

DELMARVA FREIGHT PLAN

Delmarva Freight Advisory Working Group Meetings

*New Castle County Chamber of Commerce,
New Castle, DE
December 3, 2014*

*Sussex County Council Chambers,
Georgetown, DE
December 4, 2014*



Delaware Department
of Transportation



Maryland Department
of Transportation



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DELMARVA FREIGHT PLAN

Agenda

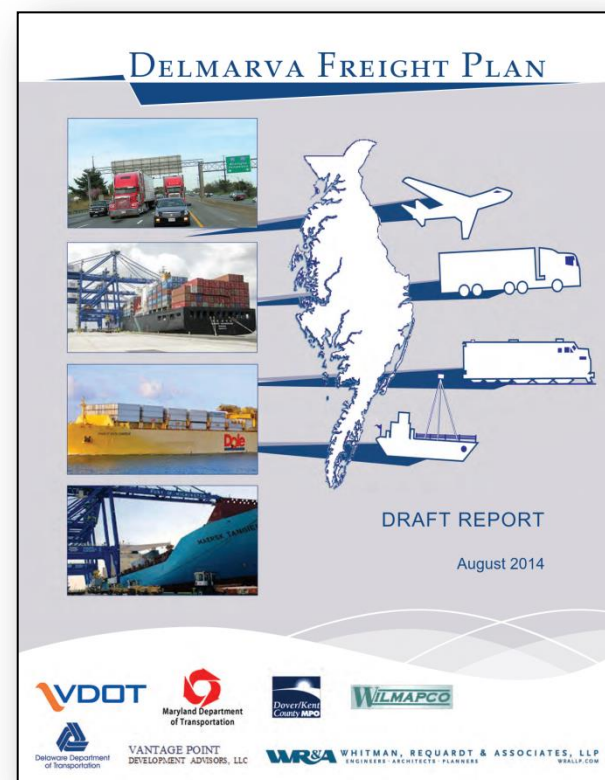
- Plan Overview
- Project Screening & Prioritization Methods
- Freight Corridor Summaries and Project/Study Candidates
- Statewide Summary and Broader Insights
- **Your Feedback!**

DELMARVA FREIGHT PLAN

Plan Overview

What is the Delmarva Freight Plan?

- Multi-state, multi-MPO, multimodal evaluation of Delmarva's freight system
- Aims at compliance w/ MAP-21 and National Freight Policy goals & objectives
- Evaluates freight flows and integrates commodity flow modeling
- Reviews freight focus areas while integrating performance-based scenario planning
- Identifies key projects; complies with criteria for accessing potential federal funding options



DELMARVA FREIGHT PLAN

Plan Overview

CHAPTER 1: Introduction

- Multi-Jurisdictional Plan Perspectives
- MAP-21 and National Freight Policy Goals
- Delmarva-Specific Goals

Five key focus areas...

Economic Vitality

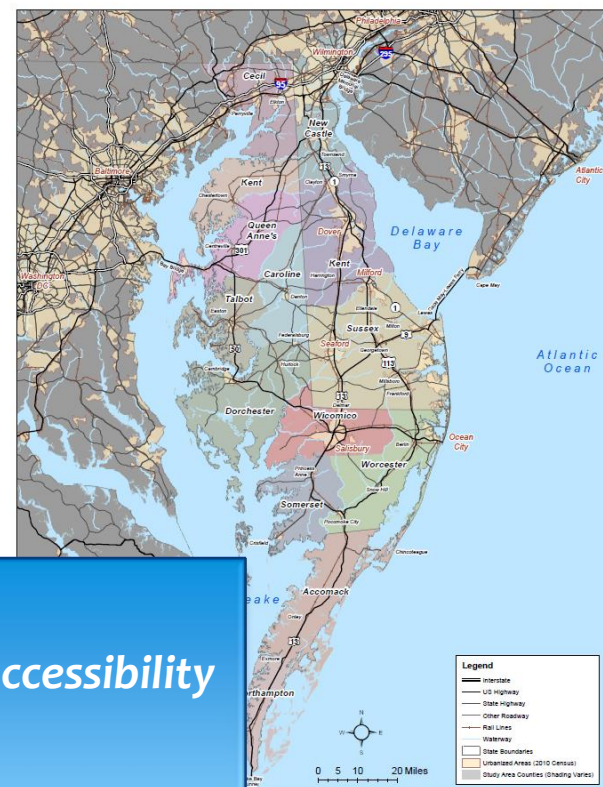
Freight Connectivity, Mobility and Accessibility

Safety and Security

System Mgmt, Operations and Maintenance

Sustainability and Environmental Stewardship

14-county study area



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Plan Overview

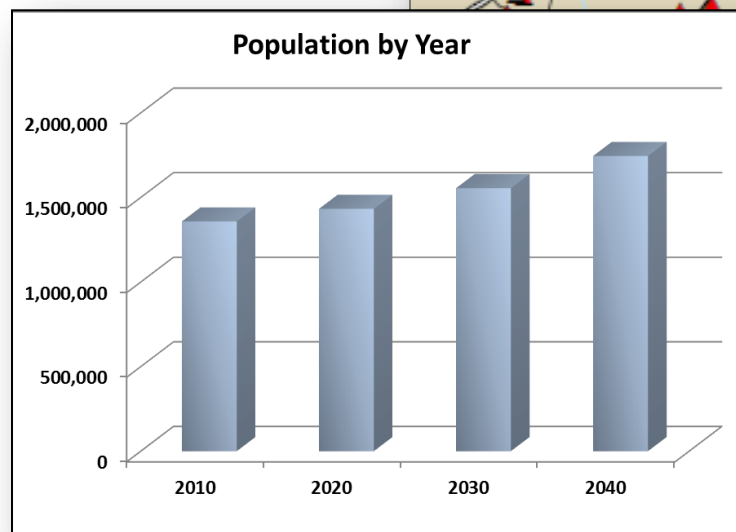
CHAPTER 2: Existing Economic Context

- Population and Employment
- Key Industries and Supply Chains
- Economic Development Strategies
- Global Economic Perspectives

*Key freight
generators
by county*



29% population increase



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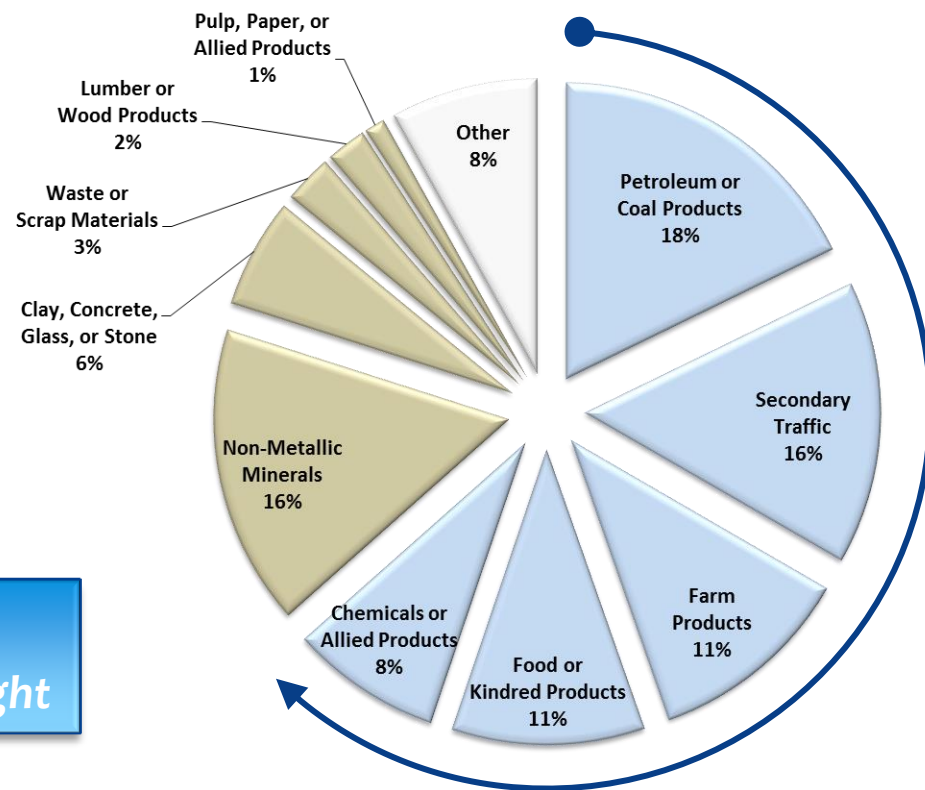
Plan Overview

CHAPTER 3: Existing Commodity Flows

- Delmarva Freight Details
 - ✓ Type, Tonnage, Value, Mode
 - ✓ Trading Partners
- Commodity Flow Perspectives
- Supply Chain Perspectives

70 M tons (\$75 Billion) Delmarva freight
157 M tons (\$327 Billion) w/ pass-thru freight

Over 60% of total freight
in five core groups



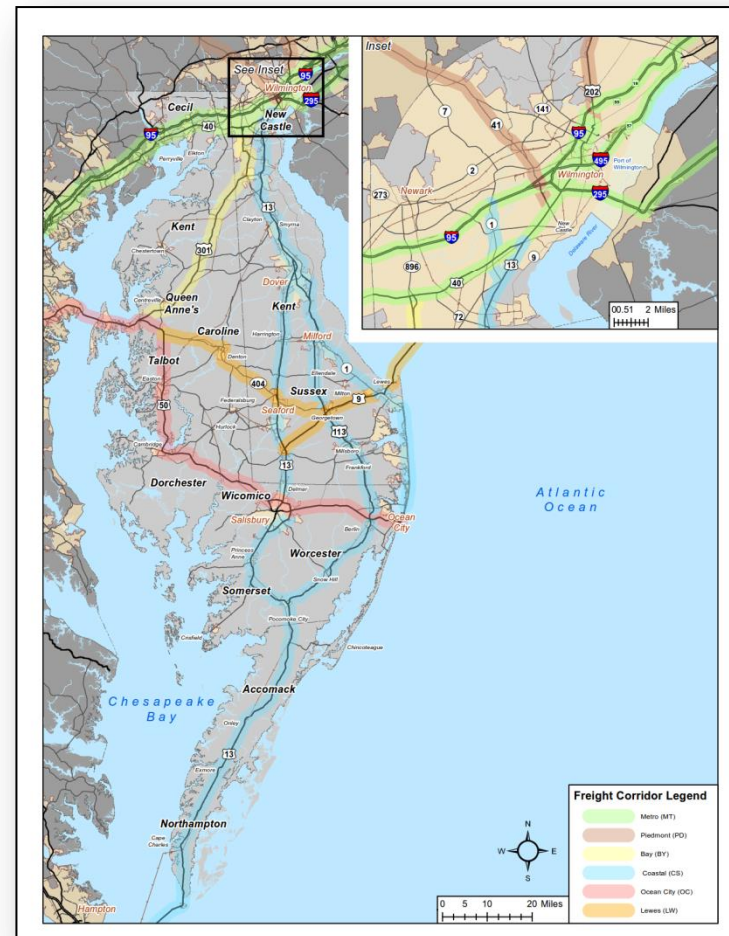
Plan Overview

CHAPTER 4: Existing Transportation System

- Modal Assets
- Logistics Nodes and Support Facilities
- System/Network Summary
 - ✓ Freight Corridors, Zones, and Gateways

Key Freight Corridors:

- Metro (I-95)
- Bay (US 301)
- Coastal (US 13/113, DE 1)
- Ocean City (US 50)
- Piedmont (US 202, DE 41)
- Lewes (MD/DE 404, US 9)



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Plan Overview

CHAPTER 5: Existing Freight Planning Resources

- Freight Institutions
- Coordination Activities
- Project Funding and Revenue Sources
- Capital Plans and Programs

*Future project
commitment assumptions*



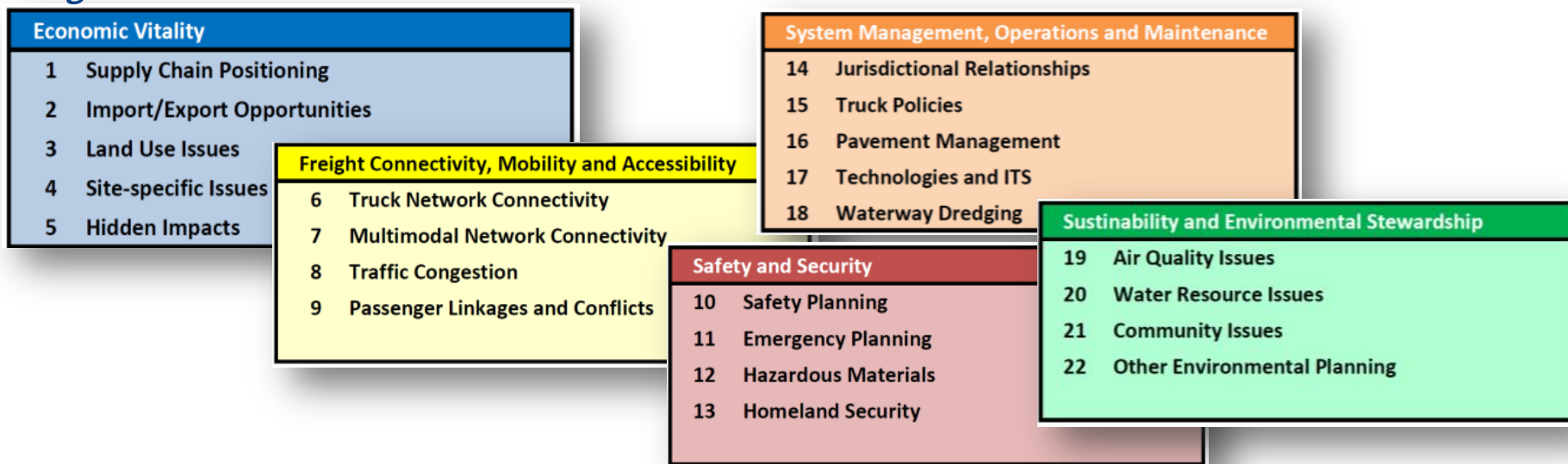
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CHAPTER 6: Freight Trends, Needs, and Issues

- Summary of Delmarva's freight issues today
- Transition point toward planning for or reacting to an unknown future
- Foundation for project & policy selection

Freight Focus Areas



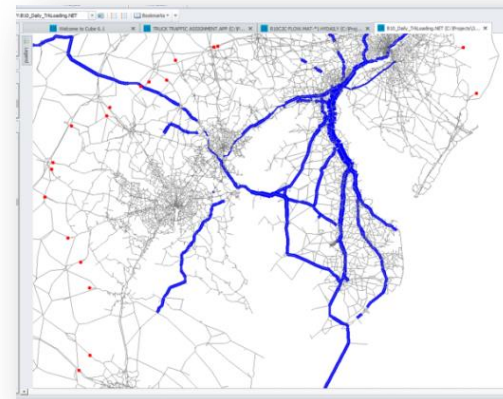
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Plan Overview

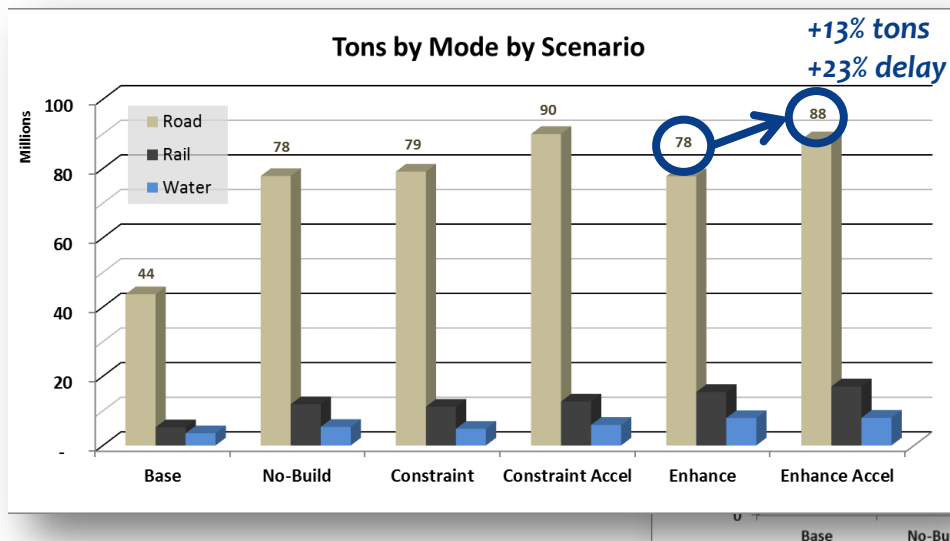
CHAPTER 7: Future Freight Planning Scenarios

- Future Baseline
- Multimodal Constraint or Enhancement
- Trendline or Accelerated Growth

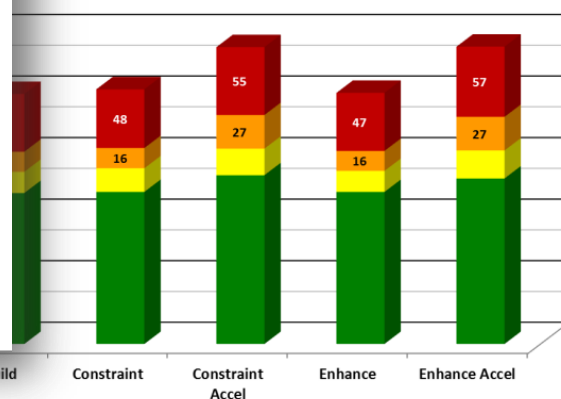
Cube Cargo Modeling



Scenario Analyses

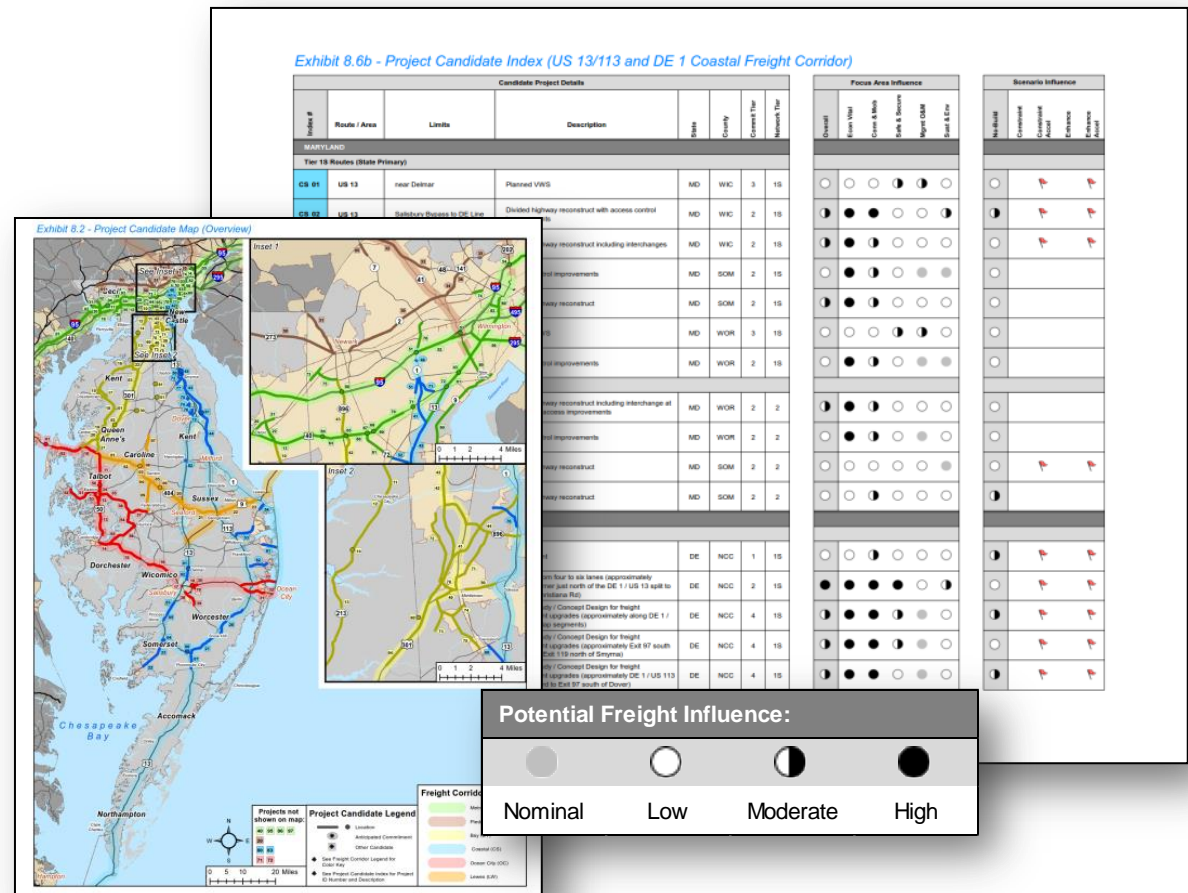


Systemwide Truck VHT by LOS



CHAPTER 8: Recommended Action Plan

- Project Screening
- Project Prioritization
- Policy Implications



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Freight Corridor Summaries and Project/Study Candidates

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Project Screening

Qualitative filtering...

Candidate Project Details								Focus Area Influence						Scenario Influence				
Index #	Route / Area	Limits	Description	State	County	Commit Tier	Network Tier	Overall	Econ Vital	Conn & Mob	Safe & Secure	Mgmt O&M	Sust & Env	No-Build	Constraint	Constraint Accel	Enhance	Enhance Accel
DELAWARE																		
Tier 1S Routes (State Primary)																		
BY 40	US 301	Peterson Rd to Levels Rd	Widen	DE	NCC	1	1S											
BY 41	US 301	MD Line to DE 1	New four-lane expressway	DE	NCC	1	1S											

Summary Focus Area Influence

Summary Scenario Influence



Potential Freight Influence:			
Nominal	Low	Moderate	High

Scenario-Specific Influence:	
	More potential need
	Less potential need

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Project Prioritization

Quantitative scoring...

Candidate Project Details								Ratings		
Index #	Route / Area	Limits	Description	State	County	Commit Tier	Network Tier	Project Scoring	Rank	Relative Priority
BY 40	US 301	Peterson Rd to Levels Rd	Widen	DE	NCC	1	1S	37	31	
BY 41	US 301	MD Line to DE 1	New four-lane expressway	DE	NCC	1	1S	52	10	

Summary Project Scoring

Summary Relative Priority

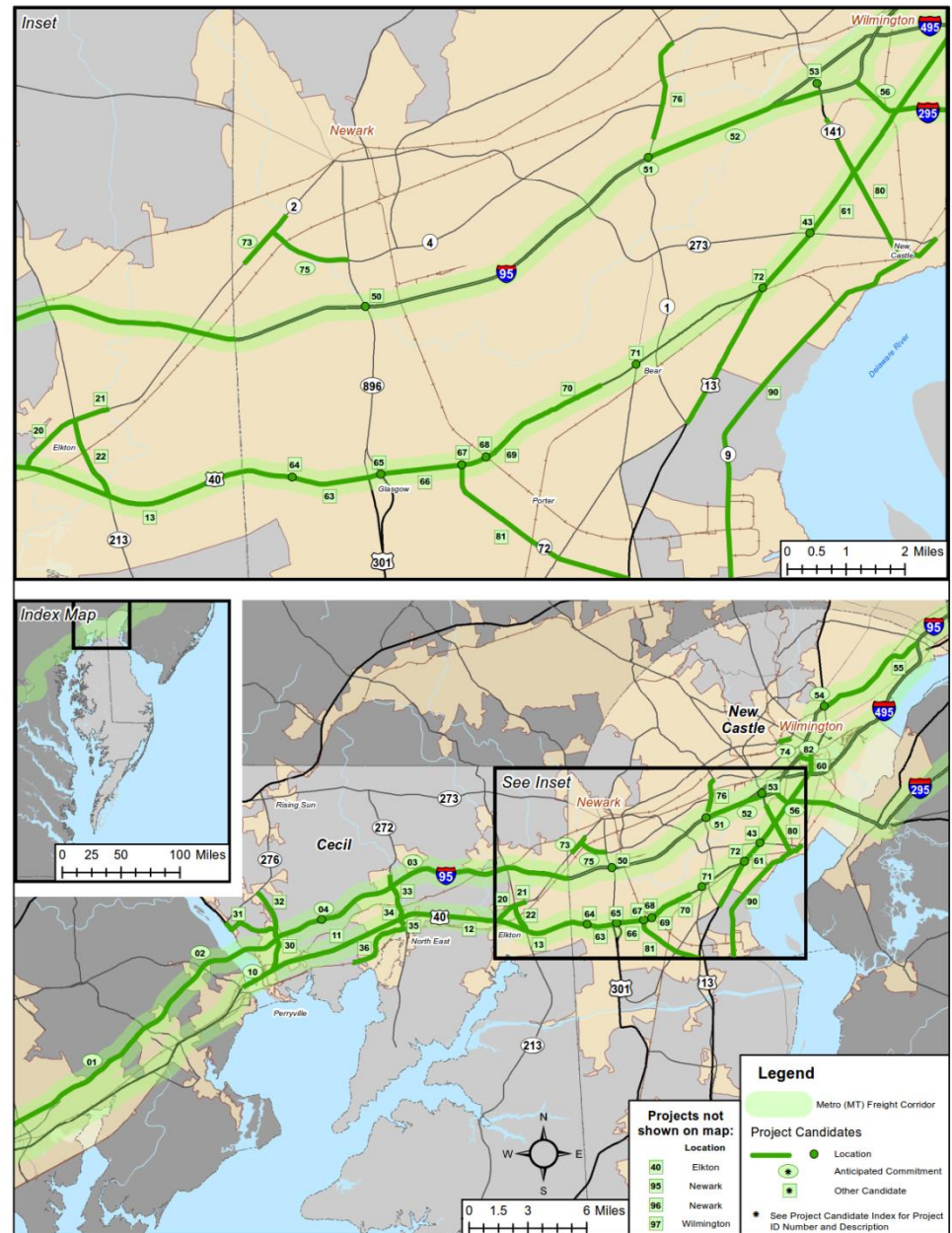
Potential Freight Influence:			
			
Nominal	Low	Moderate	High

<15 15-30 30-45 45-100

Economic Vitality			Connectivity Mobility			Safety & Security			Mgmt O&M			Sustainability & Env		
15			25			30			20			10		
Focus Area	Scenario Inf	Freight Gen	Focus Area	LOS (Base)	LOS (No-Bid)	Focus Area	Fatal Crash	---	Focus Area	ADTT	---	Focus Area	%FFS	
20%	20%	60%	20%	50%	30%	20%	80%	0%	20%	80%	0%	20%	80%	0%
3.0	3.0	9.0	5.0	12.5	7.5	6.0	24.0	0.0	4.0	16.0	0.0	2.0	8.0	0.0

Including:

- I-295
- I-495
- US 40



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Metro Freight Corridor

- Focal Routes

- ✓ I-95, I-295, I-495: capacity, interchanges, interconnectivity
- ✓ US 40, US 13: operations, interconnectivity

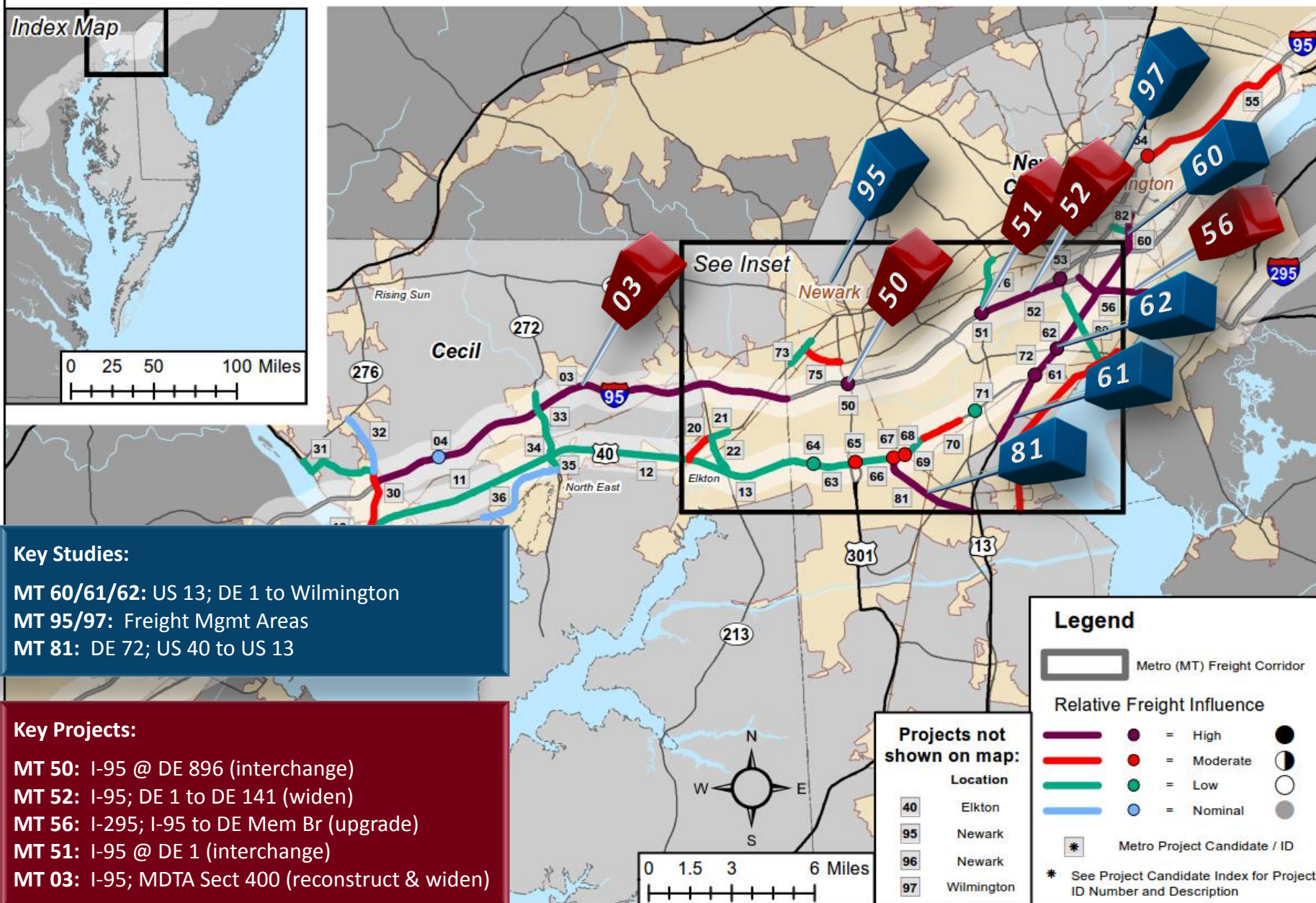
- Focal Connections

- ✓ Freight Corridors: Piedmont, Bay, and Coastal
- ✓ Freight Hubs: Cecil County and New Castle County
- ✓ Regional: Surrounding metro areas and US East Coast

- Multimodal Visions

- ✓ Rail: NS and CSX operations, Chesapeake Connector, Edgemoor Yard, US 40 Overpass
- ✓ Water: Port of Wilmington, Post-Panamax, M-95
- ✓ Air: Wilmington-Philadelphia Regional
- ✓ Pipeline: Project Mariner East

Key Projects & Studies

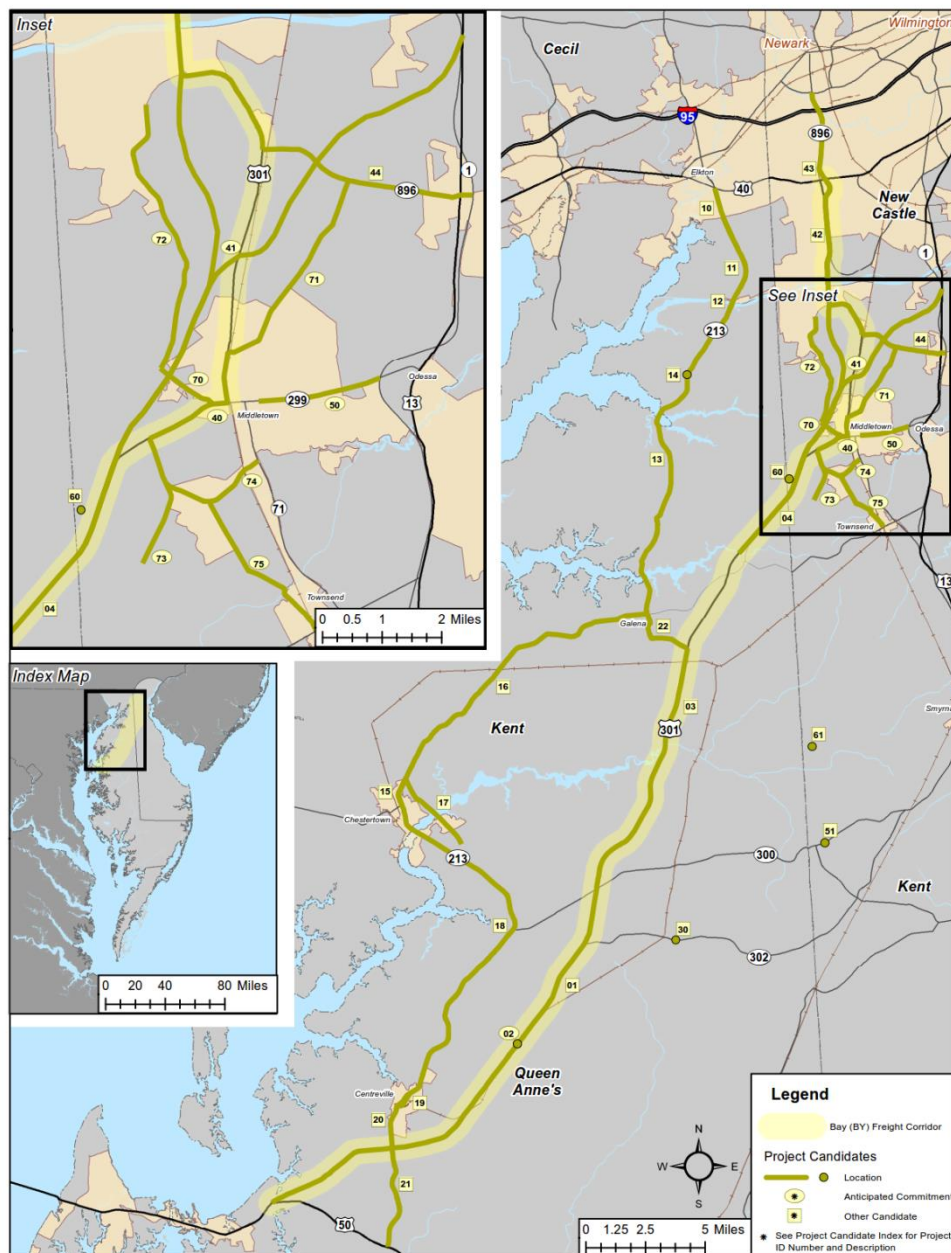




US 301 Bay Freight Corridor

Including:

- MD 213
- DE 896



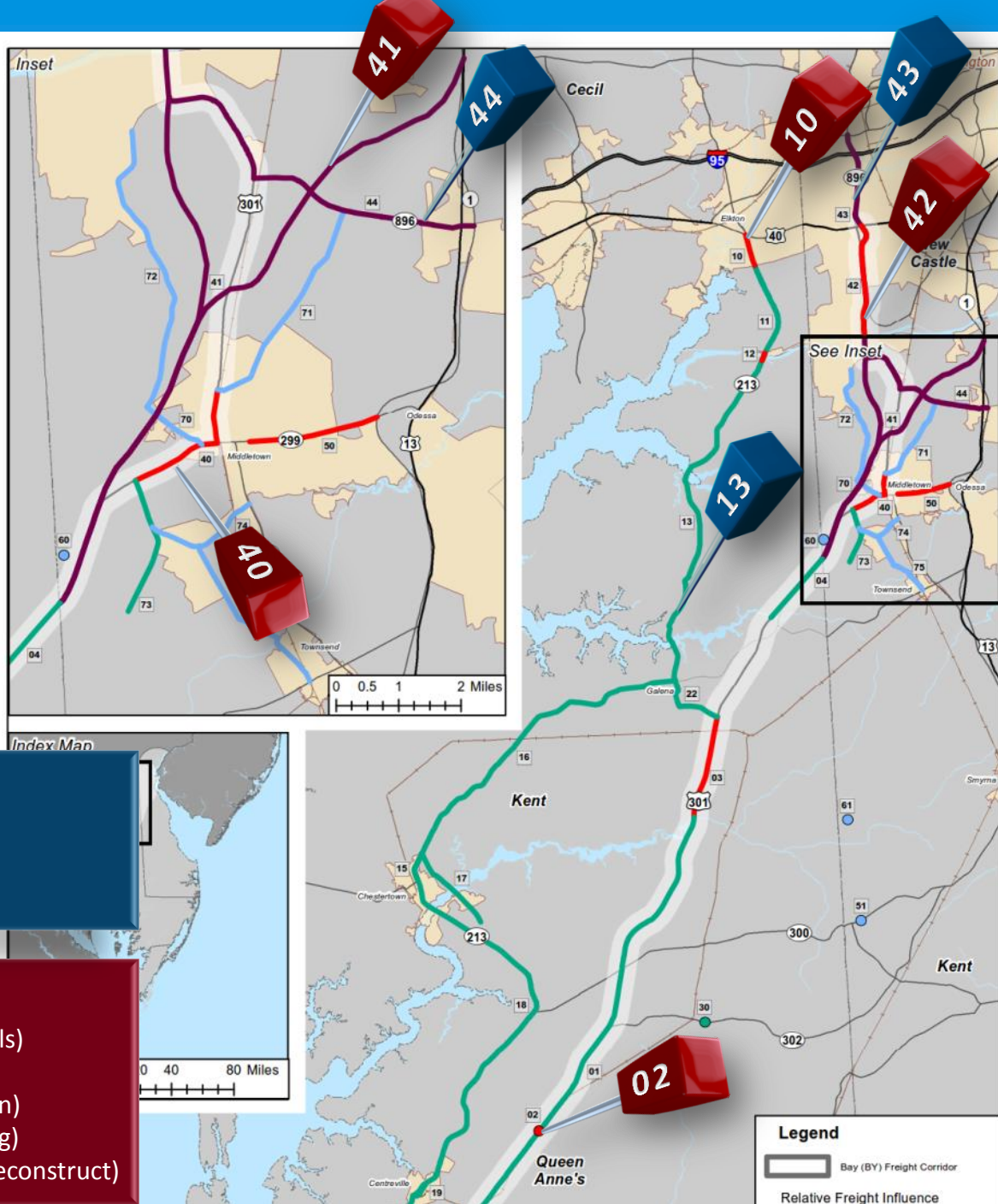
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Bay Freight Corridor

- Focal Routes
 - ✓ **US 301:** access control, interchanges, new expressway
 - ✓ **MD 213, DE 896:** capacity, upgrades, operations, bridge widening
- Focal Connections
 - ✓ **Freight Corridors:** Metro, Coastal
 - ✓ **Freight Hubs:** Dover, Smyrna, Centreville, Chestertown
 - ✓ **Regional:** US 50 / US 301 Bay Bridge area
- Multimodal Visions
 - ✓ **Rail:** MDDE Chestertown and Centreville Lines (286k upgrade)
 - ✓ **Water:** Post-Panamax, M-95
 - ✓ **Air:** --
 - ✓ **Pipeline:** --

Key Projects & Studies



Key Studies:

BY 44: DE 896; US 301 to DE 1

BY 43: DE 896; C&D Canal to US 40

BY 13: MD 213; Basil Ave to MD 290 / MD 313

Key Projects:

BY 42: DE 896; DE 2 to Boyds Corner Rd (signals)

BY 41: US 301; MD Line to DE 1 (expressway)

BY 40: US 301; Peterson Rd to Levels Rd (widen)

BY 02: US 301; Bay County Rest Area (truck pkg)

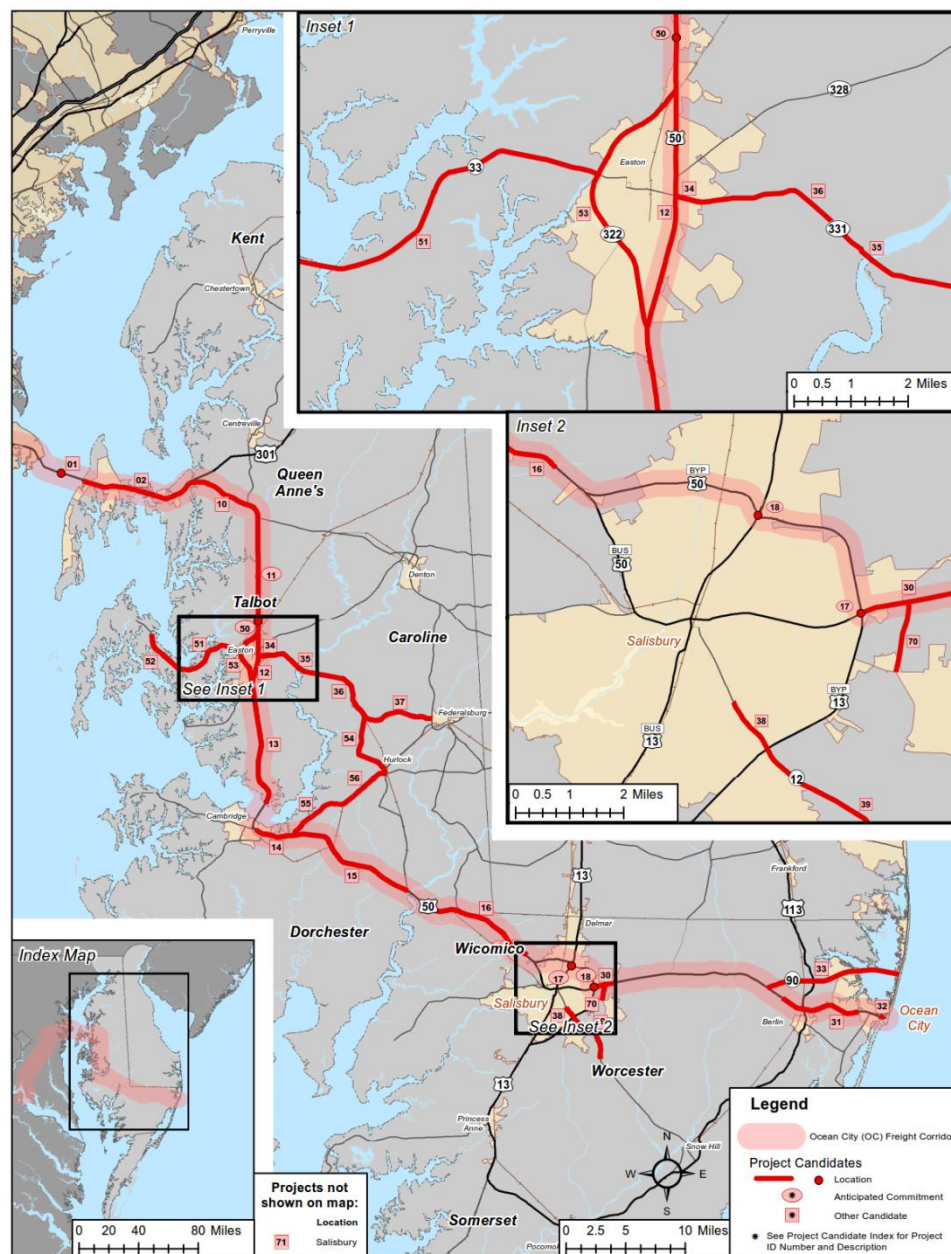
BY 10: MD 213; Frenchtown Rd to Basil Ave (reconstruct)



US 50 Ocean City Freight Corridor

Including:

- MD 90
- Salisbury Bypass



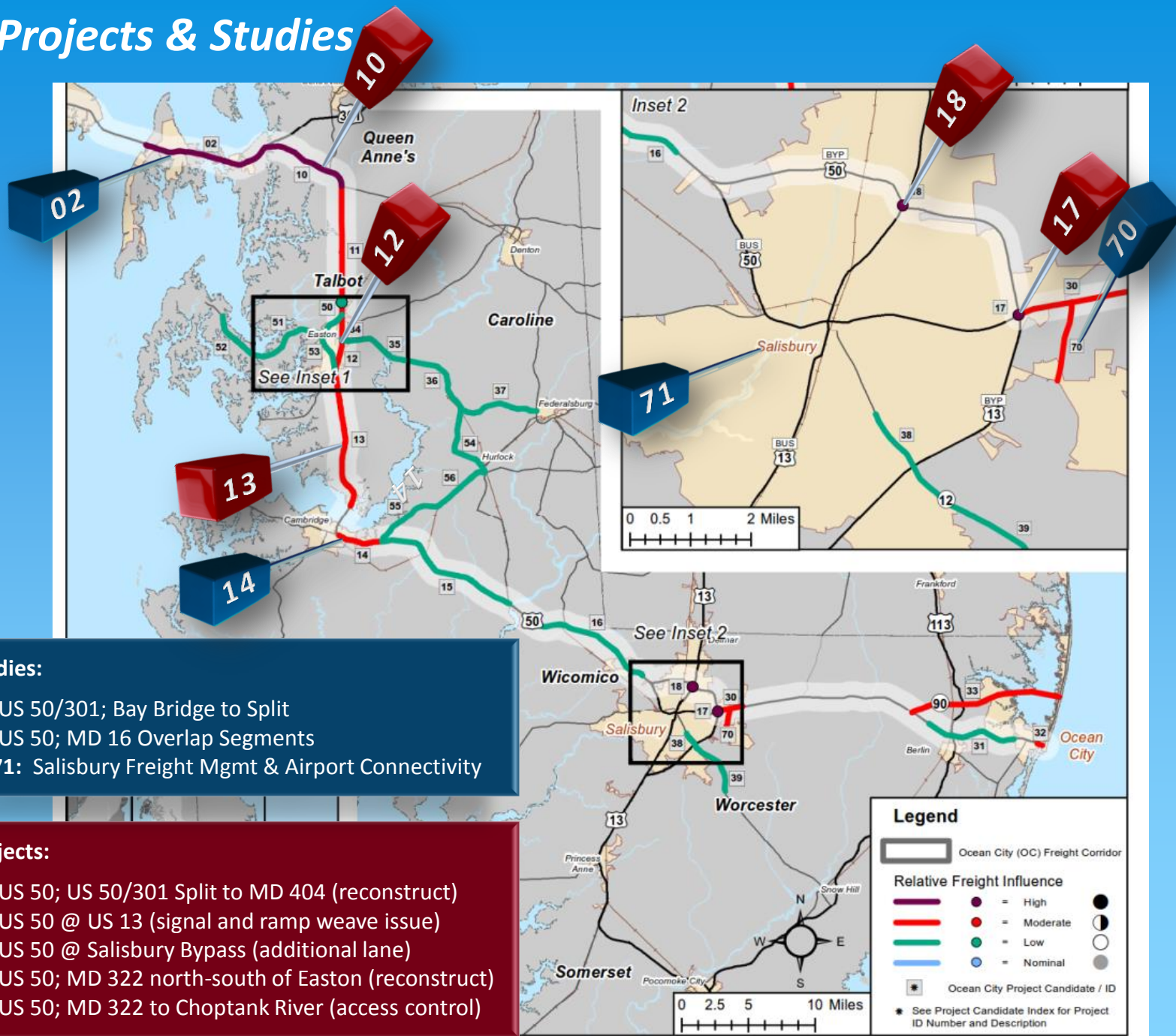
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Ocean City Freight Corridor

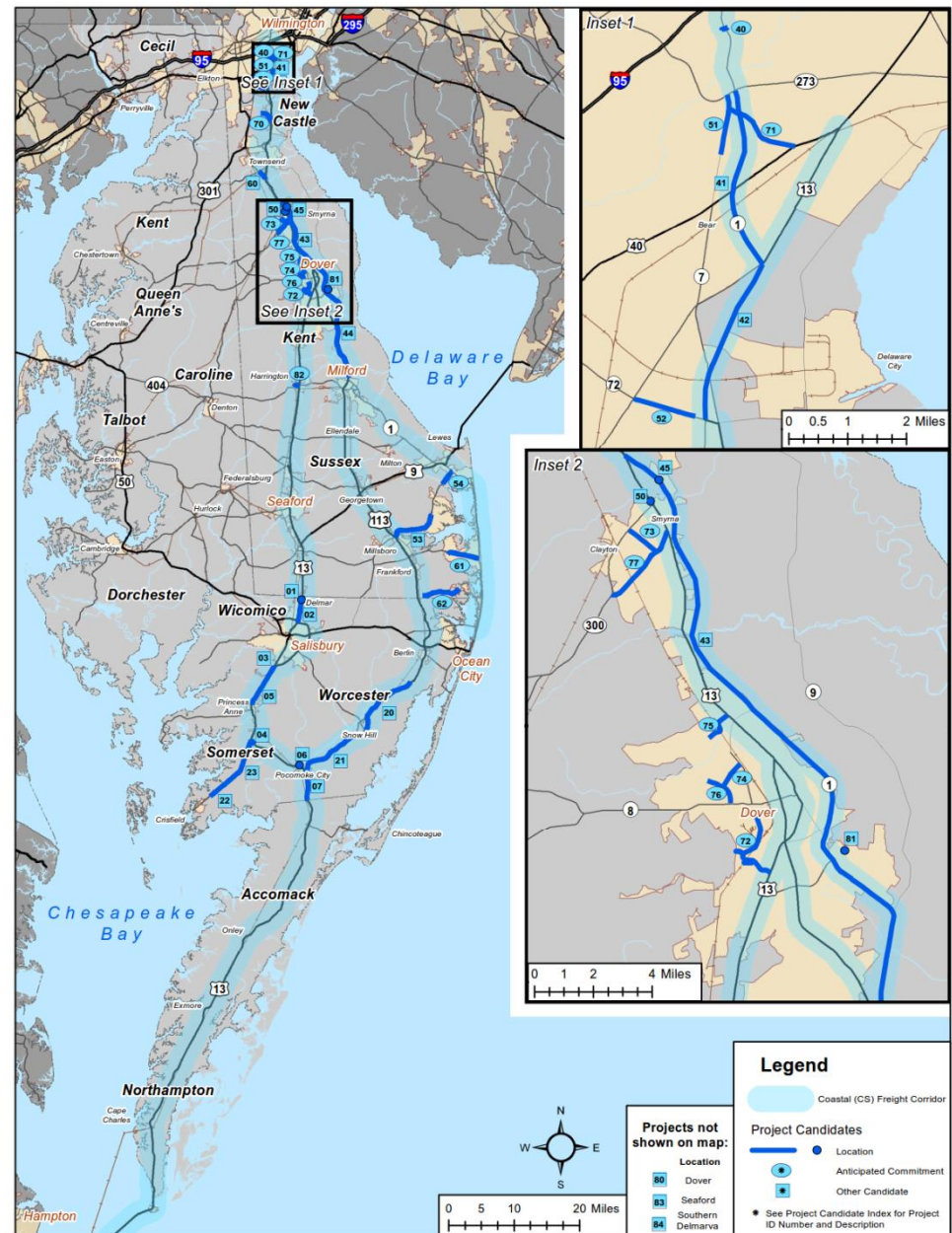
- Focal Routes
 - ✓ **US 50, MD 90:** operations (Bay Bridge), capacity, upgrades, access control, bridges
- Focal Connections
 - ✓ **Freight Corridors:** Coastal
 - ✓ **Freight Hubs:** Easton, Federalsburg, Hurlock, Salisbury
 - ✓ **Regional:** US 50 / US 301 Bay Bridge area
- Multimodal Visions
 - ✓ **Rail:** Southern Delmarva Intermodal Center
 - ✓ **Water:** Salisbury/Wicomico River ports, river dredging
 - ✓ **Air:** Easton-Newnam, Salisbury-OC-Wicomico Regional, OC Municipal
 - ✓ **Pipeline:** --

Key Projects & Studies





US 13/113 and DE 1 Coastal Freight Corridor



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Coastal Freight Corridor

- Focal Routes

- ✓ **US 13, US 113:** upgrades, interchanges, access control / Salisbury area, south of Berlin
- ✓ **DE 1:** widening / north of US 13 split; freight management / Del. City, Smyrna, Dover, Milford

- Focal Connections

- ✓ **Freight Corridors:** Ocean City, Lewes, Bay, Metro
- ✓ **Freight Hubs:** Delaware City area, Dover, resort areas, numerous local freight hubs
- ✓ **Regional:** Access to Metro Corridor and Virginia's Chesapeake Bay Bridge/Tunnel

- Multimodal Visions

- ✓ **Rail:** NS access, Seaford rail bridge, Southern Delmarva Intermodal Center; MDDE Snow Hill Line (286k upgrade), BCRR upgrades, siding expansions
- ✓ **Water:** Nanticoke, Wicomico, and Pocomoke Rivers; Post-Panamax; M-95; Ferry
- ✓ **Air:** Dover ACR, Salisbury-OC-Wicomico Regional, Sussex Co., Accomack Co.
- ✓ **Pipeline:** --

Key Projects & Studies



Key Studies:

CS 42: DE 1 / US 13; DE 72 to DE 71

CS 43: DE 1; Dover to Smyrna

CS 53: DE 24; US 113 to DE 23

Key Projects:

CS 41: DE 1; Tybouts Corner to DE 273 (widen)

CS 52: DE 72; McCoy Rd to DE 71 (widen)

CS 51: DE 7; Newtown Rd to DE 273 (widen)

CS 02: US 13; Salisbury Bypass to DE Line (reconstruct)

CS 03: US 13; Somerset Co Line to US 13 Bus (reconstruct)

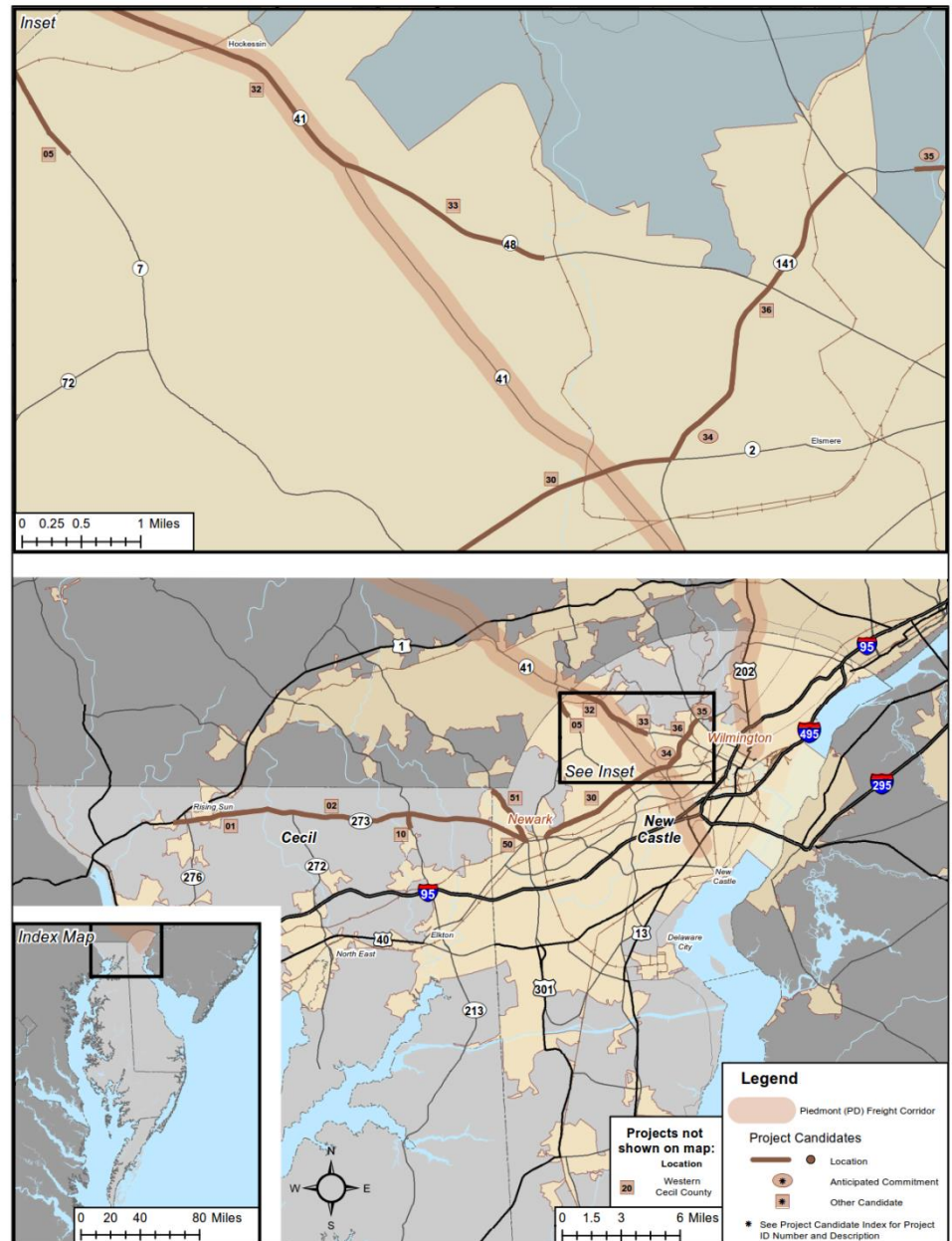




US 202 / DE 41 Piedmont Freight Corridor

Including:

- DE 2, DE 7, DE 48, DE 141
- MD 273



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Piedmont Corridor

- Focal Routes

- ✓ **DE 41, DE 48, DE 7:** freight management upgrades, potential widening (DE 48)
- ✓ **DE 2, DE 141:** upgrades, operations, bridge widening

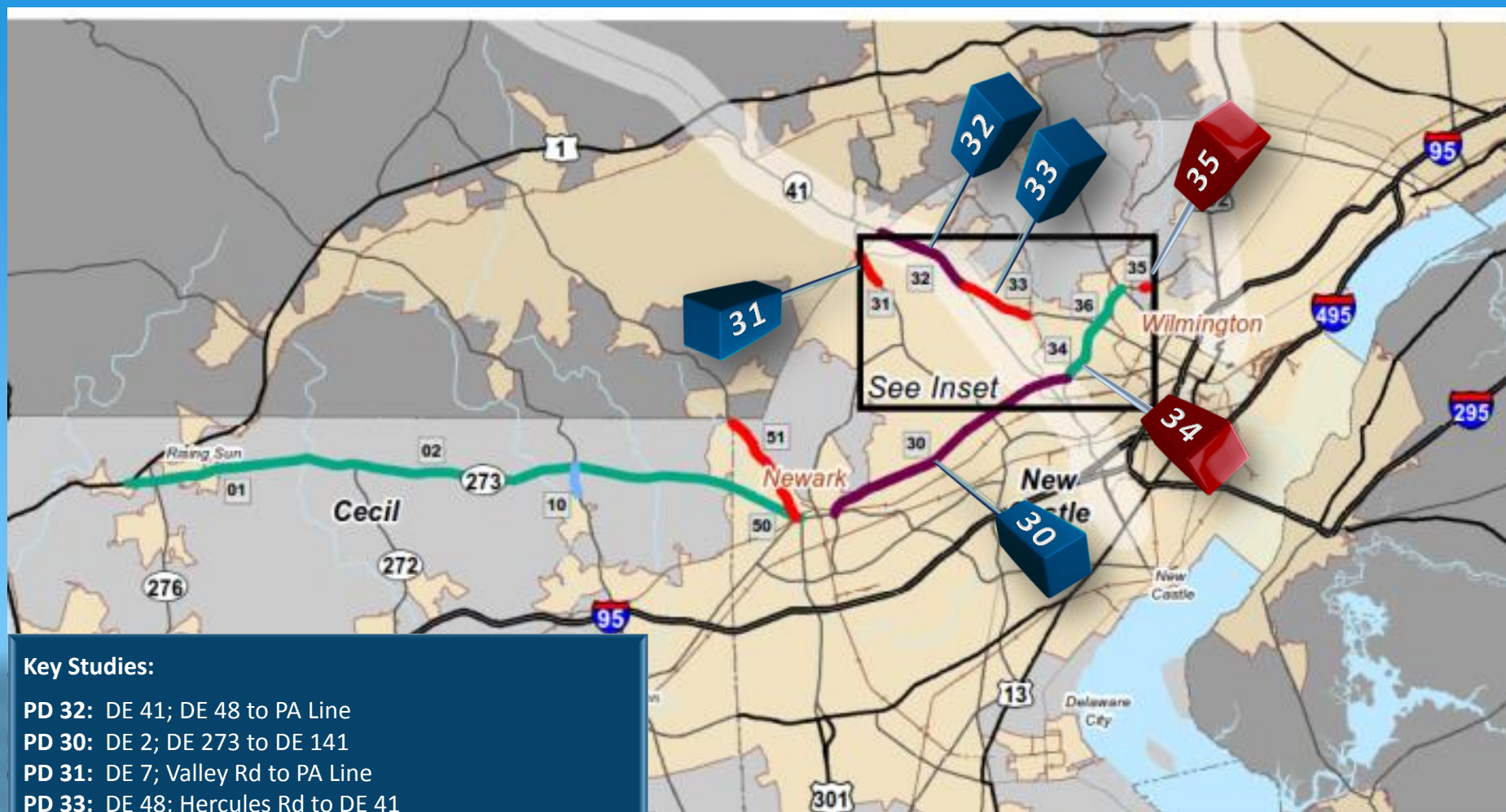
- Focal Connections

- ✓ **Freight Corridors:** Metro (including surrounding urban areas)
- ✓ **Freight Hubs:** Northern Cecil County (including MD 273)
- ✓ **Regional:** PA/MD access into Newark; PA access to Lancaster

- Multimodal Visions

- ✓ **Rail:** Northeast Corridor (CSX, NS and related rail yard, transfer, support facilities
Shortline opportunities to/from PA via WWRC or ESPN)
- ✓ **Water:** --
- ✓ **Air:** --
- ✓ **Pipeline:** --

Key Projects & Studies



Key Studies:

- PD 32: DE 41; DE 48 to PA Line
- PD 30: DE 2; DE 273 to DE 141
- PD 31: DE 7; Valley Rd to PA Line
- PD 33: DE 48; Hercules Rd to DE 41

Key Projects:

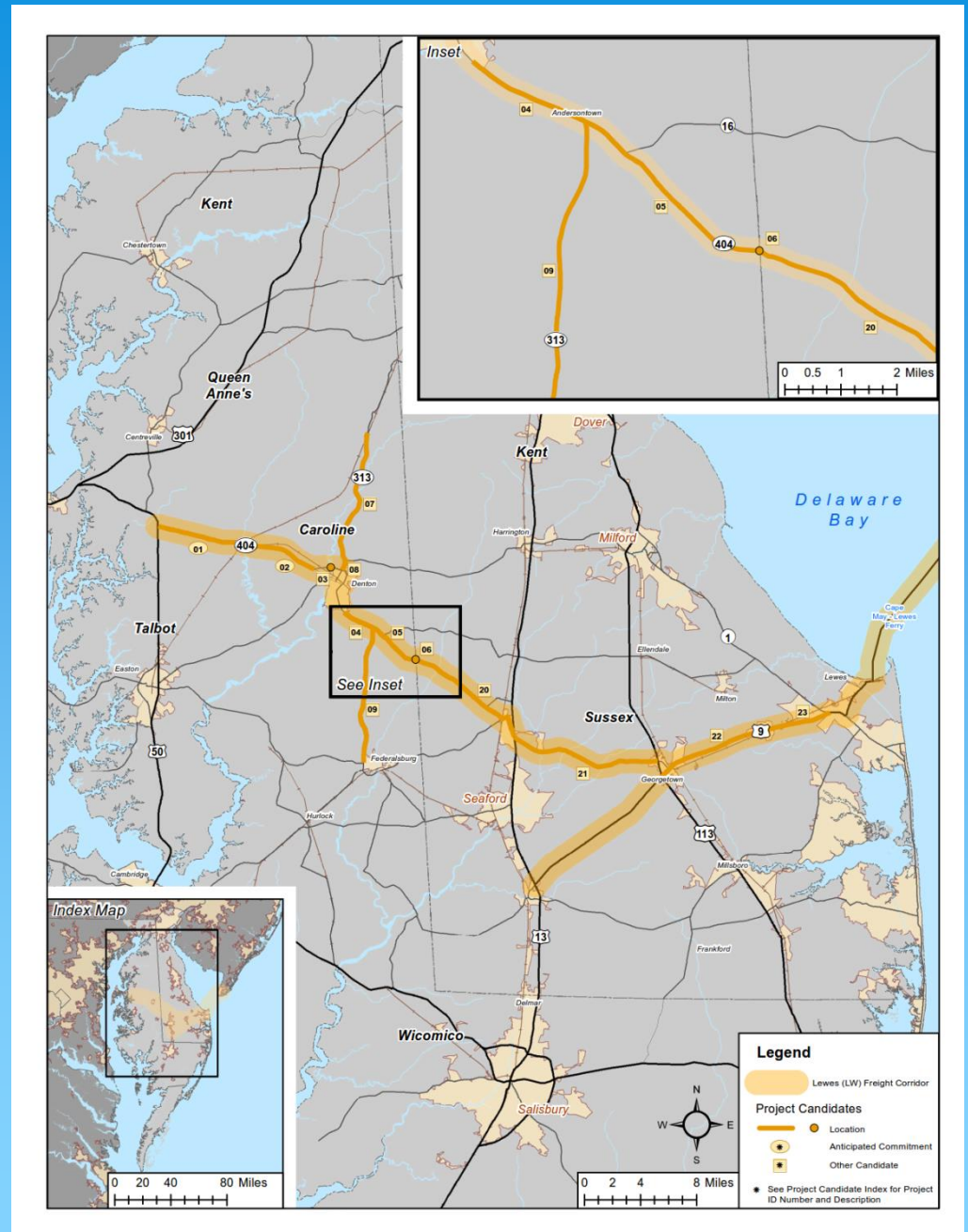
- PD 35: DE 141; Tyler McConnell Bridge
- PD 34: DE 141; Kirkwood Hwy to Faulkland Rd (upgrade)



MD/DE 404 Lewes Freight Corridor

Including:

- US 9



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Lewes Freight Corridor

- Focal Routes

- ✓ **MD/DE 404:** upgrades, access control, and widening
- ✓ **US 9, US 9 Truck:** freight management upgrades

- Focal Connections

- ✓ **Freight Corridors:** Ocean City, Bay, Coastal
- ✓ **Freight Hubs:** Federalsburg, Denton, Georgetown, resort areas
- ✓ **Regional:** Access to US 50/301 Bay Bridge

- Multimodal Visions

- ✓ **Rail:** --
- ✓ **Water:** Cape May-Lewes Ferry connectivity
- ✓ **Air:** Sussex County Airport connectivity
- ✓ **Pipeline:** --

Key Projects & Studies



Key Studies:

LW 22: US 9; US 113 to DE 5

LW 20: DE 404; MD Line to US 13

Key Projects:

LW 01: MD 404; US 50 to MD 404 Bus (upgrade w/ access control)

LW 02: MD 404; Queen Anne's Co to MD 404 Bus (reconstruct & widen)

LW 04: MD 404; MD 16 Overlap Segments (reconstruct w/ access control)

LW 05: MD 404; MD 16 to DE Line (reconstruct w/ access control)

Statewide Summary and Broader Implications



= overall DE statewide
top 10 candidate

Delaware Statewide

Top 10 Delaware Projects w/ Tier 1 Commitment

- ★ MT 52: I-95; DE 1 to DE 141 (widen)
- ★ MT 56: I-295; I-95 to DE Memorial Br (improvements)
- ★ MT 51: I-95 @ DE 1 (interchange)
- ★ BY 41: US 301; MD Line to DE 1 (new expressway)

*High Priority
Rating*

- PD 35: DE 141; Tyler McConnell Bridge
- MT 75: DE 4; DE 2 to DE 896 (widen)
- MT 54: I-95 @ US 202 (interchange)
- BY 40: US 301; Peterson Rd to Levels Rd (widen)
- BY 50: DE 299; DE 1 to Catherine St (widen)
- CS 52: DE 72; McCoy Rd to DE 71 (widen)

*Moderate Priority
Rating*

DELMARVA FREIGHT PLAN

★ = overall DE statewide
top 10 candidate

Delaware Statewide

Top 10 Delaware Projects w/ Tier 2 or 3 Commitment

- ★ MT 50: I-95 @ DE 896 (interchange)
 - ★ BY 42: DE 896; DE 2 to Boyds Corner Rd (signals)
 - MT 53: I-95 @ DE 141 (interchange)
 - MT 72: US 40 @ US 13 (interchange)
- } **High Priority Rating**
-
- MT 55: I-95; US 202 to I-495/DE 2 (widen)
 - MT 67: US 40 @ DE 72 (intersection)
 - CS 41: DE 1; Tybouts Corner to DE 273 (widen)
 - MT 70: US 40; Salem Church Rd to Walther Rd (widen)
 - MT 65: US 40 @ DE 896 (interchange)
 - MT 68: US 40 @ NS Rail Crossing (grade separation)
- } **Moderate Priority Rating**



Delaware Statewide

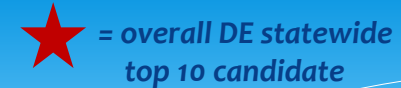
Top 10 Delaware Studies w/ Tier 3 or 4 Commitment

- ★ MT 61: US 13; DE 1 to I-495
- MT 62: US 13 @ DE 273 (interchange)
- PD 32: DE 41; DE 48 to PA Line
- CS 42: DE 1 / US 13; DE 72 to DE 71
- BY 44: DE 896; US 301 to DE 1
- PD 30: DE 2; DE 273 to DE 141
- MT 60: US 13; I-495 to Christiana River
- MT 81: DE 72; US 40 to US 13

**High Priority
Rating**

- CS 43: DE 1; Dover to Smyrna
- PD 31: DE 7; Valley Rd to PA Line

**Moderate Priority
Rating**



= overall DE statewide
top 10 candidate

Delaware Statewide

Additional Interests

- Local Area / Freight Management Studies
 - ★ MT 96: Newark Intermodal Center Feasibility
 - ★ MT 95: Newark Freight Management
 - ★ MT 97: Wilmington Freight Management & Route Signage
 - ✓ CS 83: Seaford Freight Management
 - ✓ CS 80: Dover Freight Management
 - ✓ CS 81: Dover ACR Expansion
- Planned VWS Sites
 - ✓ CS 45: DE 1 (Smyrna area)
 - ✓ CS 50: US 13 (Smyrna area)
 - ✓ BY 60: DE 299 (west of Middletown)
 - ✓ BY 51: DE 300 (west of Smyrna)
 - ✓ BY 61: DE 6 (west of Smyrna)

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Delmarva Rail

Amtrak	
R 01	Baltimore City (B&P and Union Tunnels)
R 02	Susquehanna River Bridge
R 03	Yard to Ragan Interlockings

CSX	
R 10	MD Line to to Landenberg Jct (Double Track)
R 11	Elsmere to PA Line (Double Track)

NS	
R 20	Chesapeake Connector
R 21	New Castle Secondary Siding
R 22	Edgemoor Yard (Raise)
R 23	Edgemoor Yard (Relocate)
R 24	Rail Program Autoport
R 25	at Seaford Rail Bridge
R 26	Georgetown Siding

MDDE	
R 30	Frankford to Snow Hill (286k upgrade)
R 31	Massey to Worton (286k upgrade)
R 32	Massey to Centreville (286k upgrade)

BCRR	
R 40	Cape Charles to Pocomoke City (upgrade)
R 41	Cape Charles Carfloat

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Broader Insights



Broader Insights	Metro	Bay	Ocean City	Coastal	Piedmont	Lewes
Sensitivity to Accelerated Scenario*	+3% \$37M	+34% \$75M	+11% \$25M	+38% 395M		
Sensitivity to Constraint Scenario*			+16% \$36M			+25% \$13M
Development patterns or warehousing shifts	√					
Regional alternate routes or system redundancy		√		√		
Peak season traffic, tourism and freight conflicts			√	√		√
Community and freight access conflicts	√	√			√	√
Multi-jurisdictional cooperation	√				√	
Oversize or special freight movements	√			√		
Technology advancements (ITS, VWS, autonomous vehicles)	√	√		√		

* shown as a % increase and equivalent \$ value increase in truck costs based on VHT and VMT changes vs. the future baseline

DELMARVA FREIGHT PLAN

Summary

Anticipated strengths of the plan:

- [MAP-21 emphasis](#) on freight planning
- [Scenario testing](#) to assess which projects may benefit “more potential futures”
- [Project screening and prioritization](#), especially “data-oriented” elements
- [Project evaluation](#) to help pursue freight-specific funding options (e.g., 95% match)
- [Modeling tool](#) to support future planning revisions (e.g., flooding impact scenarios)


Anticipated next steps:

- Finalize project and policy perspectives
- Explore implications for long-term performance monitoring
- Formalize the draft plan for agency/stakeholder/public reviews

Issues / Concerns

- Based on the overall information presented today, does the Delmarva Freight Plan appear to capture the freight issues or concerns that are most relevant to the Delmarva Peninsula?

- Based on the Project Candidate Index and Freight Corridor Maps on display today, will the key projects or studies help to address the most relevant freight needs on the Delmarva Peninsula?



Page 1 of 2

DELMARVA FREIGHT PLAN
Workshop Comment Form
December 3-4, 2014

ISSUES/CONCERNS: Based on the overall information presented today, does the Delmarva Freight Plan appear to capture the freight issues or concerns that are most relevant to the Delmarva Peninsula?

<input type="checkbox"/>	YES...absolutely
<input type="checkbox"/>	YES...for the most part
<input type="checkbox"/>	NO...only somewhat
<input type="checkbox"/>	NO...not at all

Specific comments on key issues/concerns addressed by the plan:

Specific comments on key issues/concerns that may be missing from the plan:

Thank You!

Comments / Questions / Display Boards

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