Freight Efficient Land Use: Tools of the Trade

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Euclidean Zoning: Traditional Approach

Source: http://www.rdlarchitects.com/content/uploads/Euclidean-Zoning-Graphic.jpg
Euclidean Zoning: Traditional Approach

• Separation of uses to protect public health
• Broadly describe industrial activities that produce/attract truck trips
• Requires local legislative action
• Areas designated during a different economic era
• Few opportunities to facilitate freight activities, particularly for commercial and residential areas
• Used as an approach for understanding truck trip generation (NCFRP Reports 19 and 37)
Comprehensive Plans

Comprehensive Plans

• Intended to direct community aspirations for the future
• Requires local legislative action to amend or update
• Freight is often absent from the set of goals and objectives
• Could be updated to reflect changes needed to improve freight efficiency
• Could benefit from national effort (e.g., APA)
Overlay Zones

Overlay Zones

• Easier to enact or amend, but still require local legislative action
• Less subject to court action
• Used to address freight issues
  • Case Study
    • Maritime Industrial Zoning Overlay District (MIZOD)
Special Districts

• Form of overlay approach
• Used for areas within a jurisdiction where freight issues require action
• Mitigation strategies to reduce conflicts, parking, noise, etc.
• Recognition of specific needs
• Case Study
  • Portland, Oregon
Form-based Zoning

Source: https://freeassociationdesign.files.wordpress.com/2009/12/physical_hi.jpg

Source: https://formbasedcodes.org/definition/
Form-based Zoning

- Attempts to control outcomes of development through descriptions and illustrations
- Requires intensive public outreach to adopt, but reduces need for legislative actions going forward
- Uses a transect concept that marginalizes freight activities
- Case Study
  - Miami, Florida
Hybrid Zoning

A hybrid approach can combine traditional zoning, form-based street frontage standards, and design guidelines.

The draft regulating map guides permitted uses, frontage standards, and building heights in downtown.

Hybrid Zoning

• Creates a mix of traditional and form-based zoning techniques
• Has been successfully used to describe and illustrate freight activities
• Requires intensive public outreach to adopt, but reduces need for legislative actions going forward

• Case Study
  • Albany, New York
Hybrid Zoning

Other Land Use-related Approaches

• Planned Unit Developments
• Impacts Fees
• Transfer Development Rights
• Planned Manufacturing Districts
• Business Improvement Districts
  • Freight Concierge Services
Freight Activities Impacting Land Use

- Port-centric Logistics Zones
- Logistics Support Zones
- Urban Distribution Centers
- Urban Consolidation Centers
- Freight Villages/Logistics Clusters
Joint Logistics Systems

• Entrepreneurial Collaborative Logistics (UCC)
  • Tokyo, Japan -- Sky Tree Town

• Logistics Land Use Plan
  • Paris, France - Logistic Hotel
Freight Community Needs

• Where are the primary freight activities in your region?
  • Ports (water and air)
  • Industry Clusters
  • Pass-through truck traffic
  • Residential/Commercial mixed use deliveries
Freight Community Needs

• Maturity level of regional land use planning community
  • Collaborative or competitive
  • Data-driven or reactive
  • Multi-modal/multi-sector/multi-agency or siloed

• Integrating Freight Efficient Land Use (FELU) innovations into State Freight Plans
  • Funds expected to become available in FAST Act for freight improvements
Entrepreneurial Ecosystem Atlas
http://eea.availabs.org/
The Entrepreneurial Ecosystem Web Tool provides a regional view of NAICS clusters by ZIP code.

http://eea.availabs.org/
Albany-Schenectady-Troy MSA – ZIP Business Patterns
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NPMRDS Tool Suite
http://npmrds.availabs.org/
Quick Start Guide

Do you need to develop a corridor analysis, create reports showing trends and visualizations, or simply want to find the best or worst time to travel? Through the NPMRDS app, these analyses can be performed quickly and intuitively. The first step is to create a route in Route creation tool. Next, you can load your route into a pre-designed report template based on your chosen analysis theme. Lastly, you can modify the template to better fit your research needs.

Create Routes

Getting started in the tool suite. The first step is to create a route. In this guide you'll learn how to create a route.

PM3 Federal Performance Measurement Tools

This guide is an introduction to the PM3 tools.
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TotalAtri    TrucksAtri  SingAtri  CombiAtri  PassAtri

**Atri Measure By Epoch**

![Atri Measure By Epoch Chart](chart.png)
Questions?

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