



### Freight Village

What it is
What it does
Feasibility in NYMTC region

Howard J. Mann, Manager, Freight Planning, NYMTC

#### Definition

#### DEFINITION OF A FREIGHT VILLAGE

"A freight village is a defined area within which all activities relating to transport, logistics and the distribution of goods, both for national and international transit, are carried out by various operators".

### Typical Freight Village



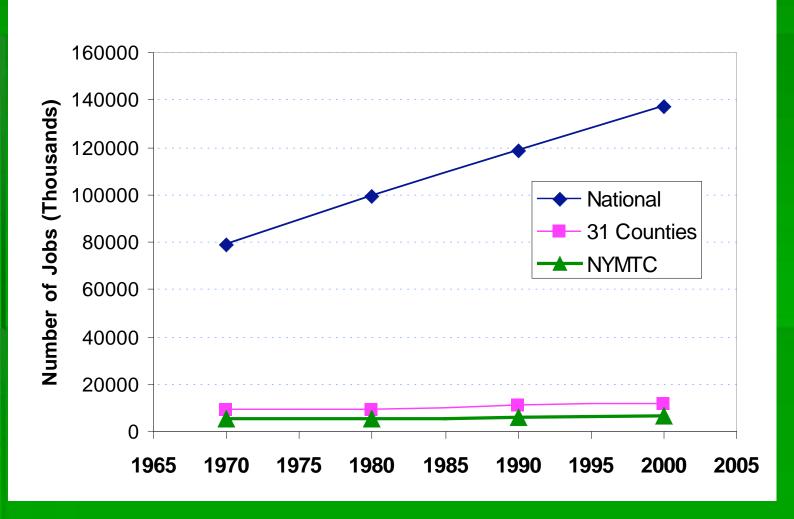
### **NYMTC Region:**

**Things To Think About** 

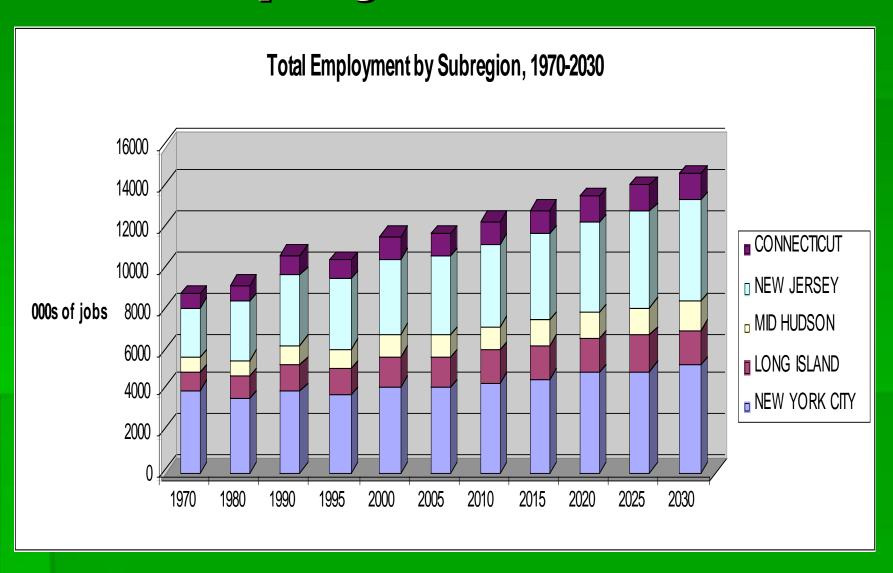
- Demographics
- Land Use
- Transportation

#### **Employment Trends**

#### **Total Employment**



#### **Employment Trends**

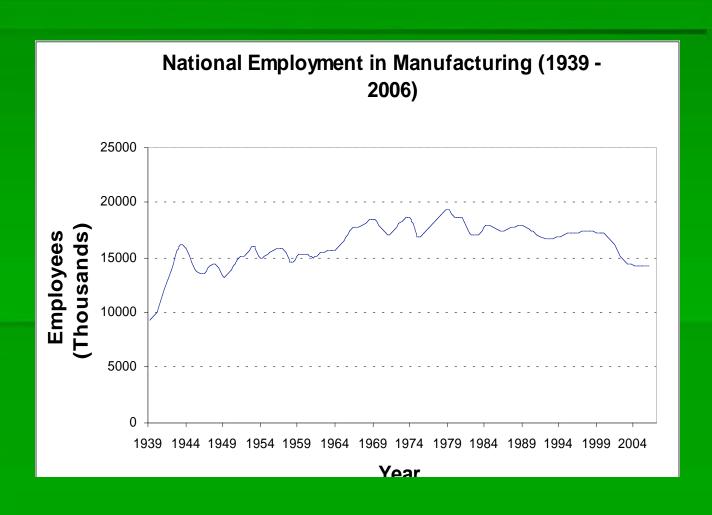


#### Air Cargo Employment

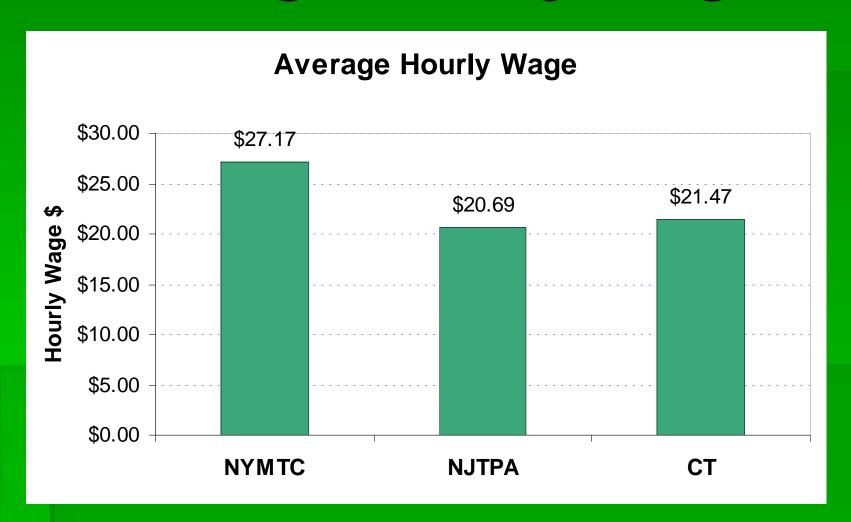
JFK Total Employees: 35,000 (1)

44% related to Air Cargo: 15,400 (2)

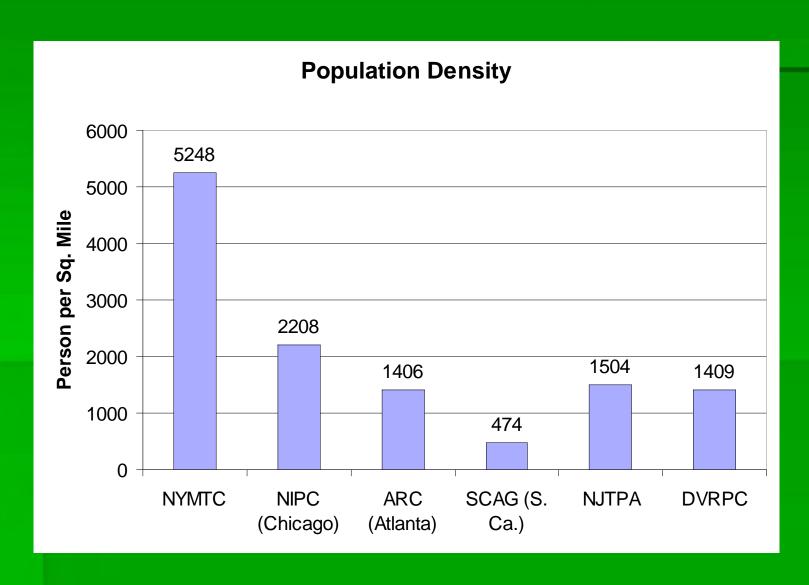
#### Trend In Manufacturing



#### **Average Hourly Wage**



#### **Population Density**



### Warehouse/Distribution Land Use

Industrial uses, the warehouses and factories occupying 6,101 acres or four percent of the New York City's total lot area (1)

#### West of the Hudson River:

New Jersey has more than **440 million square feet** (10,100 acres) of warehousing and distribution space. (2)

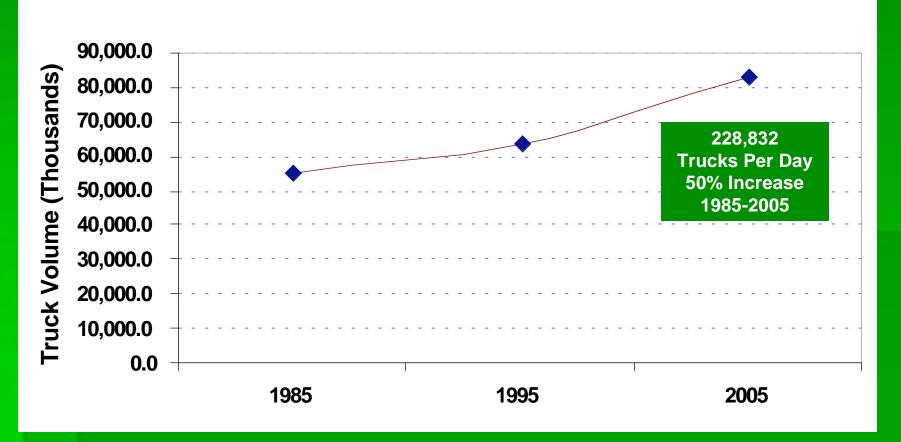
45 Million sq. ft of W/DC near Exit 8A of NJ Turnpike. (2)

17 Million sq. ft of W/DC near Exit 10 of Interstate 295 (2)

24 Million sq. ft of W/DC in Eastern Pennsylvania (2)

### Transportation Trans-Hudson River Truck Traffic

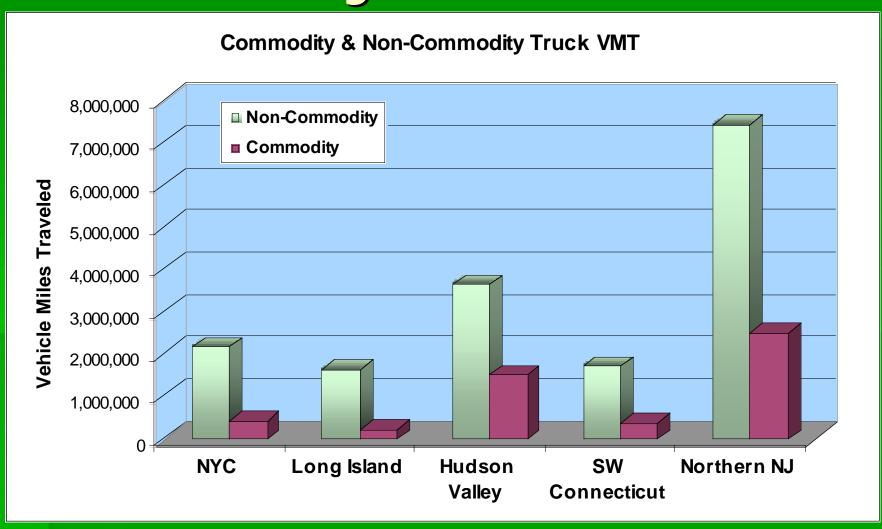




#### **Truck Trip Purposes**



### Commodity & Non-Commodity Truck VMT



## NYMTC Regional Freight Plan Objectives

- Reduce future truck volumes on some roadways
- Improve traffic operations on some roadways
- Increase rail mode share in the region
- Improve environmental quality
- Create a more efficient and cost-effective freight delivery system

## Existing International Freight Villages

- 60+ Freight Villages (Intermodal Logistics Center (ILC) in US)
- 11 Countries

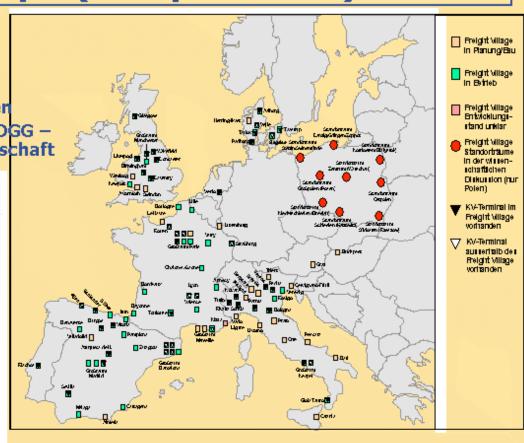
Italy-Spain-Germany-Denmark-Portugal-Luxembourg-Greece-France-Hungary-Ukraine-USA

#### European Experience

#### Das Netz der GVZ (Freight Villages) in Europa (Europlatforms)

- Kooperation auf Europäischer Ebene
- Büro / Vertretung in Brüssel
- Vorsitz derzeit: Italier
- Deutsches Mitglied: DGG Deutsche GVZ-Gesellschaft





#### Features: Freight

- Multimodal service
- Warehousing
- Distribution
- Intermodal terminal
- Customs
- Freight forwarders

#### Features: Ancillary

- Restaurants
- Motel/hotel
- Post office
- Transit service
- Banking services

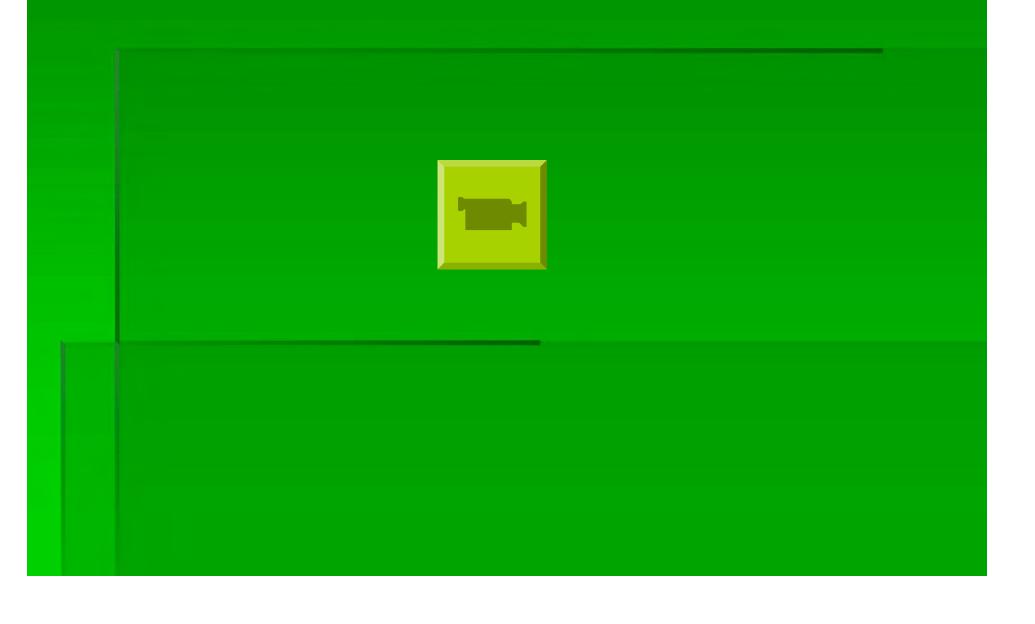
### Administration/Manageme nt

- Public-private partnership
- Private ownership/management

## Benefits of Freight Villages

- Create an efficient movement of freight
- Accommodate the increase in freight volumes
- Promote economic development
- Reduce truck miles of travel
- Community design/aesthetics

### Examples: Large Facility, North America: Illinois



## Design: metropolitan areas- Chicago



## Design: metropolitan areas



## Design: metropolitan areas



## Design: metropolitan areas



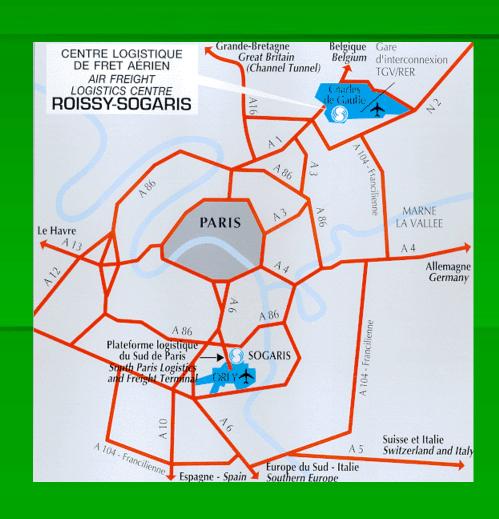
### Design: Suburban



### Design: Suburban



### European Experience



## **European Experience:**Kiel, Germany



### International Experience: Japan

SPECIAL REPORT INDUSTRIAL REAL ESTATE AND LOGISTICS



tion facility close to a seaport feasible. "It will happen," Gallagher said.

Those factors were all present in Japan to make construction of multistory distribution centers in congested seaport cities attractive. Land costs in Japan are frightfully expensive, and developers attempt to squeeze as much working square footage out of a parcel of land as the law will allow.

In real-estate parlance, the floorarea ratio, or FAR, refers to the gross floor area permitted on a site as a ratio of the net area of the site. In the U.S., where structures are single-story and there is normally a good deal of land devoted to trailer parking, a FAR of 40 percent is normal, Rizzo said. In Japan, with its multistory structures, 200 percent to 300 percent is common.

Increasing the density of usage by five times or more in a congested urban area would produce a large increase in truck traffic, so developers of multistory distribution centers would have to obtain a variance from local authorities before they could break ground on the structure.

Providing ingress and egress for trucks would also be more difficult at a multistory structure. Developers in Asia have addressed this problem by constructing spiral truck ramps on either side of the building, with one ramp for inbound trucks and the other for outbound. With the larger trucks and trailers in the U.S., bigger and stronger ramps would be required.

Real-estate developers say they aren't discouraged by the engineering challenges of modifying the Asian model for U.S. operations. The determining factor will be cost.

For the developer and operator of a multistory facility to make a profit, rents will be much higher than shippers are accustomed to paying. Shippers will consider paying more if a location close to the port and the market for the goods becomes essential.

# What Criteria Are Used to Determine the Location of A Distribution Facility?

- Infrastructure
- Labor costs
- Proximity to customers
- Community and site characteristics

#### Regional Freight Plan Preliminary Sites for Further Analysis



#### **NYMTC Feasibility Study**

The purpose of this study is to determine the feasibility of developing freight villages in the NYMTC region and to determine how or if they would address the objectives noted above.

#### **NYMTC Feasibility Study**

- Accomplishments so far:
- Developed scope
- Consultant team in place

#### **NYMTC Feasibility Study**

- Accomplishments so far:
- Developed scope
- Consultant team in place
- Next Steps:
- Literature search
- FTWG presentation
- EOHROTF presentation

#### Thank You

Howard J. Mann Associate Transportation Analyst Manager, Freight Planning Unit 212-383-2530 hmann@dot.state.ny.us