four hundred patients in the House of Refuge were moved. The plan was to remove that building as well as eighty-seven other large and small structures by the end of 1936.³¹ In 1938, the WPA began to develop 38 acres at the southern end of Ward's Island for parkland and the old civil war dormitories were torn down.

B. Randall's Island

The oldest institution on Randall's Island, the Nurseries, was initially under the control of the Commissioners of Charities and Corrections. The complex consisted of a row of five buildings erected in 1847 on the northeast side of the island, facing east towards the river (fig. 26³²). These five, Drummond, Hubbard, the Roman Catholic church, Brennan and Nugent stood in the right-of-way of the bridge and were demolished (fig. 35). They were located west of the northern half of the parking lot, project area B east. The buildings west of the bridge, overlapping project site B west, are not shown on the 1909 UCS & GS (fig. 33), nor on an undated map of Randall's island that records the date of buildings constructed up to 1919 and indicates the right-of-way of the bridge.³³ These buildings must therefore have been in use for only a short time during the 1920s.

A large farm stretching over the northern part of the island produced vegetables for the nurseries.³⁴

²⁹ Seitz 1996, p. 166.

³⁰ NYC Department of Parks, Apr. 27, 1953.

³¹ NYC Parks Dept., Feb. 9, 1935.

³² The line of the Triborough Bridge drawn on the map is shown slightly west of its actual position in order not to obscure the image. Compare with fig. 35).

³³ MTA Bridges and Tunnels, Special Archive.

³⁴ Richmond 1872, p. 562.

Not to be confused with the Nurseries, the Infants Hospital, also used for adults, opened in 1869 on the western side of the island (fig. 31). The mortality rate in the early years was high. Epidemics were rampant, due to the lack of good water and in 1870, 710 of the 1516 infants under care died. In 1868 there were 383 deaths, or 21.1% per month; in 1869, 156, or 10.07% per month.³⁵ Some or all of these individuals would presumably have been buried in the new potters field on Hart's Island, which opened in 1868. The Infants Hospital was not located in the project site areas.

The notorious House of Refuge, opened in 1854 and built by the Society for the Reformation of Juvenile Delinquents, was located on 30 acres in the southern part of the island. It closed in 1935 and the inmates were transferred to the New York State Vocational Institution in West Coxsackie.

Initially run by the City Department of Education, the Randall's Island Schools were taken over by the Charities department in 1888. This body had been responsible for feeding and clothing the children all along and the division of responsibilities had resulted in conflict between the two departments.³⁶

In 1909, the New York City Children's Hospitals and Schools on Randall's Island served 1,482 children.³⁷

By 1913, the "school for defectives" comprised 50 buildings and had 700 students.³⁸ In addition to this facility, there was a hospital school for normal children and an industrial school with one department for boys and one for girls. The description of the various schools makes them sound rather like a labor camp. Most of the instruction was of the industrial sort, with manual training in shoe repair and cobbling, weaving, mat and rug making, basketry, carpentry, furniture making, sewing, chair caning, and embroidery.³⁹ All 125,00 yards of material used in the institution for bedding or clothing in 1912 was cut by a class of 18 "feeble minded" boys. All the clothing and shoe repairs were also done by the children.⁴⁰

³⁵ Ibid., p. 565.

³⁶ Drummond 1913, p. 12.

³⁷ City of New York, Dept. Of Public Charities, May 29, 1909, p. 9.

³⁸ Ibid., p. 4.

³⁹ Ibid., pp. 7-10.

⁴⁰ Ibid., p. 7.

VI. POTTER'S FIELDS

This section traces the history of potters fields in New York and presents data that indicate the locations of these burial grounds on Randall's and Ward's Islands. It is concluded that project sites C and E (figs. 1 and 2) are archaeologically sensitive for burials as they are situated in the general areas of the cemeteries and there is no evidence of subsurface disturbance in either area.

The potters field was the burial place of last resort for the poor, the unknown and the unclaimed dead. As Riis observed: "The Potter's Field stands for utter, hopeless surrender. The last the poor will let go, however miserable their lot in life, is the hope of a decent burial."⁴¹

The custom of providing a place to bury the poor or friendless is ancient. A "potters field" is first mentioned in St. Matthew 27:1-10. Because it was unclean to keep Judas' "blood money" in the temple, the chief priests took the thirty pieces of silver that the repentant apostle had cast down and used the funds to purchase a potter's field to bury strangers.

In Colonial New York, middle class, white Christian folk were buried in their churchyards. But poor African slaves and freedmen, indigent whites, and the Jews buried their dead on the outskirts of the town near the potters' workshops and tan yards. During the Revolutionary War, prisoners were buried here and in the area now occupied by City Hall Park, where the almshouse was also located.

In 1796, the city purchased its first potter's field at the junction of the Albany and Greenwich Roads, and hired a keeper at six shillings a day.⁴² But in 1800, the city authorities decided that it was too near the public roads and a new site, in the area of present-day Washington Square was selected. This lasted until 1823, by which time the city had grown into the neighborhood, and the remains were moved to a new location at 5th Avenue between 40th and 42th Street.⁴³ This plot, however, would be transformed in 1842 into the Murray Hill distributing reservoir (fed by the new Croton Aqueduct) and the remains had to be moved again, to 4th Avenue and 50th Street. They found no permanent rest here either, however, because this site was given over for a woman's hospital.

As early as 1835, one Jacob Lorillard petitioned the Council to move the pauper's burial ground to Randall's Island, which the city had purchased for this purpose.⁴⁴ But the Board of Assistants' Lands

⁴¹ Riis 1891, 244.

⁴² Macatamney 1909, 124.

⁴³ Lossing 1884, 668; Dept. Of Correction 1907, p. 2, summarizes the history of New York City potters fields; see the report to the Board of Aldermen, Nov. 14, 1842, pp. 524-525 which pleads for the relocation of the burial ground whose "excessively offensive" effluvia were noticeable for several hundred feet around.

⁴⁴ Klips 1980, 542.

and Places Committee had settled on Randall's Island for the location of an almshouse --opened in 1845-- and did not want the potters field to be sited there. Finally, in 1843, after eight years of indecision, the plan for a graveyard on Randall's Island passed the Council.⁴⁵ The potters field on Randall's Island remained in use at least until 1850.⁴⁶

The 4th Avenue potters field on Manhattan was still in operation the early 1840s, however, even after the opening of the Randall's island burial ground, and this would have reduced the number of interments on the island. The continued use of the Manhattan burial ground is evidenced by two requests to the Board of Alderman, one in January 1843, to remove a fence on the north side of the 4th Avenue potters field and a second, at the end of 1844, to continue using the old potters field during the winter.⁴⁷

Contemporary documents indicate that the potters field on Randall's Island was located south of the nurseries.⁴⁸ In 1850, the Alms House Governors reported that 1360 interments had made in the potters field between June 15 and December 31.⁴⁹ The 1850 report also stated that the field was not large enough, and not suitable for burial.

[The] field is upon rock, below the surface, so that the decomposition of human remains there interred, and the effluvia resulting from it, will not sink in the ground, but the latter will exhale and taint the atmosphere. Its proximity therefore to the Nurseries ... is objectionable, and at certain seasons dangerous.⁵⁰

The dangerous season was summer. The "emanations from this spot vitiate the atmosphere in its immediate vicinity, and the prevailing southerly winds of the summer season waft the pestilential exhalations directly over the plot covered by the *nursery* buildings".⁵¹

The warden of Randall's Island reported that of the "great number" of pits dug in 1849, six remained, and each could hold 120 bodies. These pits must have been smaller than the ones on Ward's Island (below) and consequently more would have been dug. The burial was in use approximately seven

⁴⁵ Ibid., p. 543-44, 547.

⁴⁶ Alms House Governors 1850, p. 15.

⁴⁷ New York City Board of Aldermen 1842-1843, Jan. 16, p. 284, and 1844-1845, Dec. 9, p. 54.

⁴⁸ Alms House Governors 1850, p. 15.

⁴⁹ Ibid., p. 3.

⁵⁰ Alms House Governors 1850, p. 15.

⁵¹ Alms House Commissioners 1849, pp. 23-24.

years. In 1850, the rate of burial was seventy individuals per week. This probably represents the higher summer mortality rate, since the annualized figure of 3,640 is rather high; in seven years the number of interments would have been 25,380. A more realistic figure is ca. 21,000. If all the pits held only 120 bodies, 130 pits or more would have been required over the seven year period.

Where was the burial ground located? One possibility is the area south of the Nurseries on the hillside above the marshy ground at the southeastern edge of the island. This would overlap the southern part of project site B (fig. USC 1851). The location would have brought it indeed very close to the nursery, within less than 300 feet of the southernmost building of that complex, hence the noxious emanations. On the other hand, had the potters field been situated in this area, the construction of the Triborough bridge or the installation of utility pipes and conduits (map 3) would surely have disturbed some of the burials in the large area occupied by the potters field. There is no record of any burials found in this area. It is unlikely that the cemetery was located west of the marsh because the House of Refuge (1854) was built there, albeit after the cemetery had gone out of use.

On the other hand, the human bones discovered and reported during construction of the Triborough Bridge at the southern end of the island may be indicative. A photograph of these disarticulated bones, dated April 11, 1935, states that they are a "Sample collection of remains found in excavating for Pier 37 North" (fig. 38). This is the second to last row of piers on Randall's Island, approximately 150 feet south of Downing Stadium (fig. 36). There is no information about the number or kind of burials discovered here. They could have been individual burials (see below for individual burials on Ward's Island).

The only area large enough on Randall's Island that is also the least disturbed is the southern tip, south / southwest of Downing Stadium. This, we propose, was the location of the potters field.

The burial ground on Ward's Island, which succeeded the one on Randall's, can not predate 1851, since the Corporation of New York only began acquiring land here in that year.⁵² It remained in use only for some eleven years until 1868, when the Commissioners of the New York City Departments of Public Charities and Correction authorized the purchase of Hart's Island for a potters field. This last is New York's current potters field.

The location of the potter's field on Ward's Island be inferred from an 1855 New York Times article⁵³ which describes a visit to the place and provides many illuminating details. The anonymous writer took an open rowboat from the ferry pier at the foot of 116th Street in Manhattan to "Pauper's Dock" (USCS 1851) on Ward's Island then proceeded southward to "the end of the Island". After following a cow path "from the point" (Ward's Point?) he walked up to a field where, still a quarter of a mile distant from the burial ground, an "evil odor" was noticeable. They paused at a house formerly known as "the old house on Great Barn Island". This building is indicated on the 1851 USCS map (fig. 27B).

⁵² Hoffman 1862, p. 148.

⁵³ Rambling... 1855.

designated by the letter "A". It was approximately at the center of the southern side of the island. From here, they climbed a slight hill to reach the gate of the potters field. The burial ground was a few rods southwest of the shoreline (one rod equals 16.5 feet) and there was here "an abrupt wood-crowned bank". A hill, with a steeper stretch near the shore shown on the 1851 USCS may be the features mentioned in the article.

The stages of burial were described as follows. The bodies, in coffins, were rowed over to a landing house "on the shore of the cove spoken of as hollowing the south end of Ward's Island." This is the cove in the center of the southern side of the island. The remains were then taken by road to a "large receiving vault at the western hill end of the cemetery" where they could be preserved in airtight chambers for a few days in case anyone came to identify and claim them.

The two acres of the potters field⁵⁴ were enclosed in a "tight board fence". Under one corner of the field, graded about four feet higher than the surrounded land, were three trenches measuring three hundred feet long by eighteen feet wide and fifteen feet deep. Note that this depth is more than twice that normally used for individual interments. A fourth had just been dug a few weeks before.⁵⁵ The burials were laid three coffins end-to-end across the trench, in layers, up to within two feet of the surface. When the trench was full, the earth from a new trench was thrown over, which raised the level. As soon as the mound had settled, it was turfed and planted with "cedars, willows and other appropriate trees".⁵⁶ In 1858, the pits still only occupied an area 400 feet square.⁵⁷ But these would be enough, according to Mayor Tiemann, "to last for another 25 years".⁵⁸

The trenches contained the burials of some 16,000 people, according to our anonymous reporter. This figure would be consistent with the statistics for pauper burials at Hart's Island between 1867 and 1885, which averaged 3117 individuals annually,⁵⁹ if the burial ground at Ward's Island had been in operation for approximately five years. The reporter noted that the average number of burials per day was eighteen or one hundred and twenty-five per week -- giving a total of 6,570 for the year -- but this must represent the higher mortality rate during the summer months, due to epidemics. The total

⁵⁴ The rectangular area west of the house at A enclosed by a faint line measures approximately 5 acres.

⁵⁵ Rambling... 1855.

⁵⁶ Ibid.

⁵⁷ Purchase of Ward's Island, 1858, p. 8.

⁵⁸ Ibid.

⁵⁹ Hoffman 1919, p. 47; the maximum in one year was 4086 in 1872, the minimum, 2178 in 1878.

number of burials in the Ward's Island potters field in 1859 was 2,278, in 1860, 2,383,⁶⁰ and in 1864, 1946.⁶¹ A third of the dead came from the Commissioners of Emigration. They were buried by the Governors of the Almshouse at a cost of fifty cents per burial.⁶² In 1857, the Corporation of New York added to the number of burials on Ward's Island by transferring there the remains of some 100,000 paupers and strangers from the old Manhattan potters fields.⁶³

Because the trenches were mass burials and the individuals unknown, they were not marked with grave stones; "...no marble tablets and that earthly oblivion which the storied urn averts but a few brief years falls at once upon the sleepers".⁶⁴

There were however also individual burials and these might be marked. The Governors of the Almshouse fenced off a one acre plot on the west side of the potters field for the "Randall's Island boys" i.e. for the House of Refuge, opened in 1854.⁶⁵ And the 1855 reporter also mentions that residents of the almshouse might request that their friends be buried "in another part of the yard, and a headstone ... or a board with the name and age painted on it... mark the spot". There were already "many such single graves".

In sum, given the number of years in use, the burial practices and the mortality rate, the area occupied by the potters field on Ward's Island may have covered a smaller area than the cemetery on Randall's Island. It was located near the southern end of Project site D and project site E.

⁶⁰ Commissioners of Public Charities 1861, Jan. 1, p. 65.

⁶¹ Homes of the Dead... 1866.

⁶² By 1967, the price of an adult burial on Hart's Island had risen to \$75, New York City Department of Correction 1967, p. 8.

⁶³ Lossing 1884, p. 668, cited in Stokes 1926, p. 1875, under April 17, 1858.

⁶⁴ The Homes of the Dead... 1866, p. 2.

⁶⁵ Rambling... 1855.

VII. SUBSURFACE DISTURBANCE AND ARCHAEOLOGICAL SENSITIVITY

This section summarizes the information on the location of historic buildings in or near the project sites and on subsurface disturbance caused by utilities. The latter was culled from three sources:

1. Detailed 1994 Parks Department survey maps of Randall's and Ward's Islands (Appendix A);
2. Maps showing the location of the buildings and utilities of the Manhattan Psychiatric Center:
 - a. A 1931 plan showing the location of all the utilities;
 - b. A 1988 plan showing the location of electric conduits (subsurface);
 - c. A 1997 plan showing the location of the steam tunnel;
3. Maps created by the engineering firm of Chas. Sells, which is currently surveying most of the areas to be impacted by the Triborough Bridge Rehabilitation project.⁶⁶

RANDALL'S ISLAND (Project sites A, B, C):

PROJECT SITE A

Maps 1 and 2 show the approximate location of most of project site A. The roughly 250 foot approach way to the ramp, which is projected to run partly over the existing roadway and partly over a grassy island in the middle of the roadway, does not appear on any of the survey maps.

Subsurface disturbance: There are a few water pipes and one sewer pipe at the western end of the project site but most of it has not been disturbed by subsurface utilities.

Archaeological sensitivity: None. The potters field was located south of the nursery. There is no evidence of any historic use of project site A.

PROJECT SITE B

Maps 3 and 4 show the approximate areas of project site B west and east.

Subsurface disturbance: On the west side of the Triborough Bridge, the project site extends approximately 50 feet from the edge of the access ramp to its widest point; along about half its length, the width is about 25 feet. The narrow strip adjacent to the stadium was disturbed by water and sewer pipes and electricity conduits. No subsurface utilities were identified in the northern portion of this

⁶⁶ The maps were kindly furnished by Anna Pluta-Migoya, Walter Camargo and Steve Rudd, respectively.

site.

On the east side of the Triborough Bridge, the project site extends at its widest point to approximately 125 feet from the edge of the access ramp. There are sewer pipes and electrical conduits in the southern third of the site. In the northern two-thirds of this site there is one water pipe near the north end. Otherwise, the site is covered by a parking lot and may not have been disturbed by the construction of the ramp.

Archaeological sensitivity: None. Five of the original nursery buildings stood in a row facing east along the right-of-way of the Triborough Bridge, west of the northern half of the present-day parking lot. They were demolished prior to its construction (fig. 33). The potters field, located south of the nursery buildings, was beyond the area of project site B, and probably located at the southern tip of the island (see above).

PROJECT SITE C

Map 5 shows the approximate location of project site C.

Subsurface disturbance: There is a sewer pipe in the area of the project site immediately east of the bridge. Note however that the original right-of-way, as seen on fig. on Ward's Island, extended some 25 feet on either side of the outer supporting piers of the bridge. Beyond this 25 foot wide strip, there is no record of subsurface disturbance in the approximately 75 feet of the project site to the east.

Archaeological sensitivity: Project site C may be sensitive for archaeological remains.

The project site runs between piers 38 N and 37 N, the latter, where the "sample remains" of human bones were discovered in excavating for the pier in 1935. It is uncertain whether these came from the mass burial trenches of the potters field or whether they were individual burials within the boundaries of the potters field, or individual burials unconnected with the potters field.

The land immediately east of the project site was a swamp, now filled, and a footbridge constructed over it ran about 50 feet east of the eastern end of the project site. The area of project site C is thus partly composed of fill: the present ground level here has risen about 4.5 feet, from between 6.70 and 7.10 feet in 1936 to 11.6 feet in 1994. If the proposed construction of a new access ramp in this area will not require excavation below a depth of 4.5 feet, no mitigation will be required.

On the other hand, the area of project site C west of the bridge and continuing south alongside the bridge for approximately 200 feet to the edge of the original shoreline is considered sensitive for archaeological remains, specifically burials. Note that most of this section lies west of the right-of-way, that is, more than 25 feet west of the bridge.

WARD'S ISLAND (Project sites D and E)

PROJECT SITE D

Maps 6, 7, 8, 9, 10 and 11 show the location of project site D.

Subsurface Disturbance: Map 6 shows the approximate location of the old shoreline. The area of the project site south of this line on this map and north of the fence of map 7 is landfill. The remainder of project site D, which runs in a 25 foot strip along the edge of the existing bridge, was actually within the area of the original right-of-way (compare fig. 19 and fig. 39; the 1931 plan includes the additional 50 feet within margins of the bridge). It was therefore disturbed during construction of the bridge. Further episodes of disturbance, caused by the excavation for utilities for the Manhattan Psychiatric Center may be seen on maps 8, 9, 10 and 11.

Archaeological sensitivity: None.

PROJECT SITE E

Map 11 shows the location of project site E, east of the Triborough Bridge.

Subsurface Disturbance: There is no record of subsurface disturbance in this area.

Archaeological Sensitivity: Project site E may be archaeologically sensitive.

The 1855 article cited above, together with the 1851 USC & GS map, suggests that the potters field was located west of the Triborough Bridge. Since no human bones or burials were reported during the construction of this portion of the bridge (but were reported when they were found on Randall's Island), it is unlikely that any part of the cemetery underlies the bridge but rather that the cemetery was located on one or the other side of the bridge.

The historical data seems to indicate that the potters field was located west of the Triborough Bridge. But we can not be sure. Above all, three burials have been discovered in the last decade within approximately 500 feet of the project site.

The Mabon building, located south of the Asylum, was built in the 1910s or 20s, by which time the location of the potters field may have been forgotten. Project site E lies just south of the Mabon building, which has a basement (fig. 2). How deep were the burials in the cemetery? The 1855 article states that the earth from each successive, 18-foot deep trench was thrown over the old trenches -- in which the burials lay 2 feet below the surface-- thus creating "mounds". Remembering the case of the interments in the African Burial ground where the burials were similarly dug on the side in the side of a depression or ravine (fig. 27A), we can not rule out the possibility of finding graves connected with the potters field in area E, undisturbed by subsurface constructions.

VIII. RECOMMENDATIONS

As seen in section VII above, part of project site C west of the Triborough Bridge and continuing south for approximately 200 feet to the old shoreline, and all of project site E, east of the Triborough Bridge are potentially sensitive for archaeological remains consisting of burials connected with the potters fields that existed on both islands during the mid 19th century.

It is therefore recommended that archaeological field testing be conducted in areas C and E prior to construction in order to determine whether such remains are present or absent and if present, to evaluate their integrity and significance. An appropriate mitigation plan would be developed based on the evaluation of the results of the field testing.

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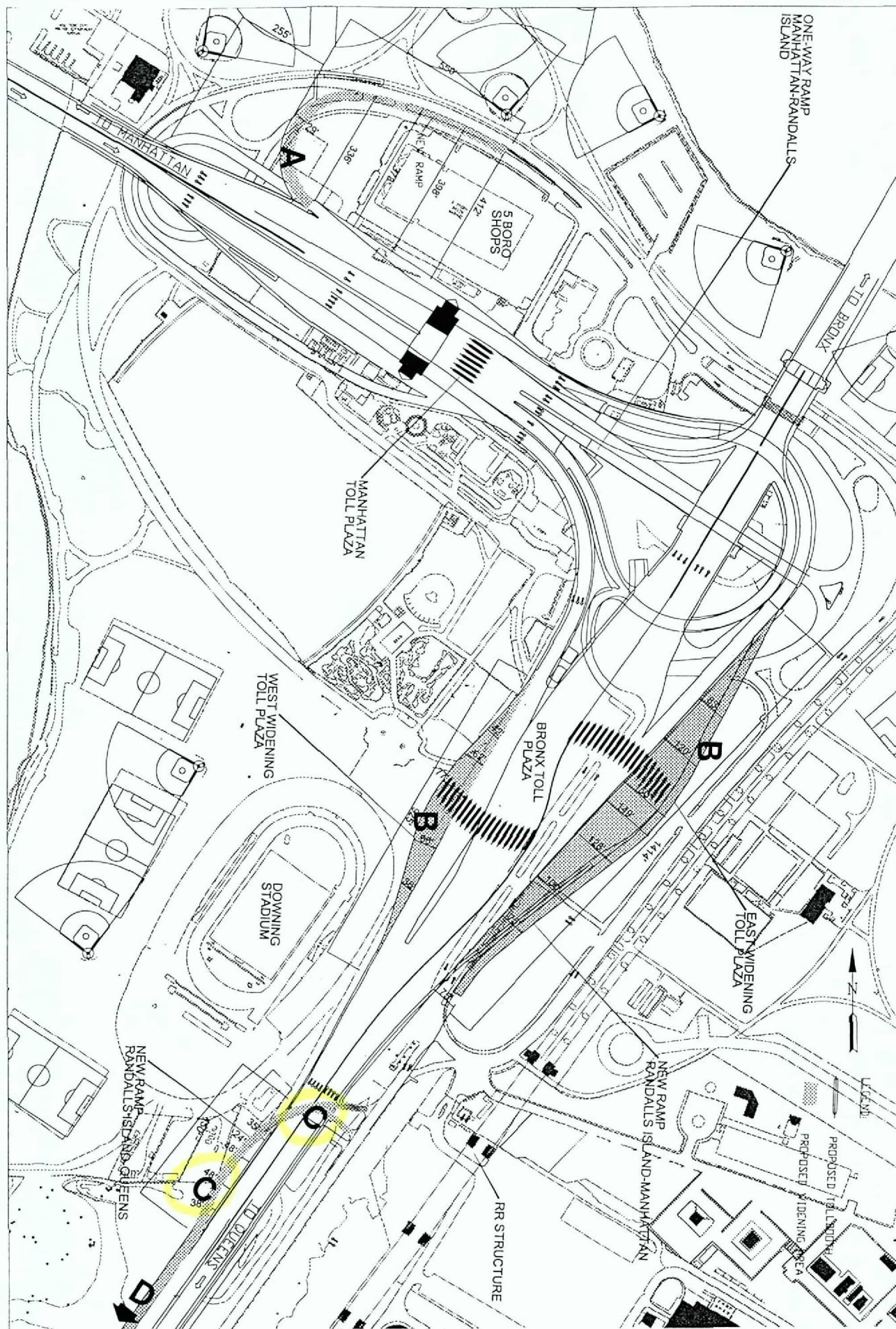


Fig. 1. Map of Randall's Island, detail, showing the location of projects sites A, B and C.
 Courtesy Philip Habib & Associates.

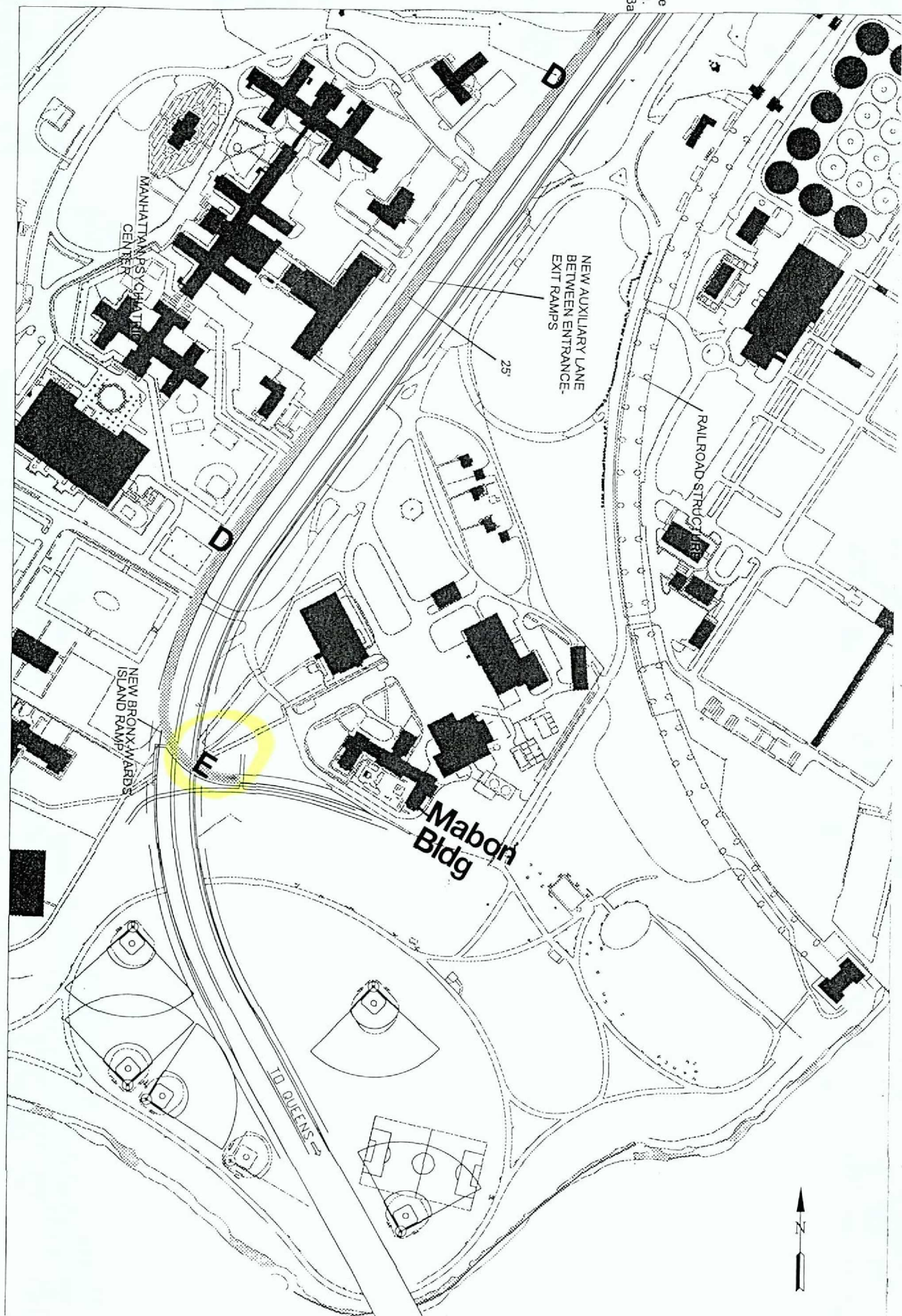


Fig. 2. Map of Ward's Island, detail, showing the location of projects sities D and E.
Courtesy Philip Habib & Associates.



Fig. 3. View of project site A, Randall's Island, western end of the site, looking SSW from a point just west of the 5 Boro Shops.



Fig. 4. View of project site A, Randall's Island, western end of the site, looking SSW, the corner of the 5 Boro Shops is visible at the left edge of the photograph.



Fig. 5. View of project site A, Randall's Island, eastern end of the site, looking SSE from a point just west of the 5 Boro Shops, seen on the right.

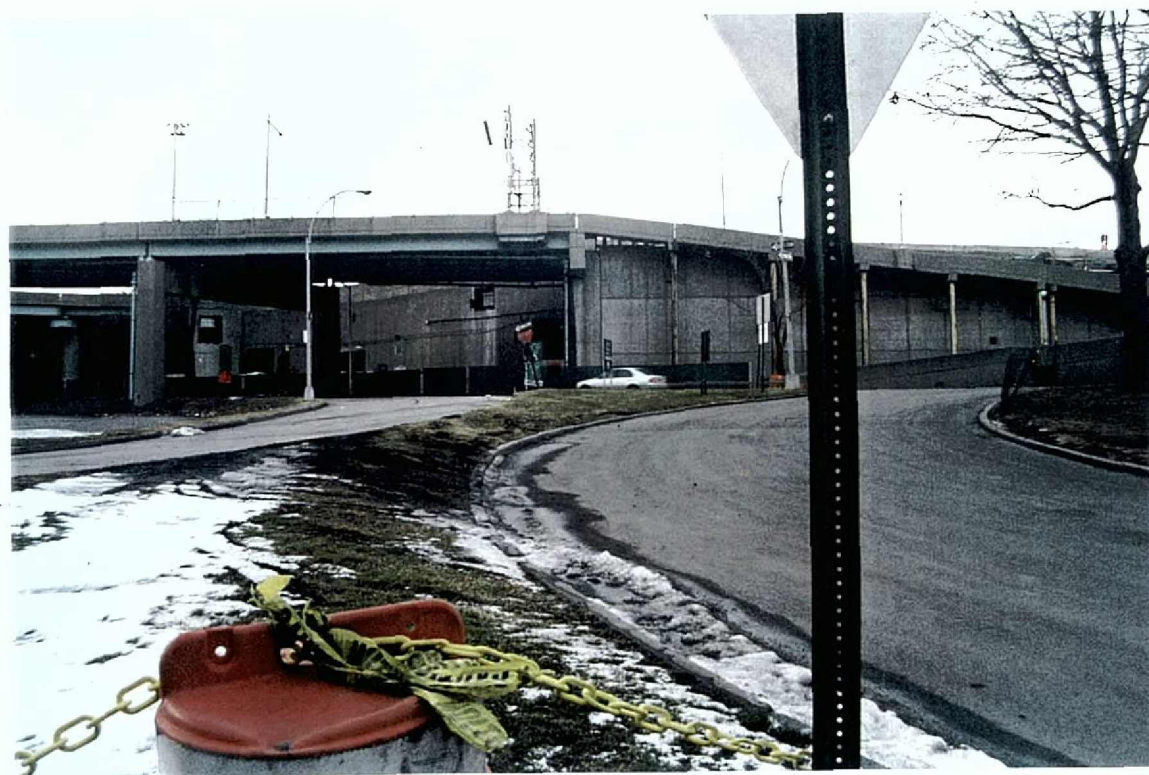


Fig. 6. View of the east side of project site B, Randall's Island, from a point near the northern end of the site, looking NNW towards the Triborough Bridge.



Fig. 7. View of the east side of project site B, Randall's Island, looking SSW from a point near the northern end of the site; the Triborough bridge and the toll booth are visible on the right; the Hell Gate Bridge is on the left.



Fig. 8. View of the east side of project site B, Randall's Island, from a point SSW of the approximate center of the site, towards the Triborough bridge; the toll booth is on the right.

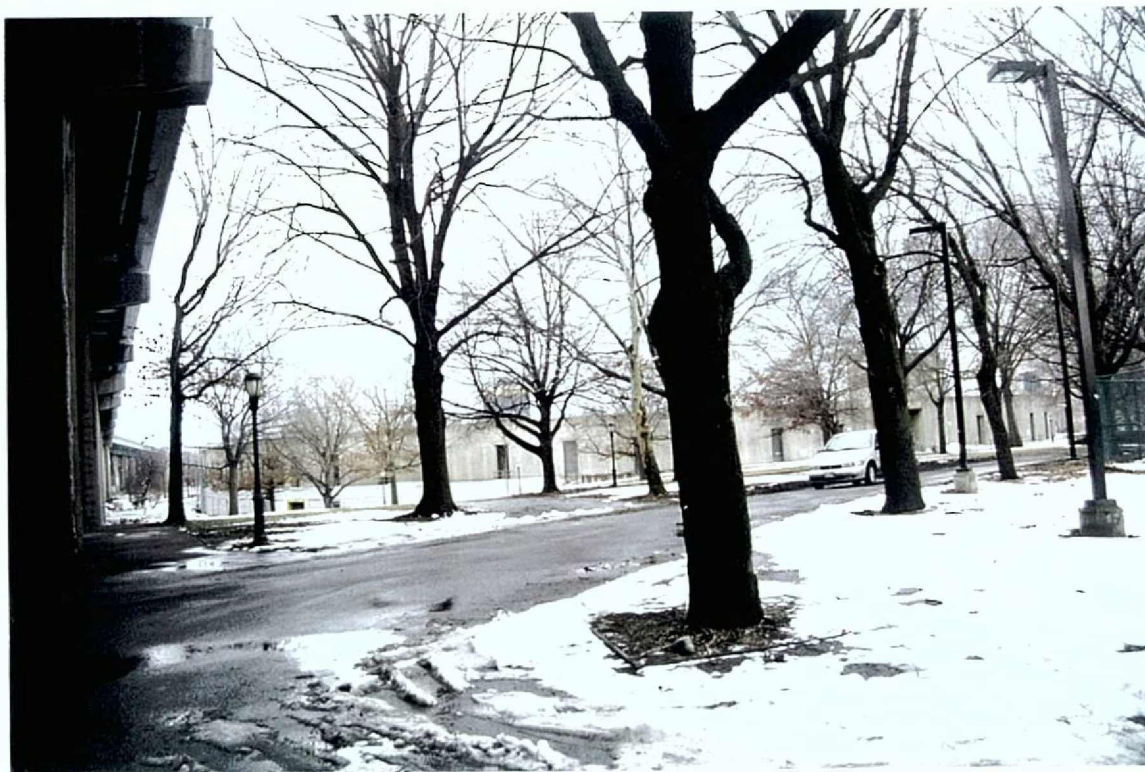


Fig. 9. View of the west side of project site B, southern end of the site, Randall's Island, looking SW towards Downing Stadium, from a point at approximately the center of the site; the Triborough Bridge is on the left.



Fig. 10. View of the west side of project site B, northern end of the site, Randall's Island, looking northeast towards the Triborough Bridge from the flagpole in front of Downing Stadium.



Fig. 11. View of the west side of project site B, southern end of the site, Randall's Island, looking SE towards the Triborough Bridge, from the flagpole in front of Downing Stadium; the Stadium is on the extreme right.



Fig. 12. View of the west side of project site B, southern end of the site, Randall's Island, looking NE; the Triborough Bridge is on the right, Downing Stadium is on the left.

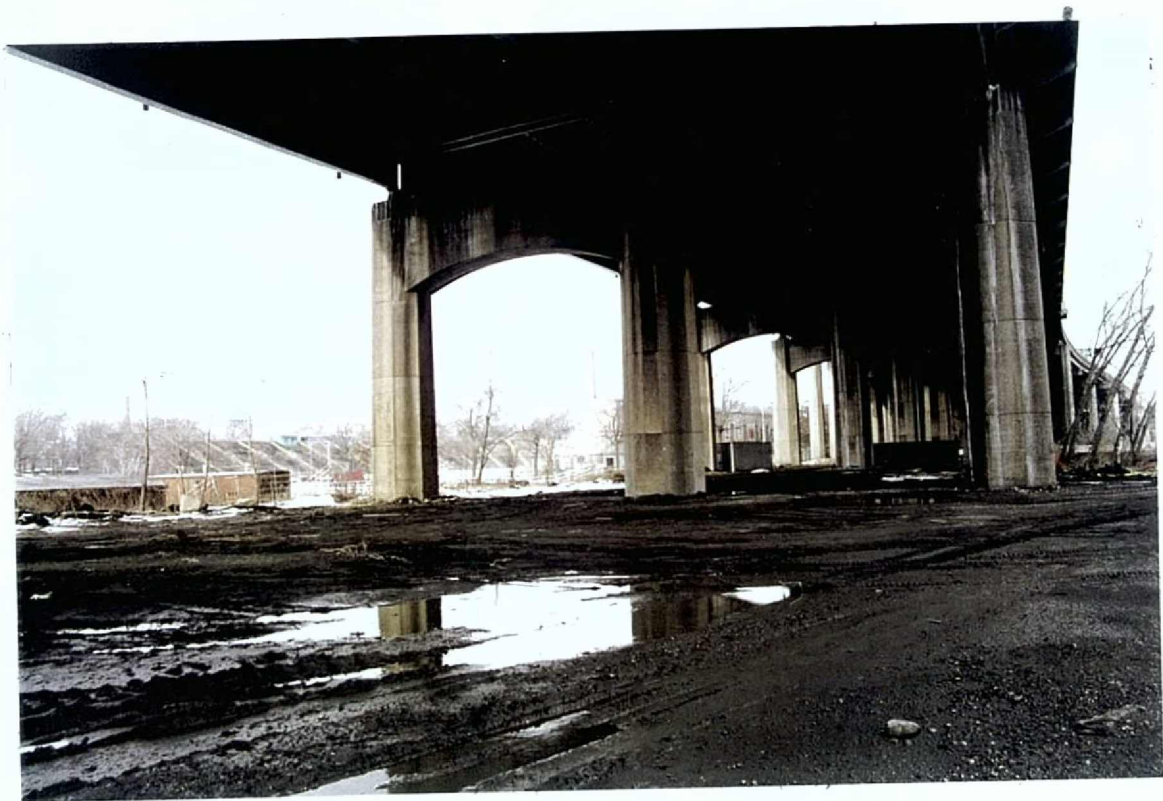


Fig. 13. View of project site C from below the Triborough Bridge south of Downing Stadium (one end of the stadium is visible left of the central foreground pier), looking NE.



Fig. 14. View of project site C-D, from the marshy area between Randall's and Ward's Islands, looking NE.



Fig. 15. View of project site C-D from the marshy area between Randall's and Ward's Islands, looking SSW towards the Manhattan Psychiatric Center



Fig. 16. View of project site C-D, from the northern end of Ward's Island, looking NNE.



Fig. 17. View of project site D from the northern end of Ward's Island, looking SSW.



Fig. 18. View of project site D, from the road next to the Protestant Chapel, Manhattan Psychiatric Center, looking NNE.



Fig. 19. View of project site D-E from the road south of building 104 (Rehabilitation Building), looking SSE.



Fig. 20. View of the southern end of project site D, from the road south of building 104 (Rehabilitation Building), looking SSW.



Fig. 21. View of project site E (inaccessible) from the road on the opposite (west) side of the Triborough Bridge, looking E.



Fig. 22. Aerial view of Randall's and Ward's Islands and Sunken Meadow, Nov. 16, 1937 (Municipal Reference Library, VF).



Fig. 23. View of Randall's, Ward's and Sunken Meadow Island, 1938. Fairchild Aerial Surveys photograph. "From the Archive", Laura Rosen, ed., MTA Bridges and Tunnels Newsletter, Summer 1996:

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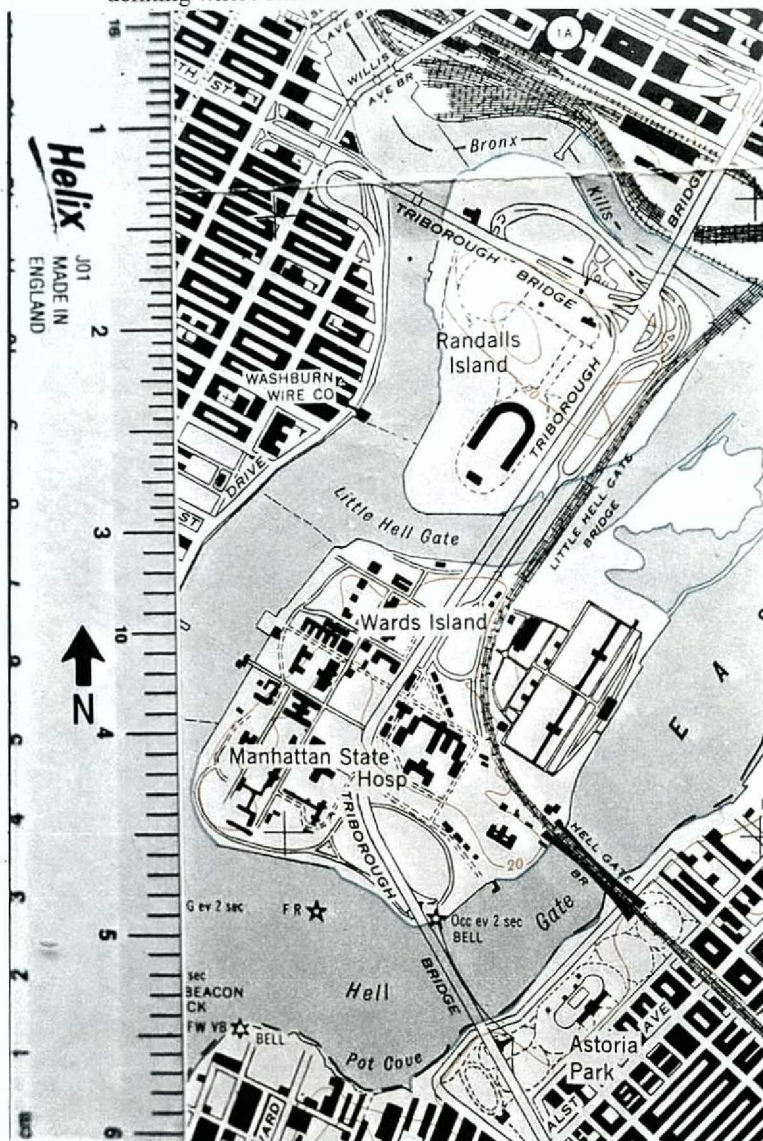


Fig. 24. 1947 USGS Map of Randall's and Ward's Islands.

Scale 2.56" = 1mi.

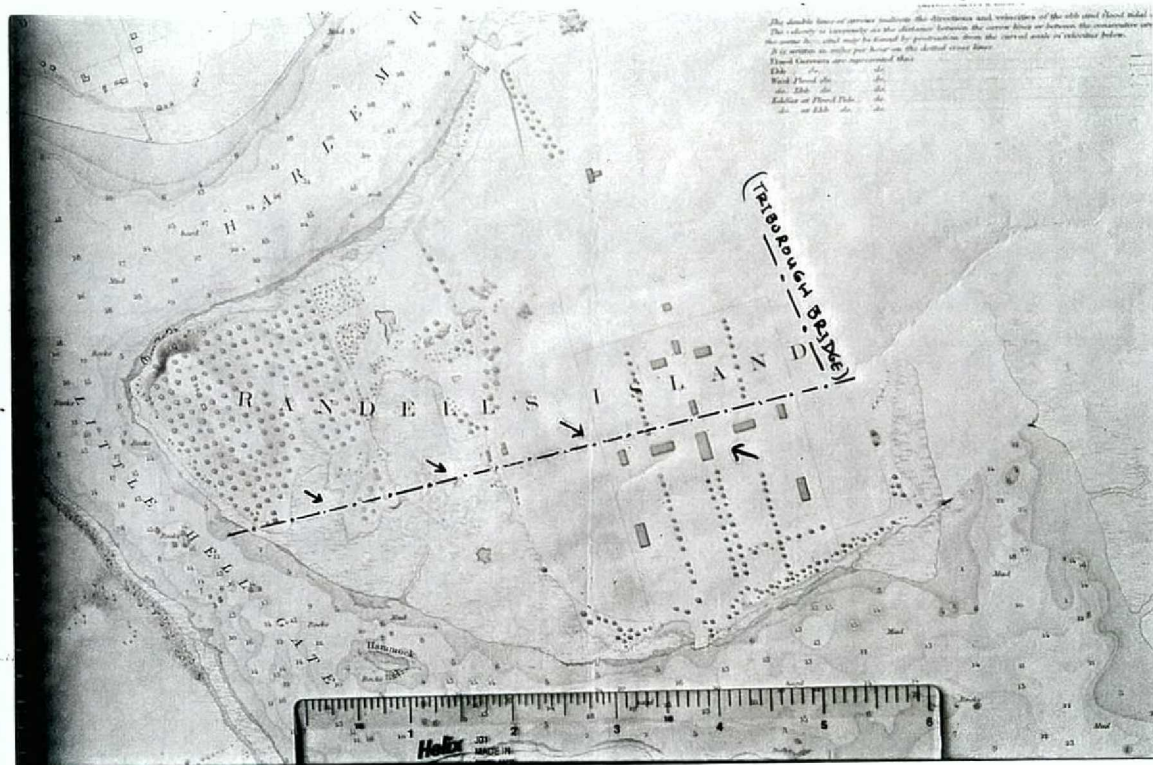
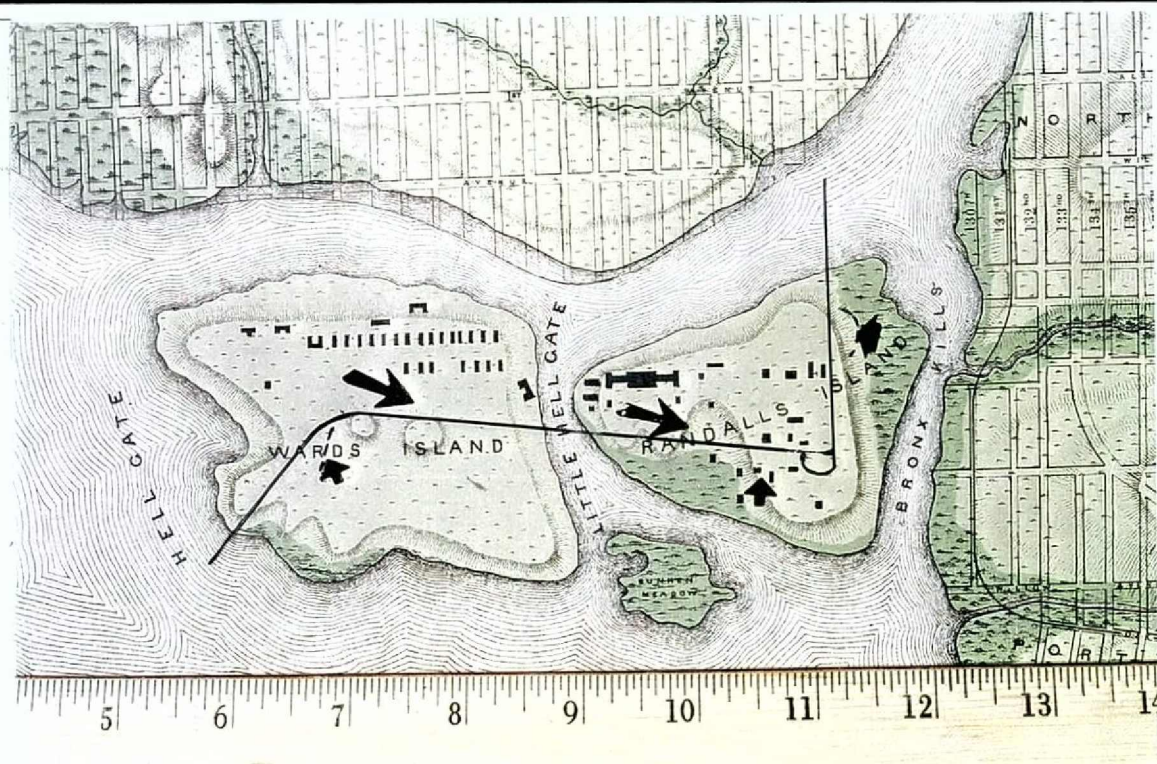


Fig. 25 (above). Viele Map 1874 showing Randall's and Ward's Islands and the approximate location of the Triborough Bridge and the project sites.

Scale: 1" = 1000 ft.

Fig. 26 (below). USCS map 1851 showing Randall's Island and the approximate location of the Triborough Bridge and the project sites.

Scale: 3" = 0.25 mi.

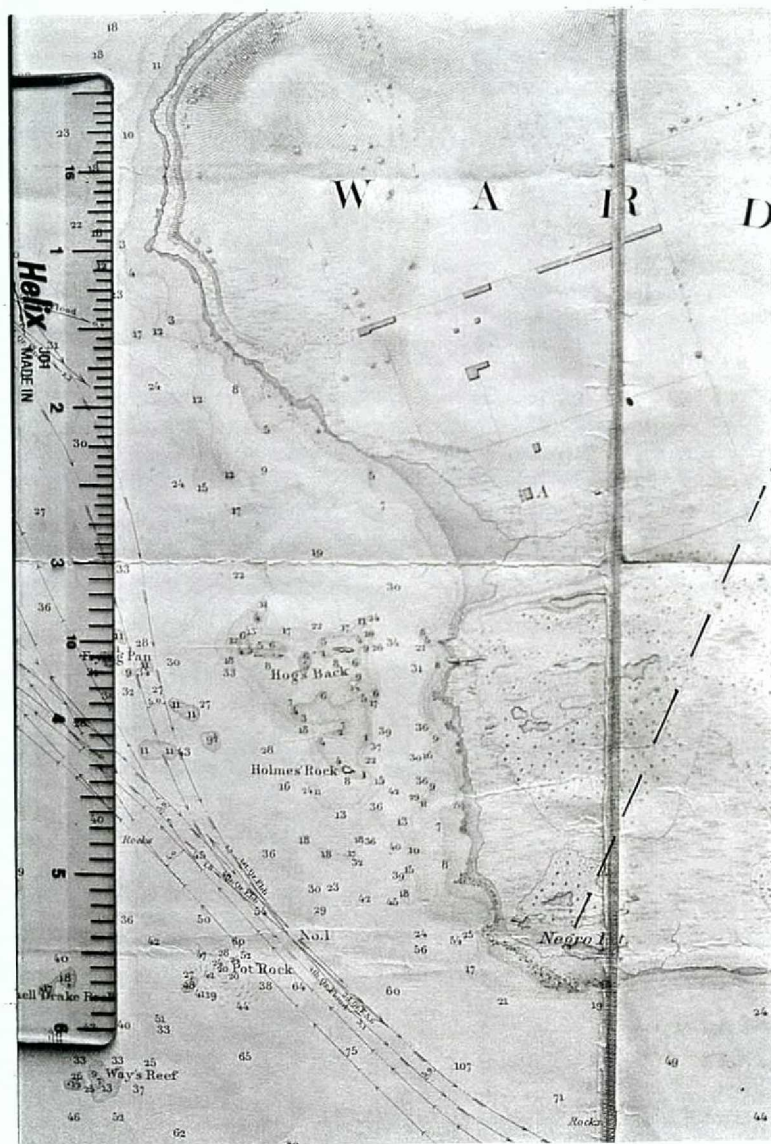
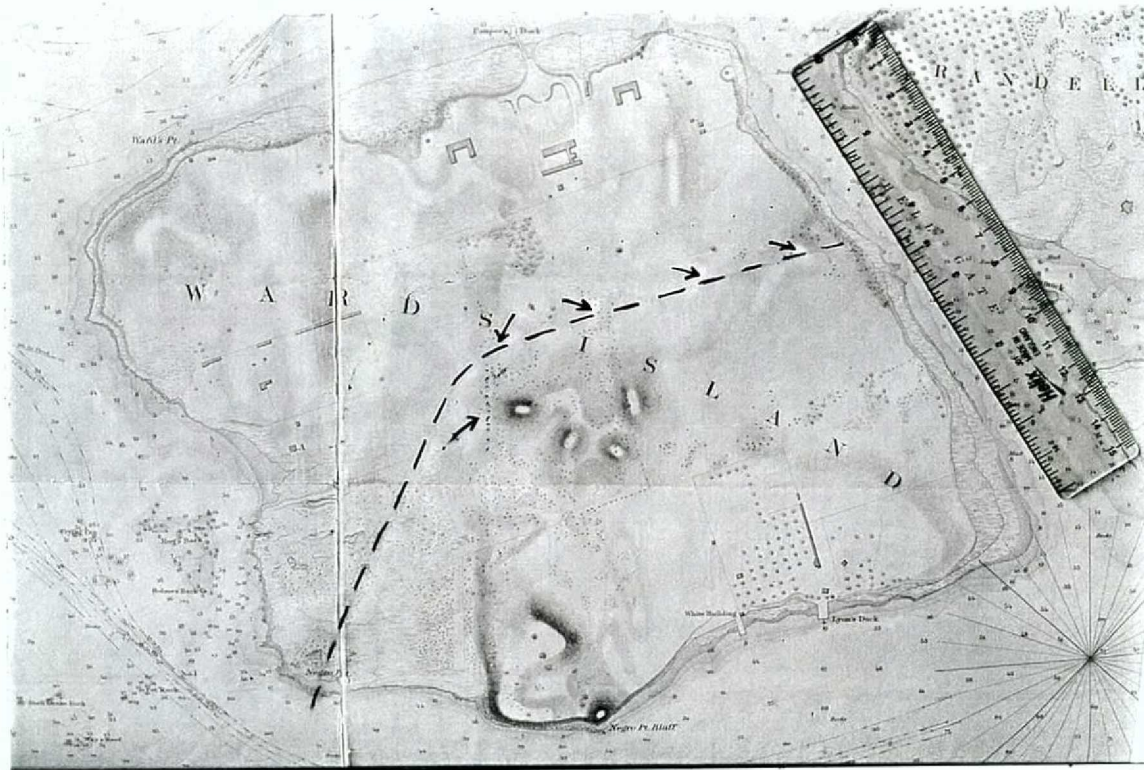


Fig. 27A & B. USCS map 1851 (detail left) showing Ward's Island and the approximate location of the Triborough Bridge and the project sites.

Scale: 3" = 0.25 mi.

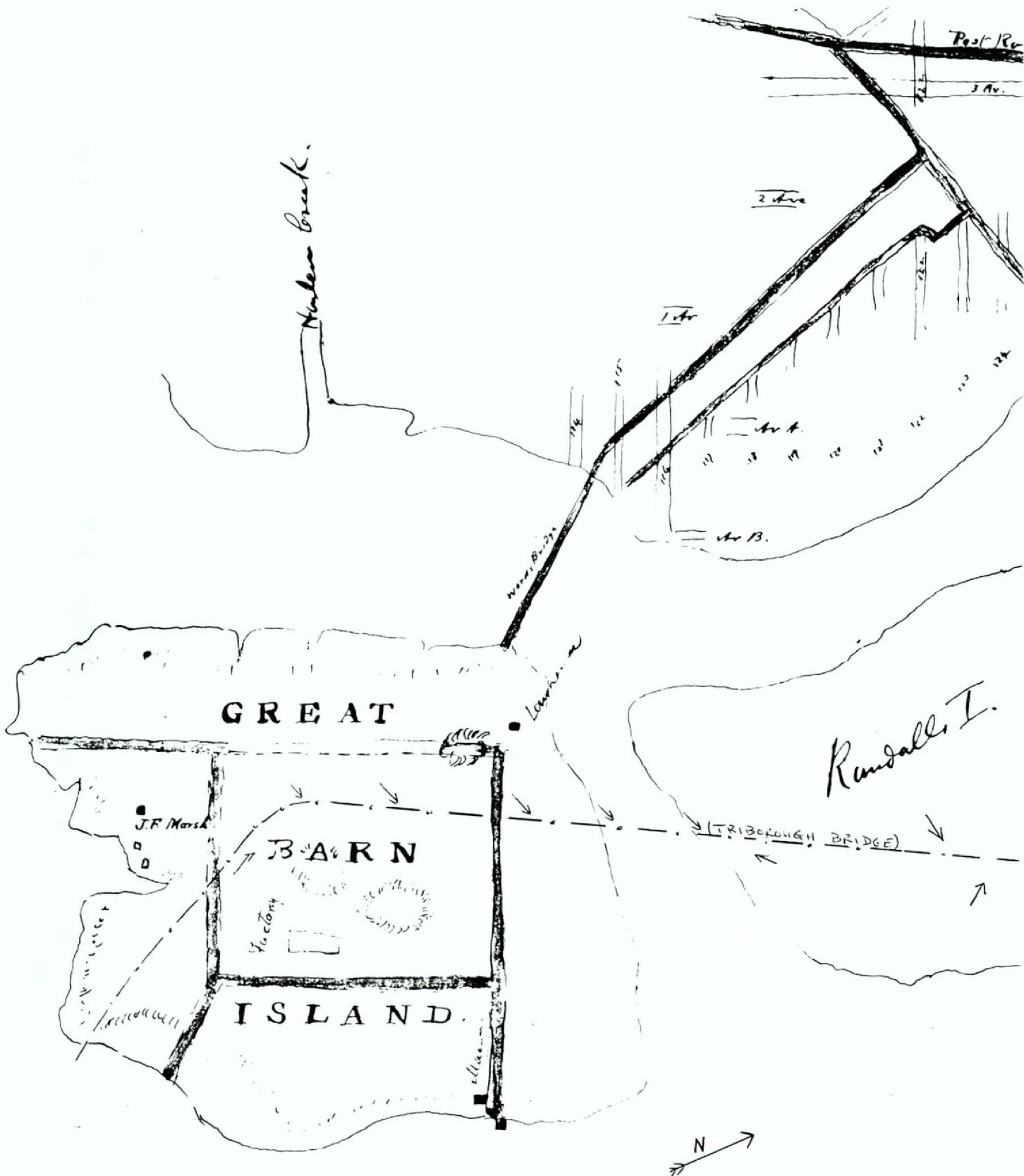


Fig. 28. Bridges map 1811 showing the approximate location of the Triborough Bridge and the project sites (NYHS 3767).

Bridges Map 1811

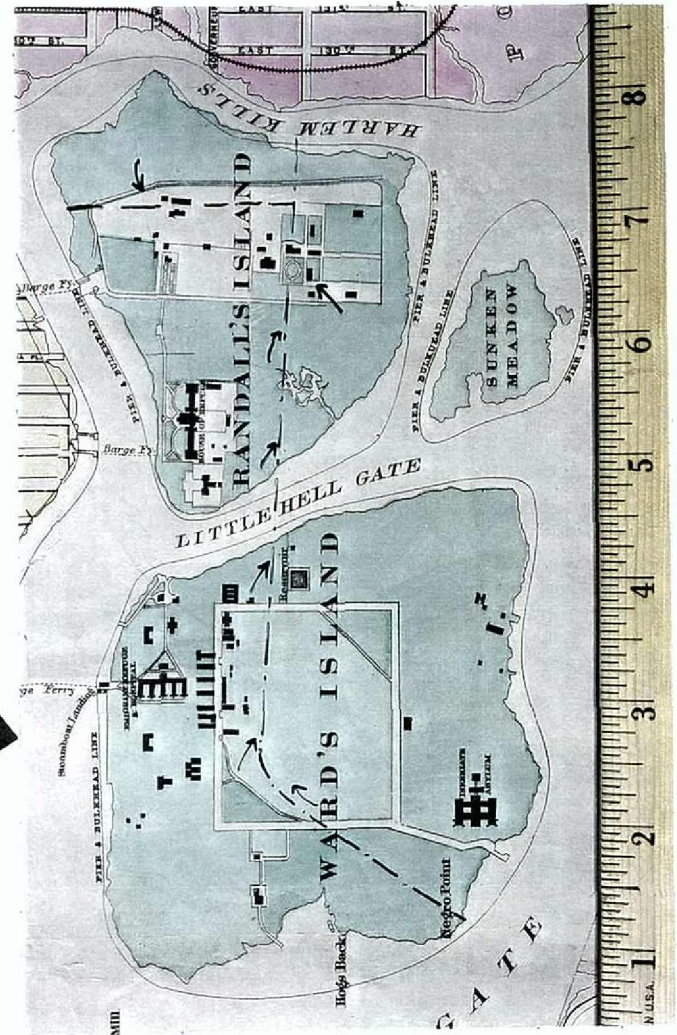
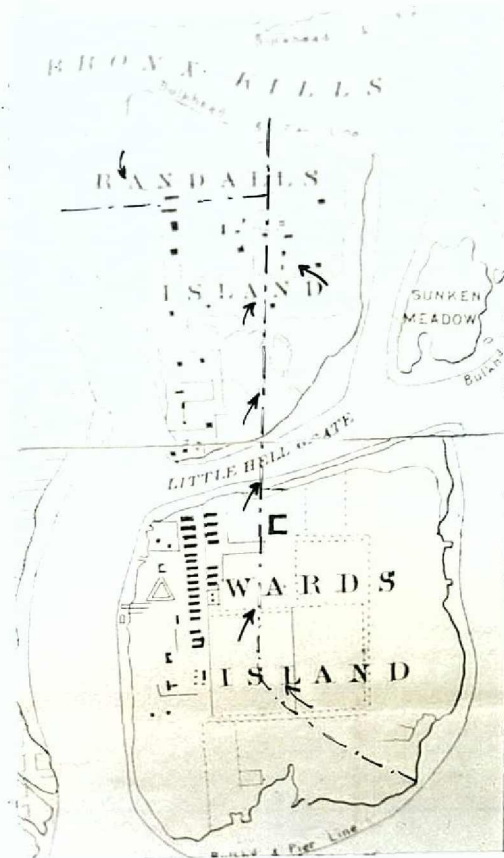


Fig. 29. (Left). Map from Valentine's Manual 1860 showing Randall's and Ward's Island and the approximate location of the Triborough Bridge and project sites.

Fig. 30. (Right). Colton map 1880 showing Randall's and Ward's Islands. Scale: 1" = 1000 ft. and the approximate location of the Triborough Bridge and project sites.

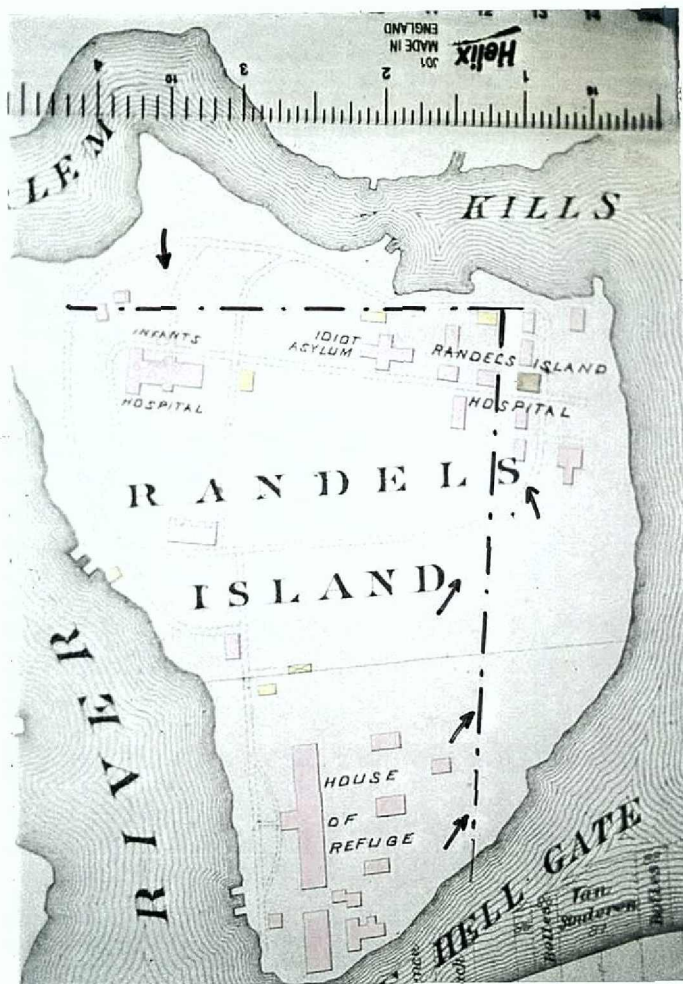
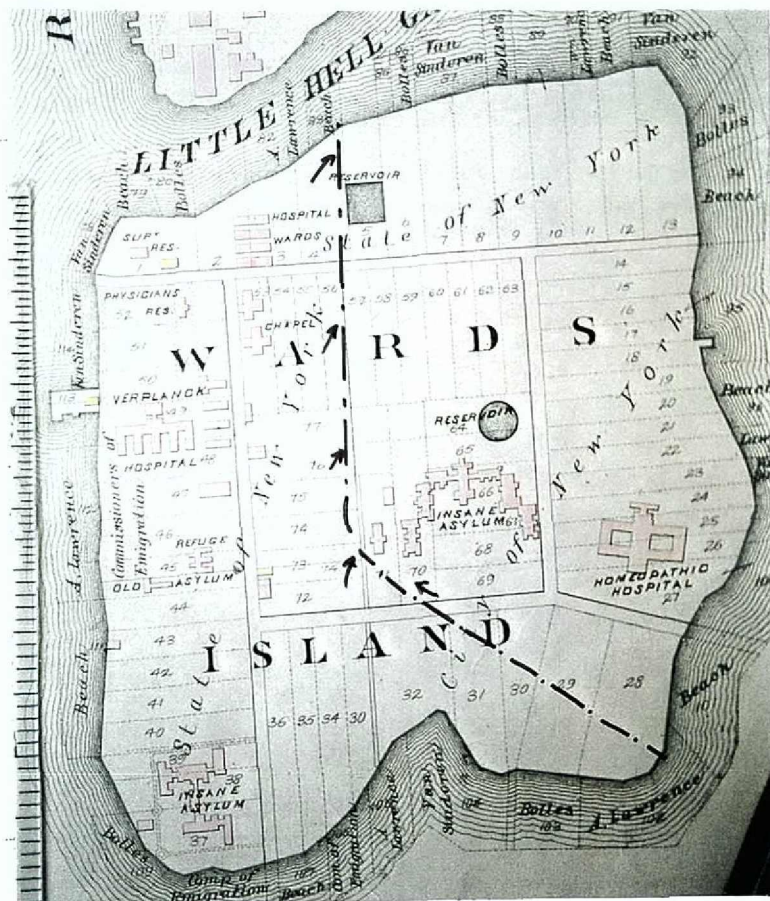


Fig. 31. Robinson map 1885 showing the approximate location of the Triborough Bridge and the project sites.

Scale: 1" = 300 ft.



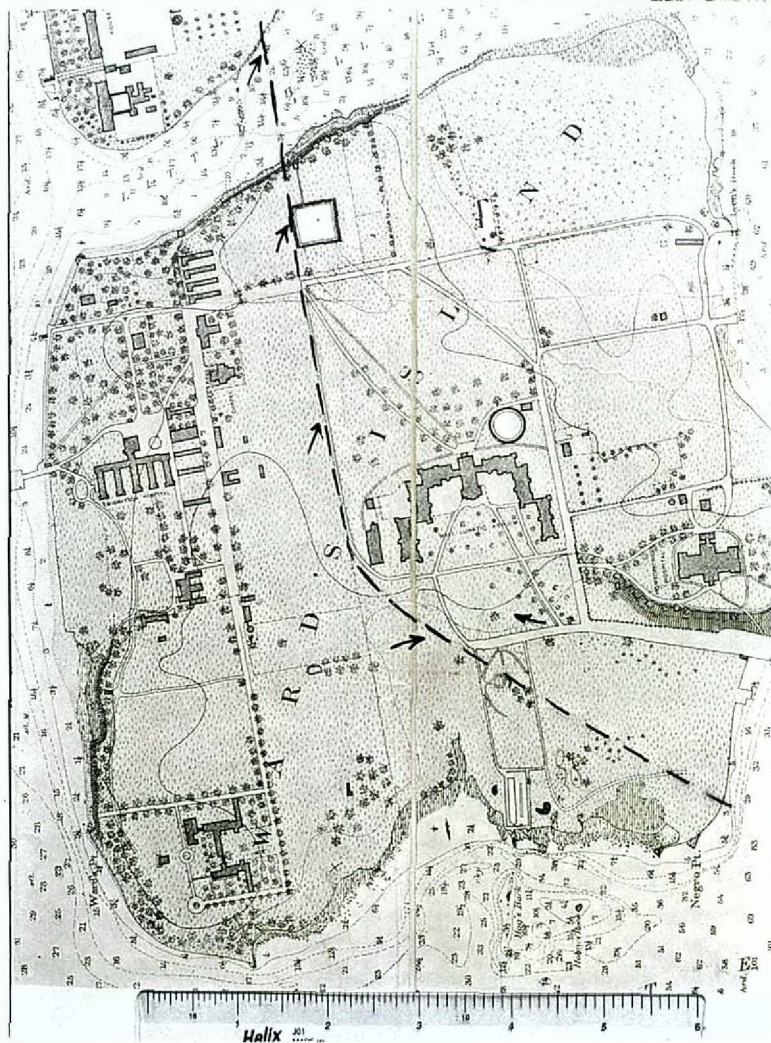
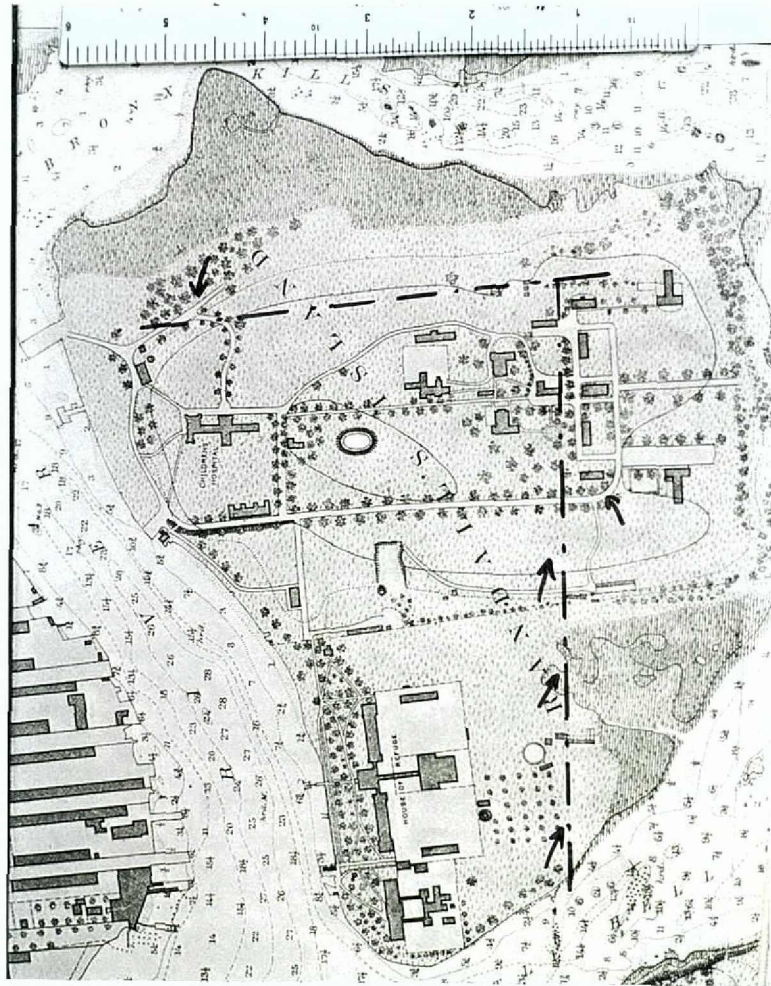


Fig. 32. USC & GS Map 1887 showing the approximate location of the Triborough Bridge and the project sites.
Scale: 3.25" = 0.25 mi.

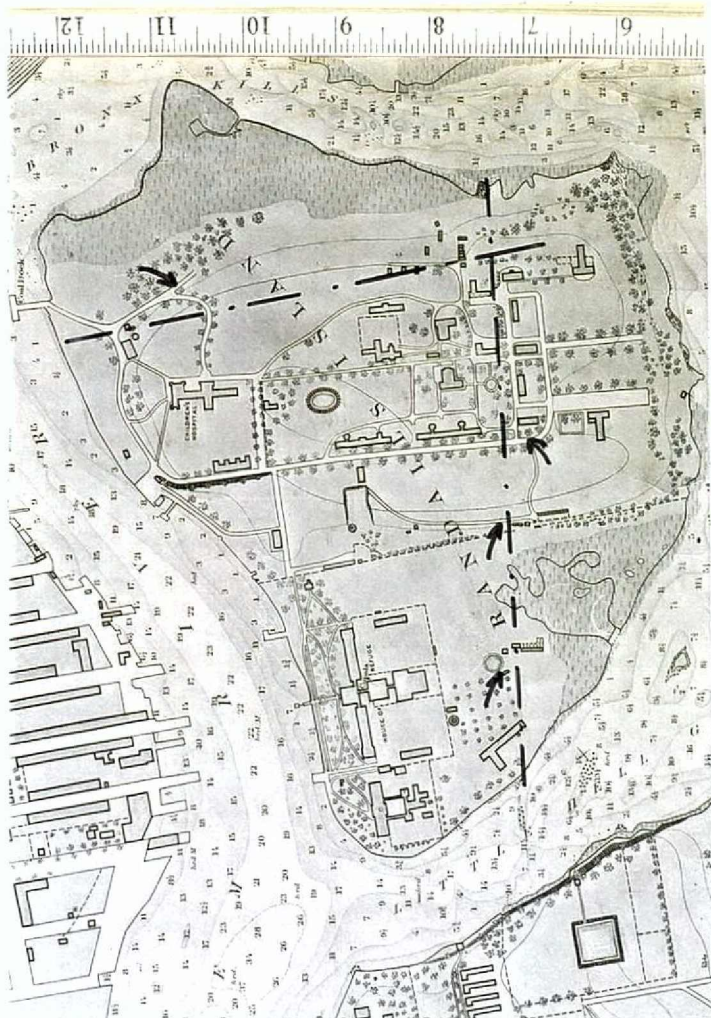


Fig. 33. USC & GS map 1909 showing the approximate location of the Triborough Bridge and the project sites.
Scale: 3.25" = 0.25 mi.

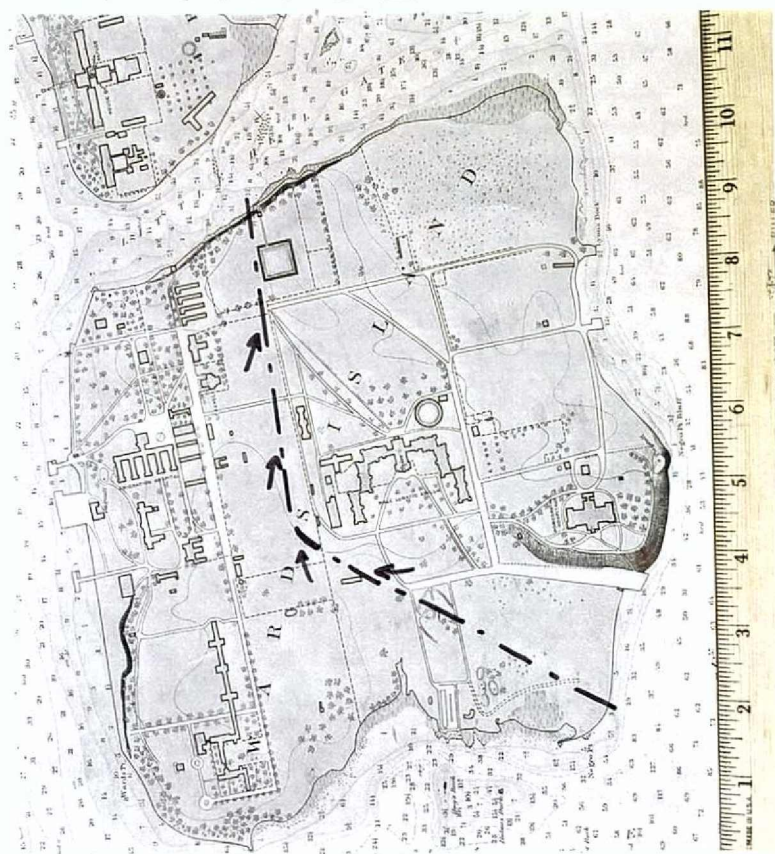


Fig. 34. Manhattan State Hospital
Wards Island N.Y. Map of Grounds, 1934.
Courtesy MTA Bridges and Tunnels.

Fig. 35. Triborough Bridge Authority,
Division of Design. Triborough Bridge,
Randall's Island, 1933. Scale: 1" = 150 ft.
Courtesy MTA Bridges and Tunnels.

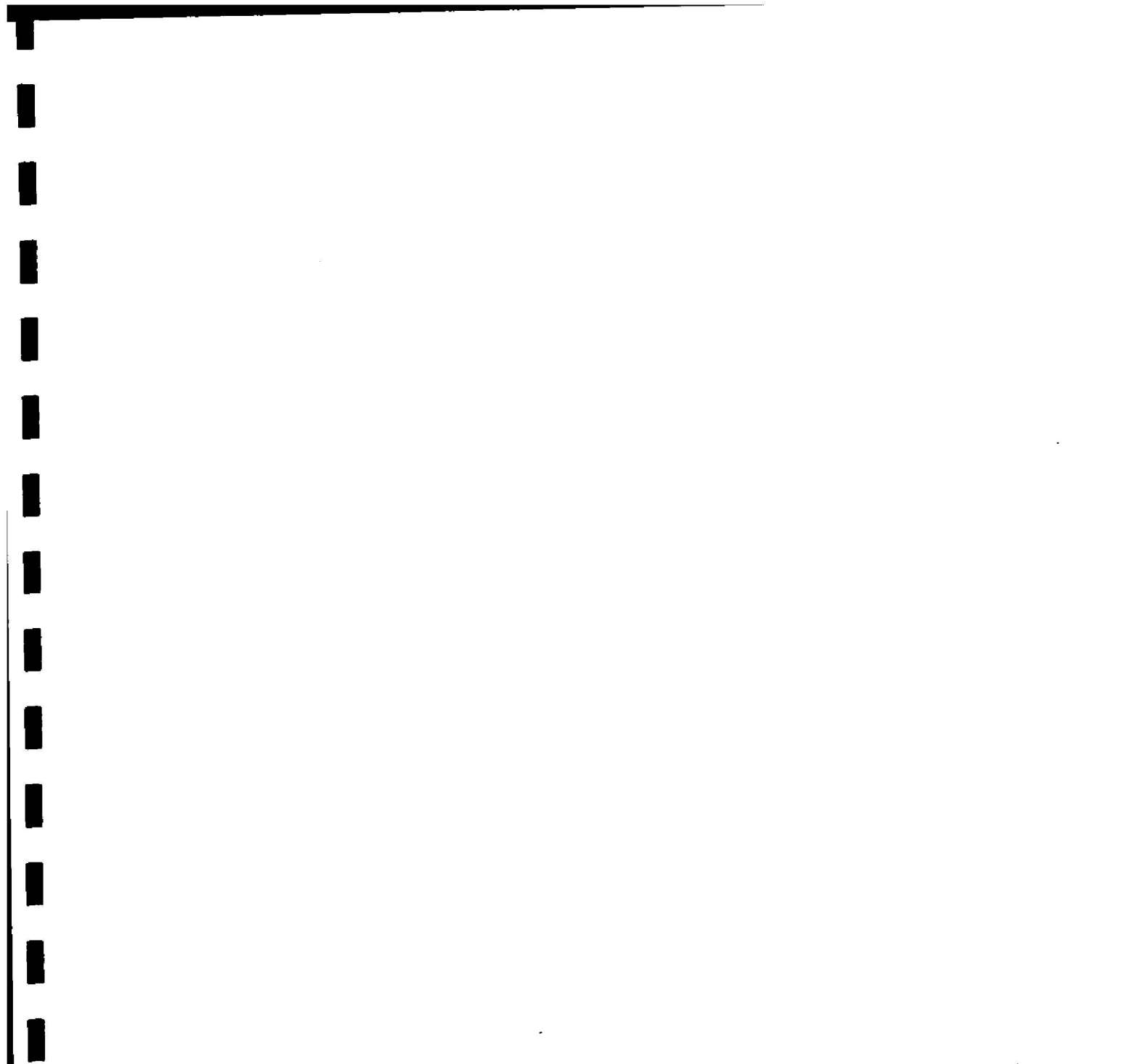


Fig. 36. Triborough Bridge Authority.
Randall's Island, 1936. Scale: 1" = 100 ft.
Courtesy MTA Bridges and Tunnels.

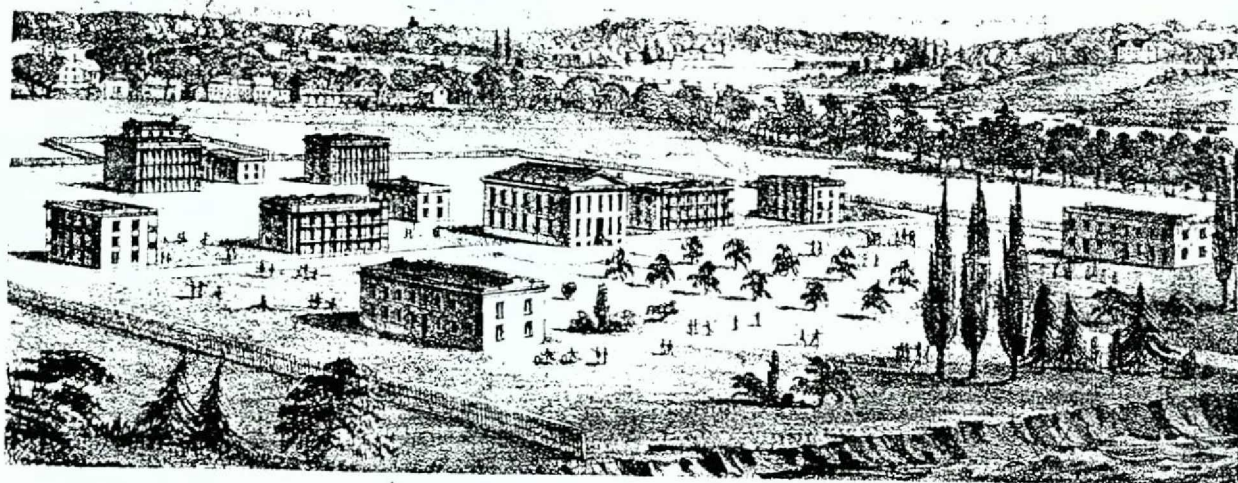
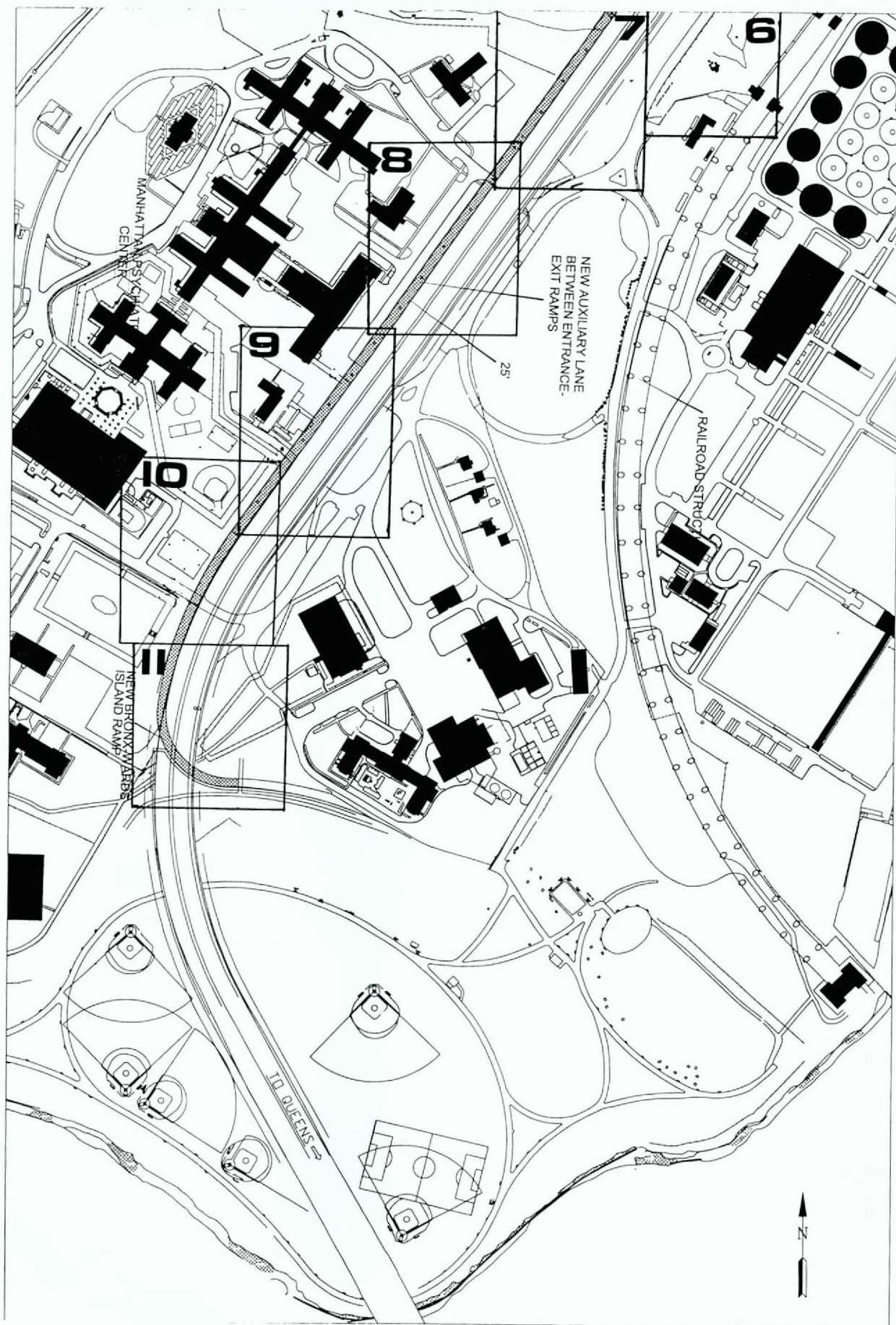


Fig. 37. Nursery Establishment Randall's Island, 1851.
Kelby MSS notes on Randall's Island, NYHS.



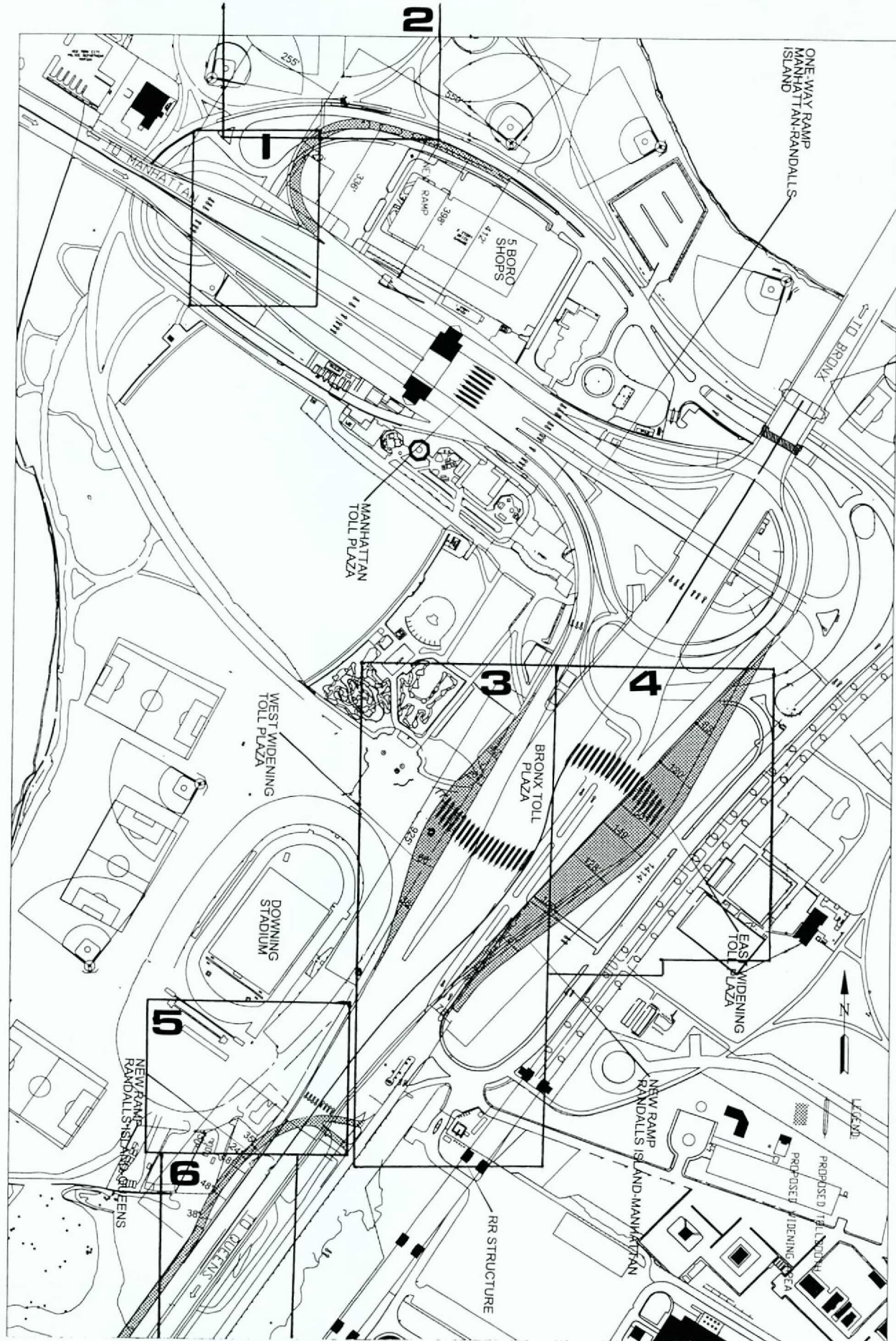
Fig. 38. Randall's Island/ Sample collection of remains found in excavating for Pier 36 North. Courtesy MTA Bridges and Tunnels Special Archive.



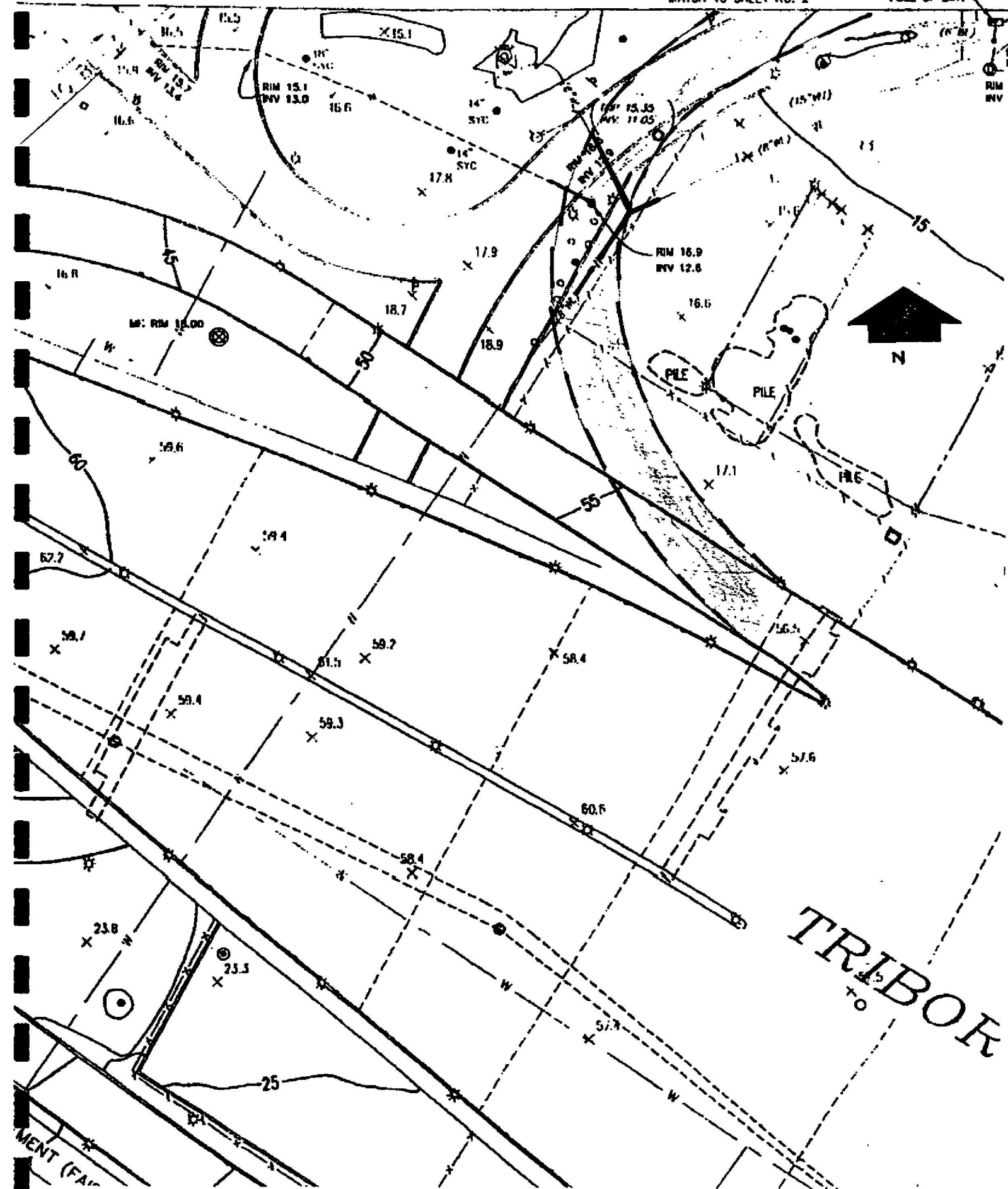
KEY TO MAPS: B - WARD'S ISLAND

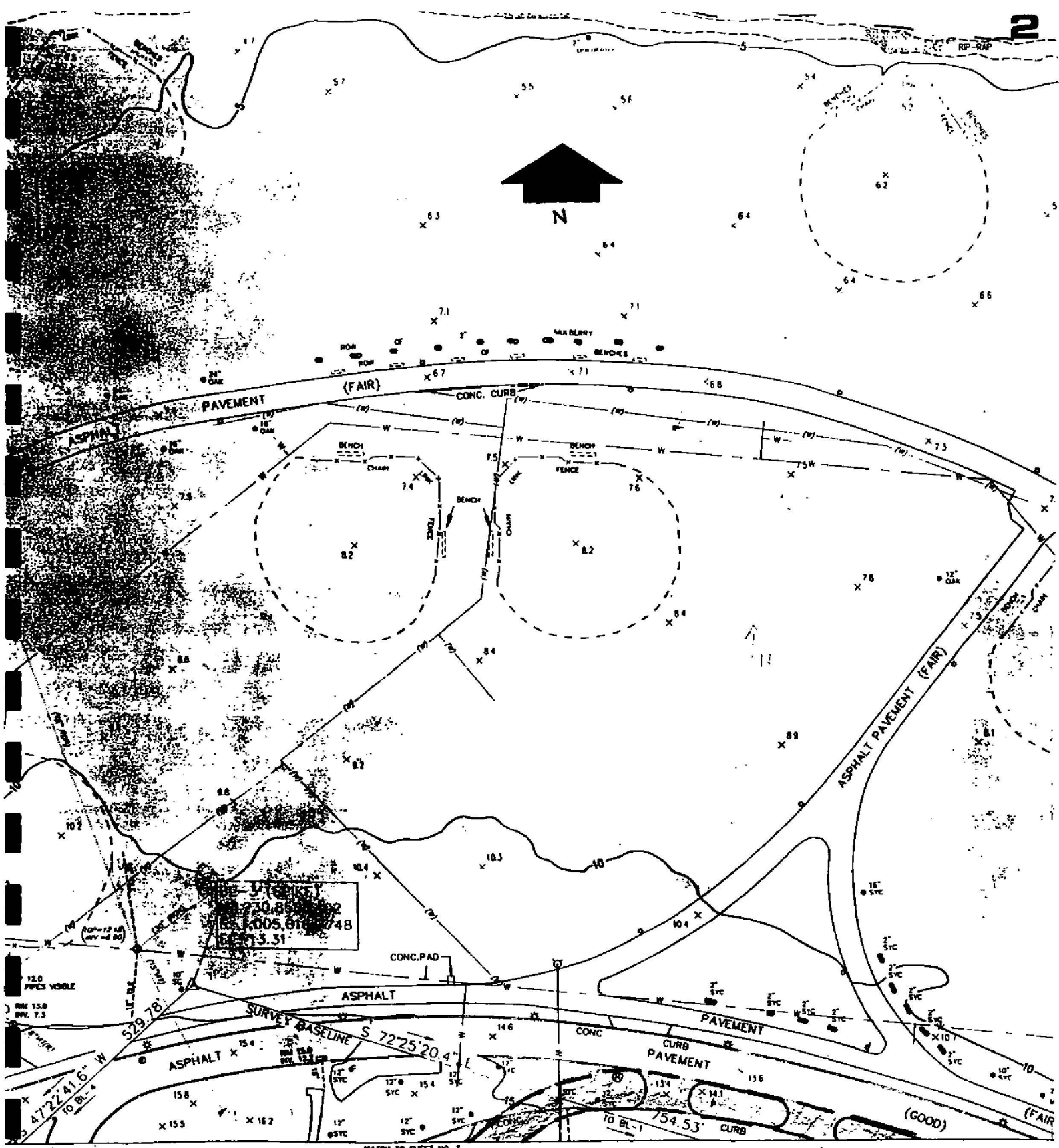


Fig. 39. The Triborough Bridge under Construction, 5/8/1935. Courtesy MTA Bridges and Tunnels Special Archive.



KEY TO MAPS: A - RANDALL'S ISLAND



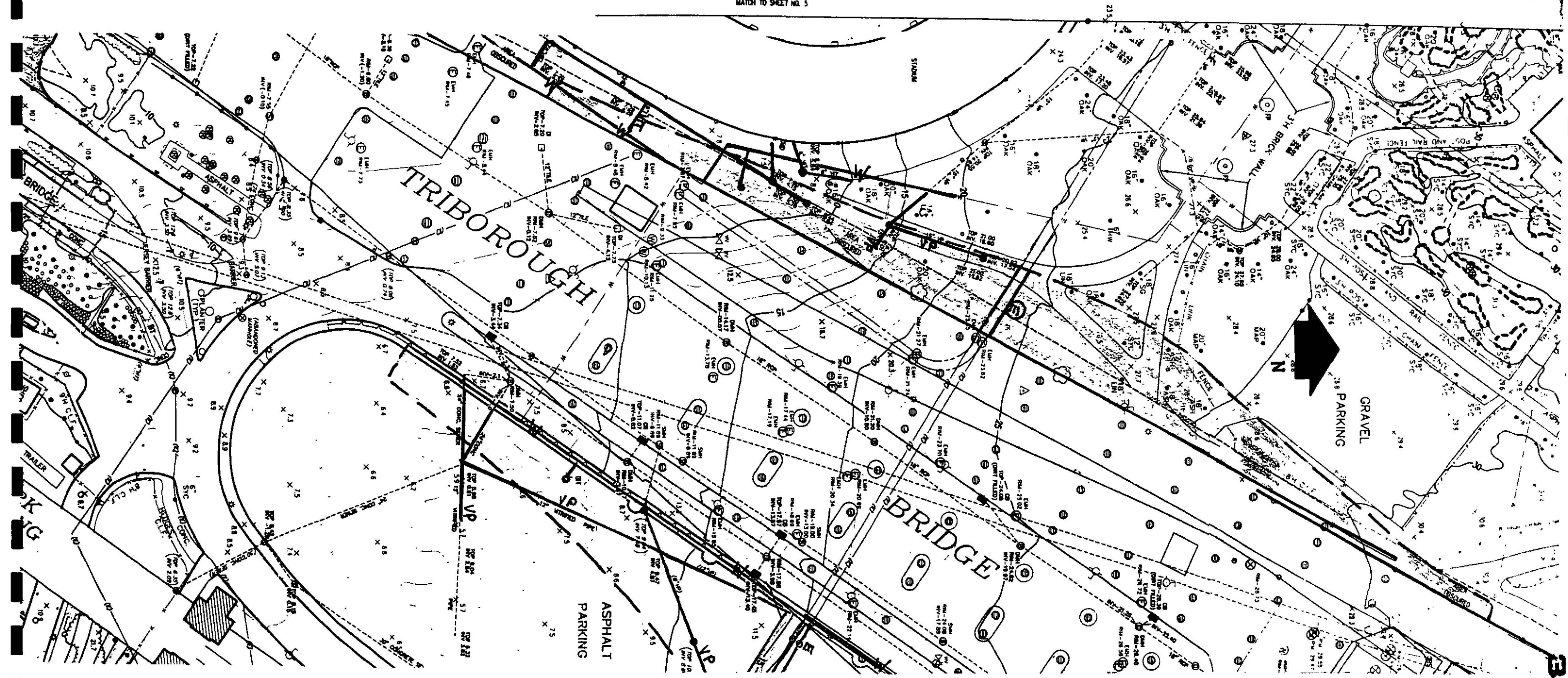


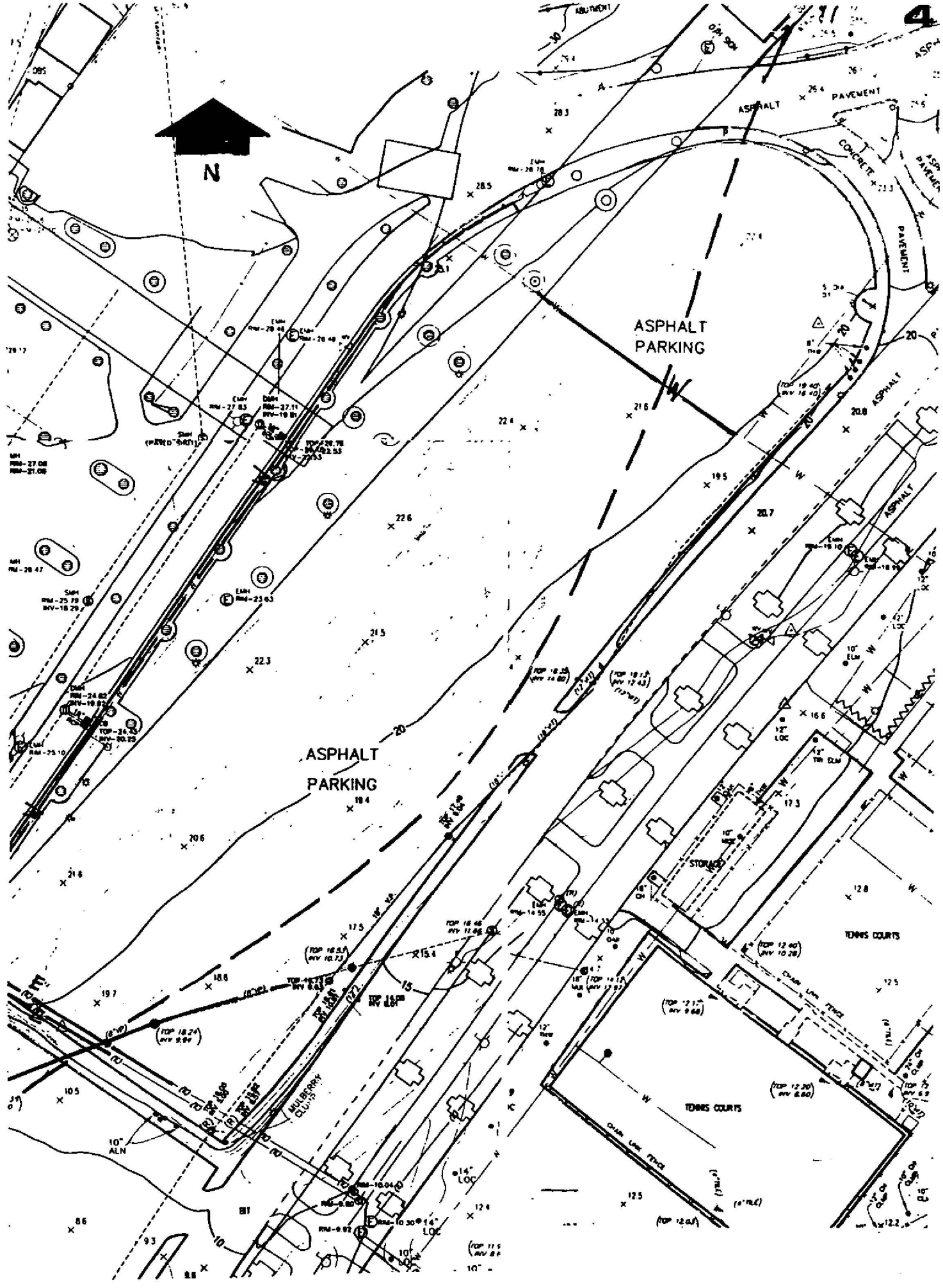
MATCH TO SHEET NO 3

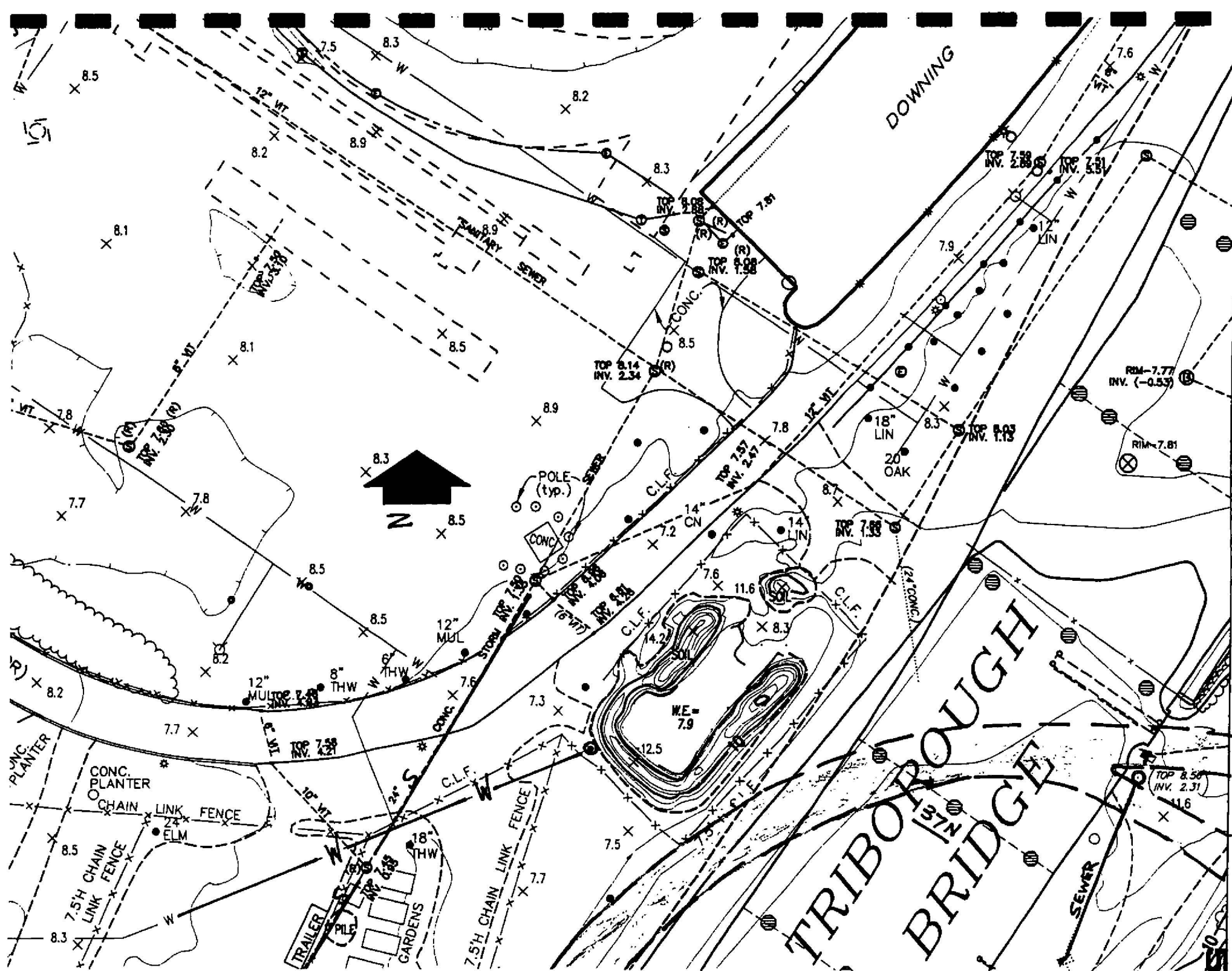
rock. sign

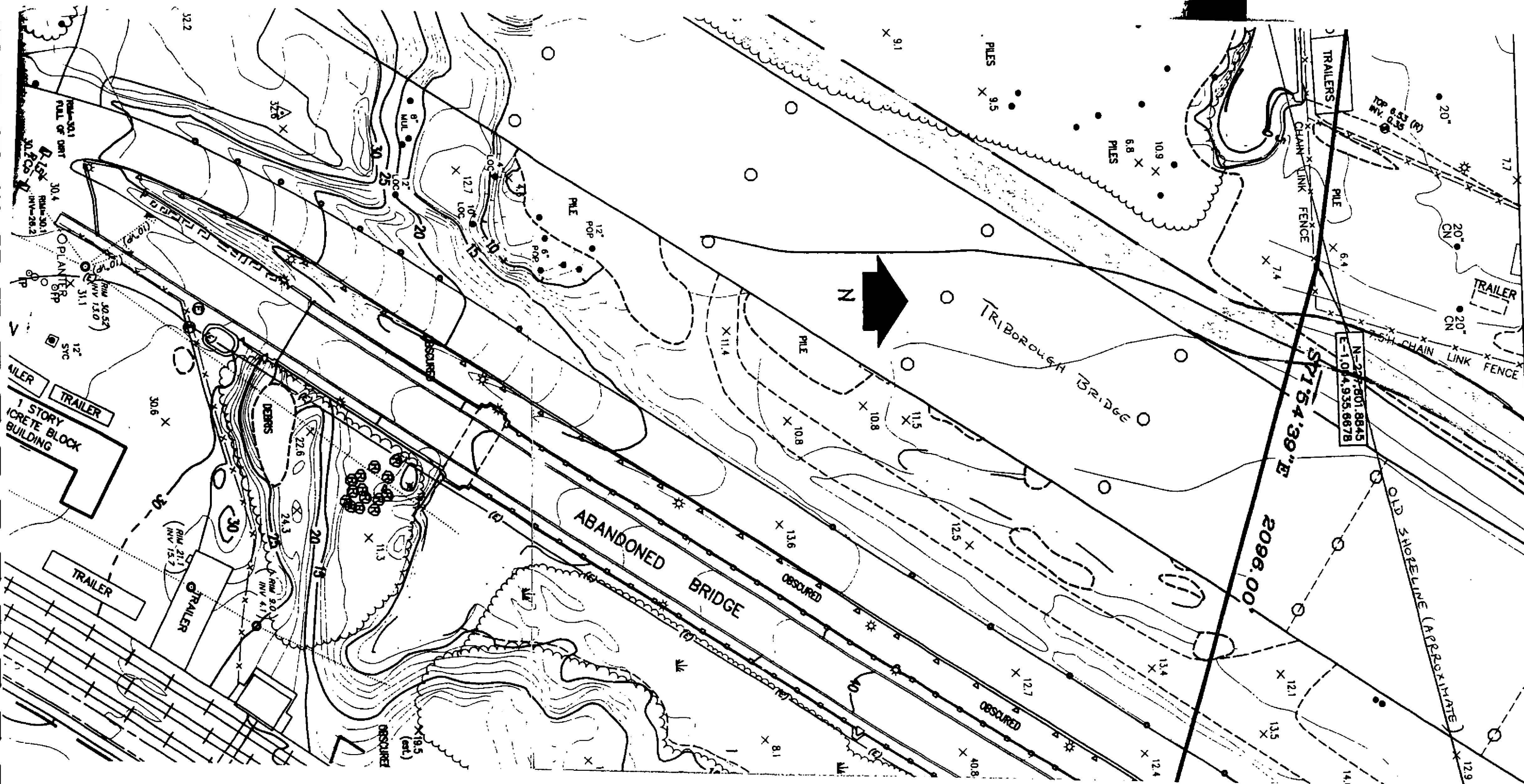
YAH Y

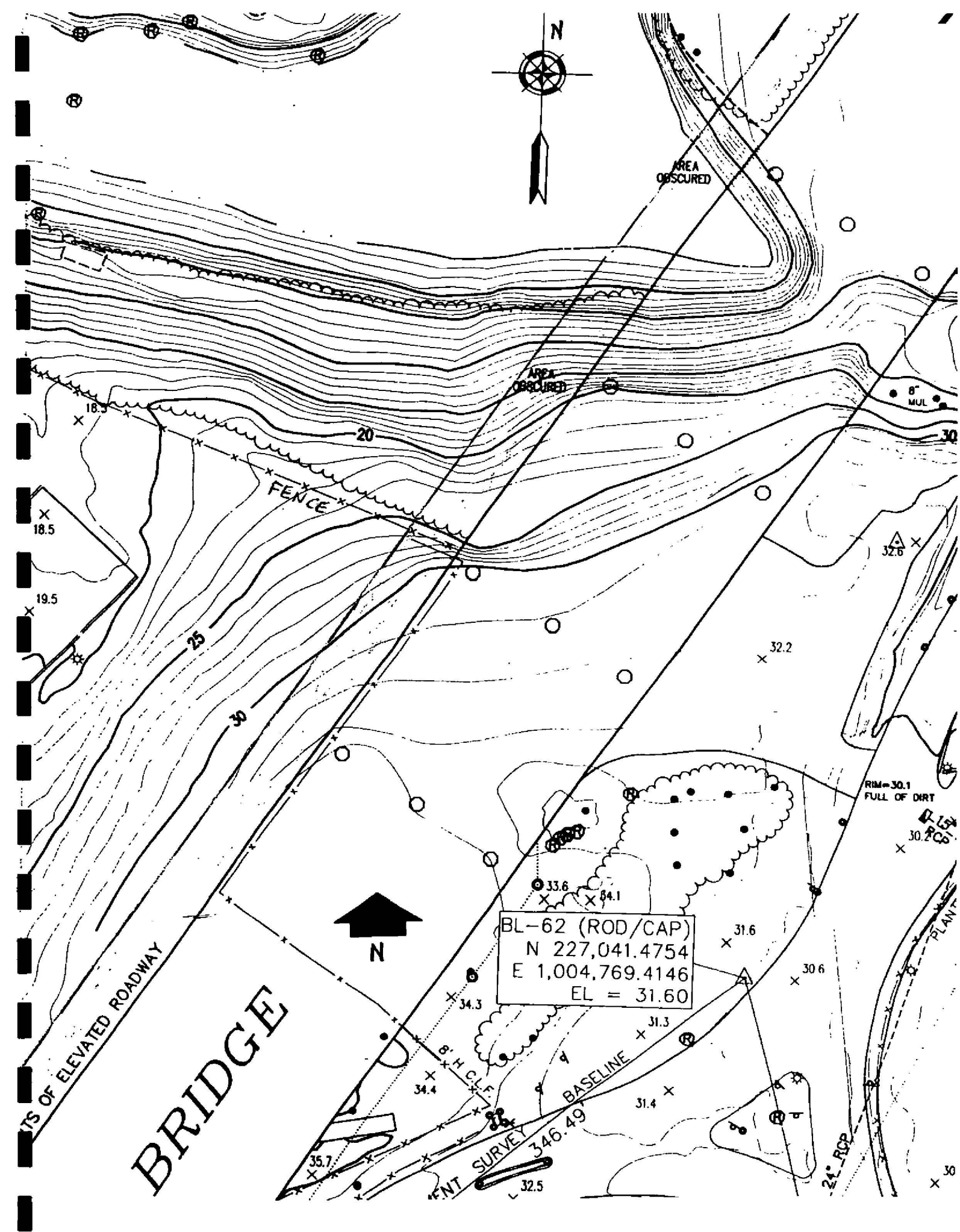
MATCH TO SHEET NO. 5

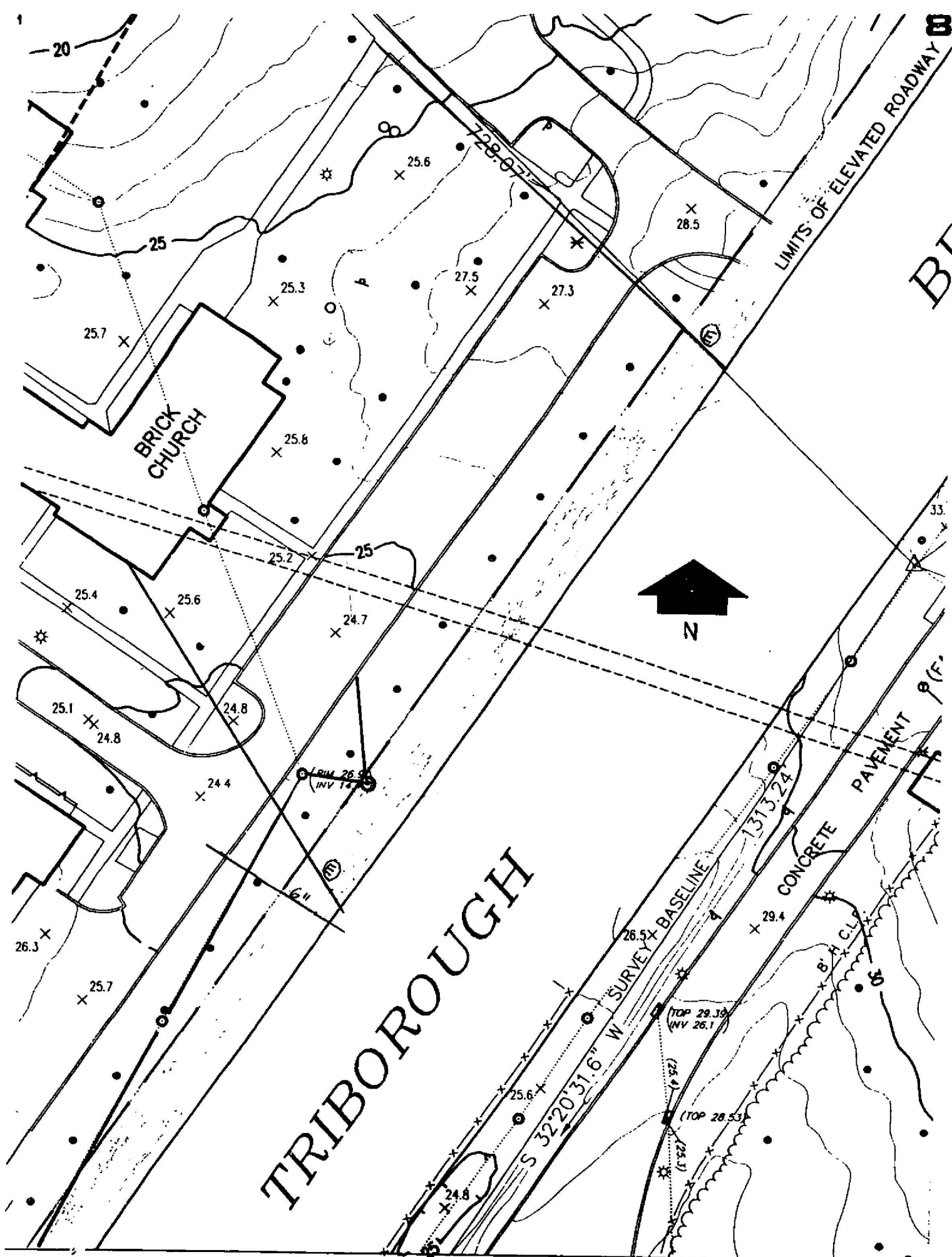








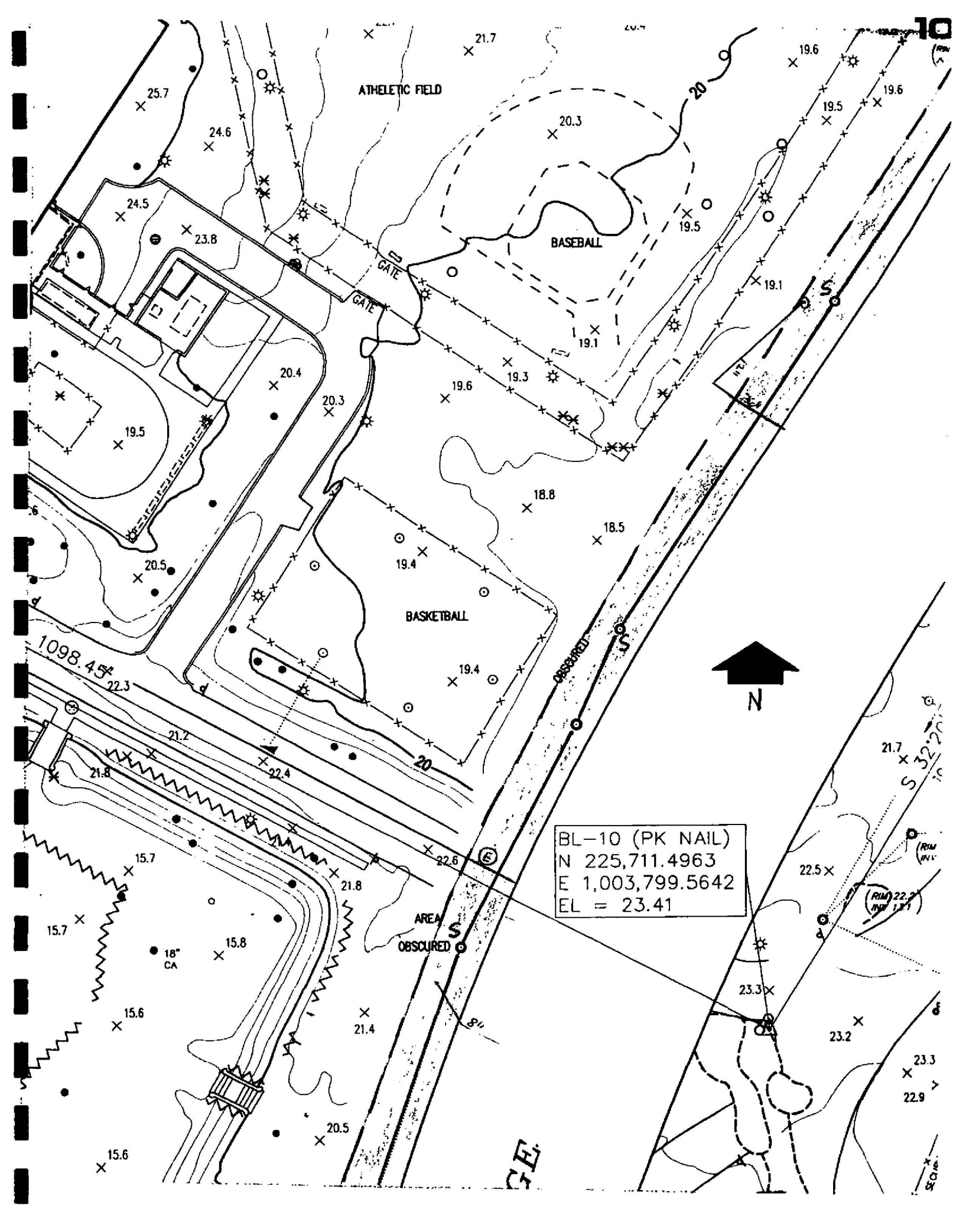




[illegible][illegible][illegible][illegible]

This is a technical site plan or engineering drawing. At the top center is a large rectangular building labeled "2 STORY BRICK BUILDING". Below it, on the left, is a smaller building labeled "BRICK CHURCH". To the right of the church are three rectangular structures labeled "TRAILER". A diagonal line representing a road or path runs from the bottom left towards the middle right, labeled "STEAN TUNNEL". Along this path, there's a small structure labeled "BUS SHELTER". In the bottom right corner, there's an area labeled "PAVEMENT" and another labeled "AREA UNDER CONSTRUCTION" with dashed outlines. The map is covered with numerous survey points indicated by 'X' marks, many of which have associated elevation data in parentheses, such as "(RIM 20.6 INV 13.4)" or "(RIM 21.2 INV 17.6)". Some points are also labeled with numbers like "20.6", "19.8", "21.1", etc. A north arrow, represented by a stylized house shape with the letter "N" below it, points towards the upper right quadrant. Various other symbols like circles, triangles, and dashed lines represent different types of terrain or boundaries. The overall orientation is roughly vertical, with the top of the page being the northern end.

[illegible][illegible]



ATHLETIC FIELD

BASEBALL

BASKETBALL

N

BL-10 (PK NAIL)
N 225,711.4963
E 1,003,799.5642
EL = 23.41

AREA

OBSCURED

GE.

