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**Delivering the Goods: The Freight Needs of a Growing  
Population :  
NYC Issues**

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**June 2007**

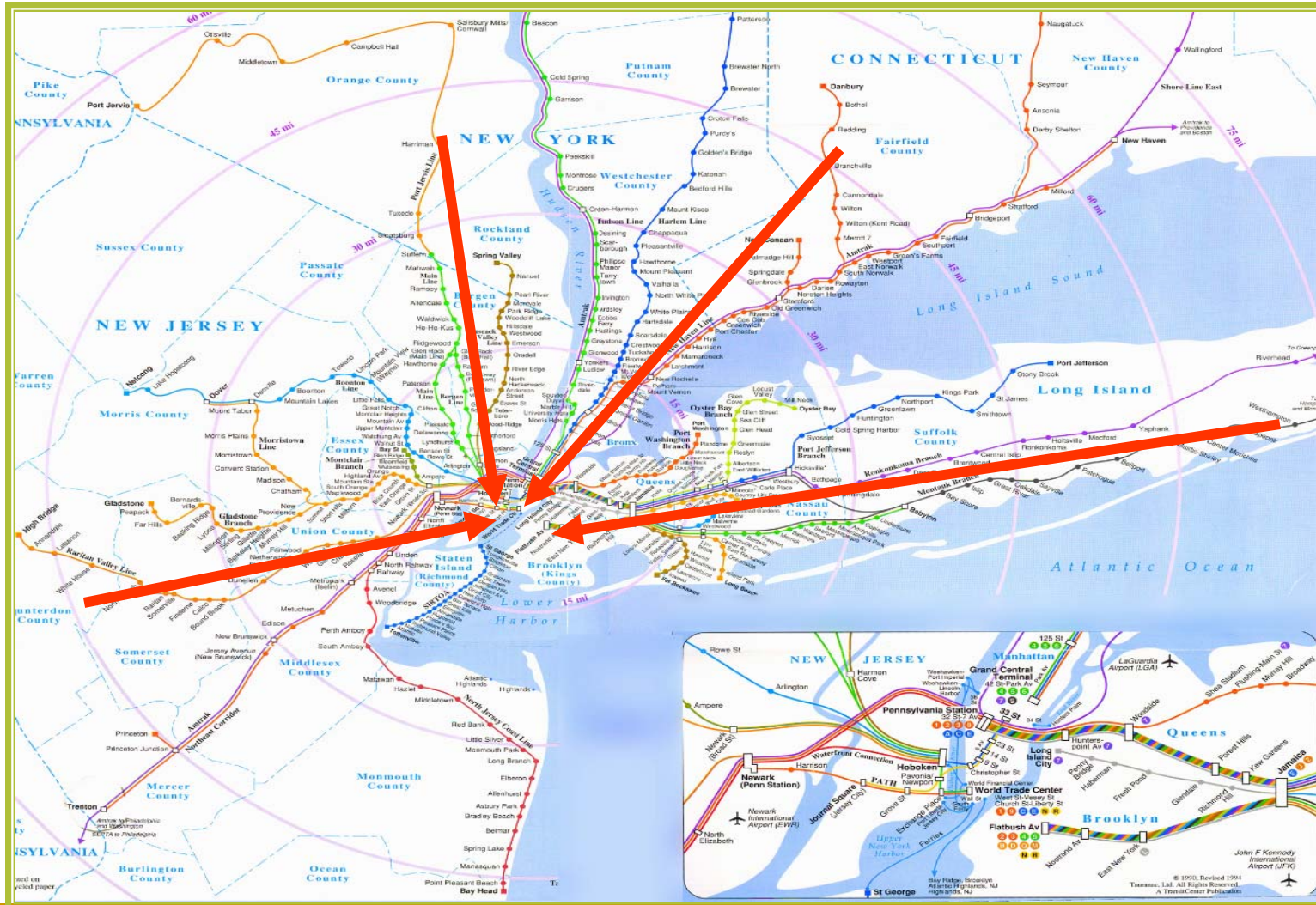
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# Framing the Issues

- Scale
- Measurement
- Examples
- Approaching Solutions



# Lower Manhattan is a small part of a regional network

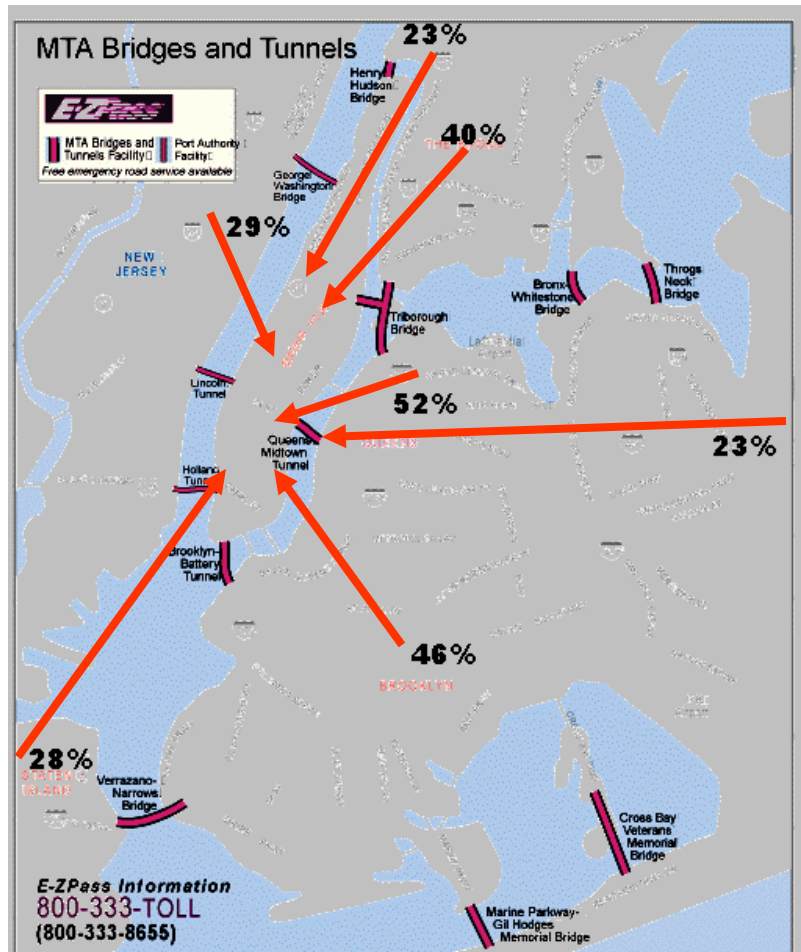


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# Yet a critical element in Regional growth strategies



## The Core – NYC below 60th St

- 3.5 million entries
- 1.8 million jobs
- 2 million enter by subway
- 180,000 enter by commuter rail
- 260,000 enter by bus
- 1.1 million enter by motor vehicle
- 800,000 motor vehicles

•Source – NYMTC –Hub Bound Travel 2004  
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# TRANSPORTATION – SCALE

- **Transportation orders of magnitude**
  - **Regional transit ridership: 8.5 million trips/day**
  - **Roads – 37,000 miles**
  - **Roads – 240 million VMT per day**
  - **Freight – total through region, 475 million tons/year**
  - **Freight – within region – 170 million tons/year**

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# New York City – the Core – *The Economic Engine*

- The Core – NYC below 60<sup>th</sup> St
- 3.5 million weekday entries
- 1.8 million jobs
- 2 million enter by subway
- 180,000 enter by commuter rail
- 260,000 enter by bus
- 1.1 million enter by motor vehicle
- 800,000 motor vehicles

# Criteria: **Must meet complex criteria**

- **Must serve residents**

- **Must serve businesses and firms**

- **Must serve large numbers of tourists**

- **Must optimize use of existing infrastructure**

- **Must make additional investments assuring:**

- The benefits far outweigh the costs**

- Meet development and environmental objectives**



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# Urban Freight



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## In a typical urban area

- Intra-regional trips represent the vast majority of truck trips (70-80%)
- Inter-regional trips (with origin or destination in metro area) represent 20-25% of truck trips
- Thru trips (traversing metro area en route to other destinations): 1-3%
- Not all truck trips are transporting cargoes, maybe as much as 20% are service related trips
- 20-30% are empty trips
- Load factors are low: about 15%-20% of capacity
- Source: Jose Holguin-Veras

# A Coast to Coast Crisis that is exacerbated in Lower Manhattan



Economic Boom in Lower Manhattan has exponentially increased demand for space.



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Photos: Sam Schwartz, LLC

# Barriers Particular to The Core and Lower Manhattan

- Off-loading facilities in commercial buildings inadequate
  - Loading docks start closing at 5 PM
  - Security systems/ procedures heightened
  - Large numbers of Free Parking Permits issued to city employees monopolize curb/off-load space
  - Continuous construction clogging streets
- IMPACTS
  - Increased dwell times on streets and in buildings
  - Increased on street congestion
  - Increased emissions
  - Increased cost of delivery

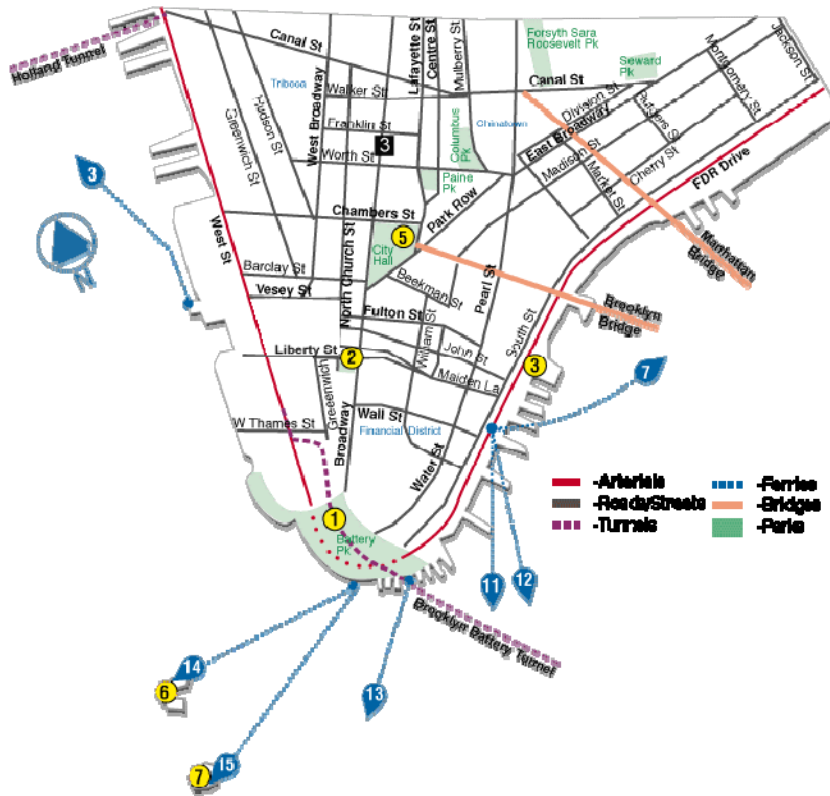




I-78 from Jersey City drops trucks directly onto Canal Street from the Verrazano Narrows Bridge-toll free



# Transportation and Access: What is needed:



- New West Side access To Midtown
- Redesign of West Street
- Redesign of Canal Street
- Design of LM Pedestrian Pathways
- Freight Strategy
- Auto Restrictions
- Bus Routes (BRT)
- Parking Strategies (especially for tourist buses)
- Local Circulators and Vans
- Coherent System of Ferries/Use of our Waterways

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# Approaching solutions

- Regulation
- Pricing
- Capital Investments
- Innovation
- Understanding benefits and costs

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# Actions to minimize truck generated traffic disruptions

- **Private sector**
  - **Voluntary standards for loading docks/freight elevators**
  - **Off peak deliveries**
- **Public Sector**
  - **Bridge/tunnel pricing**
  - **New parking strategies for commercial vehicles, and other vehicles**
  - **Congestion pricing**
  - **Coordinated street rehab management**

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# Why congestion pricing in NYC

- ***KEEP THE COSTS OF DOING BUSINESS IN NYC REASONABLE***
- Multiple objectives – what are the weights
  - Pure congestion relief, to be realized by higher LOS, or greater average speeds
  - Air quality
  - Energy savings
  - Improved access for higher priority vehicles – (goods)
  - Improved amenities for non motorized means of transport
  - Income from pricing

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# Truck Toll Elasticities MTA B&T Facilities

- Less than 2% decline in traffic for 10% increase in tolls over MTA B&T facilities.
- Brooklyn Battery Tunnel and Queens Midtown Tunnel have highest elasticities – especially for large trucks – as there are free alternatives.
- Source: “Optimal Toll Strategies for the TBTA”, UTRC, 1992, C. McKnight et.al.



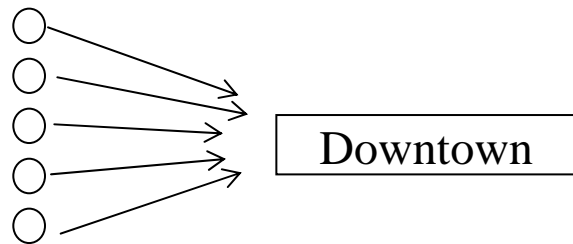
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## Provide tax incentives to receivers willing to accept deliveries during off-hours

- The data show that this could generate a shift of 15-25% of truck traffic to the off-hours (several times the shift induced by the 2001 toll increases)
- Politically attractive/economically sound because:
  - It targets the key decision makers
  - It will improve economic competitiveness
  - It will reduce urban congestion
  - It will increase sustainability
  - The carriers will support it (28% cost savings if all operations are switched to off-hours)
- See NYSDOT “Potential for Off-Peak Deliveries” report
- Source: Jose Holguin-Veras

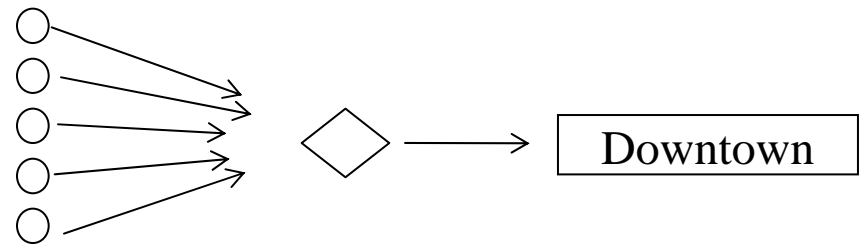
# City Logistic Schemes

- **Joint Delivery Service (JDS):** A group of carriers form a neutral company that is in charge of making the last leg of deliveries. This:
  - Increases truck utilization (remember the 15% load factor?)
  - Reduces truck trips
  - Already in use in some Japanese and German cities



Carriers

**a) Current condition**



Carriers

JDS

**b) With JDS doing the last leg of deliveries**

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# Conclusions

- Trucks are a way of life for New Yorkers – for businesses and for personal deliveries.
- The time has come to develop goods movement and delivery policies that will meet explicit growth and sustainability objectives – this addresses trucks, rail, and their supporting infrastructure – **up through the last mile!**
- It will take a combination of new institutional capability, partnering with private interests, technological investments, regulations and leadership to have a rational policy evolve.