COMMERCIAL WASTE MANAGEMENT STUDY

VOLUME V

MANHATTAN TRANSFER STATION SITING STUDY REPORT

March 2004

Prepared for:

New York City Department of Sanitation
for submission to the New York City Council

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Acronyms	
DSNY	New York City Department of Sanitation
FHL	Friends of the High Line
LL74	Local Law 74, effective December 19, 2000, enacted by the City Council, requiring a comprehensive assessment of commercial solid waste management in New York City
MTS	marine transfer station
tpd	tons per day
TYP	typical

Definitions	
2001 Plan	February 2001 Final Comprehensive Solid Waste Management Plan Modification and Final Environmental Impact Statement
City	New York City
Consultant	The DSNY's Consultant Team, including Henningson, Durham & Richardson Architecture and Engineering, P.C.; Parsons Brinckerhoff Quade and Douglas, Inc.; Ecodata, Inc.; Franklin Associates, Ltd.; Urbitran Associates, Inc.; HydroQual, Inc.; and Cambridge Environmental, Inc., who prepared the Commercial Waste Management Study
Converted MTS	One of DSNY's eight marine transfer stations, modified to containerize waste for out-of-City export by barge or rail
Final Study Scope or Final Scope of Work	Commercial Waste Management Study Final Scope of Work issued on July 31, 2003
New SWMP	The new comprehensive Solid Waste Management Plan to be developed in 2004 for both DSNY-managed Waste and commercial waste for the planning period 2004 through 2024
New SWMP Planning Period	The 20-year period from 2004 to 2024 addressed by the City's New Solid Waste Management Plan
Study	Commercial Waste Management Study
Transfer Station(s)	Privately owned and operated transfer station in New York City that accepts, transfers and transports some portion of municipal solid waste or construction and demolition debris or fill material generated in the private sector for out-of-City disposal

EXECUTIVE SUMMARY

PREFACE

Local Law 74 of 2000 (LL74) mandated a comprehensive study of commercial waste management (Commercial Waste Management Study or Study) in New York City (City) by a Consultant funded by the City Department of Sanitation (DSNY). This Study undertaken to comply with LL74 will assist the City in managing the commercial waste stream in the most efficient and environmentally sound manner, and assist in the development of the City's Solid Waste Management Plan (New SWMP) for the New SWMP Planning Period.

As stated in the Commercial Waste Management Study Final Scope of Work: *"The potential need for new commercial waste transfer station capacity will be investigated…"* As one element of this investigation, the Consultant *"…will investigate potential sites for truck-to-barge or truck-to-rail transfer stations in lower and midtown Manhattan. This analysis will define facility design criteria, identify any sites that conform to these criteria, conduct a fatal flaw analysis of factors that would preclude siting at these locations, and, if no such flaws are identified, summarize the advantages and disadvantages of the sites that appear feasible."*

In addition to this Volume V, the Study consists of five other volumes:

- Volume I: Private Transfer Station Evaluations;
- Volume II: Commercial Waste Generation and Projections;
- Volume III: Converted Marine Transfer Stations – Commercial Waste Processing and Analysis of Potential Impacts;
- Volume IV: Evaluation of Waste Disposal Capacity Potentially Available to New York City; and
- Volume VI: Waste Vehicle Technology Assessment.

Manhattan generates approximately 42% of the putrescible waste collected by private carters in the City, yet there are no private putrescible waste Transfer Stations located in this borough. This volume, Volume V: Manhattan Transfer Station Siting Study, investigates and evaluates potential sites for locating new transfer stations in Manhattan.

EXECUTIVE SUMMARY

Scope of Analysis/Approach

The purpose of this report is to evaluate the potential to develop Manhattan-based truck-to-barge or truck-to-rail transfer stations. Facility conceptual designs and site plans were prepared to determine the feasibility of using each site as a transfer station, and research on land use regulations and applicable laws was also undertaken to identify other obstacles to development.

Five screening criteria were established, which, for further consideration, potential sites were required to meet. These criteria were:

- Technical and operationally feasible transfer station sites with the capability to process at least 1,000 tons per day (tpd) of waste.
- Conformance to the zoning and proximity to sensitive-use criteria outlined in DSNY's Siting Rules.
- Adherence to legislative restrictions on the use of the site for transfer stations.
- Suitability for export of waste by barge or rail.
- Collection vehicle access from nearby truck routes.

Four sites were evaluated: West 140th Street, Pier 42, West 30th Street and West 13th Street (Gansevoort Property). None of these four sites currently serve or are permitted as waste transfer facilities.

Findings

- The West 140th Street site was determined to be infeasible due to technical reasons. Specifically, there is insufficient property available to ramp trucks up to the required site level and at an acceptable grade due to the rail elevation. Other operational problems included lack of maneuvering room, traffic problems and limited on-site parking. In addition, the site is zoned M1 and is within 400 feet of Riverbank State Park.

- The Pier 42 site has significant technical disadvantages. Prohibitions against its use as a transfer station agreed to between the City and other parties present serious obstacles to its development as a transfer station. In addition, it is located in an M1-4 zone and is within 400 feet of a playground and park.

- The West 30th Street site was determined to be infeasible for technical reasons. It lies within two zones -- M1-6 and M2-3 -- and the portion located within the compliant M2-3 zone is too small to construct a 1,000 tpd transfer station. In addition, due to the site's limited size, rail operations would not be feasible, there would be insufficient space for storage of waste or for containers, there would be no room for on-site parking, and there would be limited queuing and maneuvering space.

- The West 13th Street site is overseen and operated by the Hudson River Park Trust and is situated within the Hudson River Park. It formerly served as the location of a marine transfer station (MTS) and is zoned M3-2. In order for it to serve as a site for a new waste transfer facility, the state legislation that created the Hudson River Park would have to be amended. Additionally, federal and state permits issued to allow for the development of the park, in particular those related to development over the water, would have to be modified. Important obstacles exist to making this site a transfer station.

As a result of the considerations noted above, all four Manhattan sites were determined to either be technically infeasible or have significant legislative, zoning, land use and/or technical obstacles for the development of a private putrescible transfer station.

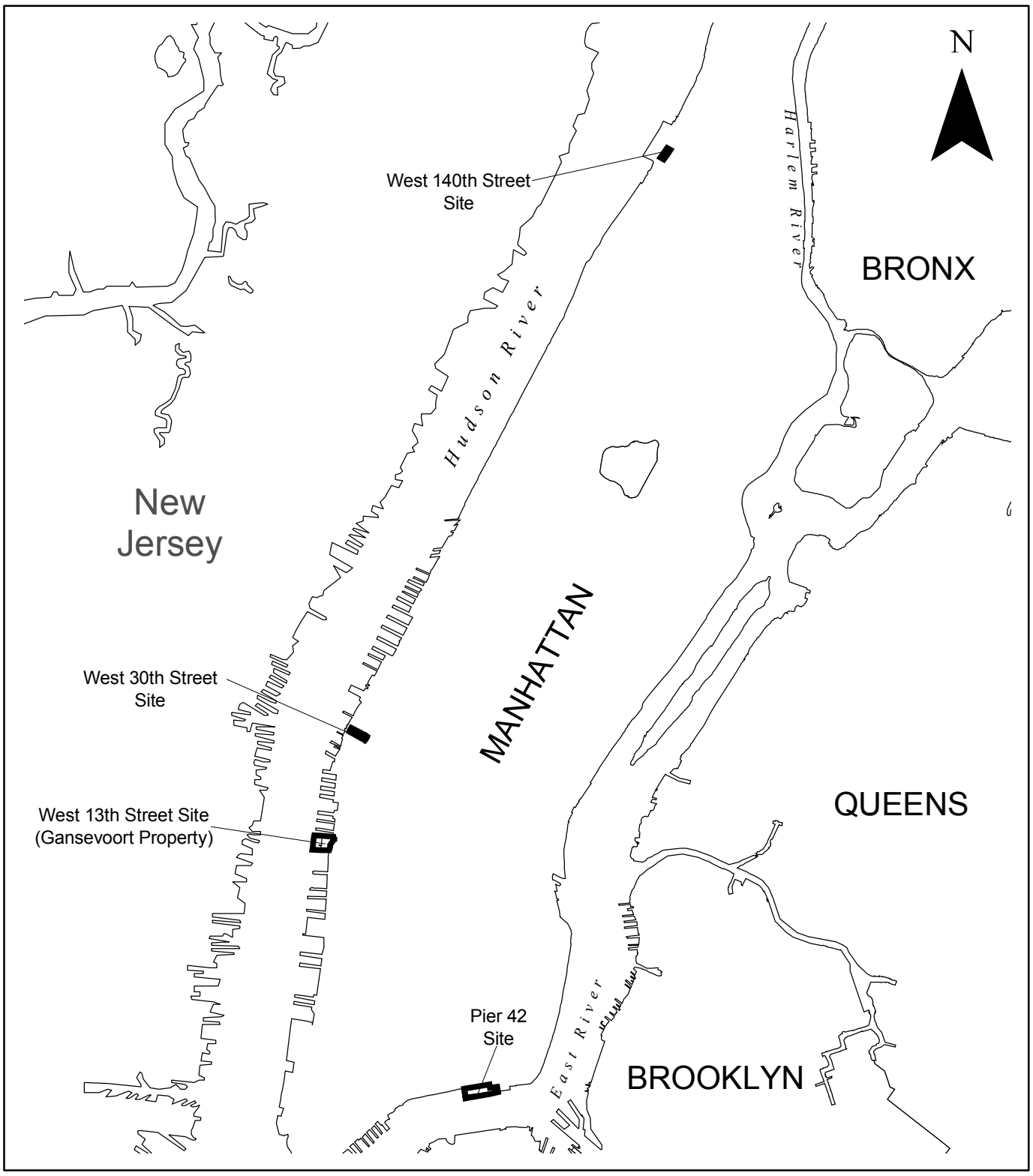
MANHATTAN TRANSFER STATION SITING STUDY REPORT

1.0 OVERVIEW

The Final Study Scope of the Commercial Waste Management Study (Study) includes an investigation of potential sites for new waste transfer stations in Manhattan.

As reported in Volume II of this Study (Commercial Waste Generation and Projections), Manhattan generates approximately 42% of the putrescible waste in New York City (City) collected by private carters. There are no private putrescible waste Transfer Stations in Manhattan. The City Department of Sanitation (DSNY) has three marine transfer stations (MTSs) in the borough that have been inactive as waste transfer facilities for three years. However, the West 59th Street MTS continues to be used to transfer paper from DSNY's Curbside Program to the Visy Plant on Staten Island.

The Study evaluated three sites south of and one site north of 80th Street in Manhattan that met the minimum criteria discussed below. Sites were selected based upon comments received during the Study scoping meetings, as well as sites previously identified in the 2001 Plan. The four sites are: West 140th Street, Pier 42, West 30th Street and West 13th Street (Gansevoort Property), shown in Figure 1-1, Site Location Map. None of these four sites currently serve or are permitted as waste transfer facilities. Facility conceptual designs and site plans were prepared to determine the feasibility of using each site as a transfer station. Research on land use regulations and laws applicable to these sites was also undertaken to identify regulatory or legislative obstacles to development of these sites.



Site delineations and analysis boundaries are approximate.

0 0.5 1 2 Miles

Figure 1-1
Site Location Map

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2.0 SCREENING CRITERIA

Five screening criteria were established, which, for further consideration, potential sites were required to meet. These criteria were:

- Technical and operationally feasible transfer station sites with the capability to process at least 1,000 tons per day (tpd) of waste.
- Conformance to the zoning and proximity to sensitive-use criteria outlined in DSNY's Siting Rules.
- Adherence to legislative restrictions on the use of the site for transfer stations.
- Suitability for export of waste by barge or rail.
- Collection vehicle access from nearby truck routes.

While the 1998 Siting Rules were challenged in court after being announced and DSNY has committed to revise them, the published version (October 1998) of these rules was used for the purpose of evaluating the sites in this report. This was done in anticipation that some aspects of those Siting Rules will be reflected in the modified Siting Rules, to be announced July 31, 2004. Therefore, the Siting Rules for new putrescible transfer stations used for this report include the following:

- Transfer stations may only be located in either an M2 or an M3 zone;
- Transfer stations may not be located in M1 zones; and
- Transfer stations may not be located within 400 feet of a residential district, a public park or a school.

According to the 1998 Siting Rules, the above restrictions would not apply to a putrescible transfer station that receives and removes by rail or barge all of the solid waste that it processes, provided all of such transfer station's waste processing operations are enclosed. However, since these Siting Rules will be revised, it was decided that these rules should be applied to all sites, regardless of mode of export. This is to ensure the most thorough analysis, given the uncertainty of the content of the anticipated Siting Rules.

The minimum requirement for distance from a residential district, public park or school is 400 feet (although a variance might be available if the facility would not cause adverse environmental impacts). This distance was therefore used to identify the "Usable" portion of each site. The figures labeled "Siting Requirements" for each site show the "Usable" portions of each site, according to the Siting Rules described above.

3.0 ASSESSMENT OF SITES

The following describes each evaluated site, indicating location, land use, technical, operational and legislative considerations.[1]

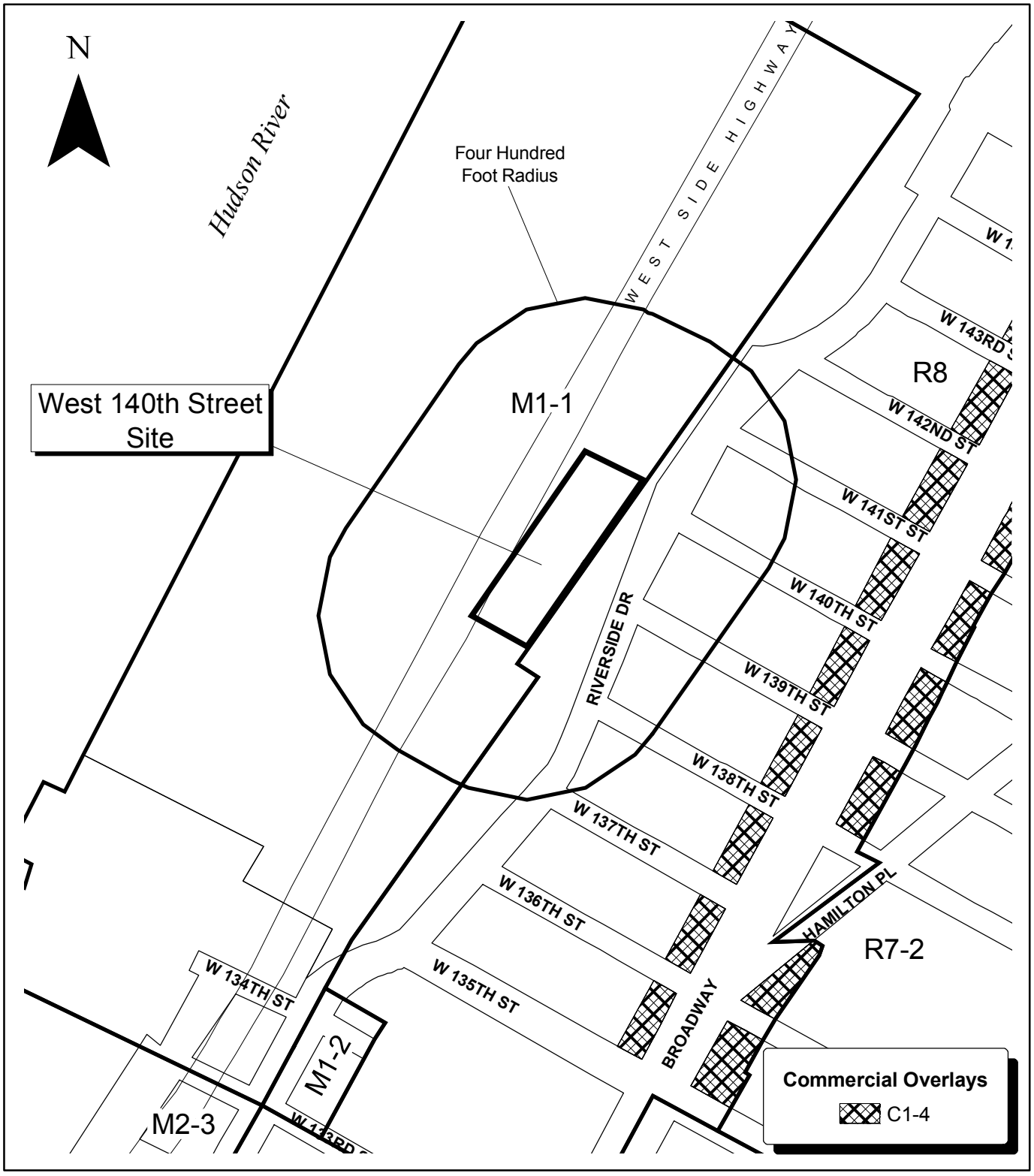
3.1 West 140th Street Site

The West 140th Street site is located on Block 2101, which runs between the North River Water Pollution Control Plant on the Hudson River and the Henry Hudson Parkway, from about West 145th Street to just south of West 137th Street. The site abuts the Henry Hudson Parkway and the Riverbank State Park directly to the west. Directly to the east, the site abuts Riverside Park North, which in turn abuts Riverside Drive and a residential area zoned R8. (See Figure 3.1-1, West 140th Street Zoning.) There is a mapped recreational area north of the site at approximately 146th Street.

The site is mapped as a public park and is zoned M1. The M1 zone extends from Riverside Park North westward to the U.S. Pierhead Line in the Hudson River. The existing rail lines run north-south through the site and are elevated approximately 20 feet over the existing grade. Site access is gained via an existing access road at ground level from the southwest.

The conceptual design evaluated for a truck-to-barge transfer station at West 140th Street has trucks entering and exiting the site using the existing access road. (See Figure 3.1-2, West 140th Street Site Plan.) The trucks are directed to any one of six tipping bays to unload onto the loading floor, which is at the same elevation as the tipping floor. Front-end loaders then move the solid waste into one of three loading slots with empty open top-loaded containers located beneath the slots.

[1] The lots and blocks were as identified by either the DSNY Office of Real Estate or the Tax Assessor's Office.



Site delineations and analysis boundaries are approximate.
Base Map Source: New York City Department of City Planning

Figure 3.1-1 West 140th Street Zoning

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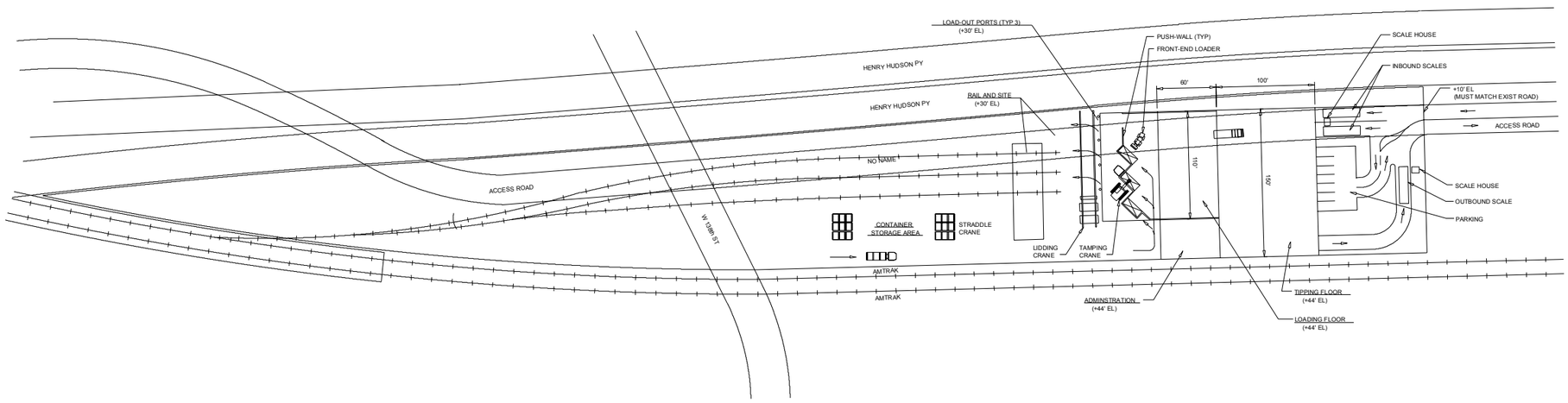


Figure 3.1-2
West 140th Street
Site Plan

City of New York
Department of Sanitation

TECHNICAL/OPERATIONAL CONSIDERATIONS:

1. HIGH VOLUME OF BACKFILL IS NECESSARY TO LEVEL THE SITE. APPROXIMATELY 96,800 CY OF BACKFILL WOULD BE NECESSARY TO ALLOW CONNECTION TO EXISTING RAIL LINES.
2. BACKFILLING WOULD ELIMINATE AN EXISTING ACCESS ROAD.
3. INSUFFICIENT AREA FOR TRUCK MANEUVERING.
4. SUBSTANTIALLY INSUFFICIENT PROPERTY TO RAMP TRUCKS UP TO REQUIRED SITE LEVEL.
5. LIMITED ON-SITE PARKING
6. THE EXISTING RAIL ELEVATION (+30') IS DRIVING THE BUILDING ELEVATION (+44').

Hydraulic excavators are used to tamp and pack the waste into the containers. These containers are then lidded and moved into position where they can be loaded onto rail cars by a straddle crane. Each 85-foot rail car has the capacity to carry four 8½-foot-wide-by-12-foot-high-by-20-foot-long open top-loaded containers. The average throughput for this facility is 3,003 tpd, assuming that two loading slots are in operation processing seven containers per hour with an average of 22 tons of waste per container for 19.5 hours a day.

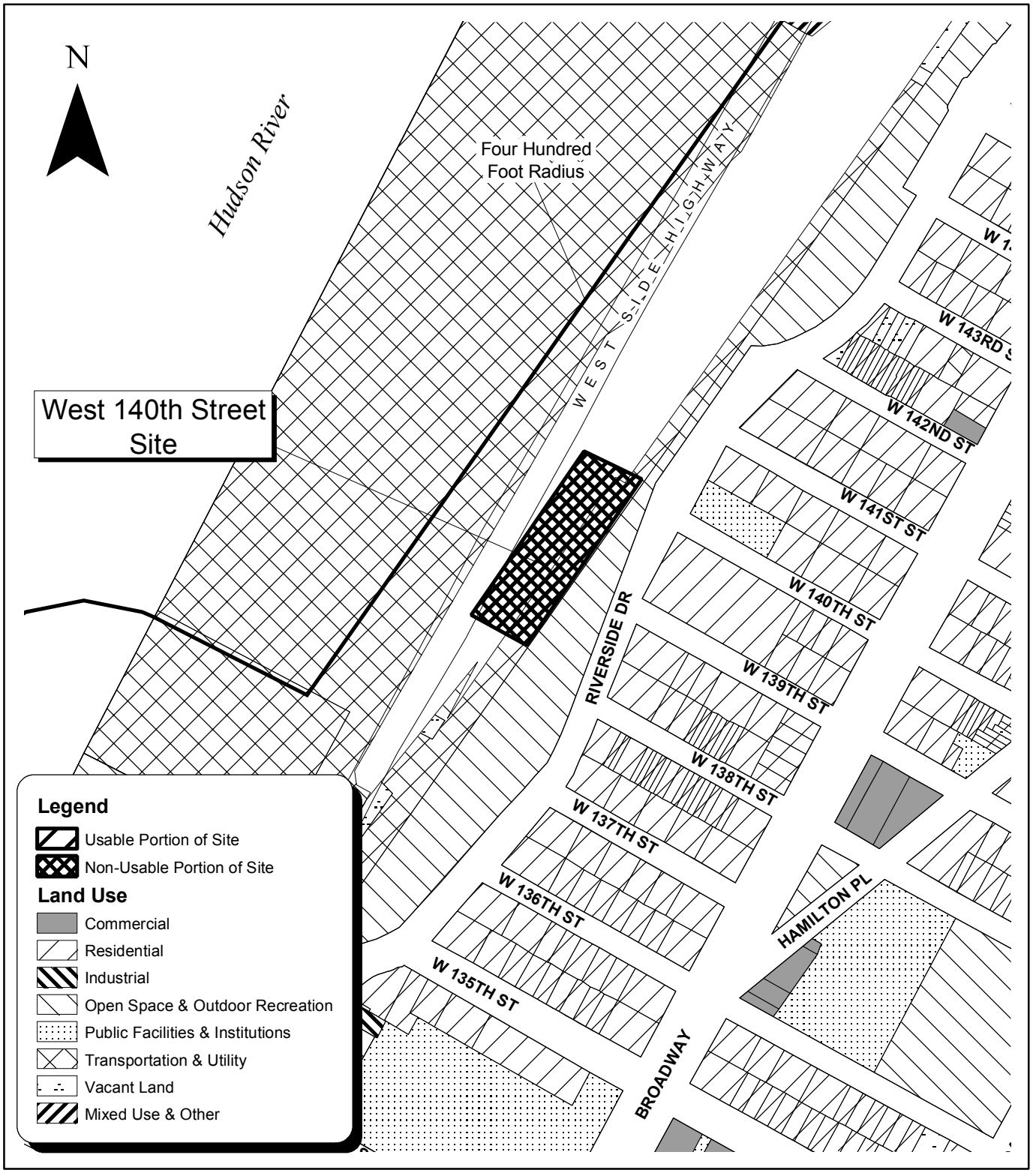
The investigation of the West 140th Street site for use as a waste transfer facility found it to be infeasible for the following reasons:

- There is insufficient property to ramp trucks up to the required site level; and
- The existing rail elevation (+30') determines the building elevation (+44'). The building elevation (+44') is substantially higher than the existing road (+10') and there is insufficient room to ramp up to the facility at an acceptable grade.

In addition to these technical flaws, the assessment of the West 140th Street site also identified the following design and operational considerations:

- Approximately 100,000 cubic yards of backfill would be required to construct a facility at the same elevation as the existing rail line;
- Backfilling would eliminate the existing access road;
- A new ramp providing truck access between the transfer station and West 144th Street would interfere with the current access to an existing facility in the northeast section of the site;
- On-site truck maneuvering room would be severely constrained and is considered to be insufficient -- outbound commercial trucks would have tight turning radii and minimal queuing distance prior to the outbound scale;
- Employee traffic will be mixed with collection truck traffic entering and leaving the site; and
- There is limited on-site parking (the maximum number of parking stalls that fit on the design is seven).

The site did not satisfy the Siting Rules criteria for zoning and minimum distance from a public park. (See Figure 3.1-3, West 140th Street Siting Requirements.) The entire site is within 400 feet of Riverbank State Park. Except for a small portion of the upland area, the site is also located within 400 feet of a residential zoning (R8) area to the east. In conclusion, the West 140th Street site was found technically infeasible and in conflict with Siting Rules criteria.



Site delineations and analysis boundaries are approximate.
Base Map Source: New York City Department of City Planning

0 200 400 800 Feet

HDR
HydroQual

Figure 3.1-3 West 140th Street Siting Requirements

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3.2 Pier 42 Site

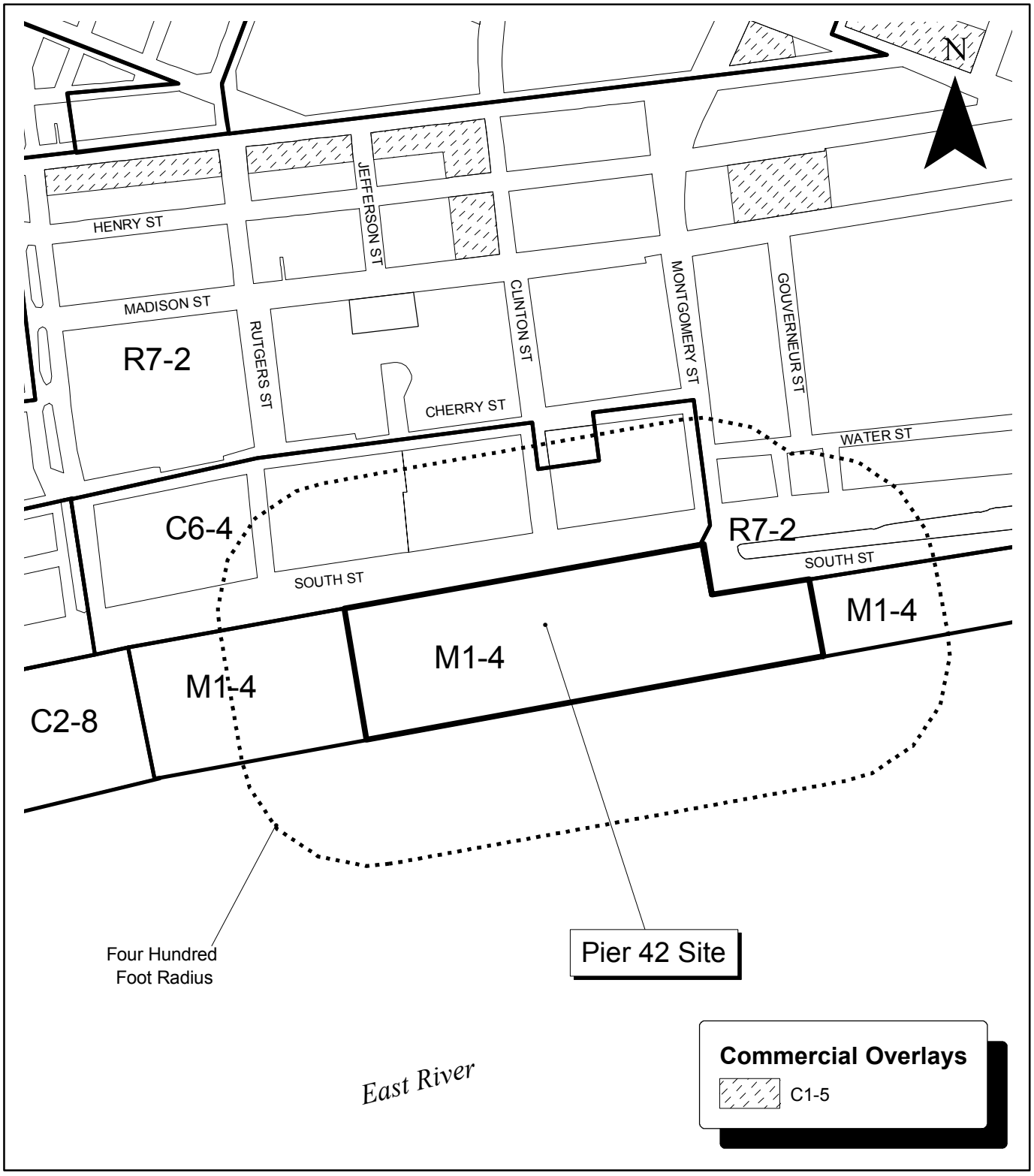
Pier 42 is located on the East River and is bounded by South Street to the north and the U.S. Pierhead Line to the south. Piers 41 and 44 abut the site to the west and east, respectively. The site is located within an M1-4 zone that extends inland towards South Street. The area to the north of South Street has C6-4 zoning. (See Figure 3.2-1, Pier 42 Zoning.)

The conceptual design evaluated for a truck-to-barge MTS at Pier 42 has collection vehicles entering and leaving the site from South Street. (See Figure 3.2-2, Pier 42 Site Plan.) Vehicles enter and exit the tipping floor from the north side of the transfer station. They are directed to any one of six tipping bays to unload onto the loading floor, which is at the same elevation as the tipping floor. Front-end loaders then pile the waste near the hydraulic excavators that are used for lift and load operations to fill and pack the containers.

Container shuttle cars, located on the pier level of the transfer station, would be used to convey the containers back and forth between the gantry cranes, lidding stations and lidding slots. After the containers are filled with waste, the shuttle cars convey them to the lidding station, where water-tight lids will be attached to the containers. The containers are then loaded onto a deck barge by a gantry crane. The deck barge has the capacity to transport 48 8½-foot-wide-by-12-foot-high-by-20-foot-long open top-loaded containers to and from the transfer station. The average throughput for this facility is 2,145 tpd assuming two ports in operation processing five containers per hour with an average of 22 tons of waste per container for 19.5 hours a day.

While there were no technical or operational fatal flaws in the proposed conceptual plan, an assessment of the Pier 42 site identified the following design and operational considerations:

- Queuing would be limited to only one truck on site.
- As can be observed in the Site Plan (Figure 3.2-2), the relatively small size of the site would cause potential problems in locating an outbound scale and parking on site, and in providing adequate maneuvering room for trucks, front-end loaders and a gantry crane.



Site delineations and analysis boundaries are approximate.
Base Map Source: New York City Department of City Planning

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Figure 3.2-1 Pier 42
Zoning

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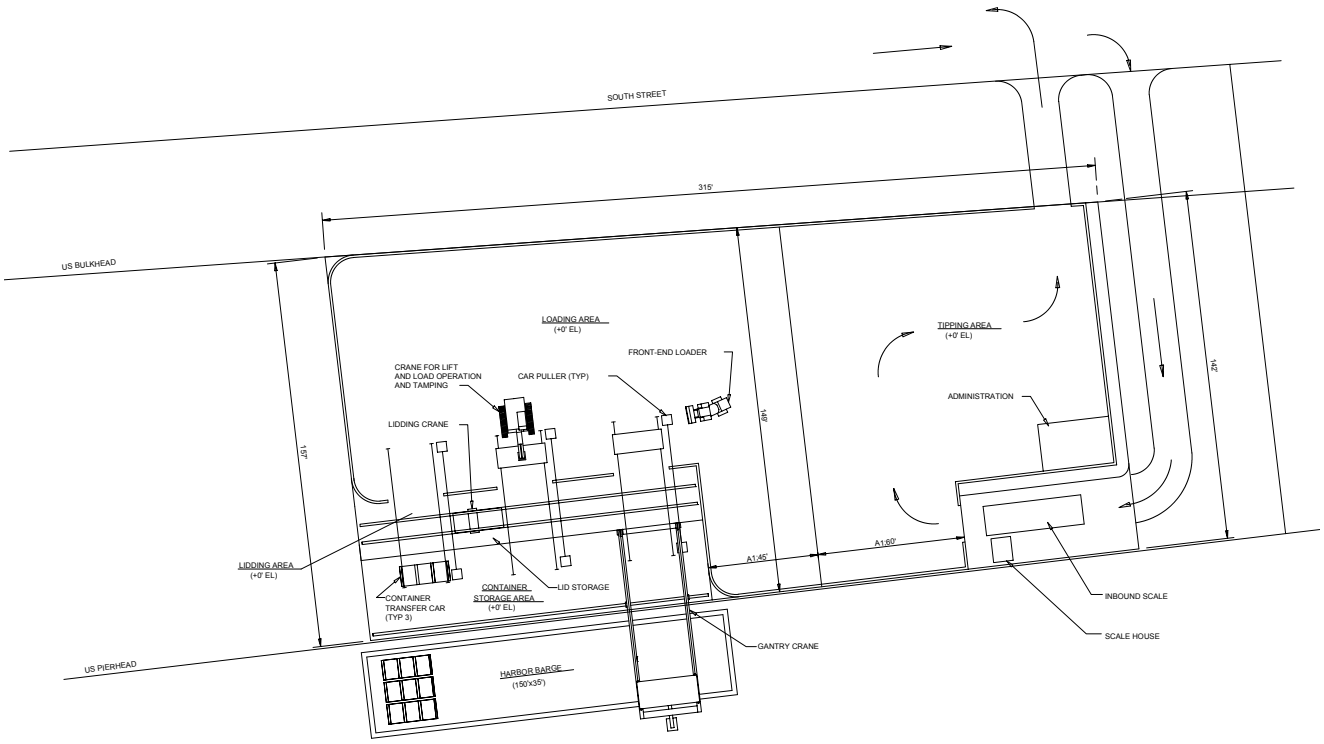

TECHNICAL/OPERATIONAL CONSIDERATIONS:

1. NO TRUCK MANEUVERING AREA FOR BOTH CONTAINER TRANSFER AND TIPPING FLOOR.
2. NO AREA FOR OUTBOUND SCALE.
3. LIMITED OPERATING ROOM FOR FRONT-END LOADER.
4. NO ON-SITE PARKING.
5. INSUFFICIENT SPACE FOR OCEAN-GOING BARGE LOADING WITH GANTRY CRANE
6. GANTRY CRANE CANNOT PERMANENTLY PROJECT OVER U.S. PIERHEAD LINE. CRANE WOULD NEED TO RETRACT WHEN NOT IN USE.
7. LIMITED TO ONE HARBOR BARGE LOADING AT A TIME.
8. NO ROOM FOR RAMPS. THEREFORE, LIFT AND LOAD OPERATION IS NECESSARY.
9. NO ACCESS TO DOCK.
10. MINIMAL ON-SITE QUEUING.

Figure 3.2-2 Pier 42
Site Plan

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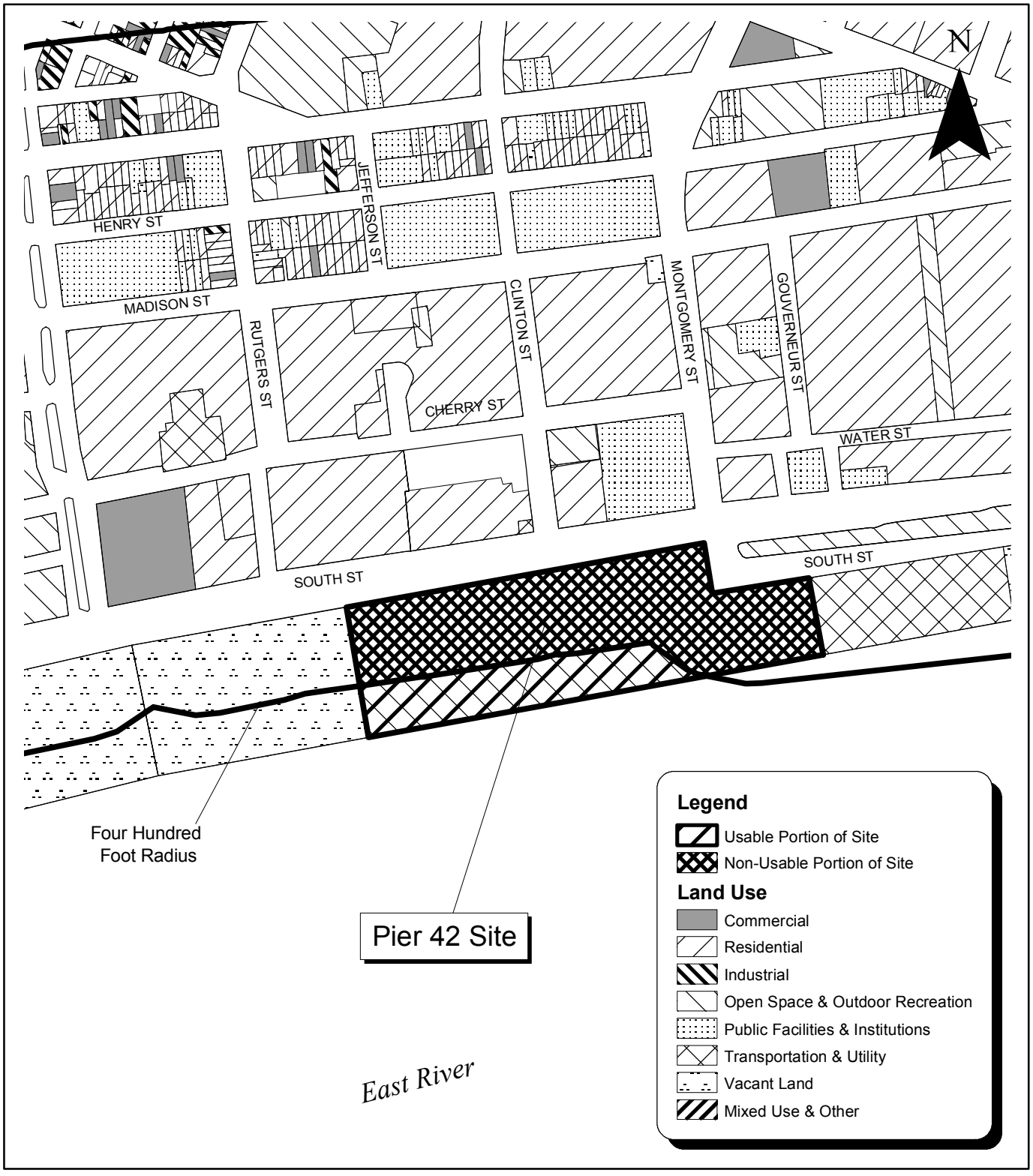
- Since the gantry crane cannot permanently project over the U.S. Pierhead Line, the crane would need to retract when not in use.
- There is no room for ramps. Therefore, containers would be filled with waste, using a less efficient lift and load operation.
- There is no access to the dock. This limitation will not allow for waste processing equipment stock to be located at the dock level.

In addition to the design and operational considerations mentioned above, an assessment of the Pier 42 site also identified the following traffic considerations:

- All access to the Pier 42 site is gained by a proposed access drive at the intersection of South and Montgomery Streets. The intersection is currently signalized. South Street is a local, two-way, four-lane surface street that runs parallel to the elevated FDR Drive. Montgomery Street is a two-way, two-lane roadway featuring a wide, painted, center median.

- South Street is designated by the City as a local truck route between State Street and Pike Slip. To access the site, trucks will be required to travel along South Street between Pike Slip and Montgomery Street, which is a section of South Street that is not designated as a local truck route. For these movements to occur, the designation of South Street as a local truck route will need to be extended, by the City, to the Montgomery Street intersection. This may be difficult to accomplish because the neighborhoods along the north side of South Street are heavily residential and are located in the "Zone E – Lower East Side" limited truck zone.

The site did not satisfy the Siting Rules criteria with regards to zoning and land use, including minimum distance from a public park. (See Figure 3.2-3, Pier 42 Siting Requirements.) A playground on Cherry Street and a portion of East River Park are both within 400 feet of the site. The entire site is also zoned M1-4 and is therefore precluded from use by the Siting Rules. Additionally, language contained in a 1994 Memorandum of Understanding among the City, State Assembly Leader Sheldon Silver and Gouverneur Gardens Housing Corporation specifically precludes the City's use of Pier 42 as a site for a waste transfer facility. In conclusion, the Pier 42 site has significant technical disadvantages, and prohibitions against its use as a transfer station agreed to between the City and other parties present serious obstacles to its development.



Site delineations and analysis boundaries are approximate.
Base Map Source: New York City Department of City Planning

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Figure 3.2-3 Pier 42 Siting Requirements

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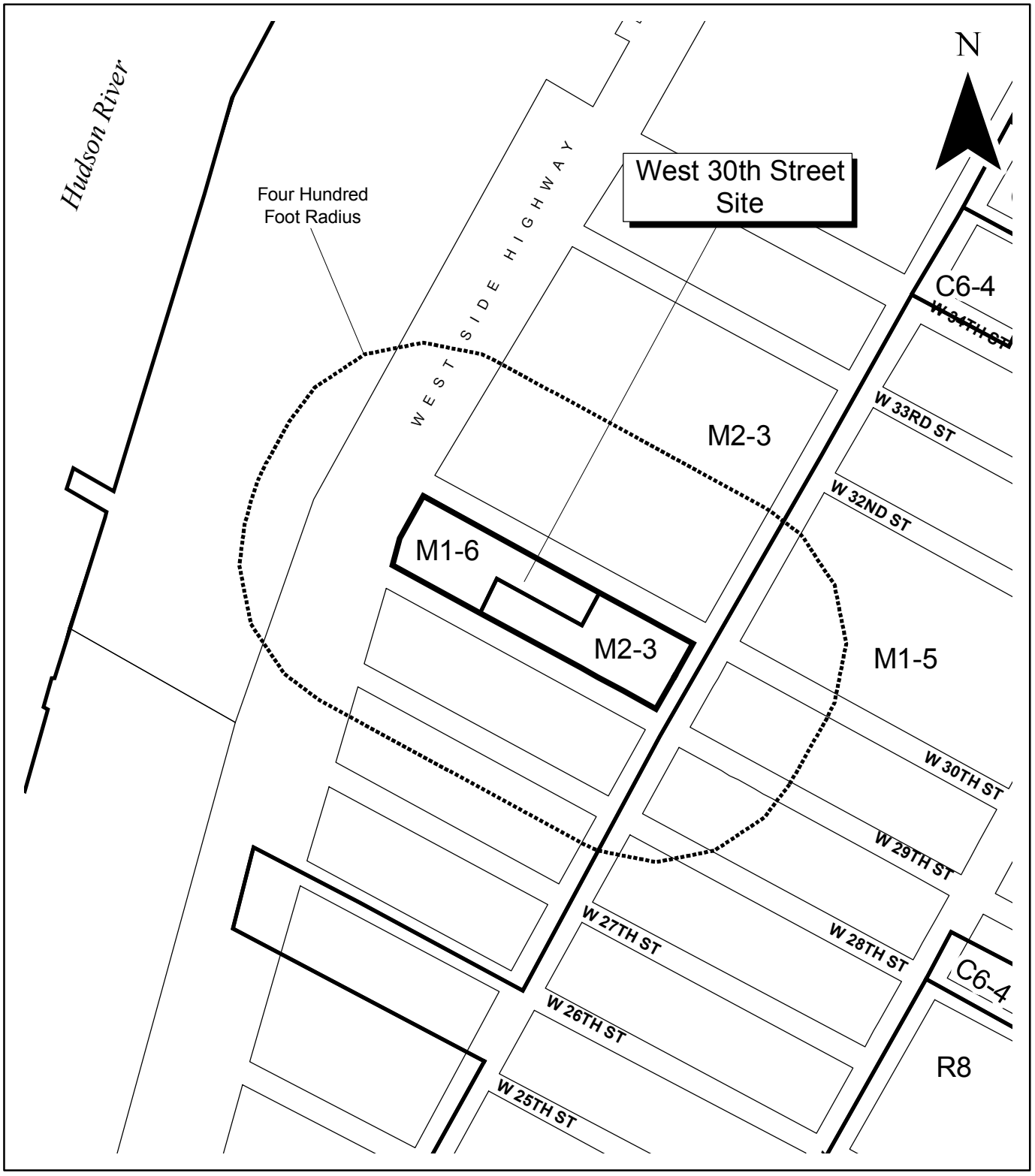
3.3 West 30th Street Site

The West 30th Street site, defined as Block 675, is bounded by 11th Avenue to the east, 12th Avenue (West Side Highway) to the west, West 29th Street to the south and West 30th Street to the north. The site is zoned as M1-6 and M2-3 for the western and eastern portions, respectively. (See Figure 3.3-1, West 30th Street Zoning.) An existing gas station with underground fuel storage tanks is located on the northeast portion of the site. An existing (inactive) elevated rail line runs along the north side of West 30th Street.

The elevated rail (also called the High Line) and the rail easement atop it are owned by CSX. The land beneath the High Line is owned in parcels by New York State, the City and over 20 private property owners. The High Line is currently not in use; the last train ran on the High Line in 1980. A 501 (c)(3) organization called Friends of the High Line (FHL), made up of City residents, business owners, artists and gallery owners, architects and design professionals, is dedicated to its preservation and adaptive reuse. As part of a federally-sanctioned railbanking program, a not-for-profit organization (such as FHL), or the City or state, can negotiate with a railroad for interim trail use of an out-of-service line. FHL won an Article 78 lawsuit in March 2002 effectively halting a demolition proposal negotiated in the early 1990s. At this time, there is a financial feasibility study being conducted on the reuse of the High Line. FHL is lobbying for its consideration as a park. In opposition, an organization called the Chelsea Property Owners group, made up of landowners who own property beneath, and adjacent to, the High Line, is lobbying for its demolition.

The two groups mentioned above are dedicated to planned uses of the High Line and appear to pose significant obstacles to the redevelopment of the High Line as an active rail line. In addition to these obstacles, interconnecting with the existing elevated rail line would require construction of a processing facility and platform at the same elevation as the rail line and require providing a ramp up from the ground level. The portion of the site that is appropriately zoned under the Siting Rules is limited to approximately 79,120 square feet. The site's limited size does not accommodate the structural arrangements necessary to connect to the existing overhead rail and, therefore, rail operations would not be feasible.



Site delineations and analysis boundaries are approximate.
Base Map Source: New York City Department of City Planning

0 200 400 800 Feet

Figure 3.3-1 West 30th Street Zoning

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A conceptual evaluation of a transfer station at this site also found the following fundamental flaws:

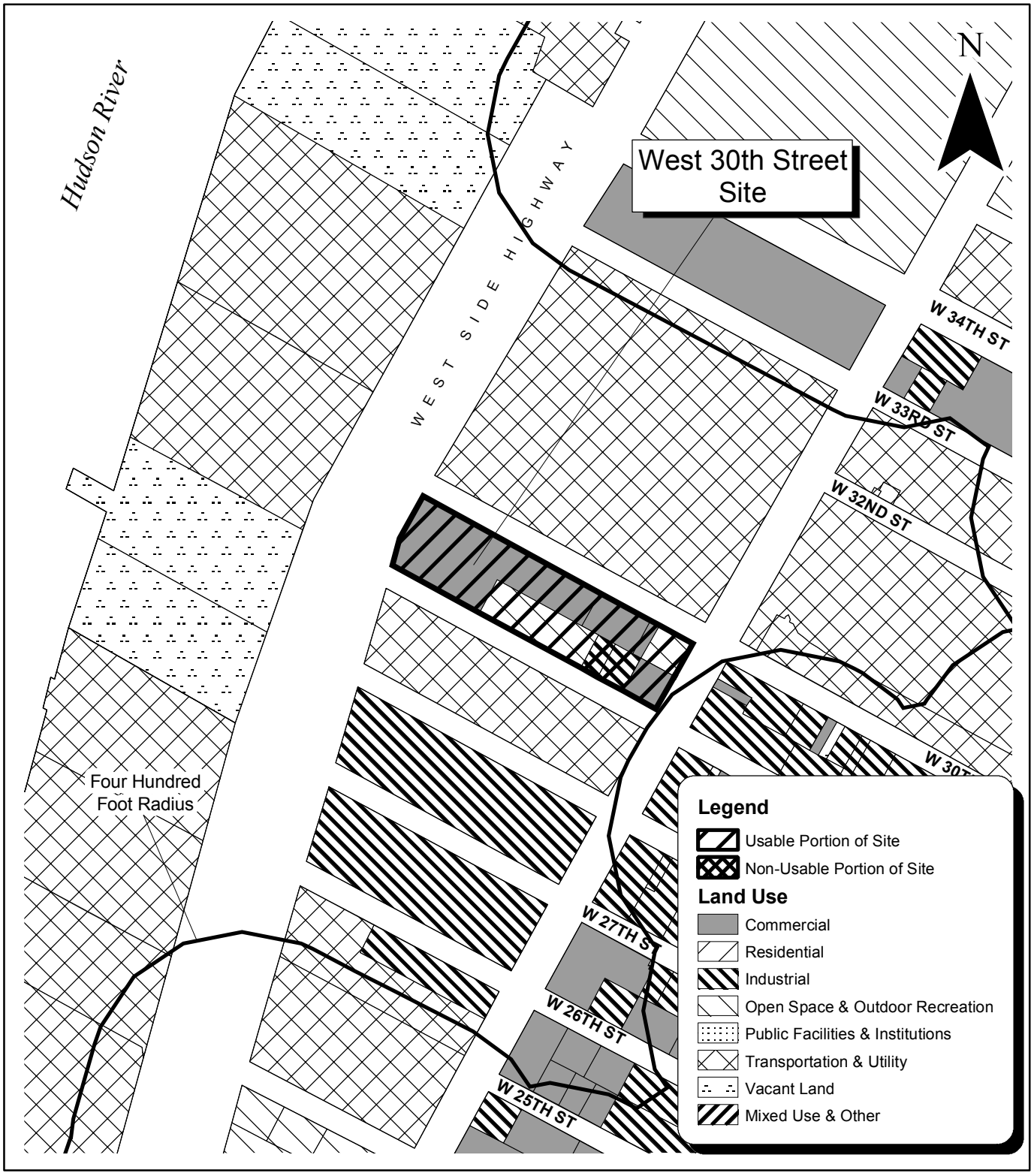
- There is insufficient storage area for waste;
- There is no room on site for parking;
- There is no room for container storage; and
- The available square footage of the conforming portion of the site would severely limit queuing and maneuvering space.

In addition to the design and operational considerations mentioned above, an assessment of the West 30th Street site also identified the following traffic considerations:

- West 30th Street is the only street available for the trucks to access the site. At the location of the site, West 30th Street is a one-way eastbound street. The intersection of 12th Avenue and West 30th Street is a signalized intersection. Twelfth Avenue is designated by the City as a local truck route, as well as West 30th Street between Broadway and 11th Avenue. However, the section of West 30th Street used by traffic traveling to the proposed facility is not designated as a local truck route. For operation of trucks to occur on West 30th Street between 12th Avenue and 11th Avenue, the City will need to extend the truck route designation to this section.

- The intersection of West 30th Street and 11th Avenue is a signalized intersection. Eleventh Avenue is a one-way southbound street at the intersection with West 30th Street, and is designated by the City as a local truck route. Upon exiting the facility, trucks must travel onto West 30th Street. Access to the network of local truck routes can be gained via West 30th Street, 11th Avenue, 10th Avenue and West 23rd Street. The addition of the truck traffic expected at this facility may impact the operation of the site intersections.

No portion of the site is within 400 feet of mapped residential districts, public parks or schools. The western portion of the site is zoned M1-6 and therefore does not comply with the DSNY's Siting Criteria. (See Figure 3.3-2, West 30th Street Siting Requirements.) The remaining eastern portion of the site (approximately 79,120 square feet) is zoned M2-3 and therefore does comply with the Siting Rules. Although a portion of the West 30th Street site was found to comply with the Siting Rules, this site is considered to be infeasible because the compliant portion is not large enough to construct a transfer station with the required capacity.



Site delineations and analysis boundaries are approximate.
Base Map Source: New York City Department of City Planning

0 200 400 800 Feet

Figure 3.3-2 West 30th Street Siting Requirements

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3.4 West 13th Street Site (Gansevoort Property)

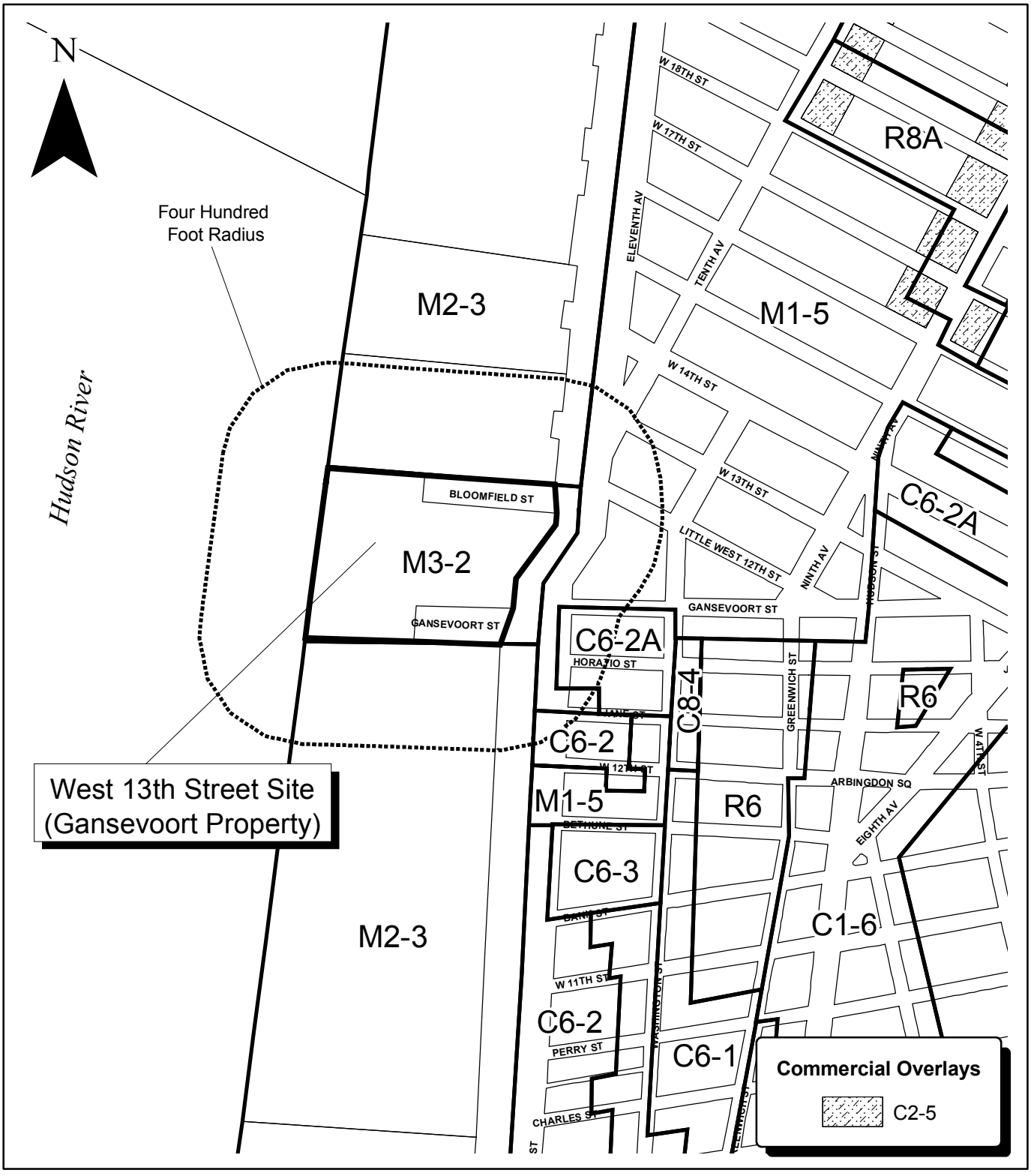
Located on Block 651 along the Hudson River, the West 13th Street site is bounded by a pedestrian walkway along the West Side Highway to the east and the U.S. Pierhead Line to the west. Bloomfield Street and Gansevoort Street abut the site to the north and south, respectively. The site is zoned M3-2, use group 18, which allows for all manufacturing uses. (See Figure 3.4-1, West 13th Street [Gansevoort Property] Zoning.) The site was formerly used as an MTS, but was shut down in July 1991.

The Gansevoort site plan in this report was developed by modifying a design similar to that proposed for DSNY's Converted MTSs on upland sites such as the Greenpoint, Brooklyn, facility. (See Figure 3.4-2, West 13th Street [Gansevoort Property] Site Plan.) While there were no technical or operational fatal flaws in the proposed conceptual plan, an assessment of the Gansevoort site identified the following design and operational considerations:

- Ramps would need to be structural ramps in lieu of earth-supported;
- Construction of the in-bound ramp on Bloomfield Street and the facility on Gansevoort Street would be subject to the City's Uniform Land Use Review Procedure; and
- The out-bound ramp projects over Marginal Street. This will impact pedestrian access to the parkland usages along the pedestrian way directly adjacent to the eastern end of the site.

In addition to the design and operational considerations mentioned above, an assessment of the Gansevoort site also identified the following traffic considerations:

- In-bound trucks must arrive at the site via 11th Avenue southbound. Eleventh Avenue is recognized by the City as both a through truck route and a local truck route. Local truck routes, which would provide in-bound access to 11th Avenue, are 12th Avenue and 10th Avenue, both of which merge with 11th Avenue north of Gansevoort Street, and West 14th Street.
- Upon exiting the facility, trucks must travel south on 11th Avenue. West Houston Street and Canal Street, located 16 blocks and 19 blocks south, respectively, of the site, are the closest truck routes that provide a means for exiting vehicles to reverse their direction.



Site delineations and analysis boundaries are approximate.
Base Map Source: New York City Department of City Planning

0 250 500 1,000 Feet

Figure 3.4-1 West 13th Street (Gansevoort Property) - Zoning

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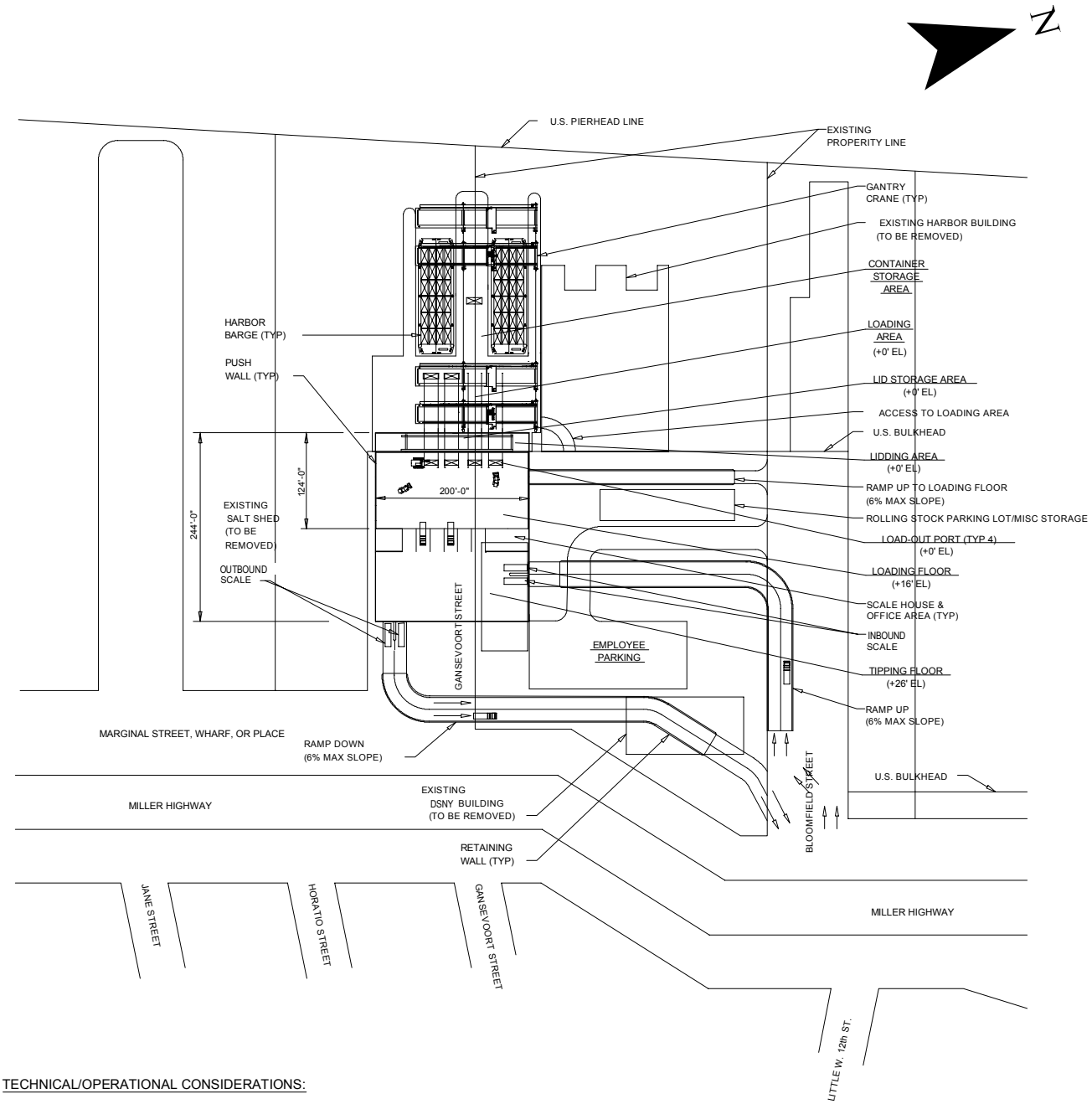

TECHNICAL/OPERATIONAL CONSIDERATIONS:

1. SUBSTANTIAL DEMOLITION WOULD BE REQUIRED ON SITE. DSNY BUILDING, SALT SHED AND HARBOR BUILDING WOULD NEED TO BE REMOVED.
2. RAMPS WOULD NEED TO BE STRUCTURAL RAMPS IN LIEU OF EARTH SUPPORTED.
3. TRAFFIC SIGNALS WILL BE NEEDED TO ALLOW FOR OUTBOUND TRAFFIC TO ENTER THE HIGHWAY.
4. OUTBOUND RAMP PROJECTS OVER "MARGINAL STREET."

Figure 3.4-2 West 13th Street (Gansevoort Property) - Site Plan

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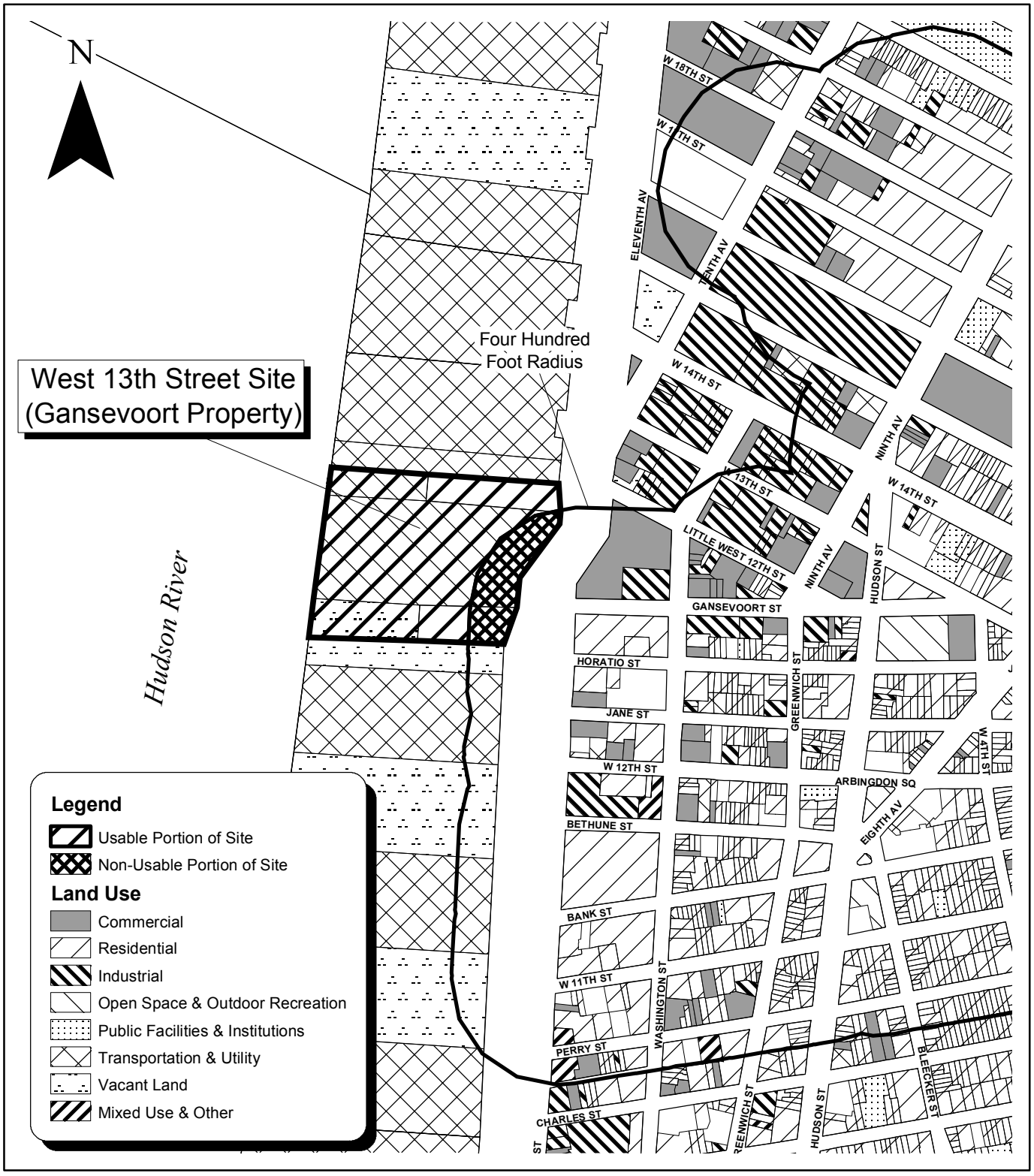
Furthermore, there may be potential difficulties with respect to the Siting Rules, since the site is no longer owned by DSNY and is part of a public park. (See Figure 3.4-3, West 13th Street [Gansevoort Property] Siting Requirements.)

The Hudson Park River Trust, the city/state partnership charged with the development of the Hudson River Park, oversees and operates the site, and is currently in the planning stages for converting the Gansevoort property into parkland with recreational activities. These recreational areas will include a sandy beach, baseball fields, batting cages, a play lawn, a sunning beach and a marina, as well as a stop for water taxis. Fire Department Marine Company One, Manhattan's only remaining waterside fire station, will remain on Pier 53, adjacent to the Gansevoort property to the North. Other future plans include an overlook platform and park concessions. This plan is a part of a larger plan to convert the waterfront, from Battery Park City to West 59th Street, into park facilities between the U.S. Pierhead Line and the western boundary of West 11th and 12th Streets.

Current Law (Assembly Bill 9833-B of March 10, 1998) states: "The City of New York shall use its best efforts for the relocation of the sanitation garage and by December 31, 2003 relocate the salt pile and remove the incinerator." If the DSNY sought to change this language and pursued the development of the transfer station at Gansevoort, the legislation that created the park would have to be amended. The DSNY would be seeking to develop non-park use on managed parkland. Approval of this type of legislation is rare.

State law also requires that any "alienation of parkland" pertaining to the Gansevoort property (as part of the larger parkland overseen by the Hudson River Park Trust) not only necessitates an act of the Legislature, but also requires that it be subject to the City's Uniform Land Use Review Procedure. Furthermore, the law designates the waterside area of the property, and all the property along the designated parkland, as an "estuarine sanctuary" and is thereby subject to applicable environmental conservation law. Additionally, federal and state permits issued to allow for the development of the park, in particular those related to development over the water, would have to be modified. Important obstacles exist to making this site a transfer station.



Site delineations and analysis boundaries are approximate.
Base Map Source: New York City Department of City Planning

0 250 500 1,000 Feet

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HydroQual

Figure 3.4-3 West 13th Street (Gansevoort Property) - Siting Requirements

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In addition to the legislative restrictions mentioned above, the site is adjacent to public parks on Pier 51 that include a new maritime-themed playground, a water play area, climbing equipment and slides and viewing scopes, which have been open to the public since Spring 2003.

In conclusion, it may be possible to obtain a permit for the site, but the substantial land use and legislative constraints pose obstacles to the development of this site as a transfer station.

4.0 CONCLUSIONS

This Study has reviewed four potential sites for possible use as waste transfer facilities capable of processing 1,000 tpd. The four sites are: West 140th Street, Pier 42, West 30th Street and West 13th Street (Gansevoort Property). As a result of location, land use, technical, operational and legislative criteria considerations, all four potential sites present either significant problems in terms of technical feasibility or present major obstacles in terms of legislative or land use constraints, as summarized in Table 4-1.

Table 4-1
Results of Screening Evaluation

Site	Screening Result
West 140th Street	Infeasible due to technical issues
Pier 42	Very significant technical and land use obstacles to overcome
West 30th Street	Infeasible due to technical issues
West 13th Street (Gansevoort Property)	Important legislative and zoning obstacles exist to making this a transfer station