



Feasibility of Freight Villages in the NYMTC Region

Task 5 – Analyzing Freight Village Opportunities

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INTRODUCTION

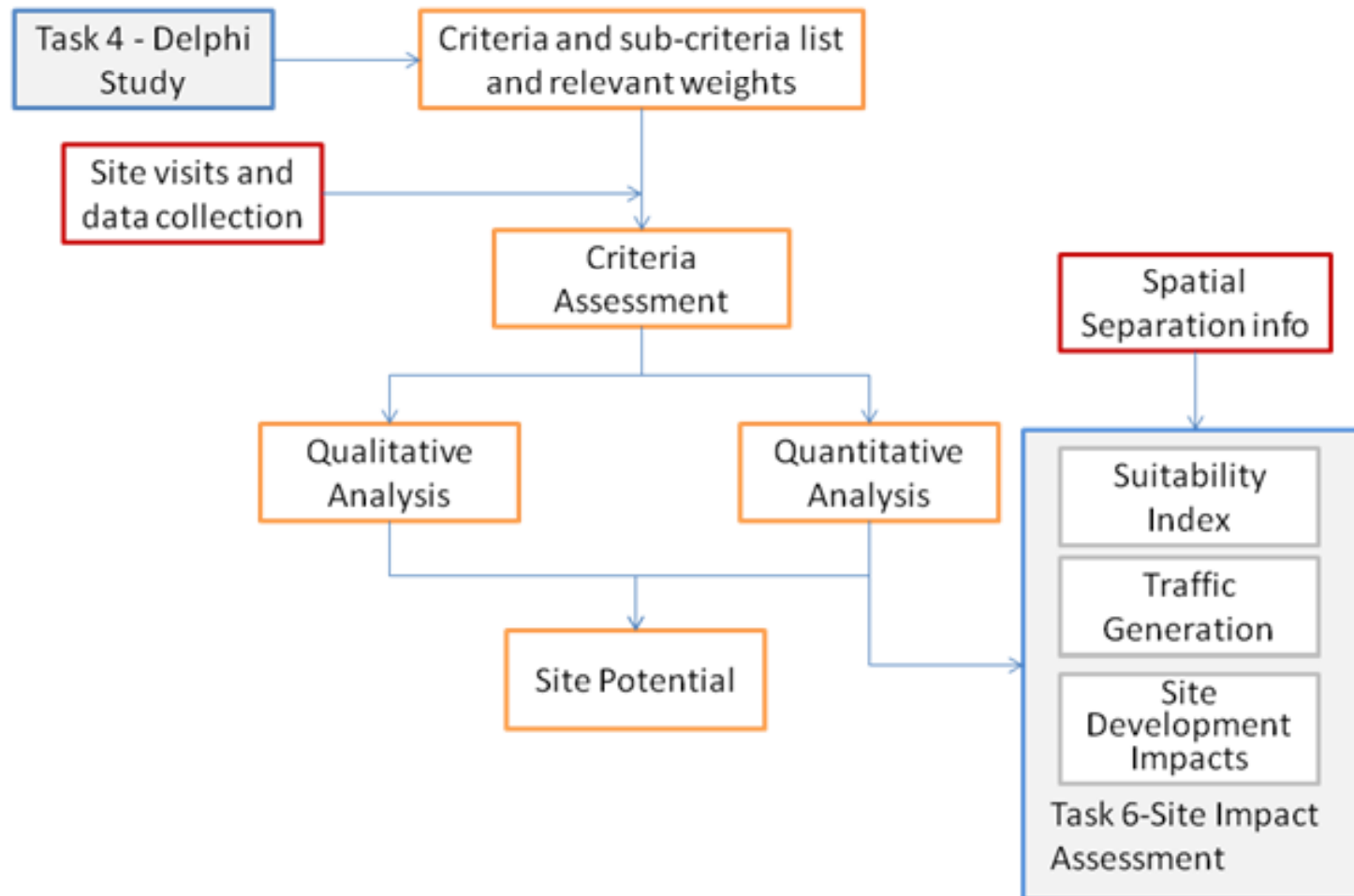
Task 4

- Summarized features of a typical freight village
- Developed criteria and metrics pertinent to the NYMTC region
- Selection of six sites, as candidate sites for freight village development.

Task 5

- Methodology used for the site evaluation
- Qualitative assessment of the sites
- Quantitative assessment - numerical score for each site (identify strong and weak features associated with each potential freight village site development)

METHODOLOGY



1. CANDIDATE AVR SITE



- **Size:** 660 acres
- **Major Highways:** Site is 65 miles east of NYC on the LIE; the northern border of the site abuts exit 68 of the LIE. Trucks and cars can access it right off of the highway.
- **Facilities:** Calverton site at Exit 71, further east
- **Rail Lines:** Available but rail spur needs rehabilitation.
- **Waterfront Access:** None

- **Current Condition:** Undeveloped site. A LIPA transmission line going through, surrounded by water lines and utilities. Zoned industrial. Contamination plume on its northern boundary from Brookhaven Labs. Remediation under DEC oversight has been ongoing for ten years and may take another ten to complete.
- **Context:** This site has significant flexibility in that it is undeveloped and very accessible to the LIE and eastern and central Long Island. The southern part of the site could be a buffer from surrounding neighborhoods.

2. CANDIDATE CALVERTON SITE



- **Size:** 2,900 acres total
- **Major Highways:** The site is the eastern terminus of the Long Island Expressway and located 4 miles from the intersection of state routes 24 and 25.
- **Rail Lines:** Rehabilitation of the rail access is in progress and anticipated to be completed by Q1 2011.
- **Waterfront Access:** Although the site is in close proximity to the Peconic Bay, the Long Island Sound and the Atlantic Ocean, there is no direct waterfront access.

▪ **Current Condition:** 70 miles from NYC. Private owners/developers own the industrial core. Existing businesses include: Millivia Foods, Riverhead Building Supply, Tebbins Steel Corp., Calverton Industries, Michael Reilly Designs. These companies chose to be there because of the plans to develop rail access to the site.



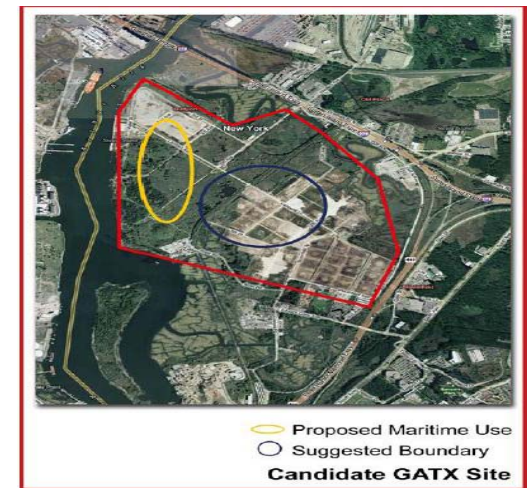
3. CANDIDATE GATX SITE



- **Size:** 675 acres total
- **Major Highways:** Access is via the Goethals Bridge (due to be upgraded) and the Staten Island Expressway. Local roads are limited.
- **Rail Lines:** Freight rail site with connection to New Jersey.
- **Waterfront Access:** The Arthur Kill waterfront is the western boundary of the site.
- **Proximity to Other Freight Facilities:** This site comprises a significant length of the 57-mile Staten Island waterfront.

▪ **Current Condition:** The site is zoned exclusively industrial. The site is a brownfield, its contamination being typical of oil tank farms; some remedial activities have already taken place on the site. This is the largest vacant industrially zoned site in NYC.

▪ **Context:** The GATX site is part of the West Shore neighborhood known as Bloomfield Teleport. This area contains the S.I. Corporate Park, Port Authority’s Teleport, wetlands and the GATX site. The neighborhood has two major hotels and is served by the West Shore Expressway.



4. CANDIDATE LITRIM PILGRIM SITE



- **Major Highways:** The site is bounded by major roads, some of which are limited to passenger vehicles. There is very good proximity for trucking to the Long Island Expressway, located to the north of the site.
- **Rail Lines:** Runs adjacent to the site.
- **Waterfront Access:** None

▪ **Current Condition:** This 50-acre parcel is part of the former Pilgrim State Hospital campus. It is presently a vacant site. It is unknown exactly what the subsurface conditions on the site are.

▪ **Context:** This site is centrally located on Long Island; as a result of this central geographic position (and other factors), it has gone through extensive evaluation to serve as the Long Island Truck-Rail Inter-Modal (LITRIM) facility.



5. CANDIDATE MOUNT VERNON SITE



- **Size:** 180 acres
- **Major Highways:** Access to I-95 (less than one mile); access to Hutchinson River Pkwy.
- **Rail Lines:** None
- **Waterfront Access:** The site has frontage on Eastchester Canal, through which access exists to the Hutchinson River, the East River and L.I. Sound.

- **Current Condition:** Urban neighborhood, 300 privately-owned parcels, predominantly manufacturing, service industry and warehousing. Adjacent areas are contaminated and being remediated.
- **Context:** This is an industrial area that is adjacent to commercial-retail areas on Sanford Avenue, Mt. Vernon and in neighboring Pelham. The neighborhood is also home to a historic church, which is of state and national significance.



▭ WC Suggested Boundary
▭ MV Suggested Boundary
Candidate Mount Vernon Site

6. CANDIDATE SUNSET PARK SITE



- **Size:** 95 acres
- **Major Highways:** The Gowanus Expressway is directly adjacent to the site; the Verrazano Bridge is 3 miles away and the Holland Tunnel to New Jersey is about 5 miles away.
- **Rail Lines:** CSX and New York & Atlantic connection to the New York New Jersey Rail.
- **Waterfront Access:** The site is located on the Brooklyn Waterfront in Lower New York Harbor.

- **Current Conditions:** The site has an urban waterfront neighborhood that is a complex of piers and docks, buildings, open space, warehouses, cranes, rail sidings, and cargo loading equipment.
- **Context:** Sunset Park has a long history of shipping and industry. It was also a major immigration destination, with Polish, German, Puerto Rican and other groups settling here. The latest groups are East Asians.



SELECTION CRITERIA

CRITERIA	CRITERIA ANALYSIS (SUBCRITERIA)
A Site Suitability	A1 – Acreage
	A2 - Topography and Configuration
	A3 - Potential for further expansion
	A4 - Utilities Infrastructure
	A5 - Environmental Situation
	*A6 - Developable Acreage
	*A7 - Security
B Background Activities & Facilities	B1 - Existing Activities that can be incorporated
	B2 - Existing Facilities that can be incorporated
C Access and Transportation Networks Connections & Infrastructure	C1 - Road Access
	C2 - Rail Access
	C3 - Water Access
	C4 - Air Access
	C5 - Ease of commuting access
D Property Conditions	D1 - Property price and ownership
	D2 - Land Use Zoning
	D3 - Covenants running with the land that restrict its free use
	D4 - Land uses of neighboring sites and conflicts
	D5 - Recurring costs
	D6 - Attitude of neighboring communities
	*D7 - Pressures from existing uses
E Location and Interconnected Business Activities	E1 - Centrality of site in relation to important consuming areas
	E2 - Proximity to major retailers & logistics providers
	E3 - Location in relation to interstate/regional freight transshipment
	E4 - Availability of local trucking
	E5 - Availability of suitable workforce

CRITERIA AND SUB-CRITERIA WEIGHTS

	Min	Max	Average	Standard Deviation	Variance
A	15	30	21.0	4.71	22.14
B	0	20	9.1	4.84	23.41
C	18	40	25.5	5.48	29.98
D	15	60	22.7	10.83	117.38
E	0	40	21.7	9.00	80.95

	Min	Max	Average	Standard Deviation	Variance
A1	0	45	20.3	12.20	148.92
A2	0	20	9.3	7.48	55.92
A3	0	25	11.6	7.92	62.69
A4	0	35	13.7	8.12	65.95
A5	0	25	11.9	8.17	66.78
A6	0	75	23.9	18.28	334.21
A7	0	30	9.3	7.99	63.81

	Min	Max	Average	Standard Deviation	Variance
B1	20	100	49.7	16.74	280.24
B2	0	80	50.3	16.74	280.24

	Min	Max	Average	Standard Deviation	Variance
C1	10	50	31.5	11.28	127.27
C2	0	40	20.5	12.89	166.12
C3	0	30	11.5	10.04	100.84
C4	0	80	19.9	21.72	471.64
C5	5	30	16.7	9.03	81.52

	Min	Max	Average	Standard Deviation	Variance
D1	0	45	19.1	12.02	144.55
D2	0	25	15.9	6.88	47.35
D3	0	20	9.4	5.28	27.83
D4	0	25	11.8	6.91	47.75
D5	0	25	10.9	7.18	51.50
D6	0	30	11.5	9.05	81.96
D7	0	100	21.3	23.26	540.95

	Min	Max	Average	Standard Deviation	Variance
E1	0	70	32.0	18.88	356.43
E2	0	50	19.7	12.32	151.67
E3	0	40	20.3	12.02	144.52
E4	0	25	11.7	8.59	73.81
E5	0	30	16.3	10.93	119.52

QUANTITATIVE SITE ASSESSMENT

Numerical scores for each criterion (1)

CRITERIA (weight)	SUBCRITERIA (weight)	Relative Weight	AVR	CALVERTON	GATX	LITRIM	MOUNT VERNON	SUNSET PARK
A Site Suitability (21)	A1 – Acreage (20.3)	0.0426	5	5	5	2	4	4
	A2 - Topography and Configuration (9.3)	0.0195	5	5	4	4	4	5
	A3 - Potential for further expansion (11.6)	0.0243	4	5	4	1	2	1
	A4 - Utilities Infrastructure (13.7)	0.0288	4	5	4	5	5	5
	A5 - Environmental Situation (11.9)	0.0250	4	4	2	2	4	4
	*A6 - Developable Acreage (23.9)	0.0502	4	5	4	1	4	4
	*A7 - Security (9.3)	0.0195	4	4	4	4	2	2
B Background Activities & Facilities (9.1)	B1 - Existing Activities that can be incorporated (49.7)	0.0454	1	5	1	2	5	4
	B2 - Existing Facilities that can be incorporated (50.3)	0.0459	1	4	1	1	4	4
C Access and Transportation Networks Connections & Infrastructure (25.5)	C1 - Road Access (31.5)	0.0803	5	2	4	3	3	2
	C2 - Rail Access (20.5)	0.0522	3	5	5	4	2	4
	C3 - Water Access (11.5)	0.0293	1	1	5	1	4	5
	C4 - Air Access (19.9)	0.0509	1	5	3	1	2	2
	C5 - Ease of commuting access (16.7)	0.0425	5	3	3	5	5	5

QUANTITATIVE SITE ASSESSMENT

Numerical scores for each criterion (2)

CRITERIA (weight)	SUBCRITERIA (weight)	Relative Weight	AVR	CALVERTON	GATX	LITRIM	MOUNT VERNON	SUNSET PARK
D Property Conditions (22.7)	D1 - Property price and ownership (19.1)	0.0434	3	3	2	3	3	2
	D2 - Land Use Zoning (15.9)	0.0361	4	5	4	3	4	4
	D3 - Covenants running with the land that restrict its free use (9.4)	0.0213	5	4	4	5	3	3
	D4 - Land uses of neighboring sites and conflicts (11.8)	0.0267	4	4	4	2	4	4
	D5 - Recurring costs (10.9)	0.0248	5	5	5	5	5	5
	D6 - Attitude of neighboring communities (11.5)	0.0261	4	5	4	1	5	4
	*D7 - Pressures from existing uses (21.3)	0.0483	5	5	5	2	5	5
E Location and Interconnected Business Activities (21.7)	E1 - Centrality of site in relation to important consuming areas (32.0)	0.0693	3	2	5	3	5	5
	E2 - Proximity to major retailers & logistics providers (19.7)	0.0426	3	2	5	3	5	5
	E3 - Location in relation to interstate/regional freight transshipment (20.3)	0.0440	1	1	4	1	3	3
	E4 - Availability of local trucking (11.7)	0.0253	4	4	5	4	5	5
	E5 - Availability of suitable workforce (16.3)	0.0354	4	4	5	4	5	5

SUMMARY OF SITE POTENTIAL ASSESSMENT

1. AVR SITE

- This site belongs to private owners and has an adequate size (660 acres) and very good configuration for developing a Freight Village. The site has rail access, although the rail spur needs rehabilitation. Access to LIE is excellent. Distance from Manhattan is 65 miles.
- The site provides a gateway to the eastern side of NYC and the NYC metro area and serves both Suffolk and Nassau Counties.
- The owners have prepared preliminary site concept plans for an intermodal facility, and they are positive about developing a Freight Village. The Town of Brookhaven is supportive of the idea.
- The site offers an opportunity to conceive and design as creative a development agenda as possible because there is nothing on the site or in close proximity. The potential development of a Freight Village on this site falls under the concept of a “new Freight Village”.
- Distance from NYC and decreased possibility to serve interstate/regional freight transshipment are the main potential impediments.
- The site earned a numerical score of 3.42/5.0 from the quantitative assessment and has good potential to be developed as a Freight Village.

SUMMARY OF SITE POTENTIAL ASSESSMENT

2. CALVERTON SITE

- This site, previously a Navy Weapons Industrial Reserve Plant, including an airport, has been developed as an Industrial Park (Calverton Enterprise Park).
- The acreage of the core of the industrial park is big (365 acres) with a very good configuration. The site has direct rail access. The rehabilitation of the rail access is in progress and anticipated to be completed by Q1 2011. The site is located a few miles away from the LIE, and the road connectors need substantial improvements. Distance from Manhattan is 70 miles.
- Existing infrastructure; businesses already located at the site; the presence of an airport; the rehabilitated rail access; the strong commitment of the Town of Riverhead; and the initiation of a partnership between the Town and a private investor are strong points for the site.
- The location and the distance from NYC and Nassau County; and the need for substantial road access improvements are weak points. Distance from NYC, moderate road access and decreased possibility to serve interstate/regional freight transshipment are the main potential impediments.
- The potential development of a Freight Village at this site falls under the concept of an “Evolved Industrial Park”.
- The site earned a numerical score of 3.76/5.0 from the quantitative assessment and has favorable potential to be developed as a Freight Village.

SUMMARY OF SITE POTENTIAL ASSESSMENT

3. GATX SITE

- The site is an undeveloped brownfield parcel of 220 acres, part of a larger parcel of 675 acres. This is the largest vacant industrial area in NYC. The site has direct water access via the Arthur Kill. It has also direct access to Class I railroads and relatively good road access.
- The size of the parcel; location; water access; Class I railroad access; proximity to marine terminals; proximity to the largest East Coast consuming area; and the possibility to serve interstate/regional freight transshipment are strong points.
- Relatively poor road access; the need for substantial site preparation; and environmental remediation are the weak points. Land preparation costs and environmental mitigation may be challenges.
- The potential development of a Freight Village on this site falls under the concept of a “new Freight Village”.
- The site earned a numerical score of 3.86/5.0 from the quantitative assessment and has excellent potential to be developed as a Freight Village.

SUMMARY OF SITE POTENTIAL ASSESSMENT

4. LITRIM PILGRIM SITE

- The site is being planned for development as a truck-rail intermodal facility, and the draft EIS has been prepared.
- The parcel comprises 50 acres. Four local jurisdictions meet at the location of this site (Babylon, Huntington, Islip, and Smithtown). A rail line runs adjacent to the site. Distance from LIE is short, but there is difficulty in providing truck access from LIE to the site. The site is very centrally located in LI, and both Nassau and Suffolk Counties can be easily accessed.
- Clusters of businesses adjacent to the site (Heartland Executive Park, retail area on Crooked Hill Road) may provide some opportunities for synergies. The plan for the truck-rail intermodal facility has generated substantial resistance from neighboring communities.
- Resistance from neighboring communities; the relatively small land parcel to accommodate the intermodal terminal and freight village activities; and difficulties in road access are the major impediments.
- Since the parcel is small (50 acres), the potential development of a freight village at this site could be that of a “hybrid model”, with few warehousing and crossdocking facilities.
- The site earned a numerical score of 2.66/5.0 from the quantitative assessment and has fair potential to be developed as a Freight Village.

SUMMARY OF SITE POTENTIAL ASSESSMENT

5. MOUNT VERNON SITE

- The southeast corner of Mount Vernon represents a rather unique case. It encompasses an area with 300 small land parcels and a range of diverse industrial and commercial businesses that can be integrated in a complex with a common identity/theme and, potentially, some synergies.
- The area has water access to the Long Island Sound and is adjacent to residential areas, a historic site and recreational facilities. The majority of the parcels are privately owned and they accommodate industries such as manufacturing, electronics, construction and engineering.
- The character of the site precludes the possibility of a LCFV (Logistics Center Freight Village), while the “Virtual Freight Village” concept seems very relevant to this case. Because of functional limitations, and not from a land parcel size point of view, a hybrid Freight Village should be considered.
- The site earned a numerical score of 3.85/5.0 from the quantitative assessment and has excellent potential to be developed as a Freight Village.

SUMMARY OF SITE POTENTIAL ASSESSMENT

6. SUNSET PARK SITE

- The Sunset Park Brooklyn Waterfront site is an area of 95 acres with immediate waterfront access, with existing facilities that can be incorporated into the development of a Freight Village. The site has very good rail and road access, and it is in the heart of the NYC metropolitan area. The location and access are the strong points of the site.
- Congested road access and the inability to fully accommodate rail intermodal traffic (though TOFC traffic can be accommodated with minor improvements) are the weak points.
- The Sunset Park Brooklyn Waterfront presents a rather interesting case for the development of a freight village, primarily due to its proximity to Manhattan and Brooklyn, the extended waterfront and rail access. Existing logistics and light manufacturing activities in the area can be combined with the development of a marine terminal complex.
- The potential development of a Freight Village in this site falls under the concept of an “Evolved Industrial Park”, so that existing facilities and activities can be incorporated and leveraged.
- The site earned a numerical score of 3.84/5.0 from the quantitative assessment and has excellent potential to be developed as a Freight Village.



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