Integrating Freight in Livable Communities

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WHAT IS THE SOURCE OF THESE TRUCKS?
What is the source of all those trucks?

In Manhattan:
- 56 buildings create about 4% of delivery traffic
- 6,800 restaurants and drinking places generate more truck traffic than the port
- 10 ZIP codes with freight parking demands larger than the parking capacity of the streets
Why do we need to improve urban freight?

- The Good:
  - Freight is the physical expression of the economy, **impeding freight flows = impeding the economy**
  - Between 5-10% of GDP is related to freight / logistics

- The Bad:
  - Freight traffic is a major consumer of resources and a major producer of externalities: pollution, noise, accidents, etc.

- The Ugly:
  - **Freight traffic creates problems**
  - There are no easy solutions, no Magic Bullets → Multi-prong approaches are needed...
  - The system is complex and not well understood
  - Solutions are complex and involve multiple stakeholders
What Can Cities Do?
A lot, many initiatives underused...
What Cities are Using?
Urban Freight Initiatives

ON-STREET PARKING AND LOADING
- Freight Parking and Loading Zones
- Loading and Parking Restrictions
- Peak-Hour Clearways
- Vehicle Parking Reservation Systems

OFF-STREET PARKING AND LOADING
- Enhanced Building Codes
- Timeshare of Parking Space
- Upgrade Parking Areas and Loading docks
- Improved Staging Areas
- Truck Stops/Parking Outside of Metropolitan Areas

ACCESS AND VEHICLE-RELATED RESTRICTIONS
- Vehicle Size and Weight Restrictions
- Truck Routes
- Engine-Related Restrictions
- Low Emission Zones
- Load Factor Restrictions

TIME ACCESS RESTRICTIONS
- Daytime Delivery Restrictions
- Daytime Delivery Bans
- Nighttime Delivery Bans

TRAFFIC CONTROL AND LANE MANAGEMENT
- Restricted Multi-Use Lanes
- Exclusive Truck Lanes (Dedicated Truck Lanes)
- Traffic Control

CARGO CONSOLIDATION
- Urban Consolidation Centers

INTELLIGENT TRANSPORTATION SYSTEMS (ITS)
- Real-Time Information Systems
- Dynamic Routing
- Vertical Height Detection Systems

LAST MILE DELIVERY PRACTICES
- Time Slotting of Pick-Ups & Deliveries at Large Traffic Generators
- Driver Training Programs
- Anti-Idling Programs
- Pick-up/Delivery to Alternate Locations

INFRASTRUCTURE MANAGEMENT

PARKING / LOADING AREAS MANAGEMENT

VEHICLE-RELATED STRATEGIES

TRAFFIC MANAGEMENT

PRICING, INCENTIVES, AND TAXATION

LOGISTICAL MANAGEMENT

FREIGHT DEMAND / LAND USE MANAGEMENT

Stakeholder Engagement

MAJOR IMPROVEMENTS
- Ring Roads
- New and Upgraded Infrastructure, Intermodal Terminals
- Freight Cluster Development (Freight Village)

MINOR IMPROVEMENTS
- Acceleration / Deceleration Lanes
- Removal of Geometric Constraints at Intersections
- Ramps for Handcarts and Forklifts

TECHNOLOGIES AND PROGRAMS
- Emission Standards
- Low Noise Delivery Programs / Regulations

STAKEHOLDER ENGAGEMENT
- Designate a ‘Freight-Person’ at Key Agencies
- Create a Freight Advisory Committee, (FAC)
- Educate Elected Officials
- Create a Technical Advisory Committee (TAC)
- Create a Freight Quality Partnership (FQP)

PRICING
- Road Pricing
- Parking Pricing

INCENTIVES
- Recognition Programs
- Certification Programs
- Operational Incentives for Electric / Low Emission Vehicles

TAXATION
- Taxation

DEMAND MANAGEMENT
- Voluntary Off-Hour Delivery Program
- Staggered Work Hours Program
- Receiver-Led Delivery Consolidation Program
- Mode Shift Programs

LAND USE POLICY
- Relocation of Large Traffic Generators (LTGs)
- Integrating Freight into Land Use Planning Process

Major: often difficult
Minor: a handful of cities...

Some national governments

Some cities in US and Europe

Some cities in US and Europe

Demand: New York …
Land: Cities in US and Europe

Off-Street: a handful of cities...

Most cities…”

ITS: New York, London
Paris
Last Mile: a handful of cities…
Case Study
Partnerships:
- Public sector
- Private sector
- Academia
- First time NYC used this approach to deliver a new program
What Made This Project So Successful?
Without **proper outreach**, implementation would have been a major challenge.

The level of effort for outreach is significant:
- Meetings, field visits, phone calls and other activities are time consuming and should be done with the business sector in mind.

Outreach efforts should include:
- **Education**
- **Recruitment**
- **Stakeholder Engagement**
Breakout Session #1
The Off-Hour Delivery Outreach Puzzle

- Engage Stakeholders
- Implementation
- Select Target Industry Sectors
- Recruitment
- Evaluate and Enhance Program
- Line Up Incentives
- Advertising, Marketing and Branding

WHAT IS THE PROPER ORDER OF THESE EVENTS?
Engage Stakeholders

- Include a wide spectrum of groups, including:
  - Public sector agencies
  - Private sector
    - Carriers, Shippers and Large Chain Businesses
    - Trade groups, Business Improvement Districts, and Chambers of Commerce
  - Receivers
  - Community
Implementation

- Work closely with participants to ensure that all questions are answered and that they feel comfortable in shifting to OHD.
- Provide businesses with the resources they require to be successful.
- Offer flexibility
  - Businesses may not be able to participate on the same schedule
Selecting Target Industry Sectors

- When implementing OHD, it is important to understand the freight trips attracted and produced by the various industry sectors so the right sectors can be targeted.

- Working with selected sectors will target outreach efforts and solutions can be tailored to their industry.

- Focus only on key industry sectors
  - Easier to tailor solutions for each of the participants
  - Many of the carriers and receivers can help spread the word about the program within their sector
Recruitment

- Recruit well respected industry leaders or icon businesses.
- Reach out to shippers, carriers, receivers of all business sizes as well as trade groups.
- Two-pronged approach for large carriers/shippers:
  - Initial contact by large carrier/shipper to receiver.
  - Follow-up by outreach team if receiver is interested, to provide more detailed information.
Evaluate and Enhance Program

- Regularly monitor to ensure goals and objectives are being met.
- Continue engaging stakeholders throughout the process.
- Make enhancements as suggested by the stakeholders and participants.
Line Up Incentives

**Purpose:** To get the public sector on-board before engaging the private sector - the success of OHD largely depends on incentives to receivers.

All necessary public agencies must support the incentives to be offered to avoid confusion among the business community.

**Types of incentives:**
- one-time payments
- tax breaks
- shipping discounts
- public recognition
- business support services
Advertising, Marketing and Branding

- A smart marketing campaign is necessary to reach the target audience, disseminate benefits, and gain public support.

- Develop a catchy and memorable slogan, and a logo that is easily understood and recognizable.

- NYC program called, ‘NYC DeliverEASE’

- Tired of late deliveries?
- Time away from customers to stock shelves?
- Storefront blocked by delivery trucks?

- Paying too much in parking fines?
- Delivery delays because of traffic?
- Want to reduce cost and stress?
Discussion

- Select a leader to report out
- Organize the outreach steps in the order your group thinks would be best (Steps could be added or deleted if necessary)
- Create a flow chart with the selected steps
- Explain to other groups the diagram
- Mention any challenges that your group might envision
Suggested Outreach Approach
Suggested Outreach Approach

F. Implementation

G. Evaluate and enhance program

Duration of Implementation

B. Select target industry sectors

C. Engage stakeholders: business groups, associations, leading companies

A. Line up incentives: get public sector on-board before engaging the industry

D. Advertise: marketing

E. Recruitment:
   a) target industry leaders; and
   b) engage large companies that have manpower to help recruit
Breakout Session #2
E-Commerce

- Shifting distribution patterns
- Shopping Malls to Subdivisions

More Trucks, Drones (?), etc....to our neighborhoods!

Questions to consider:
- What initiatives could help mitigate these changes?
- What outreach process would you suggest?
Final Thoughts

- Improving freight system performance is important
- There is a wide range of initiatives
  - There are no magic bullets, multi-prong approaches are key
  - The history is clear, traditional approaches have not reduced congestion, why do we keep using them?
  - Every situation is different, local conditions matter...
- Some under-utilized initiatives have great transformative potential, e.g., freight demand management
- Involving all stakeholders is essential
Thanks!
Questions?

Reference Materials:
Planning Guide: PDF version

Planning Guide: Interactive version
http://coe-sufs.org/wordpress/ncfrp33/

Initiative Selector:
http://coe-sufs.org/wordpress/InitiativeSelector/

Freight Trip Generation Estimator:
https://coe-sufs.org/wordpress/ncfrp33/appendix/ftg/