Freight Planning at the Delaware Valley Regional Planning Commission

Office of Freight and Aviation Planning

Michael Ruane Senior Transportation Planner



October 11, 2017 Goods Movement Task Force



Highlighted Freight Initiatives

- Freight Centers
- Urban Freight Planning

Part of a wider planning program in the Office of Freight and Aviation and represent a more direct link between land-use and transportation planning

What is a Freight Center?

Defined by DVRPC in 2012

Clusters of freight generating parcels representing varying levels of activity and size



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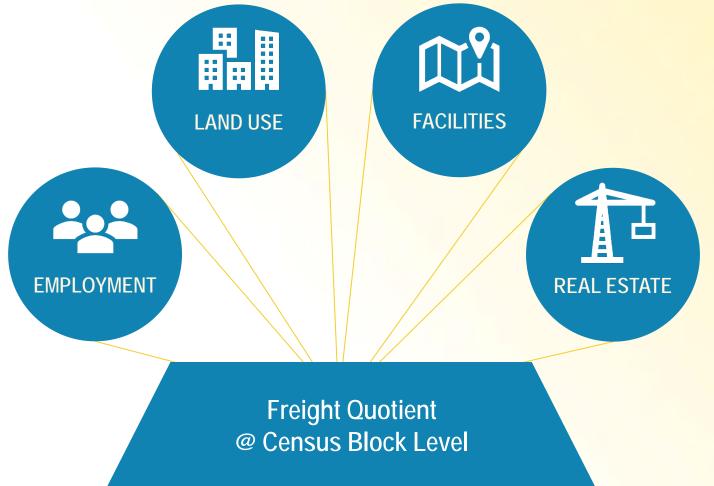
Improving on Phase I

- Stakeholder engagement Shipper Subcommittee
- Data-driven methodology
- Typologies prioritized over size



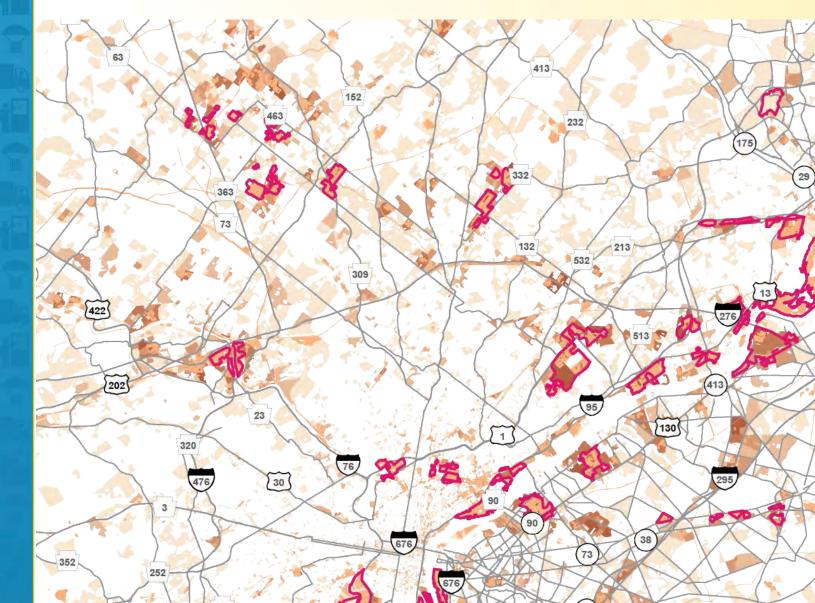


Freight Quotient Analysis



indication of potential freight activity

Freight Quotient Analysis



@dvrpc

Drawing the Boundaries

- Parcel-level evaluation

5 3 4 6 Z 4 4

- Employer/development details
- Related to supporting network components

Potential Centers Evaluated for Inclusion





Freight Center Typologies

- Defined by key elements:
 - Infrastructure requirements
 - Land use/land development patterns
 - Building types
 - Employment characteristics
 - Potential community impacts/conflicts

A tool for better planning at a near centers to improve economic opportunities while preserving quality of life in adjacent communities

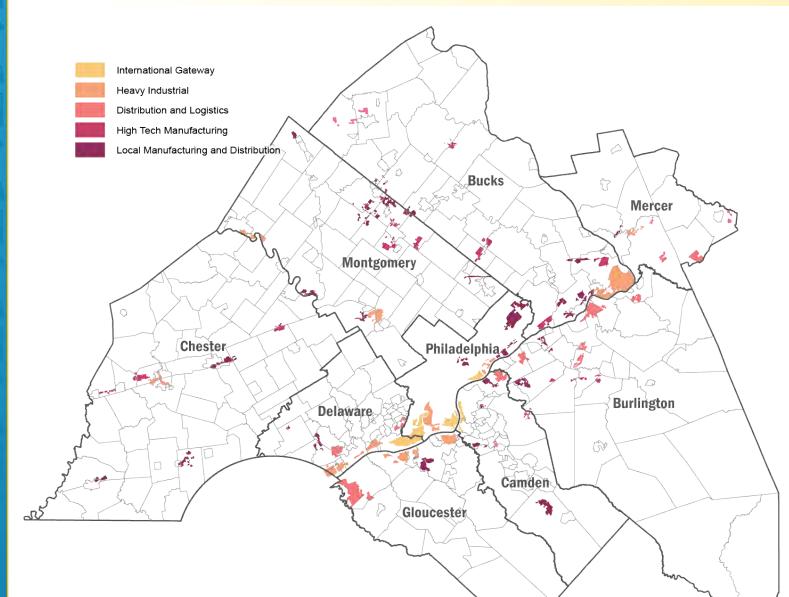


Freight Center Typologies

- International Gateway
- Heavy Industrial
- Distribution & Logistics
- High Tech Manufacturing
- Local Manufacturing and Distribution



DVRPC Freight Centers



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Making Use of Freight Centers

Odvrpc PHILLY FREIGHT FINDER FREIGHT MAPPING & DATA PLATFORM

- Develop tool for exploring and tracking
 - Employment
 - Development

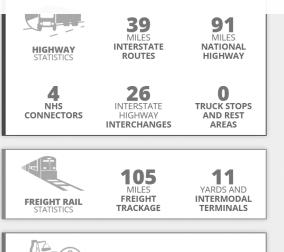


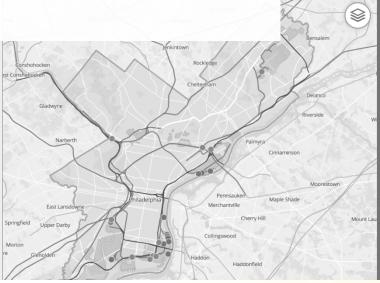
I View Map

unloaded at Taverue Marine

🕲 Tools 🗸

Freight Activity





A Home

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Making Use of Freight Centers

- PhillyFreightFinder Tool
- Identify priority infrastructure
- Evaluate projects and strategies

Data supports ongoing model development



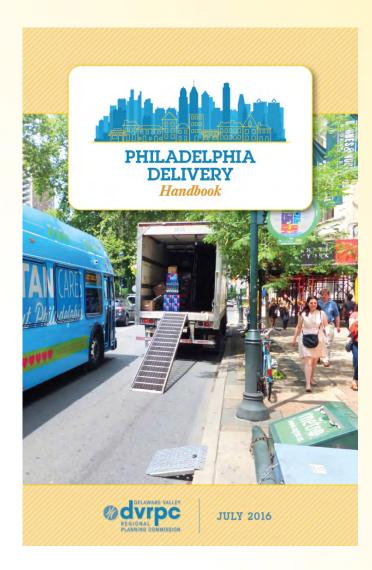
Urban Freight Planning

- Focus on handling urban deliveries in all types of urban environments
- Downtown Delivery Symposium Series
- Technical analysis, data development, and educational resources



Philadelphia Delivery Handbook

- Background and issues
- Best practices
- Safety tips
- Maps
- Funding programs
- Photos
- Contacts



Deliveries by Design



PA Convention Center



Two Liberty Place



The Gallery



American College of Physicians

ødvrpc

Complete Streets Design



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PCPC Corridor Profiles

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understanding issues at corridor level

University Southwest Medium intensity delivery zone 484 employers 36,500 employees 446 daily freight trips

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15 parcel delivery access points 10 loading zones



Future Efforts

- Designate a truck network
- Evaluate existing and potential overnight truck parking locations
- Develop better street geometry standards

- Standardize and simplify loading/parking signage
- Identify existing delivery zone capacity gaps

Thank You

Michael Ruane mruane@dvrpc.org 215.238.2888

@dvrpc





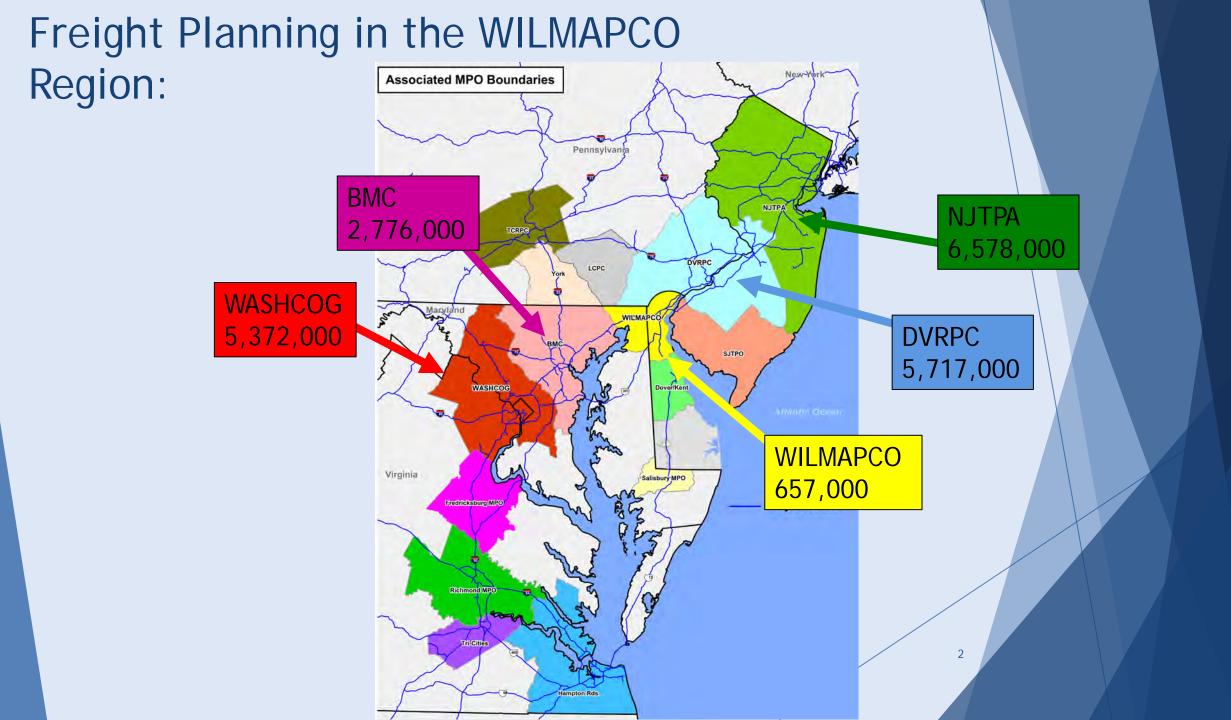
Freight Planning in the WILMAPCO Region:



Presented to the DVRPC October, 2017



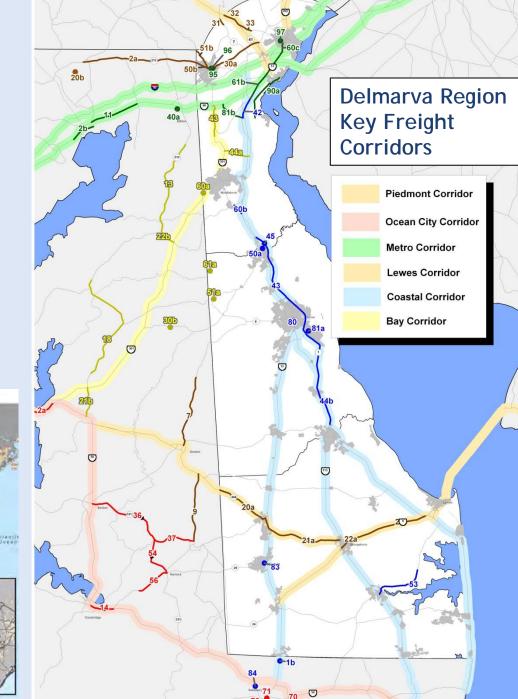
DE National Highway Freight Network Priority Freight Network (Intersta Critical Urban Freight Corridor Critical Rural Freight Corridor



Freight Planning in the WILMAPCO Region: Delmarva Freight Plan (2015)

Adopted May 2015. Includes:

- Existing Commodity Flows
- Existing Freight Transportation System
- Existing Freight Planning Resources
- Freight Trends, Needs, and Issues
- Future Freight Planning Scenarios
- Freight Project Guidance
- Freight Policy Guidance and Beyond



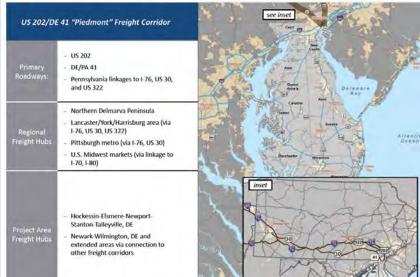


Exhibit 4.32 - Summary of US 202/DE 41 "Piedmont" Freight Corridor

US 202/DE 41 "Piedmont" Freight Corridor

Freight Planning in the WILMAPCO Region: Freight Plan Addendum (2017)

Goal:

- 1. To build on the existing 2015 (MAP-21 compliant) plan which matches FAST-Act requirements
- 2. Add components not covered by MAP-21 compliant plan
- 3. Update any new materials

Developed by the Delmarva Freight Working Group

- Maryland Department of Transportation
- Salisbury/Wicomico Metropolitan Planning Organization
- Dover/Kent Metropolitan Planning Organization
- Wilmington Area Planning Council
- University of Delaware, Institute for Public Administration



DELMARVA FREIGHT PLAN: 2017 FAST Act Addendum

Draft Outline & Conceptual Approach

May 10, 2017 DRAFT

Prepared for: Delaware Department of Transportation

In Collaboration with: Maryland Department of Transportation Wilmington Area Planning Council Dover/Kent County Metropolitan Planning Organization Salisbury/Wicomico Metropolitan Planning Organization University of Delaware, Institute for Public Administration

Compiled by: Whitman, Requardt & Associates, LLP

WRA









Freight Planning in the WILMAPCO Region: Annual Meetings & Summits

- Modeled after DVRPC GMTF
- Summer Summit & December "Winter Meeting"
 - Networking
 - National / Global Perspective
 - Localized Issues
 - Link Public and Private Sector

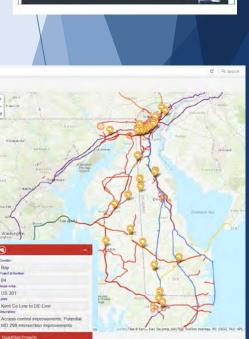








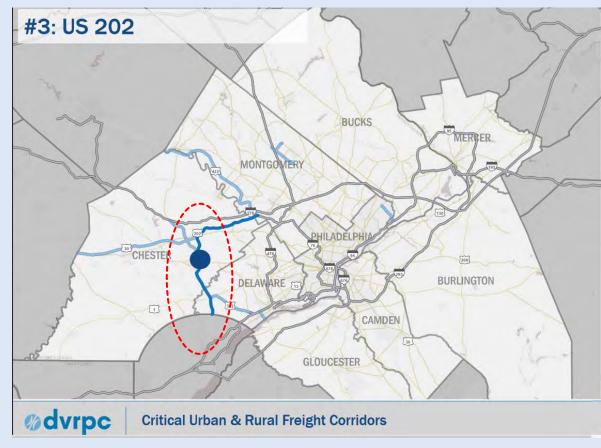
platform

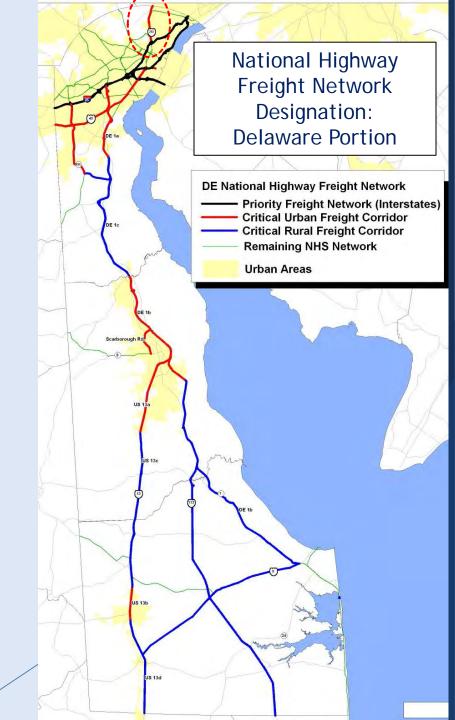


Freight Planning in the WILMAPCO Region: FAST Act National Highway Freight Network

Critical Urban/Rural Freight Corridors

- Adopted June 2017
- Coordination with DVRPC





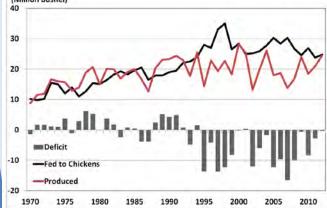
Freight Planning in the WILMAPCO Region: Supply Chain Analysis

- A deeper look into select commodities
- Chemical, Agricultural, Waterborne traffic

Gain of internal knowledge of goods movement on a larger scale

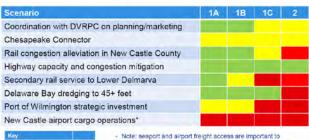


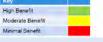
Delmarva Soybean Balance, Production vs. Consumed by Broilers (Million bushel)



Impacts to the transportation system

Summary of findings, con't.: Evaluation of transportation policy priorities

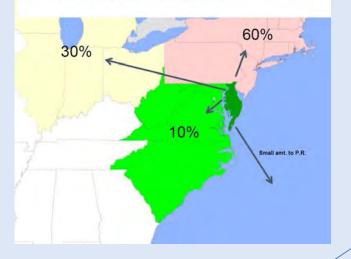




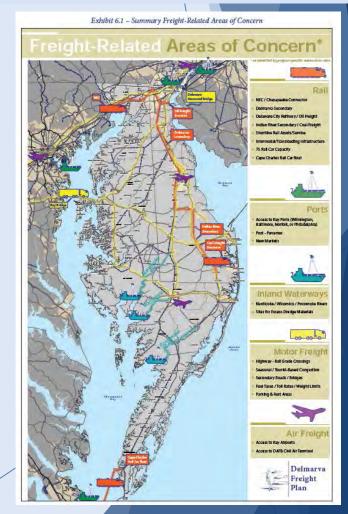
Delmanxa chemicals manufacturing, but the analysis suggests current market, facilities, and community constraints to cargo operations at New Castle. The study adopts the position that efficient readway connectivity to BWI or PHL is more viable.

ĪHS

Destination of processed poultry

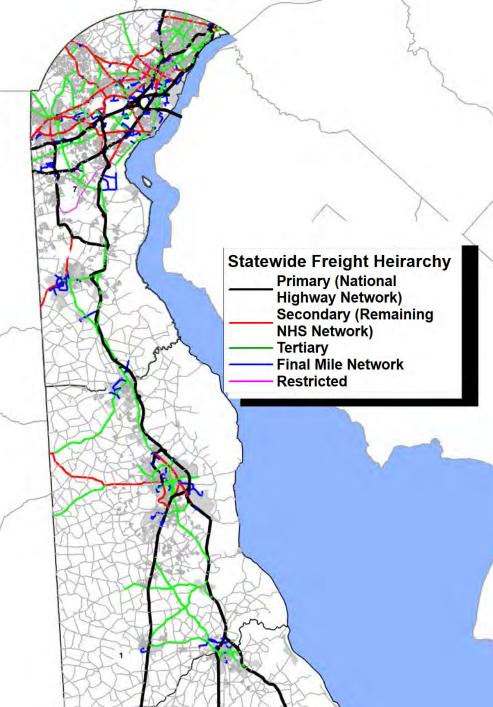


Goal: To react to ever-changing economic conditions



Freight Planning in the WILMAPCO Region: Freight Hierarchy & Final milefacilities

- Outgrowth of recent FAST-Act emphasis on Freight
 - To expand on the National Highway Freight Network (NHFN) to include the whole freight network in DE
 - Not required, but see these as an area of increased focus
 - To serve as a tool the Statewide Project Prioritization Process (Decision Lens) for applying a factor for a project's importance to freight
 - Inclusion of numerous "final mile" segments



Freight Planning in the WILMAPCO Region: "Final mile" facilities

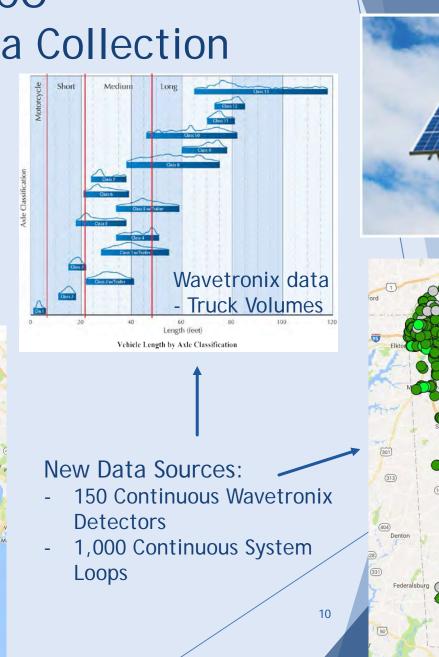
- What is a "final mile"
 - Road segment that is the first/last link to a truck generating facility
 - Usually a Collector/Local Road
 - Usually in close residential area
 - Have a abnormally high truck % vs. similar routes
 - sometimes located very close to residential areas
- Most are not understood or well defined.
 Lack attention from decision makers.
- Not fully aware of the importance of freight to the economy of their region and to the Nation as a whole.
- Can poor condition/ functionality
 - Geometrics and Physical Deficiencies
 - Inadequate turning raddii
 - Inadequate shoulder width / stabilized shoulders
 - · Lack of lane width
 - · Drainage/Flooding



Freight Planning in the WILMAPCO Region: Use of Technology – Data Collection

Integrating operations data into Traffic Monitoring Program

- Use of non-intrusive technologies for vehicle classification data
 - Ease of installation
 - Volume & class accuracy
 - Axle-based class vs. length-based class
 - ► Reliability/maintenance
 - Performance in various weather conditions
 - Cost



Freight Planning in the WILMAPCO Region: Project Prioritization

TITLE 29 CHAPTER 84 § 8419. Transportation priority planning Freight is one of key factors in project selection

Decision Goal: To Prioritize and Fund Capital Transportation Projects for Statewide D	112
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A E System Operating Effectiveness

Existing Level of Service

Congestion Management

Identified in a Safety Program

Address strategies in the SHSP

Environmental Impact/Stewardship

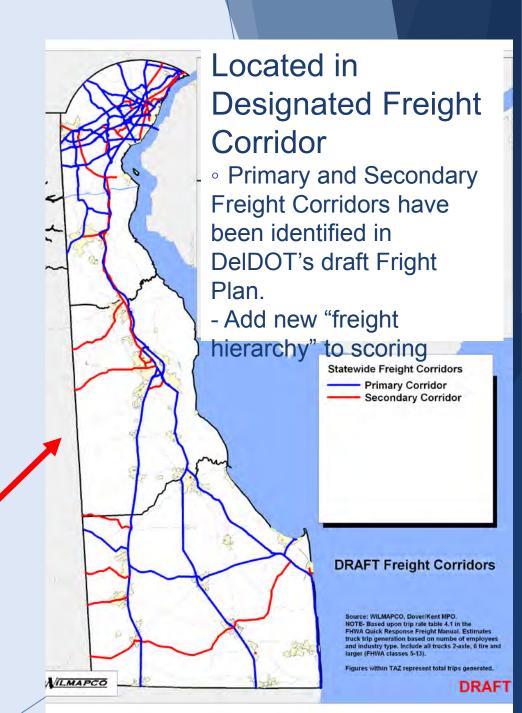
A B Revenue Generation/Economic Development/Jobs & Commerce

Identified in a Transportation Improvement District (TID)

Cost-sharing support

- Freight Corridor
- Multi-Modal Mobility/Flexibility/Access
- inpact on the Public/Social Disruption/Environmental Justice

System Preservation



Freight Planning in the WILMAPCO Region: Freight Impacts on the Community

Defining Final Mile Facilities

- Use to help in increasing paving and rehab efforts (increased paving cycles for better pavement conditions)
- "Freight as a good neighbor" by addressing residential/freight movement concerns



Community Planning

- SR 9 Recommended Roadway
- Expansion for Port of Wilm. Truck Access
- Ensure that this signage is reflected in truck GPS systems;



Special Truck Committees

- Senate Resolution #10
- 1. How to REDUCE Truck Traffic
- 2. Evenly distribute remaining trucks equally
- Monthly meetings
- Provide subject matter experts & materials (thanks Ted!)



Thank You!

Daniel Blevins WILMAPCO dblevins@wilmapco.org

13

NJTPA Freight Activities

DVRPC Delaware Valley Goods Movement Task Force Meeting October 2017

> Anne Strauss-Wieder Director, Freight Planning North Jersey Transportation Planning Authority

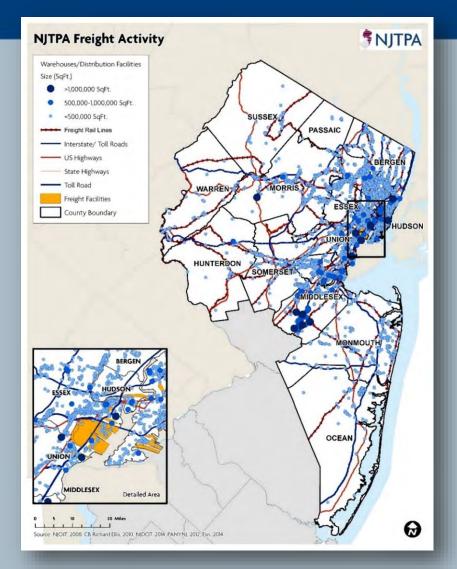
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New Jersey is a Key Distribution Node

- 811 million square feet of industrial space in NJTPA area, with 9 million under construction.
- Largest Port on the East Coast 6.3 million TEUs in 2016.
- Robust Rail Freight Network 2 Class Is, Conrail, shortlines.
- Extensive Roadway Network





Plan 2045 Discussion: What Keeps Supply Chain Professionals Up at Night?

- Managing the challenges of a rapidly evolving retail environment
- Guaranteeing temperature controlled supply chains for pharmaceutical and food products.
- Identifying and undertaking the actions and investments needed to enable all aspects of the freight system to operate 24/7.

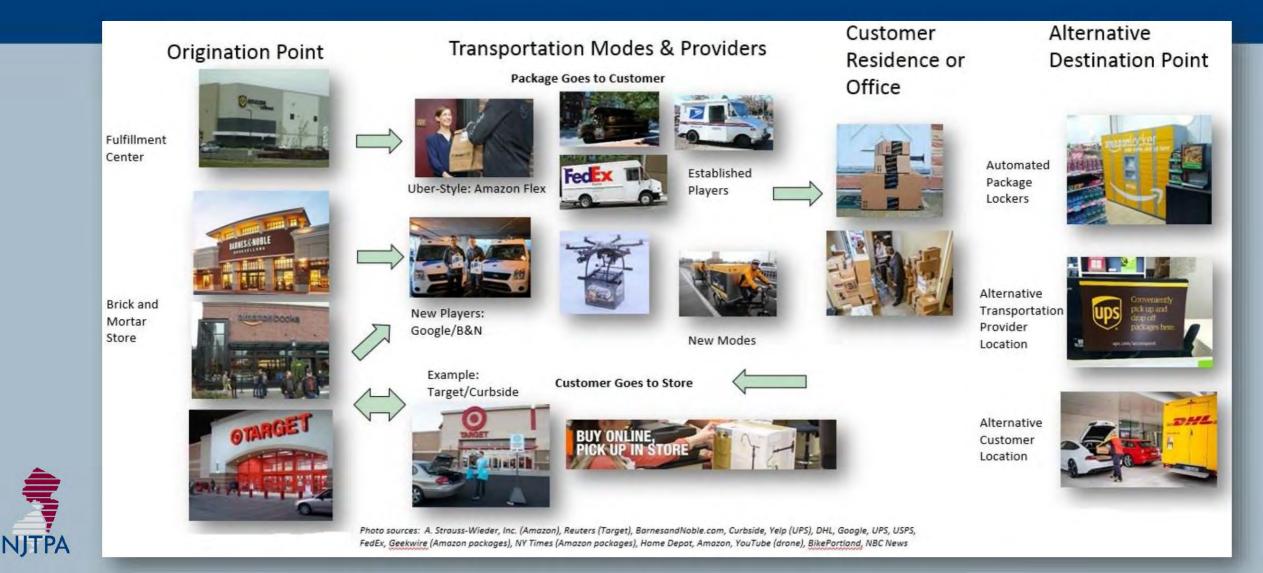








The Changing Last Mile of Retail



Distribution Center Layouts



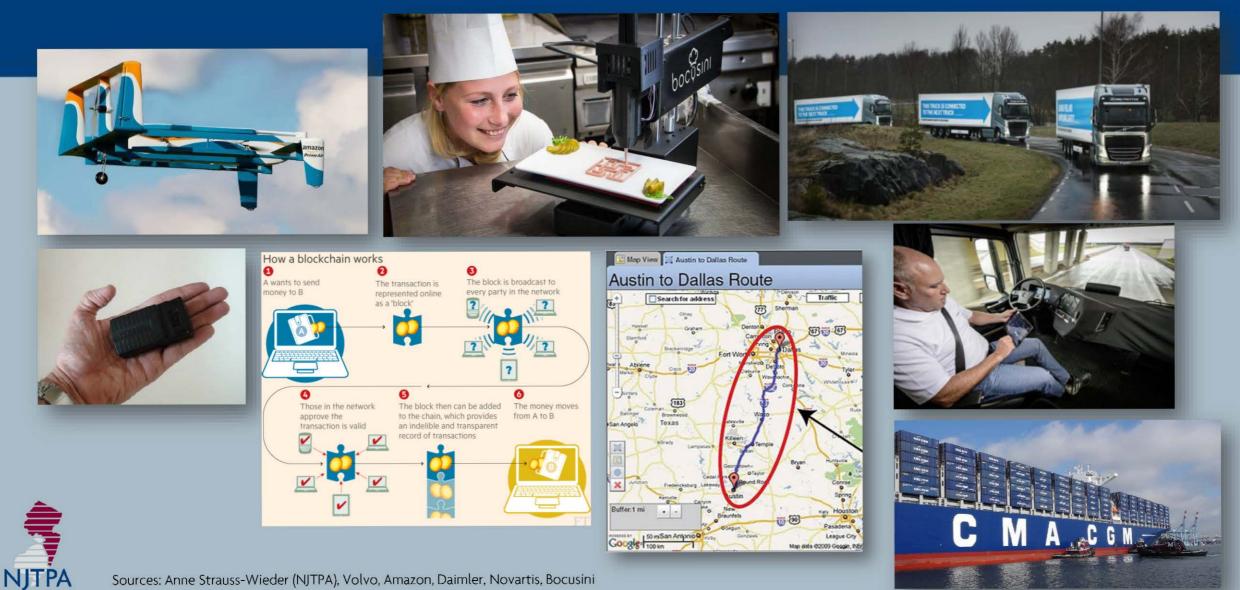
Fulfillment Centers and Emerging Workplaces – More Associate Parking and Accessibility



Sources: NJ.com, Google Maps and Greater Mercer TMA

NJTPA

Emerging Equipment, Technology and "Disrupters"

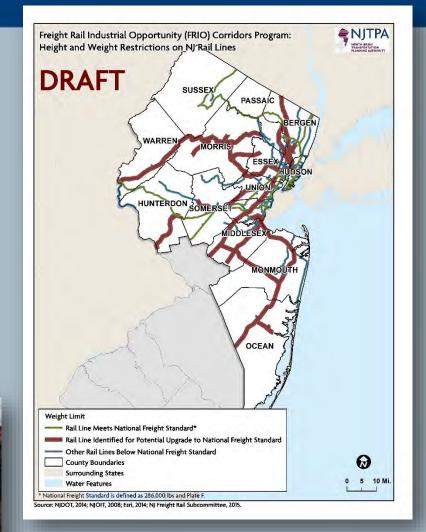


Sources: Anne Strauss-Wieder (NJTPA), Volvo, Amazon, Daimler, Novartis, Bocusini

Examples of NJTPA Freight Initiatives

- NJTPA's Freight Initiatives Committee
- Subregion Outreach and Field Visits
- Inventory & Assessment of Waterborne Resources
- Freight Rail Industrial Opportunity (FRIO) Corridors Program
- Pilot Freight Concept Development Program
- Member, Council on Port Performance





"Subregion" Field Visit Objectives

- Identify and discuss key freight issues, concerns and ideas on the local level.
- Connect local public sector transportation and economic development staff with private sector freight operations in their area.



• Learn mutually about local operations.





Field Visit Experiences

- Somerset County: Liberty Corridor Port Reading Junction
- Morris County: M&E RR Team Track and Fratelli Berreta
- Middlesex County: Wenner Bakeries





Field Visit Experiences

- Hudson County & Jersey City: GCT Bayonne, Greenville Yard and Tropicana Distribution Center
- Ocean County: Lakewood Industrial Areas







Field Visit Experiences

- Sussex County: NYS&W Transload and Eastern Propane
- Passaic County: Bay State Milling







NJTPA Freight Activity Locator



Try the Freight Activity Locator Tool at <u>http://www.njtpa.org/freight</u>

NJTPA Freight Concept Development Program

- Creates a process for advancing regional and local freight initiatives identified through planning studies conducted by NJTPA, its subregions and planning partners.
 - Project intake
 - Freight concept development
 - Funding options
- Pilot study approach to specific projects and program development

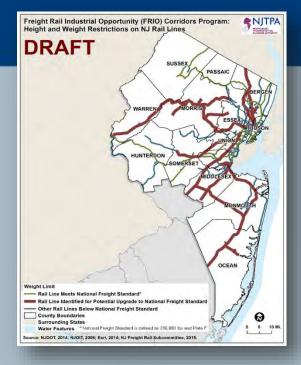






Freight Rail Industrial Opportunity (FRIO) Corridors Program

- Creates a corridor approach to modernizing restricted rail lines to accept current national standard weight and height freight cars.
- Develops two related databases:
 - A comprehensive inventory and assessment of physical constraints to national standard freight rail access
 - Existing and potential industrial development served by these lines
- Establishes a game plan for moving forward.

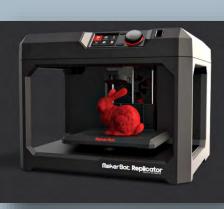






The Take Away – The Transforming Context

- Follow the consumer and demand parameters
- Track new technologies and disrupters
- Identify and engage new service providers
- Identify considerations and opportunities
- Go out in the field constantly
- Actively involve the private sector *The Supply Chain is ever evolving*.







Thank You





follow us on

Defining the Vision. Shaping the Future.

NORTH JERSEY TRANSPORTATION PLANNING AUTHORITY Anne Strauss-Wieder Director, Freight Planning (973) 639-8404 Strauss-Wieder@njtpa.org





GOODS MOVEMENT IN THE NEW YORK CITY METROPOLITAN REGION



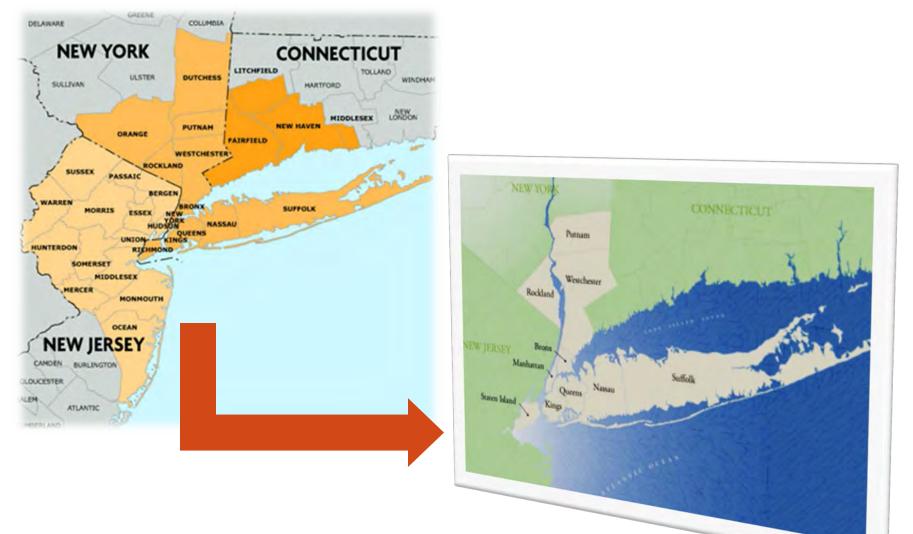




INSTITUTIONAL CONTEXT

Delaware Valley Goods Movement Task Force

NYMTC'S PLANNING AREA



MEMBERSHIP



<u>ADVISORY MEMBERS</u>: New Jersey Transit, North Jersey Transportation Planning Authority, Federal Transit Administration, Federal Highway Administration, U.S. Environmental Protection Agency, NYS Department of Environmental Conservation



OTHER KEY STAKEHOLDERS

- New York City Economic Development Corporation
- New York State Department of State Coastal Management Program
- Empire State Development
- U.S. Maritime Administration
- I-95 Corridor Coalition
- Private freight railroads and terminal operators
- Business associations and chambers of commerce
- Trucking Association of New York
- Local community boards in New York City
- Local suburban municipalities
- Elected officials at all levels
- Advocacy organizations





BANNING PROCESS

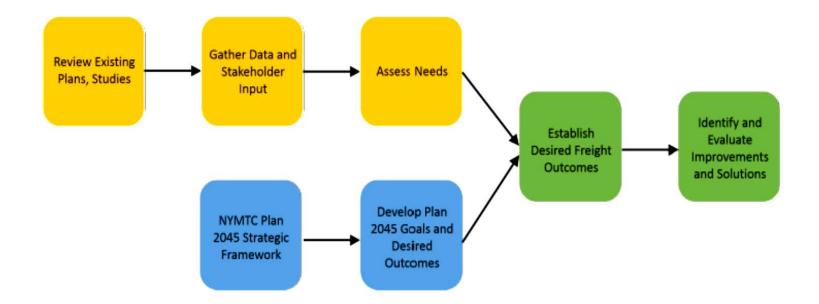
Delaware Valley Goods Movement Task Force

NYMTC'S *NEW* REGIONAL TRANSPORTATION PLAN - ADOPTED JUNE 29, 2017





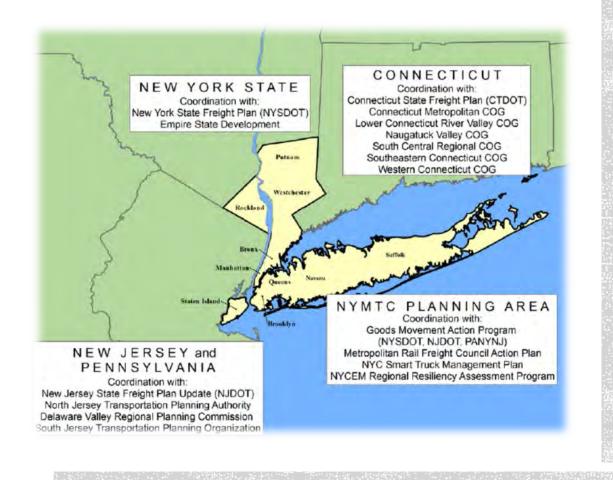




BUILDING THE FREIGHT PLAN



Delaware Valley Goods Movement Task Force



REGIONAL CONTEXT

Delaware Valley Goods Movement Task Force



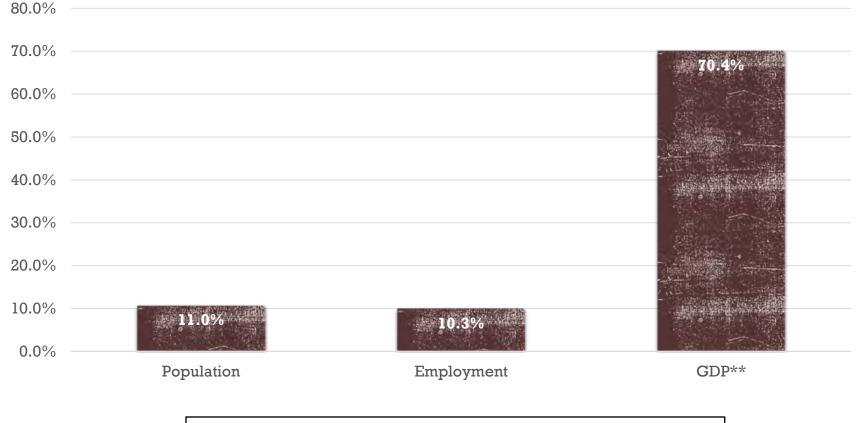


MALLENGES

Delaware Valley Goods Movement Task Force

<u>CHALLENGE</u> – REGIONAL GROWTH

Forecasted Growth in the NYMTC Planning Area; 2017 through 2045

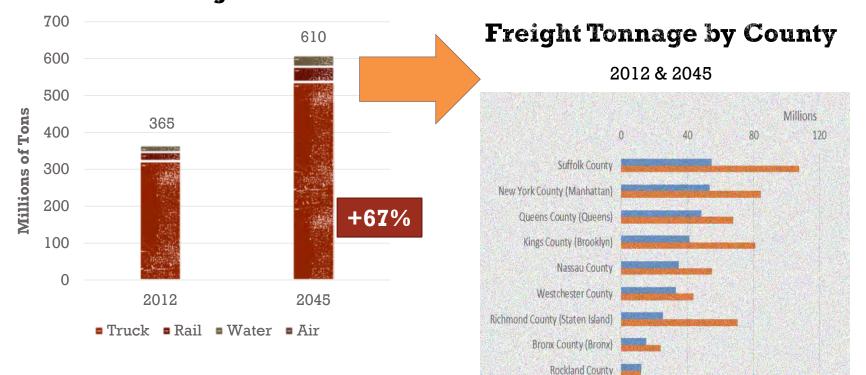


**Forecasted growth in GDP is for 2015 through 2045



CHALLENGE -- GROWING GOODS MOVEMENT

Freight Tonnage – NYMTC Planning Area



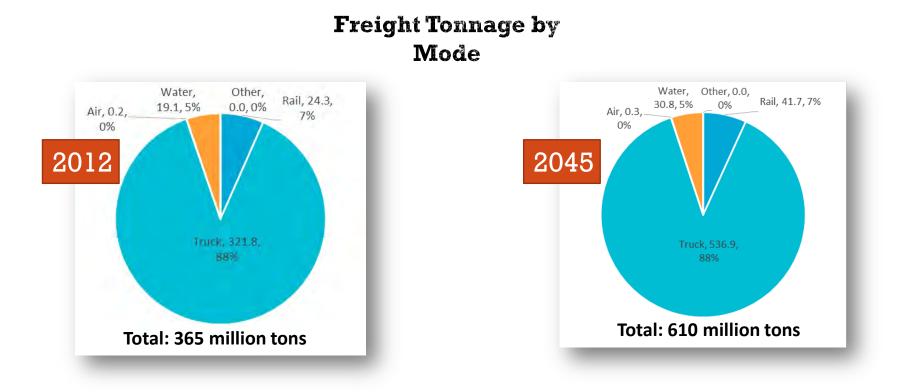
Putnam County

2012 Tons 2045 Tons

Source: 2012 IHS Global Insight Transearch Data, 2012 Surface Transportation Board (STB) Waybill Sample



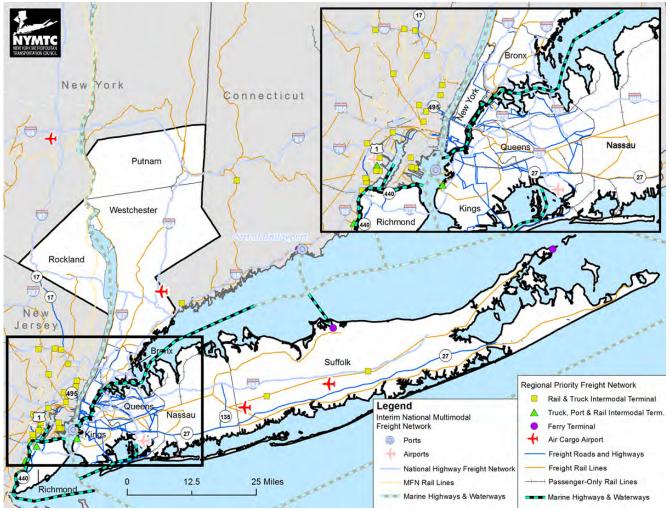
<u>CHALLENGE</u> – MODAL CONSTRAINTS



Source: 2012 IHS Global Insight Transearch Data, 2012 Surface Transportation Board (STB) Waybill Sample



<u>CHALLENGE</u> - MULTI-MODAL FREIGHT NETWORK







MAJOR PORT FACILITIES

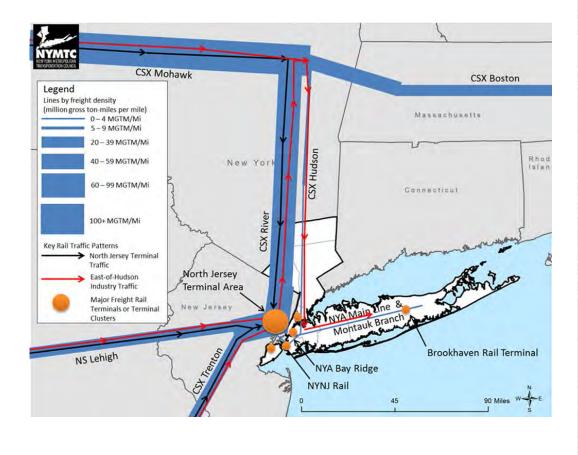
10/11/2017

Delaware Valley Goods Movement Task Force



KEY CURRENT CONDITIONS

Delaware Valley Goods Movement Task Force



MAJOR FREIGHT RAIL CORRIDORS



MAJOR FREIGHT HIGHWAY CORRIDORS BY ANNUAL TONNAGE

Delaware Valley Goods Movement Task Force



FREIGHT HIGHWAY CORRIDORS BY TRIP PURPOSE



Delaware Valley Goods Movement Task Force



IMPROVEMENTS AND SOLUTIONS

Delaware Valley Goods Movement Task Force

Planning initiatives, which may study a wide variety of alternatives; Project planning and/or environmental reviews for vision projects;

Programmed improvement projects; and Policies or programs that advance desired outcomes and address needs.

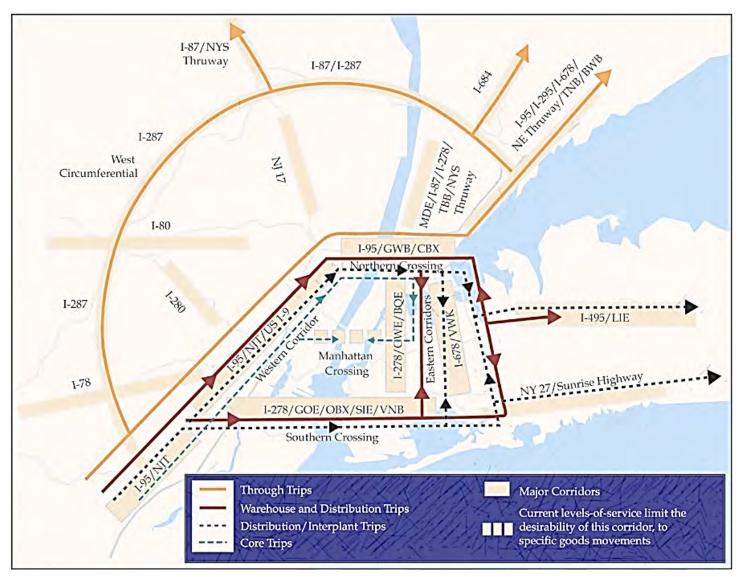
FOUR CATEGORIES OF IMPROVEMENTS



10/11/201

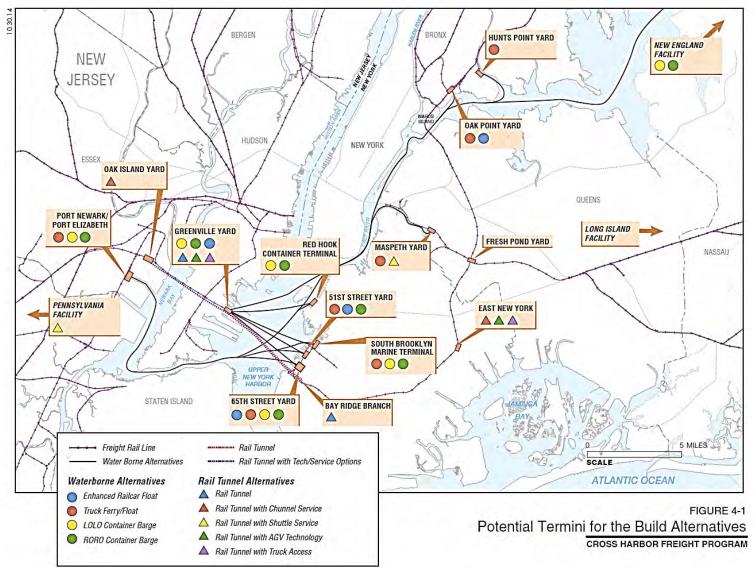
Delaware Valley Goods Movement Task Force

KEY ROADWAY INFRASTRUCTURE





RAIL FREIGHT IMPROVEMENTS



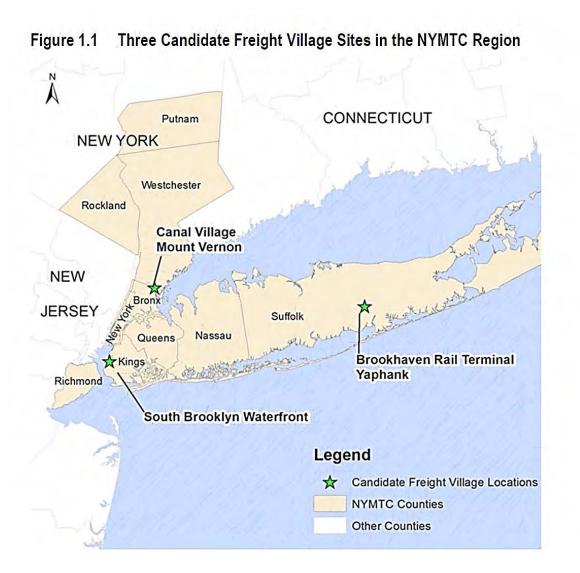


MARINE HIGHWAYS





FREIGHT VILLAGES



The objective of a freight village:

 Co-locate operators of two or more links in a logistics chain

Co-locating freight handling and receiving facilities can:

 Facilitate load consolidation, resulting in more efficient loading of trucks, thereby reducing the number of truck trips.



CURRENT AND UPCOMING RESEARCH EFFORT'S - A SAMPLING

- Multi-state freight planning
- Cross Harbor Freight Program Tier II EIS
- Freight feasibility for the Gateway Program
- Areawide freight land use
- Clean Freight Corridors Program
- Airport access improvements JFK
- Key bottlenecks at freight facilities
- Truck parking/staging capacity



FURTHER INFORMATION

www.nymtc.org

- Required Planning Products; Plan 2045; Appendix 8
- Contacts
 - Gerry Bogacz, Planning Director <u>Gerry.Bogacz@dot.ny.gov</u>
 - Carlos Delpozo, Freight Planning Coordinator Carlos.Delpozo@dot.ny.gov





Photo Source: Times-Union

CAPITAL DISTRICT TRANSPORTATION COMMITTEE (CDTC): FREIGHT PLANNING

OCTOBER 11, 2017

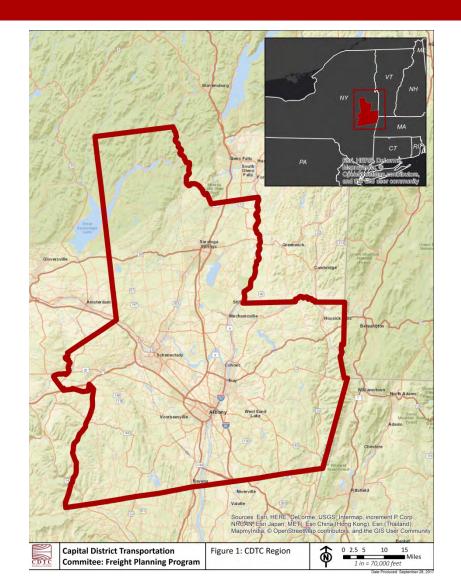


Capital District Transportation Committee Delaware V

Delaware Valley Goods Movement Task Force

CDTC Background

- Metropolitan Planning
 Organization (MPO)
 for Albany Schenectady-Troy and
 Saratoga Springs
 Urbanized Areas
- □ 4 Counties
- +/- 910,000
 Population (Est. 2016)
 CDTC Staff = 13





New Visions 2040

- CDTC's Long Range Transportation Plan
- 12 Core Principles;
 - Freight:

"Our freight system is crucial to the **economy**; it will be **efficient and automated**..."

"comprehensive enough to encompass all modes...,"

"embrace freight's **key contributions to regional prosperity**, while also trying to **mitigate the negative impacts** of all modes of freight movement on local communities."



Freight Advisory Committee

Meets Quarterly

February, May, August, November

- Includes public and private sector representatives of the freight and logistics industry, for example:
 - Railroads
 - Manufacturers
 - Carriers, shippers, and receivers
 - Industrial land developers
 - Ports and airports
 - NYSDOT, Thruway Authority, local government agencies

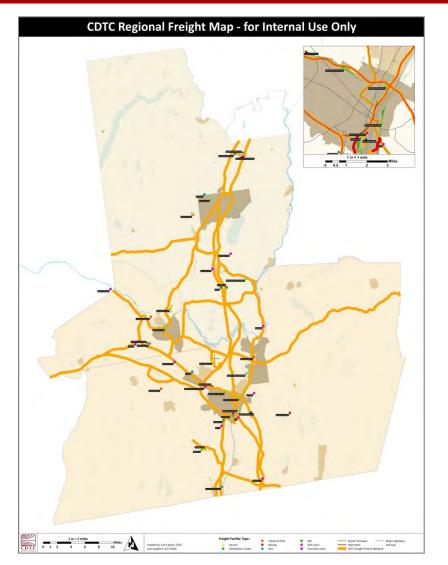




Freight Priority Network

- Facilitate efficient and safe truck movement to, from, and within CDTC region
- Planning and investment across region accounts for freight demand







Transportation Improvement Program

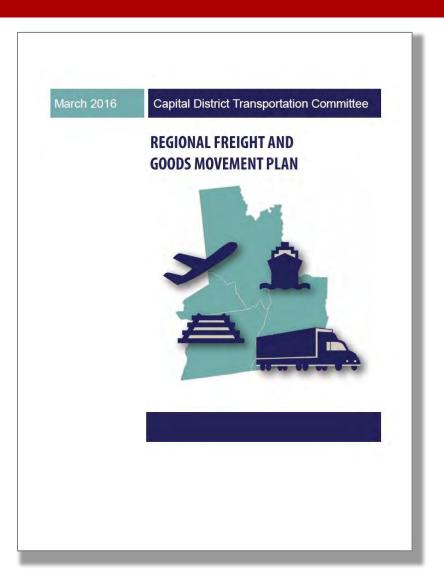
- □ Freight is integrated in CDTC's project evaluation
- CDTC's Evaluation Approach:
 - Benefit/Cost Ratio and Merit Scoring
 - Categories correspond directly with New Visions Planning Principles

FREIGHT (5 POINTS POSSIBLE)	
Freight and Goods Movement (5 points)	
Award 1 point for each of these criteria (for a cumulative total of up to 5 maximum):	
Project improves a MPO or NYSDOT identified freight movement issue	1 to 5
 Project removes/substantially improves a freight related land-use compatibility, noise, or safety issue 	
 Project is located on, or provides access to, the CDTC Freight Priority Network, and provides a travel time and/or reliability benefit(s) 	
 Project enhances access to a key freight generator (Ex: Airport, Ports, Major Distribution Centers, Industrial Park/cluster of industrial land uses) 	
 Project enhances access to any intermodal freight movement (Ex: air to truck/rail, rail to truck/water, water to rail/truck/air, etc.) 	
Project has neutral affect (no known impact, positive or negative) on freight and goods movement.	0
Project is located on, or provides access to, the CDTC Freight Priority Network, and increases travel time and/or decreases reliability.	-1
Project negatively affects freight movement or safety in an area with a known MPO or NYSDOT identified freight movement or freight-related safety issue; alternatively,	
project introduces a specifically freight-related land use incompatibility (e.g., substantial increase to freight traffic load in residential area, introduction of significant freight	
traffic noise or other significant freight related nuisance).	-2
FREIGHT SUBTOTAL SCORE	



Example Freight Planning Projects

- CDTC Regional Freight
 Plan (2016)
- Regional Dynamic
 Freight Database (RPI, SHRP2, 2016)
- Local O/D Studies (2017)
- Local Model Ordinance
 Development (2018)





□ Etc.

Thank You!

Christian P. Bauer, AICP Senior Transportation Planner Capital District Transportation Committee (518) 458-2161 cbauer@cdtcmpo.org



DVRPC Future Freight Research Program

Presented by Ted Dahlburg



Nancy Tiver, CSX Intermodal

Delaware Valley Goods Movement Task Force October 11, 2017



Thank You, Members and Friends, **Delaware Valley Goods Movement Task Force!**



Recent Research

- Philadelphia Delivery Handbook
- Crude Oil in the Delaware Valley Commodity Profile
- Freight Centers
- Making Freight Data More Accessible (*PhillyFreightFinder*)
- Critical Urban Freight Corridors



Current Research

- Marcus Hook Grade Crossing Study
- Trenton City Loading Zone Database
- Freight Model Enhancement
- Regional Helicopter Inventory



Future Research Program

- Please indicate your ideas and priorities on DVRPC's future freight planning activities.
 - **1**.
 - **2**.
 - **3**.
- Staff will organize and identify emergent themes and priorities.

