

3. BRONX TRUCK ROUTE NETWORK ANALYSIS

a. Land Use

The analysis of the land use maps indicated that the Local and Through Truck Route network in the Bronx provides sufficient access to the primary commercial, industrial and manufacturing area of the Bronx. More so than any other Borough in New York, the Bronx Local Truck Route network traverses areas that consist of a diverse mixture of residential, industrial, commercial and other types of land uses (see Figure 3-1). As was described in Section 2, in most cases the Through Truck Route network in each of the five Boroughs was deemed far enough removed from many residential areas of the City and is deemed a vital component of the truck route network. Therefore, the Through Truck Route network was not analyzed with respect to the land use data.

There are exceptions to this though, with several truck route segments that traverse areas that are less than seventy-five percent manufacturing, commercial, transportation, utility and other types of land uses that necessitate the placement of a truck route to ensure safe and efficient access. The following Local Truck Routes traverse areas that are primarily residential (>75%):

Eastchester Bay neighborhood

- Kearny Avenue between Country Club Lane and Waterbury Avenue and Macdonough Place

Soundview neighborhood

- Lacombe Avenue between Soundview Avenue and Castle Hill Avenue

Kingsbridge neighborhood

- Bailey Avenue



Figure 3-1: Bronx Current Land Use

b. Mobility

Figure 3-2 shows the future forecasted volume to capacity (v/c) ratio, based on NYMTC's Best Practices Model, for the year 2025 during the AM peak hour period and highlights those roadway segments which are forecast to experience severe traffic conditions (those areas with a v/c ratio greater than 1.0). In the Bronx, as was the case with almost all of the Boroughs, many of the trucks routes that were severely congested along nearly their entire length are through routes. The following is a list of those truck routes in the Bronx which are forecast to experience severe traffic conditions in 2025:⁵

Through Truck Routes

- Cross Bronx Expressway
- Major Deegan Expressway
- Bruckner Expressway
- New England Thruway
- Throgs Neck Bridge
- Bronx-Whitestone Bridge
- Triborough Bridge
- Willis Avenue Bridge Approach
- 3rd Avenue Bridge Approach

Local Truck Routes

- Shore Road at City Island Road
- Randall Avenue
- White Plains Road between Bronx and Pelham Parkway and Morris Park Avenue
- Westchester Avenue at Sheridan Expressway and White Plains Road
- East Tremont Avenue at Sheridan Expressway
- Macombs Dam Bridge Approach
- Broadway at W. 230th Street, Van Cortland Avenue and W. 261st Street/Westchester County border
- 233rd Street at the Major Deegan Expressway and Webster Avenue
- E. Fordham Road at Southern Boulevard
- E. 171st Street at Sheridan Expressway and Cross Bronx Expressway
- E. Gun Hill Road at Bronx River Parkway
- Jerome Avenue at Bronx River Parkway

⁵ Unless otherwise noted, the majority of the truck route's indicated are forecasted to be severely congested.



**Figure 3-2: Bronx Truck Routes
Traffic Congestion 2025 AM**

c. Origin and Destination Forecast

Figure 3-3 depicts the truck trip ends by Traffic Analysis Zone for the Bronx in relation to the truck route network. The major truck Origin and Destination zones in the Bronx are located in the South Bronx just off the Major Deegan Expressway (I-87) and the Bruckner Expressway (I-278). These areas include Port Morris, Hunts Point and the major industrialized area between 149th and 161st Street.

Overall, the Borough is well served by the existing truck route network. The Major Deegan, Cross Bronx, and Bruckner Expressways as well as the New England Thruway provide for all regional truck access throughout the Borough. These Through Truck Routes, totaling 40 miles, intersect at either the Highbridge Interchange or the Bruckner Interchange. The interchanges along the expressways are linked to a Local Truck Route roadway that in turn is linked to a grid of Local Truck Route streets, which total 132 miles. Comparing the truck route network within the Borough to areas that generate significant truck traffic, the network provides direct routes to the locations that generate truck trips in the Borough.

Forecasts from the NYMTC BPM indicate that there are several areas that are forecasted to become major truck OD zones that are underserved or not served at all by Local Truck Routes. This includes the most northwestern portion of the Borough west of Broadway where no truck routes are presently designated. The zone containing Co-Op City is also underserved by Local Truck Routes, as there are no Local Truck Routes terminating at Co-Op City.

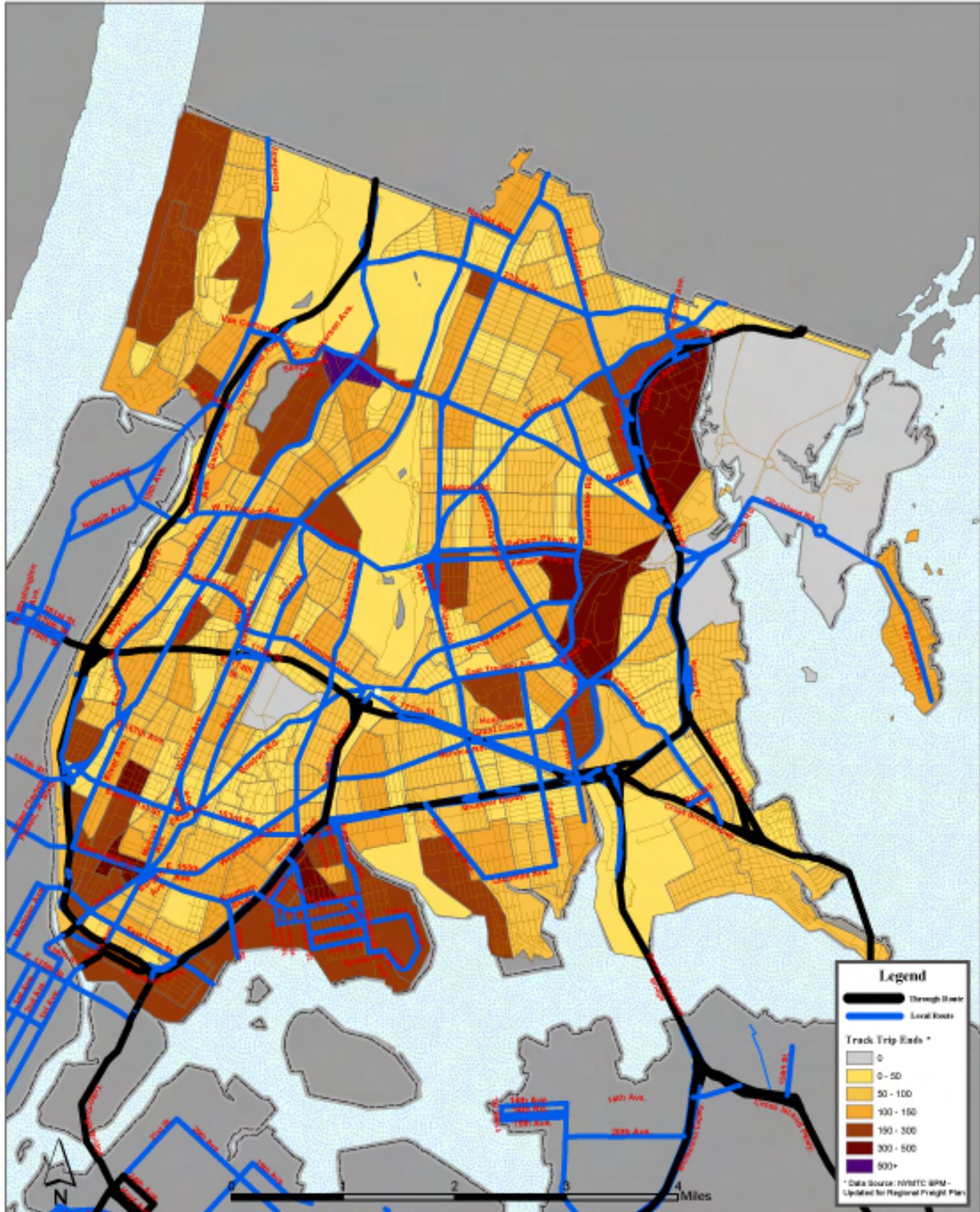


Figure 3-3
Bronx Truck Trip Ends
2025 AM Peak Period

d. Accidents

The following is an analysis of the accident statistics information that was collected for two time periods, long term data from 1999 – 2001 and short term two-month data from 2003.

Three Year Data (1999 – 2001)

- Of the four intersections listed in the top 20, all were located along Bruckner Boulevard and are also included in the top 10 truck accident intersections citywide. These four intersections include Bruckner Boulevard and E. 138th Street, Bruckner Boulevard and Tiffany Avenue, Bruckner Boulevard and Hunts Point Avenue and Bruckner Boulevard and Leggett Avenue.
- These four intersections accounted for 109 of the reported truck accidents or 6.6% of the total truck accidents reported for the top 115 intersections throughout the city.
- The intersection of Bruckner Boulevard and E. 138th Street had 35 reported truck accidents and ranked first throughout the entire city.
- Overwhelmingly, more than 86% of the 230 Bronx truck accidents identified within the top 115 intersections citywide occurred along Bruckner Boulevard.
- Bruckner Boulevard had more truck accidents than any other street citywide with 199 accidents occurring over the three-year study period.

Figures 3-4 and 3-5, respectively, show those locations in the Bronx where there were 10 or more accidents and where the top 5 accident locations occurred.

Two Month (October – November 2003) NYPD Accident Data

Most of the accidents occurred on the truck routes and more frequently in the southern part of the Bronx near and on the through routes between Manhattan and Queens. The most heavy accident area was along Bruckner Boulevard between the Major Deegan Expressway and the Sheridan Expressway. Most off-route accidents occurred in close proximity to the designated truck routes, which might indicate that trucks are using alternate routes to bypass the congested designated route. The following paragraphs provide more detail about truck accidents and accident locations in the Bronx.

Characteristics of All Accidents and Accident Locations

There were 293 truck accidents in the Bronx during the two-month period covered by the data obtained from the NYPD. These accidents occurred at 243 locations in the Borough. At each location, there were between one and ten truck accidents. As with Brooklyn, there was greater variation in the number of accidents per location for on-route truck accident locations than for off-route truck accident locations. Furthermore, more truck accidents occurred at on-route locations than at off-route locations.

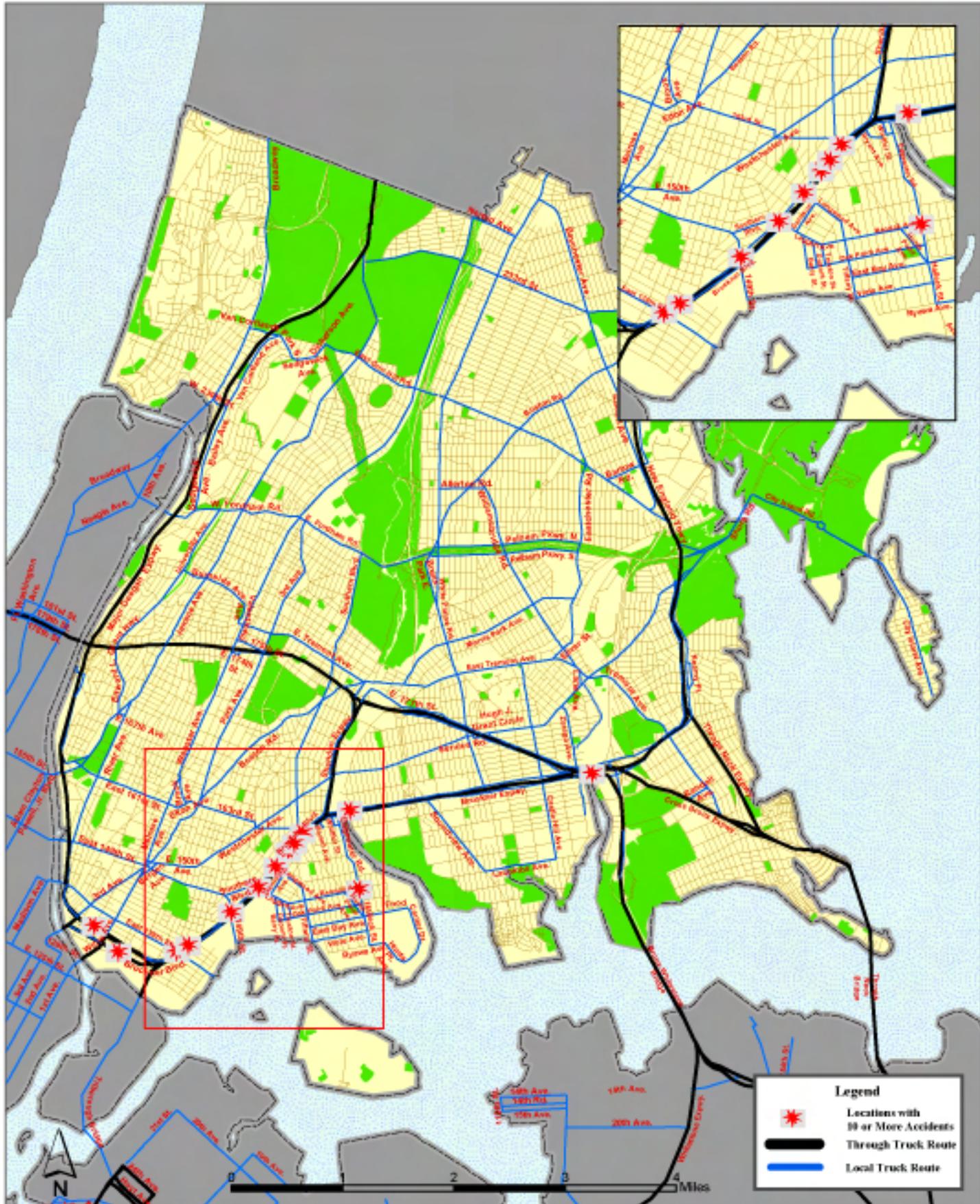


Figure 3-4
Bronx 10 or More Truck Accident Locations Map

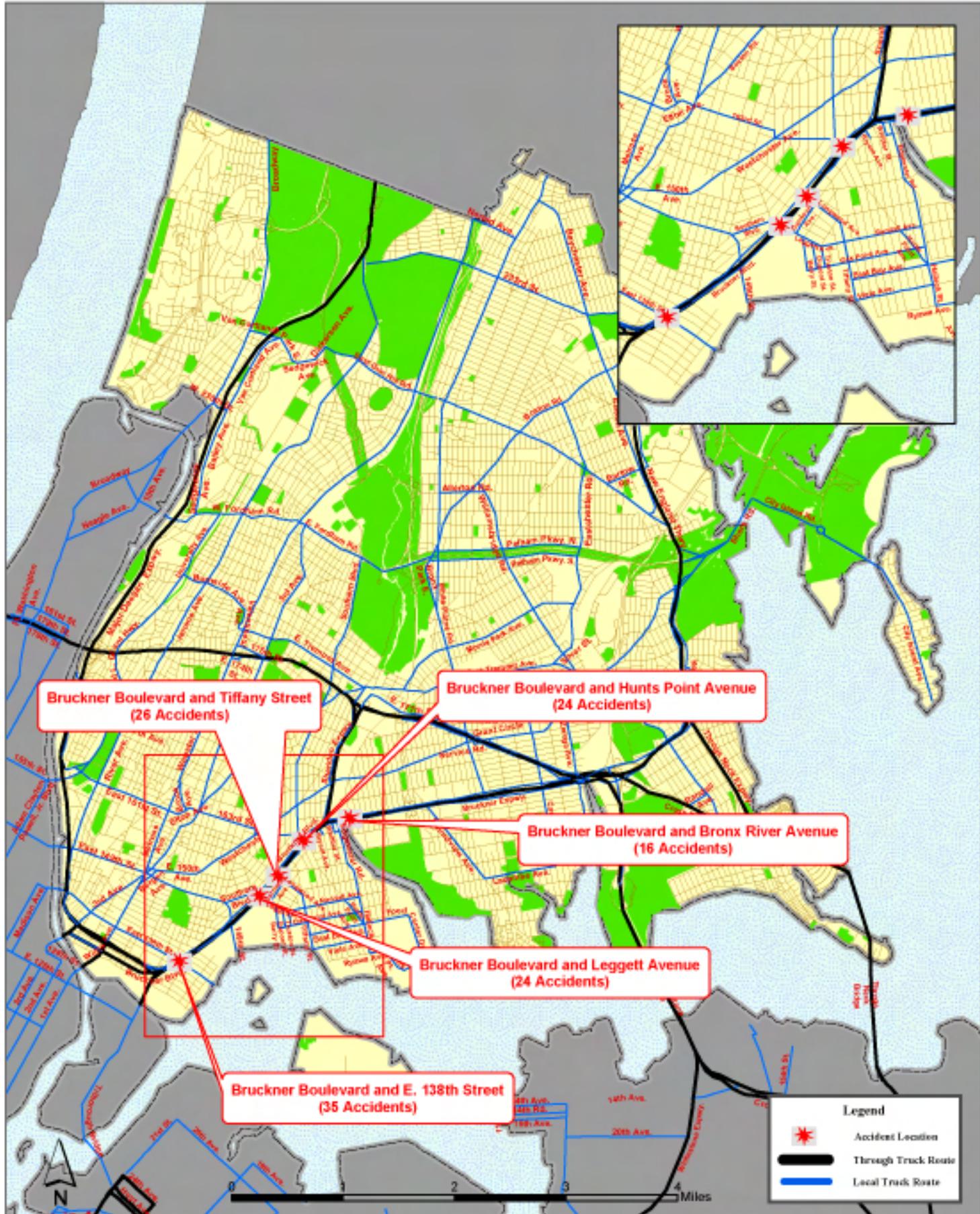


Figure 3-5
Bronx Top 5 Truck Accident Locations

The following demonstrates the characteristics of truck accidents and accident locations in the Bronx.

- 41% of Bronx truck accidents occurred off the truck route
- 59% of Bronx truck accidents occurred on the truck route
- 12.5% of New York City truck accident locations were in the Bronx
- 12.3% of City truck accidents were in the Bronx

Characteristics of On-Route Accidents and Accident Locations

During the two-month period covered by the data, 193 on-route truck accidents occurred at 144 different locations in the Bronx. Between one and ten accidents occurred at these accident locations. Table 3-1 lists the on-route truck accident corridors located in the Bronx. The following numbers describe the on-route Bronx truck accidents and their locations.

- At 121 of the 144 on-route accident locations, there was one truck accident
- 12 on-route accident locations experienced two truck accidents
- 11 on-route accident locations experienced three or more truck accidents
- One on-route accident location experienced ten accidents
- The Bronx's 193 on-route accidents represented 12.5% of New York City on-route accidents
- 12.2% of New York City on-route truck accident locations were in the Bronx

Characteristics of Off-Route Accidents and Accident Locations

In the Bronx 100 off-route truck accidents occurred during the two-month period covered by the NYPD data. These accidents occurred at 99 off-route locations. At 98 of these off-route accident locations, there was only one accident. The other truck accident location experienced two accidents. There was not a significantly large enough cluster of off-route truck accidents to warrant the compilation of a table. The following numbers highlight the characteristics of off-route accidents and their locations in the Bronx.

- The Bronx's 100 off-route truck accidents represented 11.8% of New York City off-route accidents
- The 100 off-route truck accidents occurred at various locations throughout the Borough, and no significant corridor patterns were identified
- 12.9% of New York City off-route truck accident locations were in the Bronx

e. NYPD Truck Summonses

In the Bronx, there were a total of 173 truck violations noted in the NYPD data. Similar to Brooklyn, the equipment violation category had the largest number of infractions at 90. This represents 52% of Brooklyn truck violations in this dataset. Out of 173 violations, 76, or 44%, were in the overweight category. The remaining 7 violations, or less than 4%, were in the over-dimension and off-truck route categories. There were no violations in the posted limit category.

With one exception, the Bronx over-height and off-route truck violations were concentrated in two areas. The Riverdale cluster was located on the section of Henry Hudson Parkway between 238th Street and 254th Street approximately one half-mile from the nearest truck route, Broadway. The second cluster was located near the Hutchinson River Parkway and Tremont Avenue.

Table 3-1: Bronx On-Route Truck Accident Corridors

Corridor	Location (Between)	Corridor Length (Miles)	Number of On-Route Accidents	Accidents Per Mile	% of On-Route Accidents Borough-wide	% of All Accidents Borough-wide	% of On-Route Accidents Citywide	% of All Accidents Citywide
Bruckner Boulevard Corridor (SW)	3rd Avenue and Longfellow Avenue	3.0	40	13.3	20.7%	13.7%	2.6%	1.7%
East Gun Hill Road Corridor	Jerome Avenue and New England Thruway	3.2	31	9.7	16.1%	10.6%	2.0%	1.3%
Broadway Corridor	225th Street Bridge and Henry Hudson Parkway	2.0	24	12.0	12.4%	8.2%	1.6%	1.0%
Willis Avenue Corridor	Willis Avenue Bridge & 3rd Avenue	1.0	19	19.0	9.8%	6.5%	1.2%	0.8%
Jerome Avenue/River Avenue Corridor	E. 149th Street, Interstate 87, and Interstate 95	3.0	15	5.0	7.8%	5.1%	1.0%	0.6%
Boston Road Corridor	Pelham Parkway North and Provost Avenue	3.0	11	3.7	5.7%	3.8%	0.7%	0.5%
Bruckner Boulevard Corridor (NE)	Zerega Avenue and Middletown Road	1.8	11	6.1	5.7%	3.8%	0.7%	0.5%
Westchester Avenue Corridor (NE)	Zerega Avenue and New England Thruway	1.6	10	6.3	5.2%	3.4%	0.6%	0.4%
3rd Avenue Corridor	3rd Avenue Bridge and 163rd Street	1.7	9	5.3	4.7%	3.1%	0.6%	0.4%
Hunts Point Corridor	Hunts Point District	-	9	-	4.7%	3.1%	0.6%	0.4%
White Plains Road Corridor	East Gun Hill Road and Morris Park Avenue	2.4	8	3.3	4.1%	3.1%	0.5%	0.3%
Westchester Avenue Corridor (SW)	Southern Boulevard and Melrose Avenue	1.5	6	4.0	3.1%	2.0%	0.4%	0.3%
Southern Boulevard Corridor	East Tremont Avenue and Bruckner Boulevard	1.6	6	3.8	3.1%	2.0%	0.4%	0.3%

f. NYCDOT “Hot Spot” Priority Areas

Figures 3-6 through 3-10 at the end of this subsection show the Bronx “Hot Spots” areas that were analyzed.

1. Hunts Point Area

This location historically has been problematic with the community and the Hunts Point Market. Community concerns have been heightened with the Fish Market’s relocation to the area. Local concerns are focused on trucks using non-truck route streets and the general public safety in the area. The streets include Hunts Point Avenue, Spofford Avenue, Garrison Avenue and Manida Street

The Department has actively engaged in improving the Hunts Point Peninsula, especially with regard to truck routes. Working collaboratively with community groups, the Department has worked on modifying the truck routes to ensure a balance between the needs of the industrial area as well as the residential population. The revised truck route plan delineates gateways to and from the area that are sensitive to local residences.

A joint NYCDOT / NYCEDC study effort effectively changed the truck routes to clearly delineate gateways to and from the areas that are sensitive to local residences. The changes to the Local Truck Route network, shown in Figure 3-6, are listed below:

Additions:

- Oak Point Avenue (Barry Street to Halleck Street)
- Barry Street (Leggett Avenue to Oak Point Avenue)
- Dupont Street (Leggett Avenue to Oak Point Avenue)
- Truxton Street (Leggett Avenue to Oak Point Avenue)
- Bryant Avenue (Bruckner Boulevard to Garrison Avenue)

Deletions:

- Hunts Point Avenue (Bruckner Boulevard and Garrison Avenue)
- Garrison Avenue (Tiffany Street to Bryant Avenue)

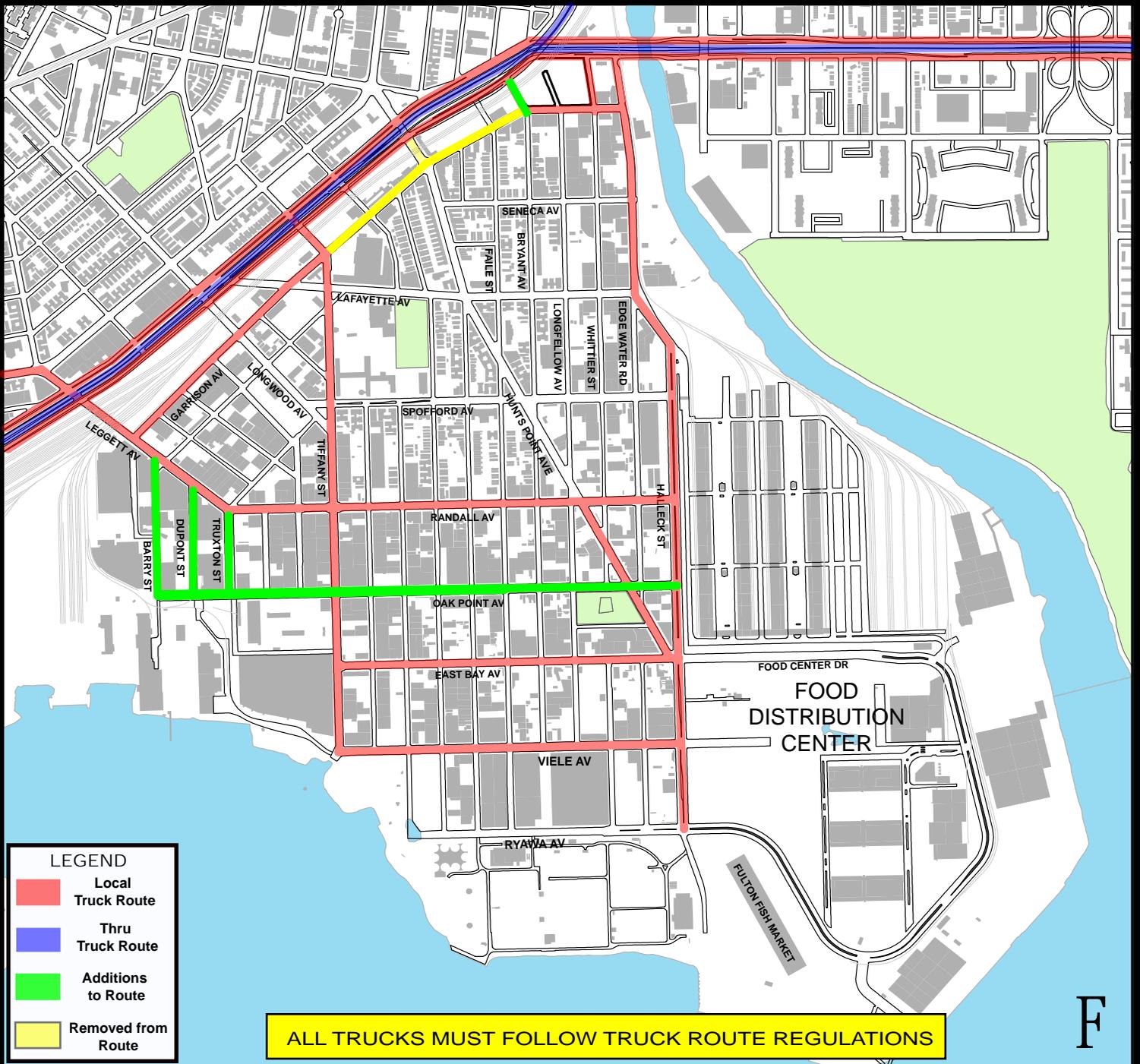
The truck route network deletions were developed to keep trucks away from residential areas. The truck route streets will be clearly signed to guide motorists to their destinations. The above mentioned truck route changes will also keep truckers off residential streets such as Spofford Avenue, Manida Street and the short section of Garrison Avenue.

There is an ongoing process to improve the overall streetscape of Hunts Point that has taken two distinct forms. One involves the Fish Market moving to the Peninsula and the associated traffic accessing the site; and more importantly is the Hunts Point Vision Plan, which has been conceptually completed. Details can be found on the New York City Economic Development Corporation website. Details of this program include substantial streetscape improvements, branding/identity for the industrial park and improved truck route/industrial way-finding signage for the area.

These changes have been delineated with positive signing at all relevant intersections to keep trucks on the designated truck route streets.

EFFECTIVE JULY 21, 2004

UPDATED TRUCK ROUTES IN HUNTS POINT



Effective July 21st 2004, the New York City Department of Transportation will be updating the truck routes in Hunts Point. These changes will improve safety, as well as provide for improved flow of traffic into the industrial area.

For trucks traveling *from the south*, the recommended truck route to the peninsula is **Leggett Avenue**

For trucks traveling *from the north*, the recommended truck route to the peninsula is **Tiffany Street**



New York City
Department of Transportation
Iris Weinshall, Commissioner

Additional Information on the New York City Truck
Routes can be found on the NYCDOT Website at
www.nyc.gov/dot

**DIAL
311**

Government Services
& Information for NYC

2. Castle Hill Area

A source of one of the major complaints in the Castle Hill area is the traffic generated from the newly opened Home Depot located on Zerega Avenue between Randall and Seward Avenues. One of the primary community concerns relates to trucks traveling along the residential streets to access Zerega Avenue. This “hot spot” area encompasses the Bronx neighborhoods of Castle Hill, Park Chester, Westchester Park and Unionport. The area includes several major Through Truck Routes: the Cross Bronx Expressway (I-95), Bruckner Expressway (I-278), Bruckner Boulevard, and the Bruckner interchange, which is a major decision point for traffic destined within New York City and beyond. Additionally, the area also includes the following Local Truck Routes: Westchester Avenue (Third Avenue to Bruckner Boulevard), East Tremont Avenue (Valentine Avenue to Dewey Avenue), and Castle Hill Avenue (East Tremont to Lacombe Avenue).

Generally, Zerega Avenue parallels Castle Hill Avenue from the intersection with Metropolitan Avenue, then continues in a southwesterly then southern direction and rejoins Castle Hill Avenue at the southern end near Castle Hill Park. Commercial and industrial land uses are located along the street.

The community’s concern is with trucks using residential and non-truck route streets to access the commercial uses in the Unionport area. Two such streets used by trucks, and mentioned by the public, include Zerega Avenue and Parker Street. Parker Street is one-way northbound and Zerega Avenue one-way southbound. The streets run diagonally between Castle Hill Avenue and Westchester Avenue. Trucks may be using both streets to access the Unionport section of the Borough rather than remaining on Castle Hill Avenue and then exiting to reach their destination.

To address the community’s concerns, truck route signs should be posted on the approaches at the intersection of Parker Street and Westchester Avenue. Wayfinding signs to Castle Hill Avenue should also be posted at the driveways exiting the major truck generators in the Unionport area. The local businesses should also inform the truckers of the designated routes for trucks to arrive and leave the respective businesses.

Excessive negative signage is not recommended for this area as there are a large number of local streets that truckers could use to access the site. Instead, a mix of positive and negative signage where appropriate will provide trucks with appropriate routing information and reinforce non designated roadways that are being used illegally. This approach is delineated in *Technical Memorandum 3, Truck Signage Program* which calls for truck route signs to clearly delineate the network, and public education, which includes the trucking community and businesses, to apprise them of the truck route system, and to Home Depot, to provide instructions to its delivery drivers to use the designated truck routes. In this case, the directions would advise truckers about getting to the site from I-95, I-278, and I-678.

As per the requirements of the City’s traffic rules, trucks destined for the Home Depot site should use Local Truck Route streets to the nearest intersection of the trip destination. In this case trucks would stay on Castle Hill Avenue to Seward Avenue and leave the site via Randall Avenue.

Trucks for other destinations in the area would use Castle Hill Road to Bruckner Boulevard, turn right onto Zerega Avenue and continue south to reach the site. Wayfinding signs could also be placed at the intersections of Castle Hill Avenue and Bruckner Boulevard and at Bruckner

Boulevard and Zerega Avenue. Regular enforcement initiatives should also be conducted to ensure compliance.

Additional areas for investigation of signage, as recommended by Community Board 10 include the following intersections.

- East Tremont Avenue and St. Peter's Avenue
- Westchester Avenue and Overing Street
- Castle Hill Avenue and Glover Street
- Westchester Avenue at Doris Street
- Westchester Avenue at Rowland Street
- Hershell Street at Commerce Avenue
- Castle Hill Avenue at Lyon Avenue
- East Tremont Avenue at Montgomery Place
- East Tremont Avenue at Maclay Place and Westchester Avenue at Waterbury Place.

3. Baychester area

This community is adjacent to Co-Op City, and residents complain that trucks making deliveries to the mall use residential streets instead of the designated truck routes. The affected area comprises the Bronx communities of Baychester and Co-Op City. The Mall at Bay Plaza and Bay Plaza are located in Co-Op City just east of I-95 (New England Thruway). The Mall is bordered by Bartow Avenue to the north, Hutchinson River Parkway service road to the east, and Baychester Avenue to the west/southwest. The three streets are designated as Local Truck Routes.

Trucks traveling I-95 southbound or from other routes west of I-95 should use Bartow Avenue to access the Mall. However, trucks coming from the north and east were observed using Peartree Avenue and City Boulevard to reach the Mall. Trucks from the south on I-95 northbound use the exit ramp near the Mall and proceed to Bartow Avenue with no intrusion into residential neighborhoods.

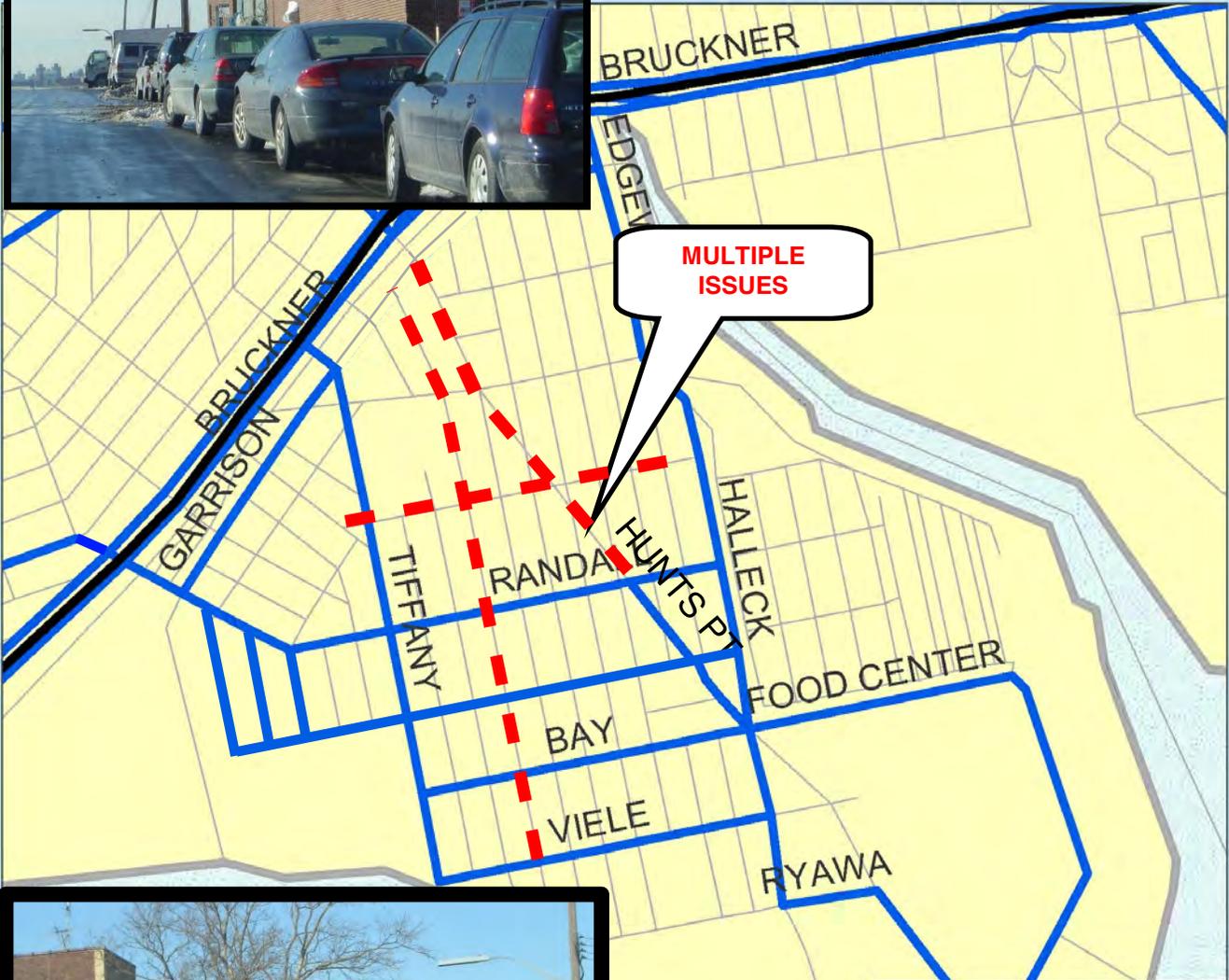
Trucks using the Local Truck Route streets west of I-95, such as East Gun Hill Road, may also use local streets because of the absence of truck route signs or signage directing them to the Mall.

Positive reinforcement and guidance in the form of wayfinding signs at key intersections is recommended. These intersections include: East Gun Hill Road and Bartow Avenue, Eastchester Road and East Gun Hill Road, Boston Post Road and East Gun Hill Road, Boston Post Road and Baychester Avenue, and East 222nd Street and Baychester Avenue. NYCDOT should also consider placing an informational sign "Trucks Use Bartow Avenue Exit for Mall" on I-95 southbound on the bridge approach over the Hutchinson River.

In addition, the Department and other transportation agencies are pursuing improvements at the Bartow Avenue intersection to improve operation and safety, as well improvements at the Bartow Avenue and Baychester Avenue intersection.



Figure 3-7: Bronx Hot Spots



**MULTIPLE
ISSUES**



Legend 

-  Through Truck Routes
-  Local Truck Routes
-  Complaint Areas

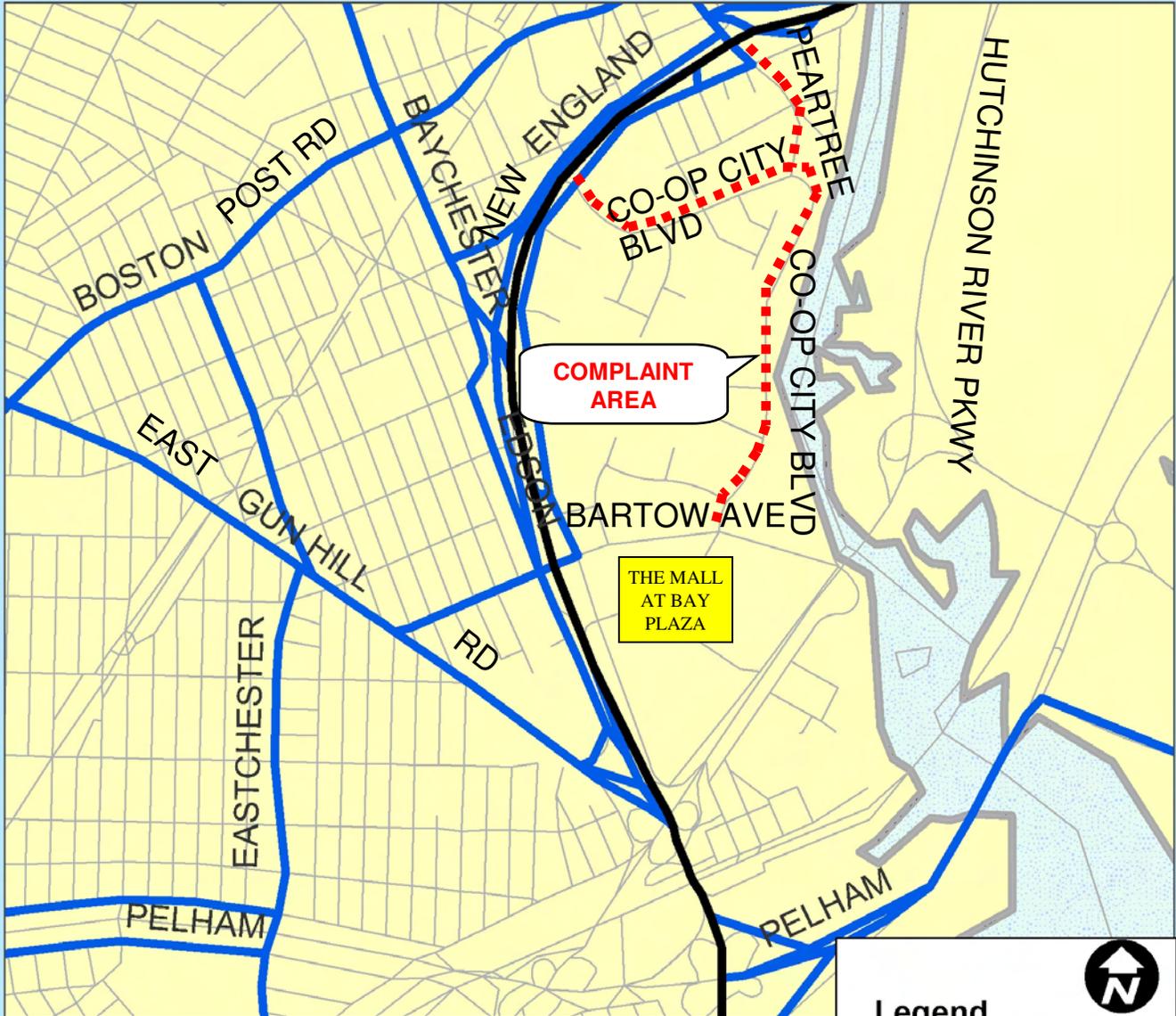
**Figure 3-8: Hunts Point Avenue,
Manida Street, & Spofford Avenue**



Legend 

-  Through Truck Routes
-  Local Truck Routes
-  Complaint Areas

Figure 3-9: Castle Hill Avenue & Zerega Avenue



Legend

-  Through Truck Routes
-  Local Truck Routes
-  Complaint Areas

Figure 3-10: Co-Op City Boulevard and Peartree Avenue

g. Stakeholder Issues

The following subsection is an analysis of the public comments regarding truck activity in the Bronx. Figures 3-11 through 3-13 at the end of this subsection show the Bronx stakeholder areas that were analyzed.

Geometric Constraints

Two comments citing geometric constraints along Rosedale Avenue, between Mansion Street and East Tremont Avenue, were collected from the Borough of the Bronx. Both comments claimed that trucks utilize narrow streets that cannot accommodate turning movements.

Land Use

Two comments referenced issues pertaining to land use. The comments suggested that the designation of Zerega Avenue, between Castle Hill Avenue and Westchester Avenue, as a truck route is inappropriate and consideration should be given to removing truck route designations, specifically on streets where land uses have shifted from industrial to residential.

Off-Truck Route

Of all comments received from the Borough of the Bronx, six indicated concerns related to trucks traveling off NYCDOT designated truck routes. Generally, these comments pertained to trucks disregarding NYCDOT regulations and utilizing Local Truck Routes as Through Truck Routes. The location of these comments include Grant Avenue, Perry Avenue, Kingsbridge Road, East 204th Street and Hull Avenue, which are not designated truck routes. Grant Avenue is located off of East 161st Street, which is a designated Local Truck Route and passes through truck generating commercial sites.

Oversized Trucks

One comment referring to problems caused by oversized trucks on Rosedale Avenue, between Mansion Avenue and E. Tremont Avenue, was received from the Borough of the Bronx.

Public Safety

Two comments cited issues associated with public safety suggesting that traffic-calming methods be applied to help curtail incidences of reckless driving and speeding. The location of the comments included 138th Street and Rosedale Avenue, between Mansion Avenue and East Tremont Avenue.

Structural/Infrastructure/Utility Damage

Comments discussing the physical damage caused by truck traffic were received from the Borough of the Bronx. The comments noted that trucks frequently knock down overhead cable and electric wires causing unnecessary service interruptions. The locations of the comments include Ely Avenue, Gunther Avenue and Bruner Avenue, which are not designated truck routes. One comment was received regarding damage on Bartow Avenue, which is a designated Local Truck Route.

Signage

The Borough of the Bronx received comments regarding inadequate signage throughout the Borough. These comments typically appealed for additional signage, identifying designated truck routes and relevant height and weight restrictions. The following locations were referenced in the comments:

- Grant Avenue
- Ely Avenue between Adeo Avenue and Givan Avenue
- Gunther Avenue and Bussing Avenue
- Bartow Avenue
- East 222nd Street
- East 224th Street
- Laconia Avenue
- Schieffelin Avenue
- Paudling Avenue
- Eastchester Road
- Gun Hill Road
- White Plains Road
- East 233rd Street
- 138th Street between Major Deegan Expressway and Bruckner Expressway

Enforcement

One comment called for greater enforcement of NYCDOT's truck regulations. The comment requested better enforcement by the New York City Police Department (NYPD), as well as the Environmental Protection Agency (EPA). The location of the comment was on 138th Street, which is a designated Local Truck Route.

Public Comment Analysis

White Plains Road and 138th Street are designated Local Truck Routes. A review of accident data over a two-month period (October to November, 2003) revealed several truck-related accidents along the two corridors. Ely, Gunther, and Bussing Avenues are streets that several residents have commented on regarding truck concerns. However, these roads are not designated as truck routes. These roads parallel the Bruckner Expressway, east of Co-Op City. The map of the morning peak hour trip ends in The Bronx (Figure 3-3) indicates that there are truck generator sites to the south of Ely, Gunther, and Bussing Avenues, so truck traffic may be using these roads to bypass the Bruckner Expressway. Enforcement of prohibiting truck traffic along these streets is recommended.

Rosedale Avenue is a residential street that is not designated as a truck route. Rosedale Avenue is a street that runs from the Cross Bronx Expressway (I-95), near the Bronx River Parkway, to the Classon Point neighborhood, near the East River. Several comments have been made referring to Rosedale Avenue, such as geometric constraints, oversized vehicles and public safety. There are no north-south roads that are designated as a Local Truck Route within this area, although the morning peak period truck trip end map of The Bronx (Figure 3-3) shows a large number of trip ends near Classon Point. Therefore, a designation of a direct Local Truck Route between the Cross Bronx Expressway and Classon Point, with minimal residential land use impacts, should be examined.

The following is an analysis of two problem areas in a greater level of detail, along with some suggested recommendations:

1. Bronxdale Avenue

Bronxdale Avenue is a two-way street that runs diagonally between White Plains Road and East Tremont Avenue. While the latter two streets are Local Truck Routes, Bronxdale Avenue is not a designated truck route. The community has complained that trucks use this route as a short cut. The situation is further compounded by the fact that Castle Hill Avenue, another truck route, is the south leg of the intersection at East Tremont Avenue. Field observations confirmed that trucks on Castle Hill Road (northbound) continue north on Bronxdale Avenue.

There are also two height restrictions along the arterial. There is a 12'-0" clearance at the Amtrak rail structure just north of East Tremont Avenue, and a 13'-6" clearance at the NYC Transit subway elevated structure located between Antin Place and Neill Avenue.

There are no signs posted at the key intersections where designated truck routes cross Bronxdale Avenue identifying the height restrictions or advising commercial vehicles about which streets are the designated truck routes.

To address community concerns, positive truck route signs and the appropriate height restriction advisory signs should be posted at the following intersections:

- East Tremont Avenue, Bronxdale Avenue and Castle Hill Avenue (north/east/west legs)
- Morris Park Avenue and Bronxdale Avenue (east and west legs)
- White Plains Road and Bronxdale Avenue (north and south legs)

2. Brush and Lafayette Avenues and Senger Place

The Community Board and local residents from the Schuylerville and Throgs Neck sections of the Borough indicated that trucks travel off-route to reach commercial sites located along Brush Avenue. United Parcel Service (UPS) has a major facility on Brush Avenue.

Brush Avenue is a two-way street between Bruckner Boulevard and the Throgs Neck Bridge. Access options to the UPS and other commercial facilities along Brush Avenue are limited. Traffic from the north uses the I-678 southbound service road and exits at Lafayette Avenue or Senger Place to reach Brush Avenue; traffic from the south exits I-678 at Lafayette Avenue and continues to Brush Avenue. Traffic traveling in either direction from I-95 could exit to Bruckner Boulevard and proceed eastbound to Brush Avenue. Local traffic from the west can also use Bruckner Boulevard. However, local traffic from the east must use East Tremont Avenue, a Local Truck Route, to Lafayette Avenue. This is the most direct route and consistent with NYCDOT traffic rules.

Traffic leaving the area could be directed to use Schley Avenue and the Triborough Bridge and Tunnel Authority (TBTA) service road under the Bronx Whitestone Bridge and enter I-678 northbound to the Bruckner interchange. These routings, especially the departure route should be reinforced with positive signage. However, the NYCDOT should discuss the security issue of trucks traveling under the Whitestone Bridge.

“No Trucks Except Local Deliveries” signs on Lafayette Avenue or other local streets are not recommended because the trucks that were observed are coming from or going to commercial/industrial uses on Brush Avenue.



**Figure 3-11:
Bronx Stakeholder Areas**

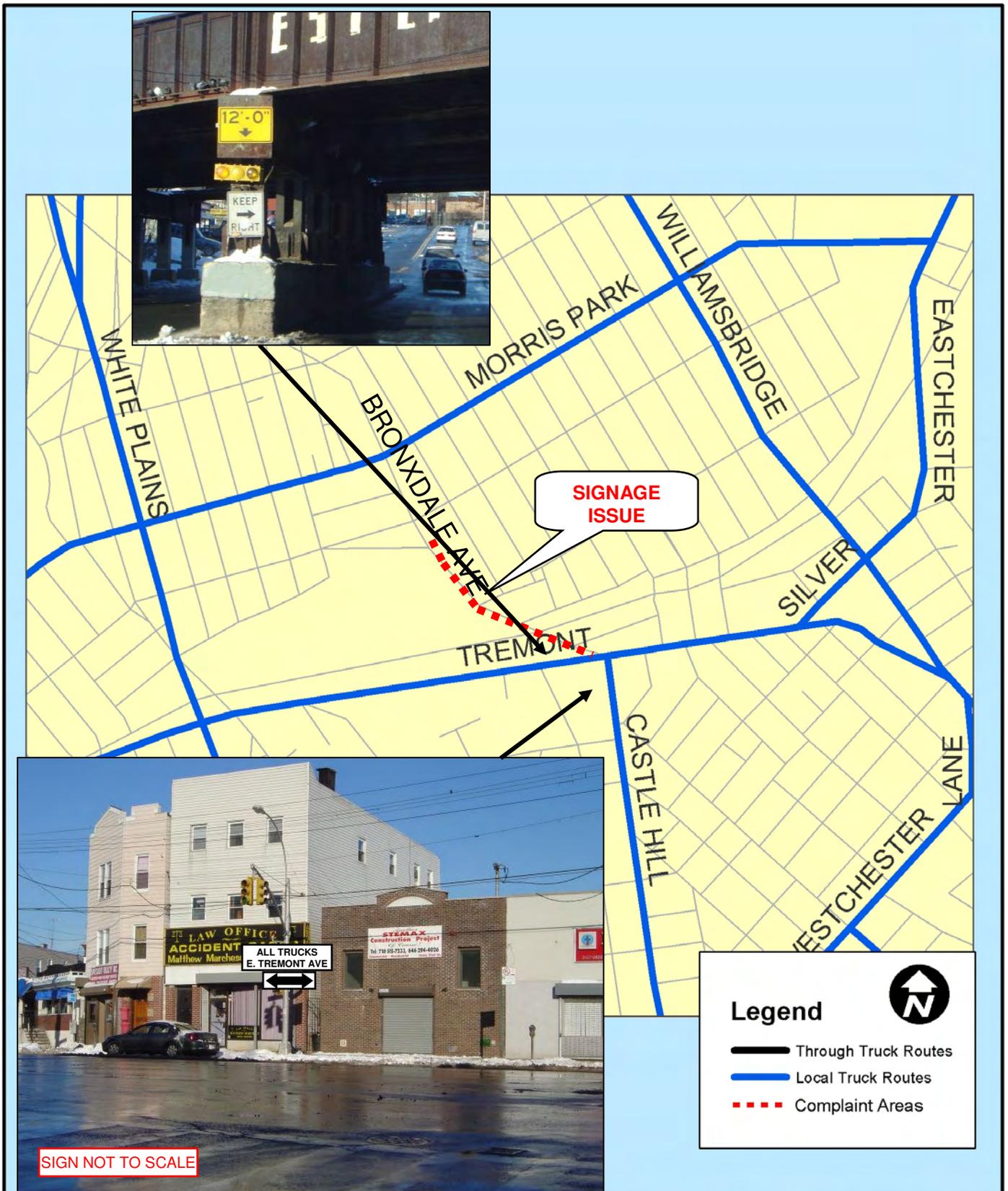


Figure 3-12: Bronxdale Ave at E. Tremont Ave & Castle Hill Ave

UNDER CONSTRUCTION
4,000 sf of WAREHOUSE
4,000 sf of OFFICES



LAFAYETTE AVE. EB



H.O. PENN



CABLEVISION



UPS



Legend

- Through Truck Routes
- Local Truck Routes
- Complaint Areas

Figure 3-13: Brush Avenue and Lafayette Avenue

h. Case Study

1. Port Morris - The Bronx

Land Use

The Port Morris study area is bound by East 141st Street to the north, the Bronx Kill to the south, the Bruckner Expressway to the west, and the East River to the east (see Figure 3-14). The study area is located in the southern section of the Bronx and is part of a larger industrial park. Three designated truck routes provide freight access to the study area, the Bruckner Expressway is a Through Truck Route and East 138th Street and Bruckner Boulevard are Local Truck Routes.

The truck generator site is a waste transfer station operated by Waste Services of New York, Inc. The site is bound by East 132nd Street to the north, the Amtrak/CSX/P&W railroad right-of-way to the west, and the East River to the south and the east. The site is a waste transfer station, which is a facility where solid waste is unloaded from collection vehicles and briefly held while it is reloaded onto large long-distance transport vehicles for shipment to landfills or other treatment or disposal facilities. There are two buildings on the site in addition to the truck loading areas.

The study area is comprised of industrial buildings most of which are one- and two-story warehouses and factory buildings. The industrial uses include distribution facilities, warehouses, utility operations, and other waste disposal facilities. North of the truck generator site, in addition to the industrial uses, there is a large petroleum bulk station and terminal as well as a Con Edison transformer and automobile maintenance and storage yard. There are also a few restaurants and bars sprinkled among the various industrial uses.

West of the truck generator site, light industrial uses are prevalent, however, west of Willow Avenue, there are pockets of residential uses situated among the warehouses and automobile repair facilities. The residential uses are primarily single- and multi-family row homes. On East 135th Street, a large warehouse is in the process of being converted to a residential apartment building. Additionally, there is a supportive housing facility fronting on East 138th Street.

Figure 3-15 identifies the land uses within the Port Morris study area.

Zoning

The Waste Services of New York, Inc. waste transfer facility bound by East 132nd Street to the north, the East River to the south and east and a New York Post printing facility to the west constitutes the truck generator site studied in the Bronx. As shown in Figure 3-16, this Port Morris property is contained within the M3-1 zoning district which permits dumps and marine transfer stations for garbage or slag piles, as well as other heavy industrial uses which generate noise, traffic and pollutants. A floor area ratio (FAR) of 2.0 is the maximum permitted within this zoning district.

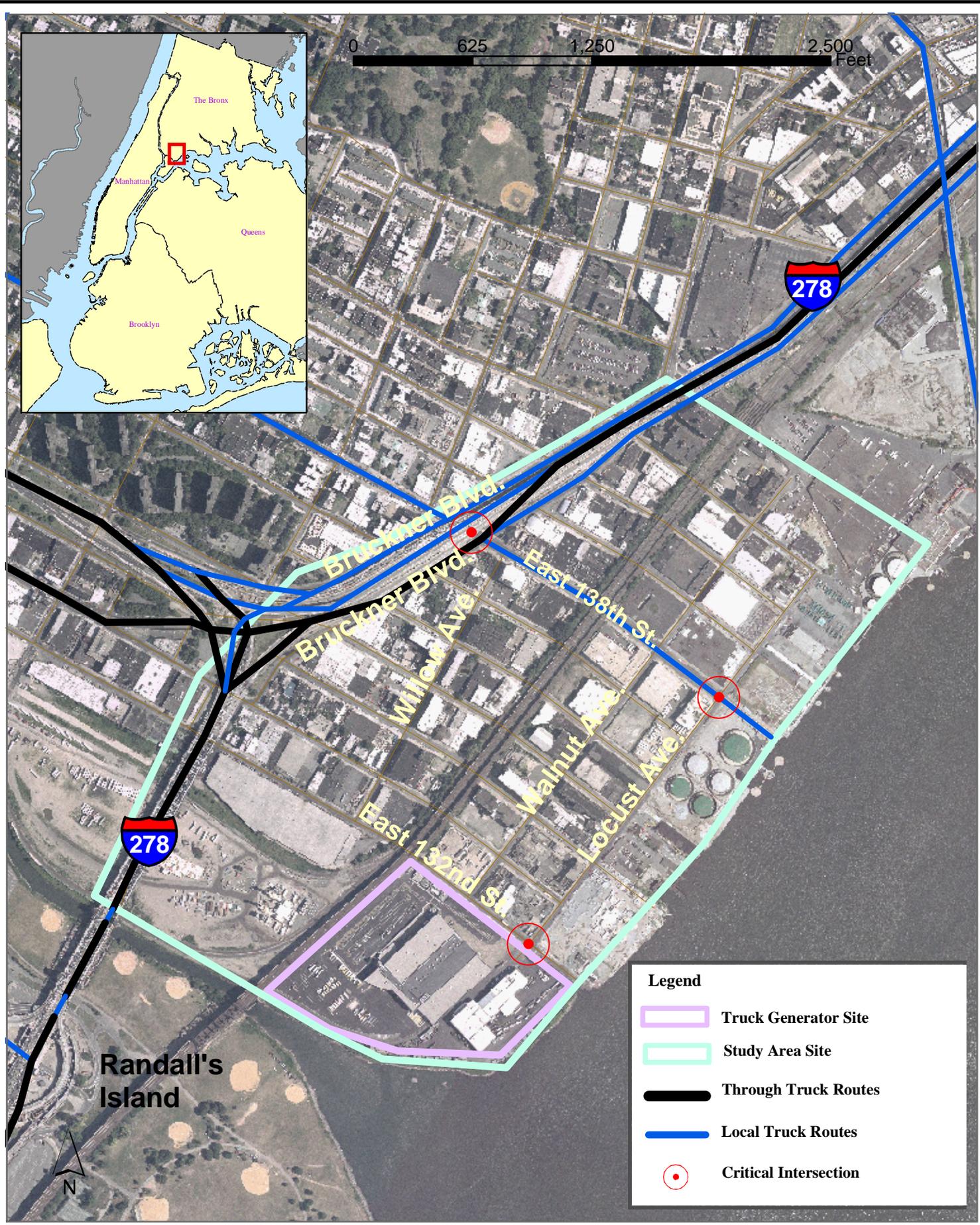


Figure 3-14
Site Map
Port Morris - The Bronx

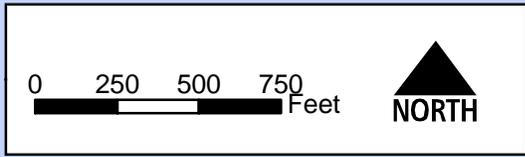
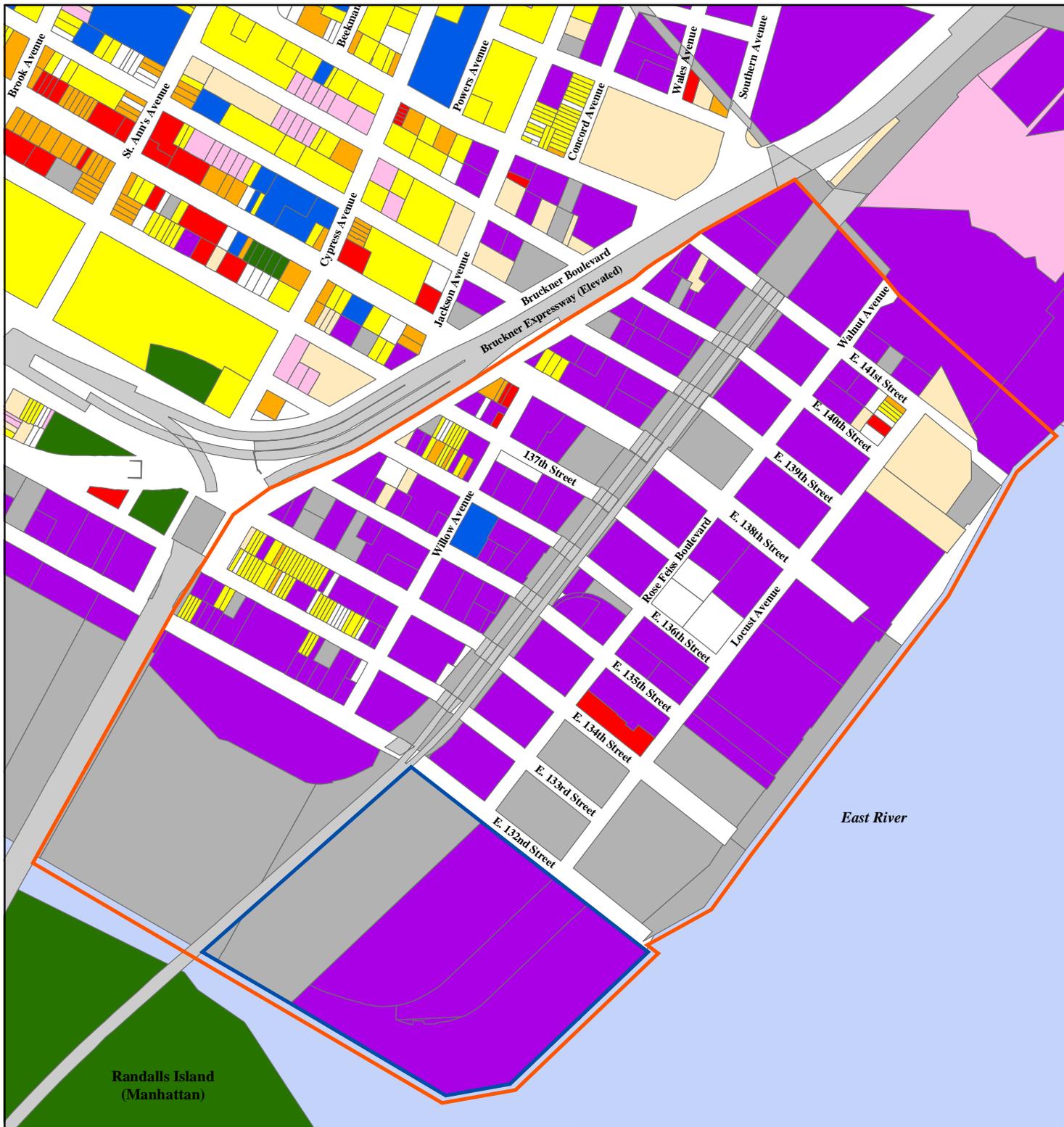


Figure 3-15
Land Use
Port Morris - The Bronx

NYC Truck Route Management and Community Impact Reduction Study



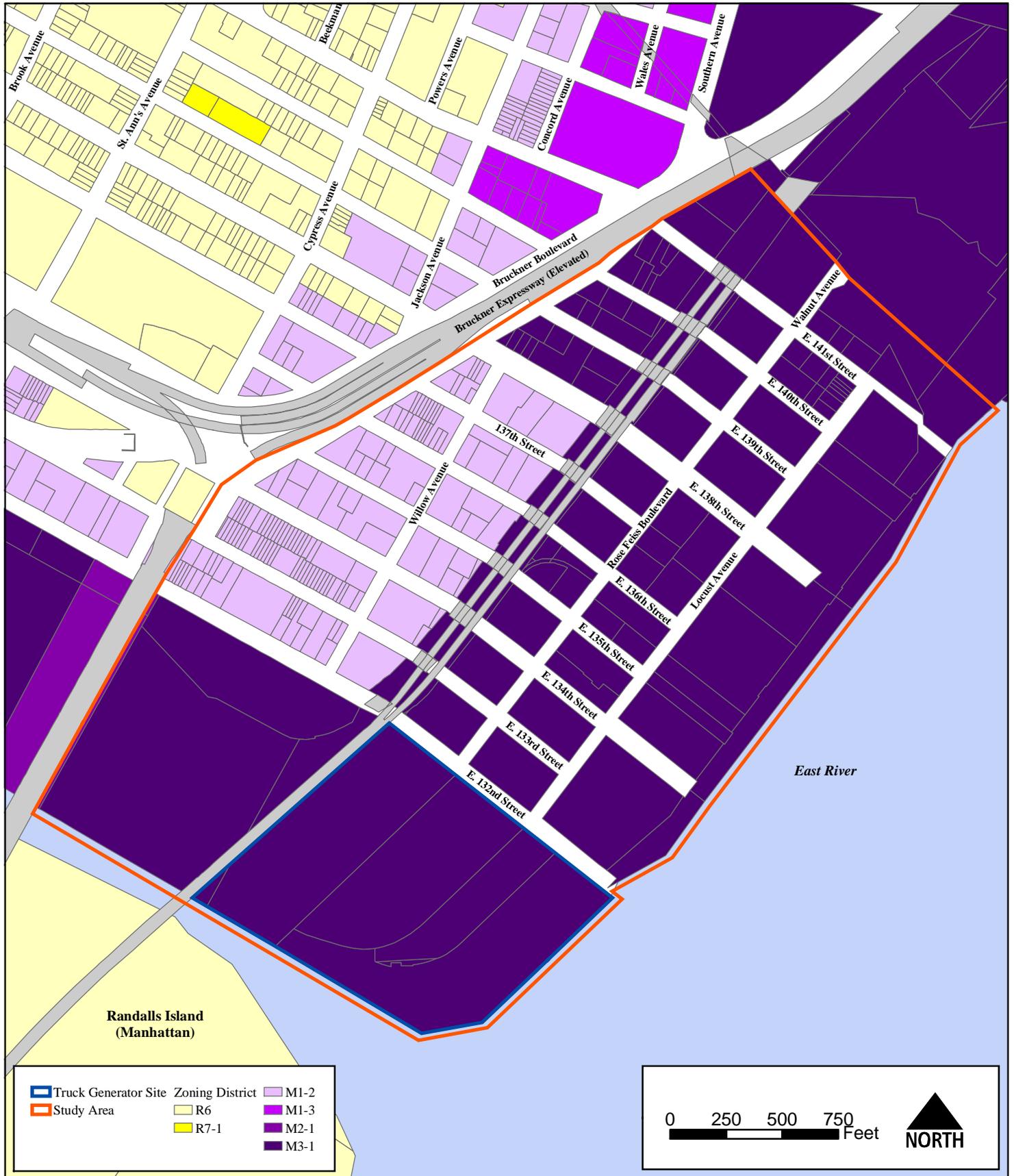


Figure 3-16
Zoning
Port Morris - The Bronx

The study area for this truck generator site is generally bordered by parcels lining the northern edge of East 141st Street to the north, the East River to the south and east and the Bruckner Expressway / Bruckner Boulevard to the west. Manufacturing zoning districts (M2-1 and M3-1) contain all parcels within the study area. The M3-1 zoning district comprises a majority of the area, including properties located north and west of the truck generator site. As discussed above, this district permits heavy industrial uses including manufacturing establishments, storage uses and chemical and power facilities that are required to meet minimal performance standards. Properties zoned M3-1 have a maximum permitted FAR of 2.0 and require off-street parking dependent upon land use. The remainder of the parcels comprising the study area are located within the M2-1 zoning district. Properties zoned M2-1 are located north of the truck generator site to the west of the Amtrak / CSXT / P&W elevated rail line. This zoning district is generally applied to older manufacturing areas that have performance standards generally between light and heavy industrial areas. The M2-1 district has a maximum permitted FAR of 2.0 and requires off-street parking. While the Bruckner Expressway and Bruckner Boulevard truck routes line the western boundary of the study area, East 138th Street provides the only designated east / west truck route in the area.

Community Facilities

The ***Willow Avenue Shelter***, operated by the NYC Department of Homeless Services, is located on Willow Avenue between 135th and 136th Streets. This facility provides a safe haven for 130 homeless women. This shelter does not front on a NYC truck route.

Access to Truck Routes from Site/Study Area

The Port Morris truck generator site, which is the Waste Services of New York, Inc. waste management facility, is not located on a local or regional truck route. There is no direct access point to a designated truck route from the Port Morris truck generator site. The main entrance to the facility is at the intersection of East 132nd Street and Locust Avenue. Locust Avenue intersects with East 138th Street, which is a designated Local Truck Route. East 138th Street intersects with Bruckner Boulevard, a designated Local Truck Route that parallels the Bruckner Expressway (I-278), the closest regional Through Truck Route from Port Morris. From the Bruckner Expressway, truckers can gain access to the Triborough Bridge and the Major Deegan Expressway (I-87).

Critical Intersections

There are three intersections within the Port Morris study area that have been identified as critical intersections. These intersections include:

- Bruckner Boulevard at East 138th Street
- Locust Street at East 138th Street
- Locust Street at East 132nd Street / Waste Services of New York, Inc. gate

The intersection of Bruckner Boulevard and East 138th Street intersects two designated Local Truck Routes and is near the entrance ramps to the Bruckner Expressway, a limited access elevated highway that is a regional Through Truck Route. The intersection is located at the western boundary of the Port Morris study area. East 138th Street is a designated Local Truck Route at the intersection with Locust Street. Locust Street is the access road to the Waste Services of New York, Inc. facility and other truck generator sites located along the East River. At the intersection of Locust Street and East 132nd Street are two main gates into the Waste

Services of New York, Inc. facility. This intersection is also within the identified major truck generator site within the Port Morris study area.

Traffic Operations

Traffic counts were conducted at the three key intersections to determine the level of service (LOS) at each intersection and to determine the amount of truck traffic and any constraints that may restrict or hinder the movement of truck traffic within the intersections. The morning peak period was determined to be the time of day where the most significant amount of truck traffic is likely to occur. Traffic counts were conducted at two of the intersections on Wednesday, June 30, 2004 from 6:00 AM to 10:30 AM. Traffic counts at the intersection of Bruckner Boulevard and 138th Street were taken on July 10, 2001, as part of a previous study. Figure 3-17 is a map of the AM peak hour truck traffic at the three critical intersections within the Port Morris study area.

The truck traffic counts determined that there is a significant amount of truck traffic at the intersection of Bruckner Boulevard and East 138th Street, including five hundred (500) trucks passing through the intersection in the southbound direction. The majority of the trucks leaving the Port Morris area are using East 138th Street to access Bruckner Boulevard and the Bruckner Expressway. The truck counts indicate that truckers are using East 132nd Street to access the Waste Services of New York, Inc. facility and trucks are entering and exiting from Locust Street as well.

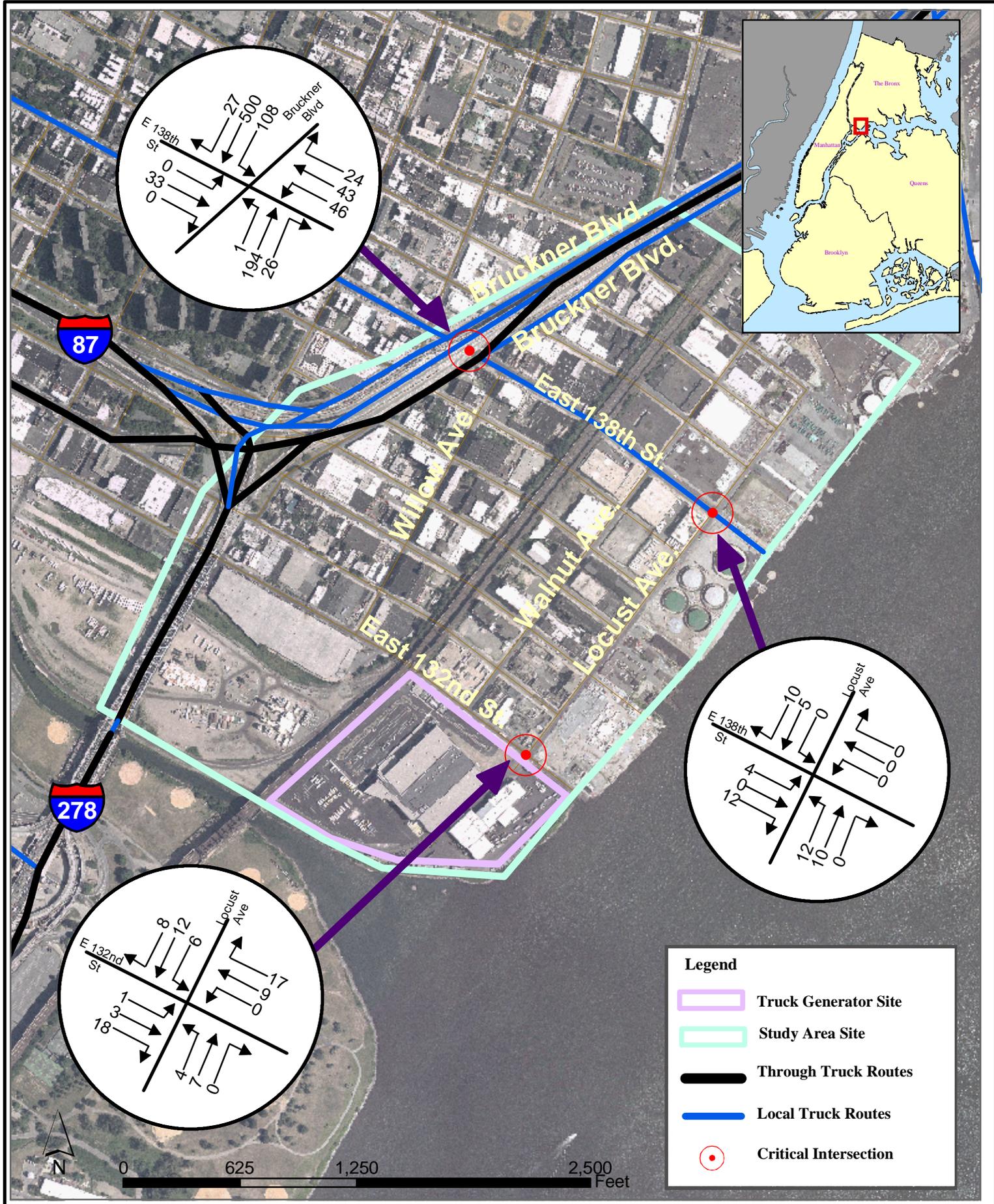


Figure 3-17
AM Peak Hour Truck Traffic Counts
Port Morris - The Bronx

The results of the LOS analyses for the three key intersections within the Port Morris Study Area are shown in Table 3-2. A description of the LOS analyses and the movement of truck traffic within each intersection are discussed below:

Table 3-2: Intersection Operational Levels of Service 2004 Existing Conditions Port Morris - Bronx

Intersection	Approach	Lane Group	AM Peak Hour	
			Delay	LOS
Bruckner Boulevard at 138 th Street	EB	LTR	62.8	E
	WB	LTR	89.1	F
	NB	L	21.5	C
	NB	TR	26.6	C
	SB	L	90.0	F
	SB	TR	41.9	D
	Intersection		42.0	D
138 th Street at Locust Street	EB	LTR	9.6	A
	WB	LTR	9.2	A
	NB	LTR	7.8	A
	SB	LTR	7.7	A
	Intersection		-	-
E132nd & Locust/Waste Management Gate	EB	LTR	7.9	A
	WB	LTR	8.7	A
	NB	LTR	8.6	A
	SB	LTR	8.9	A
	Intersection		8.5	A

Bruckner Boulevard at East 138th Street

The intersection of Bruckner Boulevard at 138th Street is a three-phase signalized intersection with extra green time for left-turn movements from Bruckner Boulevard to 138th Street. Bruckner Boulevard is a six-lane approach in both directions. A ramp to the Bruckner Expressway (I-278) is accessible at the opposite side of the northbound approach. 138th Street is a one-lane approach in both directions.

The analysis of the turning movement counts conducted at the intersection indicates that the peak hour of traffic is between 7:00 AM and 8:00 AM. There is a substantially high volume of traffic at this intersection. Over 4,000 vehicles were counted at the Bruckner Boulevard southbound approach. The turning movement counts also indicate a significant amount of truck traffic at the intersection. Five hundred trucks passed through the intersection on Bruckner Boulevard southbound. Almost 50% of the right-turn movements from 138th Street westbound to Bruckner



Truck traffic on 138th Street approaching Bruckner Boulevard

Boulevard northbound are trucks while 45% of the left-turn movements from Bruckner Boulevard southbound to 138th Street eastbound are trucks. This indicates that 138th Street is a significant trucking route between the Bruckner Expressway and Port Morris. Twenty-two percent of the vehicles making the right-turn from Bruckner Boulevard northbound to 138th Street eastbound are trucks and 26% of vehicles making the left onto Bruckner Boulevard southbound from 138th Street eastbound are trucks. There is also a high percentage of truck traffic passing through the intersection on 138th Street.

The operations analysis of the intersection of Bruckner Boulevard and 138th Street indicates that the intersection is operating at LOS D. The 138th Street eastbound approach is operating at LOS E, while the Bruckner Boulevard southbound left-turn approach is operating at LOS F. These are the two approaches with the highest percentages of trucks. Therefore, truckers accessing Port Morris to and from the Bruckner Expressway north of Port Morris are experiencing significant delays. The Bruckner Boulevard southbound approach is experiencing significant delays at the intersection as the result of the extremely high volume of traffic at the approach. The 138th Street westbound approach experiences the highest delays at the intersection as a result of decreased green time and a large amount of left-turn movements, which include 26% trucks. The 138th Street eastbound approach operates at LOS E, which is at capacity. Therefore, truckers using 138th Street for its Local Truck Route designation are experiencing delays at this intersection from both directions.

East 138th Street at Locust Street

The intersection of East 138th Street and Locust Street is an unsignalized intersection with stop-controlled approaches at East 138th Street eastbound and the gate to the port at the westbound approach. The turning movement counts conducted at the intersection indicates that the morning peak hour of traffic is from 7:00 AM to 8:00 AM. As expected, there is a high amount of truck traffic at this intersection because of its close proximity to the port. Over 40% of the vehicles exiting the port gate at the westbound approach are trucks, while approximately 50% of the vehicles traveling on Locust Avenue are trucks. The operations analysis of the intersection indicates that the intersection operates at LOS A, even with the high percentage of truck traffic. Therefore, trucks are maneuvering through this intersection with minimal delays.



Looking south on Locust Avenue towards Waste Management of NYC, Inc. facility

East 132nd Street at Waste Management Gate



Looking west on 132nd Street, Waste Management of NYC, Inc. gate to the left; Locust Ave. to the right

The intersection of East 132nd and the Waste Management Gate is an unsignalized intersection with no stop-controlled approaches. The approaches to the intersection include East 132nd Street to the west, Locust Avenue to the north, and two gates to the waste management facility: one to the west and one to the south. The turning movement counts conducted at the intersection indicates that the morning peak hour of traffic is from 8:45 AM to 9:45 AM. Although there is a minimal amount of traffic at the intersection, the majority of the traffic is truck traffic. Almost 100% of the vehicles exiting the waste management facility are trucks, while almost 90% of the vehicles entering the waste management facility are trucks. 90% of the vehicles at the Locust

Street southbound approach were trucks. For the entire intersection, 83% of the total traffic is trucks.

The operations analysis of the intersection indicates that the intersection is operating at LOS A. All four approaches experience minimal delay. Despite the high percentage of truck traffic at the intersection, there is minimal total volume. Therefore, truckers pass through the intersection with minimal delay.

Roadway Network Capacity/Geometrics

The roads in the vicinity of the site are sufficiently wide to accommodate truck traffic. Field observations indicated that there are no obvious geometrics problems near the site. However, a number of facilities along East 138th Street do not have the space for trucks to load or unload. Trucks were backing into loading docks and blocking the travel-way at some locations along East 138th Street.

At the intersection of Bruckner Boulevard and East 138th Street, field observations observed illegal left-turn movements from Bruckner Boulevard that obstructed the flow of traffic at the East 138th Street approaches. Vehicles were observed making left-turns from the right-hand lanes and merging with traffic coming from East 138th Street, increasing the delay at the East 138th Street approaches. A lack of proper signage alerting motorists of the illegal movements was noted.

Accidents

A map of the truck-related accident locations, within and around the Port Morris study area, is shown in Figure 3-18. Most of the truck accidents that were recorded in this area occur at locations along a designated truck route. The majority of the accidents have occurred along Bruckner Boulevard. More specifically, the intersection of Bruckner Boulevard and East 138th Street had the highest amount of truck accidents recorded within and around the Port Morris study area. Five truck-related accidents were recorded in a two-month period.

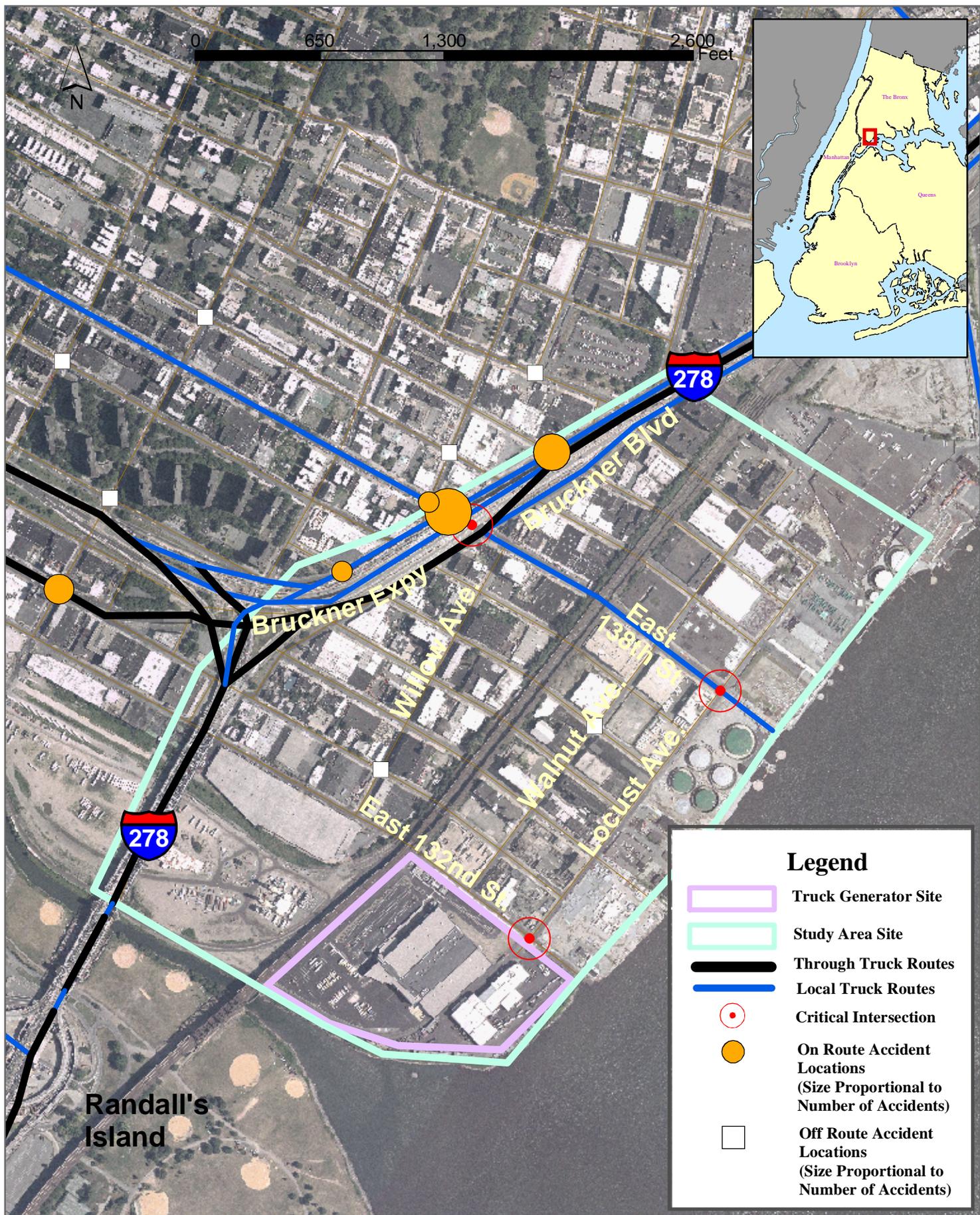


Figure 3-18
Truck Accidents
Port Morris - The Bronx

NYC Truck Route Management and Community Impact Reduction Study



Furthermore, between 1999 and 2001, the intersection of Bruckner Boulevard and East 138th Street ranked number one in the amount of truck accidents per location in the City of New York, with 35 truck-related accidents.

Within the study area, there were two accident locations recorded, both of which are off a designated truck route. However, the number of off-route accidents recorded within the study area is minimal. The intersection of Bruckner Boulevard at East 138th Street and Bruckner Boulevard at East 140th Street should be evaluated to determine measures to help reduce the number of truck accidents at these locations.

Recommendations for Port Morris

East 138th Street is the only designated truck route between Bruckner Boulevard and Port Morris. Thus, all truckers with origins from and destinations to Port Morris must pass through the East 138th Street and Bruckner Boulevard intersection. One recommendation is to investigate the designation of East 132nd Street as a Local Truck Route. Designating East 132nd Street as a Local Truck Route, between Bruckner Boulevard and Port Morris will give truckers the opportunity to avoid the intersection of East 138th Street and Bruckner Boulevard

Improvements to the intersection of East 138th Street and Bruckner Boulevard are recommended to not only increase the level of service and maximize the intersection operations but to also reduce vehicular accidents. The amount of traffic on Bruckner Boulevard, particularly during the peak hours, will make it difficult to adjust the signal timings to increase the amount of green time on East 138th Street. However, off-peak period adjustments to the signal timings to increase the amount of green time at the East 138th Street approaches is recommended. Re-painting of the stripes at each intersection approach is recommended. Furthermore, additional signage to assist motorists in maneuvering through the intersection is recommended to help reduce the amount of accidents at this location. Additional signage that is recommended include clear signage informing motorists of illegal turning movements through the intersection as well as directional signage, informing motorists of where to make the proper turning movements.

There is currently no truck route designation signage at any of the three intersections that were analyzed as part of the Port Morris case study. Local and Through Truck Route designation signage is recommend at the following intersections:

- East 138th Street at Bruckner Boulevard
- East 138th Street at Locust Street
- East 132nd Street at Locust Street
- East 132nd Street at Bruckner Boulevard, with the designation of East 132nd Street as a Local Truck Route

i. Recommendations

The recommendations that have been developed are based on the data collection and summarization that was discussed in Sections 2 and 3, such as truck-related accidents at site-specific locations and along designated truck corridors, truck height/weight restrictions within each Borough, and the location of truck moving violations. The comments from the public outreach meetings that were discussed in Section 3 were evaluated and compared with the accident data to develop additional recommendations. Furthermore, citywide recommendations were developed based on the findings of the case studies.

The following set of recommendations was developed based on an overall analysis of the data, except for the “Hot Spots”, stakeholder issues and Case Studies, which follow this section.

1. Add the following streets to the truck network:

<u>Street</u>	<u>Type</u>	<u>Limits</u>
Riverdale Avenue	Local	Westchester County Line to W. 261 st Street

In addition, work with Westchester County and the Yonkers Department of Public Works on signage improvements to discourage “thru” trucks from using Riverdale Avenue. Broadway is the primary truck route in this section of Riverdale.

2. Prohibit Trucks from using the following Local Truck Route streets between 10 PM and 6 AM:

<u>Street</u>	<u>Type</u>	<u>Limits</u>
Morris Park Avenue	Local	East Tremont Avenue to Williamsbridge Rd.

This street is located in areas with parallel Local Truck Route streets that can accommodate additional anticipated truck activity or they are along routes that are primarily residential in nature and contain an insignificant number of businesses along them to be served from the hours of 10:00 PM to 6:00 AM.

3. Possible investigation for development of traffic mitigation measures, focusing on truck movements at locations where there have been 15 or more truck accidents over a thirty-six month time period. Several of these locations correspond to intersections where NYCDOT has already undertaken measures to improve conditions for all street users.

The following intersections meet this criterion over a thirty-six month period from 1999 to 2001:

<u>Location</u>	<u>Truck Accidents</u>
Bruckner Blvd. and 138 th St.	35
Bruckner Blvd. and Tiffany St.	26
Bruckner Blvd and Hunts Point Ave.	24
Bruckner Blvd. and Leggett Ave.	24
Bruckner Blvd. and Bronx River Parkway	16

Possible short-term improvements include establishing wide-turn zones, modifying traffic signal timing, and providing additional signage to address localized intersection issues.

In addition, Edwards and Kelsey will be developing a safety improvement plan for the intersection at 138th Street and the Bruckner Expressway.

4. Install turn restriction signs for trucks at designated locations where trucks are avoiding truck route streets.

Place “No Right Turn” or “No Left Turn” signs restrictions for trucks at the intersections from the Local Truck Routes at either end of Zerega Avenue in the Bronx.

5. Legalize access for 53 foot trailers on a greater portion of Interstates that provide regional connectivity.

The I-95/Cross Bronx Expressway is a major truck corridor where 53 foot vehicles are prevalent and currently operate illegally. This corridor provides critical connections to the west (New Jersey), north (New England) and east (Long Island). City regulations prohibit 53 foot trailers except for a small portion of the Interstate system. However, to increase regional connectivity, the City should consider expanding the Interstate highway network to accommodate tractor-trailer combinations with containers 53 feet long and up to 8’-6” (102 inches) in width. In the Bronx, this would include the following corridors:

- Cross Bronx Expressway from Alexander Hamilton Bridge to the Throgs Neck Expressway
- Hutchinson River Parkway (I-678) from the Cross Bronx Expressway to the Bronx-Whitestone Bridge

A secondary location to be considered is the Major Deegan Expressway, which provides critical access from the north. This limited route would follow the designated National Network, which includes the Major Deegan Expressway (I-87) from the Westchester County Line to the Cross-Bronx Expressway.

Additional information and the recommended 53 foot roadway network are described in more detail in Technical Memorandum 1: Policy and Recommendations.

6. Hunts Point Area

The NYCDOT led a study of this area which was conducted at the same time as this study. This study developed a series of improvements that address the local concerns regarding trucking activity on the City streets. A segment of a truck route network along Garrison Avenue from Tiffany Street to Bryant Avenue was removed from the network due to its’ close proximity to residences. Additional truck routes were added to the network along Oak Point Avenue from Barry Street to Halleck Street, Truxson, Dupont and Barry Streets from Randall Avenue to Oak Point Avenue and Bryant Avenue from Garrison Avenue to the Bruckner Expressway.

In addition, the Department should continue coordination and investigation into the area examining changes in land use and development, and developing strategies to accommodate the increased traffic into the peninsula.

7. Castle Hill Area

To address the community's concerns, truck route signs should be posted on the approaches at the intersection of Parker Street and Westchester Avenue. Wayfinding signs to Castle Hill Avenue should also be posted at the driveways exiting the major truck generators in the Unionport area. The local businesses should also inform the truckers of the designated routes for trucks to arrive and leave the respective businesses.

Excessive negative signage is not recommended for this area as there are a large number of local streets that truckers could use to access the site. Instead, a mix of positive and negative signage where appropriate will provide trucks with appropriate routing information and reinforce non designated roadways that are being used illegally. This approach is delineated in *Technical Memorandum 3, Truck Signage Program* which calls for truck route signs to clearly delineate the network, and public education, which includes the trucking community and businesses, to apprise them of the truck route system, and to Home Depot, to provide instructions to its delivery drivers to use the designated truck routes. In this case, the directions would advise truckers on how to get to the site from I-95, I-278, and I-678.

As per the requirements of the City's traffic rules, trucks destined for the Home Depot site should use Local Truck Route streets to the nearest intersection of the trip destination. In this case trucks would stay on Castle Hill Avenue to Seward Avenue and leave the site via Randall Avenue.

Trucks for other destinations in the area would use Castle Hill Road to Bruckner Boulevard, turn right onto Zerega Avenue and continue south to reach the site. Wayfinding signs could also be placed at the intersections of Castle Hill Avenue and Bruckner Boulevard and at Bruckner Boulevard and Zerega Avenue. Regular enforcement initiatives should also be conducted to ensure compliance.

Additional areas for investigation of signage, as recommended by Community Board 10 include the following intersections.

- East Tremont Avenue and St. Peter's Avenue
- Westchester Avenue and Overing Street
- Castle Hill Avenue and Glover Street
- Westchester Avenue at Doris Street
- Westchester Avenue at Rowland Street
- Hershell Street at Commerce Avenue
- Castle Hill Avenue at Lyon Avenue
- East Tremont Avenue at Montgomery Place
- East Tremont Avenue at Maclay Place and Westchester Avenue at Waterbury Place.

8. Baychester Area

Positive reinforcement and guidance in the form of wayfinding signs at key intersections is recommended. These intersections include: East Gun Hill Road and Bartow Avenue; Eastchester Road and East Gun Hill Road; Boston Post Road and East Gun Hill Road; Boston Post Road and Baychester Avenue; and East 222nd Street and Baychester Avenue. NYCDOT

should also consider placing an informational sign “Trucks Use Bartow Avenue Exit for Mall” on I-95 southbound on the bridge approach over the Hutchinson River.

9. Ely, Gunther and Bussing Avenues

The map of the morning peak hour trip ends in the Bronx indicates that there are truck generator sites to the south of Ely, Gunther, and Bussing Avenues, so truck traffic may be using these roads to bypass the Bruckner Expressway. Enforcement of prohibiting truck traffic along these streets is recommended.

10. Bronxdale Avenue

To address community concerns, positive truck route signs and the appropriate height restriction advisory signs should be posted at the following intersections:

- East Tremont Avenue, Bronxdale Avenue and Castle Hill Avenue (north/east/west legs)
- Morris Park Avenue and Bronxdale Avenue (east and west legs)
- White Plains Road and Bronxdale Avenue (north and south legs)

11. Brush and Lafayette Avenues and Senger Place

Traffic leaving the area could be directed to use Schley Avenue and the Triborough Bridge and Tunnel Authority service road under the Bronx Whitestone Bridge and enter I-678 northbound to the Bruckner interchange. These routings, especially the departure route, should be reinforced with positive signage. However, the NYCDOT should discuss the security issue of trucks traveling under the Whitestone Bridge.

“No Trucks Except Local Deliveries” signs on Lafayette Avenue or other local streets are not recommended because the trucks that were observed are coming from or going to commercial/industrial uses on Brush Avenue.

12. Port Morris - East 138th Street

East 138th Street is the only designated truck route between Bruckner Boulevard and Port Morris. Thus, all truckers with origins from and destinations to Port Morris must pass through the East 138th Street and Bruckner Boulevard intersection. This intersection has the highest number of accidents involving trucks in the City. One recommendation is to investigate the designation of East 132nd Street as a Local Truck Route. Designating East 132nd Street as a Local Truck Route, between Bruckner Boulevard and Port Morris will give truckers the opportunity to avoid the intersection of East 138th Street and Bruckner Boulevard.

Improvements to the intersection of East 138th Street and Bruckner Boulevard are recommended to not only increase the level of service and maximize the intersection operations, but to also reduce vehicular accidents. The amount of traffic on Bruckner Boulevard, particularly during the peak hours, will make it difficult to adjust the signal timings to increase the amount of green time on East 138th Street. However, off-peak period adjustments to the signal timings to increase the amount of green time at the East 138th Street approaches is recommended. Re-striping each intersection approach is recommended. Furthermore, additional signage to assist motorists with maneuvering through the intersection is recommended to help reduce the amount of accidents at this location. Additional signage that is

recommended include clear signage informing motorists of illegal turning movements through the intersection as well as directional signage, informing motorists of where to make the proper turning movements.

There is currently no truck route designation signage at the three intersections that were analyzed as part of the Port Morris case study. Local and Through Truck Route designation signage is recommend at the following intersections:

- East 138th Street at Bruckner Boulevard
- East 138th Street at Locust Street
- East 132nd Street at Locust Street
- East 132nd Street at Bruckner Boulevard, with the designation of East 132nd Street as a Local Truck Route