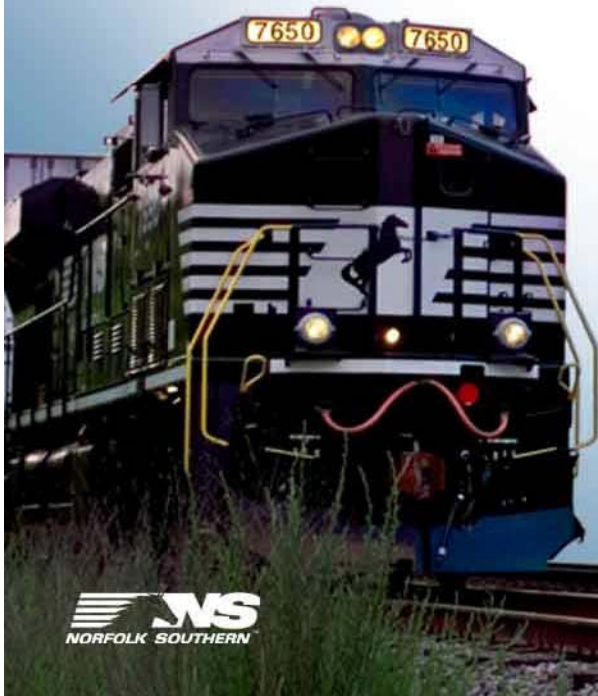


NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD *FREIGHT SYSTEMS COMMITTEE PRESENTATION*

Darrell Wilson, AVP Government Relations – Norfolk Southern



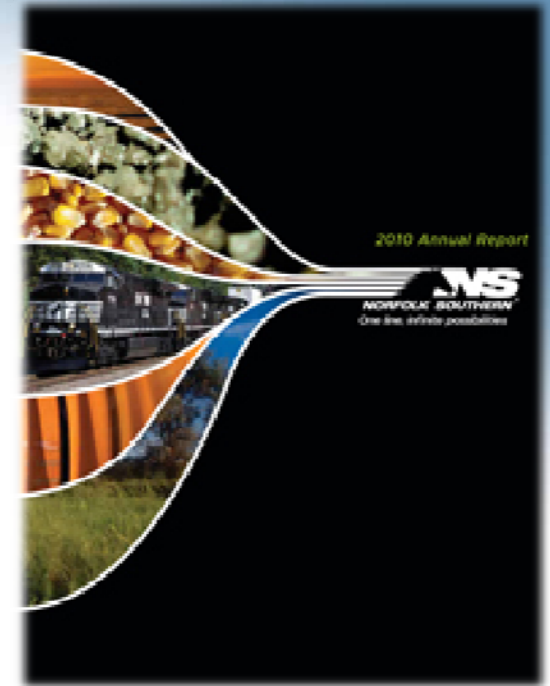
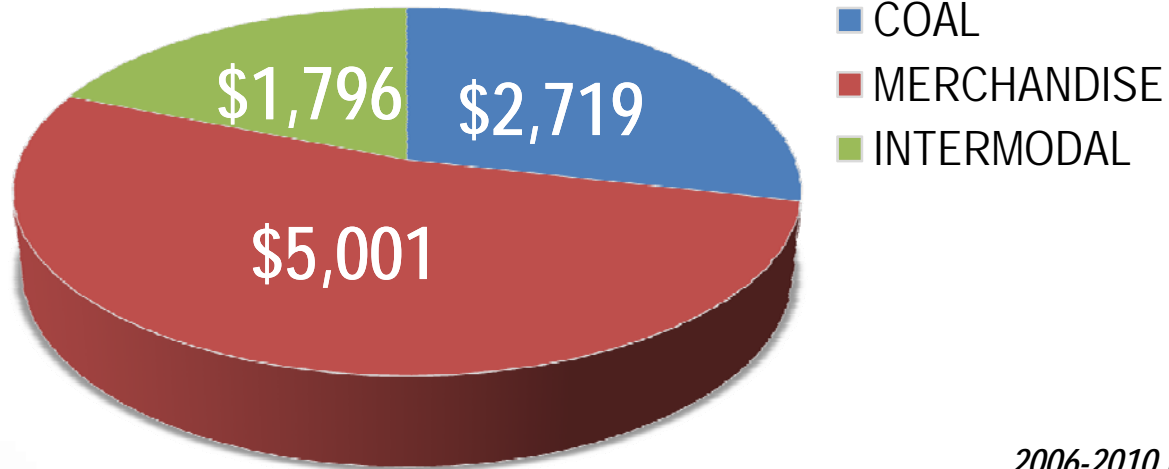
THE NORFOLK SOUTHERN NETWORK

- NS operates approximately 21,000 route miles throughout 22 states and the District of Columbia
- Engaged in the rail transportation of raw materials, intermediate products, and finished goods
- Operates the most extensive intermodal network in the East and is a major transporter of coal and industrial products.
- NYSE: NSC

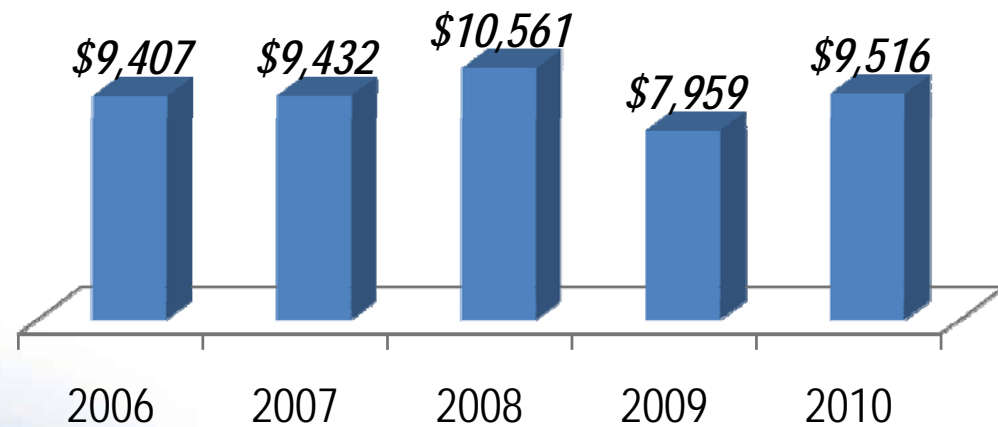


NORFOLK SOUTHERN 2010 PERFORMANCE

2010 Revenue in \$ Millions

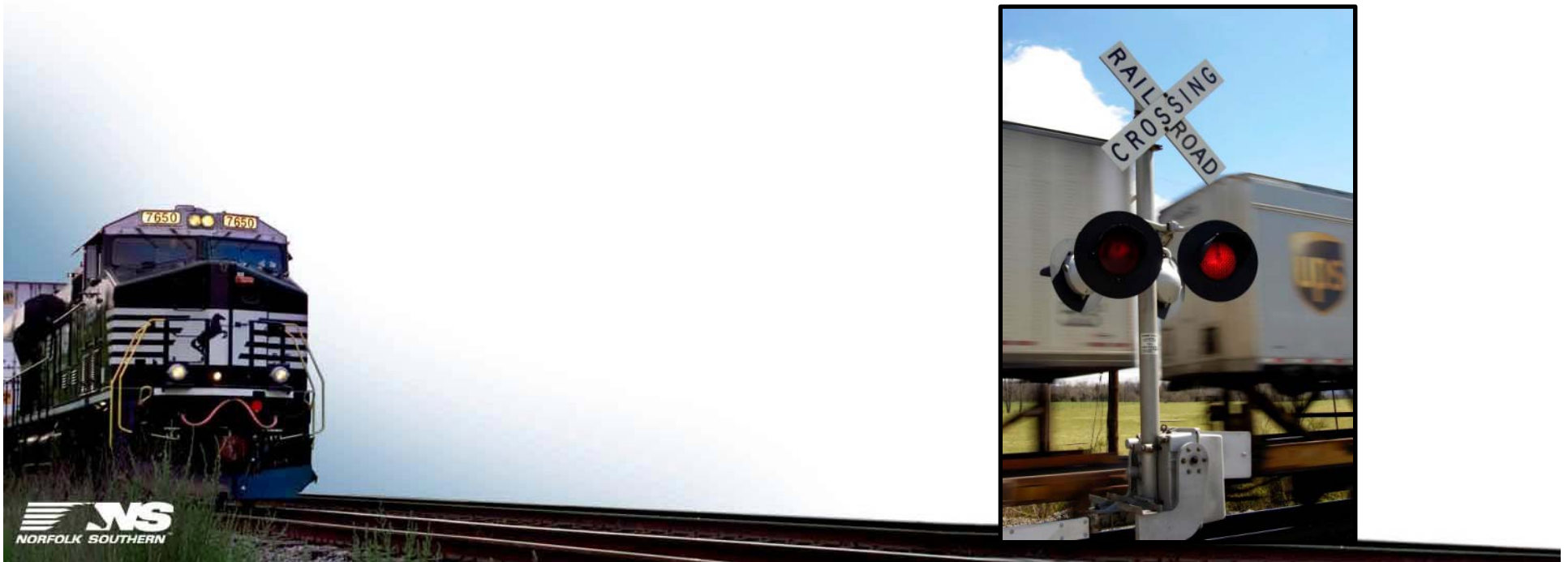


2006-2010 Revenue in \$Millions



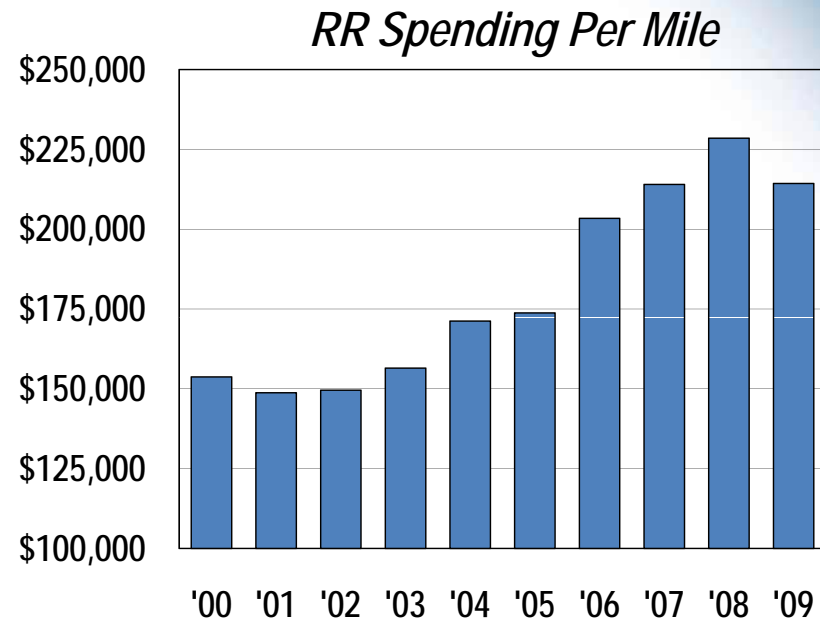
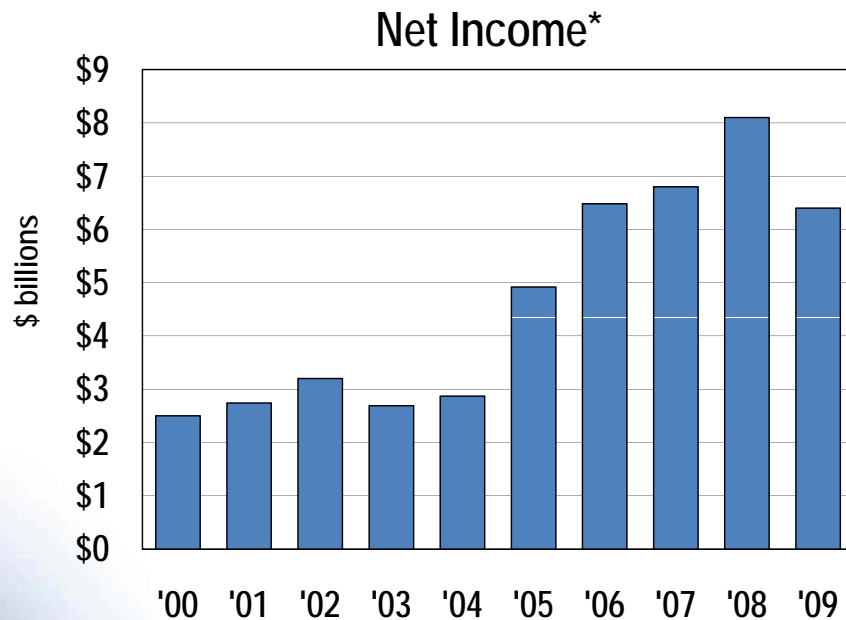
GENERAL BUSINESS CHARACTERISTICS OF FREIGHT RAILROADS

- Railroads: privately owned and operated
- Railroad networks have complex operations with hundreds of origin-destination pairs that affect each other (logistics)
- Over 16% of revenue is spent on capital expenditures and nearly 40% of every dollar is spent on operations (infrastructure and expenses)



ASSET UTILIZATION AND CORRIDOR DEVELOPMENT

NEED FOR INCREASES IN RR SPENDING PER MILE

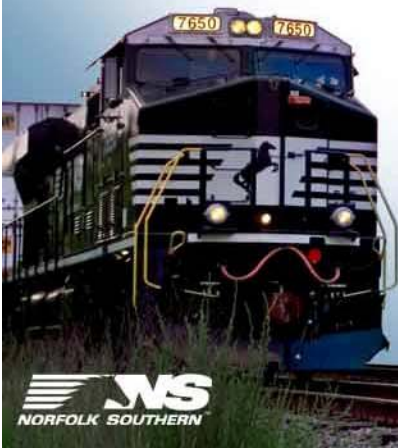


**Net Income for Class One Railroads*

ASSOCIATION OF AMERICAN RAILROADS

CONTINUED INVESTMENT DESPITE SCARCE RESOURCES

- Revenue restraints across public/private sectors
- Opportunities exist for partnerships to maximize the few available resources for the most benefit
- **Public Private Partnerships (P³)** - among the best remaining avenues for long-lasting, cost-conscious, mutually beneficial transportation projects



MANAGING EXTERNAL VARIABLES AT NORFOLK SOUTHERN

- Numerous forces must be considered and balanced for the implementation of successful freight partnerships

Passenger Rail

Competition from Other Modes

Domestic Political Dynamics

Cost of Transportation

Environmental Awareness

Operational/Infrastructural Capabilities

Willingness of Project Partners

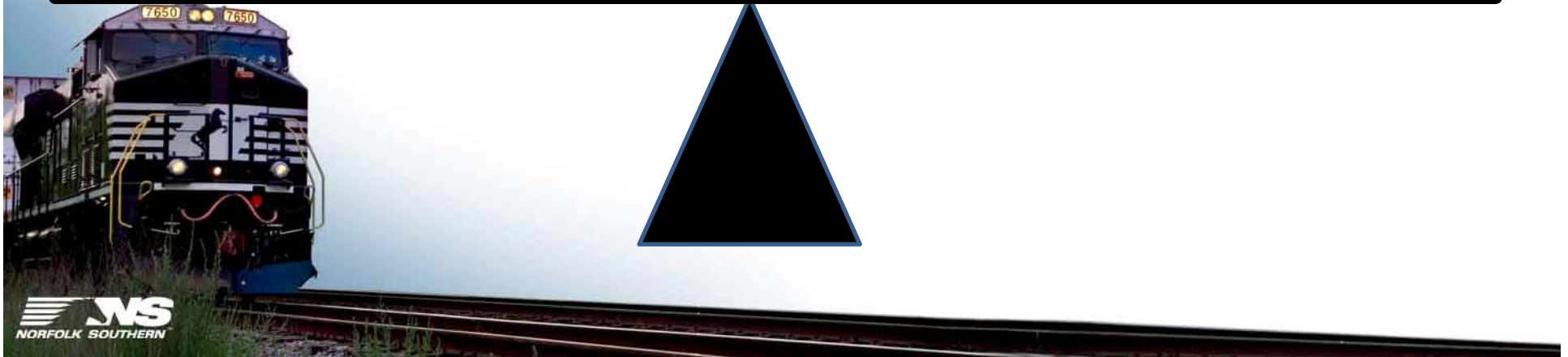
Maximization of Public Assets

Economic Forces/Trends

Domestic/Global Trade Demands

Speed, Safety, Security

Population Growth and Migration



THE HEARTLAND CORRIDOR

THE NATION'S FIRST MULTI-STATE INTERMODAL RAIL PUBLIC-PRIVATE PARTNERSHIP



*Inaugural double-stack train exiting
Cowan Tunnel near Radford, Virginia*

September 9, 2010

- Three year engineering effort
- Raise vertical clearances in 28 tunnels
- Removed 24 overhead obstructions
- The nation's first multi-state intermodal rail corridor public-private partnership between the FHWA's Eastern Federal Lands Highway Division, USDOT, Virginia, West Virginia, Ohio, and Norfolk Southern
- Tunnel work began Oct 2007; Sept 2010
- New double-stack route eliminates over 200 miles of travel and approximately 24 hours of travel time between the East Coast and Chicago



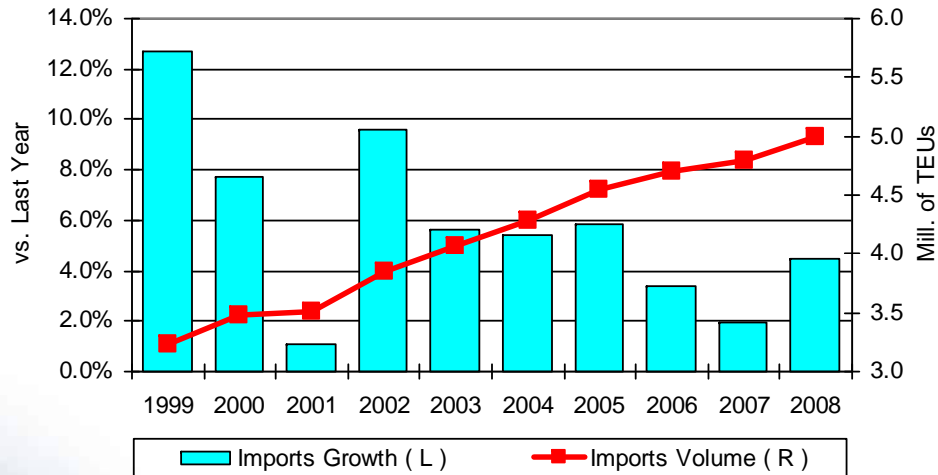
KEY DRIVERS – EAST COAST GROWTH

- The Expansion of “All Water” services through the Panama Canal has been the primary driver of East Coast port expansion
- Suez services will likely drive elevated growth rates



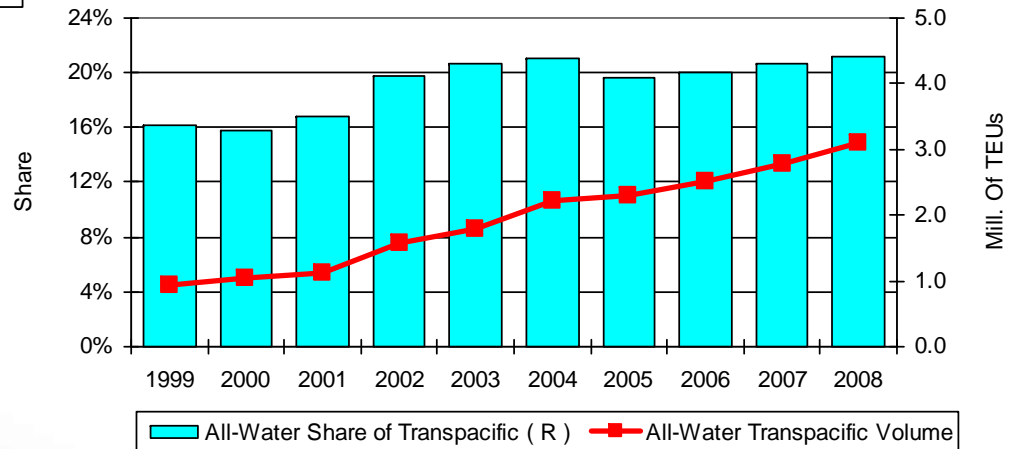
EAST COAST PORT PROJECTIONS FUELED BY EUROPEAN, S. AMERICAN AND ASIAN TRADE

U.S. East Coast Imports Excluding All-Water

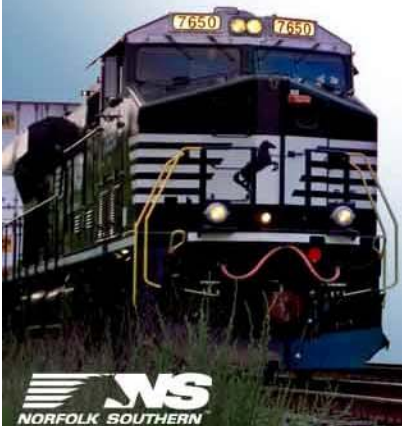


Source: TTX / JOC Piers / Manalytics

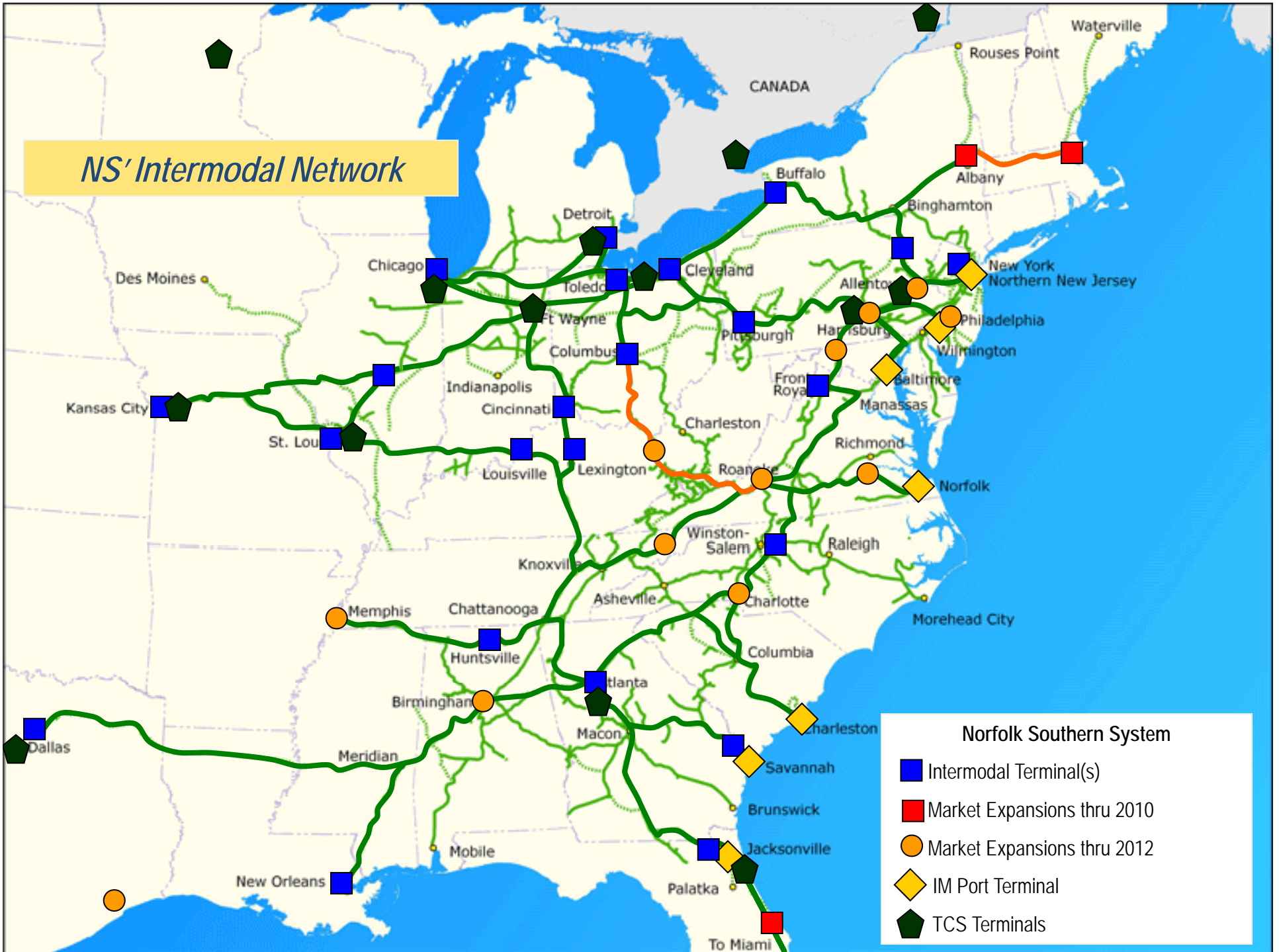
All-Water Transpacific Imports through East Coast



Source: TTX / JOC Piers / Manalytics



NS' Intermodal Network



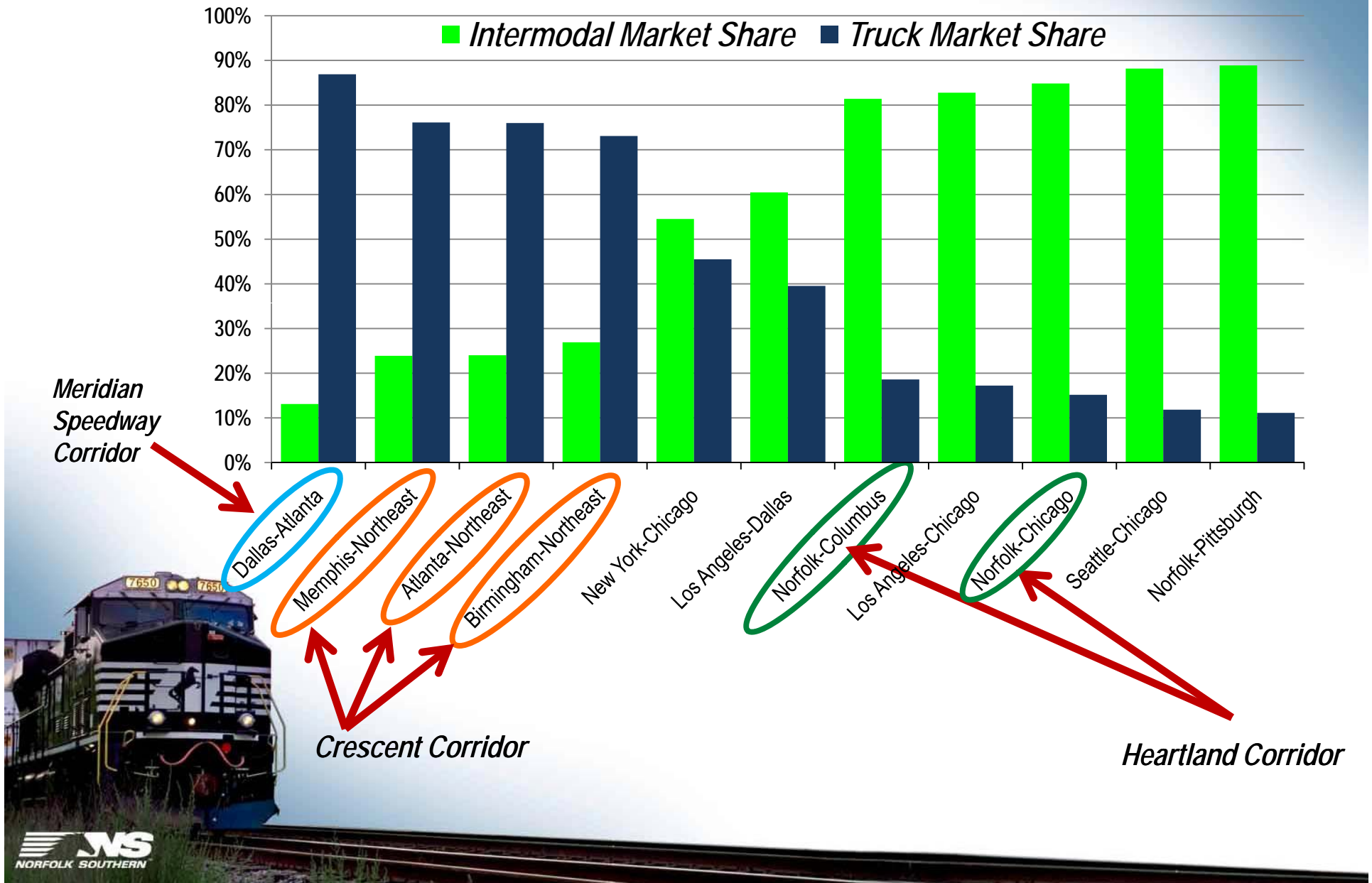
INTRODUCING THE SIX CORRIDOR STRATEGY

- Norfolk Southern has employed a “Six Corridor Strategy” focusing on four key principles: market access, length of haul, asset utilization, and productivity



SIX CORRIDOR STRATEGY

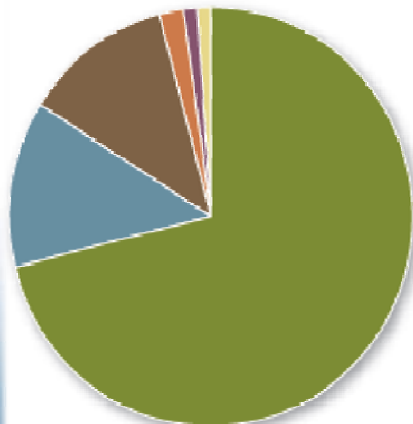
OPPORTUNITY FOR RAIL ENTRANCE IN THE FREIGHT TRANSPORTATION MARKET



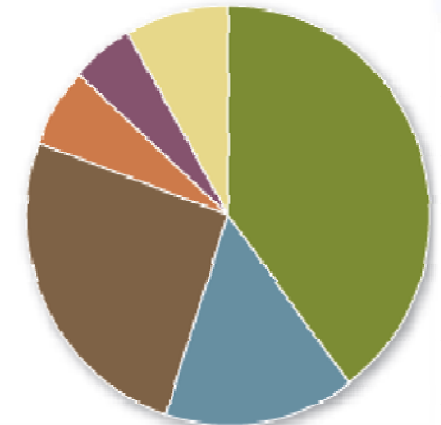
SIX CORRIDOR STRATEGY

CURRENT LENGTHS OF HAUL ON LONG-DISTANCE TRUCKS

2008 Transearch Dry-Vans in AL, GA, MD, NC, NJ, PA, TN, and TX



LOH	Dry-van loads	Percent of total	Weighted by VMT
0 to 100 miles	102,307,182	72%	39%
100 to 200 miles	18,926,475	13%	15%
200 to 400 miles	17,149,078	12%	25%
400 to 600 miles	2,312,247	2%	6%
600 to 800 miles	1,355,705	1%	5%
Over 800 miles	1,240,863	1%	8%

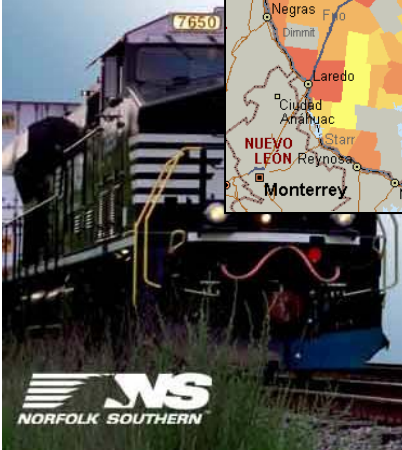
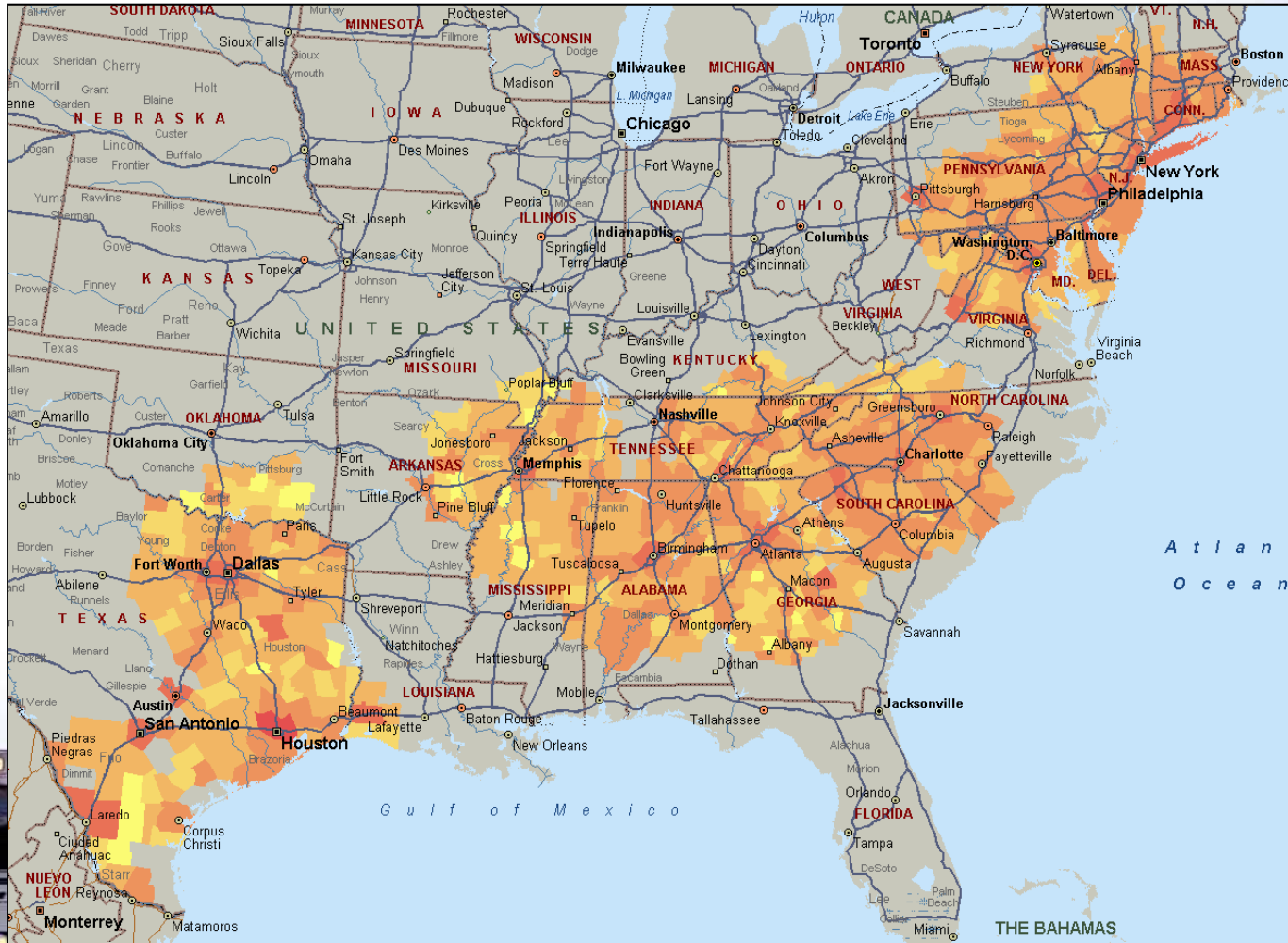


4% of all hauls are over 500 miles in length

Hauls over 500 miles represent 20% of total vehicle miles traveled



MARKET ASSESSMENT OF FREIGHT VOLUMES



THE CRESCENT CORRIDOR

COMPETITION WITH LONG-HAUL TRUCK FREIGHT ON INTERSTATE HIGHWAYS



CRESCENT CORRIDOR INTERMODAL FACILITIES

2012 AND BEYOND - FUNDING REQUIREMENTS



Open 2012

- Birmingham, AL; Memphis, TN; Greencastle, PA; Harrisburg, PA; and Philadelphia, PA

Open 2013

- Charlotte, NC

Open 2014 and Beyond

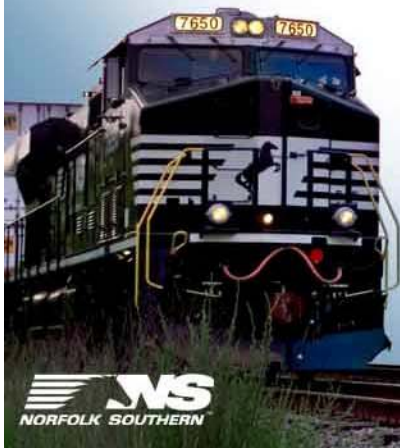
- Atlanta, Knoxville, E-Rail, Roanoke, and Bethlehem

●	Open 2012
○	Open 2013
●	Open 2014 and Beyond

THE CRESCENT INTERMODAL FREIGHT PROGRAM

A MAJOR INFRASTRUCTURE PROJECT WITH IMPLICATIONS FOR THE MID-ATLANTIC REGION

- Develop intermodal rail network where none currently exists
- 2,500 mile rail network from New Jersey to Louisiana parallel to major interstate highways, including I-20, I-40, I-59, I-75, I-76, I-77, I-78, I-81, I-85, and I-95
- The nation's most direct intermodal rail route between the Northeast and the South
- The 1999 acquisition of Northeast-based Conrail enabled the *Crescent Corridor* concept
- New/expanded intermodal facilities, rail route speed and capacity improvements, signal upgrades, and infrastructure enhancements totaling \$2.5 billion
- Aimed at providing energy savings, economic development, traffic congestion relief, and more shipper options

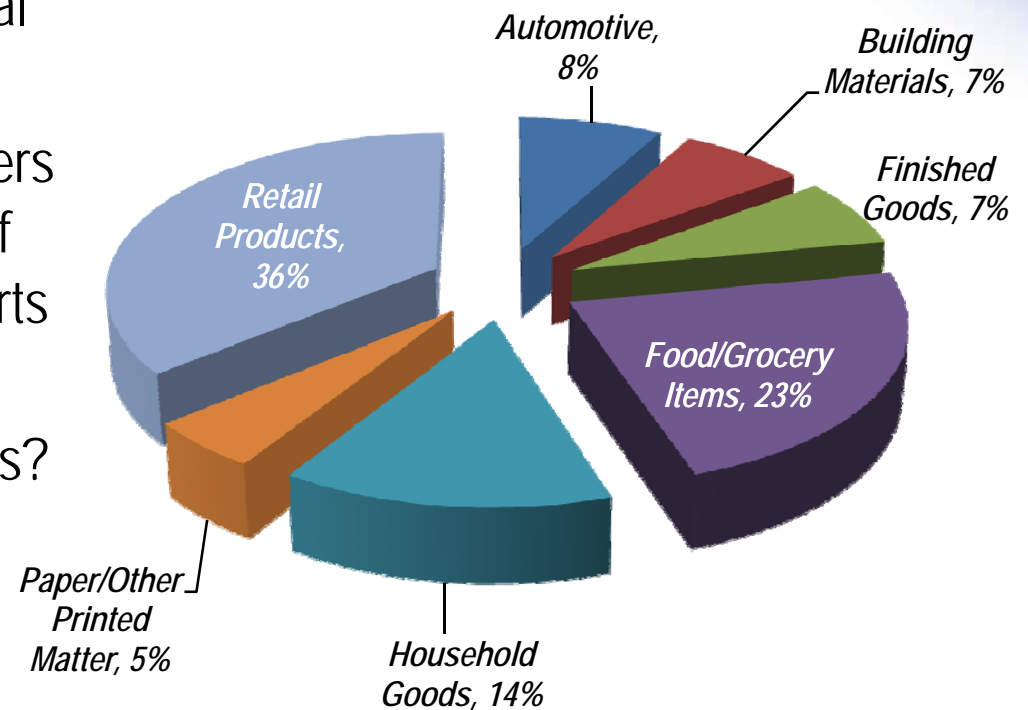


CRESCENT CORRIDOR AND HEARTLAND CORRIDOR

ADDED CAPACITY FOR INTERMODAL MERCHANDISE ON NORFOLK SOUTHERN ROUTES

- Intermodal trains transport only intermodal containers or trailers
- These trains DO NOT include tanker cars or bulk commodities cars, such as coal cars
- The merchandise traveling in containers along these routes include a variety of items ranging from televisions to t-shirts to tables
- Expand consists to include other items?

Contents of the Container



CRESCENT CORRIDOR

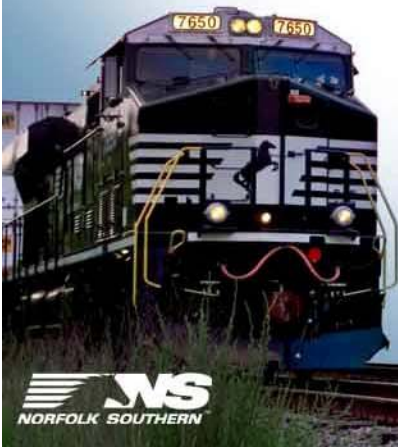
PRE-PROJECT INFLUENCES

○ Norfolk Southern






- Continued cooperation with long-haul truck carriers
- Increase in freight trade between Northeast and South
- Infrastructure enhancements for speed and capacity

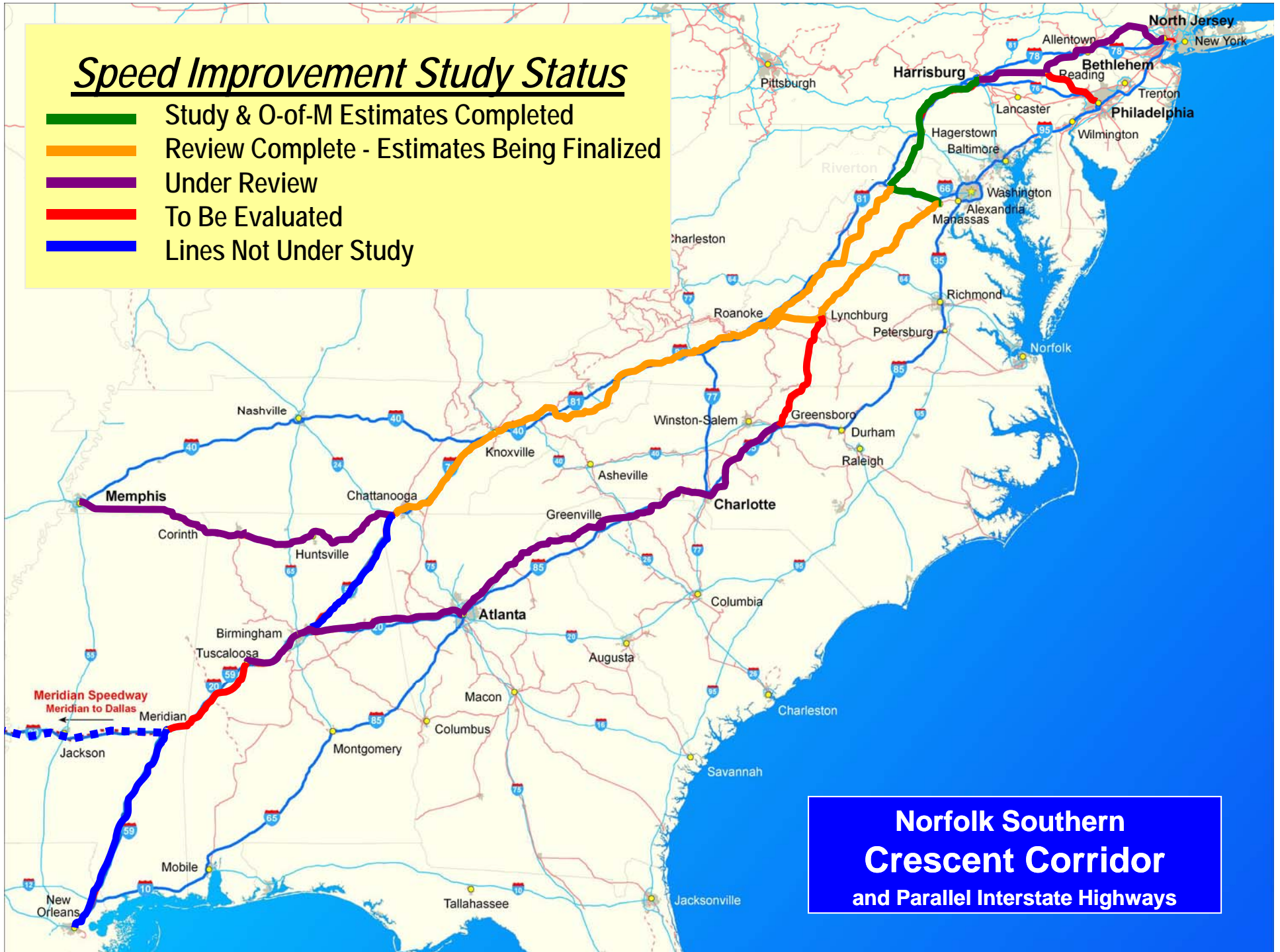
○ Local/State/Federal Partners

- Increased highway congestion and vehicular emissions
- Growing vehicle travel miles and environmental degradation
- Desire for national/international economic growth, job creation



Speed Improvement Study Status

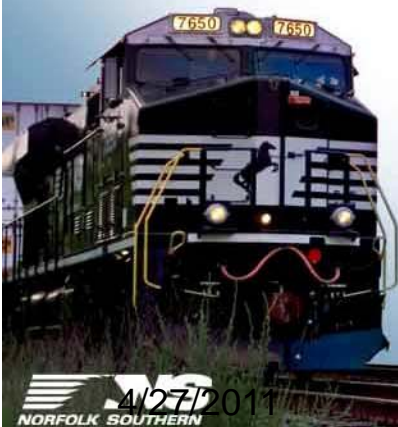
-  Study & O-of-M Estimates Completed
-  Review Complete - Estimates Being Finalized
-  Under Review
-  To Be Evaluated
-  Lines Not Under Study



**Norfolk Southern
Crescent Corridor
and Parallel Interstate Highways**

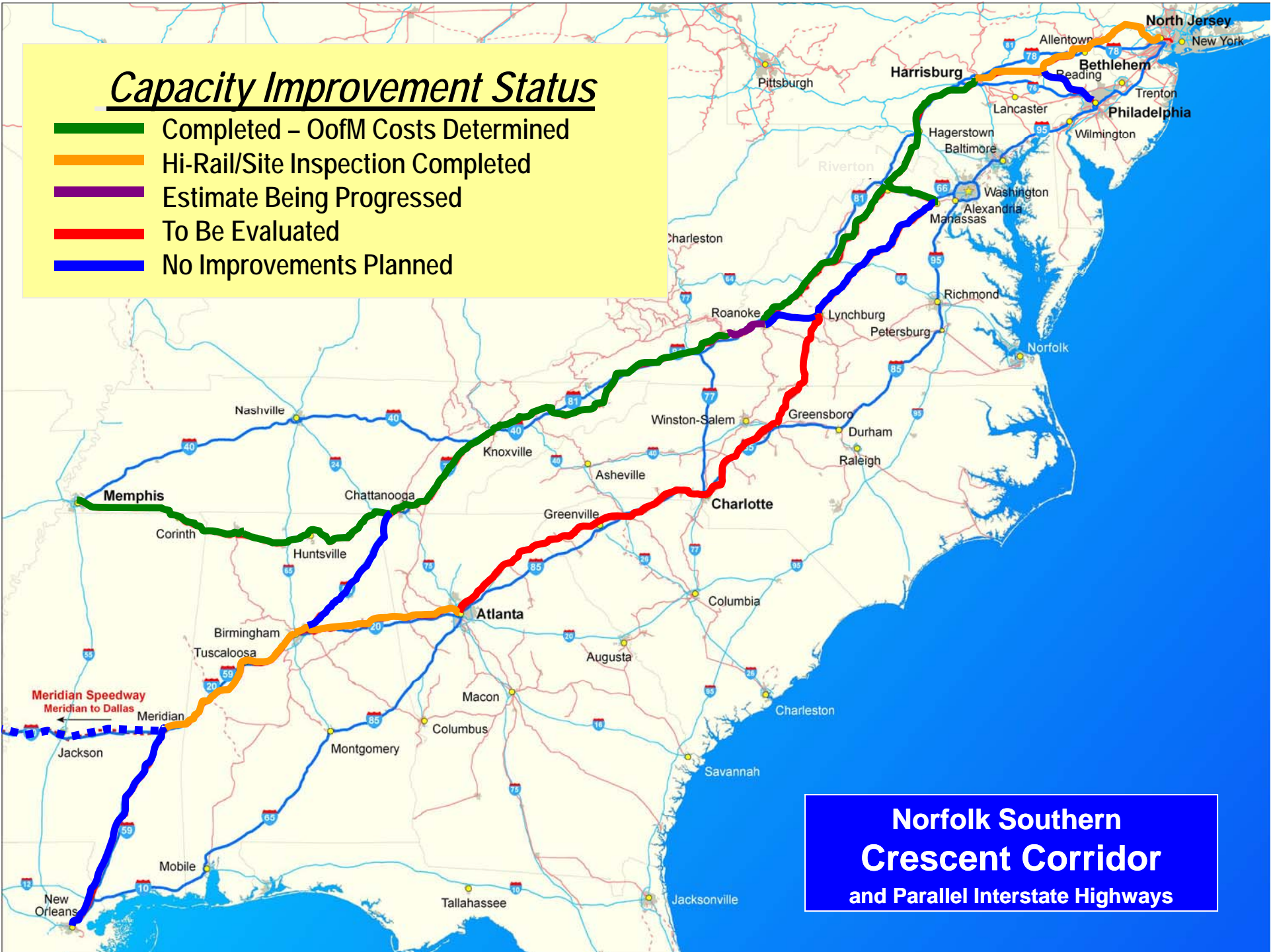
TRANSIT TIMES AT OPTIMAL SCHEDULES

- Average speed for network: 28 mph
- Min speed for network: 20.6 mph
- Max speed for network: 36.1 mph



Capacity Improvement Status

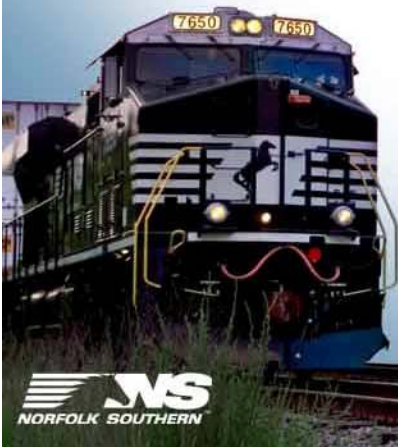
- Completed – OofM Costs Determined
- Hi-Rail/Site Inspection Completed
- Estimate Being Progressed
- To Be Evaluated
- No Improvements Planned



**Norfolk Southern
Crescent Corridor
and Parallel Interstate Highways**

BENEFITS V. COSTS OF PARTNERSHIP ALONG THE CRESCENT

- Cambridge Systematics (CS) – Benefit-Cost Analysis of the Crescent Corridor
 - At full operation, the Crescent Corridor will ANNUALLY deliver:
 - **\$543 Million** in Shipping Savings
 - **\$566 Million** in Congestion Savings (approx. 22 million hours of travel time)
 - **\$146 Million** in Safety Savings (over 1,250 fewer truck crashes)
 - **\$261 Million** in Highway Maintenance Savings (1.263 billion truck VMT reduced)



CRESCENT CORRIDOR FINANCIAL INVESTMENT HIERARCHY

INTERMODAL TERMINALS



SPEED ENHANCEMENTS



ADDED CAPACITY



ROLLING STOCK



2010

2011

2012

2013

2014

2015

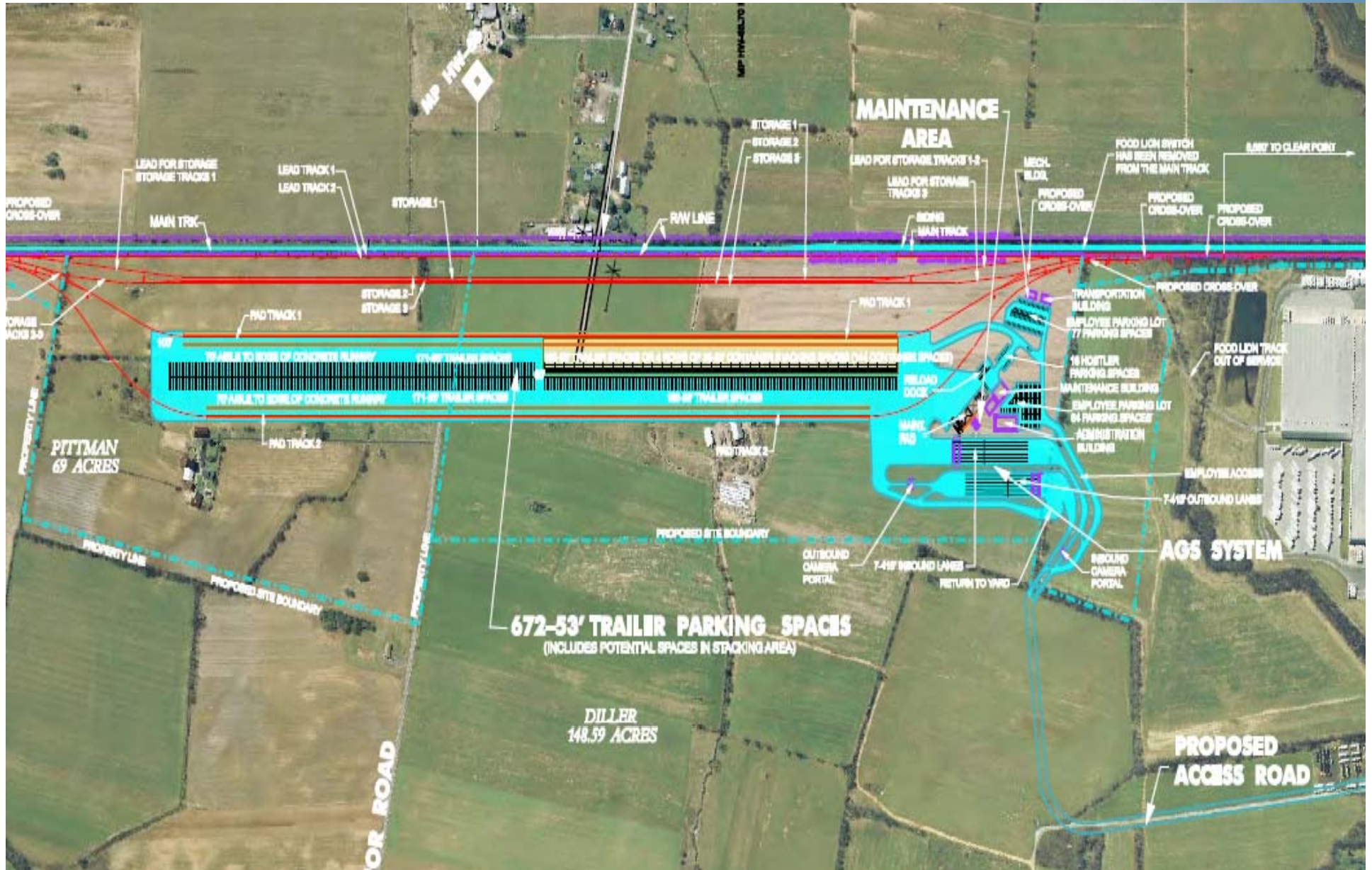
2016

The Future

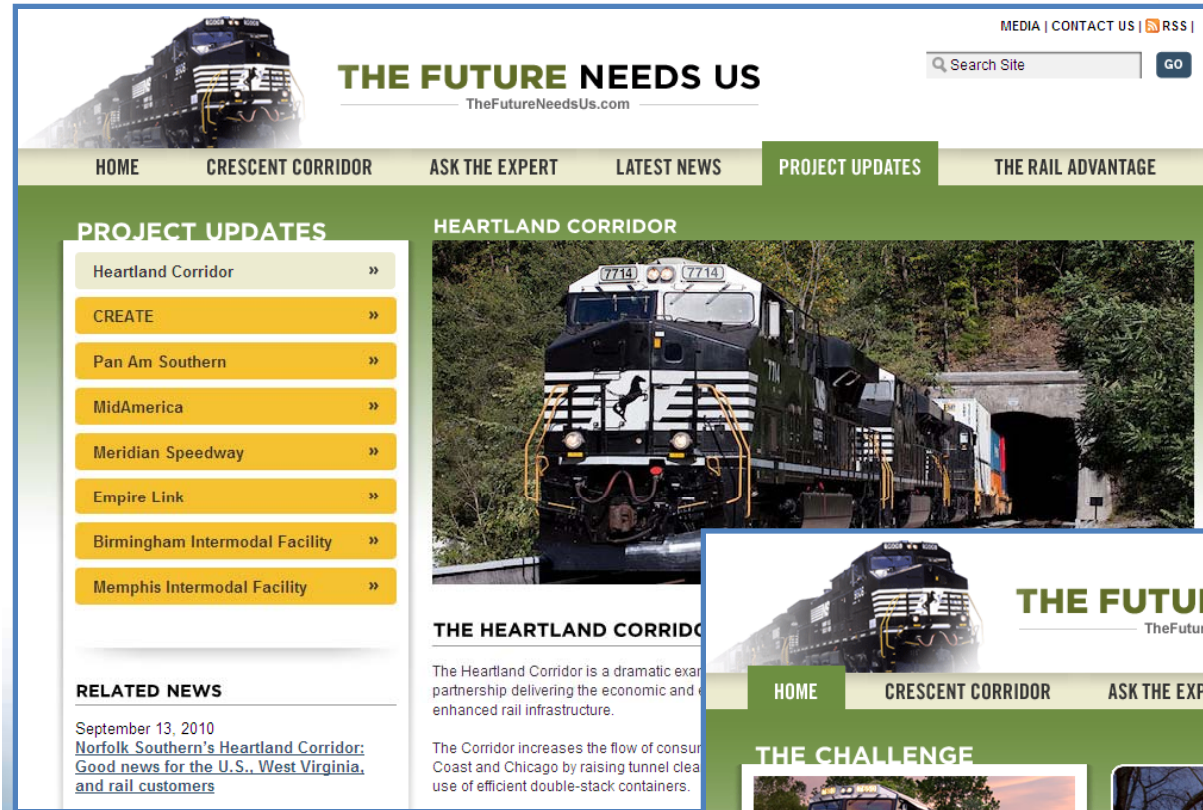


CRESCENT CORRIDOR

SAMPLE CONSTRUCTION DESIGN OF INTERMODAL FACILITY



FOR MORE INFORMATION – [WWW.THEFUTURENEEDSUS.COM](http://www.TheFutureNeedsUs.com)



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- CREATE »
- Pan Am Southern »
- MidAmerica »
- Meridian Speedway »
- Empire Link »
- Birmingham Intermodal Facility »
- Memphis Intermodal Facility »

HEARTLAND CORRIDOR



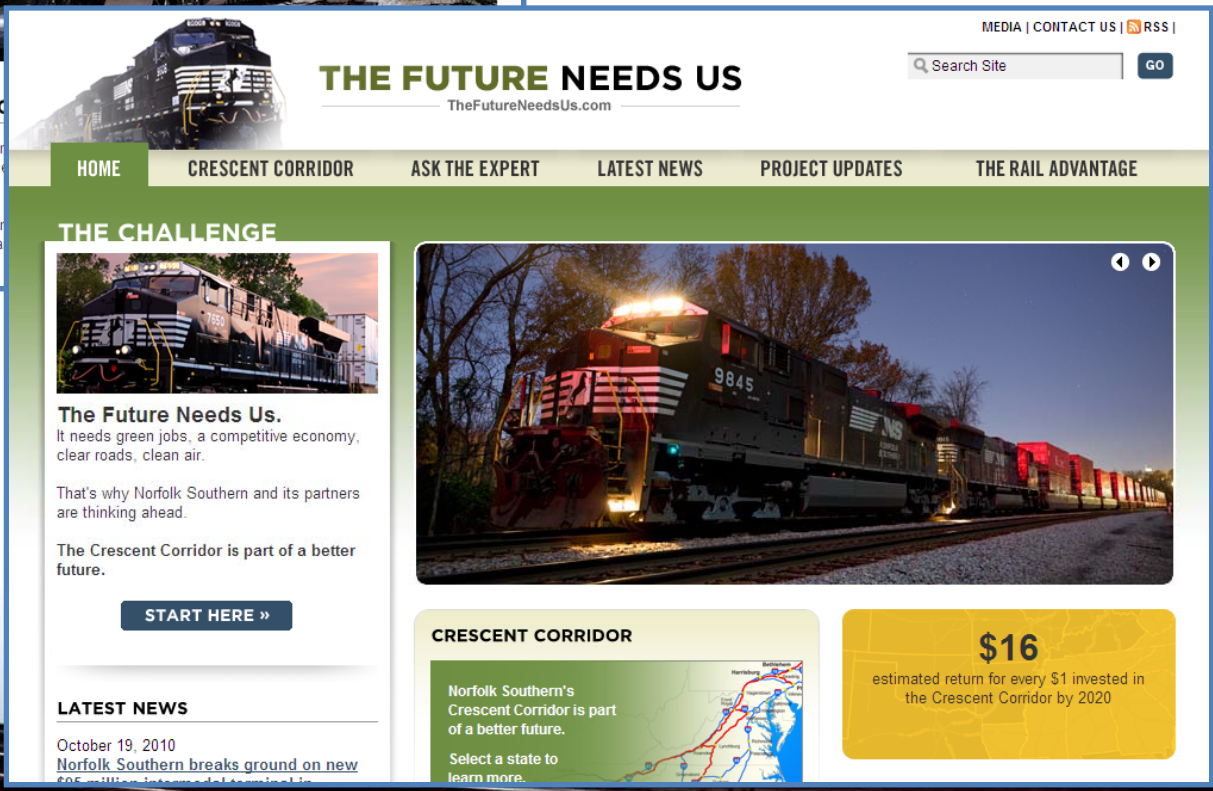
THE HEARTLAND CORRIDOR

The Heartland Corridor is a dramatic expansion partnership delivering the economic and enhanced rail infrastructure.

The Corridor increases the flow of consumer goods from the East Coast and Chicago by raising tunnel clearances and use of efficient double-stack containers.

RELATED NEWS

September 13, 2010
[Norfolk Southern's Heartland Corridor: Good news for the U.S., West Virginia, and rail customers](#)


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THE CHALLENGE



The Future Needs Us.
It needs green jobs, a competitive economy, clear roads, clean air.

That's why Norfolk Southern and its partners are thinking ahead.

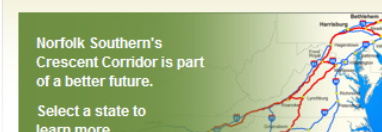
The Crescent Corridor is part of a better future.

START HERE »

LATEST NEWS

October 19, 2010
[Norfolk Southern breaks ground on new \\$65-million intermodal terminal in](#)

CRESCENT CORRIDOR



Norfolk Southern's Crescent Corridor is part of a better future.

Select a state to learn more.

\$16
estimated return for every \$1 invested in the Crescent Corridor by 2020



QUESTIONS?

