The Planning Guide was designed to serve as a reference for planners requiring practical solutions for urban mobility challenges. It serves as the first comprehensive look not only at implementable freight initiatives, but how those initiatives can be employed in the transportation decision-making process. The initiatives presented in the Planning Guide represent a range of alternatives from supply to demand strategies including operational and hybrid groups in between.

The solutions have been developed with support of practitioners representing MPOs, city and state DOTs, shippers, carriers, and receivers of various sizes and from different geographic areas.

### Define the Freight Issue to Be Addressed

**Identify Root Causes of the Problem**
- Reduce congestion by 20%
- Improve reliability | Improve LOS

**Define Performance Measures**

**Acceptable LOS and Buffer Index**

**Identify Potential Initiatives**

**Nature of Problem | Geographic Scope | Duration | Source of Problem**

### Evaluate and Select Solution

**Evaluate alternative solutions by using performance measures**

**Create an Action Plan**

**Funding | Partnerships | Implementation Plan**

### Implement and Monitor

**Make sure the solution meets measures and monitor any externalities**

**Follow-up, Reassess & Modify**

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### About the Planning Guide

**Structure of the Planning Guide**

#### Urban Freight Transportation Decision-Making Process

- Provide details on how each step, and the tasks within, can be used to find solutions to freight issues;
- Proposes a methodology to integrate public-sector initiatives into the urban freight transportation decision-making process with the aim of improving the system performance.

#### The Guide integrates the traditional transportation decision-making process with a methodology to identify initiatives to solve real-world challenges. Such integration combines:

- A wide spectrum of potential strategies related to supply and demand;
- A comprehensive catalog of urban freight solutions including pros and cons along with implementation examples;
- A critical review of advantages and disadvantages of each initiative;
- Summary pages for each initiative with expected costs to implement;
- Planning and design considerations for each initiative proposed.

#### Case Studies

- Real-world examples from cities of various sizes in the USA.
Urban Freight Initiatives

**Infrastructure Management**

**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

**Pricing, Incentives, and Taxation**

**Logistical Management**

**Freight Demand/Land Use Management**

**Demands**

**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

**Intelligent Transportation Systems (ITS)**
- Real-Time Information Systems
- Dynamic Routing
- Vertical Height
- Detection Systems

**Cargo Consolidation**
- Urban Consolidation Centers

**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
Real-World Examples

The Planning Guide contains six full case studies and additional mini-case studies of freight initiatives across the nation, from metropolitan areas of different sizes. Each case study represents multiple initiatives (both successful and unsuccessful) that have been implemented to improve metropolitan freight performance.

Each case study begins with an overview of the background and current conditions of freight activity in the respective metropolitan area. This includes a brief description of the characteristics of the challenges affecting the productivity of the freight system. The case study then discusses the economic consequences of not implementing any initiatives to improve performance in terms of financial and regional economic impact. Additionally, the public agency’s approach is presented by discussing how the planning process ultimately led to the initiative selected. Included in this approach, is how key stakeholders were involved (or not involved) throughout the process. After this process is described, concluding observations illustrate lessons learned and identification of emerging issues from the initiative’s implementation.

Case Studies Presented

- **Atlanta** – Daytime Delivery Bans, Truck Routes
- **Kansas City** – Freight Quality Partnerships, Upgraded Infrastructure
- **Los Angeles** – Freight Quality Partnerships, Truck Routes, Upgraded Infrastructure
- **New York City** – Freight Parking and Loading Zones, Loading and Parking Restrictions, Removal of Intersection Constraints, Truck Routes
- **Seattle** – Freight Quality Partnerships, Upgraded Infrastructure, ITS
- **Toledo** – Freight Quality Partnerships, Upgraded Infrastructure
Additional Products

To increase the practicality of the Planning Guide for users, an Interactive Guide and Initiative Selector were developed. These items will be maintained by the contractor and updated periodically.

The Interactive Guide is an HTML-based, clickable version of the Guide that allows the user to easily navigate through the relevant sections of the Planning Guide.

The Initiative Selector is a web-based selection tool that guides users through a series of choices to narrow down potential initiatives from the large initiative catalog to fit their needs. While the Initiative Selector is not meant to be an replacement for undertaking the planning and engineering process, it simply give users a narrower list of potential solutions to evaluate.

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

Initiative Selector:
http://coe-sufs.org/wordpress/InitiativeSelector/
Additional Resources
A PDF version of NCFRP Report 33 and links to resource materials are available free at:
http://www.trb.org/FreightTransportation/TRBPublications.aspx

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