Hampton Roads Regional Freight Study

2012 Update

the *heartbeat* of HAMPTON ROADS TPO

TRANSPORTATION PLANNING ORGANIZATION

September 2012

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HAMPTON ROADS REGIONAL FREIGHT STUDY

2012 UPDATE

PREPARED BY:

the heartbeat of HAMPTON ROADS TPO
TRANSPORTATION PLANNING ORGANIZATION

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Hampton Roads Regional Freight Study – 2012 Update

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ABSTRACT
Freight transportation influences every aspect of our daily lives and keeps our industries competitive in the global economy. This is especially true in Hampton Roads, which is not only home to the third largest port on the East Coast but also the home of airports, rail, private trucking, shipping and warehouse distribution facilities, as well as a network of road and rail corridors for the delivery of freight, goods, and services. In order for Hampton Roads to attract new business interests and continue to grow economically, its transportation network must facilitate the rapid and efficient movement of raw materials and finished products using trucks, trains, ships, and planes.

The overall purpose of the 2012 update of the Hampton Roads Regional Freight Study is to assist the HRTPO Board in making decisions on which transportation improvements related to freight are desirable. This update focuses on two major components:

1) Commodity Flows – analyzes foreign and domestic freight movement to, from, and within Hampton Roads for all transportation modes by weight and value for existing (2010) and projected (2040) conditions using FHWA's Freight Analysis Framework (FAF) database. This section determines freight movements, top trading partners and top commodities for Hampton Roads. This section also utilizes the commodity flow data to measure the importance of local gateway corridors for trucks.

2) Regional Truck Movement – analyzes the movement of trucks both within Hampton Roads as well as through the gateways of the region, and identifies locations with high truck delay levels. This analysis is based primarily on VDOT vehicle classification counts and INRIX travel time and speed data.

ACKNOWLEDGMENTS
This document was prepared by the Hampton Roads Transportation Planning Organization (HRTPO) in cooperation with the U.S. Department of Transportation (USDOT), Federal Highway Administration (FHWA), Federal Transit Administration (FTA), Virginia Department of Transportation (VDOT), Virginia Department of Rail and Public Transportation (DRPT), Freight Technical Advisory Committee (FTAC), and the local jurisdictions and transit agencies within the Hampton Roads metropolitan planning area. The contents of this report reflect the views of the HRTPO. The HRTPO staff is responsible for the facts and the accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the FHWA, FTA, VDOT or DRPT. This report does not constitute a standard, specification, or regulation. FHWA, FTA, VDOT or DRPT acceptance of this report as evidence of fulfillment of the objectives of this program does not constitute endorsement/approval of the need for any recommended improvements nor does it constitute approval of their location and design or a commitment to fund any such improvements. Additional project level environmental impact assessments and/or studies of alternatives may be necessary.

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INTRODUCTION

Freight transportation influences every aspect of our daily lives and keeps our industries competitive in the global economy. Given the Internet Age we now live in, people are becoming more and more accustomed to buying and receiving goods in a convenient and timely fashion. This expectation and growing demand will require better connections and a more efficient transportation system. According to Federal Highway Administration's (FHWA) Freight Analysis Framework-3 (FAF-3), despite slight declines in national freight movement in 2008 and 2009, the overall tonnage of goods that will be moved throughout the country for all modes is expected to increase 61% between 2010 and 2040. Within Hampton Roads, even larger growth is expected. According to FAF-3, the overall tonnage of goods that will be moved to, from, and within Hampton Roads is expected to increase 79% between 2010 and 2040.

The Hampton Roads region is expected to experience large growth due to its location and infrastructure. Hampton Roads is a multimodal region that includes ports, airports, rail, private trucking, shipping and warehouse distribution facilities, as well as a network of road and rail corridors for the delivery of freight, goods, and services. In order for Hampton Roads to remain competitive in attracting new business interests and continue to grow economically, its transportation network must facilitate the rapid and efficient movement of raw materials and finished products using trucks, trains, ships, and planes.

Background

Starting with the ISTEA legislation in 1991, Congress has encouraged the consideration of freight movement and intermodal connectivity in statewide and metropolitan transportation planning processes. As a result of this emphasis, the Hampton Roads Transportation Planning Organization (HRTPO) began a series of regional freight studies in the early 1990s, and released the region's first report in 1996. The regional freight program for Hampton Roads is an on-going process that identifies, develops, evaluates, and implements transportation strategies to improve the movement of goods and enhance connectivity among all modes of transportation. The program supports the federal planning factor to enhance connectivity, across and between modes, for people and freight. Updates to the Hampton Roads regional freight study were released in 1998, 2001, and 2007. Also in 2007, the HRTPO staff conducted the Suffolk Rail Impact

Aerial View of APM Terminals Virginia located in Portsmouth

Unloading a Containership at Port of Virginia

Study[1] to recommend ways to reduce conflicts between vehicles on the roads and increasing rail traffic through Suffolk. Furthermore, the HRTPO staff recently completed the Traffic Impact of a Hypothetical Inland Port in Hampton Roads Study[2] in September 2011.

2012 Update

The overall purpose of the regional freight program for Hampton Roads and this update is to assist the HRTPO Board in making decisions on which transportation improvements related to freight are desirable.

This 2012 update of the Hampton Roads Regional Freight Study focuses on two major components:

1) *Commodity Flows* – analyzes foreign and domestic freight movement to, from, and within Hampton Roads for all transportation modes by weight and value for existing (2010) and projected (2040) conditions using FHWA's Freight Analysis Framework (FAF) database. This section determines freight movements for Hampton Roads (VA) and makes comparisons with other regions, such as Savannah (GA) and Charleston (SC). It also determines the top trading partners and top commodities for Hampton Roads. Finally, this section utilizes the commodity flow data to measure the importance of local gateway corridors for trucks.

2) *Regional Truck Movement* – analyzes the movement of trucks both within Hampton Roads as well as through the gateways of the region. This analysis is based primarily on VDOT vehicle classification counts throughout Hampton Roads and INRIX travel time and speed data. This section identifies truck bottlenecks in Hampton Roads.

Trucks Moving Freight to and from the Port of Virginia

[1] *Suffolk Rail Impact Study*, HRTPO, May 2007.

[2] *Traffic Impact of a Hypothetical Inland Port in Hampton Roads Study*, HRTPO, September 2011.

COMMODITY FLOWS TO, FROM, AND WITHIN HAMPTON ROADS

This section provides an analysis of commodity flows to, from, and within Hampton Roads based on FHWA's Freight Analysis Framework (FAF) database, which contains origin and destination freight data by mode, weight, and value for existing (2010) and projected (2040) conditions. Commodity flow summaries are presented in upcoming tables, graphs, and maps and are separated into the following subsections:

- Freight Summaries – to, from, and within Hampton Roads (Domestic, Foreign, and Total)
- Freight Summaries – Comparison of Hampton Roads (VA) with Savannah (GA) and Charleston (SC) (Domestic, Foreign, and Total)
- Imports and Exports to/from Hampton Roads by International Area and Transportation Mode
- Hampton Roads Top 10 Trading Partners by Mode
- Commodities Shipped to, from, and within Hampton Roads
- Hampton Roads Top 10 Trading Partners for Top Commodity
- Commodities Shipped to/from Hampton Roads by Truck (Domestic Only)
- Freight Movement by Truck by Hampton Roads Gateway Corridor
- Freight Shipments by Truck by North American Region to/from Hampton Roads
- Freight Shipments by Rail by North American Region to/from Hampton Roads

Below is a detailed description of the FHWA Freight Analysis Framework (FAF).

Freight Analysis Framework (FAF)

Freight Analysis Framework[3] (FAF) is a FHWA funded and managed data and analysis program that provides estimates of the total volumes of freight (by weight and value) moved into, out of and within the United States, between individual states, major metropolitan areas, sub-state regions, and major international gateways. FAF integrates data from a variety of sources to create a comprehensive national picture of freight movements. FAF-3 is the third release of the FAF database with FAF-1 providing commodity flow estimates for 1998 and FAF-2 providing estimates for 2002. The FAF-3 database, which is used in this study, includes a matrix of commodity flow data for 2007, with provisional estimates for the current year (2010), and forecasts to 2040.

To learn more about FAF, please visit FHWA's website at: http://ops.fhwa.dot.gov/freight/freight_analysis/faf/index.htm

Data Sources

The FAF-3 database's foundation is the results of the 2007 Commodity Flow Survey (CFS). The CFS is conducted on a 5-year cycle as a partnership between the Bureau of Transportation Statistics and the U.S. Census Bureau. The CFS is a shipper-based survey that captures data from shipments for manufacturing, mining, wholesale, and select retail establishments (electronic shopping, mail-order houses, and fuel dealers) within the United States. The 2007 survey sampled over 100,000 establishments (up from 50,000 establishments in 2002) with paid employees that were located in the United States as well as auxiliary establishments (i.e. warehouses and managing offices) of multi-establishment companies.

In FAF-3, the CFS is supplemented by a variety of other data sources to complete the full US freight movement picture. Some of the other major databases[4] used in FAF-3 include:

- Association of American Railroads Carload Waybill Sample
- U.S. Army Corps of Engineers Domestic Waterborne Commerce of the United States

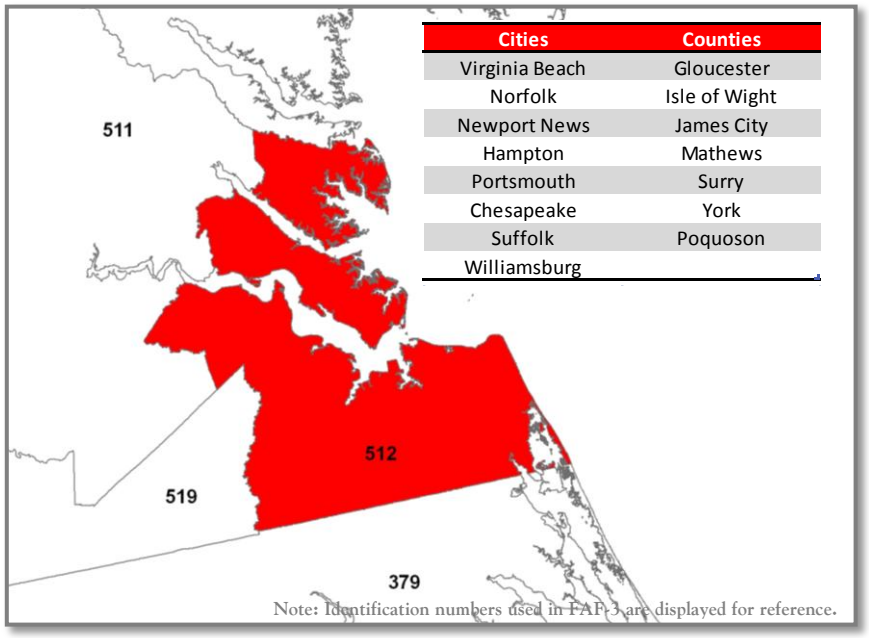
[3] *The Freight Analysis Framework, Version 3: Overview of the FAF3 National Freight Flow Tables*, Oak Ridge National Laboratory, Prepared for FHWA, October 2010.

[4] Ibid.

- U.S. Army Corps of Engineers International Waterborne Commerce of the United States
- U.S. Census Bureau's Foreign Trade Database
- PIERS Import/Export Database
- Imported & Exported Petroleum & Natural Gas data from the U.S. Department of Energy's Energy Information Agency (EIA)
- US Air Freight Movements
- U.S. DOT's Office of Airline Information (OAI) International Air Freight Flows
- Bureau of Transportation Statistics (BTS) Transborder Freight Database

According to FHWA[5], the intent of FAF is to capture and estimate the "total movement of goods." However, for some sectors, such as the Department of Defense (DoD), the FAF data is incomplete. Even though FAF does include shipments delivered to DoD facilities by private sector vendors, FAF does not include DoD specific shipments that were moved by DoD. Only one type of shipments does not currently have any data available – "intransit shipments". Intransit shipments are defined as shipments between two foreign countries that move through the U.S., using our transportation network on part of their journey. Since these shipments do not involve trade to/from the U.S., they are not included in foreign trade statistics and no other comprehensive source exists to identify where and how these shipments move.

FHWA[6] has acknowledged that multiple challenges exist with precisely depicting the domestic movement of imported and exported goods. In some cases, the domestic origin is inaccurately reported as the same region as the port of export and likewise, the domestic destination reported inaccurately as the same region as the port of entry. Additional data sources were used in the creation of the FAF-3 dataset to correct this issue when possible, however, most of the benefit appeared with improved flow characteristics of containerized



Map 1: Domestic Analysis Area (FAF-3 ID: 512) for Hampton Roads
Note: Domestic areas as designated by the FHWA FAF-3

goods moving to and from international gateways by rail. Improvements in the results for bulk products, such as coal, were more limited. FHWA has stated that a possible explanation for anomalies, such as coal exports appearing to originate and be exported through the Hampton Roads region, is that the true origin of movement for the export shipment may not be reported properly. The volume of coal through the region for export through the international gateway is likely accurate however, with the domestic origin primarily being in question.

Geography

The FAF-3 database reports origin and destination freight data within the United States for 123 domestic analysis areas (see **Map 2** on page 6). Three subsets of the 123 domestic analysis areas are used: 74 metropolitan regions, 16 entire states, and 33 state remainder areas.

[5] FHWA email correspondence from FAF@dot.gov , March 2012.

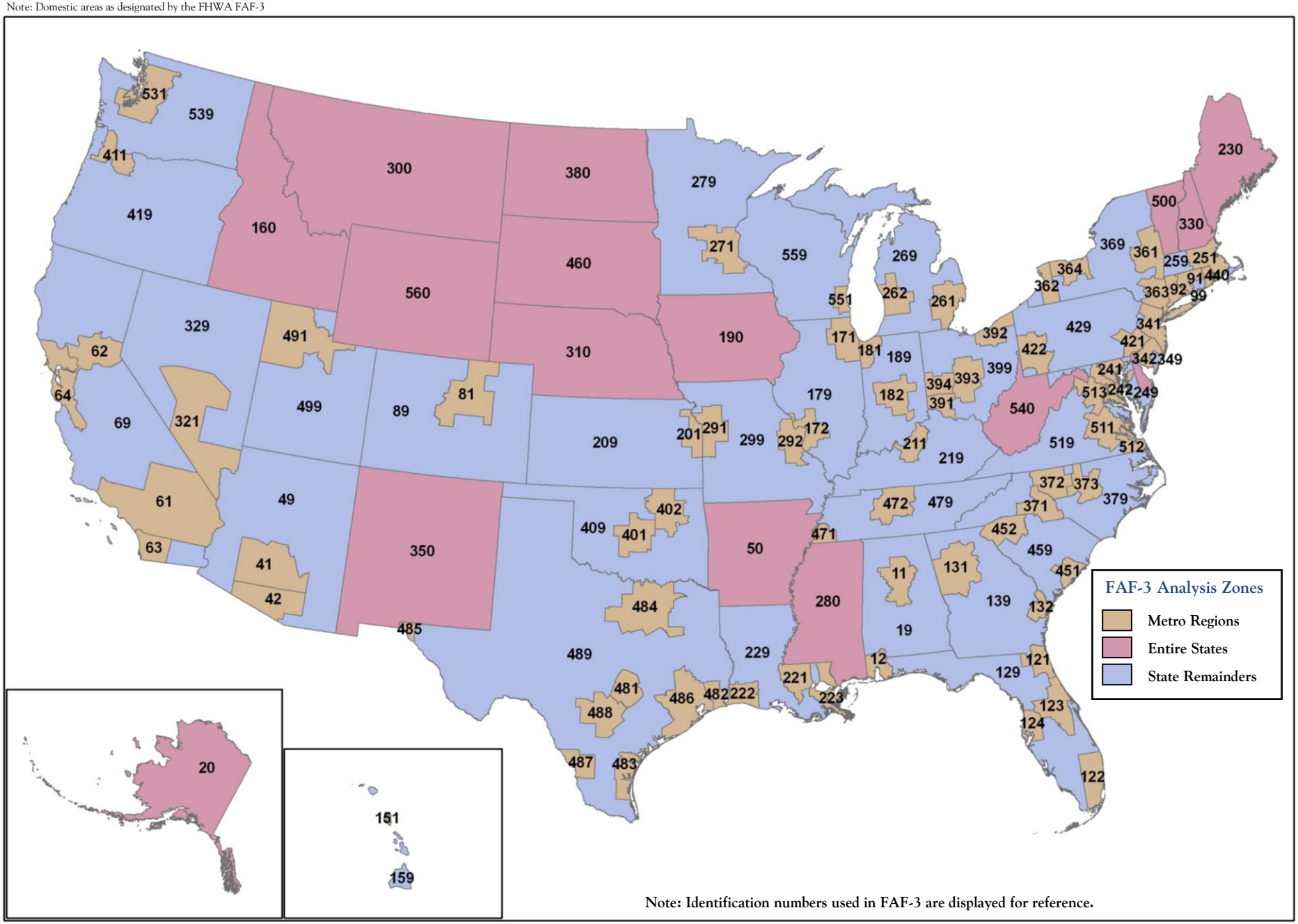
[6] FHWA email correspondence from FAF@dot.gov , May 2012.

The Hampton Roads metropolitan area (ID 512) includes 8 cities and 7 counties within Virginia (**Map 1** on page 4). For the analysis included in this section, freight flows for "Hampton Roads" included all of these jurisdictions. Note that some of these jurisdictions – Mathews County, Surry County, and part of Gloucester County – are not part of the Hampton Roads Metropolitan Planning Area (i.e. are not within the HRTPO boundary).

Within FAF-3, foreign countries for U.S. imported and exported freight are grouped into 8 international analysis areas, as shown in **Map 3**.

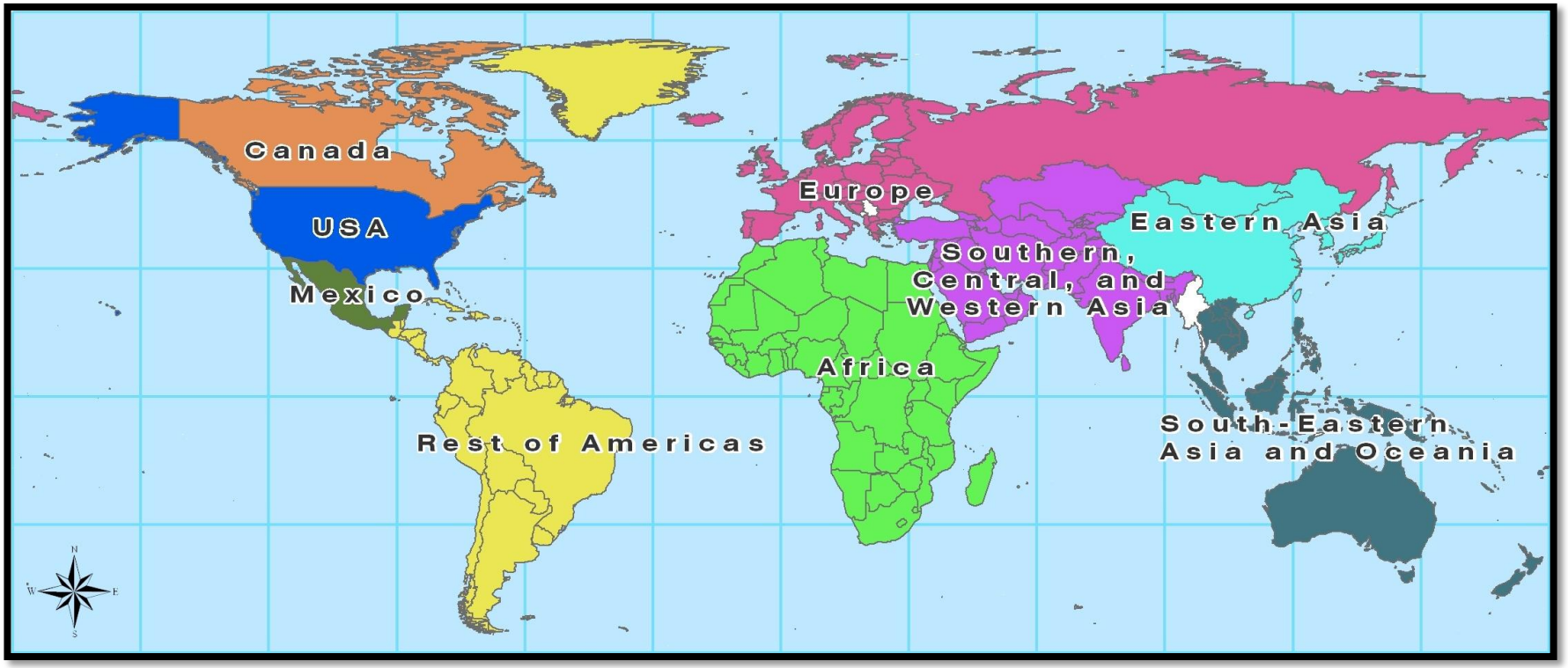
Map 2: 123 Domestic Analysis Areas for Freight Analysis Framework (FAF)

Note: Domestic areas as designated by the FHWA FAF-3



Map 3: 8 International Analysis Areas for Freight Analysis Framework (FAF)

Note: International areas as designated by the FHWA FAF-3



Transportation Modes – Domestic

FAF-3 domestic movements of freight are broken into 8 modes of transportation[7]:

1) **Truck** – Includes private and for-hire truck. Private trucks are owned or operated by shippers, and exclude personal use vehicles hauling over-the-counter purchases from retail establishments.
2) **Rail** – Any common carrier or private railroad.
3) **Water** – Includes shallow draft, deep draft and Great Lakes shipments.
4) **Air (includes truck-air)** – Includes shipments typically weighing more than 100 pounds that move by air or a combination of truck and air in commercial or private aircraft. Includes air freight and air express. Shipments typically weighing 100 pounds or less are classified with Multiple Modes and Mail.
5) **Multiple Modes & Mail** – Includes shipments by multiple modes, parcel delivery services, U.S. Postal Service, and couriers. This category is not limited to containerized or trailer-on-flatcar shipments.
6) **Pipeline** – Includes shipments by pipeline and from offshore wells to land.
7) **Other & Unknown** – Any mode not included within the other mode definitions and unknown modes of transport.
8) **No Domestic Mode**[8] – A 'No Domestic Mode' category is used to capture petroleum imports that go directly from foreign, inbound ships to an on-shore US refinery. This is done to ensure a proper accounting when foreign and domestic flows are summed, while avoiding assigning flows to the domestic transportation network that do not use it.

Transportation Modes – Foreign

FAF-3 foreign movements of freight are broken into 7 modes of transportation[9]:

1) **Truck** – Includes U.S. trade with Canada or Mexico that crosses the border on a private or for-hire truck.
2) **Rail** – Includes U.S. trade with Canada or Mexico that crosses the border on any common carrier or private railroad.
3) **Water** – Includes U.S. imports and exports that enter or exit the United States through a seaport.
4) **Air** – Includes U.S. imports and exports that enter or exit the United States through an airport.
5) **Multiple Modes & Mail** – Includes U.S. imports and exports that enter or exit the United States by multiple modes of transport, parcel delivery services, U.S. Postal Service, couriers, and U.S. imports and exports transshipped thru Canada or Mexico by a land mode (e.g. truck, rail, etc.) from/to a third country. This category is not limited to containerized or trailer-on-flatcar shipments.
6) **Pipeline** – Includes U.S. imports and exports that cross the U.S.-Canada or U.S.-Mexico border by pipeline.
7) **Other & Unknown** – Any mode not included within the other mode definitions and unknown modes of transport. Includes flyaway aircraft, vessels and vehicles moving under their own power from the manufacturer to a customer and not carrying any freight, and imports into Foreign Trade Zones (FTZs).

[7] Federal Highway Administration website, *FAF 3.1 Variables Excel file, February 2012*.

[8] Note: For this study, "No Domestic Mode" has been grouped with "Other & Unknown" for all commodity flow summaries included in this section.

[9] Federal Highway Administration website, *FAF 3.1 Variables Excel file, February 2012*.

Commodity Classifications

Freight shipments within FAF-3 are classified into 43 commodity classes as shown in **Table 1**. These 2-digit classification codes represent the Standard Classification of Transported Goods (SCTG) classes used by the Bureau of Transportation Statistics (BTS) and U.S. Census Bureau.

Table 1 – Commodity Classifications for Freight Analysis Framework (FAF)
Data Source: FHWA Freight Analysis Framework.

SCTG Code	Commodity	SCTG Code	Commodity	SCTG Code	Commodity
01	Live animals/fish	15	Coal	29	Printed prods.
02	Cereal grains	16	Crude petroleum	30	Textiles/leather
03	Other agricultural prods.	17	Gasoline	31	Nonmetal mineral prods.
04	Animal feed	18	Fuel oils	32	Base metals
05	Meat/seafood	19	Natural gas & petroleum prods.	33	Articles-base metal
06	Milled grain prods.	20	Basic chemicals	34	Machinery
07	Other foodstuffs	21	Pharmaceuticals	35	Electronics
08	Alcoholic beverages	22	Fertilizers	36	Motorized vehicles
09	Tobacco prods.	23	Chemical prods.	37	Transport equipment
10	Building stone	24	Plastics/rubber	38	Precision instruments
11	Natural sands	25	Logs	39	Furniture
12	Gravel	26	Wood prods.	40	Misc. mfg. prods.
13	Nonmetallic minerals	27	Newsprint/paper	41	Waste/scrap
14	Metallic ores	28	Paper articles	43	Mixed freight
				99	Unknown

FREIGHT SUMMARIES – TO, FROM, AND WITHIN HAMPTON ROADS

I. DOMESTIC *
II. FOREIGN
III. TOTAL (DOMESTIC + FOREIGN)

*Freight Summary "North American" is included in **Appendix A**.

I. DOMESTIC

Table 2 – Summary of Freight Movement To, From, and Within Hampton Roads – Domestic*

Data Source: FHWA Freight Analysis Framework.

2010

	To	From	Subtotal (Outside HR)	Within HR	Total	Share
Tonnage						
Truck	18,142,081	17,786,424	35,928,505	30,954,224	66,882,729	51%
Rail	17,956,553	2,070,494	20,027,047	29,349,497	49,376,544	38%
Water	192,471	14,330	206,800	19,898	226,698	0%
Air (includes truck-air)	7,924	26,353	34,276	3,976	38,253	0%
Multiple Modes & Mail	3,902,979	3,658,670	7,561,649	1,825,967	9,387,616	7%
Pipeline	1,040,241	19,025	1,059,265	-	1,059,265	1%
Other & Unknown	181,556	561,750	743,306	2,900,163	3,643,469	3%
TOTAL	41,423,803	24,137,045	65,560,848	65,053,725	130,614,574	100%
Dollar Value						
Truck	$ 27,740,926,700	$ 29,321,602,900	$ 57,062,529,600	$ 28,833,737,100	$ 85,896,266,700	69%
Rail	$ 1,799,654,800	$ 166,871,400	$ 1,966,526,200	$ 2,181,026,200	$ 4,147,552,400	3%
Water	$ 15,801,300	$ 5,184,400	$ 20,985,700	$ 23,626,400	$ 44,612,100	0%
Air (includes truck-air)	$ 1,389,568,200	$ 379,080,600	$ 1,768,648,800	$ 569,342,000	$ 2,337,990,800	2%
Multiple Modes & Mail	$ 12,994,448,200	$ 10,492,443,000	$ 23,486,891,200	$ 3,006,387,100	$ 26,493,278,300	21%
Pipeline	$ 375,014,900	$ 6,859,200	$ 381,874,100	$ -	$ 381,874,100	0%
Other & Unknown	$ 823,657,600	$ 2,442,182,300	$ 3,265,839,900	$ 1,897,016,600	$ 5,162,856,500	4%
TOTAL	$ 45,139,071,700	$ 42,814,223,800	$ 87,953,295,500	$ 36,511,135,400	$124,464,430,900	100%

2040

	To	From	Subtotal (Outside HR)	Within HR	Total	Share
Tonnage						
Truck	33,990,334	35,731,920	69,722,254	40,355,186	110,077,440	51%
Rail	19,837,428	3,852,058	23,689,486	47,814,492	71,503,978	33%
Water	106,345	6,854	113,199	23,742	136,942	0%
Air (includes truck-air)	73,285	36,285	109,570	11,074	120,644	0%
Multiple Modes & Mail	11,538,056	7,640,823	19,178,879	3,736,050	22,914,929	11%
Pipeline	948,761	8,712	957,473	0	957,473	0%
Other & Unknown	300,813	3,298,404	3,599,217	6,199,621	9,798,838	5%
TOTAL	66,795,022	50,575,057	117,370,079	98,140,166	215,510,245	100%
Dollar Value						
Truck	$ 62,213,193,326	$ 78,049,102,795	$ 140,262,296,121	$ 59,992,949,251	$200,255,245,373	60%
Rail	$ 2,704,392,314	$ 394,997,848	$ 3,099,390,161	$ 4,392,504,598	$ 7,491,894,760	2%
Water	$ 8,822,685	$ 10,919,446	$ 19,742,131	$ 46,848,671	$ 66,590,802	0%
Air (includes truck-air)	$ 6,797,909,046	$ 559,494,744	$ 7,357,403,789	$ 1,685,156,673	$ 9,042,560,463	3%
Multiple Modes & Mail	$ 54,099,602,672	$ 34,557,724,068	$ 88,657,326,739	$ 8,396,944,984	$ 97,054,271,724	29%
Pipeline	$ 342,036,497	$ 3,140,866	$ 345,177,363	$ 17	$ 345,177,380	0%
Other & Unknown	$ 1,606,004,500	$ 11,096,823,130	$ 12,702,827,629	$ 5,171,902,440	$ 17,874,730,070	5%
TOTAL	$ 127,771,961,038	$ 124,672,202,896	$ 252,444,163,935	$ 79,686,306,636	$332,130,470,571	100%

*Shipments to/from the 123 U.S. domestic areas, including the domestic leg of foreign shipments (import and export shipments have two legs: a domestic leg and a foreign leg).

GLOSSARY

"To" – Shipments from the 123 U.S. domestic areas to Hampton Roads, including the domestic leg of foreign shipments.

"From" – Shipments from Hampton Roads to the 123 U.S. domestic areas, including the domestic leg of foreign shipments.

"Within" – Shipments from Hampton Roads to Hampton Roads (i.e. Norfolk to Hampton), including the domestic leg of foreign shipments.

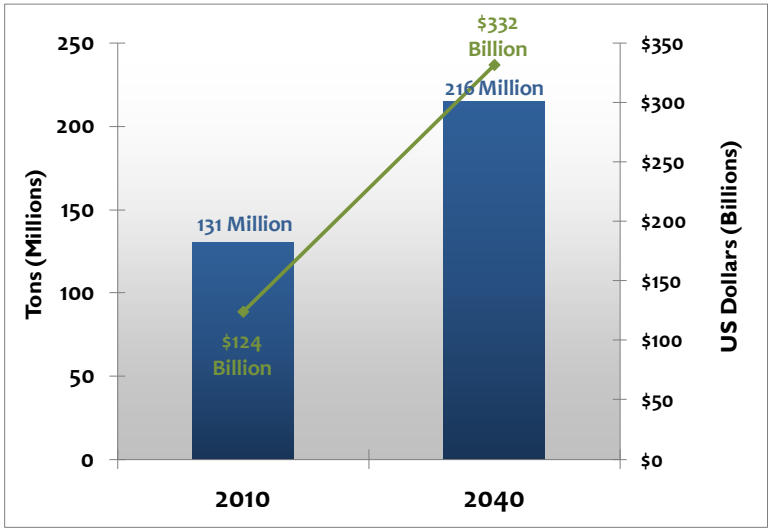


Figure 1 – Domestic* Movement of Freight To, From, and Within Hampton Roads

Data Source: Freight Analysis Framework

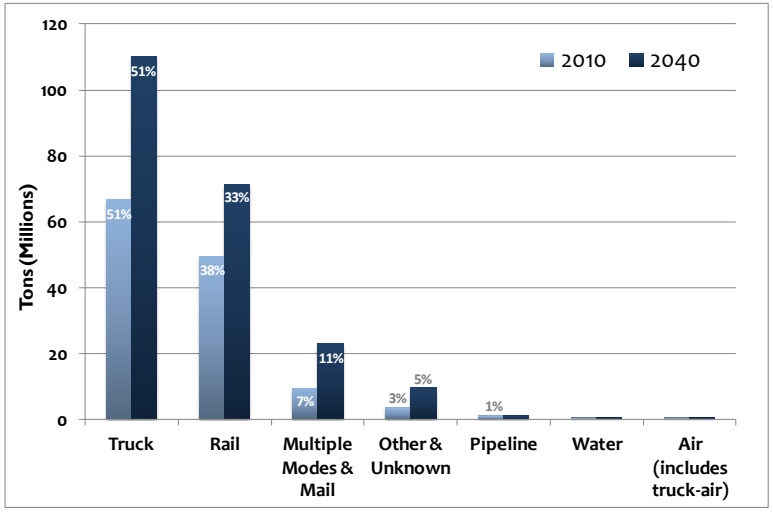


Figure 2 – Domestic* Movement of Freight To, From, and Within Hampton Roads – Weight

Data Source: Freight Analysis Framework

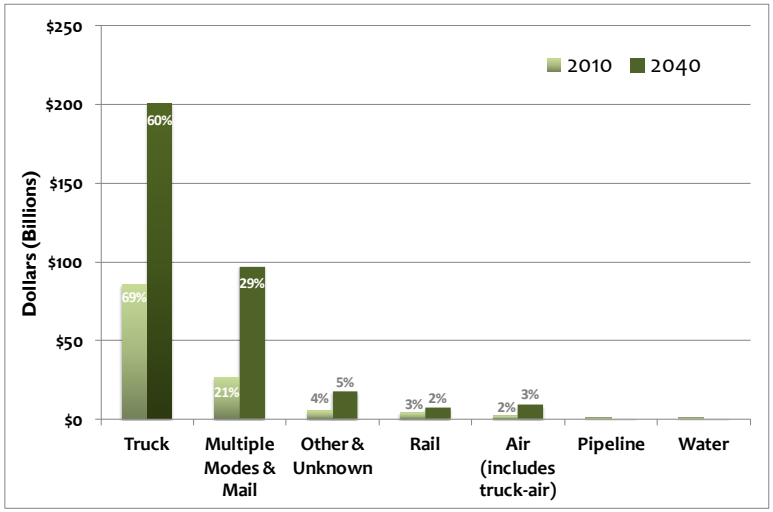


Figure 3 – Domestic* Movement of Freight To, From, and Within Hampton Roads – Value

Data Source: Freight Analysis Framework

*Shipments to/from the 123 U.S. domestic areas, including the domestic leg of foreign shipments (import and export shipments have two legs: a domestic leg and a foreign leg).

II. Foreign

Table 3 – Summary of Freight Movement To and From Hampton Roads – Foreign*

Data Source: FHWA Freight Analysis Framework.

2010

	To	From	Total	Share
Tonnage				
Truck	169	-	169	0%
Rail	-	-	-	0%
Water	13,337,533	40,601,330	53,938,863	100%
Air (includes truck-air)	1,593	2,506	4,099	0%
Multiple Modes & Mail	-	-	-	0%
Pipeline	-	-	-	0%
Other & Unknown	-	1,328	1,328	0%
TOTAL	13,339,295	40,605,164	53,944,459	100%
Dollar Value				
Truck	$ 2,736,300	$ -	$ 2,736,300	0%
Rail	$ -	$ -	$ -	0%
Water	$ 26,014,964,200	$ 24,887,221,300	$ 50,902,185,500	99%
Air (includes truck-air)	$ 229,228,000	$ 352,843,200	$ 582,071,200	1%
Multiple Modes & Mail	$ -	$ -	$ -	0%
Pipeline	$ -	$ -	$ -	0%
Other & Unknown	$ -	$ 518,000	$ 518,000	0%
TOTAL	$ 26,246,928,500	$ 25,240,582,500	$ 51,487,511,000	100%

2040

	To	From	Total	Share
Tonnage				
Truck	1,870	-	1,870	0%
Rail	-	-	-	0%
Water	36,221,500	77,987,317	114,208,816	100%
Air (includes truck-air)	4,174	7,357	11,531	0%
Multiple Modes & Mail	-	-	-	0%
Pipeline	-	-	-	0%
Other & Unknown	-	2,139	2,139	0%
TOTAL	36,227,544	77,996,813	114,224,356	100%
Dollar Value				
Truck	$ 17,429,069	$ -	$ 17,429,069	0%
Rail	$ -	$ -	$ -	0%
Water	$ 89,913,622,702	$ 80,830,991,430	$170,744,614,132	99%
Air (includes truck-air)	$ 693,225,981	$ 1,030,470,841	$ 1,723,696,822	1%
Multiple Modes & Mail	$ -	$ -	$ -	0%
Pipeline	$ -	$ -	$ -	0%
Other & Unknown	$ -	$ 53,918,352	$ 53,918,352	0%
TOTAL	$ 90,624,277,752	$ 81,915,380,623	$172,539,658,375	100%

*Import and export shipments have two legs: a domestic leg and a foreign leg. Foreign movements in this summary include only exports for which Hampton Roads is the exit point and imports for which Hampton Roads is the entry point.

Glossary

"To" – Import shipments for which Hampton Roads is the entry point.

"From" – Export shipments for which Hampton Roads is the exit point.

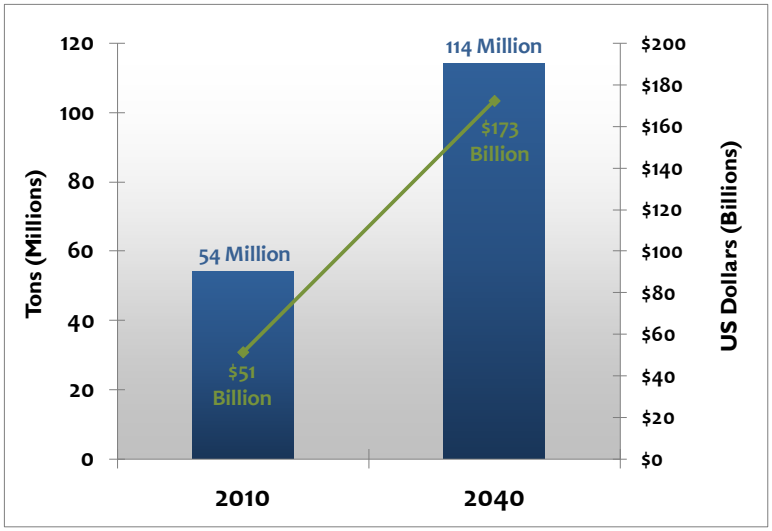


Figure 4 – Foreign* Movement of Freight To and From Hampton Roads

Data Source: Freight Analysis Framework

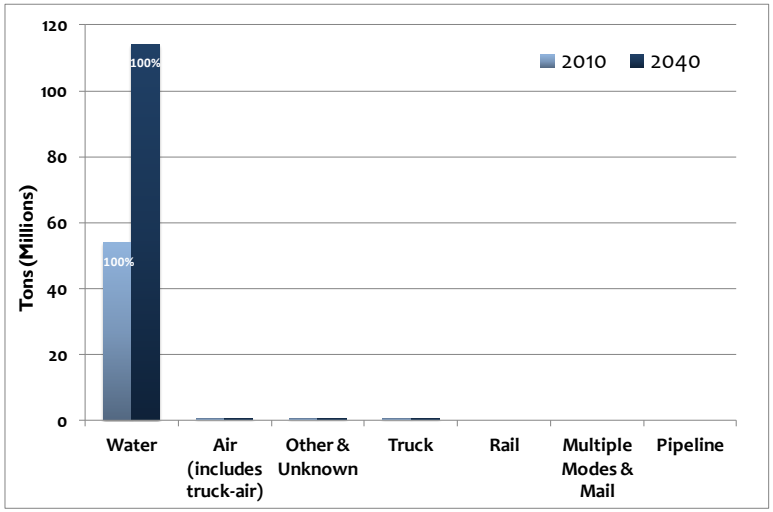


Figure 5 – Foreign* Movement of Freight To and From Hampton Roads – Weight

Data Source: Freight Analysis Framework

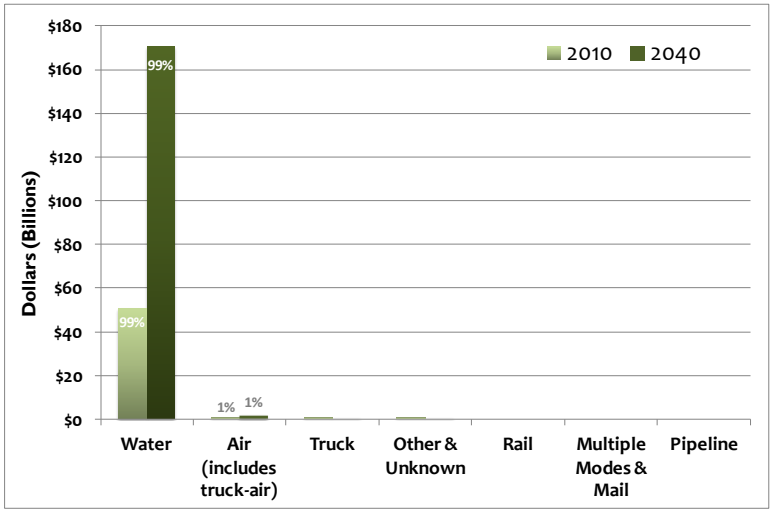


Figure 6 – Foreign* Movement of Freight To and From Hampton Roads – Value

Data Source: Freight Analysis Framework

*Import and export shipments have two legs: a domestic leg and a foreign leg. Foreign movements in this summary include only exports for which Hampton Roads is the exit point and imports for which Hampton Roads is the entry point.

III. TOTAL

Table 4 – Summary of Freight Movement To, From, and Within Hampton Roads – Total*

Data Source: FHWA Freight Analysis Framework.

2010

	To	From	Subtotal (Outside HR)	Within HR	Total	Share
Tonnage						
Truck	18,142,250	17,786,424	35,928,674	30,954,224	66,882,898	36%
Rail	17,956,553	2,070,494	20,027,047	29,349,497	49,376,544	27%
Water	13,530,004	40,615,659	54,145,663	19,898	54,165,561	29%
Air (includes truck-air)	9,517	28,859	38,375	3,976	42,352	0%
Multiple Modes & Mail	3,902,979	3,658,670	7,561,649	1,825,967	9,387,616	5%
Pipeline	1,040,241	19,025	1,059,265	-	1,059,265	1%
Other & Unknown	181,556	563,078	744,634	2,900,163	3,644,797	2%
TOTAL	54,763,099	64,742,208	119,505,307	65,053,725	184,559,032	100%
Dollar Value						
Truck	$ 27,743,663,000	$ 29,321,602,900	$ 57,065,265,900	$ 28,833,737,100	$ 85,899,003,000	49%
Rail	$ 1,799,654,800	$ 166,871,400	$ 1,966,526,200	$ 2,181,026,200	$ 4,147,552,400	2%
Water	$ 26,030,765,500	$ 24,892,405,700	$ 50,923,171,200	$ 23,626,400	$ 50,946,797,600	29%
Air (includes truck-air)	$ 1,618,796,200	$ 731,923,800	$ 2,350,720,000	$ 569,342,000	$ 2,920,062,000	2%
Multiple Modes & Mail	$ 12,994,448,200	$ 10,492,443,000	$ 23,486,891,200	$ 3,006,387,100	$ 26,493,278,300	15%
Pipeline	$ 375,014,900	$ 6,859,200	$ 381,874,100	$ -	$ 381,874,100	0%
Other & Unknown	$ 823,657,600	$ 2,442,700,300	$ 3,266,357,900	$ 1,897,016,600	$ 5,163,374,500	3%
TOTAL	$ 71,386,000,200	$ 68,054,806,300	$ 139,440,806,500	$ 36,511,135,400	$175,951,941,900	100%

2040

	To	From	Subtotal (Outside HR)	Within HR	Total	Share
Tonnage						
Truck	33,992,204	35,731,920	69,724,124	40,355,186	110,079,310	33%
Rail	19,837,428	3,852,058	23,689,486	47,814,492	71,503,978	22%
Water	36,327,845	77,994,171	114,322,016	23,742	114,345,758	35%
Air (includes truck-air)	77,459	43,641	121,101	11,074	132,174	0%
Multiple Modes & Mail	11,538,056	7,640,823	19,178,879	3,736,050	22,914,929	7%
Pipeline	948,761	8,712	957,473	0	957,473	0%
Other & Unknown	300,813	3,300,543	3,601,356	6,199,621	9,800,978	3%
TOTAL	103,022,565	128,571,870	231,594,435	98,140,166	329,734,602	100%
Dollar Value						
Truck	$ 62,230,622,395	$ 78,049,102,795	$ 140,279,725,191	$ 59,992,949,251	$200,272,674,442	40%
Rail	$ 2,704,392,314	$ 394,997,848	$ 3,099,390,161	$ 4,392,504,598	$ 7,491,894,760	1%
Water	$ 89,922,445,387	$ 80,841,910,875	$ 170,764,356,263	$ 46,848,671	$170,811,204,934	34%
Air (includes truck-air)	$ 7,491,135,026	$ 1,589,965,585	$ 9,081,100,611	$ 1,685,156,673	$ 10,766,257,285	2%
Multiple Modes & Mail	$ 54,099,602,672	$ 34,557,724,068	$ 88,657,326,739	$ 8,396,944,984	$ 97,054,271,724	19%
Pipeline	$ 342,036,497	$ 3,140,866	$ 345,177,363	$ 17	$ 345,177,380	0%
Other & Unknown	$ 1,606,004,500	$ 11,150,741,482	$ 12,756,745,982	$ 5,171,902,440	$ 17,928,648,422	4%
TOTAL	$ 218,396,238,791	$ 206,587,583,519	$ 424,983,822,310	$ 79,686,306,636	$504,670,128,946	100%

*Import and export shipments have two legs: a domestic leg and a foreign leg. For exports for which Hampton Roads is the exit point and imports for which Hampton Roads is the entry point, this total includes both legs (i.e. weight and value are counted twice) because these legs often use different modes.

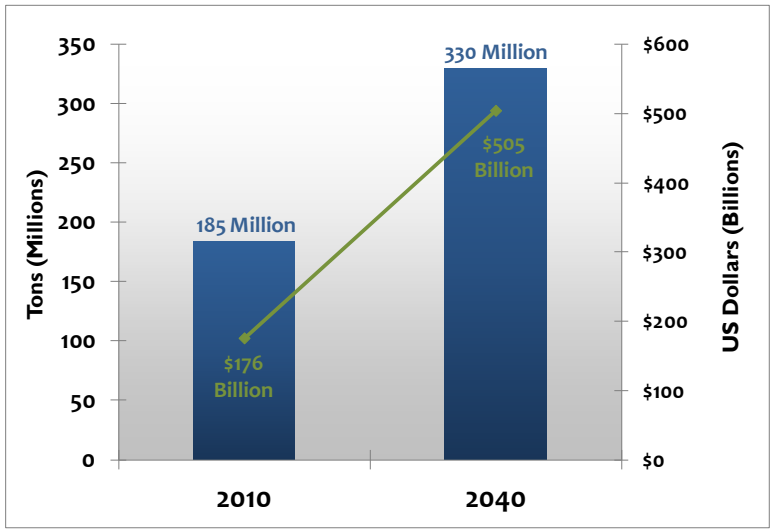


Figure 7 – Total* Movement of Freight To, From, and Within Hampton Roads
Data Source: Freight Analysis Framework

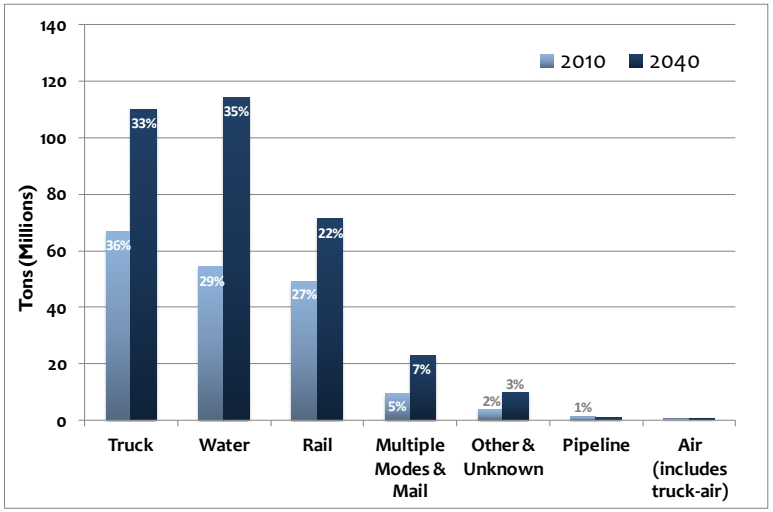


Figure 8 – Total* Movement of Freight To, From, and Within Hampton Roads – Weight
Data Source: Freight Analysis Framework

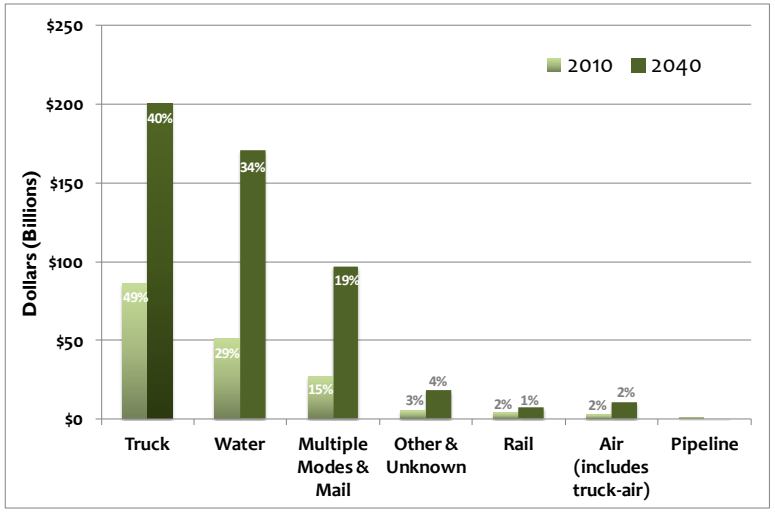


Figure 9 – Total* Movement of Freight To, From, and Within Hampton Roads – Value
Data Source: Freight Analysis Framework

*Import and export shipments have two legs: a domestic leg and a foreign leg. For exports for which Hampton Roads is the exit point and imports for which Hampton Roads is the entry point, this total includes both legs (i.e. weight and value are counted twice) because these legs often use different modes.

FREIGHT SUMMARIES

*COMPARISON OF HAMPTON ROADS (VA) WITH SAVANNAH (GA) AND CHARLESTON (SC)

I. DOMESTIC
II. FOREIGN
III. TOTAL (DOMESTIC + FOREIGN)

*Freight summaries were analyzed for Savannah, GA and Charleston, SC per a request from the Freight Transportation Advisory Committee. Other east coast port locations were not included.

I. Domestic

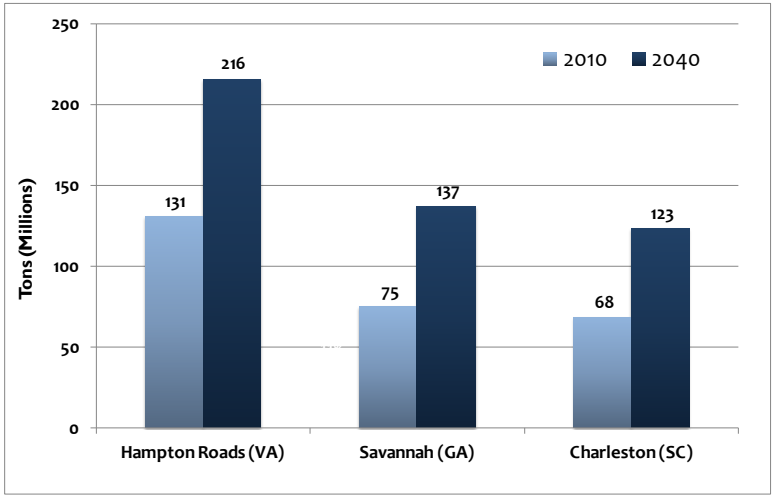


Figure 10 – Domestic* Movement of Freight To, From, and Within each Metro Region – Weight

Data Source: Freight Analysis Framework

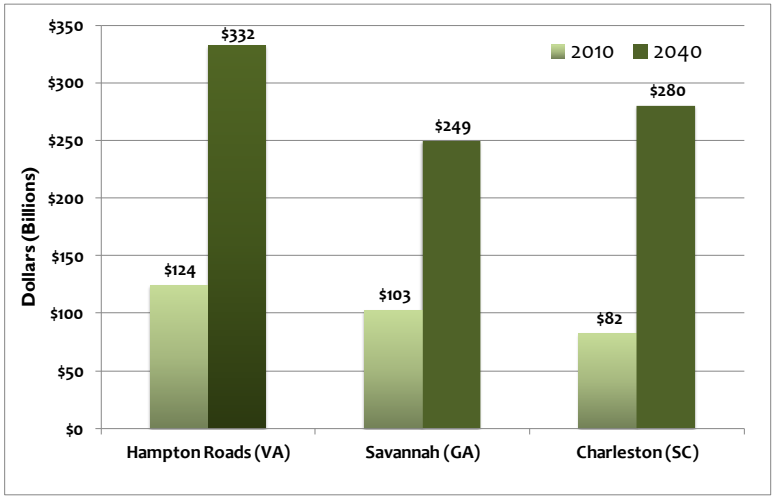


Figure 11 – Domestic* Movement of Freight To, From, and Within each Metro Region – Value

Data Source: Freight Analysis Framework

*Shipments to/from the 123 U.S. domestic areas, including the domestic leg of foreign shipments (import and export shipments have two legs: a domestic leg and a foreign leg).

II. FOREIGN

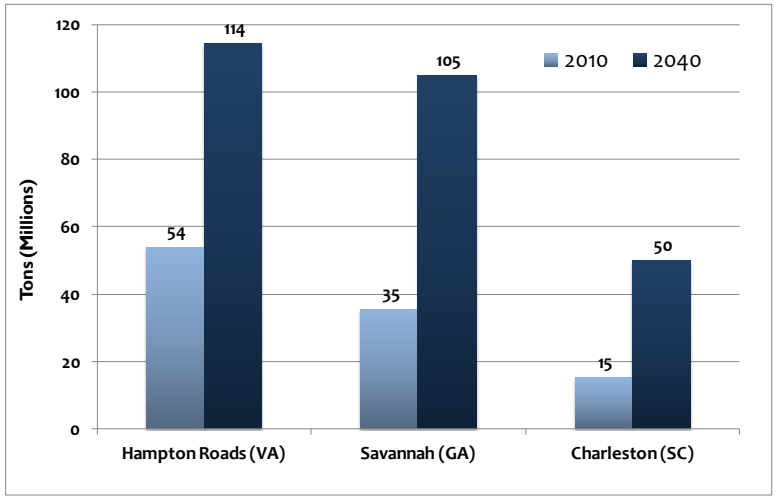


Figure 12 – Foreign* Movement of Freight To and From each Metro Region – Weight

Data Source: Freight Analysis Framework

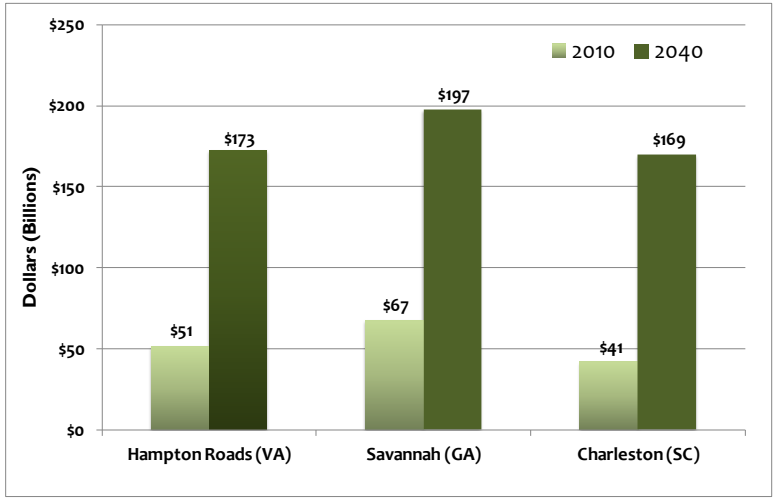


Figure 13 – Foreign* Movement of Freight To and From each Metro Region – Value

Data Source: Freight Analysis Framework

*Import and export shipments have two legs: a domestic leg and a foreign leg. Foreign movements in this summary include only exports for which the Metro Region (i.e. Hampton Roads) is the exit point and imports for which the Metro Region is the entry point.

III. TOTAL

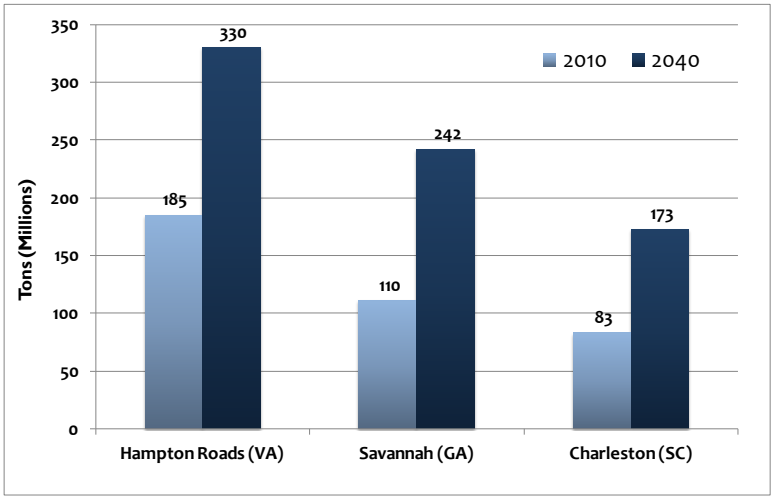


Figure 14 – Total* Movement of Freight To, From, and Within each Metro Region – Weight
Data Source: Freight Analysis Framework

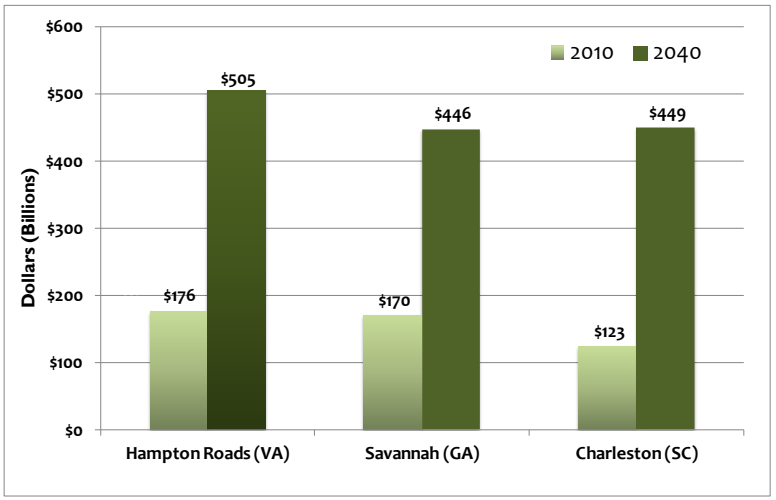


Figure 15 – Total* Movement of Freight To, From, and Within each Metro Region – Value
Data Source: Freight Analysis Framework

*Import and export shipments have two legs: a domestic leg and a foreign leg. For exports for which the Metro Region (i.e. Hampton Roads) is the exit point and imports for which the Metro Region is the entry point, this total includes both legs (i.e. weight and value are counted twice) because these legs often use different modes.

IMPORTS AND EXPORTS TO/FROM HAMPTON ROADS* BY INTERNATIONAL AREA AND TRANSPORTATION MODE

*Import and export shipments have two legs: a domestic leg and a foreign leg. This section covers only the foreign leg. This summary includes only exports for which Hampton Roads is the exit point and imports for which Hampton Roads is the entry point.

Table 5 – Imports Shipped Directly to Hampton Roads* – Weight (Tons)

Data Source: FHWA Freight Analysis Framework.

2010

	Truck	Water	Air	Total	Share
Canada	146	1,176,061	7	1,176,214	9%
Mexico	23	4,410	7	4,440	0%
Rest of Americas		3,485,207	82	3,485,289	26%
Europe		5,190,950	1,446	5,192,396	39%
Africa		329,551		329,551	2%
Southern, Central, & Western Asia		801,501		801,501	6%
Eastern Asia		1,876,214		1,876,214	14%
South-Eastern Asia & Oceana		473,639	51	473,690	4%
Total	169	13,337,533	1,593	13,339,295	100%
Share	0%	100%	0%	100%	

2040

	Truck	Water	Air	Total	Share
Canada	1,853	5,328,966	140	5,330,959	15%
Mexico	17	10,281	45	10,343	0%
Rest of Americas		8,108,666	211	8,108,877	22%
Europe		10,342,776	3,535	10,346,311	29%
Africa		722,926		722,926	2%
Southern, Central, & Western Asia		2,975,082		2,975,082	8%
Eastern Asia		7,115,444		7,115,444	20%
South-Eastern Asia & Oceana		1,617,357	243	1,617,600	4%
Total	1,870	36,221,500	4,174	36,227,544	100%
Share	0%	100%	0%	100%	

Table 6 – Imports Shipped Directly to Hampton Roads* – Value (Dollars)

Data Source: FHWA Freight Analysis Framework.

2010

	Truck	Water	Air	Total	Share
Canada	$ 2,657,000	$ 576,188,300	$ 2,185,100	$ 581,030,400	2%
Mexico	$ 79,300	$ 17,813,100	$ 500,700	$ 18,393,100	0%
Rest of Americas		$ 3,578,097,600	$ 10,657,800	$ 3,588,755,400	14%
Europe		$ 8,881,704,300	$208,621,000	$ 9,090,325,300	35%
Africa		$ 366,613,200		$ 366,613,200	1%
Southern, Central, & Western Asia		$ 3,108,207,400		$ 3,108,207,400	12%
Eastern Asia		$ 8,195,439,700		$ 8,195,439,700	31%
South-Eastern Asia & Oceana		$ 1,290,900,600	$ 7,263,400	$ 1,298,164,000	5%
Total	$ 2,736,300	$ 26,014,964,200	$229,228,000	$ 26,246,928,500	100%
Share	0%	99%	1%	100%	

2040

	Truck	Water	Air	Total	Share
Canada	$ 17,039,930	$ 1,687,851,494	$ 8,828,638	$ 1,713,720,062	2%
Mexico	$ 389,139	$ 31,381,257	$ 1,229,131	$ 32,999,528	0%
Rest of Americas		$ 13,609,183,943	$ 33,309,115	$ 13,642,493,058	15%
Europe		$ 32,221,109,079	$608,224,400	$ 32,829,333,478	36%
Africa		$ 1,180,348,715		$ 1,180,348,715	1%
Southern, Central, & Western Asia		$ 11,072,879,775		$ 11,072,879,775	12%
Eastern Asia		$ 26,060,707,108		$ 26,060,707,108	29%
South-Eastern Asia & Oceana		$ 4,050,161,331	$ 41,634,697	$ 4,091,796,028	5%
Total	$ 17,429,069	$ 89,913,622,702	$693,225,981	$ 90,624,277,752	100%
Share	0%	99%	1%	100%	

*Import and export shipments have two legs: a domestic leg and a foreign leg. This section covers only the foreign leg. This summary includes only exports for which Hampton Roads is the exit point and imports for which Hampton Roads is the entry point.

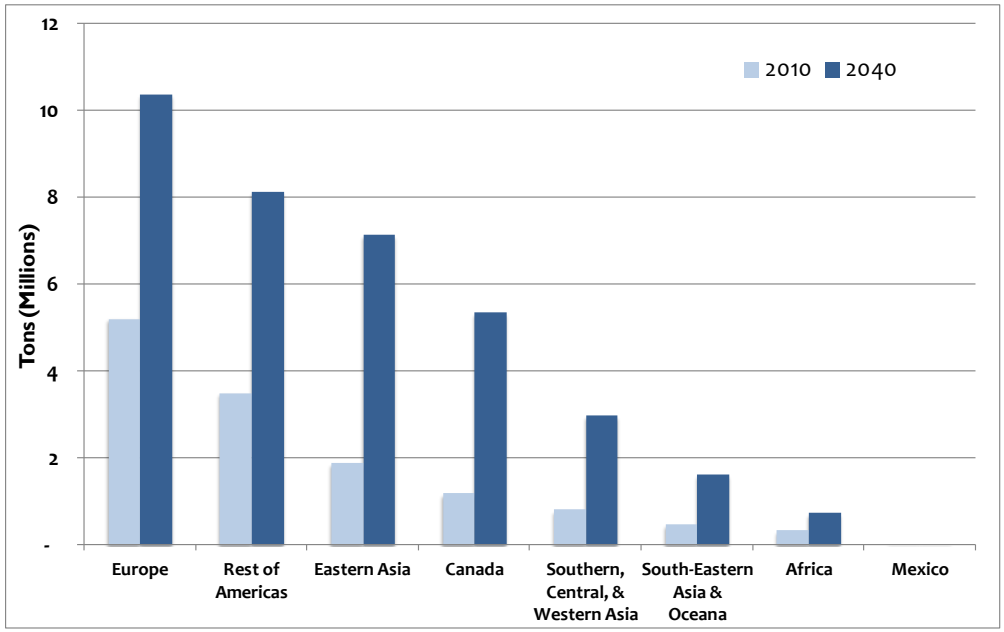


Figure 16 – Imports Shipped Directly to Hampton Roads by Water – Weight

Data Source: FHWA Freight Analysis Framework

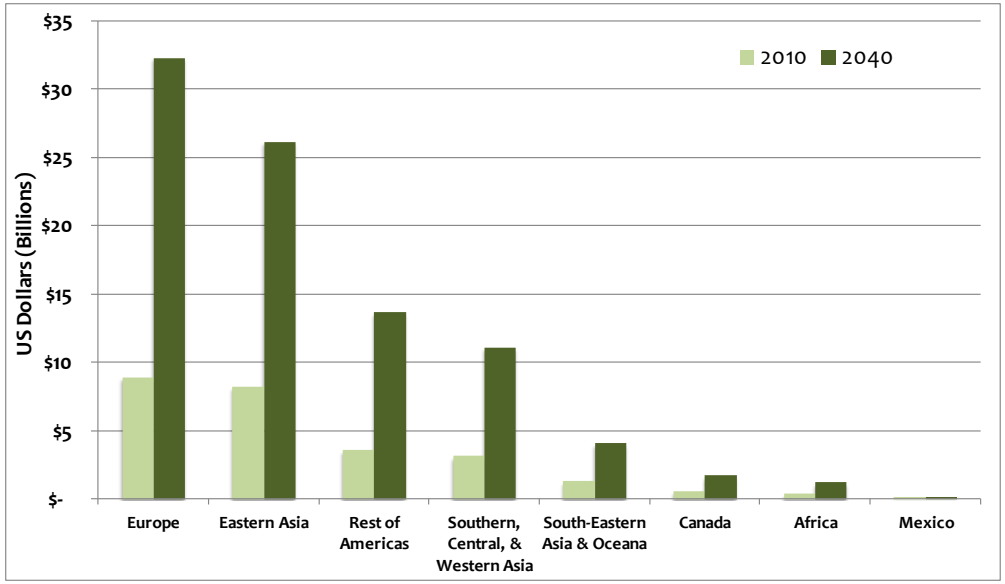


Figure 17 – Imports Shipped Directly to Hampton Roads by Water – Value

Data Source: FHWA Freight Analysis Framework

Table 7 – Exports Shipped Directly from Hampton Roads* – Weight (Tons)

Data Source: FHWA Freight Analysis Framework.

2010

	Water	Air	Other & Unknown	Total	Share
Canada	329,899	25	1,328	331,252	1%
Mexico	280,123	2		280,125	1%
Rest of Americas	4,587,722	38		4,587,760	11%
Europe	26,794,335	2,387		26,796,722	66%
Africa	1,836,003	54		1,836,057	5%
Southern, Central, & Western Asia	2,901,454			2,901,454	7%
Eastern Asia	2,978,085			2,978,085	7%
South-Eastern Asia & Oceana	893,709			893,709	2%
Total	40,601,330	2,506	1,328	40,605,164	100%
Share	100%	0%	0%	100%	

2040

	Water	Air	Other & Unknown	Total	Share
Canada	302,136	116	2,139	304,391	0%
Mexico	378,022	3		378,024	0%
Rest of Americas	10,430,057	889		10,430,946	13%
Europe	40,413,794	6,248		40,420,042	52%
Africa	7,931,439	101		7,931,540	10%
Southern, Central, & Western Asia	7,782,868			7,782,868	10%
Eastern Asia	8,529,334			8,529,334	11%
South-Eastern Asia & Oceana	2,219,667			2,219,667	3%
Total	77,987,317	7,357	2,139	77,996,813	100%
Share	100%	0%	0%	100%	

Table 8 – Exports Shipped Directly from Hampton Roads* – Value (Dollars)

Data Source: FHWA Freight Analysis Framework.

2010

	Water	Air	Other & Unknown	Total	Share
Canada	$ 3,797,300	$ 817,300	$ 518,000	$ 5,132,600	0%
Mexico	$ 72,717,700	$ 156,500		$ 72,874,200	0%
Rest of Americas	$ 2,775,342,200	$ 5,614,400		$ 2,780,956,600	11%
Europe	$ 9,141,355,500	$ 340,895,800		$ 9,482,251,300	38%
Africa	$ 1,404,203,900	$ 5,359,200		$ 1,409,563,100	6%
Southern, Central, & Western Asia	$ 3,537,589,100			$ 3,537,589,100	14%
Eastern Asia	$ 6,111,034,300			$ 6,111,034,300	24%
South-Eastern Asia & Oceana	$ 1,841,181,300			$ 1,841,181,300	7%
Total	$24,887,221,300	$ 352,843,200	$ 518,000	$ 25,240,582,500	100%
Share	99%	1%	0%	100%	

2040

	Water	Air	Other & Unknown	Total	Share
Canada	$ 98,938,781	$ 13,382,181	$ 53,918,352	$ 166,239,315	0%
Mexico	$ 88,411,914	$ 223,180		$ 88,635,095	0%
Rest of Americas	$ 8,270,180,585	$ 125,393,201		$ 8,395,573,786	10%
Europe	$34,686,475,167	$ 885,010,373		$ 35,571,485,539	43%
Africa	$ 4,037,520,191	$ 6,461,906		$ 4,043,982,096	5%
Southern, Central, & Western Asia	$12,125,818,275			$ 12,125,818,275	15%
Eastern Asia	$15,779,684,583			$ 15,779,684,583	19%
South-Eastern Asia & Oceana	$ 5,743,961,934			$ 5,743,961,934	7%
Total	$80,830,991,430	$1,030,470,841	$ 53,918,352	$ 81,915,380,623	100%
Share	99%	1%	0%	100%	

*Import and export shipments have two legs: a domestic leg and a foreign leg. This section covers only the foreign leg. This summary includes only exports for which Hampton Roads is the exit point and imports for which Hampton Roads is the entry point.

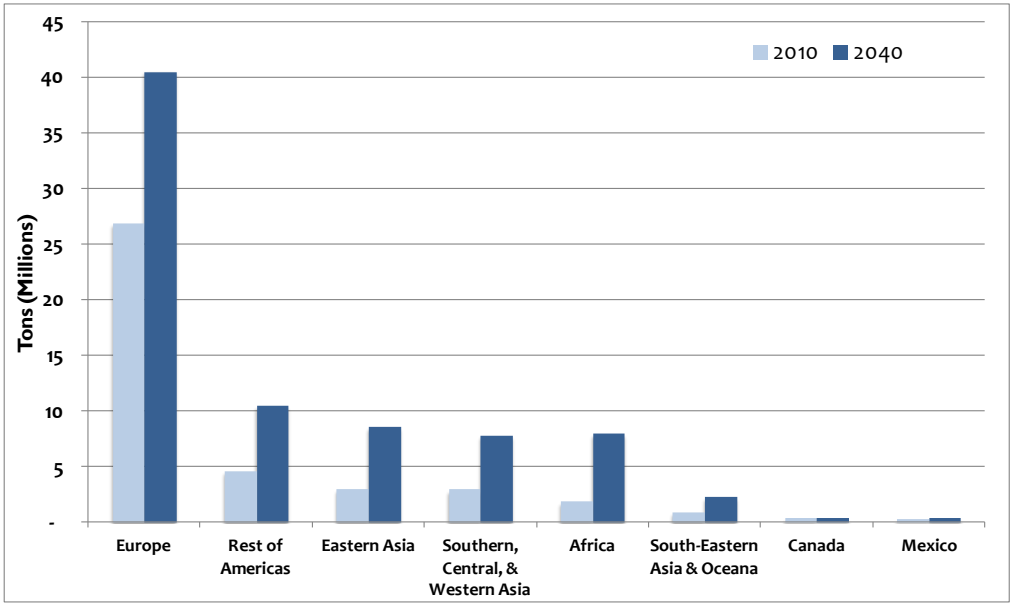


Figure 18 – Exports Shipped Directly from Hampton Roads by Water – Weight
Data Source: FHWA Freight Analysis Framework

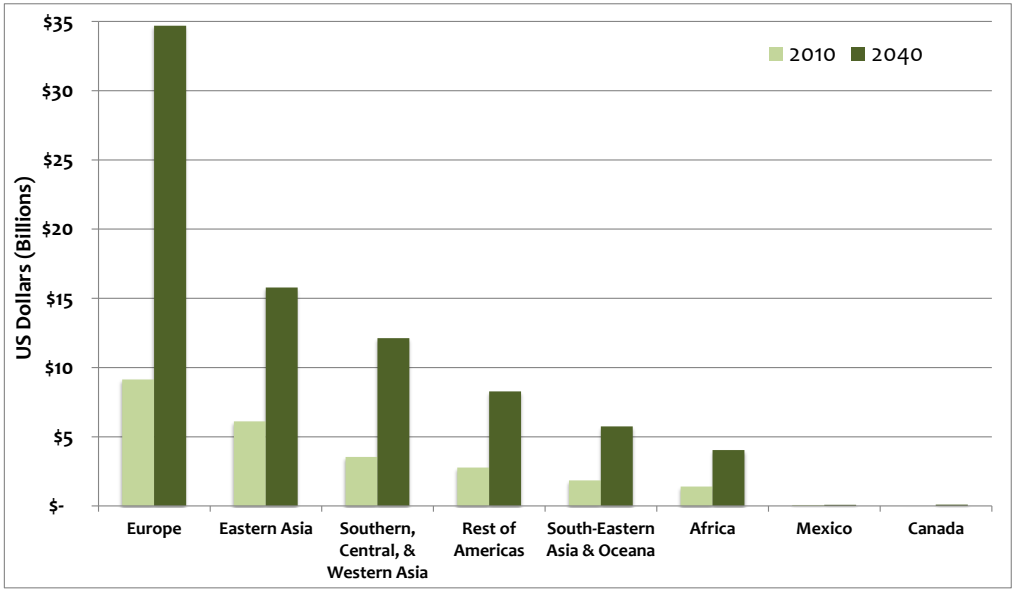


Figure 19 –Exports Shipped Directly from Hampton Roads by Water – Value
Data Source: FHWA Freight Analysis Framework

HAMPTON ROADS TOP 10 TRADING PARTNERS BY MODE

Table 9 – Hampton Roads* Top 10 Trading Partners by Truck – 2010

Data Source: FHWA Freight Analysis Framework.

Weight

Rank	FAF ID	FAF Analysis Area	Tons (thousands) To HR	From HR	Total	Share
1	511	Richmond, VA MSA	3,560.56	2,803.28	6,363.84	18%
2	379	Remainder of North Carolina	2,263.34	1,981.33	4,244.66	12%
3	519	Remainder of Virginia	1,991.59	1,939.83	3,931.42	11%
4	513	Washington, DC-MD-VA-WV CSA (VA Part)	1,301.12	1,579.94	2,881.06	8%
5	241	Baltimore, MD MSA	1,495.66	526.08	2,021.74	6%
6	429	Remainder of Pennsylvania	633.58	436.88	1,070.46	3%
7	372	Greensboro--Winston-Salem--High Point, NC CSA	438.80	415.64	854.44	2%
8	124	Tampa, FL MSA	388.76	313.11	701.87	2%
9	373	Raleigh-Durham, NC CSA	199.45	475.01	674.46	2%
10	363	New York, NY-NJ-CT-PA CSA (NY Part)	288.64	311.61	600.25	2%
		Remaining FAF Analysis Areas	5,580.76	7,003.71	12,584.46	35%
		Total	18,142.25	17,786.42	35,928.67	100%

Value

Rank	FAF ID	FAF Analysis Area	Dollars (millions) To HR	From HR	Total	Share
1	511	Richmond, VA MSA	$ 3,573.26	$ 1,933.91	$ 5,507.17	10%
2	379	Remainder of North Carolina	$ 2,237.61	$ 2,291.90	$ 4,529.51	8%
3	241	Baltimore, MD MSA	$ 2,397.28	$ 1,282.46	$ 3,679.74	6%
4	519	Remainder of Virginia	$ 1,567.96	$ 2,031.30	$ 3,599.26	6%
5	50	Arkansas	$ 174.48	$ 2,259.88	$ 2,434.36	4%
6	372	Greensboro--Winston-Salem--High Point, NC CSA	$ 846.12	$ 1,248.04	$ 2,094.16	4%
7	429	Remainder of Pennsylvania	$ 962.55	$ 658.99	$ 1,621.54	3%
8	373	Raleigh-Durham, NC CSA	$ 219.35	$ 1,361.93	$ 1,581.28	3%
9	513	Washington, DC-MD-VA-WV CSA (VA Part)	$ 594.57	$ 897.06	$ 1,491.63	3%
10	363	New York, NY-NJ-CT-PA CSA (NY Part)	$ 842.74	$ 532.51	$ 1,375.25	2%
		Remaining FAF Analysis Areas	$14,327.75	$14,823.61	$ 29,151.36	51%
		Total	$27,743.66	$29,321.60	$ 57,065.27	100%

Table 10 – Hampton Roads* Top 10 Trading Partners by Truck – 2040

Data Source: FHWA Freight Analysis Framework.

Weight

Rank	FAF ID	FAF Analysis Area	Tons (thousands) To HR	From HR	Total	Share
1	379	Remainder of North Carolina	6,154.59	4,091.58	10,246.17	15%
2	511	Richmond, VA MSA	3,821.10	3,489.55	7,310.65	10%
3	519	Remainder of Virginia	3,300.14	3,080.03	6,380.17	9%
4	513	Washington, DC-MD-VA-WV CSA (VA Part)	2,775.39	2,177.25	4,952.64	7%
5	241	Baltimore, MD MSA	2,991.81	1,332.72	4,324.53	6%
6	372	Greensboro--Winston-Salem--High Point, NC CSA	845.28	1,274.35	2,119.62	3%
7	50	Arkansas	89.34	2,001.63	2,090.97	3%
8	429	Remainder of Pennsylvania	928.70	934.31	1,863.01	3%
9	363	New York, NY-NJ-CT-PA CSA (NY Part)	561.50	1,043.78	1,605.28	2%
10	373	Raleigh-Durham, NC CSA	559.88	899.90	1,459.78	2%
		Remaining FAF Analysis Areas	11,964.47	15,406.82	27,371.30	39%
		Total	33,992.20	35,731.92	69,724.12	100%

Value

Rank	FAF ID	FAF Analysis Area	Dollars (millions) To HR	From HR	Total	Share
1	379	Remainder of North Carolina	$ 6,444.43	$ 6,070.38	$ 12,514.81	9%
2	511	Richmond, VA MSA	$ 5,565.87	$ 4,230.92	$ 9,796.79	7%
3	50	Arkansas	$ 344.57	$ 7,836.88	$ 8,181.45	6%
4	241	Baltimore, MD MSA	$ 4,062.99	$ 3,503.29	$ 7,566.28	5%
5	519	Remainder of Virginia	$ 2,380.40	$ 5,094.58	$ 7,474.98	5%
6	372	Greensboro--Winston-Salem--High Point, NC CSA	$ 1,786.79	$ 4,093.15	$ 5,879.94	4%
7	61	Los Angeles, CA CSA	$ 3,126.82	$ 1,431.73	$ 4,558.55	3%
8	171	Chicago, IL-IN-WI CSA (IL Part)	$ 1,737.23	$ 2,656.80	$ 4,394.03	3%
9	373	Raleigh-Durham, NC CSA	$ 641.52	$ 3,483.21	$ 4,124.73	3%
10	341	New York, NY-NJ-CT-PA CSA (NJ Part)	$ 1,590.43	$ 2,031.12	$ 3,621.55	3%
		Remaining FAF Analysis Areas	$34,549.58	$37,617.03	$ 72,166.60	51%
		Total	$62,230.62	$78,049.10	$140,279.73	100%

*Excludes "Within Hampton Roads" shipments.

Table 11 – Hampton Roads* Top 10 Trading Partners by Rail – 2010

Data Source: FHWA Freight Analysis Framework.

Weight

Rank	FAF ID	FAF Analysis Area	Tons (thousands) To HR	From HR	Total	Share
1	540	West Virginia	7,980.14	194.83	8,174.98	41%
2	519	Remainder of Virginia	5,935.73	0.03	5,935.75	30%
3	511	Richmond, VA MSA	31.78	1,698.94	1,730.72	9%
4	219	Remainder of Kentucky	1,408.53	-	1,408.53	7%
5	399	Remainder of Ohio	839.74	-	839.74	4%
6	242	Washington, DC-VA-MD-WV MSA (MD Part)	209.57	-	209.57	1%
7	363	New York, NY-NJ-CT-PA CSA (NY Part)	204.08	0.41	204.50	1%
8	379	Remainder of North Carolina	149.92	-	149.92	1%
9	513	Washington, DC-MD-VA-WV CSA (VA Part)	115.46	0.09	115.55	1%
10	189	Remainder of Indiana	113.65	-	113.65	1%
		Remaining FAF Analysis Areas	967.95	176.19	1,144.15	6%
		Total	17,956.55	2,070.49	20,027.05	100%

Value

Rank	FAF ID	FAF Analysis Area	Dollars (millions) To HR	From HR	Total	Share
1	540	West Virginia	$ 451.26	$ 29.06	$ 480.32	24%
2	519	Remainder of Virginia	$ 446.26	$ 0.02	$ 446.28	23%
3	399	Remainder of Ohio	$ 137.65	$ -	$ 137.65	7%
4	219	Remainder of Kentucky	$ 130.91	$ -	$ 130.91	7%
5	261	Detroit, MI CSA	$ 80.34	$ 18.01	$ 98.35	5%
6	379	Remainder of North Carolina	$ 88.72	$ -	$ 88.72	5%
7	511	Richmond, VA MSA	$ 19.52	$ 50.10	$ 69.61	4%
8	486	Houston, TX CSA	$ 39.50	$ 3.80	$ 43.30	2%
9	513	Washington, DC-MD-VA-WV CSA (VA Part)	$ 34.57	$ 0.15	$ 34.71	2%
10	559	Remainder of Wisconsin	$ 34.11	$ -	$ 34.11	2%
		Remaining FAF Analysis Areas	$ 336.81	$ 65.75	$ 402.55	20%
		Total	$ 1,799.65	$ 166.87	$ 1,966.53	100%

Table 12 – Hampton Roads* Top 10 Trading Partners by Rail – 2040

Data Source: FHWA Freight Analysis Framework.

Weight

Rank	FAF ID	FAF Analysis Area	Tons (thousands) To HR	From HR	Total	Share
1	519	Remainder of Virginia	8,389.16	0.09	8,389.25	35%
2	540	West Virginia	5,580.33	134.52	5,714.84	24%
3	511	Richmond, VA MSA	203.09	3,356.66	3,559.75	15%
4	363	New York, NY-NJ-CT-PA CSA (NY Part)	1,252.79	1.99	1,254.78	5%
5	399	Remainder of Ohio	990.02	-	990.02	4%
6	219	Remainder of Kentucky	860.08	-	860.08	4%
7	369	Remainder of New York	175.49	83.89	259.38	1%
8	242	Washington, DC-VA-MD-WV MSA (MD Part)	252.04	-	252.04	1%
9	379	Remainder of North Carolina	246.38	-	246.38	1%
10	69	Remainder of California	215.57	4.52	220.08	1%
		Remaining FAF Analysis Areas	1,672.48	270.39	1,942.88	8%
		Total	19,837.43	3,852.06	23,689.49	100%

Value

Rank	FAF ID	FAF Analysis Area	Dollars (millions) To HR	From HR	Total	Share
1	519	Remainder of Virginia	$ 633.94	$ 0.07	$ 634.01	20%
2	540	West Virginia	$ 342.86	$ 37.67	$ 380.52	12%
3	261	Detroit, MI CSA	$ 297.20	$ 48.74	$ 345.93	11%
4	399	Remainder of Ohio	$ 188.67	$ -	$ 188.67	6%
5	511	Richmond, VA MSA	$ 26.83	$ 149.23	$ 176.06	6%
6	219	Remainder of Kentucky	$ 174.42	$ -	$ 174.42	6%
7	379	Remainder of North Carolina	$ 141.41	$ -	$ 141.41	5%
8	486	Houston, TX CSA	$ 99.13	$ 3.77	$ 102.90	3%
9	393	Columbus, OH CSA	$ 101.26	$ -	$ 101.26	3%
10	369	Remainder of New York	$ 36.71	$ 41.28	$ 77.99	3%
		Remaining FAF Analysis Areas	$ 661.98	$ 114.25	$ 776.23	25%
		Total	$ 2,704.39	$ 395.00	$ 3,099.39	100%

*Excludes "Within Hampton Roads" shipments.

Table 13 – Hampton Roads* Top 10 Trading Partners by Water – 2010

Data Source: FHWA Freight Analysis Framework.

Weight

Rank	FAF ID	FAF Analysis Area	Tons (thousands) To HR	From HR	Total	Share
1	804	Europe	5,190.95	26,794.34	31,985.28	59%
2	803	Rest of Americas	3,485.21	4,587.72	8,072.93	15%
3	807	Eastern Asia	1,876.21	2,978.08	4,854.30	9%
4	806	Southern, Central, & Western Asia	801.50	2,901.45	3,702.96	7%
5	805	Africa	329.55	1,836.00	2,165.55	4%
6	801	Canada	1,176.06	329.90	1,505.96	3%
7	808	South-Eastern Asia & Oceana	473.64	893.71	1,367.35	3%
8	802	Mexico	4.41	280.12	284.53	1%
9	241	Baltimore, MD MSA	136.22	-	136.22	0%
10	519	Remainder of Virginia	40.19	1.01	41.20	0%
		Remaining FAF Analysis Areas	16.06	13.32	29.38	0%
		Total	13,530.00	40,615.66	54,145.66	100%

Value

Rank	FAF ID	FAF Analysis Area	Dollars (millions) To HR	From HR	Total	Share
1	804	Europe	$ 8,881.70	$ 9,141.36	$ 18,023.06	35%
2	807	Eastern Asia	$ 8,195.44	$ 6,111.03	$ 14,306.47	28%
3	806	Southern, Central, & Western Asia	$ 3,108.21	$ 3,537.59	$ 6,645.80	13%
4	803	Rest of Americas	$ 3,578.10	$ 2,775.34	$ 6,353.44	12%
5	808	South-Eastern Asia & Oceana	$ 1,290.90	$ 1,841.18	$ 3,132.08	6%
6	805	Africa	$ 366.61	$ 1,404.20	$ 1,770.82	3%
7	801	Canada	$ 576.19	$ 3.80	$ 579.99	1%
8	802	Mexico	$ 17.81	$ 72.72	$ 90.53	0%
9	519	Remainder of Virginia	$ 9.09	$ 2.98	$ 12.07	0%
10	20	Alaska	$ 5.79	$ 0.03	$ 5.82	0%
		Remaining FAF Analysis Areas	$ 0.92	$ 2.17	$ 3.10	0%
		Total	$26,030.77	$24,892.41	$ 50,923.17	100%

Table 14 – Hampton Roads* Top 10 Trading Partners by Water – 2040

Data Source: FHWA Freight Analysis Framework.

Weight

Rank	FAF ID	FAF Analysis Area	Tons (thousands) To HR	From HR	Total	Share
1	804	Europe	10,342.78	40,413.79	50,756.57	44%
2	803	Rest of Americas	8,108.67	10,430.06	18,538.72	16%
3	807	Eastern Asia	7,115.44	8,529.33	15,644.78	14%
4	806	Southern, Central, & Western Asia	2,975.08	7,782.87	10,757.95	9%
5	805	Africa	722.93	7,931.44	8,654.36	8%
6	801	Canada	5,328.97	302.14	5,631.10	5%
7	808	South-Eastern Asia & Oceana	1,617.36	2,219.67	3,837.02	3%
8	802	Mexico	10.28	378.02	388.30	0%
9	241	Baltimore, MD MSA	76.32	-	76.32	0%
10	519	Remainder of Virginia	24.26	2.57	26.83	0%
		Remaining FAF Analysis Areas	5.76	4.28	10.05	0%
		Total	36,327.84	77,994.17	114,322.02	100%

Value

Rank	FAF ID	FAF Analysis Area	Dollars (millions) To HR	From HR	Total	Share
1	804	Europe	$32,221.11	$34,686.48	$ 66,907.58	39%
2	807	Eastern Asia	$26,060.71	$15,779.68	$ 41,840.39	25%
3	806	Southern, Central, & Western Asia	$11,072.88	$12,125.82	$ 23,198.70	14%
4	803	Rest of Americas	$13,609.18	$ 8,270.18	$ 21,879.36	13%
5	808	South-Eastern Asia & Oceana	$ 4,050.16	$ 5,743.96	$ 9,794.12	6%
6	805	Africa	$ 1,180.35	$ 4,037.52	$ 5,217.87	3%
7	801	Canada	$ 1,687.85	$ 98.94	$ 1,786.79	1%
8	802	Mexico	$ 31.38	$ 88.41	$ 119.79	0%
9	519	Remainder of Virginia	$ 6.21	$ 6.82	$ 13.04	0%
10	513	Washington, DC-MD-VA-WV CSA (VA Part)	$ -	$ 3.76	$ 3.76	0%
		Remaining FAF Analysis Areas	$ 2.61	$ 0.33	$ 2.94	0%
		Total	$89,922.45	$80,841.91	$170,764.36	100%

*Excludes "Within Hampton Roads" shipments.

Table 15 – Hampton Roads* Top 10 Trading Partners by Air (includes truck-air) – 2010

Data Source: FHWA Freight Analysis Framework.

Weight

Rank	FAF ID	FAF Analysis Area	Tons (thousands) To HR	From HR	Total	Share
1	486	Houston, TX CSA	0.00	7.85	7.85	20%
2	489	Remainder of Texas	-	5.26	5.26	14%
3	61	Los Angeles, CA CSA	4.00	0.35	4.35	11%
4	271	Minneapolis-St. Paul, MN-WI CSA (MN Part)	0.01	3.90	3.91	10%
5	804	Europe	1.45	2.39	3.83	10%
6	559	Remainder of Wisconsin	0.01	2.61	2.62	7%
7	81	Denver, CO CSA	0.00	2.61	2.61	7%
8	484	Dallas-Fort Worth, TX CSA	0.00	1.32	1.32	3%
9	211	Louisville, KY-IN CSA (KY Part)	1.01	0.22	1.23	3%
10	99	Remainder of Connecticut	0.86	-	0.86	2%
		Remaining FAF Analysis Areas	2.17	50.96	4.54	12%
		Total	9.52	77.46	38.38	100%

Value

Rank	FAF ID	FAF Analysis Area	Dollars (millions) To HR	From HR	Total	Share
1	99	Remainder of Connecticut	$ 790.17	$ -	$ 790.17	34%
2	804	Europe	$ 208.62	$ 340.90	$ 549.52	23%
3	440	Rhode Island	$ 122.12	$ -	$ 122.12	5%
4	486	Houston, TX CSA	$ 0.30	$ 97.26	$ 97.56	4%
5	341	New York, NY-NJ-CT-PA CSA (NJ Part)	$ 77.04	$ 11.01	$ 88.05	4%
6	64	San Francisco, CA CSA	$ 77.27	$ 1.09	$ 78.36	3%
7	489	Remainder of Texas	$ -	$ 65.71	$ 65.71	3%
8	363	New York, NY-NJ-CT-PA CSA (NY Part)	$ 59.02	$ 3.83	$ 62.85	3%
9	61	Los Angeles, CA CSA	$ 46.53	$ 1.35	$ 47.89	2%
10	271	Minneapolis-St. Paul, MN-WI CSA (MN Part)	$ 3.14	$ 40.09	$ 43.23	2%
		Remaining FAF Analysis Areas	$ 234.59	$ 170.69	$ 405.28	17%
		Total	$ 1,618.80	$ 731.92	$ 2,350.72	100%

Table 16 – Hampton Roads* Top 10 Trading Partners by Air (includes truck-air) – 2040

Data Source: FHWA Freight Analysis Framework.

Weight

Rank	FAF ID	FAF Analysis Area	Tons (thousands) To HR	From HR	Total	Share
1	61	Los Angeles, CA CSA	60.68	0.60	61.28	51%
2	486	Houston, TX CSA	0.00	10.23	10.23	8%
3	804	Europe	3.53	6.25	9.78	8%
4	271	Minneapolis-St. Paul, MN-WI CSA (MN Part)	0.02	6.54	6.56	5%
5	559	Remainder of Wisconsin	0.01	4.87	4.89	4%
6	489	Remainder of Texas	-	4.74	4.74	4%
7	99	Remainder of Connecticut	3.83	-	3.83	3%
8	81	Denver, CO CSA	0.00	3.01	3.01	2%
9	211	Louisville, KY-IN CSA (KY Part)	2.02	0.22	2.24	2%
10	64	San Francisco, CA CSA	1.75	0.00	1.75	1%
		Remaining FAF Analysis Areas	5.60	7.18	12.78	11%
		Total	77.46	43.64	121.10	100%

Value

Rank	FAF ID	FAF Analysis Area	Dollars (millions) To HR	From HR	Total	Share
1	99	Remainder of Connecticut	$ 4,571.03	$ -	$ 4,571.03	50%
2	804	Europe	$ 608.22	$ 885.01	$ 1,493.23	16%
3	64	San Francisco, CA CSA	$ 652.42	$ 0.37	$ 652.78	7%
4	61	Los Angeles, CA CSA	$ 420.15	$ 2.36	$ 422.51	5%
5	341	New York, NY-NJ-CT-PA CSA (NJ Part)	$ 249.63	$ 17.42	$ 267.04	3%
6	803	Rest of Americas	$ 33.31	$ 125.39	$ 158.70	2%
7	189	Remainder of Indiana	$ 135.79	$ -	$ 135.79	1%
8	486	Houston, TX CSA	$ 0.89	$ 126.82	$ 127.71	1%
9	440	Rhode Island	$ 96.10	$ -	$ 96.10	1%
10	363	New York, NY-NJ-CT-PA CSA (NY Part)	$ 80.54	$ 8.72	$ 89.26	1%
		Remaining FAF Analysis Areas	$ 643.05	$ 423.88	$ 1,066.93	12%
		Total	$ 7,491.14	$ 1,589.97	$ 9,081.10	100%

*Excludes "Within Hampton Roads" shipments.

Table 17 – Hampton Roads* Top 10 Trading Partners by Multiple Modes & Mail – 2010

Data Source: FHWA Freight Analysis Framework.

Weight

Rank	FAF ID	FAF Analysis Area	Tons (thousands) To HR	From HR	Total	Share
1	249	Remainder of Maryland	0.40	1,859.27	1,859.67	25%
2	171	Chicago, IL-IN-WI CSA (IL Part)	415.45	374.67	790.12	10%
3	511	Richmond, VA MSA	531.24	45.62	576.86	8%
4	211	Louisville, KY-IN CSA (KY Part)	217.72	171.52	389.24	5%
5	391	Cincinnati, OH-KY-IN CSA (OH Part)	170.02	143.08	313.10	4%
6	379	Remainder of North Carolina	260.55	6.96	267.52	4%
7	182	Indianapolis, IN CSA	219.09	6.21	225.30	3%
8	121	Jacksonville, FL MSA	221.60	1.16	222.76	3%
9	393	Columbus, OH CSA	155.59	54.88	210.47	3%
10	261	Detroit, MI CSA	111.86	87.11	198.97	3%
		Remaining FAF Analysis Areas	1,599.45	908.18	2,507.63	33%
		Total	3,902.98	3,658.67	7,561.65	100%

Value

Rank	FAF ID	FAF Analysis Area	Dollars (millions) To HR	From HR	Total	Share
1	171	Chicago, IL-IN-WI CSA (IL Part)	$ 1,418.08	$ 1,491.23	$ 2,909.30	12%
2	211	Louisville, KY-IN CSA (KY Part)	$ 498.34	$ 736.02	$ 1,234.36	5%
3	249	Remainder of Maryland	$ 4.70	$ 1,180.22	$ 1,184.91	5%
4	391	Cincinnati, OH-KY-IN CSA (OH Part)	$ 442.14	$ 582.15	$ 1,024.29	4%
5	261	Detroit, MI CSA	$ 542.59	$ 411.97	$ 954.56	4%
6	61	Los Angeles, CA CSA	$ 533.09	$ 248.67	$ 781.76	3%
7	50	Arkansas	$ 103.90	$ 648.56	$ 752.46	3%
8	393	Columbus, OH CSA	$ 428.98	$ 264.46	$ 693.44	3%
9	392	Cleveland, OH CSA	$ 294.24	$ 266.40	$ 560.64	2%
10	372	Greensboro--Winston-Salem--High Point, NC CSA	$ 98.58	$ 445.95	$ 544.53	2%
		Remaining FAF Analysis Areas	$ 8,629.81	$ 4,216.83	$ 12,846.64	55%
		Total	$12,994.45	$10,492.44	$ 23,486.89	100%

Table 18 – Hampton Roads* Top 10 Trading Partners by Multiple Modes & Mail – 2040

Data Source: FHWA Freight Analysis Framework.

Weight

Rank	FAF ID	FAF Analysis Area	Tons (thousands) To HR	From HR	Total	Share
1	171	Chicago, IL-IN-WI CSA (IL Part)	1,503.07	1,386.70	2,889.78	15%
2	211	Louisville, KY-IN CSA (KY Part)	1,795.46	573.32	2,368.78	12%
3	249	Remainder of Maryland	0.46	1,520.86	1,521.32	8%
4	261	Detroit, MI CSA	645.09	281.67	926.76	5%
5	391	Cincinnati, OH-KY-IN CSA (OH Part)	318.56	471.71	790.27	4%
6	393	Columbus, OH CSA	524.90	233.14	758.04	4%
7	61	Los Angeles, CA CSA	610.08	116.31	726.39	4%
8	182	Indianapolis, IN CSA	567.82	18.43	586.25	3%
9	511	Richmond, VA MSA	493.81	83.45	577.25	3%
10	513	Washington, DC-MD-VA-WV CSA (VA Part)	155.97	320.90	476.86	2%
		Remaining FAF Analysis Areas	4,922.83	2,634.34	7,557.17	39%
		Total	11,538.06	7,640.82	19,178.88	100%

Value

Rank	FAF ID	FAF Analysis Area	Dollars (millions) To HR	From HR	Total	Share
1	171	Chicago, IL-IN-WI CSA (IL Part)	$ 6,227.26	$ 6,036.47	$ 12,263.72	14%
2	211	Louisville, KY-IN CSA (KY Part)	$ 4,161.74	$ 2,660.92	$ 6,822.66	8%
3	182	Indianapolis, IN CSA	$ 6,306.74	$ 121.63	$ 6,428.37	7%
4	61	Los Angeles, CA CSA	$ 3,267.08	$ 676.87	$ 3,943.95	4%
5	391	Cincinnati, OH-KY-IN CSA (OH Part)	$ 1,366.41	$ 2,181.34	$ 3,547.76	4%
6	393	Columbus, OH CSA	$ 1,787.69	$ 1,150.52	$ 2,938.21	3%
7	50	Arkansas	$ 198.89	$ 2,636.89	$ 2,835.78	3%
8	261	Detroit, MI CSA	$ 1,446.54	$ 1,353.49	$ 2,800.03	3%
9	392	Cleveland, OH CSA	$ 1,115.85	$ 1,012.02	$ 2,127.87	2%
10	219	Remainder of Kentucky	$ 1,087.01	$ 1,040.25	$ 2,127.26	2%
		Remaining FAF Analysis Areas	$27,134.39	$15,687.32	$ 42,821.71	48%
		Total	$54,099.60	$34,557.72	$ 88,657.33	100%

*Excludes "Within Hampton Roads" shipments.

COMMODITIES SHIPPED TO, FROM, AND WITHIN HAMPTON ROADS

Note: Please refer to explanation of FHWA FAF data limitations for bulk products, such as coal, on page 4.

Table 19 – 2010 Commodities Shipped to Hampton Roads – Weight

Data Source: FHWA Freight Analysis Framework.

Rank	SCTG Code	Commodity	Tons (thousands) To HR	Share
1	15	Coal	16,995.25	31%
2	41	Waste/scrap	3,624.56	7%
3	16	Crude petroleum	2,552.95	5%
4	3	Other agricultural prods.	2,242.40	4%
5	31	Nonmetal mineral prods.	2,090.19	4%
6	43	Mixed freight	1,974.67	4%
7	7	Other foodstuffs	1,792.70	3%
8	2	Cereal grains	1,684.13	3%
9	26	Wood prods.	1,566.65	3%
10	24	Plastics/rubber	1,363.67	2%
11	13	Nonmetallic minerals	1,334.18	2%
12	19	Natural gas & petroleum prods.	1,318.46	2%
13	12	Gravel	1,271.54	2%
14	32	Base metals	1,124.08	2%
15	27	Newsprint/paper	1,067.63	2%
16	22	Fertilizers	993.89	2%
17	20	Basic chemicals	916.66	2%
18	34	Machinery	914.30	2%
19	33	Articles-base metal	885.67	2%
20	17	Gasoline	694.26	1%
21	11	Natural sands	655.14	1%
22	30	Textiles/leather	641.72	1%
23	36	Motorized vehicles	636.38	1%
24	23	Chemical prods.	633.70	1%
25	40	Misc. mfg. prods.	610.85	1%
26	4	Animal feed	596.15	1%
27	18	Fuel oils	572.86	1%
28	39	Furniture	569.99	1%
29	5	Meat/seafood	518.05	1%
30	8	Alcoholic beverages	462.63	1%
31	6	Milled grain prods.	404.61	1%
32	35	Electronics	396.86	1%
33	29	Printed prods.	369.13	1%
34	25	Logs	335.47	1%
35	28	Paper articles	254.97	0%
36	99	Unknown	202.67	0%
37	10	Building stone	145.37	0%
38	1	Live animals/fish	144.68	0%
39	14	Metallic ores	57.20	0%
40	38	Precision instruments	45.21	0%
41	21	Pharmaceuticals	45.18	0%
42	9	Tobacco prods.	33.18	0%
43	37	Transport equipment	23.30	0%
		Total	54,763.10	100%

Table 20 – 2040 Commodities Shipped to Hampton Roads – Weight

Data Source: FHWA Freight Analysis Framework.

Rank	SCTG Code	Commodity	Tons (thousands) To HR	Share
1	15	Coal	18,307.22	18%
2	41	Waste/scrap	10,745.62	10%
3	16	Crude petroleum	5,485.35	5%
4	24	Plastics/rubber	4,562.66	4%
5	34	Machinery	4,192.07	4%
6	43	Mixed freight	4,177.76	4%
7	31	Nonmetal mineral prods.	4,074.55	4%
8	13	Nonmetallic minerals	3,765.86	4%
9	7	Other foodstuffs	3,584.62	3%
10	3	Other agricultural prods.	3,323.75	3%
11	39	Furniture	2,826.63	3%
12	26	Wood prods.	2,793.63	3%
13	40	Misc. mfg. prods.	2,342.19	2%
14	20	Basic chemicals	2,285.35	2%
15	12	Gravel	2,147.95	2%
16	11	Natural sands	2,144.91	2%
17	33	Articles-base metal	2,090.59	2%
18	2	Cereal grains	1,973.92	2%
19	23	Chemical prods.	1,929.76	2%
20	8	Alcoholic beverages	1,797.85	2%
21	30	Textiles/leather	1,754.32	2%
22	17	Gasoline	1,574.28	2%
23	5	Meat/seafood	1,505.93	1%
24	19	Natural gas & petroleum prods.	1,442.71	1%
25	35	Electronics	1,400.09	1%
26	32	Base metals	1,162.06	1%
27	27	Newsprint/paper	1,139.73	1%
28	4	Animal feed	1,019.72	1%
29	18	Fuel oils	997.03	1%
30	36	Motorized vehicles	942.00	1%
31	99	Unknown	907.96	1%
32	6	Milled grain prods.	861.81	1%
33	22	Fertilizers	801.23	1%
34	25	Logs	739.48	1%
35	28	Paper articles	560.08	1%
36	29	Printed prods.	445.17	0%
37	38	Precision instruments	437.42	0%
38	10	Building stone	250.43	0%
39	21	Pharmaceuticals	213.37	0%
40	1	Live animals/fish	160.97	0%
41	14	Metallic ores	74.84	0%
42	37	Transport equipment	62.39	0%
43	9	Tobacco prods.	17.31	0%
		Total	103,022.57	100%

GLOSSARY

"To" – Shipments from the 123 U.S. domestic areas to Hampton Roads, including the domestic leg of foreign shipments. Also includes import shipments for which Hampton Roads is the entry point.

Table 21 – 2010 Commodities Shipped to Hampton Roads – Value

Data Source: FHWA Freight Analysis Framework.

Rank	SCTG Code	Commodity	Dollars (millions) To HR	Share
1	34	Machinery	$ 10,101.29	14%
2	43	Mixed freight	$ 5,518.17	8%
3	36	Motorized vehicles	$ 5,472.81	8%
4	30	Textiles/leather	$ 5,334.66	7%
5	35	Electronics	$ 5,191.71	7%
6	40	Misc. mfg. prods.	$ 4,129.69	6%
7	24	Plastics/rubber	$ 4,025.07	6%
8	3	Other agricultural prods.	$ 3,243.20	5%
9	38	Precision instruments	$ 2,250.78	3%
10	33	Articles-base metal	$ 2,188.12	3%
11	7	Other foodstuffs	$ 2,117.11	3%
12	39	Furniture	$ 1,972.78	3%
13	32	Base metals	$ 1,755.32	2%
14	23	Chemical prods.	$ 1,752.71	2%
15	20	Basic chemicals	$ 1,681.62	2%
16	21	Pharmaceuticals	$ 1,429.02	2%
17	26	Wood prods.	$ 1,420.51	2%
18	5	Meat/seafood	$ 1,294.94	2%
19	15	Coal	$ 1,009.88	1%
20	31	Nonmetal mineral prods.	$ 919.26	1%
21	37	Transport equipment	$ 890.55	1%
22	16	Crude petroleum	$ 805.04	1%
23	8	Alcoholic beverages	$ 765.10	1%
24	27	Newsprint/paper	$ 763.50	1%
25	29	Printed prods.	$ 646.11	1%
26	19	Natural gas & petroleum prods.	$ 612.17	1%
27	18	Fuel oils	$ 592.84	1%
28	28	Paper articles	$ 468.36	1%
29	1	Live animals/fish	$ 397.48	1%
30	17	Gasoline	$ 387.84	1%
31	6	Milled grain prods.	$ 355.38	0%
32	4	Animal feed	$ 340.51	0%
33	2	Cereal grains	$ 305.17	0%
34	9	Tobacco prods.	$ 238.38	0%
35	99	Unknown	$ 217.29	0%
36	41	Waste/scrap	$ 205.37	0%
37	22	Fertilizers	$ 197.05	0%
38	13	Nonmetallic minerals	$ 179.29	0%
39	25	Logs	$ 111.72	0%
40	14	Metallic ores	$ 59.02	0%
41	11	Natural sands	$ 13.48	0%
42	12	Gravel	$ 13.01	0%
43	10	Building stone	$ 12.69	0%
		Total	$ 71,386.00	100%

Table 22 – 2040 Commodities Shipped to Hampton Roads – Value

Data Source: FHWA Freight Analysis Framework.

Rank	SCTG Code	Commodity	Dollars (millions) To HR	Share
1	34	Machinery	$ 38,929.07	18%
2	38	Precision instruments	$ 25,159.54	12%
3	35	Electronics	$ 15,354.44	7%
4	40	Misc. mfg. prods.	$ 14,620.15	7%
5	24	Plastics/rubber	$ 13,888.01	6%
6	43	Mixed freight	$ 12,986.39	6%
7	30	Textiles/leather	$ 12,948.60	6%
8	3	Other agricultural prods.	$ 8,918.23	4%
9	39	Furniture	$ 8,661.77	4%
10	36	Motorized vehicles	$ 7,797.39	4%
11	21	Pharmaceuticals	$ 6,987.47	3%
12	23	Chemical prods.	$ 6,843.93	3%
13	20	Basic chemicals	$ 5,481.10	3%
14	33	Articles-base metal	$ 4,998.18	2%
15	7	Other foodstuffs	$ 4,557.66	2%
16	5	Meat/seafood	$ 3,649.58	2%
17	8	Alcoholic beverages	$ 3,180.89	1%
18	26	Wood prods.	$ 2,553.34	1%
19	16	Crude petroleum	$ 2,335.06	1%
20	32	Base metals	$ 2,156.08	1%
21	31	Nonmetal mineral prods.	$ 2,070.61	1%
22	37	Transport equipment	$ 1,946.11	1%
23	41	Waste/scrap	$ 1,523.69	1%
24	99	Unknown	$ 1,399.19	1%
25	15	Coal	$ 1,136.53	1%
26	28	Paper articles	$ 1,000.24	0%
27	17	Gasoline	$ 885.88	0%
28	29	Printed prods.	$ 869.18	0%
29	6	Milled grain prods.	$ 828.14	0%
30	18	Fuel oils	$ 776.71	0%
31	4	Animal feed	$ 659.97	0%
32	27	Newsprint/paper	$ 638.63	0%
33	19	Natural gas & petroleum prods.	$ 613.23	0%
34	1	Live animals/fish	$ 462.31	0%
35	2	Cereal grains	$ 395.45	0%
36	25	Logs	$ 358.37	0%
37	13	Nonmetallic minerals	$ 307.69	0%
38	22	Fertilizers	$ 193.25	0%
39	9	Tobacco prods.	$ 129.00	0%
40	14	Metallic ores	$ 88.11	0%
41	11	Natural sands	$ 42.91	0%
42	10	Building stone	$ 38.03	0%
43	12	Gravel	$ 26.12	0%
		Total	$ 218,396.24	100%

Table 23 – 2010 Commodities Shipped from Hampton Roads – Weight

Data Source: FHWA Freight Analysis Framework.

Rank	SCTG Code	Commodity	Tons (thousands) From HR	Share
1	15	Coal	31,050.78	48%
2	41	Waste/scrap	3,162.63	5%
3	3	Other agricultural prods.	2,955.15	5%
4	18	Fuel oils	2,286.82	4%
5	31	Nonmetal mineral prods.	1,950.55	3%
6	7	Other foodstuffs	1,775.59	3%
7	24	Plastics/rubber	1,743.33	3%
8	8	Alcoholic beverages	1,726.37	3%
9	27	Newsprint/paper	1,580.41	2%
10	28	Paper articles	1,300.20	2%
11	2	Cereal grains	1,268.87	2%
12	26	Wood prods.	1,151.36	2%
13	19	Natural gas & petroleum prods.	997.43	2%
14	13	Nonmetallic minerals	916.48	1%
15	20	Basic chemicals	903.04	1%
16	40	Misc. mfg. prods.	901.96	1%
17	34	Machinery	884.26	1%
18	43	Mixed freight	841.11	1%
19	5	Meat/seafood	821.48	1%
20	22	Fertilizers	677.32	1%
21	4	Animal feed	626.43	1%
22	32	Base metals	607.86	1%
23	30	Textiles/leather	603.22	1%
24	36	Motorized vehicles	497.12	1%
25	39	Furniture	489.05	1%
26	33	Articles-base metal	488.86	1%
27	23	Chemical prods.	433.75	1%
28	99	Unknown	366.68	1%
29	35	Electronics	347.23	1%
30	25	Logs	316.89	0%
31	17	Gasoline	291.84	0%
32	10	Building stone	133.20	0%
33	29	Printed prods.	132.61	0%
34	6	Milled grain prods.	113.20	0%
35	14	Metallic ores	95.83	0%
36	11	Natural sands	74.26	0%
37	1	Live animals/fish	60.56	0%
38	9	Tobacco prods.	57.37	0%
39	38	Precision instruments	41.46	0%
40	37	Transport equipment	32.52	0%
41	21	Pharmaceuticals	32.49	0%
42	12	Gravel	4.53	0%
43	16	Crude petroleum	0.10	0%
		Total	64,742.21	100%

Table 24 – 2040 Commodities Shipped from Hampton Roads – Weight

Data Source: FHWA Freight Analysis Framework.

Rank	SCTG Code	Commodity	Tons (thousands) From HR	Share
1	15	Coal	51,329.30	40%
2	27	Newsprint/paper	8,560.02	7%
3	3	Other agricultural prods.	7,210.63	6%
4	41	Waste/scrap	5,759.93	4%
5	24	Plastics/rubber	5,004.81	4%
6	31	Nonmetal mineral prods.	4,591.09	4%
7	34	Machinery	4,202.02	3%
8	7	Other foodstuffs	3,929.38	3%
9	40	Misc. mfg. prods.	2,896.86	2%
10	13	Nonmetallic minerals	2,761.28	2%
11	39	Furniture	2,623.93	2%
12	8	Alcoholic beverages	2,273.70	2%
13	26	Wood prods.	2,266.23	2%
14	20	Basic chemicals	2,256.79	2%
15	2	Cereal grains	1,972.06	2%
16	30	Textiles/leather	1,938.87	2%
17	18	Fuel oils	1,924.80	1%
18	99	Unknown	1,636.11	1%
19	33	Articles-base metal	1,496.12	1%
20	23	Chemical prods.	1,492.36	1%
21	5	Meat/seafood	1,467.68	1%
22	28	Paper articles	1,456.81	1%
23	43	Mixed freight	1,443.79	1%
24	35	Electronics	1,348.05	1%
25	32	Base metals	1,271.91	1%
26	36	Motorized vehicles	1,148.66	1%
27	19	Natural gas & petroleum prods.	846.59	1%
28	25	Logs	670.60	1%
29	4	Animal feed	610.90	0%
30	22	Fertilizers	473.62	0%
31	6	Milled grain prods.	401.48	0%
32	38	Precision instruments	240.78	0%
33	29	Printed prods.	227.22	0%
34	10	Building stone	212.86	0%
35	11	Natural sands	137.94	0%
36	17	Gasoline	115.78	0%
37	21	Pharmaceuticals	110.65	0%
38	14	Metallic ores	97.38	0%
39	1	Live animals/fish	65.03	0%
40	37	Transport equipment	57.16	0%
41	9	Tobacco prods.	36.71	0%
42	12	Gravel	3.91	0%
43	16	Crude petroleum	0.08	0%
		Total	128,571.87	100%

GLOSSARY

"From" – Shipments from Hampton Roads to the 123 U.S. domestic areas, including the domestic leg of foreign shipments. Also includes export shipments for which Hampton Roads is the exit point.

Table 25 – 2010 Commodities Shipped from Hampton Roads – Value

Data Source: FHWA Freight Analysis Framework.

Rank	SCTG Code	Commodity	Dollars (millions) From HR	Share
1	34	Machinery	$ 9,289.46	14%
2	3	Other agricultural prods.	$ 5,214.80	8%
3	30	Textiles/leather	$ 4,633.19	7%
4	24	Plastics/rubber	$ 4,419.45	6%
5	36	Motorized vehicles	$ 4,028.03	6%
6	40	Misc. mfg. prods.	$ 3,903.31	6%
7	35	Electronics	$ 3,861.31	6%
8	7	Other foodstuffs	$ 3,134.94	5%
9	43	Mixed freight	$ 3,098.16	5%
10	5	Meat/seafood	$ 2,293.74	3%
11	15	Coal	$ 2,155.96	3%
12	20	Basic chemicals	$ 2,049.21	3%
13	18	Fuel oils	$ 1,713.23	3%
14	27	Newsprint/paper	$ 1,692.21	2%
15	8	Alcoholic beverages	$ 1,666.32	2%
16	33	Articles-base metal	$ 1,640.81	2%
17	23	Chemical prods.	$ 1,577.69	2%
18	39	Furniture	$ 1,468.46	2%
19	32	Base metals	$ 1,078.40	2%
20	37	Transport equipment	$ 1,033.71	2%
21	38	Precision instruments	$ 1,025.76	2%
22	21	Pharmaceuticals	$ 1,001.18	1%
23	26	Wood prods.	$ 930.63	1%
24	31	Nonmetal mineral prods.	$ 868.13	1%
25	29	Printed prods.	$ 532.79	1%
26	2	Cereal grains	$ 452.22	1%
27	9	Tobacco prods.	$ 416.00	1%
28	28	Paper articles	$ 403.50	1%
29	99	Unknown	$ 384.95	1%
30	4	Animal feed	$ 363.46	1%
31	41	Waste/scrap	$ 354.90	1%
32	17	Gasoline	$ 227.54	0%
33	19	Natural gas & petroleum prods.	$ 225.20	0%
34	22	Fertilizers	$ 223.73	0%
35	14	Metallic ores	$ 183.66	0%
36	13	Nonmetallic minerals	$ 161.33	0%
37	6	Milled grain prods.	$ 154.08	0%
38	25	Logs	$ 148.63	0%
39	1	Live animals/fish	$ 35.16	0%
40	10	Building stone	$ 5.88	0%
41	11	Natural sands	$ 3.45	0%
42	12	Gravel	$ 0.18	0%
43	16	Crude petroleum	$ 0.06	0%
		Total	$ 68,054.81	100%

Table 26 – 2040 Commodities Shipped from Hampton Roads – Value

Data Source: FHWA Freight Analysis Framework.

Rank	SCTG Code	Commodity	Dollars (millions) From HR	Share
1	34	Machinery	$ 39,899.49	19%
2	30	Textiles/leather	$ 18,253.20	9%
3	3	Other agricultural prods.	$ 14,464.06	7%
4	24	Plastics/rubber	$ 14,397.89	7%
5	35	Electronics	$ 13,567.11	7%
6	40	Misc. mfg. prods.	$ 12,553.24	6%
7	36	Motorized vehicles	$ 8,352.58	4%
8	39	Furniture	$ 7,792.19	4%
9	7	Other foodstuffs	$ 7,358.03	4%
10	27	Newsprint/paper	$ 7,269.45	4%
11	38	Precision instruments	$ 7,066.79	3%
12	23	Chemical prods.	$ 6,168.24	3%
13	20	Basic chemicals	$ 5,765.13	3%
14	43	Mixed freight	$ 5,233.86	3%
15	15	Coal	$ 4,377.98	2%
16	33	Articles-base metal	$ 3,940.57	2%
17	5	Meat/seafood	$ 3,550.66	2%
18	8	Alcoholic beverages	$ 3,450.02	2%
19	21	Pharmaceuticals	$ 3,068.66	1%
20	32	Base metals	$ 2,939.29	1%
21	37	Transport equipment	$ 2,361.15	1%
22	99	Unknown	$ 2,269.94	1%
23	31	Nonmetal mineral prods.	$ 2,249.01	1%
24	26	Wood prods.	$ 1,888.08	1%
25	41	Waste/scrap	$ 1,828.04	1%
26	18	Fuel oils	$ 1,520.59	1%
27	29	Printed prods.	$ 823.89	0%
28	28	Paper articles	$ 702.49	0%
29	2	Cereal grains	$ 649.39	0%
30	4	Animal feed	$ 527.48	0%
31	6	Milled grain prods.	$ 493.02	0%
32	25	Logs	$ 375.20	0%
33	22	Fertilizers	$ 327.08	0%
34	13	Nonmetallic minerals	$ 281.06	0%
35	9	Tobacco prods.	$ 254.70	0%
36	19	Natural gas & petroleum prods.	$ 239.93	0%
37	14	Metallic ores	$ 189.12	0%
38	17	Gasoline	$ 79.43	0%
39	1	Live animals/fish	$ 45.29	0%
40	10	Building stone	$ 7.07	0%
41	11	Natural sands	$ 6.85	0%
42	12	Gravel	$ 0.29	0%
43	16	Crude petroleum	$ 0.04	0%
		Total	$ 206,587.58	100%

Table 27 – 2010 Commodities Shipped within Hampton Roads – Weight

Data Source: FHWA Freight Analysis Framework.

Rank	SCTG Code	Commodity	Tons (thousands) Within HR	Share
1	15	Coal	29,337.44	45%
2	11	Natural sands	5,230.56	8%
3	41	Waste/scrap	4,876.16	7%
4	31	Nonmetal mineral prods.	4,166.18	6%
5	16	Crude petroleum	2,553.06	4%
6	17	Gasoline	1,625.96	2%
7	3	Other agricultural prods.	1,595.73	2%
8	12	Gravel	1,524.11	2%
9	7	Other foodstuffs	1,465.98	2%
10	99	Unknown	1,255.90	2%
11	19	Natural gas & petroleum prods.	1,099.83	2%
12	27	Newsprint/paper	1,065.24	2%
13	18	Fuel oils	863.48	1%
14	2	Cereal grains	816.14	1%
15	34	Machinery	698.84	1%
16	26	Wood prods.	640.99	1%
17	43	Mixed freight	582.67	1%
18	33	Articles-base metal	548.25	1%
19	5	Meat/seafood	517.42	1%
20	24	Plastics/rubber	497.79	1%
21	13	Nonmetallic minerals	426.52	1%
22	4	Animal feed	424.04	1%
23	8	Alcoholic beverages	347.82	1%
24	25	Logs	339.61	1%
25	22	Fertilizers	298.83	0%
26	40	Misc. mfg. prods.	262.87	0%
27	32	Base metals	252.30	0%
28	36	Motorized vehicles	234.59	0%
29	29	Printed prods.	219.53	0%
30	20	Basic chemicals	191.55	0%
31	39	Furniture	170.75	0%
32	10	Building stone	154.50	0%
33	30	Textiles/leather	149.38	0%
34	23	Chemical prods.	144.82	0%
35	35	Electronics	130.01	0%
36	28	Paper articles	94.00	0%
37	6	Milled grain prods.	87.84	0%
38	14	Metallic ores	78.46	0%
39	9	Tobacco prods.	29.84	0%
40	37	Transport equipment	14.66	0%
41	38	Precision instruments	13.86	0%
42	21	Pharmaceuticals	13.18	0%
43	1	Live animals/fish	13.05	0%
		Total	65,053.73	100%

Table 28 – 2040 Commodities Shipped within Hampton Roads – Weight

Data Source: FHWA Freight Analysis Framework.

Rank	SCTG Code	Commodity	Tons (thousands) Within HR	Share
1	15	Coal	47,769.55	49%
2	31	Nonmetal mineral prods.	5,653.19	6%
3	11	Natural sands	5,635.24	6%
4	16	Crude petroleum	5,485.44	6%
5	27	Newsprint/paper	3,684.60	4%
6	41	Waste/scrap	3,606.18	4%
7	3	Other agricultural prods.	3,488.30	4%
8	7	Other foodstuffs	2,401.01	2%
9	99	Unknown	2,363.21	2%
10	34	Machinery	1,473.48	2%
11	2	Cereal grains	1,265.59	1%
12	43	Mixed freight	1,248.48	1%
13	12	Gravel	1,099.12	1%
14	24	Plastics/rubber	1,091.66	1%
15	17	Gasoline	991.62	1%
16	19	Natural gas & petroleum prods.	948.85	1%
17	26	Wood prods.	927.91	1%
18	40	Misc. mfg. prods.	877.96	1%
19	13	Nonmetallic minerals	838.14	1%
20	18	Fuel oils	800.52	1%
21	5	Meat/seafood	729.83	1%
22	36	Motorized vehicles	684.91	1%
23	32	Base metals	672.69	1%
24	33	Articles-base metal	570.71	1%
25	30	Textiles/leather	508.45	1%
26	23	Chemical prods.	503.89	1%
27	8	Alcoholic beverages	425.49	0%
28	25	Logs	338.31	0%
29	35	Electronics	328.08	0%
30	39	Furniture	303.23	0%
31	20	Basic chemicals	256.99	0%
32	29	Printed prods.	235.56	0%
33	10	Building stone	202.36	0%
34	22	Fertilizers	193.84	0%
35	28	Paper articles	116.16	0%
36	4	Animal feed	113.45	0%
37	6	Milled grain prods.	86.30	0%
38	38	Precision instruments	73.58	0%
39	14	Metallic ores	60.67	0%
40	21	Pharmaceuticals	34.91	0%
41	9	Tobacco prods.	20.72	0%
42	37	Transport equipment	19.01	0%
43	1	Live animals/fish	11.01	0%
		Total	98,140.17	100%

GLOSSARY

"Within" – Shipments from Hampton Roads to Hampton Roads (i.e. Norfolk to Hampton), including the domestic leg of foreign shipments.

Table 29 – 2010 Commodities Shipped within Hampton Roads – Value

Data Source: FHWA Freight Analysis Framework.

Rank	SCTG Code	Commodity	Dollars (millions) Within HR	Share
1	34	Machinery	$ 6,233.67	17%
2	3	Other agricultural prods.	$ 2,737.60	7%
3	15	Coal	$ 2,105.02	6%
4	7	Other foodstuffs	$ 1,831.54	5%
5	43	Mixed freight	$ 1,752.77	5%
6	35	Electronics	$ 1,616.23	4%
7	36	Motorized vehicles	$ 1,440.44	4%
8	99	Unknown	$ 1,371.00	4%
9	33	Articles-base metal	$ 1,353.42	4%
10	24	Plastics/rubber	$ 1,330.41	4%
11	27	Newsprint/paper	$ 1,238.12	3%
12	40	Misc. mfg. prods.	$ 1,135.53	3%
13	17	Gasoline	$ 1,110.42	3%
14	5	Meat/seafood	$ 972.99	3%
15	30	Textiles/leather	$ 925.85	3%
16	16	Crude petroleum	$ 805.11	2%
17	31	Nonmetal mineral prods.	$ 717.61	2%
18	39	Furniture	$ 610.16	2%
19	32	Base metals	$ 577.10	2%
20	21	Pharmaceuticals	$ 561.87	2%
21	23	Chemical prods.	$ 553.55	2%
22	26	Wood prods.	$ 547.80	2%
23	18	Fuel oils	$ 532.36	1%
24	41	Waste/scrap	$ 508.76	1%
25	20	Basic chemicals	$ 506.51	1%
26	8	Alcoholic beverages	$ 414.55	1%
27	38	Precision instruments	$ 390.86	1%
28	29	Printed prods.	$ 342.17	1%
29	2	Cereal grains	$ 325.92	1%
30	9	Tobacco prods.	$ 293.62	1%
31	37	Transport equipment	$ 289.72	1%
32	19	Natural gas & petroleum prods.	$ 277.27	1%
33	4	Animal feed	$ 237.42	1%
34	28	Paper articles	$ 204.87	1%
35	22	Fertilizers	$ 141.24	0%
36	6	Milled grain prods.	$ 139.23	0%
37	14	Metallic ores	$ 124.39	0%
38	1	Live animals/fish	$ 74.66	0%
39	25	Logs	$ 62.03	0%
40	11	Natural sands	$ 50.30	0%
41	10	Building stone	$ 28.10	0%
42	13	Nonmetallic minerals	$ 23.41	0%
43	12	Gravel	$ 15.55	0%
		Total	$ 36,511.14	100%

Table 30 – 2040 Commodities Shipped within Hampton Roads – Value

Data Source: FHWA Freight Analysis Framework.

Rank	SCTG Code	Commodity	Dollars (millions) Within HR	Share
1	34	Machinery	$ 14,045.68	18%
2	3	Other agricultural prods.	$ 6,471.32	8%
3	27	Newsprint/paper	$ 4,552.94	6%
4	36	Motorized vehicles	$ 4,323.50	5%
5	15	Coal	$ 4,213.59	5%
6	7	Other foodstuffs	$ 4,200.83	5%
7	35	Electronics	$ 4,064.36	5%
8	43	Mixed freight	$ 3,760.55	5%
9	40	Misc. mfg. prods.	$ 3,653.62	5%
10	30	Textiles/leather	$ 3,316.48	4%
11	24	Plastics/rubber	$ 3,015.99	4%
12	99	Unknown	$ 2,617.57	3%
13	38	Precision instruments	$ 2,353.24	3%
14	16	Crude petroleum	$ 2,335.10	3%
15	23	Chemical prods.	$ 2,039.46	3%
16	32	Base metals	$ 1,825.48	2%
17	21	Pharmaceuticals	$ 1,485.66	2%
18	33	Articles-base metal	$ 1,405.69	2%
19	5	Meat/seafood	$ 1,336.10	2%
20	39	Furniture	$ 1,058.14	1%
21	31	Nonmetal mineral prods.	$ 1,030.65	1%
22	26	Wood prods.	$ 888.52	1%
23	37	Transport equipment	$ 681.98	1%
24	17	Gasoline	$ 651.42	1%
25	20	Basic chemicals	$ 614.34	1%
26	41	Waste/scrap	$ 525.59	1%
27	18	Fuel oils	$ 489.24	1%
28	8	Alcoholic beverages	$ 488.94	1%
29	2	Cereal grains	$ 446.89	1%
30	29	Printed prods.	$ 412.92	1%
31	19	Natural gas & petroleum prods.	$ 251.00	0%
32	22	Fertilizers	$ 236.23	0%
33	28	Paper articles	$ 222.51	0%
34	9	Tobacco prods.	$ 150.81	0%
35	6	Milled grain prods.	$ 120.29	0%
36	14	Metallic ores	$ 96.42	0%
37	1	Live animals/fish	$ 63.39	0%
38	11	Natural sands	$ 54.13	0%
39	4	Animal feed	$ 53.18	0%
40	25	Logs	$ 43.98	0%
41	13	Nonmetallic minerals	$ 40.91	0%
42	10	Building stone	$ 36.44	0%
43	12	Gravel	$ 11.21	0%
		Total	$ 79,686.31	100%

Table 31 – 2010 Commodities Shipped to, from, and within Hampton Roads – Weight

Data Source: FHWA Freight Analysis Framework.

Rank	SCTG Code	Commodity	Tons (thousands) To HR	From HR	Within HR	Total	Share
1	15	Coal	16,995.25	31,050.78	29,337.44	77,383.46	42%
2	41	Waste/scrap	3,624.56	3,162.63	4,876.16	11,663.35	6%
3	31	Nonmetal mineral prods.	2,090.19	1,950.55	4,166.18	8,206.91	4%
4	3	Other agricultural prods.	2,242.40	2,955.15	1,595.73	6,793.27	4%
5	11	Natural sands	655.14	74.26	5,230.56	5,959.96	3%
6	16	Crude petroleum	2,552.95	0.10	2,553.06	5,106.12	3%
7	7	Other foodstuffs	1,792.70	1,775.59	1,465.98	5,034.27	3%
8	2	Cereal grains	1,684.13	1,268.87	816.14	3,769.14	2%
9	18	Fuel oils	572.86	2,286.82	863.48	3,723.16	2%
10	27	Newsprint/paper	1,067.63	1,580.41	1,065.24	3,713.28	2%
11	24	Plastics/rubber	1,363.67	1,743.33	497.79	3,604.79	2%
12	19	Natural gas & petroleum prods.	1,318.46	997.43	1,099.83	3,415.71	2%
13	43	Mixed freight	1,974.67	841.11	582.67	3,398.45	2%
14	26	Wood prods.	1,566.65	1,151.36	640.99	3,359.00	2%
15	12	Gravel	1,271.54	4.53	1,524.11	2,800.18	2%
16	13	Nonmetallic minerals	1,334.18	916.48	426.52	2,677.18	1%
17	17	Gasoline	694.26	291.84	1,625.96	2,612.05	1%
18	8	Alcoholic beverages	462.63	1,726.37	347.82	2,536.83	1%
19	34	Machinery	914.30	884.26	698.84	2,497.40	1%
20	20	Basic chemicals	916.66	903.04	191.55	2,011.25	1%
21	32	Base metals	1,124.08	607.86	252.30	1,984.24	1%
22	22	Fertilizers	993.89	677.32	298.83	1,970.05	1%
23	33	Articles-base metal	885.67	488.86	548.25	1,922.78	1%
24	5	Meat/seafood	518.05	821.48	517.42	1,856.96	1%
25	99	Unknown	202.67	366.68	1,255.90	1,825.25	1%
26	40	Misc. mfg. prods.	610.85	901.96	262.87	1,775.68	1%
27	28	Paper articles	254.97	1,300.20	94.00	1,649.17	1%
28	4	Animal feed	596.15	626.43	424.04	1,646.62	1%
29	30	Textiles/leather	641.72	603.22	149.38	1,394.32	1%
30	36	Motorized vehicles	636.38	497.12	234.59	1,368.09	1%
31	39	Furniture	569.99	489.05	170.75	1,229.79	1%
32	23	Chemical prods.	633.70	433.75	144.82	1,212.27	1%
33	25	Logs	335.47	316.89	339.61	991.97	1%
34	35	Electronics	396.86	347.23	130.01	874.10	0%
35	29	Printed prods.	369.13	132.61	219.53	721.27	0%
36	6	Milled grain prods.	404.61	113.20	87.84	605.64	0%
37	10	Building stone	145.37	133.20	154.50	433.07	0%
38	14	Metallic ores	57.20	95.83	78.46	231.49	0%
39	1	Live animals/fish	144.68	60.56	13.05	218.29	0%
40	9	Tobacco prods.	33.18	57.37	29.84	120.39	0%
41	38	Precision instruments	45.21	41.46	13.86	100.53	0%
42	21	Pharmaceuticals	45.18	32.49	13.18	90.85	0%
43	37	Transport equipment	23.30	32.52	14.66	70.48	0%
		Total	54,763.10	64,742.21	65,053.73	184,559.03	100%

Table 32 – 2040 Commodities Shipped to, from, and within Hampton Roads – Weight

Data Source: FHWA Freight Analysis Framework.

Rank	SCTG Code	Commodity	Tons (thousands) To HR	From HR	Within HR	Total	Share
1	15	Coal	18,307.22	51,329.30	47,769.55	117,406.07	36%
2	41	Waste/scrap	10,745.62	5,759.93	3,606.18	20,111.73	6%
3	31	Nonmetal mineral prods.	4,074.55	4,591.09	5,653.19	14,318.83	4%
4	3	Other agricultural prods.	3,323.75	7,210.63	3,488.30	14,022.68	4%
5	27	Newsprint/paper	1,139.73	8,560.02	3,684.60	13,384.35	4%
6	16	Crude petroleum	5,485.35	0.08	5,485.44	10,970.88	3%
7	24	Plastics/rubber	4,562.66	5,004.81	1,091.66	10,659.12	3%
8	7	Other foodstuffs	3,584.62	3,929.38	2,401.01	9,915.01	3%
9	34	Machinery	4,192.07	4,202.02	1,473.48	9,867.57	3%
10	11	Natural sands	2,144.91	137.94	5,635.24	7,918.08	2%
11	13	Nonmetallic minerals	3,765.86	2,761.28	838.14	7,365.27	2%
12	43	Mixed freight	4,177.76	1,443.79	1,248.48	6,870.02	2%
13	40	Misc. mfg. prods.	2,342.19	2,896.86	877.96	6,117.01	2%
14	26	Wood prods.	2,793.63	2,266.23	927.91	5,987.77	2%
15	39	Furniture	2,826.63	2,623.93	303.23	5,753.79	2%
16	2	Cereal grains	1,973.92	1,972.06	1,265.59	5,211.56	2%
17	99	Unknown	907.96	1,636.11	2,363.21	4,907.28	1%
18	20	Basic chemicals	2,285.35	2,256.79	256.99	4,799.13	1%
19	8	Alcoholic beverages	1,797.85	2,273.70	425.49	4,497.03	1%
20	30	Textiles/leather	1,754.32	1,938.87	508.45	4,201.63	1%
21	33	Articles-base metal	2,090.59	1,496.12	570.71	4,157.43	1%
22	23	Chemical prods.	1,929.76	1,492.36	503.89	3,926.01	1%
23	18	Fuel oils	997.03	1,924.80	800.52	3,722.34	1%
24	5	Meat/seafood	1,505.93	1,467.68	729.83	3,703.43	1%
25	12	Gravel	2,147.95	3.91	1,099.12	3,250.98	1%
26	19	Natural gas & petroleum prods.	1,442.71	846.59	948.85	3,238.14	1%
27	32	Base metals	1,162.06	1,271.91	672.69	3,106.67	1%
28	35	Electronics	1,400.09	1,348.05	328.08	3,076.22	1%
29	36	Motorized vehicles	942.00	1,148.66	684.91	2,775.57	1%
30	17	Gasoline	1,574.28	115.78	991.62	2,681.68	1%
31	28	Paper articles	560.08	1,456.81	116.16	2,133.04	1%
32	25	Logs	739.48	670.60	338.31	1,748.39	1%
33	4	Animal feed	1,019.72	610.90	113.45	1,744.07	1%
34	22	Fertilizers	801.23	473.62	193.84	1,468.69	0%
35	6	Milled grain prods.	861.81	401.48	86.30	1,349.59	0%
36	29	Printed prods.	445.17	227.22	235.56	907.94	0%
37	38	Precision instruments	437.42	240.78	73.58	751.79	0%
38	10	Building stone	250.43	212.86	202.36	665.66	0%
39	21	Pharmaceuticals	213.37	110.65	34.91	358.93	0%
40	1	Live animals/fish	160.97	65.03	11.01	237.02	0%
41	14	Metallic ores	74.84	97.38	60.67	232.89	0%
42	37	Transport equipment	62.39	57.16	19.01	138.56	0%
43	9	Tobacco prods.	17.31	36.71	20.72	74.75	0%
		Total	103,022.57	128,571.87	98,140.17	329,734.60	100%

Table 33 – 2010 Commodities Shipped to, from, and within Hampton Roads – Value

Data Source: FHWA Freight Analysis Framework.

Rank	SCTG Code	Commodity	Dollars (millions) To HR	From HR	Within HR	Total	Share
1	34	Machinery	$ 10,101.29	$ 9,289.46	$ 6,233.67	$ 25,624.43	15%
2	3	Other agricultural prods.	$ 3,243.20	$ 5,214.80	$ 2,737.60	$ 11,195.61	6%
3	36	Motorized vehicles	$ 5,472.81	$ 4,028.03	$ 1,440.44	$ 10,941.28	6%
4	30	Textiles/leather	$ 5,334.66	$ 4,633.19	$ 925.85	$ 10,893.70	6%
5	35	Electronics	$ 5,191.71	$ 3,861.31	$ 1,616.23	$ 10,669.25	6%
6	43	Mixed freight	$ 5,518.17	$ 3,098.16	$ 1,752.77	$ 10,369.10	6%
7	24	Plastics/rubber	$ 4,025.07	$ 4,419.45	$ 1,330.41	$ 9,774.93	6%
8	40	Misc. mfg. prods.	$ 4,129.69	$ 3,903.31	$ 1,135.53	$ 9,168.53	5%
9	7	Other foodstuffs	$ 2,117.11	$ 3,134.94	$ 1,831.54	$ 7,083.59	4%
10	15	Coal	$ 1,009.88	$ 2,155.96	$ 2,105.02	$ 5,270.86	3%
11	33	Articles-base metal	$ 2,188.12	$ 1,640.81	$ 1,353.42	$ 5,182.35	3%
12	5	Meat/seafood	$ 1,294.94	$ 2,293.74	$ 972.99	$ 4,561.67	3%
13	20	Basic chemicals	$ 1,681.62	$ 2,049.21	$ 506.51	$ 4,237.34	2%
14	39	Furniture	$ 1,972.78	$ 1,468.46	$ 610.16	$ 4,051.40	2%
15	23	Chemical prods.	$ 1,752.71	$ 1,577.69	$ 553.55	$ 3,883.95	2%
16	27	Newsprint/paper	$ 763.50	$ 1,692.21	$ 1,238.12	$ 3,693.84	2%
17	38	Precision instruments	$ 2,250.78	$ 1,025.76	$ 390.86	$ 3,667.40	2%
18	32	Base metals	$ 1,755.32	$ 1,078.40	$ 577.10	$ 3,410.81	2%
19	21	Pharmaceuticals	$ 1,429.02	$ 1,001.18	$ 561.87	$ 2,992.07	2%
20	26	Wood prods.	$ 1,420.51	$ 930.63	$ 547.80	$ 2,898.94	2%
21	8	Alcoholic beverages	$ 765.10	$ 1,666.32	$ 414.55	$ 2,845.97	2%
22	18	Fuel oils	$ 592.84	$ 1,713.23	$ 532.36	$ 2,838.43	2%
23	31	Nonmetal mineral prods.	$ 919.26	$ 868.13	$ 717.61	$ 2,505.01	1%
24	37	Transport equipment	$ 890.55	$ 1,033.71	$ 289.72	$ 2,213.98	1%
25	99	Unknown	$ 217.29	$ 384.95	$ 1,371.00	$ 1,973.23	1%
26	17	Gasoline	$ 387.84	$ 227.54	$ 1,110.42	$ 1,725.80	1%
27	16	Crude petroleum	$ 805.04	$ 0.06	$ 805.11	$ 1,610.21	1%
28	29	Printed prods.	$ 646.11	$ 532.79	$ 342.17	$ 1,521.07	1%
29	19	Natural gas & petroleum prods.	$ 612.17	$ 225.20	$ 277.27	$ 1,114.64	1%
30	2	Cereal grains	$ 305.17	$ 452.22	$ 325.92	$ 1,083.30	1%
31	28	Paper articles	$ 468.36	$ 403.50	$ 204.87	$ 1,076.73	1%
32	41	Waste/scrap	$ 205.37	$ 354.90	$ 508.76	$ 1,069.04	1%
33	9	Tobacco prods.	$ 238.38	$ 416.00	$ 293.62	$ 947.99	1%
34	4	Animal feed	$ 340.51	$ 363.46	$ 237.42	$ 941.38	1%
35	6	Milled grain prods.	$ 355.38	$ 154.08	$ 139.23	$ 648.68	0%
36	22	Fertilizers	$ 197.05	$ 223.73	$ 141.24	$ 562.03	0%
37	1	Live animals/fish	$ 397.48	$ 35.16	$ 74.66	$ 507.31	0%
38	14	Metallic ores	$ 59.02	$ 183.66	$ 124.39	$ 367.07	0%
39	13	Nonmetallic minerals	$ 179.29	$ 161.33	$ 23.41	$ 364.03	0%
40	25	Logs	$ 111.72	$ 148.63	$ 62.03	$ 322.38	0%
41	11	Natural sands	$ 13.48	$ 3.45	$ 50.30	$ 67.23	0%
42	10	Building stone	$ 12.69	$ 5.88	$ 28.10	$ 46.66	0%
43	12	Gravel	$ 13.01	$ 0.18	$ 15.55	$ 28.74	0%
		Total	$ 71,386.00	$ 68,054.81	$ 36,511.14	$175,951.94	100%

Table 34 – 2040 Commodities Shipped to, from, and within Hampton Roads – Value

Data Source: FHWA Freight Analysis Framework.

Rank	SCTG Code	Commodity	Dollars (millions) To HR	From HR	Within HR	Total	Share
1	34	Machinery	$ 38,929.07	$ 39,899.49	$ 14,045.68	$ 92,874.24	18%
2	38	Precision instruments	$ 25,159.54	$ 7,066.79	$ 2,353.24	$ 34,579.57	7%
3	30	Textiles/leather	$ 12,948.60	$ 18,253.20	$ 3,316.48	$ 34,518.28	7%
4	35	Electronics	$ 15,354.44	$ 13,567.11	$ 4,064.36	$ 32,985.91	7%
5	24	Plastics/rubber	$ 13,888.01	$ 14,397.89	$ 3,015.99	$ 31,301.89	6%
6	40	Misc. mfg. prods.	$ 14,620.15	$ 12,553.24	$ 3,653.62	$ 30,827.01	6%
7	3	Other agricultural prods.	$ 8,918.23	$ 14,464.06	$ 6,471.32	$ 29,853.61	6%
8	43	Mixed freight	$ 12,986.39	$ 5,233.86	$ 3,760.55	$ 21,980.80	4%
9	36	Motorized vehicles	$ 7,797.39	$ 8,352.58	$ 4,323.50	$ 20,473.46	4%
10	39	Furniture	$ 8,661.77	$ 7,792.19	$ 1,058.14	$ 17,512.10	3%
11	7	Other foodstuffs	$ 4,557.66	$ 7,358.03	$ 4,200.83	$ 16,116.52	3%
12	23	Chemical prods.	$ 6,843.93	$ 6,168.24	$ 2,039.46	$ 15,051.64	3%
13	27	Newsprint/paper	$ 638.63	$ 7,269.45	$ 4,552.94	$ 12,461.02	2%
14	20	Basic chemicals	$ 5,481.10	$ 5,765.13	$ 614.34	$ 11,860.57	2%
15	21	Pharmaceuticals	$ 6,987.47	$ 3,068.66	$ 1,485.66	$ 11,541.79	2%
16	33	Articles-base metal	$ 4,998.18	$ 3,940.57	$ 1,405.69	$ 10,344.44	2%
17	15	Coal	$ 1,136.53	$ 4,377.98	$ 4,213.59	$ 9,728.10	2%
18	5	Meat/seafood	$ 3,649.58	$ 3,550.66	$ 1,336.10	$ 8,536.34	2%
19	8	Alcoholic beverages	$ 3,180.89	$ 3,450.02	$ 488.94	$ 7,119.85	1%
20	32	Base metals	$ 2,156.08	$ 2,939.29	$ 1,825.48	$ 6,920.85	1%
21	99	Unknown	$ 1,399.19	$ 2,269.94	$ 2,617.57	$ 6,286.70	1%
22	31	Nonmetal mineral prods.	$ 2,070.61	$ 2,249.01	$ 1,030.65	$ 5,350.27	1%
23	26	Wood prods.	$ 2,553.34	$ 1,888.08	$ 888.52	$ 5,329.94	1%
24	37	Transport equipment	$ 1,946.11	$ 2,361.15	$ 681.98	$ 4,989.24	1%
25	16	Crude petroleum	$ 2,335.06	$ 0.04	$ 2,335.10	$ 4,670.20	1%
26	41	Waste/scrap	$ 1,523.69	$ 1,828.04	$ 525.59	$ 3,877.32	1%
27	18	Fuel oils	$ 776.71	$ 1,520.59	$ 489.24	$ 2,786.54	1%
28	29	Printed prods.	$ 869.18	$ 823.89	$ 412.92	$ 2,106.00	0%
29	28	Paper articles	$ 1,000.24	$ 702.49	$ 222.51	$ 1,925.24	0%
30	17	Gasoline	$ 885.88	$ 79.43	$ 651.42	$ 1,616.73	0%
31	2	Cereal grains	$ 395.45	$ 649.39	$ 446.89	$ 1,491.73	0%
32	6	Milled grain prods.	$ 828.14	$ 493.02	$ 120.29	$ 1,441.45	0%
33	4	Animal feed	$ 659.97	$ 527.48	$ 53.18	$ 1,240.62	0%
34	19	Natural gas & petroleum prods.	$ 613.23	$ 239.93	$ 251.00	$ 1,104.16	0%
35	25	Logs	$ 358.37	$ 375.20	$ 43.98	$ 777.55	0%
36	22	Fertilizers	$ 193.25	$ 327.08	$ 236.23	$ 756.56	0%
37	13	Nonmetallic minerals	$ 307.69	$ 281.06	$ 40.91	$ 629.66	0%
38	1	Live animals/fish	$ 462.31	$ 45.29	$ 63.39	$ 571.00	0%
39	9	Tobacco prods.	$ 129.00	$ 254.70	$ 150.81	$ 534.51	0%
40	14	Metallic ores	$ 88.11	$ 189.12	$ 96.42	$ 373.64	0%
41	11	Natural sands	$ 42.91	$ 6.85	$ 54.13	$ 103.90	0%
42	10	Building stone	$ 38.03	$ 7.07	$ 36.44	$ 81.54	0%
43	12	Gravel	$ 26.12	$ 0.29	$ 11.21	$ 37.62	0%
		Total	$218,396.24	$206,587.58	$ 79,686.31	$504,670.13	100%

HAMPTON ROADS TOP 10 TRADING PARTNERS FOR TOP COMMODITY

Note: Please refer to explanation of FHWA FAF data limitations for bulk products, such as coal, on page 4.

Table 35 – Hampton Roads* Top 10 Trading Partners for Coal – Weight

Data Source: FHWA Freight Analysis Framework.

2010

Rank	FAF ID	FAF Analysis Area	Tons (thousands) To HR	From HR	Total
1	804	Europe	0.03	24,451.64	24,451.66
2	540	West Virginia	7,972.07	-	7,972.07
3	519	Remainder of Virginia	5,910.20	0.00	5,910.20
4	803	Rest of Americas	1,699.03	3,153.63	4,852.66
5	511	Richmond, VA MSA	17.73	1,698.90	1,716.63
6	219	Remainder of Kentucky	1,394.19	-	1,394.19
7	806	Southern, Central, & Western Asia		855.46	855.46
8	805	Africa		658.35	658.35
9	807	Eastern Asia	0.02	217.90	217.92
10	808	South-Eastern Asia & Oceana		14.67	14.67
		Remaining FAF Analysis Areas	1.98	0.23	2.21
		Total	16,995.25	31,050.78	48,046.03

2040

Rank	FAF ID	FAF Analysis Area	Tons (thousands) To HR	From HR	Total
1	804	Europe	0.05	31,649.82	31,649.88
2	803	Rest of Americas	3,356.75	7,195.63	10,552.38
3	519	Remainder of Virginia	8,354.01	0.00	8,354.01
4	540	West Virginia	5,547.01	0.00	5,547.01
5	805	Africa		4,922.23	4,922.23
6	511	Richmond, VA MSA	191.51	3,356.57	3,548.08
7	806	Southern, Central, & Western Asia		3,539.74	3,539.74
8	219	Remainder of Kentucky	846.50	0.00	846.50
9	808	South-Eastern Asia & Oceana		341.72	341.72
10	807	Eastern Asia	0.03	323.30	323.32
		Remaining FAF Analysis Areas	11.35	0.30	11.64
		Total	18,307.22	51,329.30	69,636.52

Table 36 – Hampton Roads* Top 10 Trading Partners for Machinery – Value

Data Source: FHWA Freight Analysis Framework.

2010

Rank	FAF ID	FAF Analysis Area	Dollars (millions) To HR	From HR	Total
1	804	Europe	$ 2,307.54	$ 1,290.46	$ 3,598.01
2	807	Eastern Asia	$ 1,315.46	$ 585.24	$ 1,900.70
3	803	Rest of Americas	$ 946.50	$ 393.34	$ 1,339.83
4	171	Chicago, IL-IN-WI CSA (IL Part)	$ 507.19	$ 662.32	$ 1,169.51
5	806	Southern, Central, & Western Asia	$ 324.39	$ 839.00	$ 1,163.39
6	379	Remainder of North Carolina	$ 236.26	$ 476.04	$ 712.30
7	361	Albany, NY CSA	$ 599.69	$ 0.95	$ 600.64
8	373	Raleigh-Durham, NC CSA	$ 54.49	$ 540.54	$ 595.03
9	261	Detroit, MI CSA	$ 118.90	$ 308.83	$ 427.73
10	219	Remainder of Kentucky	$ 98.04	$ 314.32	$ 412.35
		Remaining FAF Analysis Areas	$ 3,592.83	$ 3,878.43	$ 7,471.26
		Total	$10,101.29	$ 9,289.46	$19,390.76

2040

Rank	FAF ID	FAF Analysis Area	Dollars (millions) To HR	From HR	Total
1	804	Europe	$10,572.13	$ 7,164.67	$17,736.79
2	807	Eastern Asia	$ 5,396.57	$ 1,840.52	$ 7,237.10
3	803	Rest of Americas	$ 4,731.45	$ 1,764.20	$ 6,495.65
4	806	Southern, Central, & Western Asia	$ 977.67	$ 4,995.31	$ 5,972.98
5	171	Chicago, IL-IN-WI CSA (IL Part)	$ 1,813.41	$ 3,310.44	$ 5,123.85
6	379	Remainder of North Carolina	$ 1,034.71	$ 2,282.56	$ 3,317.26
7	373	Raleigh-Durham, NC CSA	$ 269.19	$ 1,701.69	$ 1,970.88
8	219	Remainder of Kentucky	$ 437.86	$ 1,400.41	$ 1,838.26
9	261	Detroit, MI CSA	$ 539.38	$ 1,217.53	$ 1,756.92
10	211	Louisville, KY-IN CSA (KY Part)	$ 427.08	$ 1,098.39	$ 1,525.47
		Remaining FAF Analysis Areas	$12,729.63	$13,123.76	$25,853.39
		Total	$38,929.07	$39,899.49	$78,828.56

*Excludes "Within Hampton Roads" shipments.

COMMODITIES SHIPPED TO/FROM HAMPTON ROADS BY TRUCK (DOMESTIC ONLY)

Table 37 – 2010 Commodities Shipped to/from Hampton Roads* by Truck – Weight (Domestic Only)

Data Source: FHWA Freight Analysis Framework.

Rank	SCTG Code	Commodity	Tons (thousands) To HR	From HR	Total
1	41	Waste/scrap	3,003.66	2,120.73	5,124.40
2	43	Mixed freight	1,923.42	792.97	2,716.38
3	31	Nonmetal mineral prods.	884.84	1,547.17	2,432.01
4	3	Other agricultural prods.	1,075.26	1,223.08	2,298.34
5	7	Other foodstuffs	1,036.36	787.49	1,823.85
6	8	Alcoholic beverages	171.14	1,622.41	1,793.55
7	26	Wood prods.	999.20	741.13	1,740.34
8	28	Paper articles	135.27	1,229.91	1,365.18
9	24	Plastics/rubber	411.48	850.57	1,262.05
10	32	Base metals	835.04	261.71	1,096.75
11	22	Fertilizers	388.75	647.38	1,036.13
12	2	Cereal grains	575.65	453.53	1,029.18
13	13	Nonmetallic minerals	191.21	820.14	1,011.35
14	40	Misc. mfg. prods.	297.49	700.67	998.16
15	12	Gravel	838.08	3.98	842.07
16	5	Meat/seafood	364.93	475.20	840.13
17	33	Articles-base metal	527.37	294.55	821.91
18	17	Gasoline	482.91	283.64	766.55
19	27	Newsprint/paper	525.12	141.06	666.18
20	11	Natural sands	589.31	67.11	656.42
21	34	Machinery	232.77	362.16	594.93
22	20	Basic chemicals	200.27	380.02	580.29
23	18	Fuel oils	131.30	408.34	539.64
24	39	Furniture	117.97	368.49	486.47
25	36	Motorized vehicles	222.07	251.65	473.72
26	23	Chemical prods.	335.33	106.52	441.84
27	29	Printed prods.	312.50	93.90	406.40
28	30	Textiles/leather	139.36	224.45	363.80
29	35	Electronics	143.96	108.31	252.27
30	19	Natural gas & petroleum prods.	110.10	124.47	234.57
31	4	Animal feed	181.06	50.21	231.27
32	25	Logs	223.22	1.96	225.18
33	1	Live animals/fish	143.59	60.51	204.10
34	6	Milled grain prods.	131.47	41.24	172.71
35	99	Unknown	108.63	30.68	139.32
36	10	Building stone	42.14	53.85	96.00
37	14	Metallic ores	36.40	5.65	42.05
38	21	Pharmaceuticals	24.91	12.14	37.06
39	9	Tobacco prods.	22.32	7.39	29.71
40	37	Transport equipment	14.89	14.39	29.28
41	38	Precision instruments	10.17	15.41	25.58
42	15	Coal	1.18	0.23	1.40
43	16	Crude petroleum	0.00	0.01	0.01
		Total	18,142.08	17,786.42	35,928.50

Table 38 – 2040 Commodities Shipped to/from Hampton Roads* by Truck – Weight (Domestic Only)

Data Source: FHWA Freight Analysis Framework.

Rank	SCTG Code	Commodity	Tons (thousands) To HR	From HR	Total
1	41	Waste/scrap	6,746.97	847.71	7,594.68
2	43	Mixed freight	4,021.20	1,375.81	5,397.01
3	3	Other agricultural prods.	963.80	4,401.85	5,365.65
4	31	Nonmetal mineral prods.	1,181.65	3,432.42	4,614.08
5	27	Newsprint/paper	502.74	2,895.76	3,398.50
6	40	Misc. mfg. prods.	951.47	2,239.90	3,191.37
7	24	Plastics/rubber	1,168.95	1,891.15	3,060.10
8	13	Nonmetallic minerals	511.03	2,454.44	2,965.46
9	7	Other foodstuffs	1,544.91	1,260.18	2,805.09
10	34	Machinery	702.77	1,699.60	2,402.37
11	8	Alcoholic beverages	452.69	1,813.61	2,266.30
12	39	Furniture	184.62	2,004.25	2,188.87
13	26	Wood prods.	1,284.51	894.37	2,178.88
14	11	Natural sands	1,946.15	112.73	2,058.88
15	12	Gravel	1,851.21	3.28	1,854.49
16	33	Articles-base metal	729.42	838.74	1,568.16
17	28	Paper articles	277.38	1,275.98	1,553.37
18	17	Gasoline	1,305.77	110.82	1,416.59
19	5	Meat/seafood	904.17	452.95	1,357.12
20	2	Cereal grains	659.80	696.96	1,356.76
21	32	Base metals	744.34	503.31	1,247.65
22	20	Basic chemicals	388.27	802.83	1,191.10
23	23	Chemical prods.	838.69	336.45	1,175.14
24	30	Textiles/leather	200.18	783.64	983.81
25	22	Fertilizers	401.57	453.06	854.63
26	36	Motorized vehicles	244.45	574.45	818.90
27	18	Fuel oils	380.30	353.70	734.00
28	35	Electronics	339.14	333.15	672.30
29	25	Logs	640.97	2.71	643.69
30	99	Unknown	395.47	109.35	504.82
31	29	Printed prods.	308.85	140.40	449.25
32	6	Milled grain prods.	255.81	114.68	370.49
33	4	Animal feed	302.99	28.20	331.19
34	38	Precision instruments	103.18	136.81	240.00
35	19	Natural gas & petroleum prods.	123.50	112.14	235.63
36	1	Live animals/fish	157.42	64.87	222.29
37	21	Pharmaceuticals	125.27	37.96	163.24
38	10	Building stone	51.59	106.98	158.58
39	37	Transport equipment	35.12	23.40	58.52
40	14	Metallic ores	46.60	6.14	52.73
41	9	Tobacco prods.	8.15	4.87	13.02
42	15	Coal	7.25	0.29	7.54
43	16	Crude petroleum	0.00	0.02	0.02
		Total	33,990.33	35,731.92	69,722.25

*Excludes "Within Hampton Roads" shipments.

Table 39 – 2010 Commodities Shipped to/from Hampton Roads* by Truck – Value (Domestic Only)

Data Source: FHWA Freight Analysis Framework.

Rank	SCTG Code	Commodity	Dollars (millions) To HR	From HR	Total
1	43	Mixed freight	$ 4,973.41	$ 2,495.42	$ 7,468.83
2	34	Machinery	$ 2,796.67	$ 3,856.46	$ 6,653.13
3	36	Motorized vehicles	$ 1,701.20	$ 2,152.19	$ 3,853.39
4	24	Plastics/rubber	$ 1,422.91	$ 1,951.16	$ 3,374.06
5	40	Misc. mfg. prods.	$ 1,002.23	$ 2,271.98	$ 3,274.21
6	30	Textiles/leather	$ 1,708.21	$ 1,464.83	$ 3,173.04
7	3	Other agricultural prods.	$ 1,240.18	$ 1,734.05	$ 2,974.22
8	7	Other foodstuffs	$ 1,316.04	$ 1,468.15	$ 2,784.18
9	35	Electronics	$ 1,566.47	$ 1,092.21	$ 2,658.68
10	5	Meat/seafood	$ 758.24	$ 1,733.08	$ 2,491.32
11	33	Articles-base metal	$ 1,022.52	$ 914.79	$ 1,937.31
12	32	Base metals	$ 1,263.81	$ 508.42	$ 1,772.23
13	39	Furniture	$ 577.50	$ 1,013.29	$ 1,590.79
14	8	Alcoholic beverages	$ 164.01	$ 1,410.49	$ 1,574.50
15	26	Wood prods.	$ 784.48	$ 569.65	$ 1,354.12
16	23	Chemical prods.	$ 708.50	$ 472.81	$ 1,181.31
17	20	Basic chemicals	$ 449.34	$ 646.11	$ 1,095.45
18	31	Nonmetal mineral prods.	$ 320.70	$ 503.91	$ 824.61
19	21	Pharmaceuticals	$ 378.28	$ 370.82	$ 749.10
20	37	Transport equipment	$ 408.94	$ 267.52	$ 676.46
21	38	Precision instruments	$ 366.39	$ 305.86	$ 672.25
22	27	Newsprint/paper	$ 480.64	$ 109.11	$ 589.75
23	18	Fuel oils	$ 71.55	$ 514.73	$ 586.28
24	28	Paper articles	$ 216.97	$ 321.54	$ 538.51
25	29	Printed prods.	$ 218.01	$ 294.02	$ 512.03
26	17	Gasoline	$ 295.02	$ 212.74	$ 507.75
27	1	Live animals/fish	$ 395.08	$ 34.50	$ 429.57
28	9	Tobacco prods.	$ 135.06	$ 171.78	$ 306.84
29	6	Milled grain prods.	$ 200.35	$ 71.69	$ 272.03
30	19	Natural gas & petroleum prods.	$ 173.33	$ 51.21	$ 224.55
31	22	Fertilizers	$ 94.32	$ 114.15	$ 208.46
32	2	Cereal grains	$ 90.08	$ 99.70	$ 189.78
33	99	Unknown	$ 121.23	$ 42.96	$ 164.19
34	4	Animal feed	$ 108.22	$ 36.69	$ 144.91
35	41	Waste/scrap	$ 54.80	$ 16.57	$ 71.37
36	13	Nonmetallic minerals	$ 47.27	$ 16.99	$ 64.26
37	25	Logs	$ 60.50	$ 0.56	$ 61.07
38	14	Metallic ores	$ 18.27	$ 3.85	$ 22.12
6	10	Building stone	$ 9.45	$ 2.83	$ 12.28
7	11	Natural sands	$ 9.37	$ 2.68	$ 12.06
8	12	Gravel	$ 11.32	$ 0.10	$ 11.42
9	15	Coal	$ 0.08	$ 0.02	$ 0.10
10	16	Crude petroleum	$ 0.00	$ 0.01	$ 0.01
		Total	$ 27,740.93	$ 29,321.60	$ 57,062.53

Table 40 – 2040 Commodities Shipped to/from Hampton Roads* by Truck – Value (Domestic Only)

Data Source: FHWA Freight Analysis Framework.

Rank	SCTG Code	Commodity	Dollars (millions) To HR	From HR	Total
1	34	Machinery	$ 8,004.56	$ 14,183.43	$ 22,188.00
2	43	Mixed freight	$ 11,164.51	$ 4,292.77	$ 15,457.27
3	40	Misc. mfg. prods.	$ 3,730.48	$ 7,360.16	$ 11,090.64
4	24	Plastics/rubber	$ 4,653.54	$ 4,401.23	$ 9,054.76
5	3	Other agricultural prods.	$ 1,871.67	$ 6,857.61	$ 8,729.28
6	30	Textiles/leather	$ 2,335.67	$ 5,452.43	$ 7,788.10
7	35	Electronics	$ 3,514.49	$ 3,424.93	$ 6,939.42
8	38	Precision instruments	$ 3,918.54	$ 2,500.98	$ 6,419.52
9	39	Furniture	$ 939.76	$ 5,452.65	$ 6,392.41
10	36	Motorized vehicles	$ 2,077.82	$ 3,823.30	$ 5,901.12
11	23	Chemical prods.	$ 2,655.72	$ 1,693.96	$ 4,349.67
12	7	Other foodstuffs	$ 2,131.45	$ 2,090.38	$ 4,221.83
13	5	Meat/seafood	$ 1,897.15	$ 1,733.65	$ 3,630.80
14	33	Articles-base metal	$ 1,549.30	$ 1,996.97	$ 3,546.26
15	20	Basic chemicals	$ 901.94	$ 1,860.75	$ 2,762.70
16	21	Pharmaceuticals	$ 1,570.12	$ 1,179.65	$ 2,749.77
17	8	Alcoholic beverages	$ 460.64	$ 2,288.04	$ 2,748.68
18	32	Base metals	$ 1,299.35	$ 1,068.10	$ 2,367.45
19	27	Newsprint/paper	$ 346.31	$ 1,833.05	$ 2,179.36
20	26	Wood prods.	$ 1,114.69	$ 760.28	$ 1,874.97
21	31	Nonmetal mineral prods.	$ 464.43	$ 1,186.79	$ 1,651.22
22	37	Transport equipment	$ 934.75	$ 421.20	$ 1,355.95
23	28	Paper articles	$ 484.64	$ 413.28	$ 897.93
24	17	Gasoline	$ 763.78	$ 72.43	$ 836.21
25	99	Unknown	$ 637.21	$ 185.96	$ 823.17
26	18	Fuel oils	$ 193.77	$ 474.23	$ 668.00
27	29	Printed prods.	$ 236.29	$ 388.02	$ 624.30
28	6	Milled grain prods.	$ 358.25	$ 157.85	$ 516.10
29	1	Live animals/fish	$ 452.07	$ 43.83	$ 495.91
30	41	Waste/scrap	$ 359.10	$ 8.68	$ 367.79
31	25	Logs	$ 308.49	$ 0.89	$ 309.38
32	2	Cereal grains	$ 120.35	$ 150.87	$ 271.22
33	4	Animal feed	$ 222.92	$ 34.34	$ 257.26
34	19	Natural gas & petroleum prods.	$ 165.54	$ 32.90	$ 198.44
35	22	Fertilizers	$ 97.73	$ 91.62	$ 189.35
36	13	Nonmetallic minerals	$ 107.99	$ 35.56	$ 143.55
37	9	Tobacco prods.	$ 47.12	$ 79.88	$ 127.00
38	14	Metallic ores	$ 32.20	$ 7.96	$ 40.16
6	10	Building stone	$ 32.97	$ 3.22	$ 36.19
7	11	Natural sands	$ 30.47	$ 5.06	$ 35.53
8	12	Gravel	$ 24.87	$ 0.18	$ 25.05
9	15	Coal	$ 0.54	$ 0.02	$ 0.56
10	16	Crude petroleum	$ 0.00	$ 0.01	$ 0.01
		Total	$ 62,213.19	$ 78,049.10	$ 140,262.30

*Excludes "Within Hampton Roads" shipments.

FREIGHT MOVEMENT BY TRUCK BY HAMPTON ROADS GATEWAY CORRIDOR

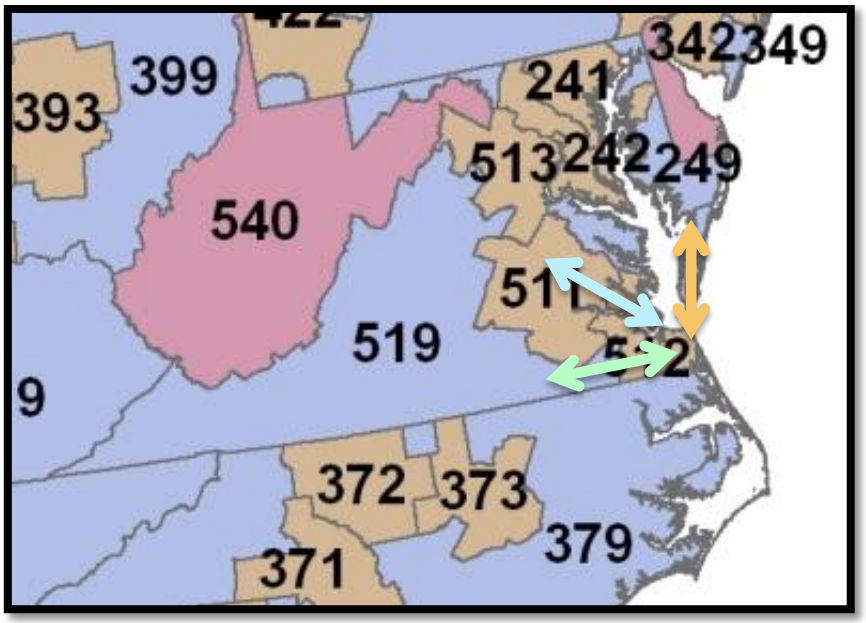
Freight Movement by Truck by Hampton Roads Gateway Corridor

For the analysis contained within this section, FAF-3 data was used to estimate commodity flows by Hampton Roads truck corridor. Each of the 122 domestic analysis areas and Canada and Mexico were assigned to one of three Hampton Roads truck corridors as shown in **Maps 4 and 5**. The FAF-3 data does not contain information detailed enough for separating US 460 truck traffic from I-64 truck traffic. The Hampton Roads truck corridors were selected based on the expected route for the majority of truck trips made to/from that analysis zone. Due to the large sizes of the "Remainder of Virginia" (ID: 519) and the "Remainder of Maryland" (ID: 249), the corridor used from freight to/from these areas is unknown. Truck routing and assignment was based on a combination of Google map trip assignment and consultation from a local trucking company[10].

The 2011 average weekday truck volumes in Hampton Roads are as follows:

- I-64 – 6,338 daily trucks
- Route 460 – 1,955 daily trucks
- Route 58 – 3,228 daily trucks
- Route 13 – 1,112 daily trucks

For more details on truck movements through regional gateways, refer to pages 88-89 in the regional truck movement section of this report.



Map 4: Hampton Roads Truck Gateway Corridors
Note: Domestic areas as designated by the FHWA FAF-3

HR Truck Gateway Corridors:

1. I-64/Route 460
2. Route 58
3. Route 13
4. Unknown (due to large size of some areas)

[10] Email correspondence with The Givens Group, January 2012.

Map 5: North American Regions Categorized by Assumed Hampton Roads Truck Gateway Corridor

Note: Domestic areas as designated by the FHWA FAF-3

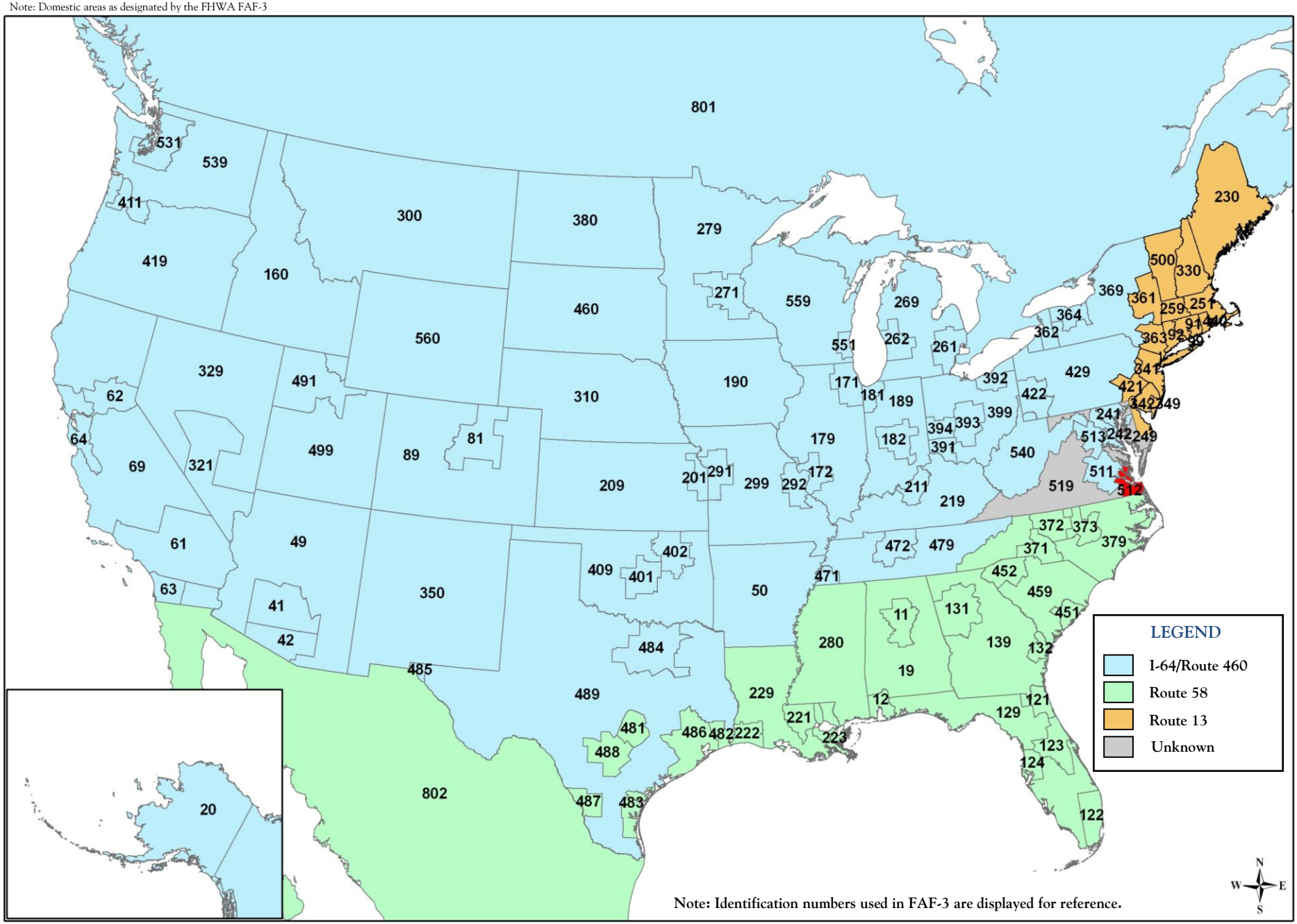


Table 41 – Summary of Freight Movement* by Truck by Hampton Roads Gateway Corridor – Weight

Data Source: FHWA Freight Analysis Framework.

	To Hampton Roads				From Hampton Roads				TOTAL			
	2010		2040		2010		2040		2010		2040	
Hampton Roads Gateway Corridor	Tons (thousands)	Share	Tons (thousands)	Share	Tons (thousands)	Share	Tons (thousands)	Share	Tons (thousands)	Share	Tons (thousands)	Share
I-64/Route 460	10,156	56%	17,835	52%	9,406	53%	18,688	52%	19,562	54%	36,523	52%
Route 58	4,348	24%	10,226	30%	5,080	29%	10,473	29%	9,428	26%	20,698	30%
Route 13	1,250	7%	2,101	6%	1,205	7%	3,321	9%	2,455	7%	5,422	8%
Unknown	2,388	13%	3,831	11%	2,095	12%	3,250	9%	4,484	12%	7,081	10%
Total	18,142	100%	33,992	100%	17,786	100%	35,732	100%	35,929	100%	69,724	100%

Table 42 – Summary of Freight Movement* by Truck by Hampton Roads Gateway Corridor – Value

Data Source: FHWA Freight Analysis Framework.

	To Hampton Roads				From Hampton Roads				TOTAL			
	2010		2040		2010		2040		2010		2040	
Hampton Roads Gateway Corridor	Dollars (millions)	Share	Dollars (millions)	Share	Dollars (millions)	Share	Dollars (millions)	Share	Dollars (millions)	Share	Dollars (millions)	Share
I-64/Route 460	$15,845	57%	$36,144	58%	$16,905	58%	$45,107	58%	$32,751	57%	$81,251	58%
Route 58	$6,371	23%	$15,731	25%	$7,794	27%	$20,800	27%	$14,164	25%	$36,531	26%
Route 13	$3,699	13%	$7,657	12%	$2,450	8%	$6,863	9%	$6,149	11%	$14,520	10%
Unknown	$1,828	7%	$2,698	4%	$2,172	7%	$5,279	7%	$4,001	7%	$7,977	6%
Total	$27,744	100%	$62,231	100%	$29,322	100%	$78,049	100%	$57,065	100%	$140,280	100%

*Excludes "Within Hampton Roads" shipments.

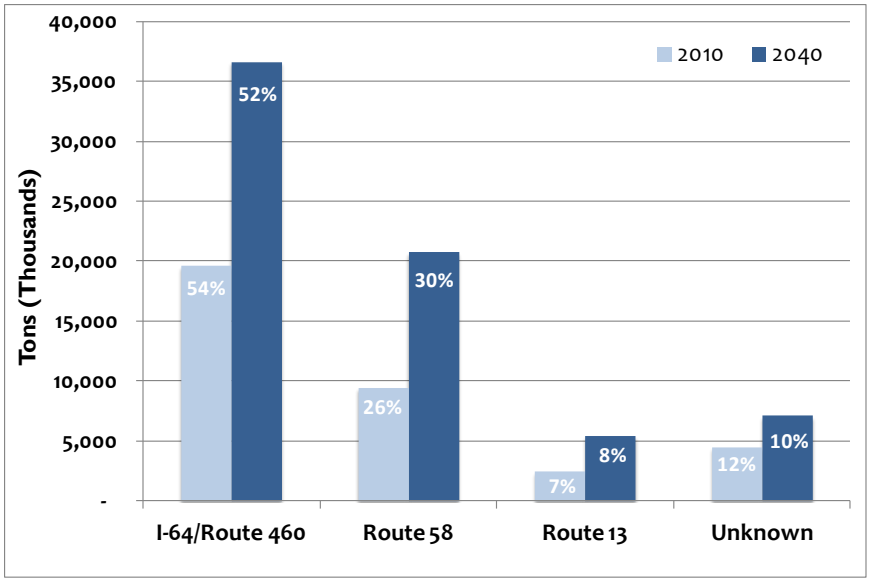


Figure 20 – Total Freight Movement* by Truck by Hampton Roads Gateway Corridor – Weight

Data Source: FHWA Freight Analysis Framework

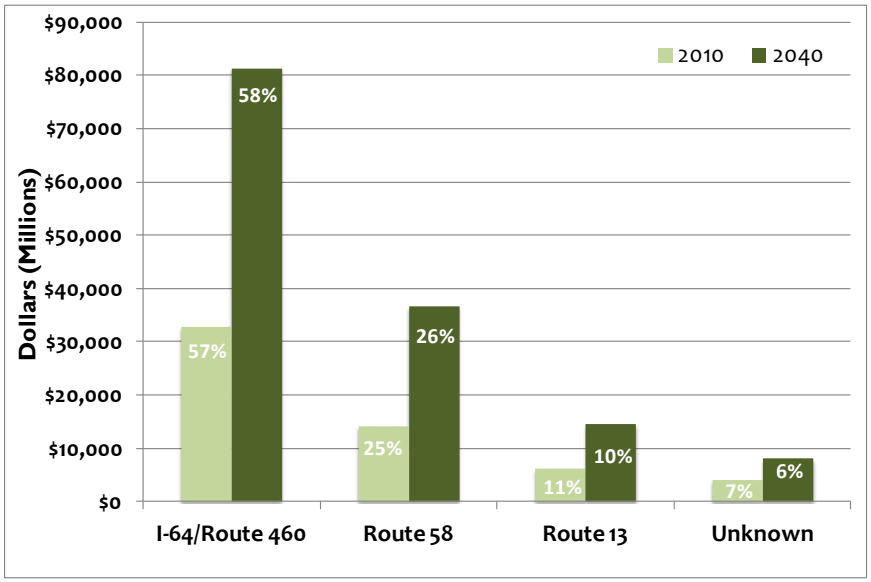


Figure 21 – Total Freight Movement* by Truck by Hampton Roads Gateway Corridor – Value

Data Source: FHWA Freight Analysis Framework

*Excludes "Within Hampton Roads" shipments.

FREIGHT SHIPMENTS BY TRUCK BY NORTH AMERICAN REGION TO/FROM HAMPTON ROADS

Table 43 – 2010 and 2040 Freight Shipments by Truck to Hampton Roads* – Weight

Data Source: FHWA Freight Analysis Framework.

To Hampton Roads

ID	North American Region	2010 Tons (thousands)	2010 Share	2040 Tons (thousands)	2040 Share	(2010 - 2040) Change	(2010 - 2040) Growth
511	Richmond, VA MSA	3,560.56	19.6%	3,821.10	11.2%	260.54	7%
379	Remainder of North Carolina	2,263.34	12.5%	6,154.59	18.1%	3,891.26	172%
519	Remainder of Virginia	1,991.59	11.0%	3,300.14	9.7%	1,308.55	66%
241	Baltimore, MD MSA	1,495.66	8.2%	2,991.81	8.8%	1,496.15	100%
513	Washington, DC-MD-VA-WV CSA (VA Part)	1,301.12	7.2%	2,775.39	8.2%	1,474.27	113%
429	Remainder of Pennsylvania	633.58	3.5%	928.70	2.7%	295.12	47%
372	Greensboro--Winston-Salem--High Point, NC CSA	438.80	2.4%	845.28	2.5%	406.48	93%
249	Remainder of Maryland	396.67	2.2%	530.79	1.6%	134.12	34%
124	Tampa, FL MSA	388.76	2.1%	589.33	1.7%	200.58	52%
363	New York, NY-NJ-CT-PA CSA (NY Part)	288.64	1.6%	561.50	1.7%	272.86	95%
242	Washington, DC-VA-MD-WV MSA (MD Part)	277.70	1.5%	298.83	0.9%	21.13	8%
341	New York, NY-NJ-CT-PA CSA (NJ Part)	266.84	1.5%	548.35	1.6%	281.51	105%
422	Pittsburgh, PA CSA	259.88	1.4%	196.11	0.6%	-63.77	-25%
399	Remainder of Ohio	246.76	1.4%	287.44	0.8%	40.68	16%
111	Washington, DC-VA-MD-WV MSA (DC Part)	230.36	1.3%	390.05	1.1%	159.69	69%
373	Raleigh-Durham, NC CSA	199.45	1.1%	559.88	1.6%	360.43	181%
371	Charlotte, NC-SC CSA (NC Part)	184.31	1.0%	421.05	1.2%	236.74	128%
459	Remainder of South Carolina	175.26	1.0%	222.19	0.7%	46.93	27%
540	West Virginia	166.76	0.9%	293.13	0.9%	126.37	76%
171	Chicago, IL-IN-WI CSA (IL Part)	160.74	0.9%	438.66	1.3%	277.91	173%
369	Remainder of New York	155.56	0.9%	302.58	0.9%	147.02	95%
421	Philadelphia, PA-NJ-DE-MD CSA (PA Part)	151.85	0.8%	158.00	0.5%	6.14	4%
61	Los Angeles, CA CSA	140.68	0.8%	886.03	2.6%	745.35	530%
342	Philadelphia, PA-NJ-DE-MD CSA (NJ Part)	133.13	0.7%	150.02	0.4%	16.89	13%
100	Delaware	125.72	0.7%	303.74	0.9%	178.02	142%
479	Remainder of Tennessee	118.83	0.7%	282.08	0.8%	163.25	137%
131	Atlanta, GA-AL CSA (GA Part)	114.63	0.6%	200.56	0.6%	85.93	75%
261	Detroit, MI CSA	103.32	0.6%	335.08	1.0%	231.76	224%
132	Savannah, GA CSA	98.81	0.5%	204.85	0.6%	106.04	107%
179	Remainder of Illinois	93.15	0.5%	154.84	0.5%	61.69	66%
271	Minneapolis-St. Paul, MN-WI CSA (MN Part)	92.78	0.5%	188.31	0.6%	95.53	103%
440	Rhode Island	86.01	0.5%	79.26	0.2%	-6.75	-8%
801	Canada	77.00	0.4%	233.59	0.7%	156.59	203%
486	Houston, TX CSA	75.34	0.4%	142.68	0.4%	67.33	89%
251	Boston, MA-NH CSA (MA Part)	71.67	0.4%	68.70	0.2%	-2.97	-4%
391	Cincinnati, OH-KY-IN CSA (OH Part)	70.63	0.4%	170.21	0.5%	99.58	141%
219	Remainder of Kentucky	61.64	0.3%	249.22	0.7%	187.57	304%
139	Remainder of Georgia	61.17	0.3%	85.31	0.3%	24.14	39%
392	Cleveland, OH CSA	56.06	0.3%	138.36	0.4%	82.30	147%
484	Dallas-Fort Worth, TX CSA	55.61	0.3%	193.93	0.6%	138.32	249%
229	Remainder of Louisiana	54.11	0.3%	96.32	0.3%	42.21	78%
531	Seattle, WA CSA	46.31	0.3%	133.37	0.4%	87.06	188%
189	Remainder of Indiana	45.72	0.3%	113.63	0.3%	67.91	149%
559	Remainder of Wisconsin	45.34	0.2%	54.57	0.2%	9.23	20%
211	Louisville, KY-IN CSA (KY Part)	44.85	0.2%	232.78	0.7%	187.93	419%
489	Remainder of Texas	43.92	0.2%	84.91	0.2%	40.99	93%
393	Columbus, OH CSA	41.78	0.2%	101.65	0.3%	59.87	143%
50	Arkansas	40.96	0.2%	89.34	0.3%	48.38	118%
129	Remainder of Florida	39.61	0.2%	100.40	0.3%	60.79	153%
122	Miami, FL MSA	34.80	0.2%	95.78	0.3%	60.98	175%
19	Remainder of Alabama	34.30	0.2%	74.37	0.2%	40.07	117%
299	Remainder of Missouri	33.25	0.2%	51.29	0.2%	18.05	54%
310	Nebraska	32.17	0.2%	111.52	0.3%	79.34	247%
452	Greenville, SC CSA	29.71	0.2%	57.58	0.2%	27.86	94%
471	Memphis, TN-MS-AR MSA (TN Part)	27.80	0.2%	113.32	0.3%	85.52	308%
92	New York, NY-NJ-CT-PA CSA (CT Part)	27.14	0.1%	34.41	0.1%	7.26	27%
182	Indianapolis, IN CSA	26.42	0.1%	168.27	0.5%	141.84	537%
451	Charleston, SC MSA	26.26	0.1%	84.97	0.2%	58.71	224%
362	Buffalo, NY CSA	23.79	0.1%	33.16	0.1%	9.37	39%
291	Kansas City, MO-KS CSA (MO Part)	23.40	0.1%	41.40	0.1%	18.00	77%
280	Mississippi	23.12	0.1%	31.06	0.1%	7.94	34%

To Hampton Roads

ID	North American Region	2010 Tons (thousands)	2010 Share	2040 Tons (thousands)	2040 Share	(2010 - 2040) Change	(2010 - 2040) Growth
209	Remainder of Kansas	21.48	0.1%	31.15	0.1%	9.67	45%
402	Tulsa, OK CSA	20.05	0.1%	20.62	0.1%	0.57	3%
411	Portland, OR-WA MSA (OR Part)	19.00	0.1%	77.48	0.2%	58.48	308%
330	New Hampshire	18.98	0.1%	53.82	0.2%	34.83	183%
123	Orlando, FL CSA	18.93	0.1%	27.25	0.1%	8.32	44%
262	Grand Rapids, MI CSA	18.91	0.1%	79.45	0.2%	60.54	320%
121	Jacksonville, FL MSA	17.42	0.1%	26.87	0.1%	9.45	54%
361	Albany, NY CSA	16.71	0.1%	34.87	0.1%	18.16	109%
64	San Francisco, CA CSA	15.87	0.1%	92.28	0.3%	76.41	482%
62	Sacramento, CA-NV CSA (CA Part)	15.50	0.1%	87.73	0.3%	72.24	466%
279	Remainder of Minnesota	15.49	0.1%	26.53	0.1%	11.04	71%
500	Vermont	14.94	0.1%	8.89	0.0%	-6.05	-41%
11	Birmingham, AL CSA	14.48	0.1%	42.89	0.1%	28.41	196%
160	Idaho	14.30	0.1%	27.82	0.1%	13.52	95%
190	Iowa	13.75	0.1%	17.39	0.1%	3.64	26%
802	Mexico	13.74	0.1%	54.10	0.2%	40.36	294%
472	Nashville, TN CSA	13.70	0.1%	63.68	0.2%	49.98	365%
292	St. Louis, MO-IL CSA (MO Part)	13.51	0.1%	31.46	0.1%	17.95	133%
99	Remainder of Connecticut	13.27	0.1%	41.68	0.1%	28.41	214%
485	El Paso, TX MSA	13.17	0.1%	29.06	0.1%	15.89	121%
259	Remainder of Massachusetts	12.79	0.1%	19.36	0.1%	6.57	51%
269	Remainder of Michigan	12.51	0.1%	40.84	0.1%	28.33	226%
91	Hartford, CT CSA	12.01	0.1%	20.66	0.1%	8.65	72%
551	Milwaukee, WI CSA	11.10	0.1%	11.07	0.0%	-0.02	0%
539	Remainder of Washington	10.99	0.1%	16.00	0.0%	5.01	46%
69	Remainder of California	10.96	0.1%	34.23	0.1%	23.26	212%
81	Denver, CO CSA	10.66	0.1%	37.97	0.1%	27.31	256%
394	Dayton, OH CSA	9.86	0.1%	15.69	0.0%	5.83	59%
481	Austin, TX MSA	8.69	0.0%	17.46	0.1%	8.77	101%
221	Baton Rouge, LA CSA	8.66	0.0%	7.45	0.0%	-1.21	-14%
230	Maine	8.56	0.0%	14.86	0.0%	6.29	73%
12	Mobile, AL CSA	8.06	0.0%	11.07	0.0%	3.01	37%
364	Rochester, NY CSA	7.25	0.0%	5.45	0.0%	-1.80	-25%
89	Remainder of Colorado	6.01	0.0%	33.76	0.1%	27.76	462%
488	San Antonio, TX MSA	5.40	0.0%	39.12	0.1%	33.73	625%
560	Wyoming	5.27	0.0%	5.84	0.0%	0.57	11%
201	Kansas City, MO-KS CSA (KS Part)	4.89	0.0%	22.23	0.1%	17.34	355%
223	New Orleans, LA CSA	4.82	0.0%	16.09	0.0%	11.27	234%
181	Chicago, IL-IN-WI CSA (IN Part)	4.48	0.0%	41.20	0.1%	36.72	819%
380	North Dakota	4.19	0.0%	12.01	0.0%	7.82	187%
63	San Diego, CA MSA	4.15	0.0%	18.66	0.1%	14.51	349%
222	Lake Charles, LA CSA	4.06	0.0%	14.62	0.0%	10.56	260%
419	Remainder of Oregon	3.99	0.0%	13.40	0.0%	9.41	236%
172	St. Louis, MO-IL CSA (IL Part)	3.65	0.0%	7.02	0.0%	3.37	92%
401	Oklahoma City, OK CSA	2.55	0.0%	3.97	0.0%	1.42	56%
460	South Dakota	2.28	0.0%	7.31	0.0%	5.03	221%
349	Remainder of New Jersey	1.94	0.0%	2.85	0.0%	0.91	47%
409	Remainder of Oklahoma	1.92	0.0%	7.26	0.0%	5.34	278%
41	Phoenix, AZ MSA	1.83	0.0%	4.76	0.0%	2.93	160%
491	Salt Lake City, UT CSA	1.71	0.0%	7.24	0.0%	5.53	323%
350	New Mexico	1.67	0.0%	7.45	0.0%	5.78	347%
321	Las Vegas, NV CSA	1.25	0.0%	3.89	0.0%	2.65	212%
482	Beaumont, TX MSA	1.08	0.0%	1.25	0.0%	0.18	17%
20	Alaska	1.04	0.0%	1.12	0.0%	0.08	8%
499	Remainder of Utah	0.83	0.0%	1.49	0.0%	0.66	79%
300	Montana	0.80	0.0%	2.44	0.0%	1.64	204%
483	Corpus Christi, TX CSA	0.69	0.0%	0.97	0.0%	0.28	41%
42	Tucson, AZ MSA	0.63	0.0%	1.92	0.0%	1.29	203%
49	Remainder of Arizona	0.30	0.0%	0.57	0.0%	0.27	90%
329	Remainder of Nevada	0.24	0.0%	0.49	0.0%	0.25	106%
487	Laredo, TX MSA	0.15	0.0%	0.34	0.0%	0.19	130%
	Total	18,142.25	100.0%	33,992.20	100.0%	15,849.95	87%

*Excludes "Within Hampton Roads" shipments.

Table 44 – 2010 and 2040 Freight Shipments by Truck from Hampton Roads – Weight

Data Source: FHWA Freight Analysis Framework.

From Hampton Roads

ID	North American Region	2010 Tons (thousands)	2010 Share	2040 Tons (thousands)	2040 Share	(2010 - 2040) Change	(2010 - 2040) Growth
511	Richmond, VA MSA	2,803.28	15.8%	3,489.55	9.8%	686.27	24%
379	Remainder of North Carolina	1,981.33	11.1%	4,091.58	11.5%	2,110.25	107%
519	Remainder of Virginia	1,939.83	10.9%	3,080.03	8.6%	1,140.20	59%
513	Washington, DC-MD-VA-WV CSA (VA Part)	1,579.94	8.9%	2,177.25	6.1%	597.31	38%
241	Baltimore, MD MSA	526.08	3.0%	1,332.72	3.7%	806.65	153%
373	Raleigh-Durham, NC CSA	475.01	2.7%	899.90	2.5%	424.89	89%
50	Arkansas	465.68	2.6%	2,001.63	5.6%	1,535.95	330%
429	Remainder of Pennsylvania	436.88	2.5%	934.31	2.6%	497.43	114%
372	Greensboro--Winston-Salem--High Point, NC CSA	415.64	2.3%	1,274.35	3.6%	858.70	207%
124	Tampa, FL MSA	313.11	1.8%	295.56	0.8%	-17.55	-6%
363	New York, NY-NJ-CT-PA CSA (NY Part)	311.61	1.8%	1,043.78	2.9%	732.17	235%
171	Chicago, IL-IN-WI CSA (IL Part)	270.00	1.5%	874.83	2.4%	604.83	224%
421	Philadelphia, PA-NJ-DE-MD CSA (PA Part)	263.81	1.5%	432.99	1.2%	169.18	64%
129	Remainder of Florida	262.20	1.5%	314.10	0.9%	51.90	20%
371	Charlotte, NC-SC CSA (NC Part)	233.08	1.3%	644.06	1.8%	410.98	176%
341	New York, NY-NJ-CT-PA CSA (NJ Part)	212.85	1.2%	604.61	1.7%	391.76	184%
131	Atlanta, GA-AL CSA (GA Part)	205.32	1.2%	330.93	0.9%	125.61	61%
122	Miami, FL MSA	185.24	1.0%	310.51	0.9%	125.26	68%
451	Charleston, SC MSA	181.29	1.0%	725.30	2.0%	544.01	300%
801	Canada	175.18	1.0%	671.27	1.9%	496.09	283%
179	Remainder of Illinois	163.21	0.9%	217.70	0.6%	54.48	33%
392	Cleveland, OH CSA	160.47	0.9%	306.10	0.9%	145.63	91%
242	Washington, DC-VA-MD-WV MSA (MD Part)	159.17	0.9%	309.82	0.9%	150.65	95%
132	Savannah, GA CSA	158.73	0.9%	143.06	0.4%	-15.67	-10%
41	Phoenix, AZ MSA	156.93	0.9%	441.27	1.2%	284.34	181%
249	Remainder of Maryland	155.48	0.9%	170.03	0.5%	14.55	9%
61	Los Angeles, CA CSA	140.90	0.8%	339.26	0.9%	198.37	141%
399	Remainder of Ohio	137.39	0.8%	389.46	1.1%	252.07	183%
100	Delaware	128.44	0.7%	247.32	0.7%	118.88	93%
459	Remainder of South Carolina	118.76	0.7%	164.47	0.5%	45.71	38%
121	Jacksonville, FL MSA	112.64	0.6%	305.26	0.9%	192.61	171%
111	Washington, DC-VA-MD-WV MSA (DC Part)	112.52	0.6%	110.90	0.3%	-1.63	-1%
219	Remainder of Kentucky	111.74	0.6%	234.32	0.7%	122.57	110%
261	Detroit, MI CSA	105.90	0.6%	228.19	0.6%	122.29	115%
422	Pittsburgh, PA CSA	103.04	0.6%	201.71	0.6%	98.67	96%
342	Philadelphia, PA-NJ-DE-MD CSA (NJ Part)	100.05	0.6%	225.19	0.6%	125.14	125%
271	Minneapolis-St. Paul, MN-WI CSA (MN Part)	99.84	0.6%	251.85	0.7%	152.02	152%
393	Columbus, OH CSA	99.43	0.6%	174.27	0.5%	74.84	75%
540	West Virginia	99.12	0.6%	120.80	0.3%	21.68	22%
479	Remainder of Tennessee	98.44	0.6%	90.30	0.3%	-8.13	-8%
123	Orlando, FL CSA	93.11	0.5%	79.12	0.2%	-13.99	-15%
484	Dallas-Fort Worth, TX CSA	74.89	0.4%	166.13	0.5%	91.24	122%
64	San Francisco, CA CSA	74.56	0.4%	240.62	0.7%	166.05	223%
211	Louisville, KY-IN CSA (KY Part)	68.92	0.4%	191.49	0.5%	122.57	178%
292	St. Louis, MO-IL CSA (MO Part)	64.22	0.4%	227.90	0.6%	163.68	255%
391	Cincinnati, OH-KY-IN CSA (OH Part)	63.54	0.4%	169.53	0.5%	106.00	167%
369	Remainder of New York	62.35	0.4%	204.20	0.6%	141.84	227%
139	Remainder of Georgia	60.18	0.3%	126.31	0.4%	66.12	110%
221	Baton Rouge, LA CSA	59.86	0.3%	71.06	0.2%	11.19	19%
209	Remainder of Kansas	59.24	0.3%	57.35	0.2%	-1.89	-3%
189	Remainder of Indiana	59.21	0.3%	270.57	0.8%	211.36	357%
486	Houston, TX CSA	55.44	0.3%	143.73	0.4%	88.29	159%
251	Boston, MA-NH CSA (MA Part)	52.64	0.3%	139.35	0.4%	86.71	165%
472	Nashville, TN CSA	51.35	0.3%	171.77	0.5%	120.41	234%
531	Seattle, WA CSA	50.22	0.3%	162.24	0.5%	112.02	223%
172	St. Louis, MO-IL CSA (IL Part)	49.91	0.3%	70.72	0.2%	20.81	42%
190	Iowa	47.95	0.3%	142.35	0.4%	94.40	197%
559	Remainder of Wisconsin	44.20	0.2%	68.28	0.2%	24.08	54%
182	Indianapolis, IN CSA	41.90	0.2%	73.97	0.2%	32.08	77%
92	New York, NY-NJ-CT-PA CSA (CT Part)	38.51	0.2%	97.14	0.3%	58.63	152%
81	Denver, CO CSA	38.17	0.2%	56.97	0.2%	18.80	49%
499	Remainder of Utah	37.56	0.2%	84.79	0.2%	47.23	126%
299	Remainder of Missouri	37.00	0.2%	96.02	0.3%	59.02	160%
491	Salt Lake City, UT CSA	35.32	0.2%	37.47	0.1%	2.15	6%
411	Portland, OR-WA MSA (OR Part)	34.44	0.2%	91.09	0.3%	56.65	164%
63	San Diego, CA MSA	33.13	0.2%	32.64	0.1%	-0.49	-1%
361	Albany, NY CSA	30.44	0.2%	74.09	0.2%	43.65	143%
802	Mexico	29.63	0.2%	77.52	0.2%	47.90	162%
19	Remainder of Alabama	29.52	0.2%	42.74	0.1%	13.22	45%
229	Remainder of Louisiana	27.24	0.2%	67.61	0.2%	40.37	148%
471	Memphis, TN-MS-AR MSA (TN Part)	26.03	0.1%	37.79	0.1%	11.76	45%
69	Remainder of California	25.60	0.1%	30.73	0.1%	5.13	20%
291	Kansas City, MO-KS CSA (MO Part)	24.12	0.1%	102.26	0.3%	78.14	324%
362	Buffalo, NY CSA	23.29	0.1%	34.74	0.1%	11.45	49%
489	Remainder of Texas	21.10	0.1%	192.67	0.5%	171.56	813%
482	Beaumont, TX MSA	19.89	0.1%	42.47	0.1%	22.58	114%
310	Nebraska	19.78	0.1%	48.10	0.1%	28.32	143%
551	Milwaukee, WI CSA	17.36	0.1%	176.26	0.5%	158.90	916%
440	Rhode Island	17.24	0.1%	16.70	0.0%	-0.54	-3%
269	Remainder of Michigan	17.15	0.1%	37.44	0.1%	20.29	118%
89	Remainder of Colorado	16.75	0.1%	21.98	0.1%	5.24	31%
364	Rochester, NY CSA	16.21	0.1%	43.28	0.1%	27.08	167%
419	Remainder of Oregon	16.19	0.1%	23.35	0.1%	7.16	44%
539	Remainder of Washington	15.54	0.1%	50.48	0.1%	34.94	225%
259	Remainder of Massachusetts	14.59	0.1%	225.62	0.6%	211.02	1446%
394	Dayton, OH CSA	14.32	0.1%	38.29	0.1%	23.96	167%
452	Greenville, SC CSA	14.21	0.1%	84.97	0.2%	70.76	498%
485	El Paso, TX MSA	13.34	0.1%	21.05	0.1%	7.71	58%
49	Remainder of Arizona	12.11	0.1%	22.36	0.1%	10.25	85%
280	Mississippi	11.91	0.1%	64.39	0.2%	52.48	441%
330	New Hampshire	11.54	0.1%	31.66	0.1%	20.13	174%
62	Sacramento, CA-NV CSA (CA Part)	10.67	0.1%	33.44	0.1%	22.77	213%
160	Idaho	10.67	0.1%	20.49	0.1%	9.83	92%
321	Las Vegas, NV CSA	10.48	0.1%	22.33	0.1%	11.85	113%
262	Grand Rapids, MI CSA	9.74	0.1%	46.73	0.1%	37.00	380%
300	Montana	7.94	0.0%	12.55	0.0%	4.60	58%
11	Birmingham, AL CSA	7.82	0.0%	65.45	0.2%	57.63	737%
349	Remainder of New Jersey	7.56	0.0%	9.61	0.0%	2.05	27%
488	San Antonio, TX MSA	7.55	0.0%	52.63	0.1%	45.08	597%
223	New Orleans, LA CSA	7.40	0.0%	12.15	0.0%	4.76	64%
350	New Mexico	7.13	0.0%	18.88	0.1%	11.74	165%
402	Tulsa, OK CSA	6.33	0.0%	11.32	0.0%	4.99	79%
481	Austin, TX MSA	6.24	0.0%	11.24	0.0%	5.00	80%
230	Maine	6.16	0.0%	72.99	0.2%	66.83	1085%
279	Remainder of Minnesota	5.70	0.0%	16.84	0.0%	11.14	196%
560	Wyoming	5.48	0.0%	10.11	0.0%	4.63	84%
487	Laredo, TX MSA	5.15	0.0%	8.96	0.0%	3.81	74%
460	South Dakota	5.05	0.0%	11.16	0.0%	6.11	121%
91	Hartford, CT CSA	4.81	0.0%	7.29	0.0%	2.48	52%
201	Kansas City, MO-KS CSA (KS Part)	4.34	0.0%	67.37	0.2%	63.02	1451%
500	Vermont	3.68	0.0%	91.72	0.3%	88.05	2395%
401	Oklahoma City, OK CSA	2.75	0.0%	4.11	0.0%	1.35	49%
380	North Dakota	2.69	0.0%	3.27	0.0%	0.59	22%
409	Remainder of Oklahoma	1.85	0.0%	3.36	0.0%	1.51	82%
483	Corpus Christi, TX CSA	1.48	0.0%	20.38	0.1%	18.91	1279%
181	Chicago, IL-IN-WI CSA (IN Part)	1.29	0.0%	4.11	0.0%	2.82	219%
329	Remainder of Nevada	1.04	0.0%	2.90	0.0%	1.86	178%
99	Remainder of Connecticut	0.98	0.0%	0.82	0.0%	-0.16	-17%
42	Tucson, AZ MSA	0.87	0.0%	4.55	0.0%	3.68	421%
12	Mobile, AL CSA	0.73	0.0%	2.53	0.0%	1.80	246%
20	Alaska	0.18	0.0%	0.45	0.0%	0.27	147%
222	Lake Charles, LA CSA	0.17	0.0%	0.30	0.0%	0.13	76%
	Total	17,786.42	100.0%	35,731.92	100.0%	17,945.50	101%

*Excludes "Within Hampton Roads" shipments.

Table 45 – 2010 and 2040 Freight Shipments by Truck to Hampton Roads – Value

Data Source: FHWA Freight Analysis Framework.

To Hampton Roads

ID	North American Region	2010 Dollars (millions)	2010 Share	2040 Dollars (millions)	2040 Share	(2010 - 2040) Change	(2010 - 2040) Growth
511	Richmond, VA MSA	$3,573.26	12.9%	$5,565.87	8.9%	$1,992.61	56%
241	Baltimore, MD MSA	$2,397.28	8.6%	$4,062.99	6.5%	$1,665.71	69%
379	Remainder of North Carolina	$2,237.61	8.1%	$6,444.43	10.4%	$4,206.82	188%
519	Remainder of Virginia	$1,567.96	5.7%	$2,380.40	3.8%	$812.44	52%
429	Remainder of Pennsylvania	$962.55	3.5%	$1,598.89	2.6%	$636.35	66%
372	Greensboro--Winston-Salem--High Point, NC CSA	$846.12	3.0%	$1,786.79	2.9%	$940.67	111%
363	New York, NY-NJ-CT-PA CSA (NY Part)	$842.74	3.0%	$1,339.07	2.2%	$496.33	59%
371	Charlotte, NC-SC CSA (NC Part)	$703.28	2.5%	$1,529.43	2.5%	$826.16	117%
341	New York, NY-NJ-CT-PA CSA (NJ Part)	$661.95	2.4%	$1,590.43	2.6%	$928.47	140%
61	Los Angeles, CA CSA	$615.50	2.2%	$3,126.82	5.0%	$2,511.31	408%
361	Albany, NY CSA	$601.30	2.2%	$1,073.21	1.7%	$471.91	78%
513	Washington, DC-MD-VA-WV CSA (VA Part)	$594.57	2.1%	$1,191.03	1.9%	$596.46	100%
171	Chicago, IL-IN-WI CSA (IL Part)	$583.95	2.1%	$1,737.23	2.8%	$1,153.28	197%
342	Philadelphia, PA-NJ-DE-MD CSA (NJ Part)	$459.79	1.7%	$644.13	1.0%	$184.34	40%
242	Washington, DC-VA-MD-WV MSA (MD Part)	$426.26	1.5%	$1,296.95	2.1%	$870.68	204%
459	Remainder of South Carolina	$416.79	1.5%	$820.47	1.3%	$403.69	97%
422	Pittsburgh, PA CSA	$405.33	1.5%	$390.64	0.6%	-$14.68	-4%
261	Detroit, MI CSA	$383.08	1.4%	$921.16	1.5%	$538.08	140%
479	Remainder of Tennessee	$372.69	1.3%	$876.43	1.4%	$503.74	135%
189	Remainder of Indiana	$346.86	1.3%	$1,269.72	2.0%	$922.86	266%
421	Philadelphia, PA-NJ-DE-MD CSA (PA Part)	$320.82	1.2%	$279.53	0.4%	-$41.28	-13%
369	Remainder of New York	$305.18	1.1%	$686.10	1.1%	$380.92	125%
131	Atlanta, GA-AL CSA (GA Part)	$284.15	1.0%	$598.49	1.0%	$314.33	111%
249	Remainder of Maryland	$260.49	0.9%	$317.82	0.5%	$57.33	22%
486	Houston, TX CSA	$240.41	0.9%	$516.26	0.8%	$275.85	115%
271	Minneapolis-St. Paul, MN-WI CSA (MN Part)	$240.14	0.9%	$568.92	0.9%	$328.78	137%
540	West Virginia	$233.12	0.8%	$473.77	0.8%	$240.64	103%
559	Remainder of Wisconsin	$220.61	0.8%	$279.24	0.4%	$58.62	27%
373	Raleigh-Durham, NC CSA	$219.35	0.8%	$641.52	1.0%	$422.18	192%
251	Boston, MA-NH CSA (MA Part)	$217.95	0.8%	$471.64	0.8%	$253.69	116%
392	Cleveland, OH CSA	$215.97	0.8%	$591.95	1.0%	$375.98	174%
484	Dallas-Fort Worth, TX CSA	$207.75	0.7%	$592.75	1.0%	$385.00	185%
399	Remainder of Ohio	$204.83	0.7%	$266.17	0.4%	$61.33	30%
393	Columbus, OH CSA	$197.75	0.7%	$402.09	0.6%	$204.34	103%
179	Remainder of Illinois	$195.21	0.7%	$331.80	0.5%	$136.58	70%
531	Seattle, WA CSA	$191.23	0.7%	$680.68	1.1%	$489.45	256%
139	Remainder of Georgia	$185.01	0.7%	$235.59	0.4%	$50.58	27%
219	Remainder of Kentucky	$178.56	0.6%	$620.69	1.0%	$442.13	248%
50	Arkansas	$174.48	0.6%	$344.57	0.6%	$170.09	97%
100	Delaware	$169.61	0.6%	$1,252.40	2.0%	$1,082.79	638%
391	Cincinnati, OH-KY-IN CSA (OH Part)	$164.27	0.6%	$450.77	0.7%	$286.50	174%
489	Remainder of Texas	$160.98	0.6%	$379.84	0.6%	$218.86	136%
801	Canada	$159.90	0.6%	$634.10	1.0%	$474.20	297%
211	Louisville, KY-IN CSA (KY Part)	$142.37	0.5%	$699.74	1.1%	$557.37	391%
451	Charleston, SC MSA	$136.11	0.5%	$690.56	1.1%	$554.45	407%
132	Savannah, GA CSA	$134.41	0.5%	$326.61	0.5%	$192.20	143%
310	Nebraska	$132.54	0.5%	$502.15	0.8%	$369.61	279%
291	Kansas City, MO-KS CSA (MO Part)	$124.22	0.4%	$299.98	0.5%	$175.76	141%
279	Remainder of Minnesota	$120.10	0.4%	$548.99	0.9%	$428.89	357%
182	Indianapolis, IN CSA	$115.85	0.4%	$478.46	0.8%	$362.62	313%
124	Tampa, FL MSA	$115.10	0.4%	$183.19	0.3%	$68.09	59%
123	Orlando, FL CSA	$113.25	0.4%	$112.82	0.2%	-$0.43	0%
280	Mississippi	$112.44	0.4%	$158.27	0.3%	$45.83	41%
19	Remainder of Alabama	$108.87	0.4%	$255.82	0.4%	$146.95	135%
99	Remainder of Connecticut	$106.49	0.4%	$427.16	0.7%	$320.67	301%
551	Milwaukee, WI CSA	$102.07	0.4%	$92.32	0.1%	-$9.75	-10%
129	Remainder of Florida	$89.98	0.3%	$125.82	0.2%	$35.84	40%
472	Nashville, TN CSA	$84.33	0.3%	$168.01	0.3%	$83.68	99%
81	Denver, CO CSA	$82.99	0.3%	$303.23	0.5%	$220.24	265%
299	Remainder of Missouri	$81.71	0.3%	$196.79	0.3%	$115.07	141%
122	Miami, FL MSA	$76.37	0.3%	$215.02	0.3%	$138.65	182%
802	Mexico	$74.74	0.3%	$327.16	0.5%	$252.43	338%
91	Hartford, CT CSA	$73.98	0.3%	$129.36	0.2%	$55.38	75%
362	Buffalo, NY CSA	$73.25	0.3%	$90.14	0.1%	$16.90	23%
92	New York, NY-NJ-CT-PA CSA (CT Part)	$71.96	0.3%	$76.17	0.1%	$4.21	6%
471	Memphis, TN-MS-AR MSA (TN Part)	$70.43	0.3%	$278.55	0.4%	$208.12	295%
64	San Francisco, CA CSA	$68.20	0.2%	$330.57	0.5%	$262.37	385%
330	New Hampshire	$66.61	0.2%	$182.55	0.3%	$115.94	174%
452	Greenville, SC CSA	$64.53	0.2%	$130.25	0.2%	$65.72	102%
262	Grand Rapids, MI CSA	$60.86	0.2%	$338.75	0.5%	$277.89	457%
411	Portland, OR-WA MSA (OR Part)	$59.77	0.2%	$303.00	0.5%	$243.23	407%
190	Iowa	$58.82	0.2%	$82.99	0.1%	$24.18	41%
121	Jacksonville, FL MSA	$57.37	0.2%	$109.46	0.2%	$52.08	91%
111	Washington, DC-VA-MD-WV MSA (DC Part)	$54.67	0.2%	$204.49	0.3%	$149.82	274%
63	San Diego, CA MSA	$52.84	0.2%	$84.13	0.1%	$31.29	59%
269	Remainder of Michigan	$50.15	0.2%	$202.42	0.3%	$152.26	304%
229	Remainder of Louisiana	$50.04	0.2%	$89.20	0.1%	$39.16	78%
209	Remainder of Kansas	$49.59	0.2%	$101.41	0.2%	$51.82	105%
62	Sacramento, CA-NV CSA (CA Part)	$44.95	0.2%	$242.80	0.4%	$197.85	440%
292	St. Louis, MO-IL CSA (MO Part)	$44.27	0.2%	$92.51	0.1%	$48.23	109%
69	Remainder of California	$39.82	0.1%	$119.99	0.2%	$80.17	201%
491	Salt Lake City, UT CSA	$37.62	0.1%	$94.69	0.2%	$57.07	152%
259	Remainder of Massachusetts	$36.44	0.1%	$117.55	0.2%	$81.10	223%
160	Idaho	$35.94	0.1%	$49.30	0.1%	$13.37	37%
394	Dayton, OH CSA	$35.16	0.1%	$54.53	0.1%	$19.37	55%
560	Wyoming	$31.74	0.1%	$29.40	0.0%	-$2.34	-7%
539	Remainder of Washington	$30.15	0.1%	$50.17	0.1%	$20.02	66%
402	Tulsa, OK CSA	$28.67	0.1%	$46.28	0.1%	$17.61	61%
440	Rhode Island	$27.39	0.1%	$24.29	0.0%	-$3.10	-11%
500	Vermont	$25.08	0.1%	$17.52	0.0%	-$7.56	-30%
401	Oklahoma City, OK CSA	$24.07	0.1%	$30.61	0.0%	$6.54	27%
419	Remainder of Oregon	$23.14	0.1%	$61.65	0.1%	$38.51	166%
223	New Orleans, LA CSA	$20.75	0.1%	$57.01	0.1%	$36.26	175%
488	San Antonio, TX MSA	$20.46	0.1%	$173.23	0.3%	$152.77	747%
181	Chicago, IL-IN-WI CSA (IN Part)	$20.41	0.1%	$90.79	0.1%	$70.38	345%
11	Birmingham, AL CSA	$20.41	0.1%	$62.67	0.1%	$42.27	207%
485	El Paso, TX MSA	$19.19	0.1%	$39.87	0.1%	$20.68	108%
89	Remainder of Colorado	$18.81	0.1%	$81.41	0.1%	$62.60	333%
201	Kansas City, MO-KS CSA (KS Part)	$17.42	0.1%	$94.66	0.2%	$77.24	444%
460	South Dakota	$16.53	0.1%	$53.44	0.1%	$36.90	223%
221	Baton Rouge, LA CSA	$14.41	0.1%	$63.20	0.1%	$48.80	339%
230	Maine	$13.28	0.0%	$27.12	0.0%	$13.84	104%
499	Remainder of Utah	$12.85	0.0%	$16.83	0.0%	$3.98	31%
380	North Dakota	$12.66	0.0%	$27.67	0.0%	$15.01	119%
172	St. Louis, MO-IL CSA (IL Part)	$12.08	0.0%	$50.91	0.1%	$38.83	321%
364	Rochester, NY CSA	$10.67	0.0%	$44.82	0.1%	$34.15	320%
481	Austin, TX MSA	$8.88	0.0%	$29.81	0.0%	$20.93	236%
409	Remainder of Oklahoma	$8.42	0.0%	$38.81	0.1%	$30.39	361%
350	New Mexico	$7.74	0.0%	$38.02	0.1%	$30.28	391%
12	Mobile, AL CSA	$7.69	0.0%	$11.46	0.0%	$3.76	49%
222	Lake Charles, LA CSA	$7.56	0.0%	$27.06	0.0%	$19.50	258%
41	Phoenix, AZ MSA	$7.52	0.0%	$17.51	0.0%	$9.99	133%
300	Montana	$4.09	0.0%	$16.36	0.0%	$12.27	300%
349	Remainder of New Jersey	$3.75	0.0%	$5.14	0.0%	$1.38	37%
321	Las Vegas, NV CSA	$2.50	0.0%	$9.14	0.0%	$6.63	265%
482	Beaumont, TX MSA	$2.26	0.0%	$5.24	0.0%	$2.98	132%
20	Alaska	$1.25	0.0%	$1.64	0.0%	$0.39	31%
483	Corpus Christi, TX CSA	$1.18	0.0%	$1.58	0.0%	$0.40	34%
487	Laredo, TX MSA	$1.12	0.0%	$2.32	0.0%	$1.20	107%
42	Tucson, AZ MSA	$0.77	0.0%	$1.95	0.0%	$1.18	153%
329	Remainder of Nevada	$0.53	0.0%	$0.73	0.0%	$0.20	37%
49	Remainder of Arizona	$0.39	0.0%	$0.64	0.0%	$0.25	63%
	Total	$27,743.66	100.0%	$62,230.62	100.0%	$34,486.96	124%

*Excludes "Within Hampton Roads" shipments.

Table 46 – 2010 and 2040 Freight Shipments by Truck from Hampton Roads – Value

Data Source: FHWA Freight Analysis Framework.

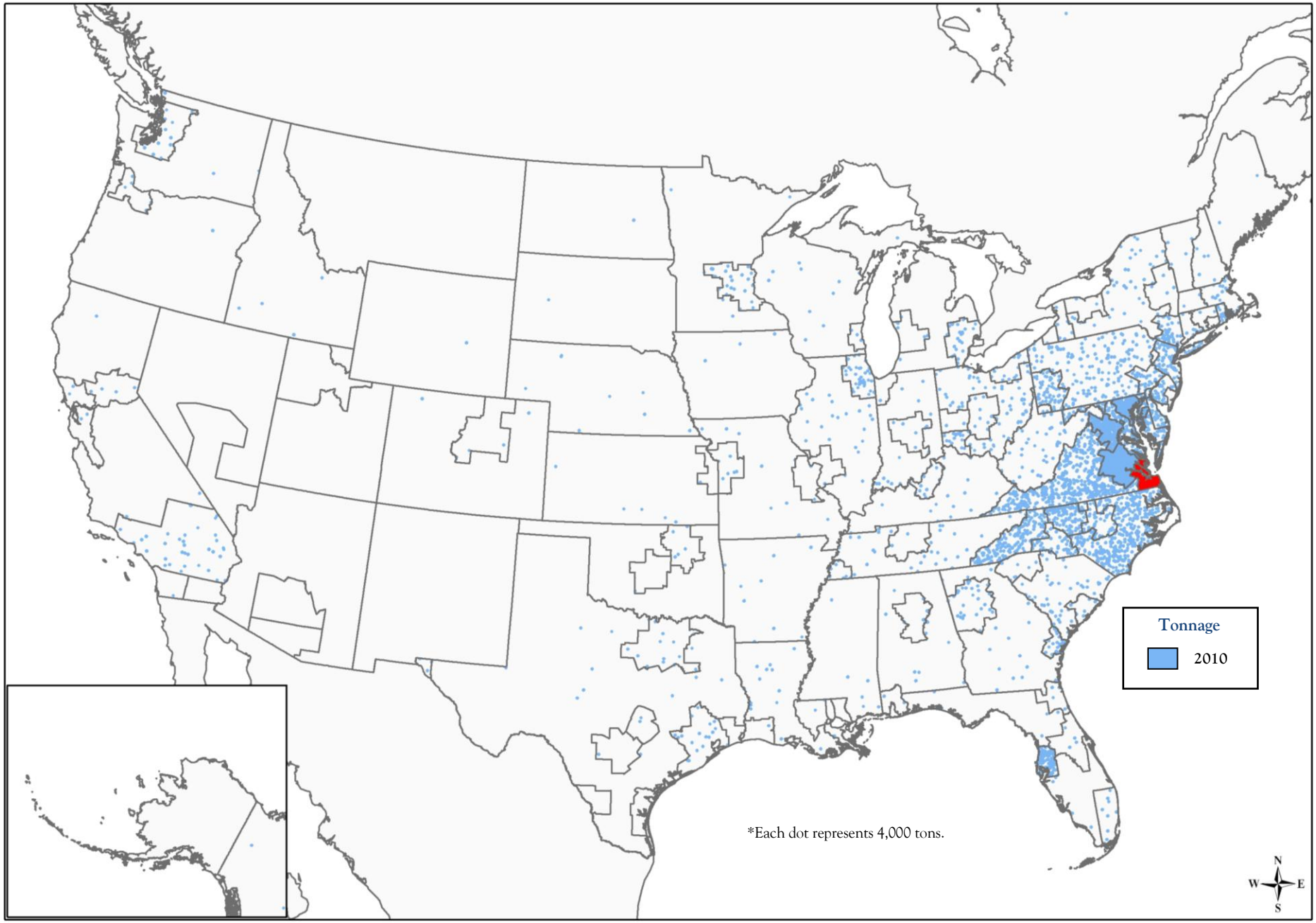
From Hampton Roads

ID	North American Region	2010 Dollars (millions)	2010 Share	2040 Dollars (millions)	2040 Share	(2010 - 2040) Change	(2010 - 2040) Growth
379	Remainder of North Carolina	$2,291.90	7.8%	$6,070.38	7.8%	$3,778.48	165%
50	Arkansas	$2,259.88	7.7%	$7,836.88	10.0%	$5,577.00	247%
519	Remainder of Virginia	$2,031.30	6.9%	$5,094.58	6.5%	$3,063.28	151%
511	Richmond, VA MSA	$1,933.91	6.6%	$4,230.92	5.4%	$2,297.01	119%
373	Raleigh-Durham, NC CSA	$1,361.93	4.6%	$3,483.21	4.5%	$2,121.27	156%
241	Baltimore, MD MSA	$1,282.46	4.4%	$3,503.29	4.5%	$2,220.83	173%
372	Greensboro--Winston-Salem--High Point, NC CSA	$1,248.04	4.3%	$4,093.15	5.2%	$2,845.11	228%
513	Washington, DC-MD-VA-WV CSA (VA Part)	$897.06	3.1%	$1,875.91	2.4%	$978.85	109%
171	Chicago, IL-IN-WI CSA (IL Part)	$749.62	2.6%	$2,656.80	3.4%	$1,907.18	254%
341	New York, NY-NJ-CT-PA CSA (NJ Part)	$663.96	2.3%	$2,031.12	2.6%	$1,367.16	206%
429	Remainder of Pennsylvania	$658.99	2.2%	$1,307.11	1.7%	$648.11	98%
61	Los Angeles, CA CSA	$646.48	2.2%	$1,431.73	1.8%	$785.26	121%
363	New York, NY-NJ-CT-PA CSA (NY Part)	$532.51	1.8%	$1,700.45	2.2%	$1,167.94	219%
219	Remainder of Kentucky	$504.08	1.7%	$1,496.38	1.9%	$992.30	197%
131	Atlanta, GA-AL CSA (GA Part)	$453.94	1.5%	$992.21	1.3%	$538.27	119%
801	Canada	$429.77	1.5%	$1,267.64	1.6%	$837.87	195%
261	Detroit, MI CSA	$378.71	1.3%	$1,020.70	1.3%	$641.99	170%
179	Remainder of Illinois	$358.68	1.2%	$540.21	0.7%	$181.53	51%
129	Remainder of Florida	$343.73	1.2%	$1,029.12	1.3%	$685.39	199%
421	Philadelphia, PA-NJ-DE-MD CSA (PA Part)	$327.05	1.1%	$649.01	0.8%	$321.96	98%
242	Washington, DC-VA-MD-WV MSA (MD Part)	$325.95	1.1%	$741.05	0.9%	$415.10	127%
392	Cleveland, OH CSA	$324.33	1.1%	$809.89	1.0%	$485.56	150%
122	Miami, FL MSA	$305.80	1.0%	$894.53	1.1%	$588.74	193%
399	Remainder of Ohio	$294.83	1.0%	$1,226.30	1.6%	$931.48	316%
393	Columbus, OH CSA	$271.23	0.9%	$598.28	0.8%	$327.05	121%
459	Remainder of South Carolina	$265.58	0.9%	$615.08	0.8%	$349.50	132%
371	Charlotte, NC-SC CSA (NC Part)	$244.20	0.8%	$683.50	0.9%	$439.30	180%
391	Cincinnati, OH-KY-IN CSA (OH Part)	$239.03	0.8%	$775.86	1.0%	$536.83	225%
62	Sacramento, CA-NV CSA (CA Part)	$226.30	0.8%	$704.11	0.9%	$477.81	211%
211	Louisville, KY-IN CSA (KY Part)	$222.24	0.8%	$650.20	0.8%	$427.96	193%
540	West Virginia	$219.91	0.7%	$451.57	0.6%	$231.66	105%
69	Remainder of California	$219.14	0.7%	$354.14	0.5%	$135.00	62%
182	Indianapolis, IN CSA	$208.36	0.7%	$410.44	0.5%	$202.08	97%
139	Remainder of Georgia	$206.92	0.7%	$358.63	0.5%	$151.71	73%
484	Dallas-Fort Worth, TX CSA	$206.68	0.7%	$439.09	0.6%	$232.41	112%
64	San Francisco, CA CSA	$201.76	0.7%	$696.71	0.9%	$494.95	245%
111	Washington, DC-VA-MD-WV MSA (DC Part)	$201.51	0.7%	$231.92	0.3%	$30.41	15%
271	Minneapolis-St. Paul, MN-WI CSA (MN Part)	$189.82	0.6%	$649.95	0.8%	$460.13	242%
100	Delaware	$188.00	0.6%	$361.84	0.5%	$173.83	92%
189	Remainder of Indiana	$186.97	0.6%	$693.86	0.9%	$506.89	271%
41	Phoenix, AZ MSA	$185.71	0.6%	$430.12	0.6%	$244.41	132%
479	Remainder of Tennessee	$173.90	0.6%	$440.73	0.6%	$266.83	153%
81	Denver, CO CSA	$172.20	0.6%	$412.63	0.5%	$240.44	140%
422	Pittsburgh, PA CSA	$171.05	0.6%	$420.71	0.5%	$249.66	146%
472	Nashville, TN CSA	$162.96	0.6%	$483.89	0.6%	$320.93	197%
342	Philadelphia, PA-NJ-DE-MD CSA (NJ Part)	$154.49	0.5%	$464.49	0.6%	$309.99	201%
249	Remainder of Maryland	$141.15	0.5%	$184.16	0.2%	$43.01	30%
124	Tampa, FL MSA	$127.54	0.4%	$214.39	0.3%	$86.85	68%
190	Iowa	$127.43	0.4%	$388.03	0.5%	$260.60	205%
369	Remainder of New York	$126.80	0.4%	$223.09	0.3%	$96.29	76%
539	Remainder of Washington	$123.85	0.4%	$448.43	0.6%	$324.58	262%
251	Boston, MA-NH CSA (MA Part)	$121.28	0.4%	$245.74	0.3%	$124.46	103%
121	Jacksonville, FL MSA	$119.52	0.4%	$332.54	0.4%	$213.02	178%
531	Seattle, WA CSA	$118.92	0.4%	$448.09	0.6%	$329.17	277%
394	Dayton, OH CSA	$115.02	0.4%	$350.36	0.4%	$235.34	205%
559	Remainder of Wisconsin	$105.11	0.4%	$221.96	0.3%	$116.84	111%
92	New York, NY-NJ-CT-PA CSA (CT Part)	$104.55	0.4%	$358.21	0.5%	$253.66	243%
292	St. Louis, MO-IL CSA (MO Part)	$102.76	0.4%	$330.65	0.4%	$227.89	222%
123	Orlando, FL CSA	$100.43	0.3%	$121.91	0.2%	$21.48	21%
486	Houston, TX CSA	$99.70	0.3%	$247.03	0.3%	$147.33	148%
451	Charleston, SC MSA	$99.53	0.3%	$429.50	0.6%	$329.97	332%
269	Remainder of Michigan	$96.06	0.3%	$280.50	0.4%	$184.44	192%
310	Nebraska	$95.77	0.3%	$158.35	0.2%	$62.58	65%
89	Remainder of Colorado	$90.27	0.3%	$152.12	0.2%	$61.85	69%
802	Mexico	$86.23	0.3%	$320.15	0.4%	$233.92	271%
361	Albany, NY CSA	$84.56	0.3%	$134.57	0.2%	$50.01	59%
551	Milwaukee, WI CSA	$83.93	0.3%	$262.98	0.3%	$179.05	213%
63	San Diego, CA MSA	$83.05	0.3%	$178.06	0.2%	$95.01	114%
491	Salt Lake City, UT CSA	$82.51	0.3%	$125.75	0.2%	$43.25	52%
411	Portland, OR-WA MSA (OR Part)	$82.48	0.3%	$234.50	0.3%	$152.02	184%
19	Remainder of Alabama	$82.27	0.3%	$136.04	0.2%	$53.77	65%
299	Remainder of Missouri	$79.95	0.3%	$205.23	0.3%	$125.28	157%
230	Maine	$70.06	0.2%	$377.04	0.5%	$306.97	438%
350	New Mexico	$66.85	0.2%	$393.12	0.5%	$326.27	488%
291	Kansas City, MO-KS CSA (MO Part)	$65.81	0.2%	$261.33	0.3%	$195.52	297%
349	Remainder of New Jersey	$64.34	0.2%	$63.69	0.1%	-$0.64	-1%
471	Memphis, TN-MS-AR MSA (TN Part)	$62.38	0.2%	$115.06	0.1%	$52.68	84%
489	Remainder of Texas	$61.32	0.2%	$184.93	0.2%	$123.61	202%
49	Remainder of Arizona	$60.29	0.2%	$113.76	0.1%	$53.47	89%
209	Remainder of Kansas	$57.82	0.2%	$106.09	0.1%	$48.27	83%
132	Savannah, GA CSA	$54.14	0.2%	$111.44	0.1%	$57.30	106%
487	Laredo, TX MSA	$52.28	0.2%	$89.59	0.1%	$37.30	71%
262	Grand Rapids, MI CSA	$51.29	0.2%	$101.09	0.1%	$49.79	97%
259	Remainder of Massachusetts	$47.73	0.2%	$244.10	0.3%	$196.37	411%
160	Idaho	$45.88	0.2%	$93.06	0.1%	$47.17	103%
321	Las Vegas, NV CSA	$40.58	0.1%	$89.78	0.1%	$49.20	121%
440	Rhode Island	$40.10	0.1%	$84.14	0.1%	$44.05	110%
452	Greenville, SC CSA	$39.36	0.1%	$105.67	0.1%	$66.32	168%
279	Remainder of Minnesota	$36.66	0.1%	$120.51	0.2%	$83.85	229%
172	St. Louis, MO-IL CSA (IL Part)	$35.95	0.1%	$62.68	0.1%	$26.73	74%
481	Austin, TX MSA	$34.47	0.1%	$49.42	0.1%	$14.95	43%
300	Montana	$31.87	0.1%	$49.05	0.1%	$17.18	54%
419	Remainder of Oregon	$31.68	0.1%	$67.95	0.1%	$36.28	115%
229	Remainder of Louisiana	$31.26	0.1%	$54.99	0.1%	$23.73	76%
223	New Orleans, LA CSA	$30.17	0.1%	$49.59	0.1%	$19.42	64%
280	Mississippi	$30.10	0.1%	$108.77	0.1%	$78.67	261%
11	Birmingham, AL CSA	$29.14	0.1%	$66.79	0.1%	$37.64	129%
362	Buffalo, NY CSA	$28.54	0.1%	$39.43	0.1%	$10.88	38%
91	Hartford, CT CSA	$26.94	0.1%	$43.31	0.1%	$16.37	61%
499	Remainder of Utah	$24.99	0.1%	$54.02	0.1%	$29.03	116%
488	San Antonio, TX MSA	$24.35	0.1%	$80.22	0.1%	$55.87	229%
364	Rochester, NY CSA	$23.07	0.1%	$82.19	0.1%	$59.12	256%
201	Kansas City, MO-KS CSA (KS Part)	$22.73	0.1%	$82.28	0.1%	$59.55	262%
20	Alaska	$20.54	0.1%	$36.51	0.0%	$15.97	78%
409	Remainder of Oklahoma	$19.63	0.1%	$38.97	0.0%	$19.34	99%
560	Wyoming	$18.40	0.1%	$33.50	0.0%	$15.10	82%
380	North Dakota	$15.97	0.1%	$17.81	0.0%	$1.84	11%
460	South Dakota	$15.18	0.1%	$40.65	0.1%	$25.47	168%
330	New Hampshire	$14.37	0.0%	$36.63	0.0%	$22.26	155%
221	Baton Rouge, LA CSA	$14.30	0.0%	$19.74	0.0%	$5.44	38%
42	Tucson, AZ MSA	$12.27	0.0%	$42.10	0.1%	$29.83	243%
485	El Paso, TX MSA	$11.05	0.0%	$18.17	0.0%	$7.12	64%
401	Oklahoma City, OK CSA	$10.97	0.0%	$17.30	0.0%	$6.34	58%
500	Vermont	$9.90	0.0%	$68.36	0.1%	$58.46	591%
482	Beaumont, TX MSA	$8.15	0.0%	$12.39	0.0%	$4.23	52%
181	Chicago, IL-IN-WI CSA (IN Part)	$7.10	0.0%	$25.26	0.0%	$18.17	256%
329	Remainder of Nevada	$5.25	0.0%	$14.12	0.0%	$8.87	169%
222	Lake Charles, LA CSA	$4.10	0.0%	$4.62	0.0%	$0.52	13%
402	Tulsa, OK CSA	$3.79	0.0%	$9.09	0.0%	$5.29	140%
483	Corpus Christi, TX CSA	$2.60	0.0%	$18.86	0.0%	$16.26	625%
12	Mobile, AL CSA	$1.92	0.0%	$6.87	0.0%	$4.95	258%
99	Remainder of Connecticut	$0.39	0.0%	$0.37	0.0%	-$0.02	-6%
	Total	$29,321.60	100.0%	$78,049.10	100.0%	$48,727.50	166%

*Excludes "Within Hampton Roads" shipments.

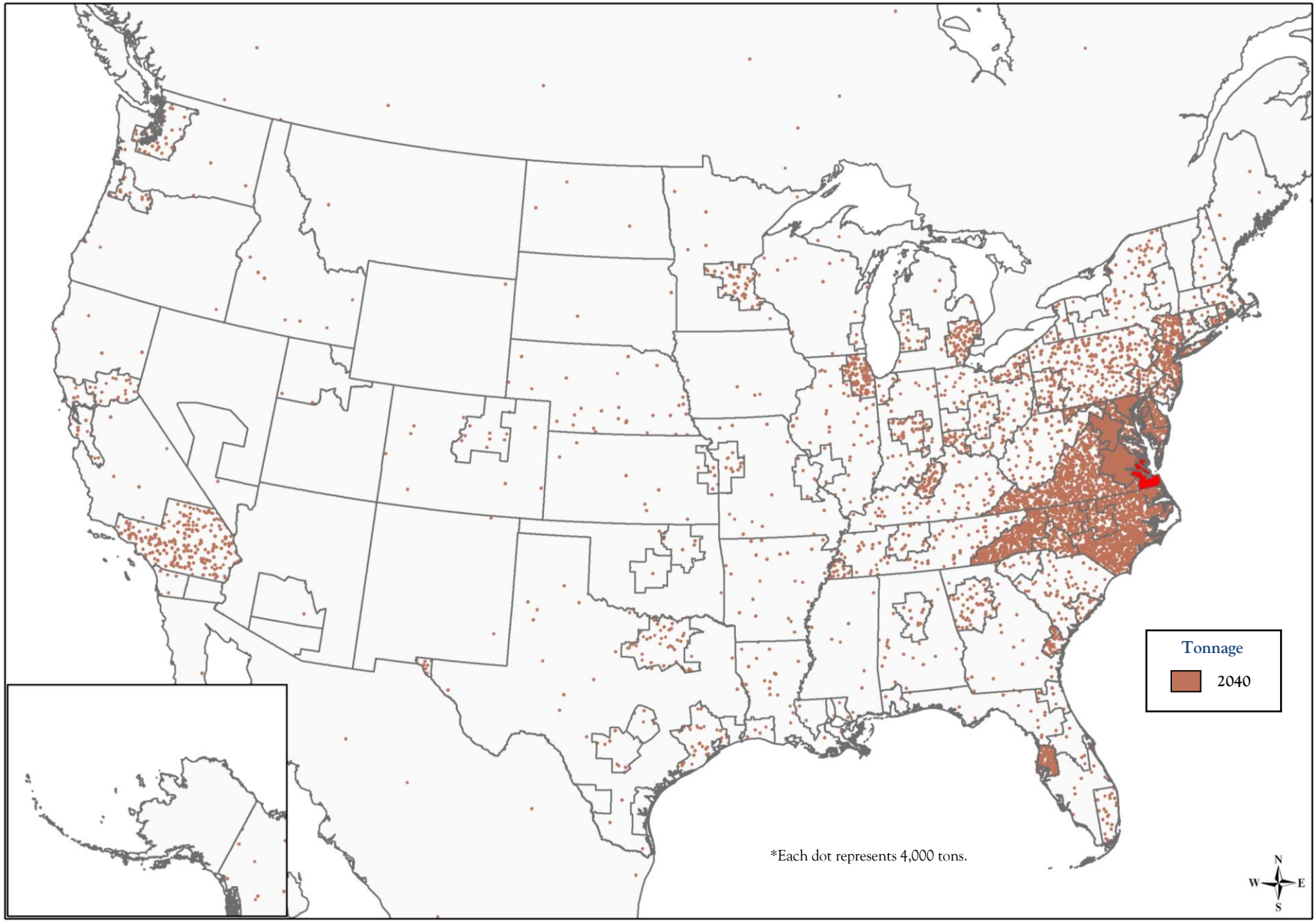
Map 6: 2010 Freight Shipments by Truck to Hampton Roads – Weight

Data Source: FHWA Freight Analysis Framework.



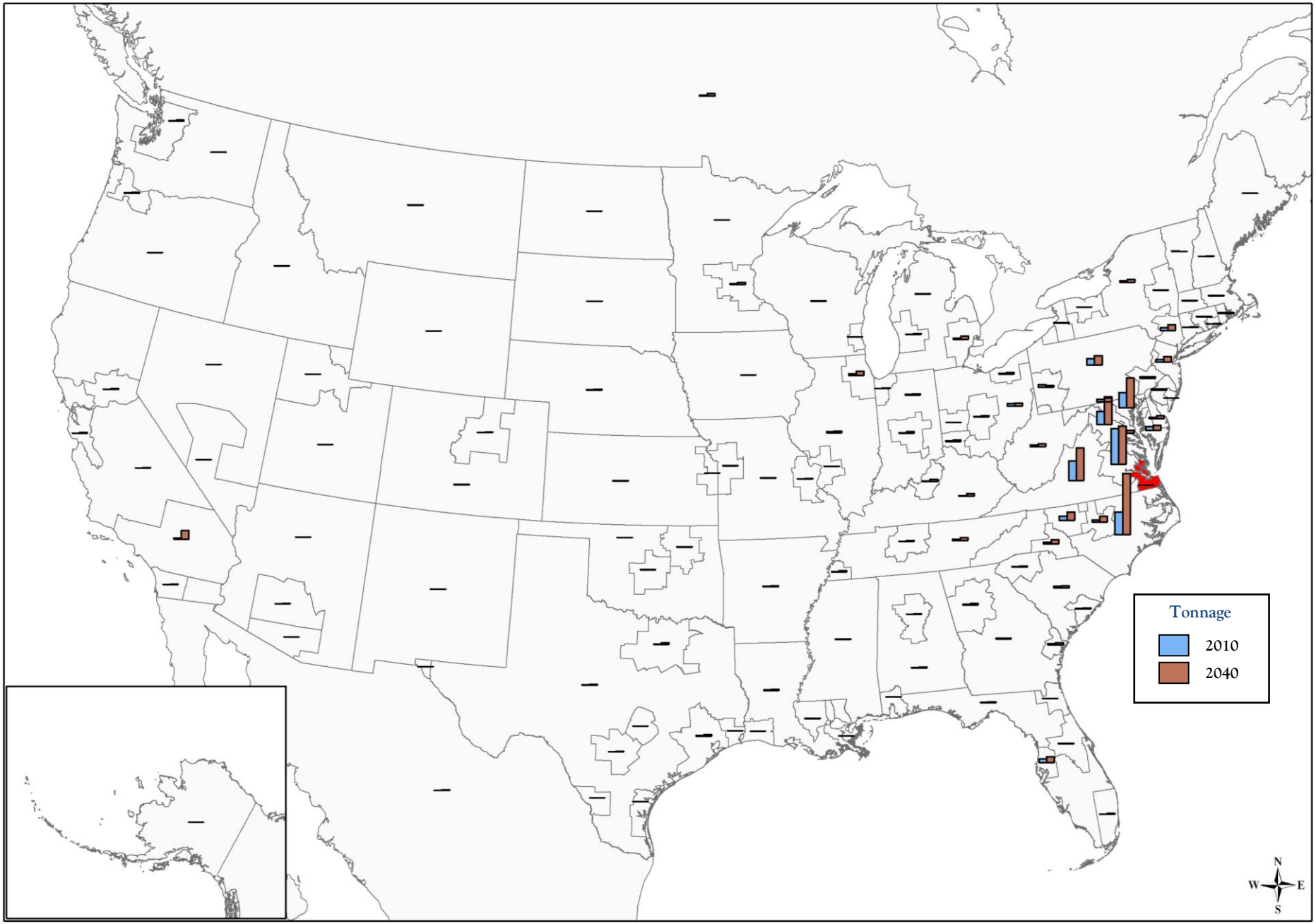
Map 7: 2040 Freight Shipments by Truck to Hampton Roads – Weight

Data Source: FHWA Freight Analysis Framework.



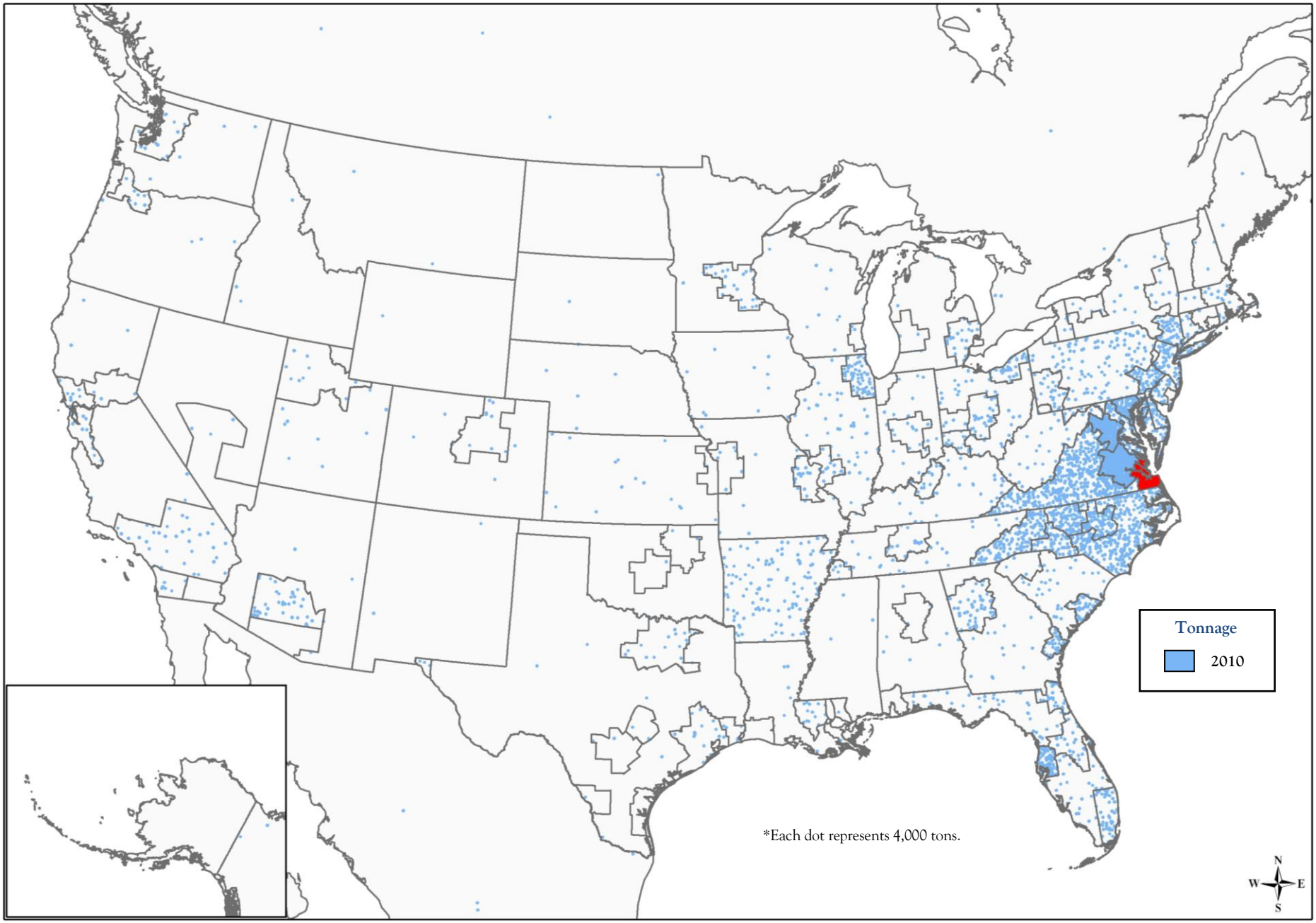
Map 8: 2010 and 2040 Freight Shipments by Truck to Hampton Roads – Weight

Data Source: FHWA Freight Analysis Framework.



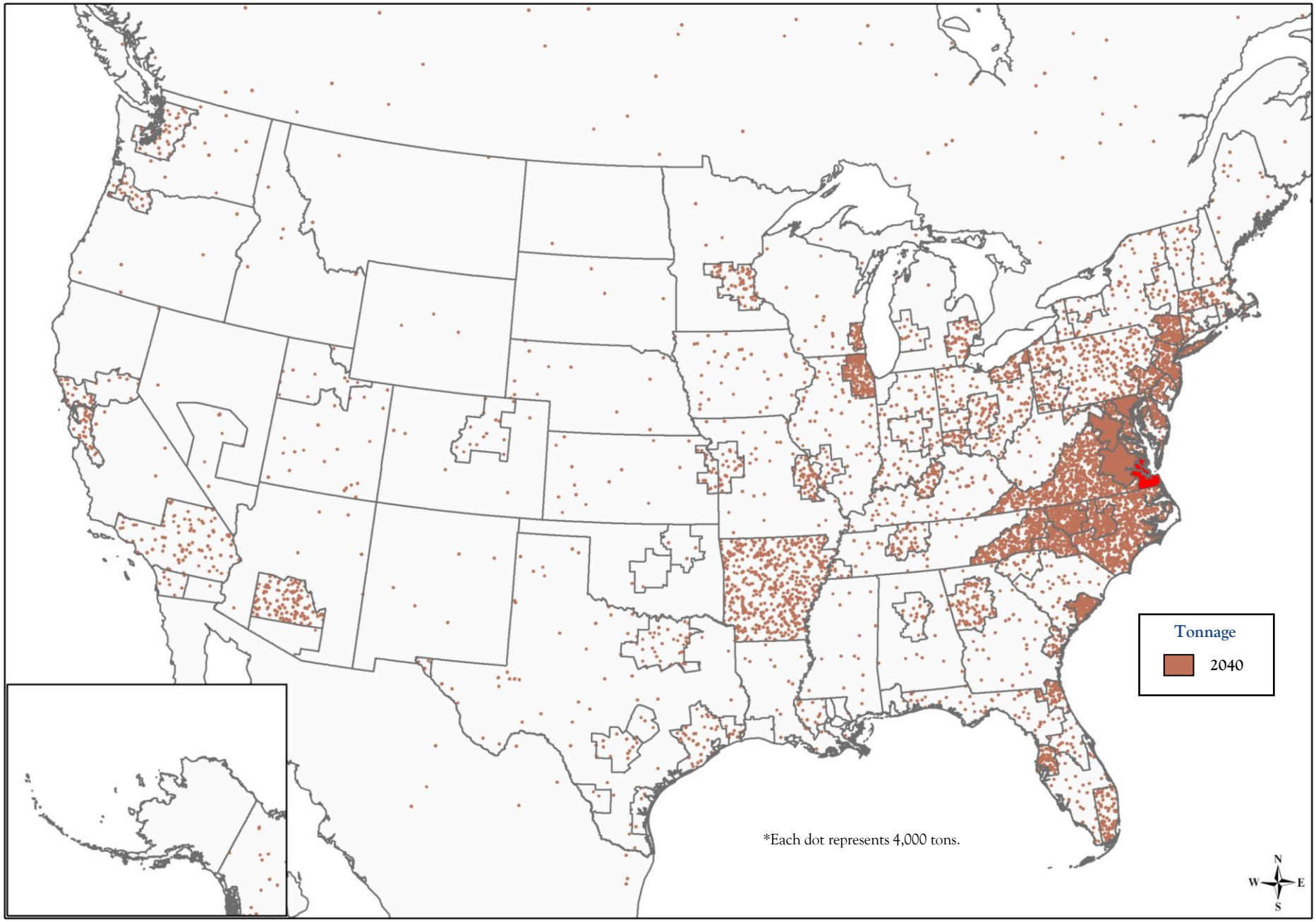
Map 9: 2010 Freight Shipments by Truck from Hampton Roads – Weight

Data Source: FHWA Freight Analysis Framework.



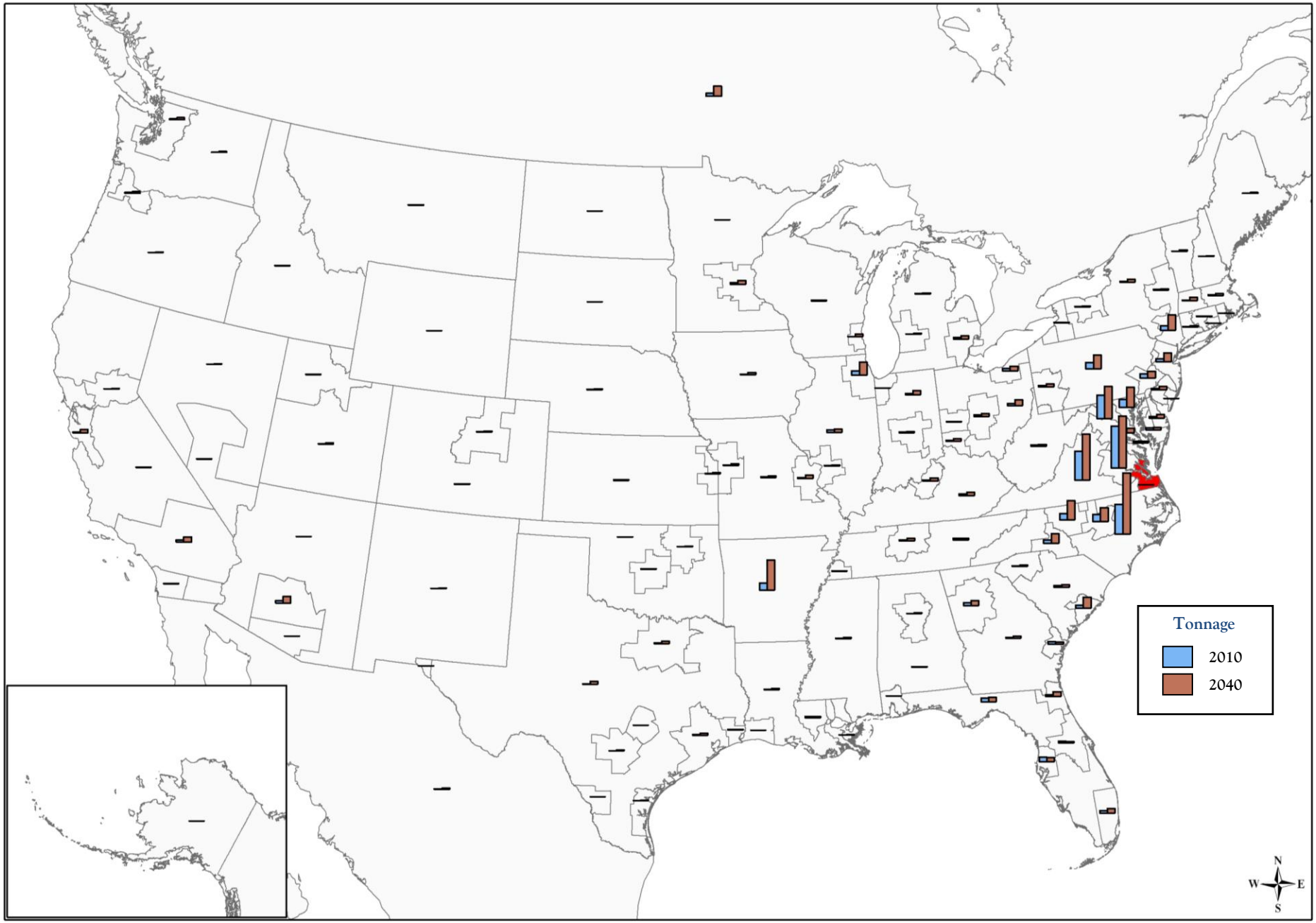
Map 10: 2040 Freight Shipments by Truck from Hampton Roads – Weight

Data Source: FHWA Freight Analysis Framework.



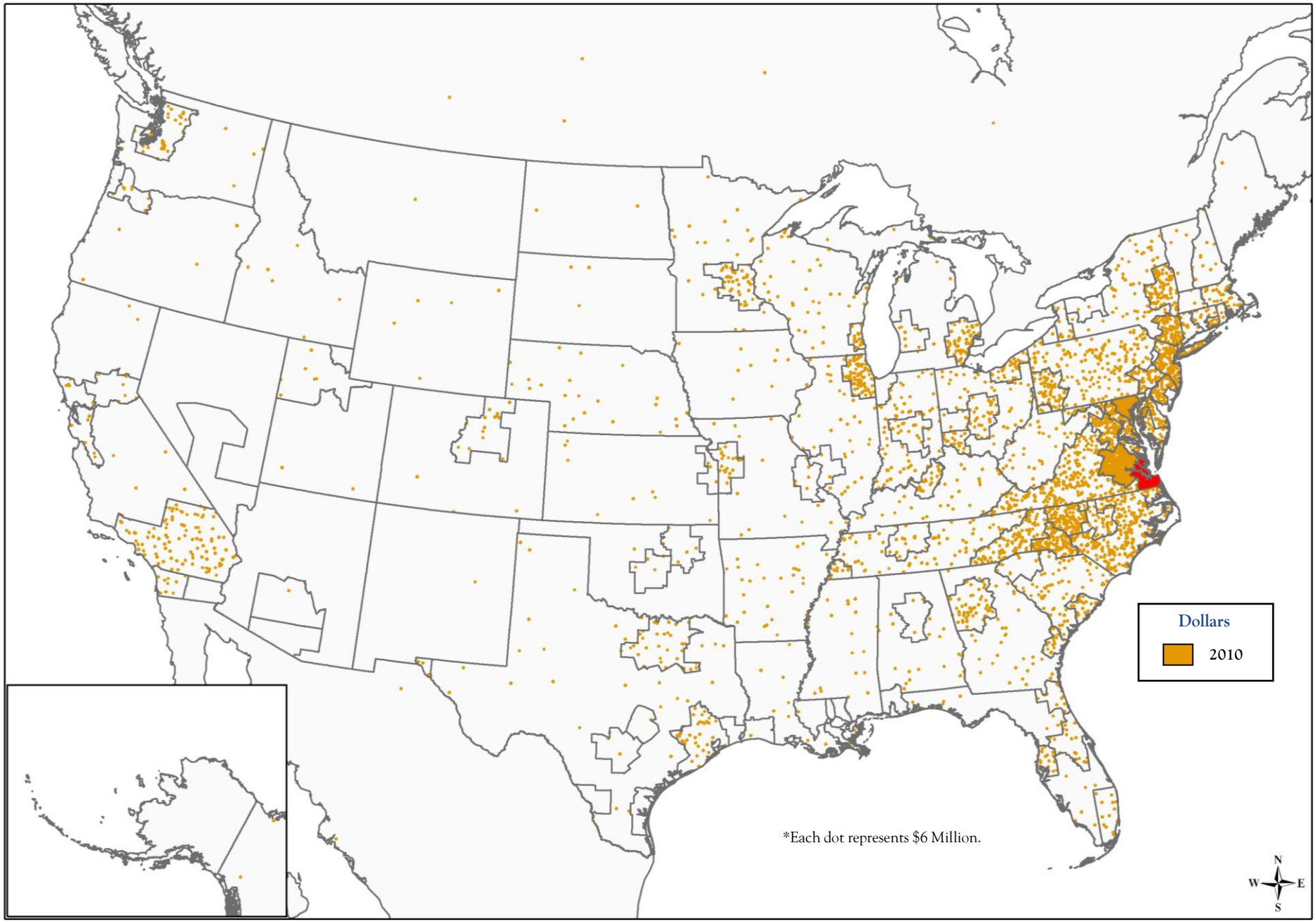
Map 11: 2010 and 2040 Freight Shipments by Truck from Hampton Roads – Weight

Data Source: FHWA Freight Analysis Framework.



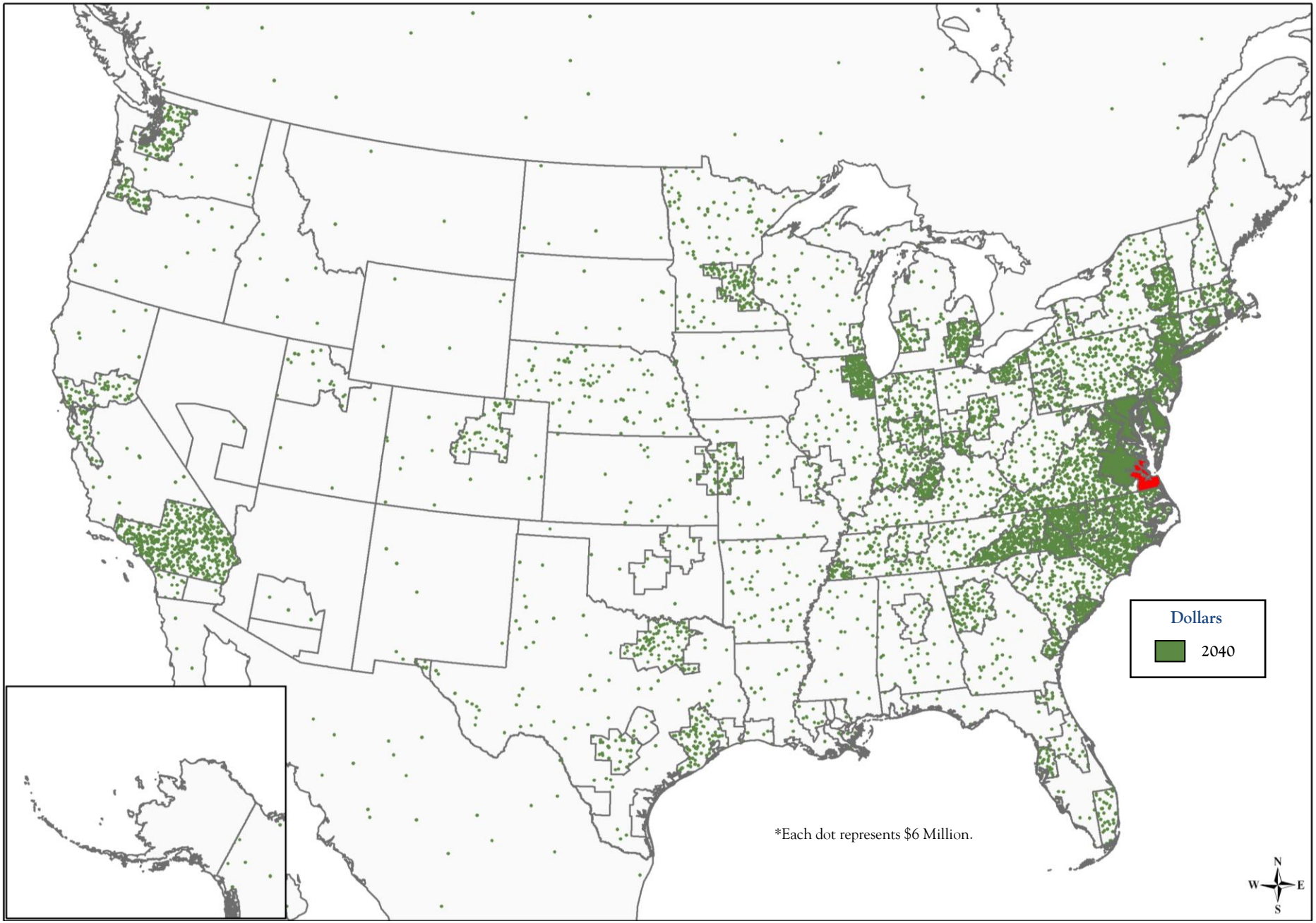
Map 12: 2010 Freight Shipments by Truck to Hampton Roads – Value

Data Source: FHWA Freight Analysis Framework.



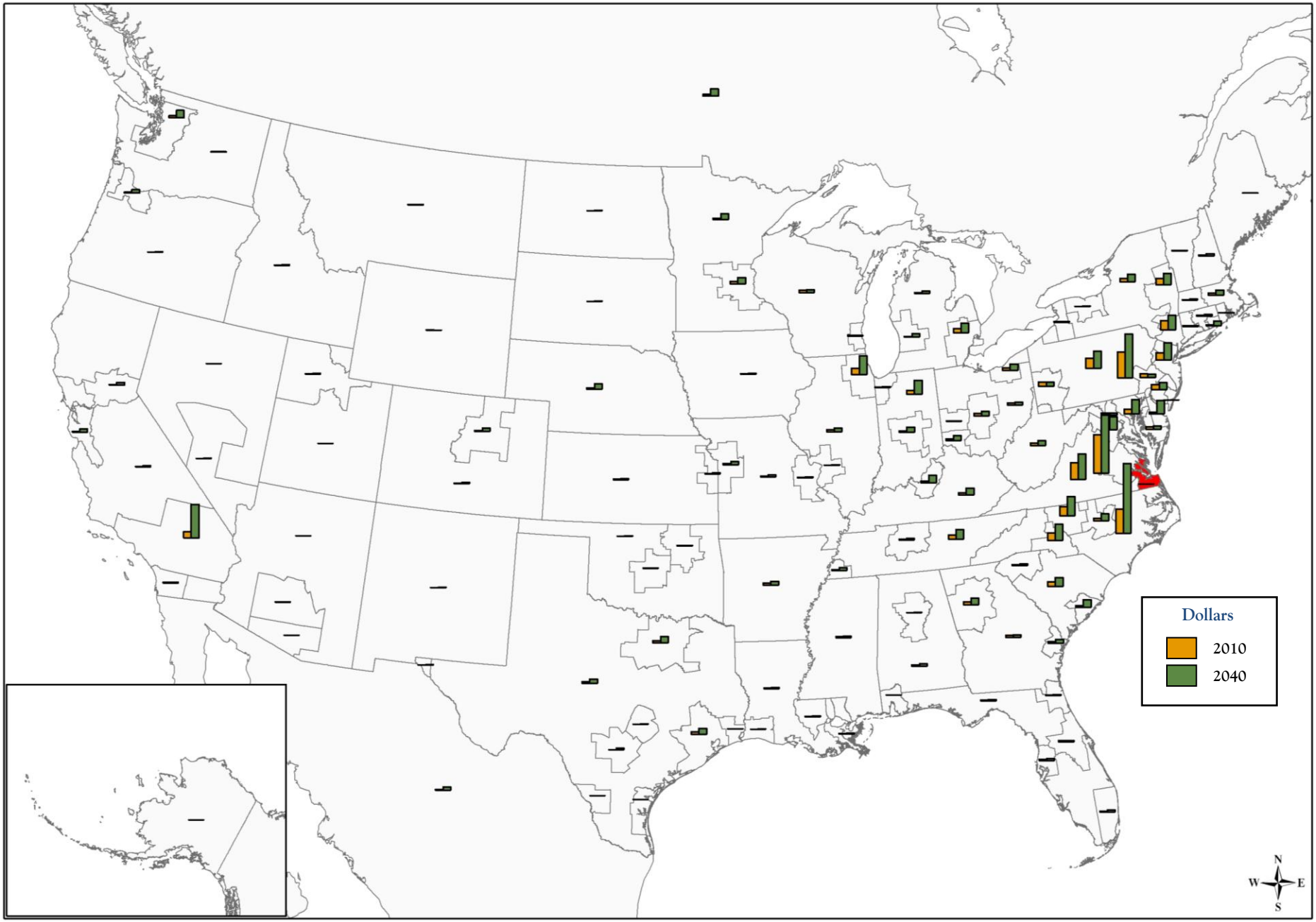
Map 13: 2040 Freight Shipments by Truck to Hampton Roads – Value

Data Source: FHWA Freight Analysis Framework.



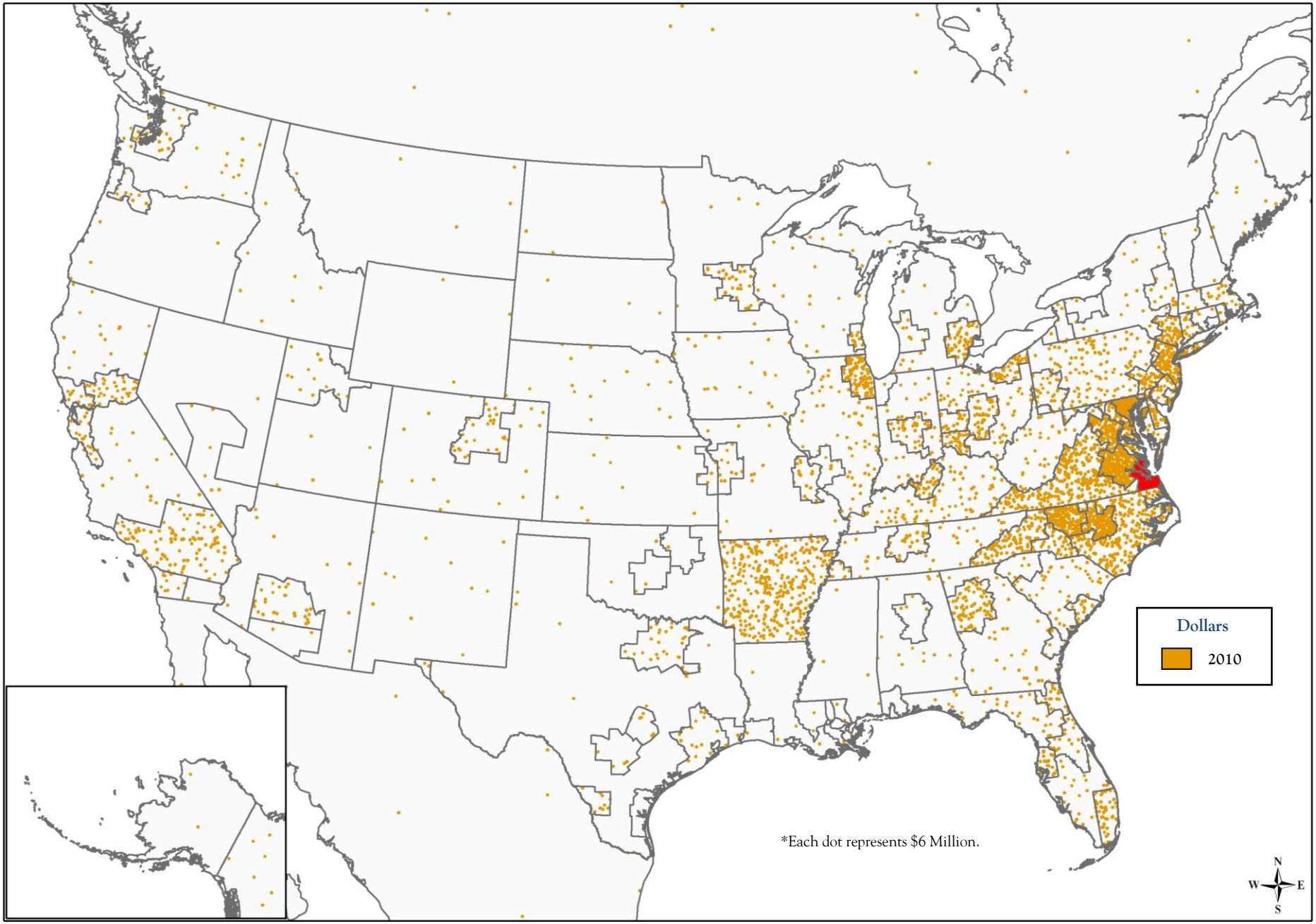
Map 14: 2010 and 2040 Freight Shipments by Truck to Hampton Roads – Value

Data Source: FHWA Freight Analysis Framework.



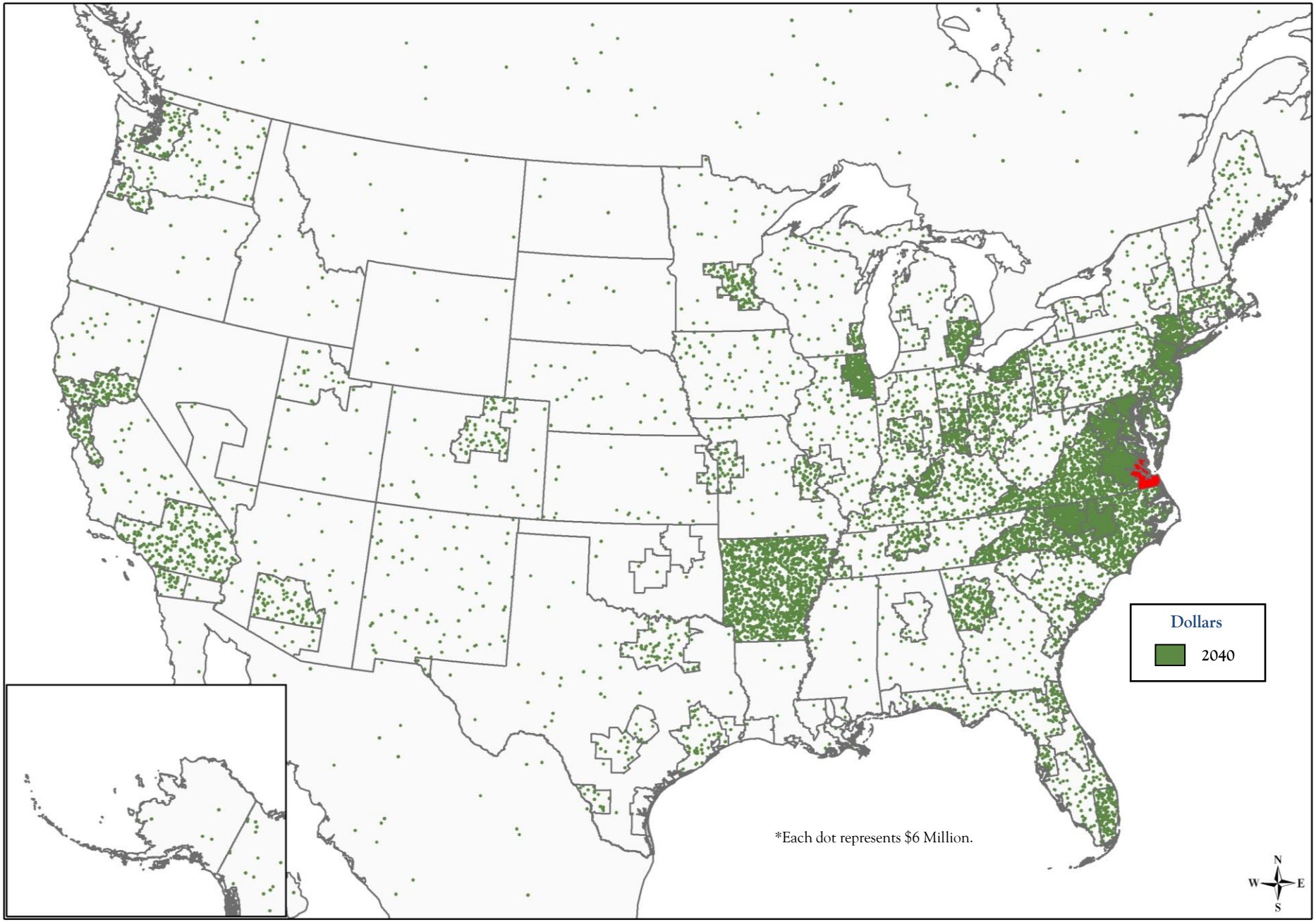
Map 15: 2010 Freight Shipments by Truck from Hampton Roads – Value

Data Source: FHWA Freight Analysis Framework.



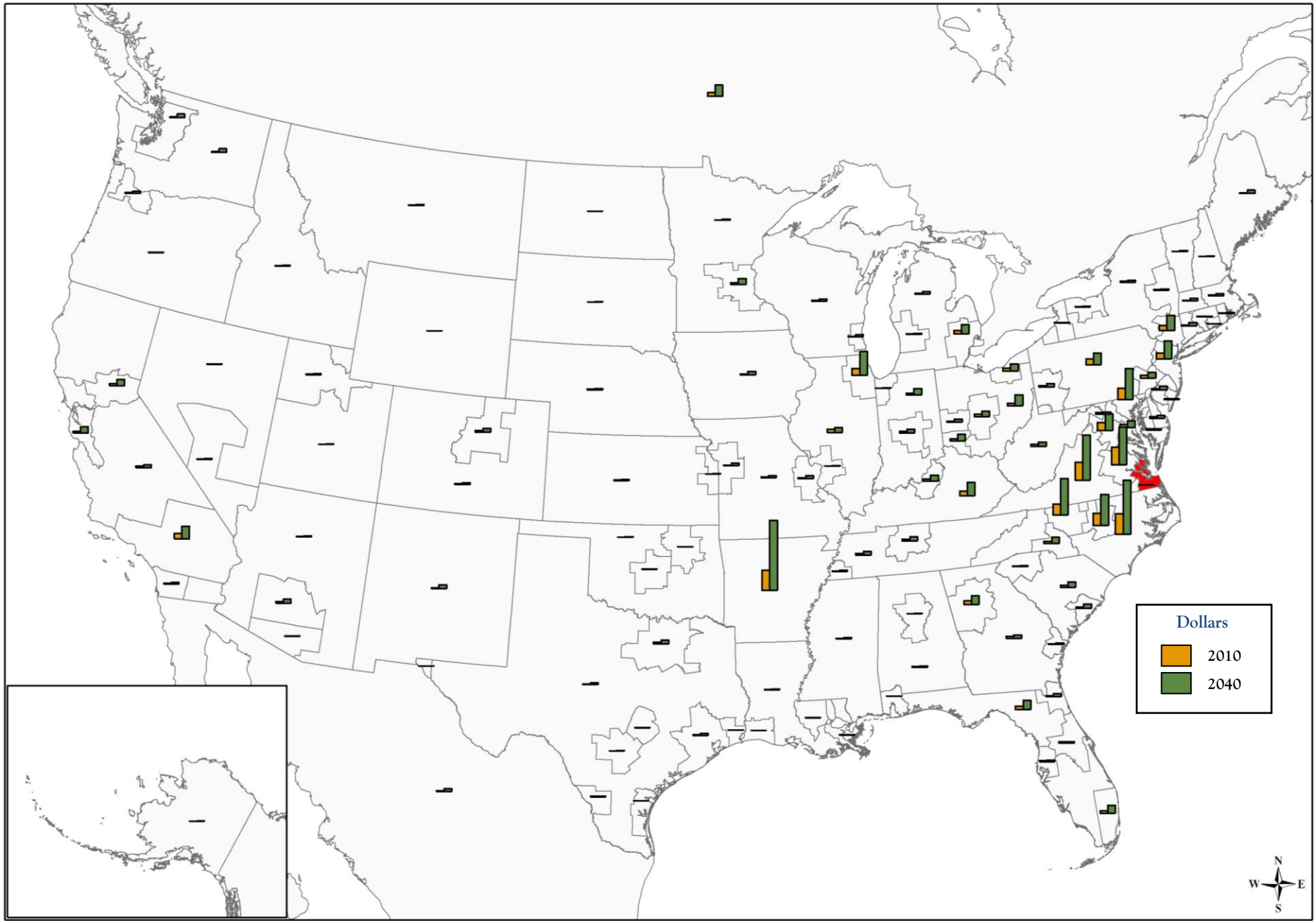
Map 16: 2040 Freight Shipments by Truck from Hampton Roads – Value

Data Source: FHWA Freight Analysis Framework.



Map 17: 2010 and 2040 Freight Shipments by Truck from Hampton Roads – Value

Data Source: FHWA Freight Analysis Framework.



FREIGHT SHIPMENTS BY RAIL BY NORTH AMERICAN REGION TO/FROM HAMPTON ROADS

Table 47 – 2010 and 2040 Freight Shipments by Rail to Hampton Roads* – Weight

Data Source: FHWA Freight Analysis Framework.

		To Hampton Roads					
		2010		2040		(2010 - 2040)	
ID	North American Region	Tons (thousands)	Share	Tons (thousands)	Share	Change	Growth
540	West Virginia	7,980.14	44.4%	5,580.33	28.1%	-2,399.82	-30%
519	Remainder of Virginia	5,935.73	33.1%	8,389.16	42.3%	2,453.43	41%
219	Remainder of Kentucky	1,408.53	7.8%	860.08	4.3%	-548.46	-39%
399	Remainder of Ohio	839.74	4.7%	990.02	5.0%	150.28	18%
242	Washington, DC-VA-MD-WV MSA (MD Part)	209.57	1.2%	252.04	1.3%	42.47	20%
363	New York, NY-NJ-CT-PA CSA (NY Part)	204.08	1.1%	1,252.79	6.3%	1,048.70	514%
379	Remainder of North Carolina	149.92	0.8%	246.38	1.2%	96.46	64%
513	Washington, DC-MD-VA-WV CSA (VA Part)	115.46	0.6%	47.89	0.2%	-67.56	-59%
189	Remainder of Indiana	113.65	0.6%	136.39	0.7%	22.74	20%
559	Remainder of Wisconsin	107.35	0.6%	125.95	0.6%	18.60	17%
801	Canada	105.17	0.6%	297.94	1.5%	192.77	183%
50	Arkansas	83.80	0.5%	99.01	0.5%	15.21	18%
69	Remainder of California	56.60	0.3%	215.51	1.1%	158.91	281%
362	Buffalo, NY CSA	53.45	0.3%	43.60	0.2%	-9.85	-18%
179	Remainder of Illinois	50.82	0.3%	70.53	0.4%	19.72	39%
342	Philadelphia, PA-NJ-DE-MD CSA (NJ Part)	50.39	0.3%	64.14	0.3%	13.76	27%
160	Idaho	44.40	0.2%	106.64	0.5%	62.24	140%
190	Iowa	44.17	0.2%	35.53	0.2%	-8.64	-20%
341	New York, NY-NJ-CT-PA CSA (NJ Part)	42.77	0.2%	83.85	0.4%	41.08	96%
560	Wyoming	41.93	0.2%	15.27	0.1%	-26.66	-64%
369	Remainder of New York	41.74	0.2%	70.58	0.4%	28.84	69%
241	Baltimore, MD MSA	36.46	0.2%	29.37	0.1%	-7.09	-19%
511	Richmond, VA MSA	31.78	0.2%	203.09	1.0%	171.32	539%
364	Rochester, NY CSA	31.40	0.2%	108.17	0.5%	76.77	244%
229	Remainder of Louisiana	29.19	0.2%	49.56	0.2%	20.37	70%
486	Houston, TX CSA	22.26	0.1%	62.18	0.3%	39.92	179%
361	Albany, NY CSA	17.50	0.1%	52.62	0.3%	35.12	201%
223	New Orleans, LA CSA	16.41	0.1%	26.82	0.1%	10.41	63%
139	Remainder of Georgia	15.45	0.1%	3.66	0.0%	-11.80	-76%
261	Detroit, MI CSA	12.49	0.1%	77.54	0.4%	65.05	521%
393	Columbus, OH CSA	11.49	0.1%	40.17	0.2%	28.68	250%
129	Remainder of Florida	10.83	0.1%	70.01	0.4%	59.18	546%
391	Cincinnati, OH-KY-IN CSA (OH Part)	10.68	0.1%	12.67	0.1%	1.99	19%
392	Cleveland, OH CSA	6.44	0.0%	20.56	0.1%	14.12	219%
100	Delaware	3.09	0.0%	20.41	0.1%	17.32	561%
349	Remainder of New Jersey	3.05	0.0%	10.90	0.1%	7.85	258%
211	Louisville, KY-IN CSA (KY Part)	2.85	0.0%	13.09	0.1%	10.24	360%
62	Sacramento, CA-NV CSA (CA Part)	2.61	0.0%	14.48	0.1%	11.88	455%
271	Minneapolis-St. Paul, MN-WI CSA (MN Part)	2.59	0.0%	5.39	0.0%	2.80	108%
171	Chicago, IL-IN-WI CSA (IL Part)	1.69	0.0%	4.23	0.0%	2.54	150%
64	San Francisco, CA CSA	1.56	0.0%	6.46	0.0%	4.90	314%
372	Greensboro--Winston-Salem--High Point, NC CSA	1.36	0.0%	1.45	0.0%	0.09	6%
411	Portland, OR-WA MSA (OR Part)	1.00	0.0%	2.75	0.0%	1.75	175%
802	Mexico	0.98	0.0%	2.66	0.0%	1.69	173%
452	Greenville, SC CSA	0.65	0.0%	0.81	0.0%	0.16	25%
249	Remainder of Maryland	0.62	0.0%	0.24	0.0%	-0.38	-61%
182	Indianapolis, IN CSA	0.59	0.0%	5.16	0.0%	4.57	781%
394	Dayton, OH CSA	0.39	0.0%	0.73	0.0%	0.34	86%
63	San Diego, CA MSA	0.37	0.0%	3.66	0.0%	3.30	898%
429	Remainder of Pennsylvania	0.31	0.0%	0.40	0.0%	0.09	30%
551	Milwaukee, WI CSA	0.28	0.0%	1.17	0.0%	0.89	319%
61	Los Angeles, CA CSA	0.18	0.0%	0.84	0.0%	0.66	370%
279	Remainder of Minnesota	0.14	0.0%	0.18	0.0%	0.04	30%
459	Remainder of South Carolina	0.13	0.0%	0.50	0.0%	0.37	285%
172	St. Louis, MO-IL CSA (IL Part)	0.12	0.0%	0.66	0.0%	0.55	477%
460	South Dakota	0.10	0.0%	0.50	0.0%	0.41	427%
451	Charleston, SC MSA	0.09	0.0%	0.41	0.0%	0.32	372%
419	Remainder of Oregon	0.02	0.0%	0.12	0.0%	0.10	449%
371	Charlotte, NC-SC CSA (NC Part)	0.02	0.0%	0.04	0.0%	0.02	96%
373	Raleigh-Durham, NC CSA	0.01	0.0%	0.01	0.0%	0.01	96%
380	North Dakota	0.01	0.0%	0.02	0.0%	0.01	214%
181	Chicago, IL-IN-WI CSA (IN Part)	0.01	0.0%	0.06	0.0%	0.06	1167%
251	Boston, MA-NH CSA (MA Part)	0.00	0.0%	0.00	0.0%	0.00	-74%
221	Baton Rouge, LA CSA	0.00	0.0%	0.03	0.0%	0.03	1035%
259	Remainder of Massachusetts	0.00	0.0%	0.00	0.0%	0.00	48%
	Total	17,956.55	100.0%	19,837.43	100.0%	1,880.88	10%

*Excludes "Within Hampton Roads" shipments.

Table 48 – 2010 and 2040 Freight Shipments by Rail from Hampton Roads – Weight

Data Source: FHWA Freight Analysis Framework.

		From Hampton Roads					
		2010		2040		(2010 - 2040)	
ID	North American Region	Tons (thousands)	Share	Tons (thousands)	Share	Change	Growth
511	Richmond, VA MSA	1,698.94	82.1%	3,356.66	87.1%	1,657.72	98%
540	West Virginia	194.83	9.4%	134.52	3.5%	-60.32	-31%
801	Canada	64.36	3.1%	196.73	5.1%	132.37	206%
179	Remainder of Illinois	39.31	1.9%	28.01	0.7%	-11.30	-29%
479	Remainder of Tennessee	30.08	1.5%	10.64	0.3%	-19.44	-65%
802	Mexico	29.68	1.4%	91.15	2.4%	61.47	207%
486	Houston, TX CSA	5.03	0.2%	12.93	0.3%	7.91	157%
261	Detroit, MI CSA	2.84	0.1%	8.89	0.2%	6.05	213%
69	Remainder of California	2.00	0.1%	4.52	0.1%	2.52	126%
124	Tampa, FL MSA	1.19	0.1%	0.76	0.0%	-0.44	-37%
262	Grand Rapids, MI CSA	0.86	0.0%	2.20	0.1%	1.34	157%
363	New York, NY-NJ-CT-PA CSA (NY Part)	0.41	0.0%	1.99	0.1%	1.58	386%
122	Miami, FL MSA	0.17	0.0%	0.28	0.0%	0.11	62%
269	Remainder of Michigan	0.15	0.0%	0.40	0.0%	0.25	167%
131	Atlanta, GA-AL CSA (GA Part)	0.14	0.0%	0.44	0.0%	0.30	209%
132	Savannah, GA CSA	0.12	0.0%	0.87	0.0%	0.75	605%
513	Washington, DC-MD-VA-WV CSA (VA Part)	0.09	0.0%	0.22	0.0%	0.13	145%
429	Remainder of Pennsylvania	0.07	0.0%	0.02	0.0%	-0.05	-72%
121	Jacksonville, FL MSA	0.07	0.0%	0.26	0.0%	0.19	283%
421	Philadelphia, PA-NJ-DE-MD CSA (PA Part)	0.05	0.0%	0.01	0.0%	-0.04	-75%
422	Pittsburgh, PA CSA	0.03	0.0%	0.01	0.0%	-0.02	-61%
369	Remainder of New York	0.03	0.0%	0.09	0.0%	0.07	250%
519	Remainder of Virginia	0.03	0.0%	0.09	0.0%	0.07	262%
223	New Orleans, LA CSA	0.01	0.0%	0.03	0.0%	0.02	188%
129	Remainder of Florida	0.01	0.0%	0.04	0.0%	0.03	380%
361	Albany, NY CSA	0.00	0.0%	0.01	0.0%	0.00	101%
230	Maine	0.00	0.0%	0.28	0.0%	0.27	9091%
139	Remainder of Georgia	0.00	0.0%	0.00	0.0%	0.00	-60%
229	Remainder of Louisiana	0.00	0.0%	0.00	0.0%	0.00	442%
100	Delaware	0.00	0.0%	0.00	0.0%	0.00	-14%
341	New York, NY-NJ-CT-PA CSA (NJ Part)	0.00	0.0%	0.00	0.0%	0.00	0%
489	Remainder of Texas	0.00	0.0%	0.00	0.0%	0.00	-8%
50	Arkansas	-	0.0%	0.00	0.0%	0.00	0%
342	Philadelphia, PA-NJ-DE-MD CSA (NJ Part)	-	0.0%	0.00	0.0%	0.00	0%
221	Baton Rouge, LA CSA	-	0.0%	0.00	0.0%	0.00	0%
222	Lake Charles, LA CSA	-	0.0%	0.00	0.0%	0.00	0%
280	Mississippi	-	0.0%	0.00	0.0%	0.00	0%
350	New Mexico	-	0.0%	0.00	0.0%	0.00	0%
485	El Paso, TX MSA	-	0.0%	0.00	0.0%	0.00	0%
	Total	2,070.49	100.0%	3,852.06	100.0%	1,781.56	86%

*Excludes "Within Hampton Roads" shipments.

Table 49 – 2010 and 2040 Freight Shipments by Rail to Hampton Roads – Value

Data Source: FHWA Freight Analysis Framework.

		To Hampton Roads					
		2010		2040		(2010 - 2040)	
ID	North American Region	Dollars (millions)	Share	Dollars (millions)	Share	Change	Growth
540	West Virginia	$451.26	25.1%	$342.86	12.7%	-$108.41	-24%
519	Remainder of Virginia	$446.26	24.8%	$633.94	23.4%	$187.68	42%
399	Remainder of Ohio	$137.65	7.6%	$188.67	7.0%	$51.01	37%
219	Remainder of Kentucky	$130.91	7.3%	$174.42	6.4%	$43.51	33%
379	Remainder of North Carolina	$88.72	4.9%	$141.41	5.2%	$52.69	59%
261	Detroit, MI CSA	$76.90	4.3%	$257.57	9.5%	$180.67	235%
801	Canada	$42.81	2.4%	$147.49	5.5%	$104.69	245%
486	Houston, TX CSA	$39.50	2.2%	$99.13	3.7%	$59.62	151%
513	Washington, DC-MD-VA-WV CSA (VA Part)	$34.57	1.9%	$14.69	0.5%	-$19.87	-57%
559	Remainder of Wisconsin	$34.11	1.9%	$44.72	1.7%	$10.61	31%
242	Washington, DC-VA-MD-WV MSA (MD Part)	$31.61	1.8%	$34.81	1.3%	$3.20	10%
50	Arkansas	$26.69	1.5%	$31.99	1.2%	$5.29	20%
393	Columbus, OH CSA	$25.09	1.4%	$101.26	3.7%	$76.17	304%
391	Cincinnati, OH-KY-IN CSA (OH Part)	$22.20	1.2%	$36.59	1.4%	$14.39	65%
511	Richmond, VA MSA	$19.52	1.1%	$26.83	1.0%	$7.31	37%
189	Remainder of Indiana	$19.07	1.1%	$27.87	1.0%	$8.80	46%
190	Iowa	$18.29	1.0%	$19.40	0.7%	$1.10	6%
392	Cleveland, OH CSA	$16.36	0.9%	$64.51	2.4%	$48.15	294%
241	Baltimore, MD MSA	$16.18	0.9%	$14.15	0.5%	-$2.03	-13%
179	Remainder of Illinois	$14.22	0.8%	$29.50	1.1%	$15.28	107%
160	Idaho	$12.70	0.7%	$30.51	1.1%	$17.81	140%
342	Philadelphia, PA-NJ-DE-MD CSA (NJ Part)	$11.72	0.7%	$11.22	0.4%	-$0.51	-4%
223	New Orleans, LA CSA	$9.35	0.5%	$47.99	1.8%	$38.64	413%
362	Buffalo, NY CSA	$8.36	0.5%	$2.67	0.1%	-$5.69	-68%
271	Minneapolis-St. Paul, MN-WI CSA (MN Part)	$5.77	0.3%	$12.07	0.4%	$6.30	109%
211	Louisville, KY-IN CSA (KY Part)	$5.26	0.3%	$26.44	1.0%	$21.18	403%
171	Chicago, IL-IN-WI CSA (IL Part)	$5.11	0.3%	$11.11	0.4%	$6.00	117%
429	Remainder of Pennsylvania	$4.70	0.3%	$5.24	0.2%	$0.54	12%
372	Greensboro--Winston-Salem--High Point, NC CSA	$3.99	0.2%	$4.49	0.2%	$0.50	12%
411	Portland, OR-WA MSA (OR Part)	$3.95	0.2%	$11.03	0.4%	$7.09	180%
364	Rochester, NY CSA	$3.88	0.2%	$3.53	0.1%	-$0.36	-9%
69	Remainder of California	$3.36	0.2%	$14.17	0.5%	$10.80	321%
560	Wyoming	$3.30	0.2%	$1.20	0.0%	-$2.10	-64%
64	San Francisco, CA CSA	$3.13	0.2%	$10.78	0.4%	$7.65	244%
249	Remainder of Maryland	$3.08	0.2%	$1.11	0.0%	-$1.98	-64%
229	Remainder of Louisiana	$2.86	0.2%	$7.78	0.3%	$4.92	172%
182	Indianapolis, IN CSA	$2.79	0.2%	$13.19	0.5%	$10.39	372%
139	Remainder of Georgia	$2.22	0.1%	$0.55	0.0%	-$1.68	-75%
551	Milwaukee, WI CSA	$1.85	0.1%	$7.21	0.3%	$5.36	289%
802	Mexico	$1.81	0.1%	$5.35	0.2%	$3.54	196%
62	Sacramento, CA-NV CSA (CA Part)	$1.21	0.1%	$7.53	0.3%	$6.32	521%
452	Greenville, SC CSA	$1.06	0.1%	$3.05	0.1%	$1.99	187%
369	Remainder of New York	$1.00	0.1%	$2.38	0.1%	$1.38	138%
459	Remainder of South Carolina	$0.92	0.1%	$3.40	0.1%	$2.48	268%
129	Remainder of Florida	$0.91	0.1%	$5.86	0.2%	$4.95	546%
172	St. Louis, MO-IL CSA (IL Part)	$0.83	0.0%	$7.15	0.3%	$6.32	757%
460	South Dakota	$0.81	0.0%	$5.61	0.2%	$4.79	590%
394	Dayton, OH CSA	$0.33	0.0%	$1.60	0.1%	$1.27	386%
279	Remainder of Minnesota	$0.32	0.0%	$0.41	0.0%	$0.09	28%
61	Los Angeles, CA CSA	$0.30	0.0%	$1.76	0.1%	$1.46	496%
451	Charleston, SC MSA	$0.25	0.0%	$1.35	0.0%	$1.09	433%
341	New York, NY-NJ-CT-PA CSA (NJ Part)	$0.23	0.0%	$0.80	0.0%	$0.57	245%
63	San Diego, CA MSA	$0.18	0.0%	$3.34	0.1%	$3.16	1759%
419	Remainder of Oregon	$0.06	0.0%	$0.43	0.0%	$0.37	574%
349	Remainder of New Jersey	$0.05	0.0%	$0.07	0.0%	$0.01	28%
181	Chicago, IL-IN-WI CSA (IN Part)	$0.02	0.0%	$0.18	0.0%	$0.16	908%
380	North Dakota	$0.01	0.0%	$0.02	0.0%	$0.01	191%
221	Baton Rouge, LA CSA	$0.00	0.0%	$0.03	0.0%	$0.02	1655%
100	Delaware	$0.00	0.0%	$0.01	0.0%	$0.01	10123%
371	Charlotte, NC-SC CSA (NC Part)	$0.00	0.0%	$0.00	0.0%	$0.00	0%
373	Raleigh-Durham, NC CSA	$0.00	0.0%	$0.00	0.0%	$0.00	0%
	Total	$1,799.65	100.0%	$2,704.39	100.0%	$904.74	50%

*Excludes "Within Hampton Roads" shipments.

Table 50 – 2010 and 2040 Freight Shipments by Rail from Hampton Roads – Value

Data Source: FHWA Freight Analysis Framework.

		From Hampton Roads					
		2010		2040		(2010 - 2040)	
ID	North American Region	Dollars (millions)	Share	Dollars (millions)	Share	Change	Growth
511	Richmond, VA MSA	$50.10	30.0%	$149.23	37.8%	$99.13	198%
801	Canada	$37.68	22.6%	$124.72	31.6%	$87.04	231%
540	West Virginia	$29.06	17.4%	$37.67	9.5%	$8.61	30%
479	Remainder of Tennessee	$14.40	8.6%	$6.96	1.8%	-$7.43	-52%
802	Mexico	$12.54	7.5%	$24.90	6.3%	$12.36	99%
179	Remainder of Illinois	$9.07	5.4%	$13.31	3.4%	$4.24	47%
261	Detroit, MI CSA	$6.02	3.6%	$19.98	5.1%	$13.96	232%
486	Houston, TX CSA	$3.80	2.3%	$3.77	1.0%	-$0.03	-1%
69	Remainder of California	$1.41	0.8%	$4.00	1.0%	$2.59	184%
269	Remainder of Michigan	$0.93	0.6%	$3.22	0.8%	$2.29	246%
262	Grand Rapids, MI CSA	$0.79	0.5%	$2.34	0.6%	$1.55	195%
363	New York, NY-NJ-CT-PA CSA (NY Part)	$0.41	0.2%	$1.76	0.4%	$1.35	329%
124	Tampa, FL MSA	$0.20	0.1%	$0.15	0.0%	-$0.05	-26%
513	Washington, DC-MD-VA-WV CSA (VA Part)	$0.15	0.1%	$0.24	0.1%	$0.10	67%
131	Atlanta, GA-AL CSA (GA Part)	$0.10	0.1%	$0.32	0.1%	$0.22	211%
121	Jacksonville, FL MSA	$0.09	0.1%	$0.40	0.1%	$0.32	356%
122	Miami, FL MSA	$0.04	0.0%	$0.11	0.0%	$0.07	158%
369	Remainder of New York	$0.03	0.0%	$0.13	0.0%	$0.10	328%
132	Savannah, GA CSA	$0.03	0.0%	$0.61	0.2%	$0.58	2004%
519	Remainder of Virginia	$0.02	0.0%	$0.07	0.0%	$0.06	347%
223	New Orleans, LA CSA	$0.01	0.0%	$0.04	0.0%	$0.03	273%
230	Maine	$0.01	0.0%	$1.03	0.3%	$1.03	14883%
129	Remainder of Florida	$0.00	0.0%	$0.03	0.0%	$0.02	504%
229	Remainder of Louisiana	$0.00	0.0%	$0.01	0.0%	$0.01	394%
100	Delaware	$0.00	0.0%	$0.00	0.0%	$0.00	-23%
361	Albany, NY CSA	$0.00	0.0%	$0.00	0.0%	$0.00	158%
50	Arkansas	$0.00	0.0%	$0.00	0.0%	$0.00	0%
342	Philadelphia, PA-NJ-DE-MD CSA (NJ Part)	$0.00	0.0%	$0.00	0.0%	$0.00	0%
429	Remainder of Pennsylvania	$0.00	0.0%	$0.00	0.0%	$0.00	0%
341	New York, NY-NJ-CT-PA CSA (NJ Part)	$0.00	0.0%	$0.00	0.0%	$0.00	0%
221	Baton Rouge, LA CSA	$0.00	0.0%	$0.00	0.0%	$0.00	0%
489	Remainder of Texas	$0.00	0.0%	$0.00	0.0%	$0.00	0%
222	Lake Charles, LA CSA	$0.00	0.0%	$0.00	0.0%	$0.00	0%
280	Mississippi	$0.00	0.0%	$0.00	0.0%	$0.00	0%
350	New Mexico	$0.00	0.0%	$0.00	0.0%	$0.00	0%
485	El Paso, TX MSA	$0.00	0.0%	$0.00	0.0%	$0.00	0%
	Total	$166.87	100.0%	$395.00	100.0%	$228.13	137%

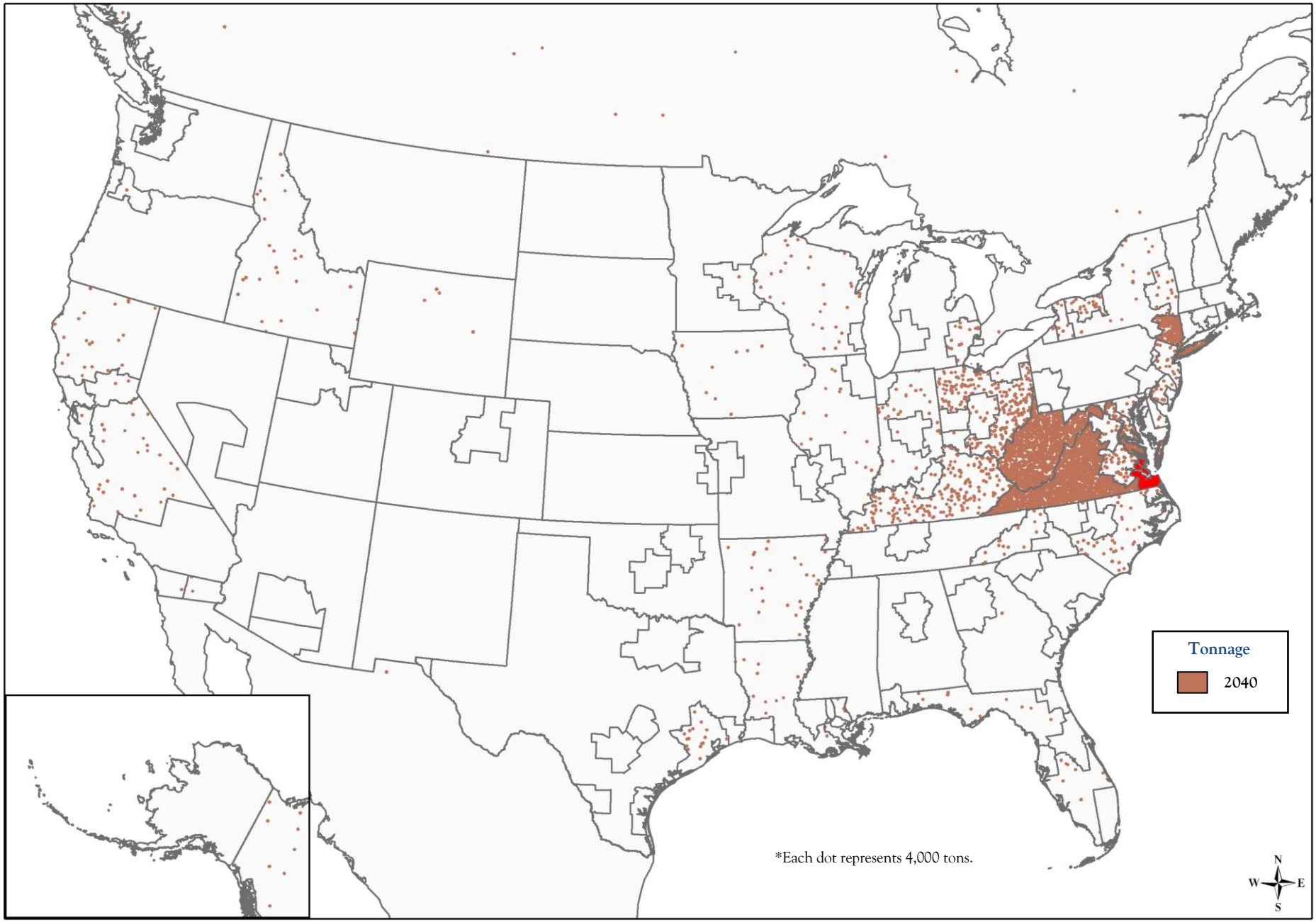
*Excludes "Within Hampton Roads" shipments.

Map 18: 2010 Freight Shipments by Rail to Hampton Roads – Weight

Data Source: FHWA Freight Analysis Framework.

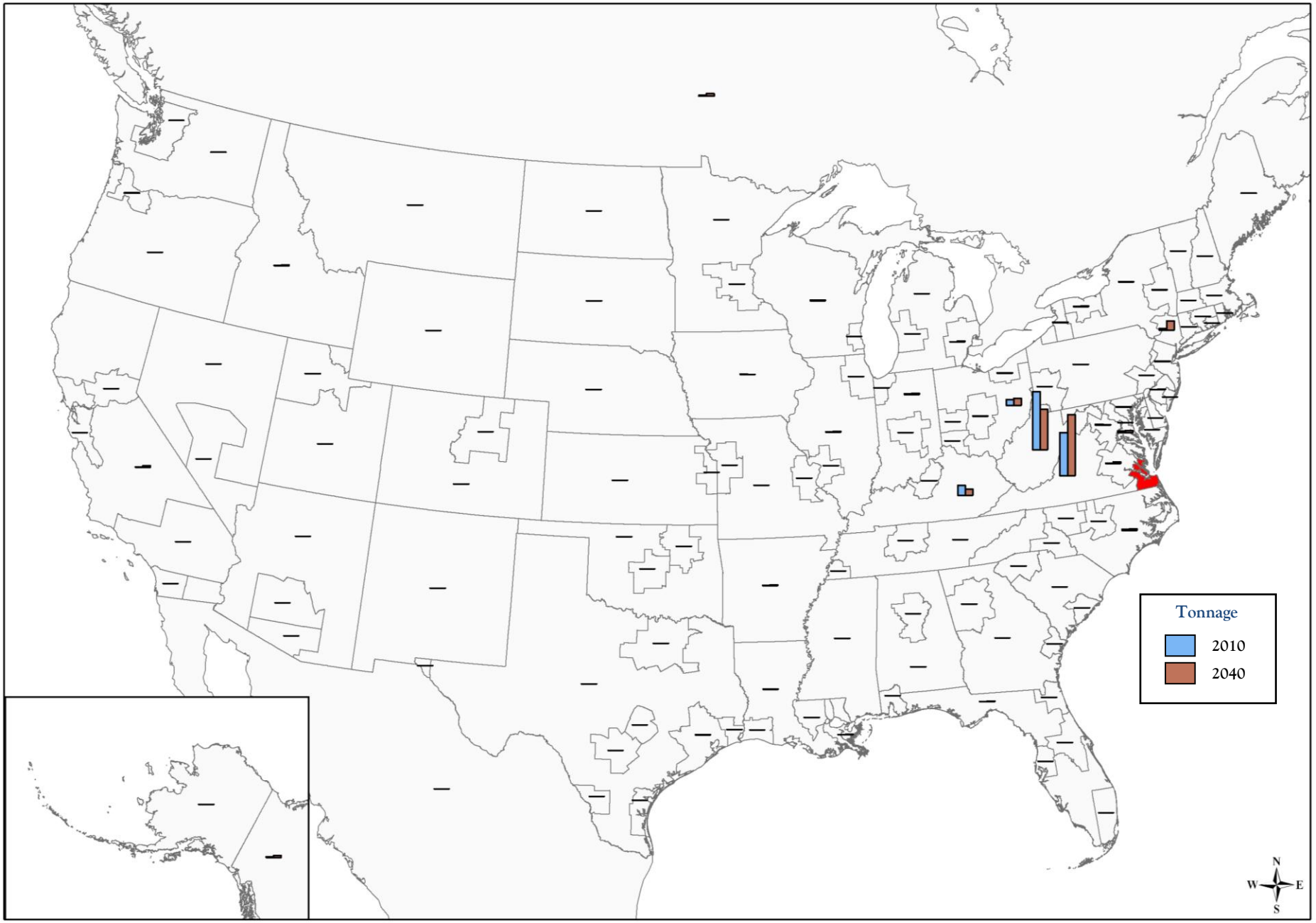
Map 19: 2040 Freight Shipments by Rail to Hampton Roads – Weight

Data Source: FHWA Freight Analysis Framework.



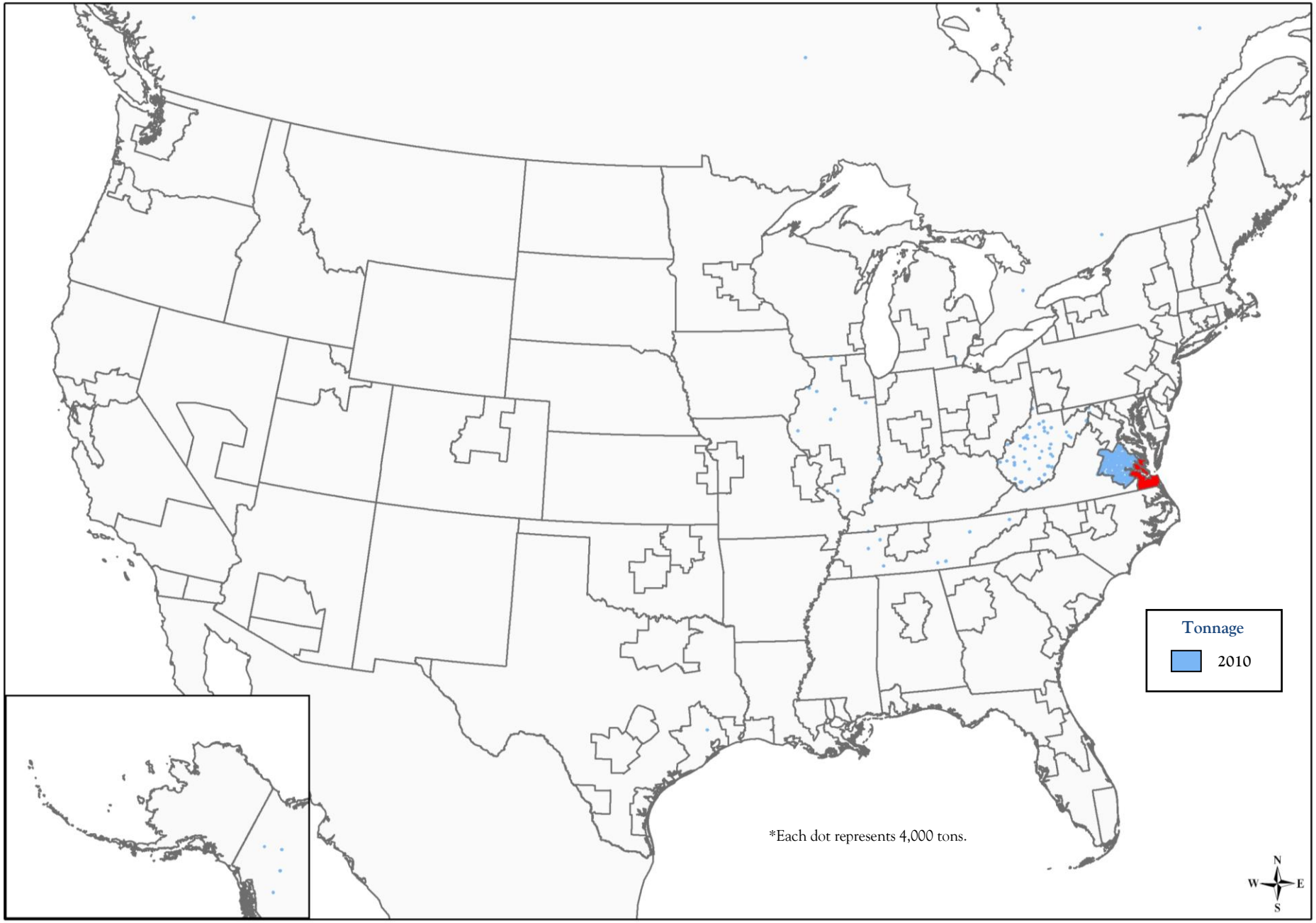
Map 20: 2010 and 2040 Freight Shipments by Rail to Hampton Roads – Weight

Data Source: FHWA Freight Analysis Framework.



Map 21: 2010 Freight Shipments by Rail from Hampton Roads – Weight

Data Source: FHWA Freight Analysis Framework.



Map 22: 2040 Freight Shipments by Rail from Hampton Roads – Weight

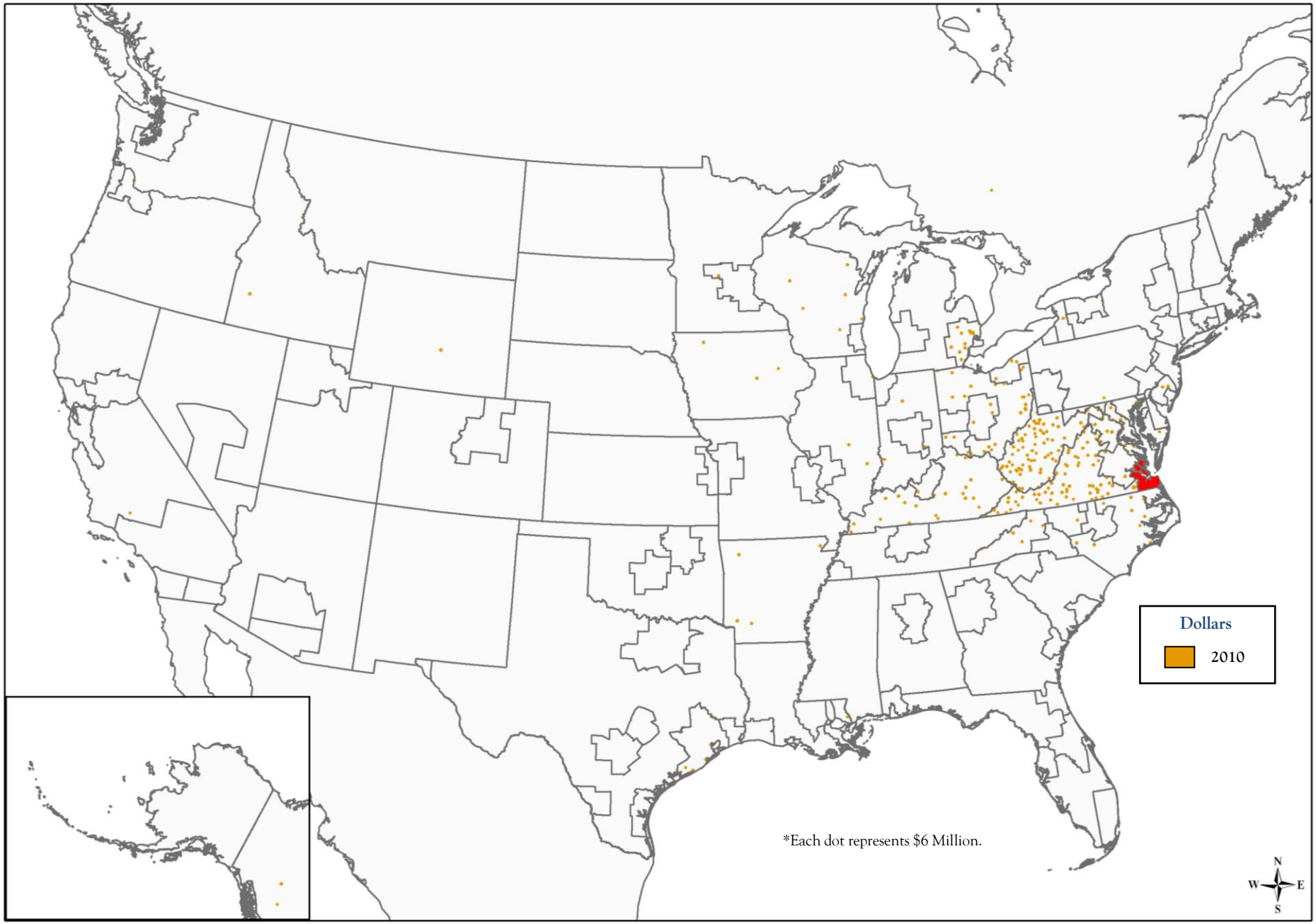
Data Source: FHWA Freight Analysis Framework.

Map 23: 2010 and 2040 Freight Shipments by Rail from Hampton Roads – Weight

Data Source: FHWA Freight Analysis Framework.

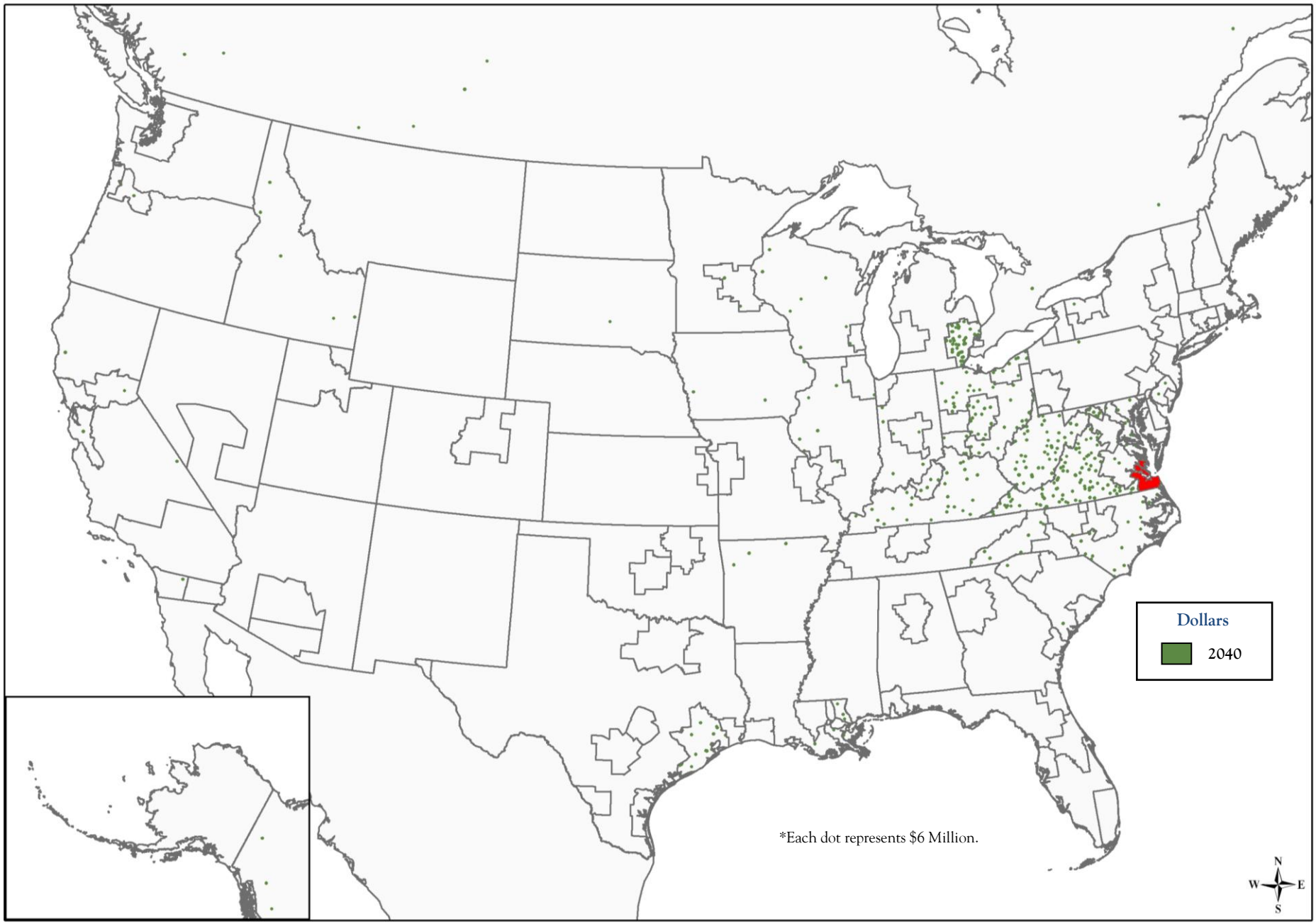
Map 24: 2010 Freight Shipments by Rail to Hampton Roads – Value

Data Source: FHWA Freight Analysis Framework.



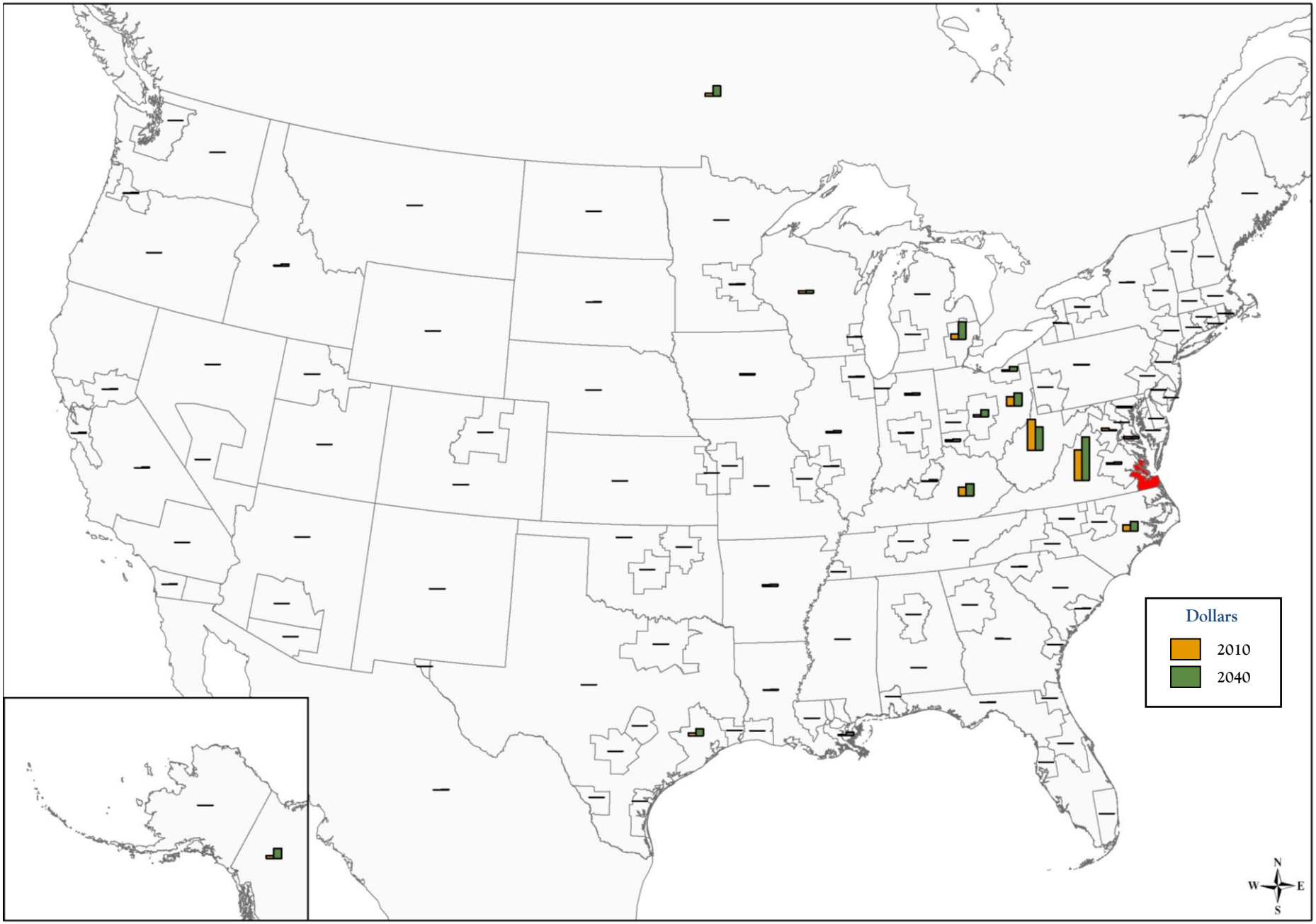
Map 25: 2040 Freight Shipments by Rail to Hampton Roads – Value

Data Source: FHWA Freight Analysis Framework.



Map 26: 2010 and 2040 Freight Shipments by Rail to Hampton Roads – Value

Data Source: FHWA Freight Analysis Framework.



Map 27: 2010 Freight Shipments by Rail from Hampton Roads – Value

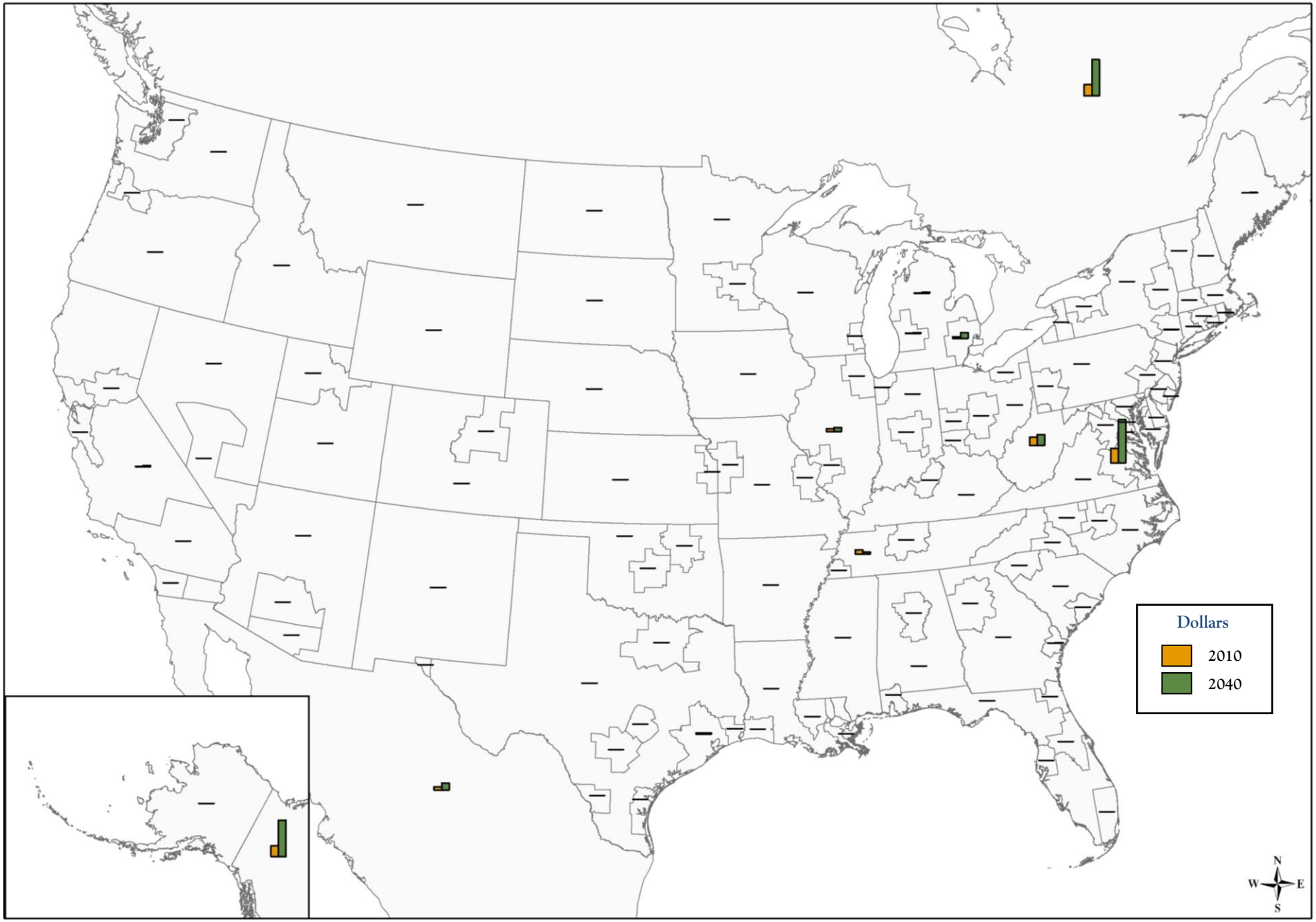
Data Source: FHWA Freight Analysis Framework.

Map 28: 2040 Freight Shipments by Rail from Hampton Roads – Value

Data Source: FHWA Freight Analysis Framework.

Map 29: 2010 and 2040 Freight Shipments by Rail from Hampton Roads – Value

Data Source: FHWA Freight Analysis Framework.



Regional Truck Movement

With trucks being the primary method of transporting domestic freight into, within, and out of Hampton Roads, the efficient movement of trucks on the regional roadway network is important. Roadway congestion can significantly impact freight movement, saddling trucking companies and shippers with additional operating costs and delays. This in turn impacts the economic competitiveness of the Port of Virginia, Hampton Roads, and the state.

This section examines the movement of trucks throughout Hampton Roads. Regional truck movement topics that are covered in this section include:

- Truck Travel in Hampton Roads
- Truck Movements through Regional Gateways
- Truck Movements across Regional Water Crossings
- Daily Truck Movements by Location
- Congested Truck Travel

Most of the data analyzed in this section was collected by the Virginia Department of Transportation (VDOT) through their traffic monitoring program. VDOT collects vehicle count data on most roadways throughout Hampton Roads for a two-day period once every three years. At approximately one out of every three of these locations, VDOT collects additional information on the types of vehicles, also known as vehicle classification data. VDOT uses the Federal Highway Administration's (FHWA) vehicle classifications, which categorize each vehicle into one of 15 different vehicle classes. **Figure 22** shows these 15 vehicle classifications, of which Classes 5 through 13 are conventionally considered to be trucks. The most common type of truck, which is often referred to as an 18-wheeler, is included in Class 9.

VDOT uses this data to determine truck volumes at specific locations and to estimate total daily truck travel levels in jurisdictions throughout the state. This study uses this estimated jurisdictional truck travel data to determine regional truck travel levels and trends in the next section.

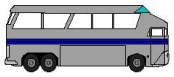
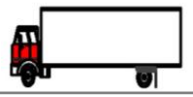
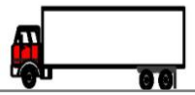
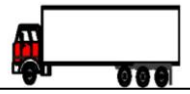
	**Class 1** Motorcycles		**Class 8** Four or less axle single trailers
	**Class 2** Passenger Cars		**Class 9** Five axle single trailers
	**Class 3** Two axle, four tire single units		**Class 10** Six or more axle single trailers
	**Class 4** Buses		**Class 11** Five or less axle multi trailers
	**Class 5** Two axle, six tire single units		**Class 12** Six axle multi trailers
	**Class 6** Three axle single units		**Class 13** Seven or more axle multi trailers
	**Class 7** Four or more axle single units		**Class 14** - Unclassified **Class 15** - Other

Figure 22– FHWA Vehicle Classifications
Image source: New York State DOT

Truck Travel in Hampton Roads

The amount of truck travel in Hampton Roads has been impacted by the economic downturn. Not only has the economic downturn impacted the number of trucks carrying freight to and from the Port of Virginia, it has also impacted many other industries that use trucks, such as construction, manufacturing, retail, etc.

There was a total of 1.18 million truck miles of travel each day in Hampton Roads in 2010 (the most recent data available) according to VDOT data. This amount of truck travel is small when compared to the total amount of vehicular travel in the region, accounting for only 2.9% of the 40.9 million vehicle-miles of travel that occurred daily in the region in 2010 (**Figure 23**).

Trucks on Hampton Boulevard

Since the beginning of the economic downturn, the amount of truck travel in Hampton Roads has decreased. The 1.18 million daily truck miles of travel in Hampton Roads in 2010 is the lowest level going back to 2005 (the earliest year for which jurisdiction-level data is available) and is 18% lower than the high of 1.43 million truck miles of travel in 2007 (**Figure 24**). By comparison, total vehicular volumes in Hampton Roads increased 1.0% from 2007 to 2010 according to VDOT.

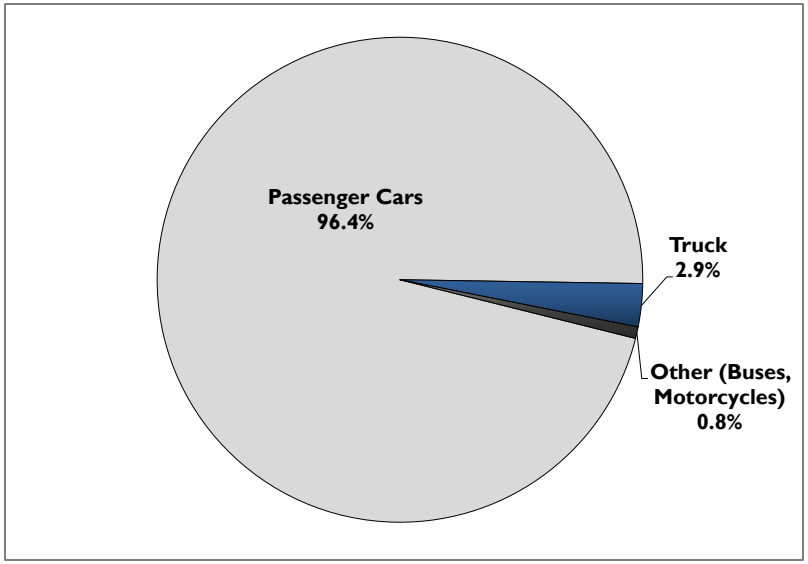


Figure 23 – Daily Vehicle-Miles of Travel in Hampton Roads by Vehicle Type, 2010

Source: HRTPO analysis of VDOT data.

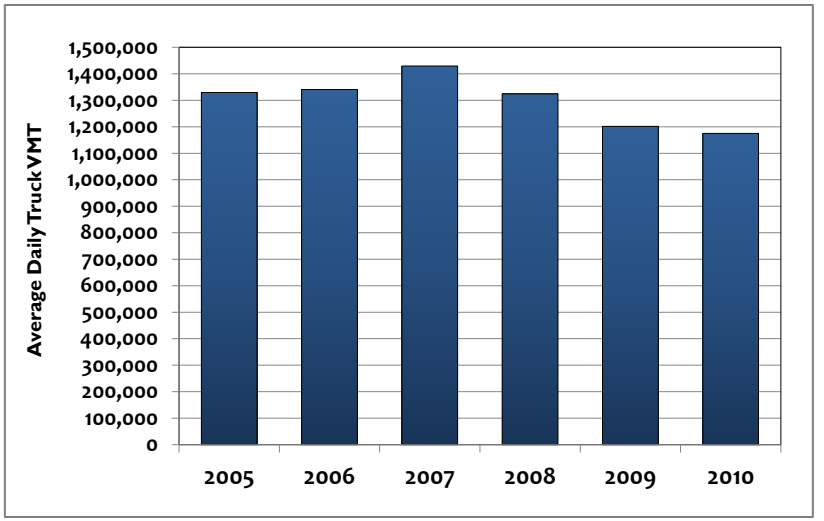


Figure 24 – Daily Truck-Miles of Travel in Hampton Roads, 2005-2010

Source: HRTPO analysis of VDOT data.

Likewise, the percentage of truck travel in Hampton Roads has decreased. In 2007, 3.5% of all vehicular travel in Hampton Roads was truck travel, decreasing to 2.9% in 2010.

Figure 25 shows the distribution of truck flows in Hampton Roads on the typical weekday in 2011. The distribution of truck travel fits the pattern of a bell curve, with a plateau throughout the middle of the day. This plateau occurs between 8:00 am and 3:00 pm, with more than half (56%) of all truck travel in Hampton Roads occurring during this time.

This distribution of truck flows differs from the distribution of passenger cars, which includes peak travel periods in both the morning and afternoon. These peak travel periods largely occur between 6:30 am and 8:30 am in the morning, and 3:00 pm and 6:30 pm in the afternoon (**Figure 26**). Although truck travel is not as prevalent during the peak travel periods as it is in the middle of the day, 31% of all truck travel in Hampton Roads occurred during these congested morning and afternoon peak travel periods in 2011.

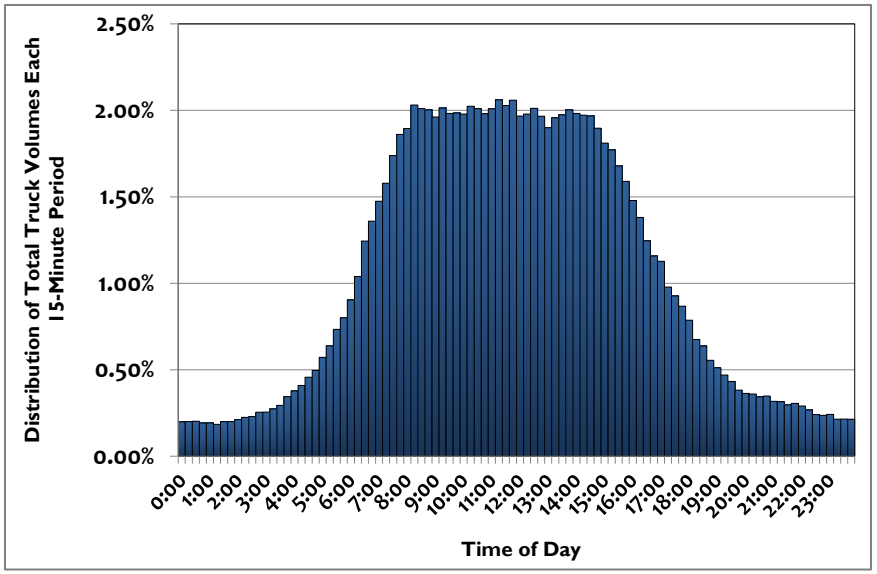


Figure 25 – Distribution of Weekday Truck Volumes in Hampton Roads by Time of Day, 2011

Source: HRTPO analysis of VDOT data.

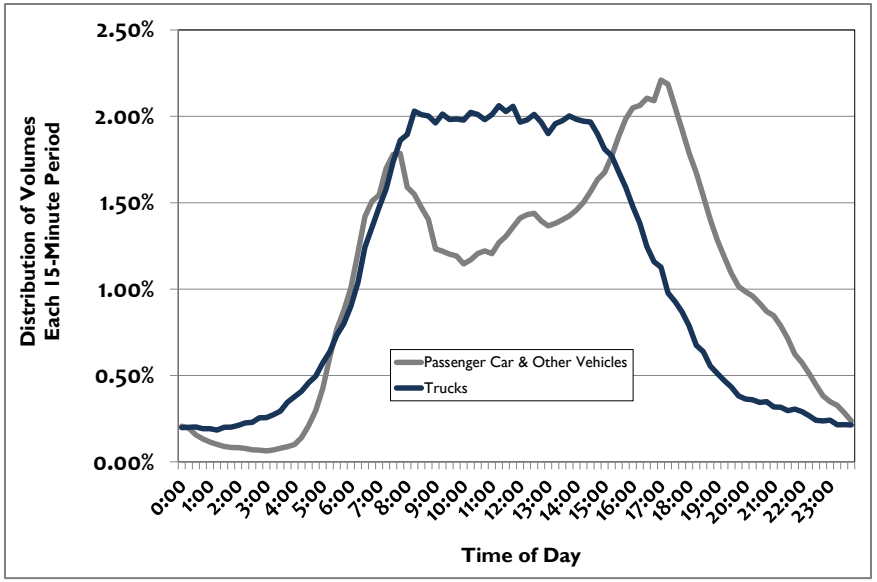


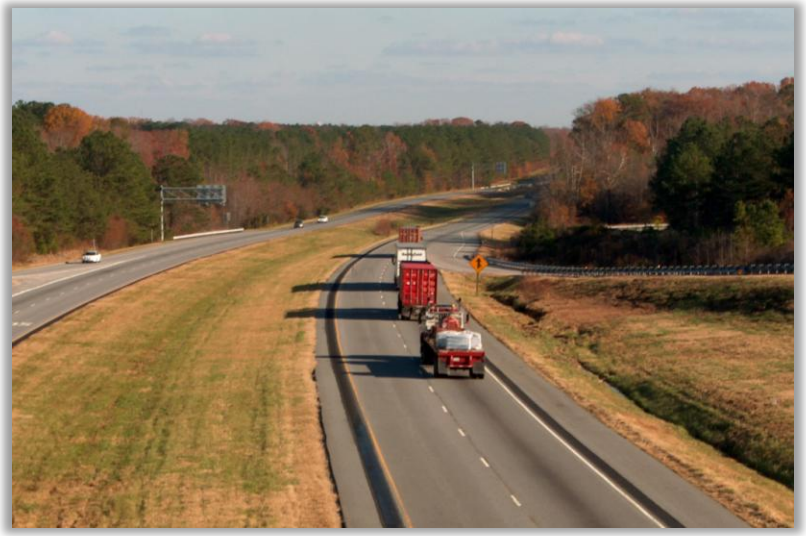
Figure 26 – Distribution of Weekday Volumes in Hampton Roads by Vehicle Type and Time of Day, 2011

Source: HRTPO analysis of VDOT data.

Truck Movements through Regional Gateways

Many of the trucks that travel in Hampton Roads have origins or destinations located outside of the region. As an example, according to a study done by HRTPO[11], just over half (51%) of all truck trips passing through the Port of Virginia's gates come from or are destined for locations outside of Hampton Roads.

A total of 16,600 trucks passed through the Top 10 gateways to Hampton Roads each weekday in 2011. As shown in **Figure 27**, this number of trucks has decreased since the beginning of the economic downturn. About 19,100 trucks passed through major regional gateways each weekday in 2005, and this number increased to over 20,000 trucks in 2007. By 2009, the number of trucks passing through regional gateways had dropped 16% from the 2007 high, down to 17,000 trucks each weekday.



Trucks Entering Hampton Roads on Route 58

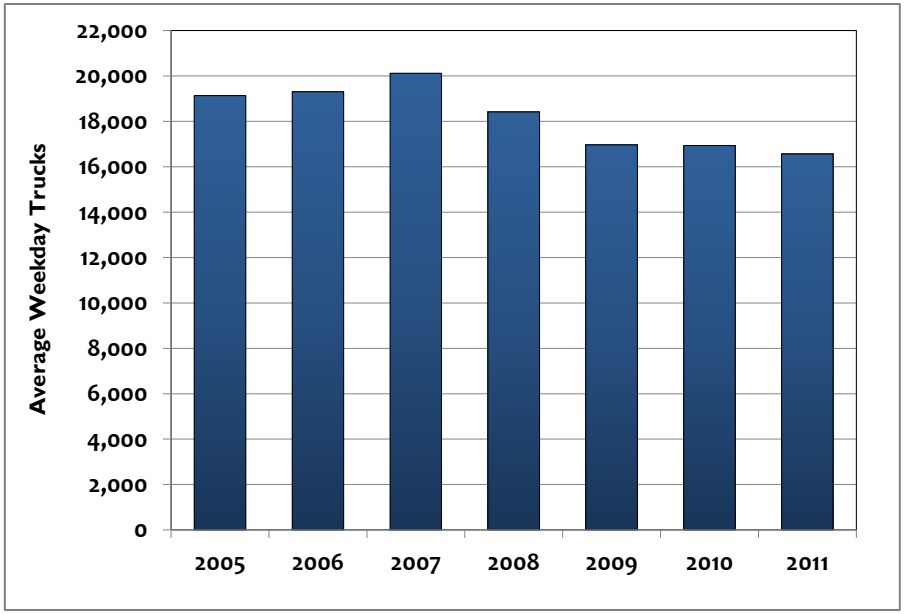


Figure 27 – Average Number of Trucks Passing Through the Top 10 Regional Gateways Each Weekday, 2005-2011

Source: HRTPO analysis of VDOT and CBBT data.

[11] HRTPO, *Traffic Impact of an Inland Port in Hampton Roads*, September 2011.

The most heavily used gateway to Hampton Roads by trucks is I-64, which is also the only Interstate route into and out of the region. As shown in **Figure 28**, 6,338 trucks entered or exited the region each weekday via I-64 in 2011. Although this accounts for 38% of all the trucks that passed through the Top 10 regional gateways in 2011, it is down from 7,413 trucks each weekday in 2007.

The next most popular corridors for trucks entering and exiting the region are Route 58 and Route 460. A total of 3,228 trucks used the Route 58 gateway each weekday in 2011, down from 4,201 trucks in 2007. The Route 460 gateway was used by 1,955 trucks each weekday in 2011, down from 2,188 trucks in 2007. I-64, Route 58, and Route 460 together carried 11,521 trucks into or out of Hampton Roads each weekday in 2011, or 70% of all the trucks that passed through the Top 10 Hampton Roads gateways.

Trucks Entering Hampton Roads on I-64

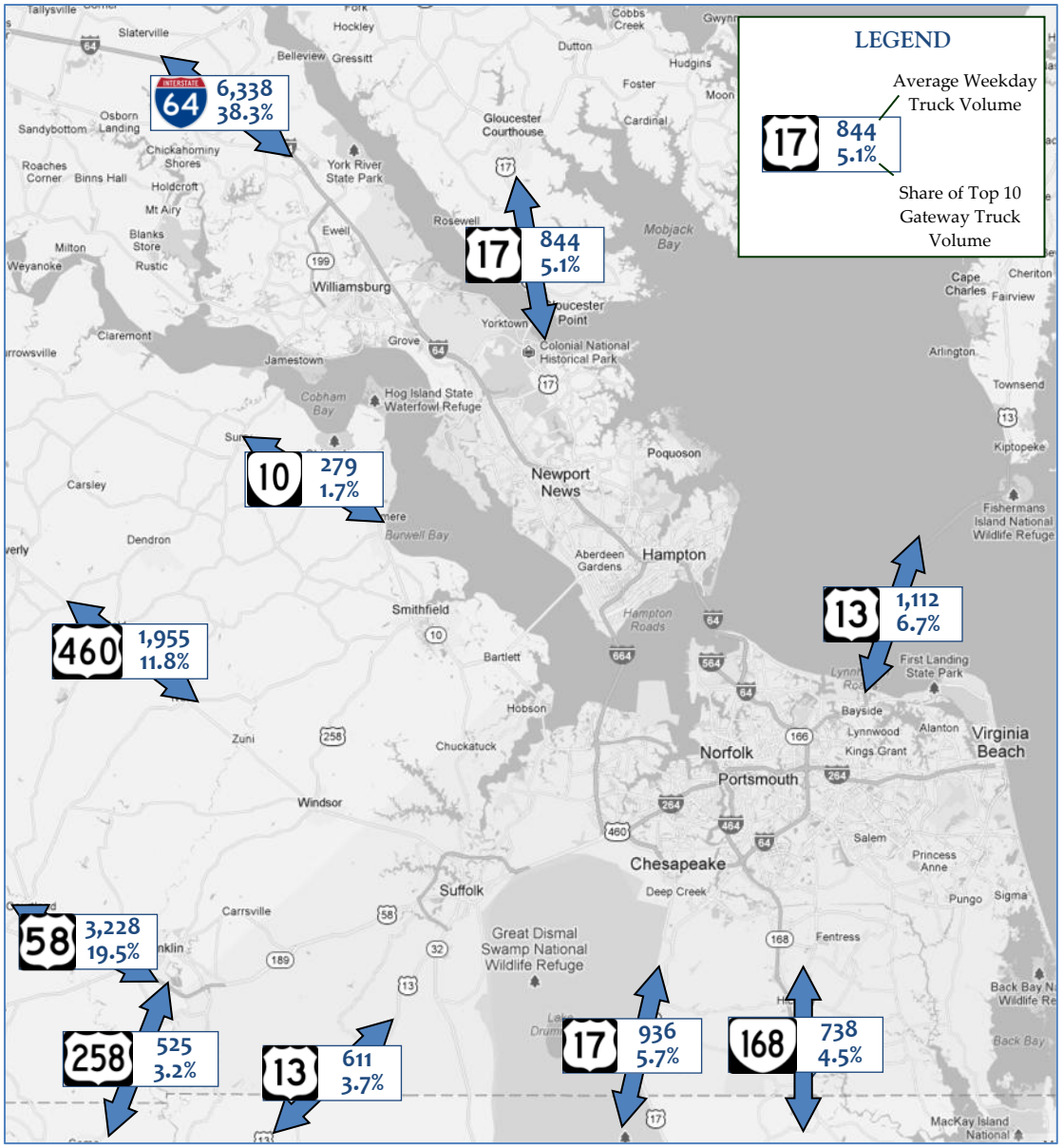


Figure 28 – Number and Share of Trucks Passing Through the Top 10 Regional Gateways Each Weekday, 2011

Source: HRTPO analysis of VDOT and CBBT data. Background map source: Google.

Truck Movements across Regional Water Crossings

Some of the worst bottlenecks in Hampton Roads occur at the region's water crossings, with the largest bottlenecks at the Hampton Roads harbor and Elizabeth River facilities. The congestion at these crossings not only limits automotive travel but also freight movement.

Three facilities currently join the Peninsula and Southside regions of Hampton Roads – the Hampton Roads Bridge-Tunnel (I-64), the Monitor-Merrimac Memorial Bridge-Tunnel (I-664), and the James River Bridge (US Routes 17 and 258). In 2011, a total of 8,494 trucks crossed the harbor on these three facilities each weekday.

As shown in **Figure 29**, the Monitor-Merrimac Memorial Bridge-Tunnel was the most used facility by trucks crossing the harbor in 2011. Over 4,300 trucks used the Monitor-Merrimac Memorial Bridge-Tunnel each weekday in 2011, or 51% of the trucks crossing the harbor. The Hampton Roads Bridge-Tunnel carried 3,276 trucks each weekday, or 38.6% of the trucks crossing the harbor, and the James River Bridge carried 900 trucks each weekday (10.6%).

The number of trucks crossing the harbor has decreased since the economic downturn began. In 2007, approximately 9,800 trucks crossed the harbor each weekday, which is 1,300 trucks higher than crossed the harbor each weekday in 2011.

A total of five spans currently cross the Elizabeth River and its Southern Branch. These crossings are the Midtown Tunnel (US Route 58), the Downtown Tunnel (I-264), the Gilmerton Bridge (US Route 13), the High Rise Bridge (I-64), and the Steel Bridge (US Route 17). A sixth span, the South Norfolk Jordan Bridge, is expected to open in summer 2012. The original was taken out of service in 2008.

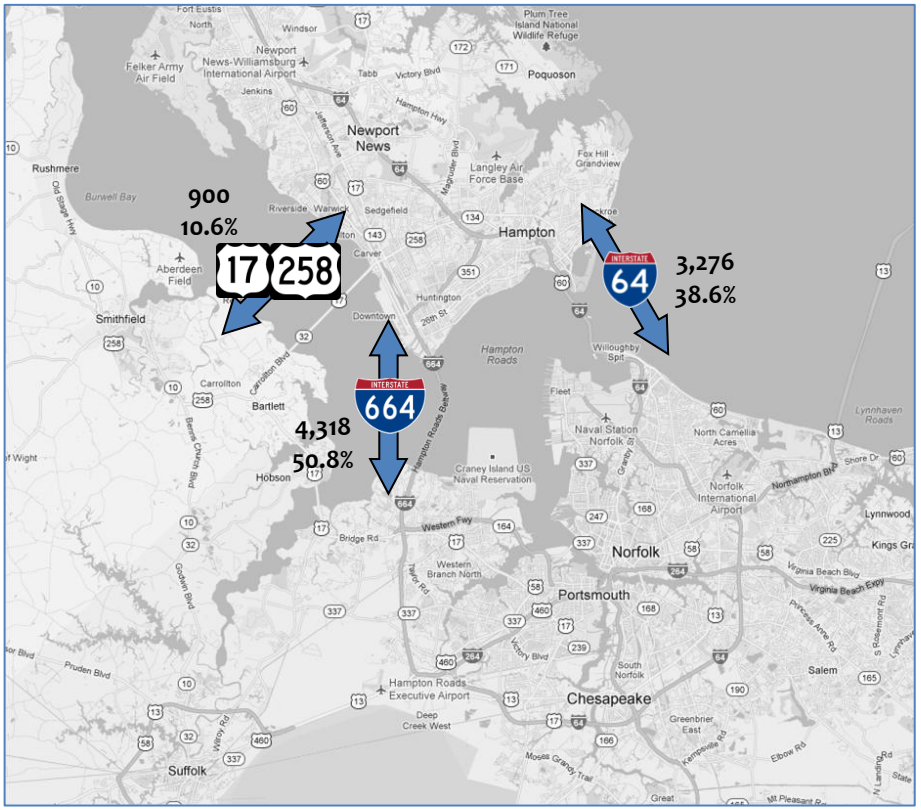
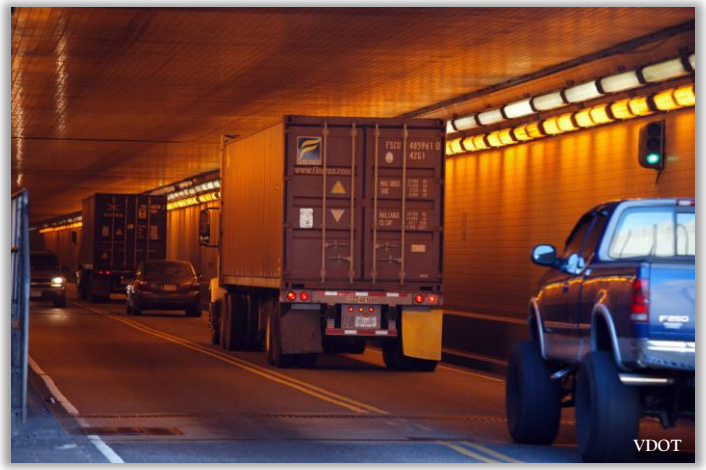


Figure 29 – Weekday Volume and Share of Trucks Travelling Between the Peninsula and Southside, 2011

Source: HRTPO analysis of VDOT data. Background map source: Google.

Nearly 16,000 trucks crossed the Elizabeth River on these five facilities each weekday in 2011 according to VDOT data. As shown in **Figure 30**, the High Rise Bridge carried an estimated 7,800 trucks each weekday in 2011, which is nearly equal to the other four Elizabeth River crossings combined. The Downtown Tunnel carried the next highest number of trucks (4,400 trucks) each weekday in 2011, followed by the Midtown Tunnel (1,771 trucks), Steel Bridge (1,363 trucks), and the Gilmerton Bridge (588 trucks).



Trucks Entering the Midtown Tunnel

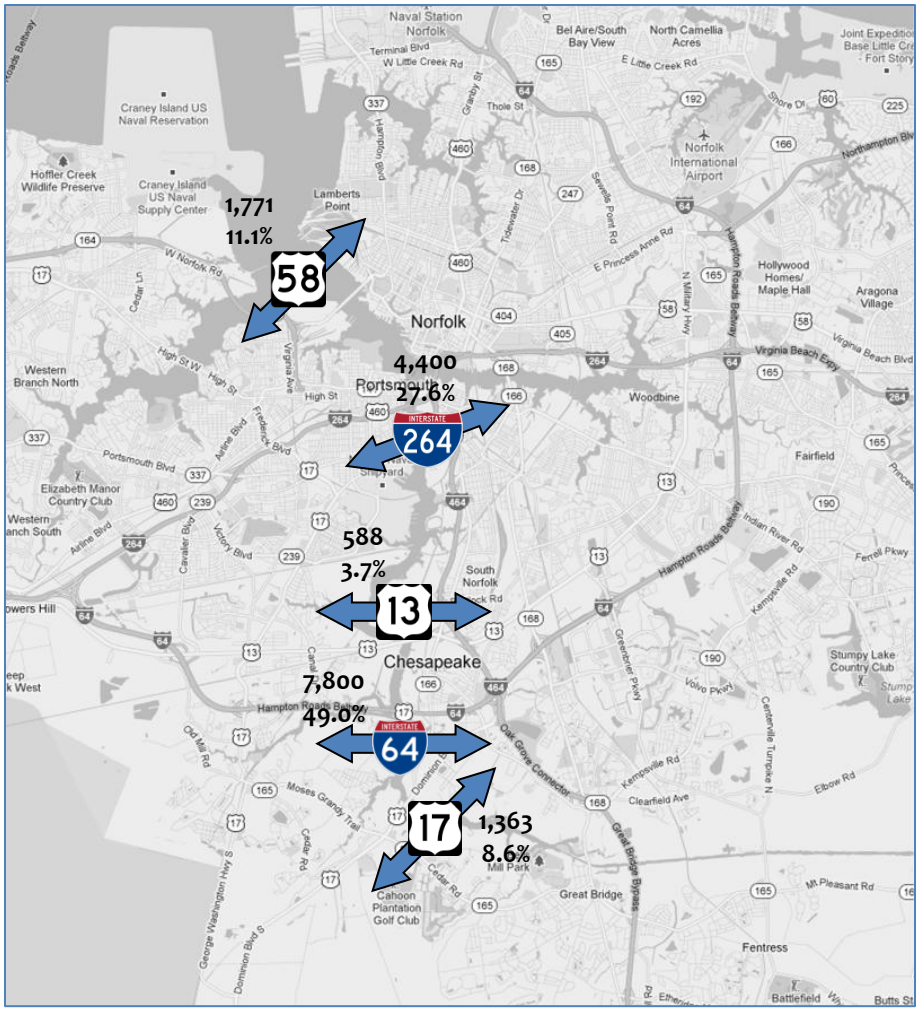


Figure 30 – Weekday Volume and Share of Trucks Crossing the Elizabeth River, 2011

Source: HRTPO analysis of VDOT data. Background map source: Google. Truck volumes at the Downtown Tunnel (I-264) and the High Rise Bridge (I-64) are VDOT estimates.

Daily Truck Movements by Location

This section examines the existing weekday truck volumes and percentages on roadways throughout Hampton Roads. This truck data was prepared using vehicle classification data collected regularly by VDOT as mentioned previously. HRTPO staff only analyzed truck data collected on those roadways included in the Congestion Management Process (CMP) network, which is comprised of all roadways in Hampton Roads classified as minor arterials and above and selected collectors. Vehicle classification data was collected at 438 locations on the CMP roadway network, including roadways both in the urban areas of Hampton Roads as well as those in rural areas such as Southampton and Surry Counties. The most recent available data was used, which generally was from 2009, 2010, or 2011, and is termed "Existing" weekday truck volumes and percentages.

Appendix B includes the existing weekday truck volume and percentage data for each of the 438 locations on the Congestion Management Process roadway network where vehicle classification data was collected. Truck data for the morning (AM) and afternoon (PM) peak travel hours is also included.

Daily Truck Volumes

Maps 30 and **31** on pages 93 and 94 show the existing number of trucks each weekday at locations on the CMP roadway network throughout Hampton Roads.

Table 51 shows the existing weekday truck volumes at each of the seventeen locations on the regional freeway system where vehicle classification data is collected. I-64 on the Peninsula carries the most trucks on the Hampton Roads freeway system at over 7,000 trucks each weekday. No section of I-64 where vehicle classification data is collected carries less than 3,200 trucks each weekday.

Jurisdiction	Facility Name	Segment From	Segment To	Existing Weekday Trucks
NN	I-64	Oyster Point Rd	J C Morris Blvd	7,037
CHES	I-64	Military Hwy	I-264&664	6,989
CHES	I-64	Battlefield Blvd	I-464	6,374
YC	I-64	Route 199/646	Route 143	5,965
CHES/SUF	Route 13/58/460	Suffolk Bypass	I-664	5,370
VB	I-264	Witchduck Rd	Independence Blvd	5,104
NOR/VB	I-64	I-264	Indian River Rd	4,955
SUF	I-664	Western Fwy	College Dr	4,318
NOR	I-264	Ballentine Blvd	Military Hwy	4,042
HAM/NOR	I-64/HRBT	Mallory St	15Th View St	3,276
PORT	I-264	Victory Blvd	Portsmouth Blvd	2,876
PORT	Western Fwy	College Dr	Town Point Rd	2,491
CHES	I-464	Freeman Ave	Poindexter St	2,410
SUF	Southwest Suffolk Bypass	Holland Rd	Carolina Rd	1,275
NOR	I-564	Admiral Taussig Blvd	International Terminal Blvd	987
YC	Route 199	Mooretown Rd	I-64	651
JCC	Route 199	Longhill Rd (Route 612)	Monticello Ave (Route 321)	427

Table 51 – Freeway Weekday Truck Volumes

Source: HRTPO analysis of VDOT data. Table only includes locations with vehicle classification data collected by VDOT. Existing Weekday Trucks refers to data collected between 2009 and 2011. Data prior to 2009 is included if counts from 2009 to 2011 weren't taken.

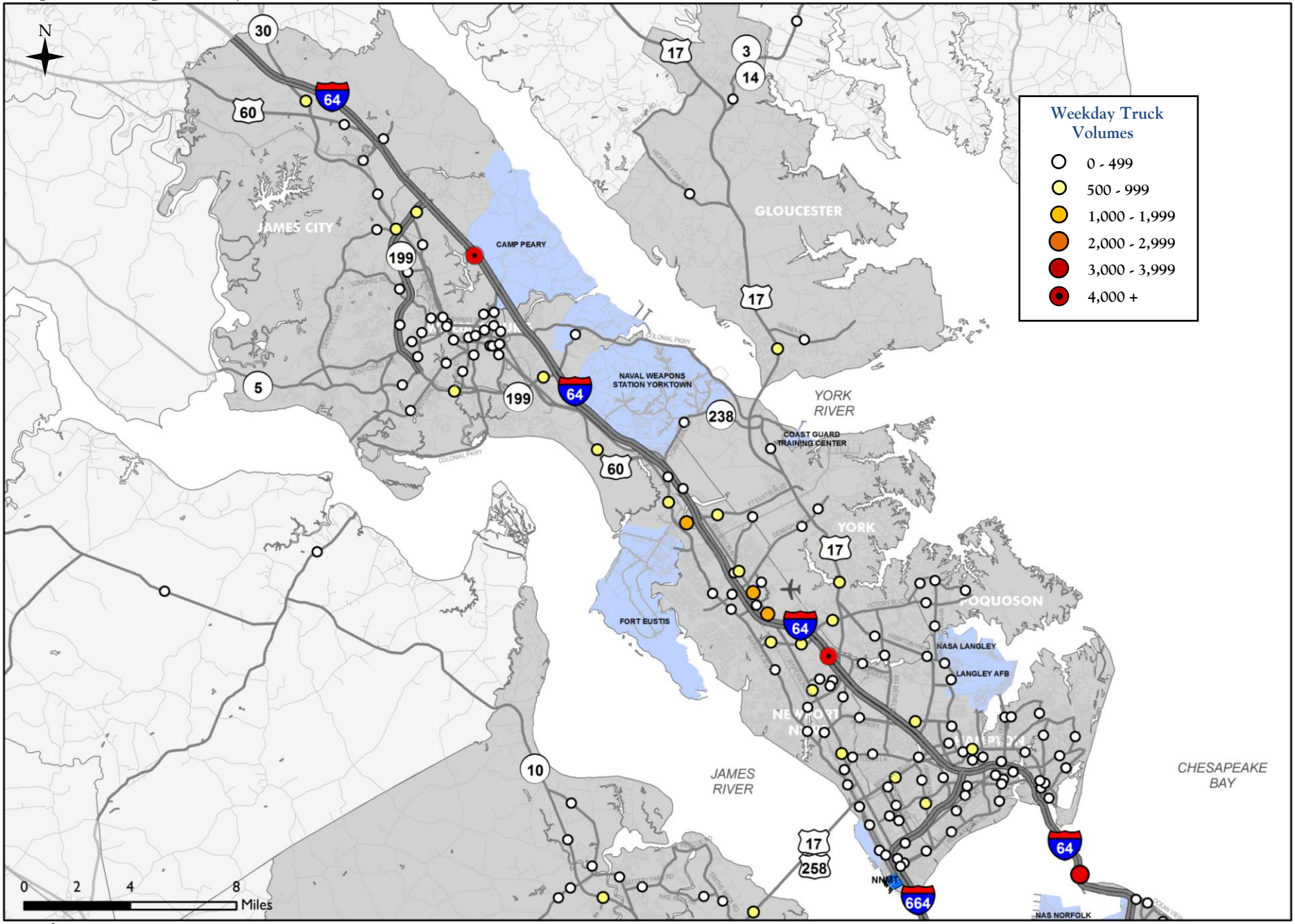
Jurisdiction	Facility Name	Segment From	Segment To	Existing Weekday Trucks
SH	Route 58	Bus Route 58 W	Camp Pkwy (Bus Route 58 E)	3,228
NOR	International Terminal Blvd	Hampton Blvd	I-564	2,056
NOR	Ballentine Blvd	I-264	Va Beach Blvd	2,028
SH	Route 460	Sussex CL	Route 616 (Ivor Rd)	1,955
CHES	Battlefield Blvd	I-64	Military Hwy	1,863
NOR	Brambleton Ave	Park Ave	I-264	1,795
NOR/PORT	Midtown Tunnel	MLK Fwy/Western Freeway	Brambleton Ave	1,771
NOR	Brambleton Ave	Tidewater Dr	Park Ave	1,599
CHES	Cavalier Blvd	Military Hwy	Portsmouth CL	1,569
NOR	Hampton Blvd	38th St	Little Creek Rd	1,530
NN	Fort Eustis Blvd	Warwick Blvd	I-64	1,511
NN	Jefferson Ave	Bland Blvd	I-64	1,475
CHES	Dominion Blvd/Steel Bridge	Cedar Rd	Bainbridge Blvd	1,363
VB	Northampton Blvd	Diamond Springs Rd	Independence Blvd	1,327
NOR	Ballentine Blvd	Va Beach Blvd	Princess Anne Rd	1,295
VB	Indian River Rd	Centerville Tnpk	Kempsville Rd	1,267
PORT	Turnpike Rd	Howard St	Harbor Dr	1,195
NN	Jefferson Ave	Denbigh Blvd	Bland Blvd	1,171
IW	Brewers Neck Blvd	Route 10 & 32 (Benn's Church)	Route 17	1,147
VB	Chesapeake Bay Bridge-Tunnel	Shore Dr	NCL Va Beach	1,112
VB	Princess Anne Rd	Independence Blvd	Dam Neck Rd	1,015

Table 52 – Non-Freeway Locations with High Weekday Truck Volumes

Source: HRTPO analysis of VDOT and CBBT data. Table only includes locations with vehicle classification data collected by VDOT or CBBT and truck volumes greater than 1,000 trucks each weekday.
Existing Weekday Trucks refers to data collected between 2009 and 2011. Data prior to 2009 is included if counts from 2009 to 2011 weren't taken.

Map 30: Existing Weekday Truck Volumes - Peninsula

Source: HRTPO analysis of VDOT and CBBT data.



Map 31: Existing Weekday Truck Volumes - Southside

Source: HRTPO analysis of VDOT and CBBT data.

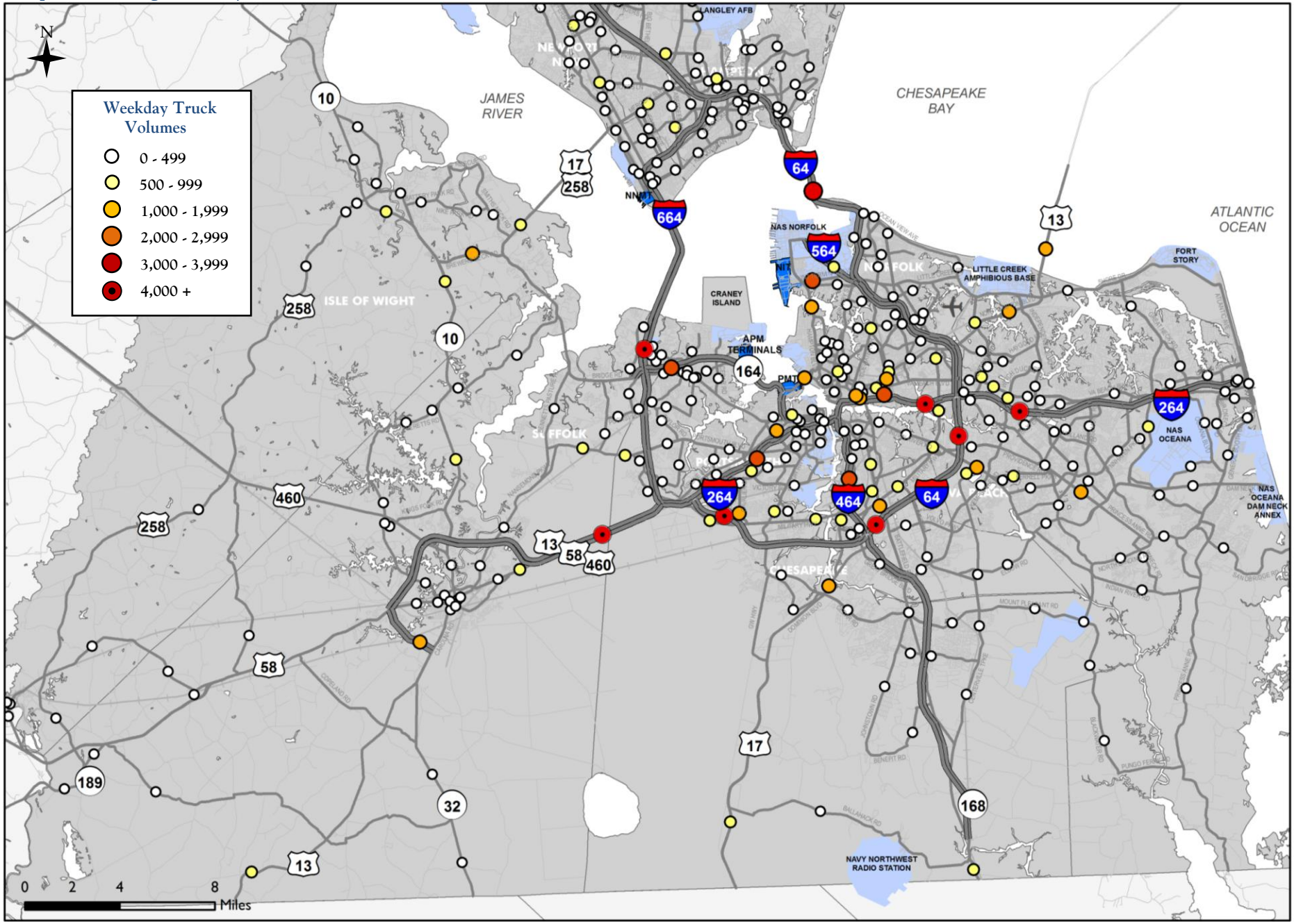


Table 52 on page 92 shows those locations that are not part of the regional freeway system that have a high number of trucks, defined as more than 1,000 trucks each weekday. These locations are also shown in orange and red in Maps 30 and 31. A total of 21 locations meet this threshold, with Route 58 in Southampton County carrying the most trucks on the non-freeway system at 3,228 trucks each weekday. Many of these locations are roadways near the Port of Virginia marine terminals (such as Hampton Boulevard, International Terminal Boulevard, and the Midtown Tunnel), and major roadways leading in and out of the region (such as the Chesapeake Bay Bridge-Tunnel, Route 58, and Route 460).

Table 53 shows the recent trend in truck volumes at selected locations throughout Hampton Roads where vehicle classification data is continuously collected. At all of these locations, except for the Western Freeway, the weekday truck volumes seen in 2011 were lower than the highs seen in 2007, with the average drop in truck volumes being 14.6%. These decreases have continued, with most locations (12 of 16) seeing a decrease in weekday truck volumes from 2010 to 2011, and an average decrease of 1.0%.

Facility	Location	2005	2006	2007	2008	2009	2010	2011
Chesapeake Bay Bridge-Tunnel		1,356	1,321	1,263	1,199	1,159	1,149	1,112
Coleman Bridge		917	956	996	823	771	869	844
Hampton Boulevard	North of Jamestown Cresent	-	-	-	1,791	1,498	1,435	1,530
Hampton Roads Bridge-Tunnel		-	-	-	3,777	3,414	3,312	3,276
I-64 (Peninsula)	West of J Clyde Morris Blvd	7,734	7,893	8,013	7,419	6,599	6,936	7,037
I-64 (Southside)	North of Indian River Rd	-	4,918	5,548	4,818	4,352	5,017	4,955
I-64 (Southside)	East of I-264/I-664	7,494	8,171	8,656	7,878	7,216	7,254	6,989
I-264	East of Victory Blvd	3,614	3,866	3,962	3,314	2,877	2,988	2,876
I-464	South of Poindexter St	2,551	2,568	2,662	2,666	2,354	2,478	2,410
I-664	South of College Dr	4,360	4,206	4,770	4,203	4,178	4,383	4,318
International Terminal Blvd	East of Hampton Blvd	1,979	2,384	2,640	2,537	1,947	2,164	2,056
James River Bridge		1,143	1,000	1,012	878	751	819	900
Midtown Tunnel		-	-	-	-	1,759	1,803	1,771
Route 13/58/460	West of I-664	6,989	7,383	7,623	6,547	5,487	5,370	-
Route 58	Between Courtland and Franklin	3,800	3,934	4,201	3,929	3,447	3,412	3,228
Route 460	East of Wakefield	2,300	1,801	2,188	2,144	1,890	1,936	1,955
Western Freeway	East of College Dr	1,702	1,956	2,309	2,563	2,386	2,533	2,491

Table 53 – Weekday Truck Volumes by Year at Selected Locations, 2005-2011

Source: HRTPO analysis of VDOT and CBBT data. Table only includes locations with vehicle classification data collected by VDOT or CBBT on a continuous basis. '-' indicates that data is not available in that particular year.

Daily Truck Percentages

Maps 32 and **33** on pages 97 and 98 show the existing trucks as a percentage of total vehicles each weekday at locations throughout Hampton Roads. Among the 438 locations with vehicle classification data, the existing median weekday truck percentage is 1.4%.

Table 54 shows the existing percentage of trucks each weekday at each location on the regional freeway system where vehicle classification data is collected. The Southwest Suffolk Bypass carries the highest percentage of trucks at 13.0% of total vehicle volume. I-64 on the Peninsula carries more than 10% trucks each weekday.

Jurisdiction	Facility Name	Segment From	Segment To	Existing Weekday Truck %
SUF	Southwest Suffolk Bypass	Holland Rd	Carolina Rd	13.0%
YC	I-64	Route 199/646	Route 143	10.8%
CHES	I-64	Military Hwy	I-264&664	9.2%
CHES/SUF	Route 13/58/460	Suffolk Bypass	I-664	7.6%
SUF	I-664	Western Fwy	College Dr	6.8%
CHES	I-64	Battlefield Blvd	I-464	6.2%
NN	I-64	Oyster Point Rd	J C Morris Blvd	5.2%
PORT	Western Fwy	College Dr	Town Point Rd	5.0%
CHES	I-464	Freeman Ave	Poindexter St	4.8%
PORT	I-264	Victory Blvd	Portsmouth Blvd	4.5%
HAM/NOR	I-64/HRBT	Mallory St	15th View St	3.7%
NOR/VB	I-64	I-264	Indian River Rd	3.3%
NOR	I-264	Ballentine Blvd	Military Hwy	2.9%
VB	I-264	Witchduck Rd	Independence Blvd	2.5%
NOR	I-564	Admiral Taussig Blvd	International Terminal Blvd	2.3%
YC	Route 199	Mooretown Rd	I-64	2.2%
JCC	Route 199	Longhill Rd (Route 612)	Monticello Ave (Route 321)	1.4%

Table 54 – Freeway Weekday Truck Percentages

Source: HRTPO analysis of VDOT data. Table only includes locations with vehicle classification data collected by VDOT. Existing Weekday Truck % refers to data collected between 2009 and 2011. Data prior to 2009 is included if counts from 2009 to 2011 weren't taken.

Table 55 shows those locations that are not part of the regional freeway system that have a high percentage of trucks, defined as 6.0% or more of all vehicles each weekday. These locations are also shown in orange and red on Maps 32 and 33. A total of 36 locations throughout Hampton Roads meet this threshold, with many of these locations being less-traveled roadways in rural areas such as Southampton and Surry Counties.

A total of 14 of the 438 locations with vehicle classification data on the CMP roadway network have both a high truck volume (at least 1,000 trucks each weekday) and high truck percentage (at least 6.0% of all vehicles each weekday are trucks). These locations, in descending order of existing weekday truck volumes, are:

- I-64 from Military Hwy to I-264/I-664 (6,989 trucks/9.2%)
- I-64 from Battlefield Blvd to I-464 (6,374 trucks/6.2%)
- I-64 from Route 199/646 to Route 143 (5,965 trucks/10.8%)
- Routes 13/58/460 from Suffolk Bypass to I-664 (5,370 trucks/7.6%)
- I-664 from Western Freeway to College Dr (4,318 trucks/6.8%)
- Route 58 from Bus Route 58 W to Camp Pkwy (3,228 trucks/17.5%)
- International Terminal Blvd from Hampton Blvd to I-564 (2,056 trucks/6.5%)
- Ballentine Blvd from I-264 to Virginia Beach Blvd (2,028 trucks/7.5%)
- Route 460 from Sussex CL to Ivor Rd (1,955 trucks/22.3%)
- Cavalier Blvd from Military Hwy to Portsmouth CL (1,569 trucks/11.9%)
- Ballentine Blvd from Virginia Beach Blvd to Princess Anne Rd (1,295 trucks/8.8%)
- Southwest Suffolk Bypass from Holland Rd to Carolina Rd (1,275 trucks/13.0%)
- Turnpike Rd from Howard St to Harbor Dr (1,195 trucks/12.0%)
- Chesapeake Bay Bridge-Tunnel (1,112 trucks/14.2%)

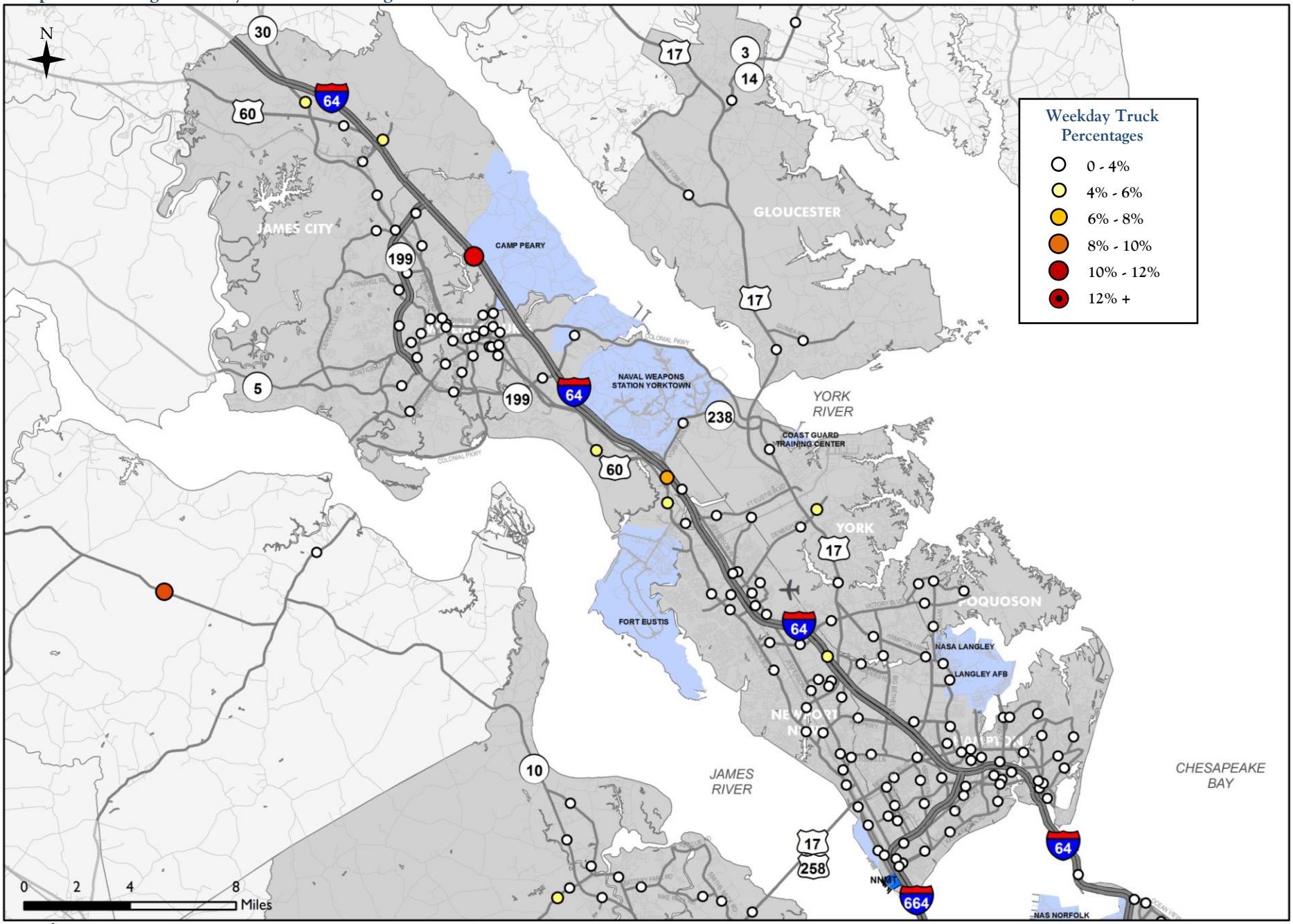
Jurisdiction	Facility Name	Segment From	Segment To	Existing Weekday Truck %
SH	Route 186	NC State Line	Joyner Rd (Route 701)	26.6%
SH	Route 35	Ivor Rd (Route 616)	Carys Bridge Rd (Route 653)	23.9%
SH	Route 460	Sussex CL	Route 616 (Ivor Rd)	22.3%
SH	Route 35	Route 671	Grays Shop Rd (Route 673)	18.3%
SH	Route 58	Bus Route 58 W	Camp Pkwy (Bus Route 58 E)	17.5%
SH	Route 35	Route 186	Route 671	14.6%
VB	Chesapeake Bay Bridge-Tunnel	Shore Dr	NCL Va Beach	14.2%
SUF	Route 189	Southampton CL	Route 272	13.3%
SUF	Whaleyville Blvd	NC State Line	Route 616 (Mineral Spring Rd)	13.2%
SUF	Route 189 (In Holland)	Route 58 (South of Holland)	Bus Route 58 (Ruritan Blvd)	12.2%
PORT	Turnpike Rd	Howard St	Harbor Dr	12.0%
CHES	Cavalier Blvd	Military Hwy	Portsmouth CL	11.9%
IW	Route 258	Suffolk CL	Union Camp Dr (Route 656)	11.7%
SH	Route 671	Cross Keys Rd (Route 665)	WCL Newsoms	9.6%
PORT	Garwood Ave	Greenwood Dr	Elmhurst Ln	9.1%
CHES	Great Bridge Blvd	Bainbridge Blvd	Campostella Rd	8.8%
NOR	Ballentine Blvd	Va Beach Blvd	Princess Anne Rd	8.8%
SUR	Route 10	Route 40	Route 31 (South)	8.8%
SUF	Carolina Rd	NC State Line	Route 642	8.5%
SH	Route 671	Delaware Rd (Route 687)	Route 58	8.0%
CHES	Bainbridge Blvd	Great Bridge Blvd	Military Hwy	7.9%
CHES	Military Hwy	Airline Blvd	I-64	7.9%
PORT	County St	Peninsula Ave	Elm Ave	7.7%
NOR	Ballentine Blvd	I-264	Va Beach Blvd	7.5%
CHES	George Washington Hwy	North Carolina State Line	Dominion Blvd	7.4%
SUF	Carolina Rd	Route 675	Babbtown Rd (Route 759)	7.4%
SUR	Route 40	Sussex CL	Route 615	7.3%
NN	Yorktown Rd	Warwick Blvd	I-64	7.2%
SH	Route 258	Route 189	Dogwood Bend Rd (Route 684)	7.0%
NOR	International Terminal Blvd	Hampton Blvd	I-564	6.5%
SUF	College Dr	I-664	Harbour View Blvd	6.3%
SUF	Nansemond Pkwy	Kings Hwy	Shoulders Hill Rd	6.3%
IW	Benns Church Blvd	Suffolk CL	Route 10 & 32 (Brewers Neck Blvd)	6.1%
SH	Route 616	Millfield Rd (Route 605)	SCL Ivor	6.1%
VB	Princess Anne Rd	Indian River Rd	Pungo Ferry Rd	6.1%
NOR	Bainbridge Blvd	Chesapeake CL	S Main St	6.0%

Table 55 – Non-Freeway Locations with High Weekday Truck Percentages

Source: HRTPO analysis of VDOT and CBBT data. Table only includes locations with vehicle classification data collected by VDOT or CBBT and weekday truck percentages of 6% or higher.
Existing Weekday Truck % refers to data collected between 2009 and 2011. Data prior to 2009 is included if counts from 2009 to 2011 weren't taken.

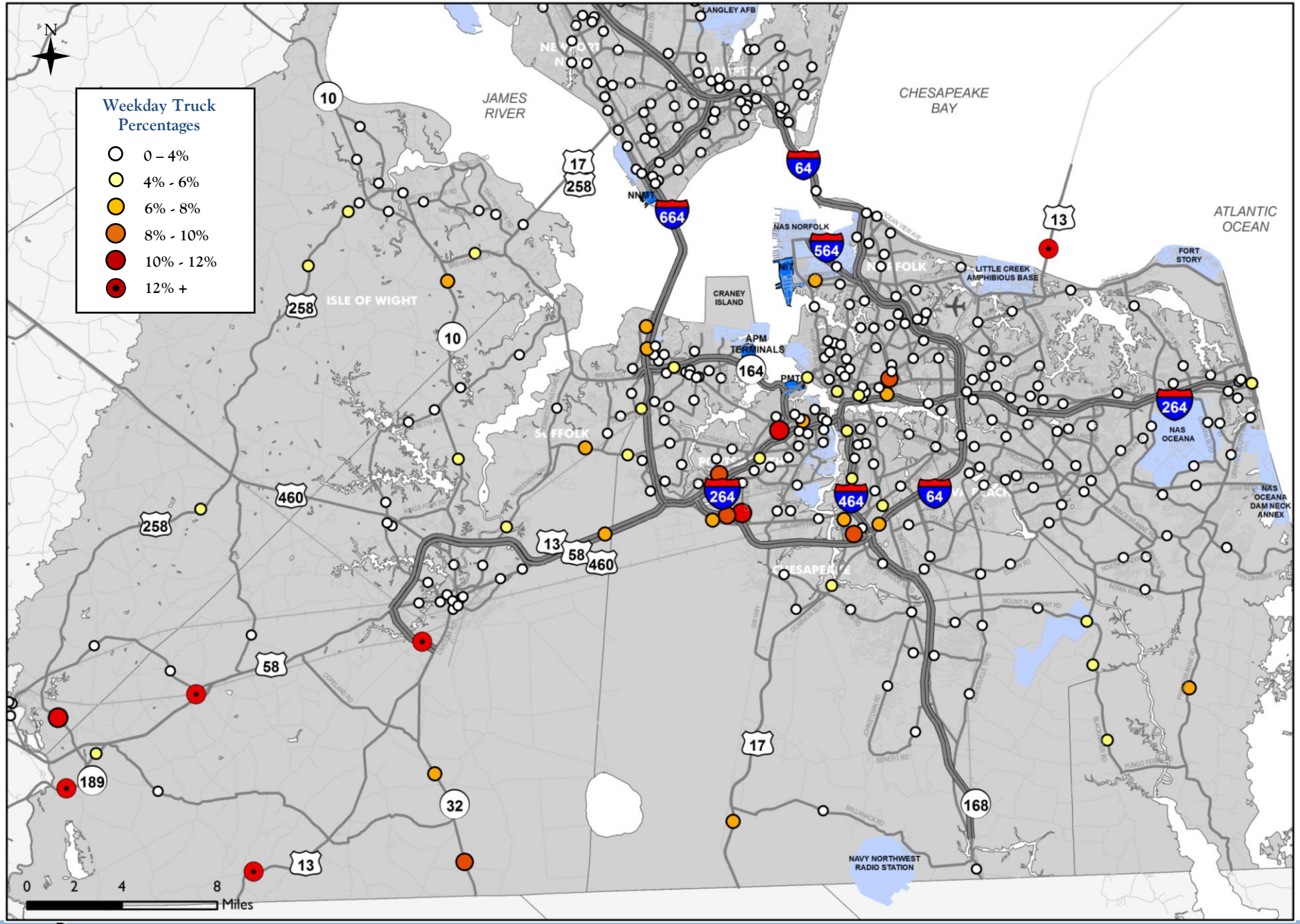
Map 32: Existing Weekday Truck Percentages - Peninsula

Source: HRTPO analysis of VDOT and CBBT data.



Map 33: Existing Weekday Truck Percentages - Southside

Source: HRTPO analysis of VDOT and CBBT data.



Congested Truck Travel

As mentioned previously in this report, the majority of the domestic freight movement to, from, and within Hampton Roads occurs by truck. Regional roadway congestion costs truck operators time and money, which in turn can impact the competitiveness of the Port of Virginia and the Hampton Roads economy. According to a study done by the Texas Transportation Institute (TTI), roadway congestion in Hampton Roads cost truck operators over $98 million in 2010. Among all 31 large metropolitan areas analyzed by TTI throughout the United States with populations between one and three million people, this regional cost to truck operators was the 22nd highest.

HRTPO staff regularly analyzes congestion levels on major roadways throughout the region, and released the Hampton Roads Regional Travel Time/Speed Study[12] in 2012. The study used data continuously collected by INRIX throughout the year 2010 using GPS-enabled fleet vehicles – such as taxis, service vehicles, and long haul trucks – as the primary source of data. The averaged weekday speed data is provided by direction and 15-minute period for 1,080 miles of the Hampton Roads CMP roadway network. In both the Hampton Roads Regional Travel Time/Speed Study and this report, these 1,080 miles with travel time and speed data is referred to as the regional Travel Time Network.

HRTPO staff estimated the amount of truck delay on the regional Travel Time Network using speed data from the Hampton Roads Travel Time/Speed Study and the truck data shown previously in this report. Because vehicle classification data is only available for 264 locations on the regional Travel Time Network, estimates of truck volumes and daily truck volume distributions were needed for the remaining roadway segments in the regional Travel Time Network without vehicle classification data.

[12] HRTPO, *Hampton Roads Regional Travel Time/Speed Study*, April 2012.

Trucks at the Midtown Tunnel

Fortunately, as part of its traffic monitoring program, VDOT produces estimates of daily truck percentages on those roadway segments where vehicle classification count data is not collected. VDOT produces the estimates by linking each of these locations to nearby roadway segments on the same route where vehicle classification data is collected. For each location on the regional Travel Time Network where vehicle classification data was not collected, HRTPO staff 1) used VDOT's daily truck percentage estimates to calculate daily truck volumes, and 2) used VDOT's linked locations to calculate estimates of truck time of day distributions.

For each Travel Time Network roadway segment, total truck delays were calculated for each 15-minute interval. These delays were calculated as:

$$\text{Total Truck Delay} = \frac{\text{Truck Volume x Segment Length}}{\text{Segment Actual Travel Speed}} - \frac{\text{Truck Volume x Segment Length}}{\text{Segment Free Flow Travel Speed}}$$

Based on HRTPO's analysis, there was a total of 2,920 truck hours of delay each weekday on the regional Travel Time Network in 2010. Of the 2,920 truck hours of delay, 655 hours occurred during the AM peak travel period (6:00 am to 9:00 am), 1,369 hours occurred during the

midday period (9:00 am to 3:00 pm), 831 hours occurred during the PM peak travel period (3:00 pm to 7:00 pm), and the remaining 65 hours occurred outside of these periods. Although there is less roadway congestion in Hampton Roads during the midday period than there is during the AM and PM peak travel periods, the amount of truck travel is much higher during the midday period. In fact, 48% of all truck travel in Hampton Roads occurs between 9:00 am and 3:00 pm, whereas only 19% occurs during the AM peak period and 19% occurs during the PM peak period.

The amount of total weekday truck delay on each roadway segment is shown in **Maps 34 and 35** on pages 101 and 102. **Appendix C** tabulates this total delay and also includes the AM peak period, midday, and PM peak period truck delay levels.

Table 56 shows those roadway segments in Hampton Roads that have the highest total weekday truck delay, and **Tables 57** and **58** show the total truck delays during the AM and PM peak travel periods, respectively. Not surprisingly, most of the truck delay, both throughout the day and during the peak travel periods, occurs on Interstates throughout the region, particularly at the bridges and tunnels.

Facility Name	Segment From	Segment To	Total Weekday Truck Delay (hours)
I-264/DOWNTOWN TUNNEL	EFFINGHAM ST	NORFOLK CL	51.3
I-64	I-464	GEORGE WASHINGTON HWY	39.3
I-64/HRBT	MALLORY ST	NORFOLK CL	36.2
I-64	GEORGE WASHINGTON HWY	MILITARY HWY	34.1
I-264/BERKLEY BRIDGE	I-464	WATERSIDE/CITY HALL/TIDEWATER	31.9
I-264	WATERSIDE/CITY HALL/TIDEWATER	BRAMBLETON AVE	31.5
I-64	MILITARY HWY	I-264&664	29.7
MIDTOWN TUNNEL	MLK FWY/WESTERN FREEWAY	NORFOLK CL	29.6
I-64	BATTLEFIELD BLVD	I-464	29.4
I-264/DOWNTOWN TUNNEL	PORTSMOUTH CL	I-464	28.5
ROUTE 58 (HOLLAND RD)	COVE POINT DR	SUFFOLK BYPASS	26.3
I-264	DES MOINES AVE	EFFINGHAM ST	26.0
I-64	RIP RAP RD	SETTLERS LANDING RD	22.9
HAMPTON BLVD	38TH ST	JAMESTOWN CRESCENT	21.5
WESTERN FWY	WEST NORFOLK RD	MLK FREEWAY/MIDTOWN TUNNEL	21.2
I-64	BAY AVE	GRANBY ST	21.2
I-64	NORTHAMPTON BLVD	I-264	21.2
BALLENTINE BLVD	I-264	VA BEACH BLVD	20.4
NORTHAMPTON BLVD	WESLEYAN DR/NORFOLK CL	DIAMOND SPRINGS RD	19.9
I-64	FORT EUSTIS BLVD	JEFFERSON AVE	18.7
MIDTOWN TUNNEL	PORTSMOUTH CL	BRAMBLETON AVE	18.4
I-64	OCEAN VIEW AVE	4TH VIEW AVE	17.8
I-64	4TH VIEW AVE	BAY AVE	17.3
BENNS CHURCH BLVD	ECL SMITHFIELD (RTE 644)	CHURCH ST S	16.7
BRAMBLETON AVE	COLLEY AVE	BOUSH ST	16.1

Table 56 – Roadway Segments with the Highest Total Weekday Truck Delays

Source: HRTPO analysis of INRIX and VDOT data.

Facility Name	Segment From	Segment To	Total Truck Delay 6:00AM-9:00AM (hours)
I-64	GEORGE WASHINGTON HWY	MILITARY HWY	18.8
I-264	DES MOINES AVE	EFFINGHAM ST	16.4
I-64	MILITARY HWY	I-264&664	15.5
I-264/DOWNTOWN TUNNEL	EFFINGHAM ST	NORFOLK CL	13.7
I-64	RIP RAP RD	SETTLERS LANDING RD	11.2
MIDTOWN TUNNEL	MLK FWY/WESTERN FREEWAY	NORFOLK CL	10.4
WESTERN FWY	WEST NORFOLK RD	MLK FREEWAY/MIDTOWN TUNNEL	9.5
I-264	FUTURE MLK FWY	DES MOINES AVE	8.5
I-64	I-464	GEORGE WASHINGTON HWY	7.9
I-64/HRBT	MALLORY ST	NORFOLK CL	7.8
I-264/DOWNTOWN TUNNEL	PORTSMOUTH CL	I-464	7.6
I-264	FREDERICK BLVD	FUTURE MLK FWY	7.5
MIDTOWN TUNNEL	PORTSMOUTH CL	BRAMBLETON AVE	6.5
I-64	NORTHAMPTON BLVD	I-264	5.7
I-64	NORFOLK CL	INDIAN RIVER RD	5.5

Table 57 – Roadway Segments with the Highest Total AM Peak Period Truck Delays

Source: HRTPO analysis of INRIX and VDOT data.

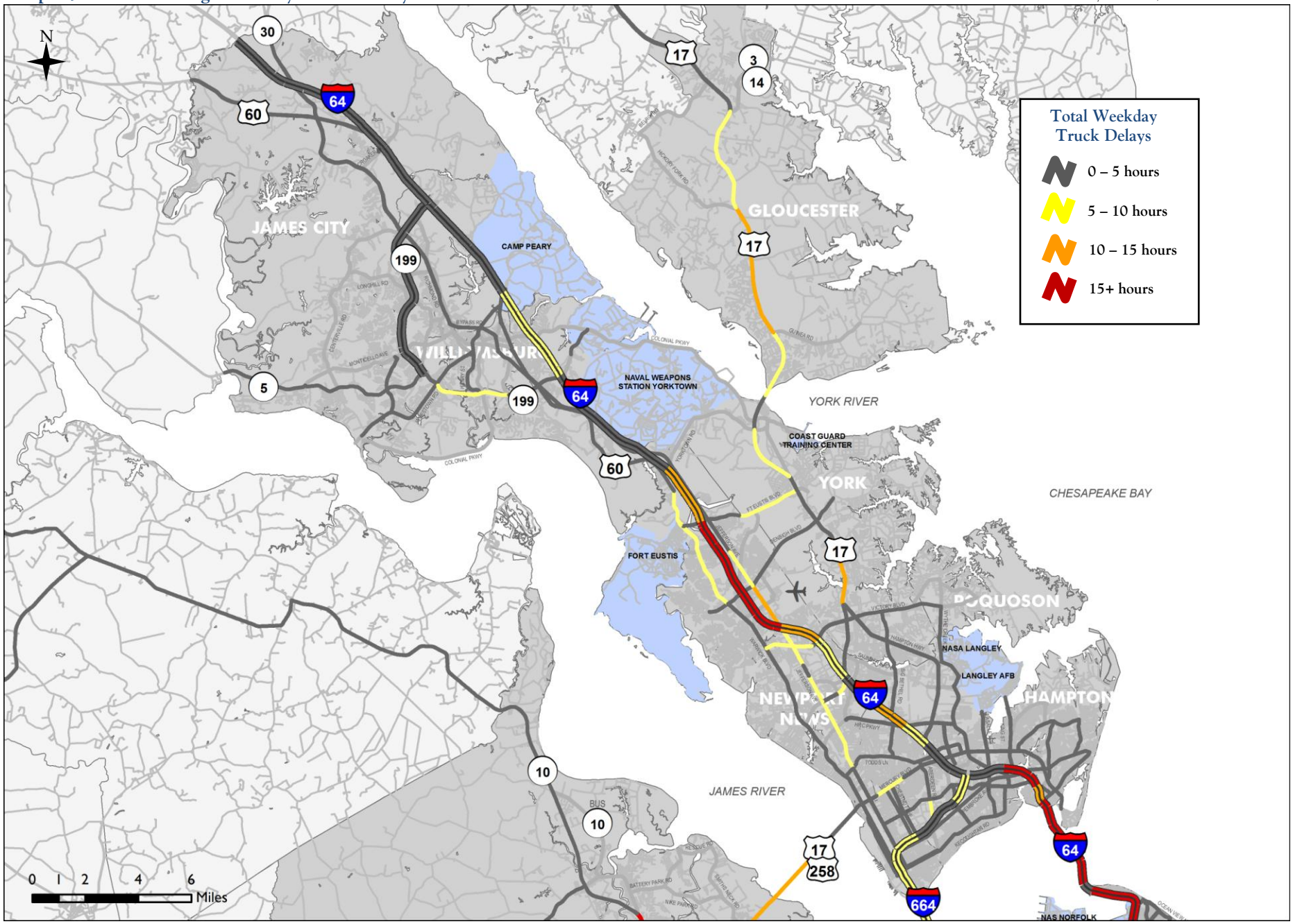
Facility Name	Segment From	Segment To	Total Truck Delay 3:00PM-7:00PM (hours)
I-64	BATTLEFIELD BLVD	I-464	24.9
I-264	WATERSIDE/CITY HALL/TIDEWATER	BRAMBLETON AVE	23.6
I-64	I-464	GEORGE WASHINGTON HWY	20.3
I-264/BERKLEY BRIDGE	I-464	WATERSIDE/CITY HALL/TIDEWATER	17.7
I-64	BAY AVE	GRANBY ST	16.4
I-264/DOWNTOWN TUNNEL	EFFINGHAM ST	NORFOLK CL	16.1
I-64/HRBT	MALLORY ST	NORFOLK CL	13.2
I-64	4TH VIEW AVE	BAY AVE	12.7
I-64	MILITARY HWY	I-264&664	10.3
I-64	OCEAN VIEW AVE	4TH VIEW AVE	10.0
I-64	GEORGE WASHINGTON HWY	MILITARY HWY	10.0
I-64	NORTHAMPTON BLVD	I-264	9.9
I-264/DOWNTOWN TUNNEL	PORTSMOUTH CL	I-464	8.9
MIDTOWN TUNNEL	MLK FWY/WESTERN FREEWAY	NORFOLK CL	8.4
I-64	I-564/LITTLE CREEK RD	TIDEWATER DR	7.6

Table 58 – Roadway Segments with the Highest Total PM Peak Period Truck Delays

Source: HRTPO analysis of INRIX and VDOT data.

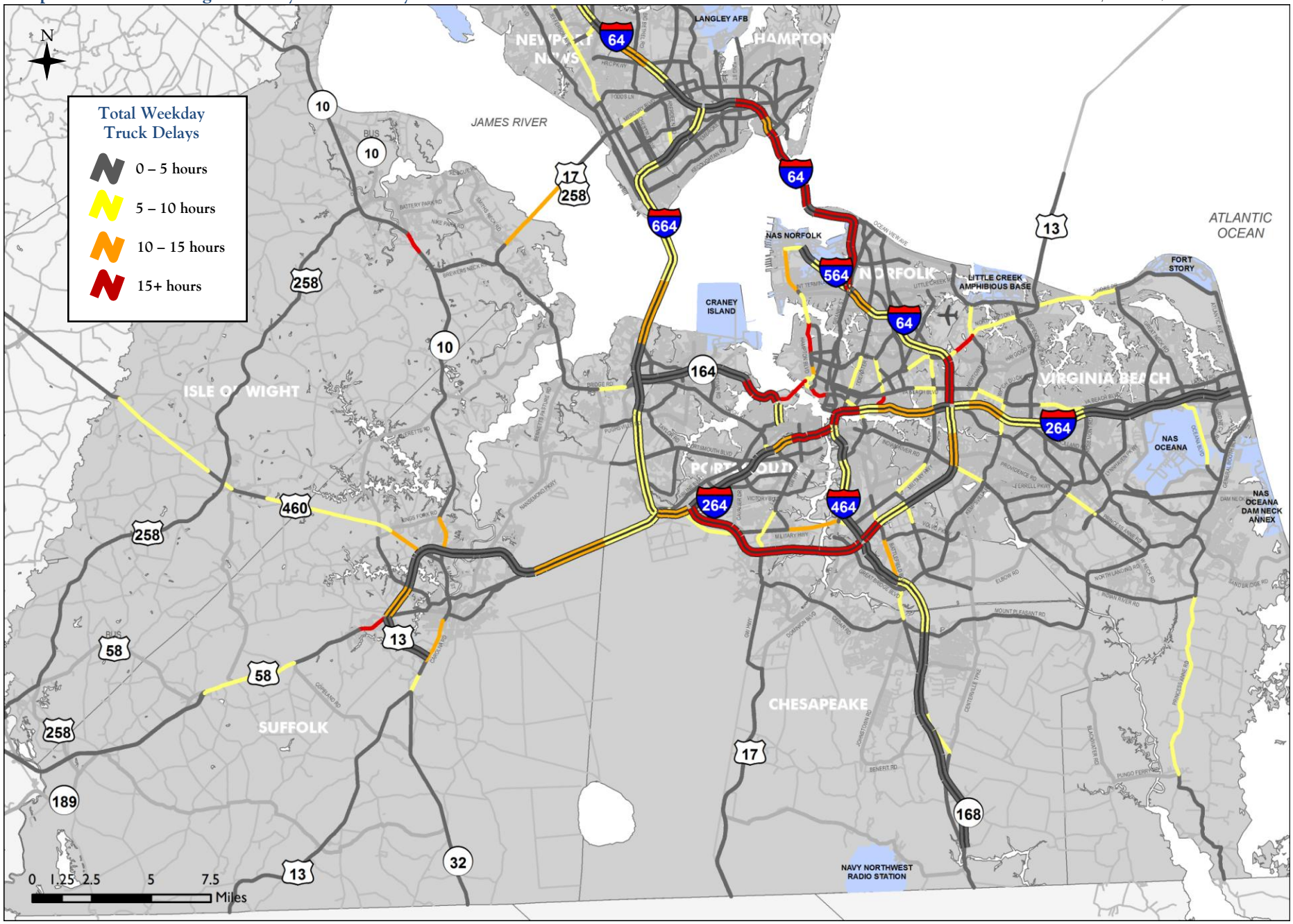
Map 34: Total Existing Weekday Truck Delay - Peninsula

Source: HRTPO analysis of INRIX, VDOT and CBBT data.



Map 35: Total Existing Weekday Truck Delay - Southside

Source: HRTPO analysis of INRIX, VDOT and CBBT data.



As part of the Hampton Roads Regional Travel Time/Speed Study, ten high profile locations were analyzed in further detail, including the region's water crossings and their approaches (**Map 36**). Looking at delays at these ten high profile locations (**Figure 31** and **Table 59**), the Downtown Tunnel had both the highest amount of vehicular delay and the highest amount of truck delay each weekday in 2010. Trucks are delayed a total of 205 hours each weekday at the Downtown Tunnel, resulting in annual truck congestion costs of over $4.5 million according to TTI rates. The Downtown Tunnel also has the highest levels of truck delay during the morning and afternoon peak travel periods.

I-64 in Chesapeake has the second highest truck delays among the ten high profile locations at nearly 142 hours of truck delay each weekday. The Hampton Roads Bridge-Tunnel has the third highest truck delays at over 134 hours of truck delay each weekday.

Combined, trucks were delayed a total of 870 hours each weekday at these ten high profile locations in 2010, resulting in estimated annual truck congestion costs of over $19 million.

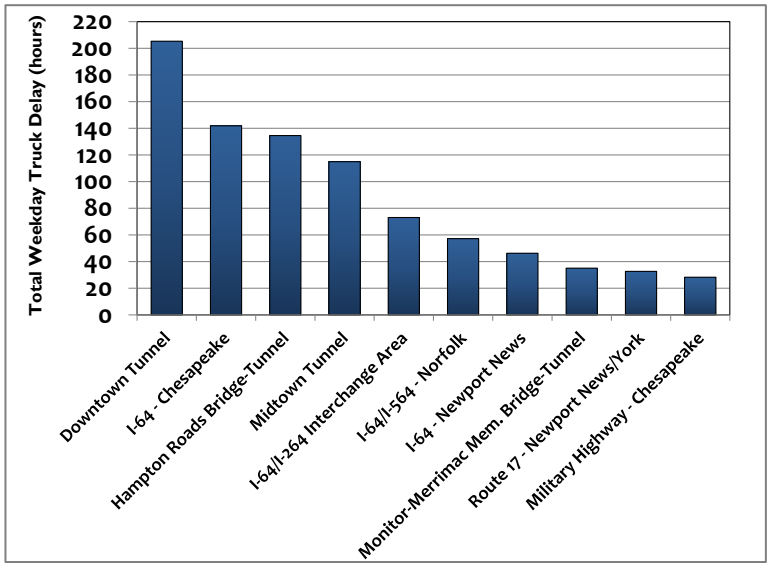
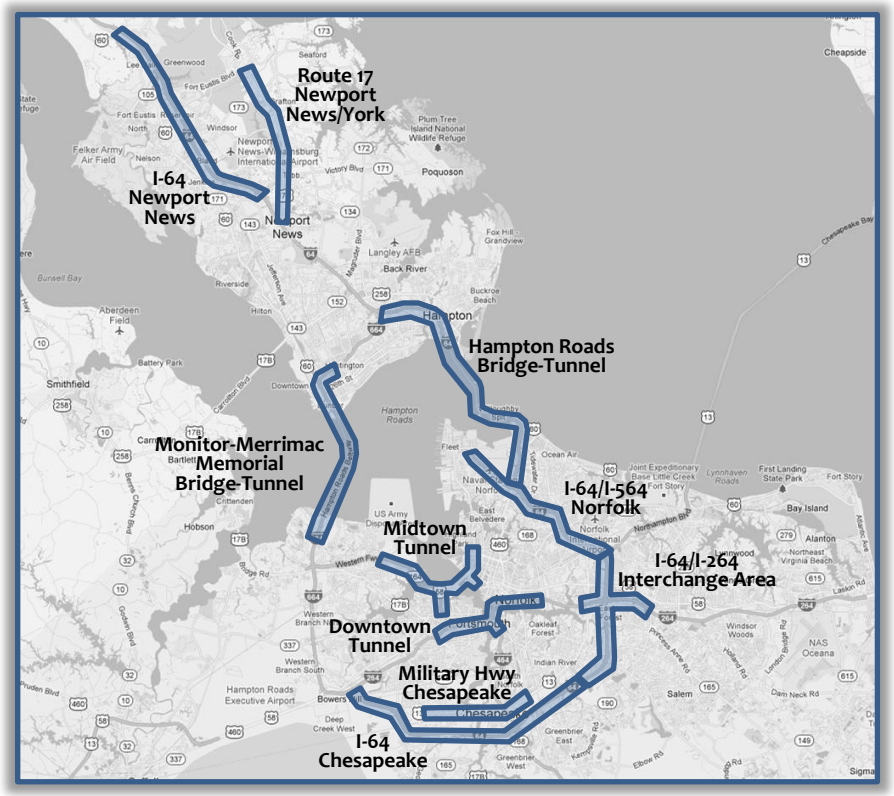


Figure 31 – Total Weekday Truck Delay at High Profile Locations
Source: HRTPO analysis of INRIX and VDOT data.



Map 36 – High Profile Locations in Hampton Roads
Background map source: Google.

High Profile Location	Total Weekday Truck Delay (hours)	Total Truck Delay Rank	Total Vehicular Delay Rank	Total Weekday Truck Delay 6:00AM-9:00AM (hours)	Total Weekday Truck Delay 9:00AM-3:00PM (hours)	Total Weekday Truck Delay 3:00PM-7:00PM (hours)
Downtown Tunnel	205.4	1	1	65.7	59.0	78.0
I-64 - Chesapeake	141.9	2	4	43.9	24.0	72.1
Hampton Roads Bridge-Tunnel	134.6	3	2	27.6	38.6	66.8
Midtown Tunnel	115.0	4	5	35.6	51.1	27.4
I-64/I-264 Interchange Area	73.1	5	3	20.7	20.2	31.0
I-64/I-564 - Norfolk	57.3	6	6	16.3	9.9	26.2
I-64 - Newport News	46.3	7	9	9.0	17.3	19.4
Monitor-Merrimac Mem. Bridge-Tunnel	35.1	8	10	4.3	15.8	14.2
Route 17 - Newport News/York	32.7	9	7	6.7	17.5	7.9
Military Highway - Chesapeake	28.3	10	8	5.8	11.6	10.4

Table 59 – Weekday Truck Delay at High Profile Locations
Source: HRTPO analysis of INRIX and VDOT data.

CONCLUSIONS

This report contains an extensive analysis of freight movement to, from, and within Hampton Roads. A summary of key findings in this update of the Hampton Roads Regional Freight Study is provided below:

Commodity Flows

Total Freight Movement

- Total movement of freight (weight) to, from, and within Hampton Roads is expected to increase 79% for all modes between 2010 (185 million tons) and 2040 (330 million tons).
- Total movement of freight (value) to, from, and within Hampton Roads is expected to increase 186% for all modes between 2010 ($176 billion) and 2040 ($505 billion).
- The predominant mode of transportation for all freight entering, exiting, and moving within the region in 2010 by tonnage was truck (36%) followed by water (29%).
- The predominant mode of transportation for all freight entering, exiting, and moving within the region in 2040 is expected to be water (35%) followed by truck (33%).

Comparison with Other Regions

- Total movement of freight (weight) to, from, and within Savannah, GA is expected to increase 120% for all modes between 2010 (110 million tons) and 2040 (242 million tons).
- Total movement of freight (value) to, from, and within Savannah, GA is expected to increase 162% for all modes between 2010 ($170 billion) and 2040 ($446 billion).
- Total movement of freight (weight) to, from, and within Charleston, SC is expected to increase 108% for all modes between 2010 (83 million tons) and 2040 (173 million tons).
- Total movement of freight (value) to, from, and within Charleston, SC is expected to increase 265% for all modes between 2010 ($123 billion) and 2040 ($449 billion).

Imports and Exports

- The predominant mode of transportation for all imports and exports (weight and value) to/from Hampton Roads is water, with nearly 100% of the share.
- Imports (weight) shipped directly to Hampton Roads by water are expected to increase by 172% from 2010 (13 million tons) to 2040 (36 million tons).
- Exports (weight) shipped directly from Hampton Roads by water are expected to increase 48% from 2010 (41 million tons) to 2040 (78 million tons).

Top Trading Partners by Mode (2010)

- Top trading partner by truck (weight) – Richmond, VA MSA (6.4 million tons)
- Top trading partner by truck (value) – Richmond, VA MSA ($5.5 billion)
- Top trading partner by rail (weight) – West Virginia (8.2 million tons)
- Top trading partner by rail (value) – West Virginia ($480 million)
- Top trading partner by water (weight) – Europe (31.9 million tons)
- Top trading partner by water (value) – Europe ($18.0 billion)
- Top trading partner by air (includes truck-air) (weight) – Houston, TX CSA (7.9 thousand tons)
- Top trading partner by air (includes truck-air) (value) – Remainder of Connecticut ($790 million)
- Top trading partner by multiple modes & mail (weight) – Remainder of Maryland (1.9 million tons)
- Top trading partner by multiple modes & mail (value) – Chicago, IL-IN-WI CSA (IL part) ($2.9 billion)

Top Trading Partners by Mode (2040)

- Top trading partner by truck (weight) – Remainder of North Carolina (10.2 million tons)
- Top trading partner by truck (value) – Remainder of North Carolina ($12.5 billion)

- Top trading partner by rail (weight) – Remainder of Virginia (8.4 million tons)
- Top trading partner by rail (value) – Remainder of Virginia ($634 million)
- Top trading partner by water (weight) – Europe (50.8 million tons)
- Top trading partner by water (value) – Europe ($66.9 billion)
- Top trading partner by air (includes truck-air) (weight) – Los Angeles, CA CSA (61.3 thousand tons)
- Top trading partner by air (includes truck-air) (value) – Remainder of Connecticut ($4.6 billion)
- Top trading partner by multiple modes & mail (weight) – Chicago, IL-IN-WI CSA (IL part) (2.9 million tons)
- Top trading partner by multiple modes & mail (value) – Chicago, IL-IN-WI CSA (IL part) ($12.3 billion)

Top Commodities (2010)

- The top 5 commodities (weight) shipped to, from, and within Hampton Roads in 2010 were:
  1) coal (77.3 million tons)
  2) waste/scrap (11.7 million tons)
  3) nonmetal mineral products (8.2 million tons)
  4) other agricultural products (6.8 million tons)
  5) natural sands (5.9 million tons)
- The top 5 commodities (value) shipped to, from, and within Hampton Roads in 2010 were:
  1) machinery ($25.6 billion)
  2) other agricultural products ($11.2 billion)
  3) motorized vehicles ($10.9 billion)
  4) textiles/leather ($10.9 billion)
  5) electronics ($10.7 billion)

Top Commodities (2040)

- The top 5 commodities (weight) shipped to, from, and within Hampton Roads projected for 2040 are:
  1) coal (117.4 million tons)
  2) waste/scrap (20.1 million tons)
  3) nonmetal mineral products (14.3 million tons)
  4) other agricultural products (14.0 million tons)
  5) newsprint/paper (13.4 million tons)
- The top 5 commodities (value) shipped to, from, and within Hampton Roads projected for 2040 are:
  1) machinery ($92.9 billion)
  2) precision instruments ($34.6 billion)
  3) textiles/leather ($34.5 billion)
  4) electronics ($32.9 billion)
  5) plastics/rubber ($31.3 billion)

Top Trading Partner for Coal (Weight)

- Top trading partner (2010) – Europe (24.4 million tons)
- Top trading partner (2040) – Europe (31.6 million tons)

Top Trading Partner for Machinery (Value)

- Top trading partner (2010) – Europe ($3.6 billion)
- Top trading partner (2040) – Europe ($17.7 billion)

Total Freight Movement by Truck by Hampton Roads Gateway Corridor (Weight)

- 54% (19.6 million tons) of all freight (2010) delivered by truck to/from Hampton Roads utilized the I-64/Route 460 gateway corridor. 26% (9.4 million tons) was moved in 2010 by truck via Route 58.
- 52% (36.5 million tons) of all freight (2040) is expected to be delivered by truck to/from Hampton Roads via the I-64/Route 460 gateway corridor. 30% (20.7 million tons) is expected to be moved in 2040 by truck via Route 58.

Total Freight Movement by Truck by Hampton Roads Gateway Corridor (Value)

- 57% ($32.8 billion) of all freight (2010) delivered by truck to/from Hampton Roads utilized the I-64/Route 460 gateway corridor. 25% ($14.2 billion) was moved in 2010 by truck via Route 58.

- 58% ($81.3 billion) of all freight (2040) is expected to be delivered by truck to/from Hampton Roads via the I-64/Route 460 gateway corridor. 26% ($36.5 billion) is expected to be moved in 2040 by truck via Route 58.

Regional Truck Movement

Truck Travel in Hampton Roads

- There were a total of 1.18 million truck miles of travel each day in Hampton Roads in 2010. This accounts for 2.9% of the 40.9 million vehicle-miles of travel that occurred daily in the region.
- The amount of regional truck travel decreased 18% between 2007 (the beginning of the economic downturn) and 2010.
- More than half (56%) of all truck travel in Hampton Roads in 2011 occurred between 8:00 am and 3:00 pm. Less than one third (31%) of all regional truck travel occurred during the congested morning and afternoon peak travel periods.

Truck Movements through Regional Gateways

- A total of 16,600 trucks passed through the Top 10 gateways to Hampton Roads each weekday in 2011. This number has decreased from over 20,000 trucks each weekday in 2007.
- The most heavily used gateway to Hampton Roads is I-64, with 6,338 trucks entering or exiting the region each weekday in 2011. The next most used gateways for trucks entering and leaving the region were Route 58 (3,228 trucks) and Route 460 (1,955 trucks).

Truck Movements across Regional Water Crossings

- A total of 8,494 trucks crossed the harbor between the Peninsula and Southside each weekday in 2011. Among the three facilities spanning the harbor, the Monitor-Merrimac Memorial Bridge-Tunnel carried the most trucks each weekday (4,300 trucks).
- Nearly 16,000 trucks crossed the Elizabeth River on five facilities (Midtown Tunnel, Downtown Tunnel, Gilmerton Bridge, High Rise Bridge, and Steel Bridge) each weekday in 2011. The High Rise Bridge carried nearly half of these trucks (7,800 trucks).

Daily Truck Movements by Location

- Vehicle classification data was collected at 438 locations throughout Hampton Roads. Among these 438 locations, 14 had both a high truck volume (at least 1,000 trucks each weekday) and a high truck percentage (at least 6% of all vehicles are trucks). These locations, in descending order of existing weekday truck volumes, are:
  1) I-64 from Military Hwy to I-264/I-664
  2) I-64 from Battlefield Blvd to I-464
  3) I-64 from Route 199/646 to Route 143
  4) Route 13/58/460 from Suffolk Bypass to I-664
  5) I-664 from Western Freeway to College Dr
  6) Route 58 from Business Route 58 West to Camp Pkwy
  7) International Terminal Blvd from Hampton Blvd to I-564
  8) Ballentine Blvd from I-264 to Virginia Beach Blvd
  9) Route 460 from Sussex CL to Ivor Rd
  10) Cavalier Blvd from Military Hwy to Portsmouth CL
  11) Ballentine Blvd from Virginia Beach Blvd to Princess Anne Rd
  12) Southwest Suffolk Bypass from Holland Rd to Carolina Rd
  13) Turnpike Rd from Howard St to Harbor Dr
  14) Chesapeake Bay Bridge-Tunnel

Congested Truck Travel

- According to the Texas Transportation Institute, roadway congestion in Hampton Roads cost truck operators over $98 million in 2010.
- Based on HRTPO's analysis, there was a total of 2,920 truck hours of delay each weekday on the regional Travel Time Network in 2010. Of these 2,920 truck hours of delay, 655 hours occurred during the AM peak travel period (6:00 am to 9:00 am), 1,369 hours occurred during the midday period (9:00 am to 3:00 pm), and 831 hours occurred during the PM peak travel period (3:00 pm to 7:00 pm).
- Looking at ten high profile locations throughout Hampton Roads that include major water crossings and other bottlenecks, the Downtown Tunnel had the highest total truck delay in 2010 at over 205 hours each weekday. I-64 in Chesapeake (including the High Rise Bridge) had the second highest truck delays each weekday (142 hours) and the Hampton Roads Bridge-Tunnel had the third highest truck delays (134 hours).

RECOMMENDATIONS

Based on the information included in this report, HRTPO staff prepared the following recommendations:

- Given 1) the importance of trucking to the general economy of Hampton Roads, and 2) the new technique for measuring the cost of truck delay presented in this document, it is recommended that the HRTPO Board consider modifying the freight portion of its Project Prioritization Tool to incorporate truck delay into the evaluation of proposed highway, bridge/tunnel, and intermodal projects.

- Given that 1) the High Rise Bridge carries more trucks per day (7,800) than any other river crossing in Hampton Roads, and 2) I-64 in Chesapeake—including the High Rise Bridge—has the second highest weekday truck delay (142 hours) among the high profile locations in Hampton Roads behind only the Downtown Tunnel (205 hours), it is recommended that the HRTPO Board consider including the widening of I-64 in Chesapeake in its next Long Range Transportation Plan.

NORTH AMERICAN

Table A1 – Summary of Freight Movement To, From, and Within Hampton Roads – North American*

Data Source: FHWA Freight Analysis Framework.

2010

	To	From	Subtotal (Outside HR)	Within HR	Total	Share
Tonnage						
Truck	18,142,250	17,786,424	35,928,674	30,954,224	66,882,898	51%
Rail	17,956,553	2,070,494	20,027,047	29,349,497	49,376,544	37%
Water	1,372,942	624,351	1,997,293	19,898	2,017,190	2%
Air (includes truck-air)	7,938	26,380	34,317	3,976	38,294	0%
Multiple Modes & Mail	3,902,979	3,658,670	7,561,649	1,825,967	9,387,616	7%
Pipeline	1,040,241	19,025	1,059,265	-	1,059,265	1%
Other & Unknown	181,556	563,078	744,634	2,900,163	3,644,797	3%
TOTAL	42,604,458	24,748,421	67,352,879	65,053,725	132,406,604	100%
Dollar Value						
Truck	$ 27,743,663,000	$ 29,321,602,900	$ 57,065,265,900	$ 28,833,737,100	$ 85,899,003,000	69%
Rail	$ 1,799,654,800	$ 166,871,400	$ 1,966,526,200	$ 2,181,026,200	$ 4,147,552,400	3%
Water	$ 609,802,700	$ 81,699,400	$ 691,502,100	$ 23,626,400	$ 715,128,500	1%
Air (includes truck-air)	$ 1,392,254,000	$ 380,054,400	$ 1,772,308,400	$ 569,342,000	$ 2,341,650,400	2%
Multiple Modes & Mail	$ 12,994,448,200	$ 10,492,443,000	$ 23,486,891,200	$ 3,006,387,100	$ 26,493,278,300	21%
Pipeline	$ 375,014,900	$ 6,859,200	$ 381,874,100	$ -	$ 381,874,100	0%
Other & Unknown	$ 823,657,600	$ 2,442,700,300	$ 3,266,357,900	$ 1,897,016,600	$ 5,163,374,500	4%
TOTAL	$ 45,738,495,200	$ 42,892,230,600	$ 88,630,725,800	$ 36,511,135,400	$125,141,861,200	100%

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	To	From	Subtotal (Outside HR)	Within HR	Total	Share
Tonnage						
Truck	33,992,204	35,731,920	69,724,124	40,355,186	110,079,310	50%
Rail	19,837,428	3,852,058	23,689,486	47,814,492	71,503,978	32%
Water	5,445,593	687,012	6,132,605	23,742	6,156,348	3%
Air (includes truck-air)	73,470	36,403	109,873	11,074	120,947	0%
Multiple Modes & Mail	11,538,056	7,640,823	19,178,879	3,736,050	22,914,929	10%
Pipeline	948,761	8,712	957,473	0	957,473	0%
Other & Unknown	300,813	3,300,543	3,601,356	6,199,621	9,800,978	4%
TOTAL	72,136,324	51,257,473	123,393,797	98,140,166	221,533,963	100%
Dollar Value						
Truck	$ 62,230,622,395	$ 78,049,102,795	$ 140,279,725,191	$ 59,992,949,251	$200,272,674,442	60%
Rail	$ 2,704,392,314	$ 394,997,848	$ 3,099,390,161	$ 4,392,504,598	$ 7,491,894,760	2%
Water	$ 1,728,055,437	$ 691,077,288	$ 2,419,132,724	$ 46,848,671	$ 2,465,981,395	1%
Air (includes truck-air)	$ 6,807,966,815	$ 573,100,105	$ 7,381,066,920	$ 1,685,156,673	$ 9,066,223,594	3%
Multiple Modes & Mail	$ 54,099,602,672	$ 34,557,724,068	$ 88,657,326,739	$ 8,396,944,984	$ 97,054,271,724	29%
Pipeline	$ 342,036,497	$ 3,140,866	$ 345,177,363	$ 17	$ 345,177,380	0%
Other & Unknown	$ 1,606,004,500	$ 11,150,741,482	$ 12,756,745,982	$ 5,171,902,440	$ 17,928,648,422	5%
TOTAL	$ 129,518,680,629	$ 125,419,884,452	$ 254,938,565,081	$ 79,686,306,636	$334,624,871,717	100%

*Shipments to/from Canada and Mexico and the 123 U.S. domestic areas, including the domestic leg of foreign shipments (import and export shipments have two legs: a domestic leg and a foreign leg).

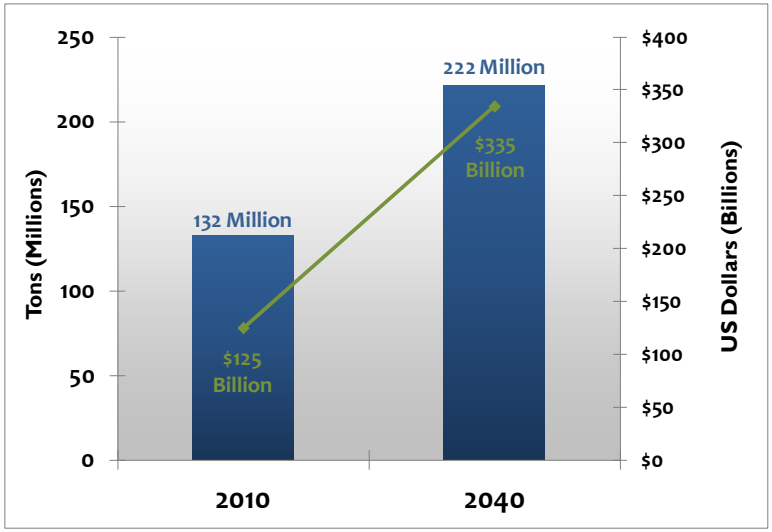

Figure A1 – North American* Movement of Freight To, From, and Within Hampton Roads
Data Source: Freight Analysis Framework

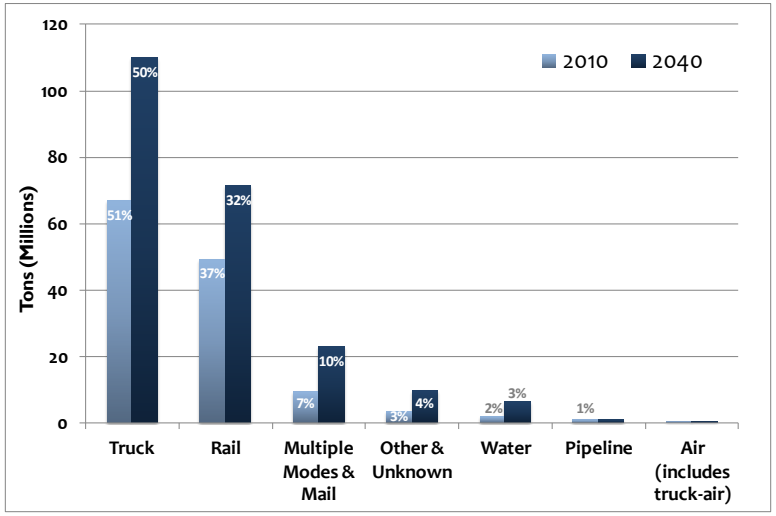

Figure A2 – North American* Movement of Freight To, From, and Within Hampton Roads – Weight
Data Source: Freight Analysis Framework

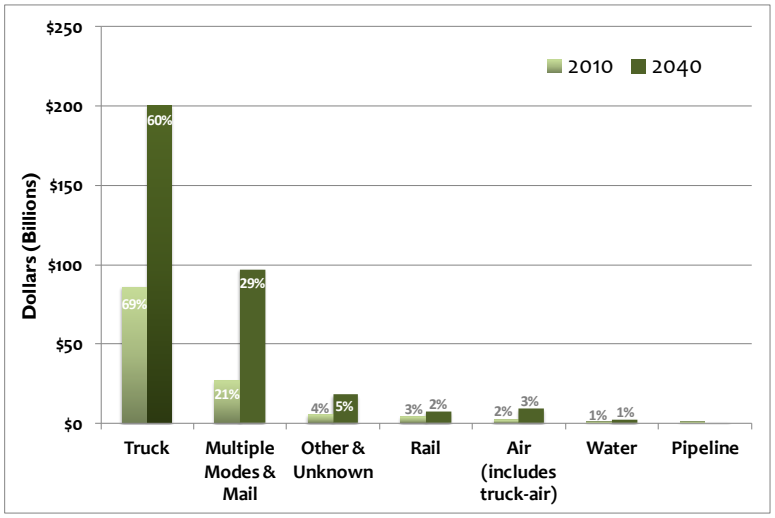

Figure A3 – North American* Movement of Freight To, From, and Within Hampton Roads – Value
Data Source: Freight Analysis Framework

*Shipments to/from Canada and Mexico and the 123 U.S. domestic areas, including the domestic leg of foreign shipments (import and export shipments have two legs: a domestic leg and a foreign leg).

Appendix B – Truck Data by Location

Source: HRTPO analysis of VDOT and CBBT data. Data reflects all 438 locations in Hampton Roads where vehicle classification data is collected.

Jurisdiction	Facility Name	Segment From	Segment To	Existing Weekday Total Volume	Total Volume Data Year	Existing Weekday Truck Volume	Existing Weekday Truck %	Existing AM Peak Hour Trucks	Existing AM Peak Hour Truck %	Existing PM Peak Hour Trucks	Existing PM Peak Hour Truck %	Truck Data Year
CHES	Airline Blvd	Jolliff Rd	Portsmouth CL	6,909	2011	166	2.4%	9	1.9%	10	1.7%	2011
CHES	Atlantic Ave	Providence Rd	Old Atlantic Ave	17,228	2011	568	3.3%	53	5.0%	34	2.0%	2011
CHES	Bainbridge Blvd	Great Bridge Blvd	Military Hwy	9,420	2011	746	7.9%	71	9.0%	23	2.5%	2011
CHES	Bainbridge Blvd	Chesapeake Dr	Poindexter St	8,984	2008	235	2.6%	20	3.3%	6	0.8%	2008
CHES	Ballahack Rd	George Washington Hwy	Old Battlefield Blvd	906	2011	13	1.4%	1	0.5%	2	2.1%	2011
CHES	Battlefield Blvd	North Carolina State Line	Gallbush Rd	21,703	2011	738	3.4%	48	3.0%	24	1.2%	2011
CHES	Battlefield Blvd	Johnstown Rd	Cedar Rd	32,596	2011	473	1.5%	49	2.4%	33	1.3%	2011
CHES	Battlefield Blvd	I-64	Military Hwy	35,904	2011	1,863	4.4%	142	5.0%	109	2.9%	2006
CHES	Blackwater Rd	Virginia Beach CL	Fentress Airfield Rd	2,338	2011	117	5.0%	13	6.9%	3	1.5%	2011
CHES	Bridge Rd	College Dr (in Suffolk)	Churchland Blvd	23,548	2011	266	1.1%	22	1.7%	11	0.6%	2011
CHES	Bruce Rd	Taylor Rd	Tyre Neck Rd	11,965	2011	87	0.7%	9	1.5%	4	0.4%	2011
CHES	Campostella Rd	Great Bridge Blvd	Military Hwy	5,824	2011	135	2.3%	22	5.6%	17	2.5%	2011
CHES	Campostella Rd	Military Hwy	Battlefield Blvd	15,641	2011	643	4.0%	41	4.4%	23	1.7%	2008
CHES	Canal Dr	Military Hwy	George Washington Hwy	14,259	2011	187	1.3%	17	1.4%	13	0.8%	2011
CHES	Cavalier Blvd	Military Hwy	Portsmouth CL	13,162	2011	1,569	11.9%	106	8.7%	87	7.0%	2011
CHES	Cedar Rd	Shipyard Rd/Moses Grandy Tr	Scenic Pkwy	6,791	2011	50	0.7%	6	1.5%	2	0.3%	2011
CHES	Cedar Rd	Dominion Blvd	Bells Mill Rd (West)	26,598	2011	325	1.2%	33	1.9%	9	0.4%	2011
CHES	Centerville Tnpk	Battlefield Blvd	Ethridge Manor Blvd	6,758	2011	183	2.7%	32	4.0%	3	0.5%	2011
CHES	Centerville Tnpk	Ethridge Manor Blvd	Mt Pleasant Rd	9,709	2008	180	1.8%	23	2.7%	5	0.5%	2008
CHES	Centerville Tnpk	Butts Station Rd	Elbow Rd	10,530	2011	202	1.9%	24	2.6%	2	0.2%	2011
CHES	Churchland Blvd	Western Branch Blvd	Town Point Rd	6,909	2011	53	0.8%	7	2.2%	2	0.4%	2011
CHES	Dock Landing Rd	I-664	Eagle Hill Dr	6,847	2011	65	0.9%	6	1.2%	2	0.3%	2011
CHES	Dock Landing Rd	Eagle Hill Dr	Portsmouth Blvd	7,053	2011	57	0.8%	6	1.2%	4	0.6%	2011
CHES	Dominion Blvd/Steel Bridge	Cedar Rd	Bainbridge Blvd	30,671	2011	1,363	4.4%	89	4.0%	51	2.3%	2011
CHES	Elbow Rd	Centerville Tnpk	Va Beach CL	8,903	2011	34	0.4%	2	0.2%	2	0.2%	2011
CHES	Fentress Airfield Rd	Blackwater Rd	Mount Pleasant Rd	4,751	2008	260	5.5%	25	5.6%	6	1.3%	2008
CHES	George Washington Hwy	North Carolina State Line	Dominion Blvd	12,616	2011	936	7.4%	43	4.2%	42	3.8%	2011
CHES	George Washington Hwy	Military Hwy	Canal Dr	15,056	2011	577	3.8%	32	3.7%	43	3.5%	2011
CHES	Great Bridge Blvd	Bainbridge Blvd	Campostella Rd	4,550	2011	400	8.8%	36	8.8%	19	5.0%	2011
CHES	Great Bridge Blvd	Dominion Blvd	Battlefield Blvd	13,734	2011	247	1.8%	62	5.0%	8	0.6%	2011
CHES	Greenbrier Pkwy	Kempsville Rd	Volvo Pkwy	27,798	2011	342	1.2%	43	2.4%	25	1.0%	2011
CHES	Hanbury Rd	Johnstown Rd	Battlefield Blvd	8,987	2011	35	0.4%	1	0.2%	3	0.3%	2011
CHES	Hanbury Rd	Chesapeake Expressway	Hillwell Rd	14,380	2011	102	0.7%	8	0.7%	11	0.9%	2011
CHES	I-64	Battlefield Blvd	I-464	102,982	2008	6,374	6.2%	375	5.0%	384	5.0%	2008
CHES	I-64	Military Hwy	I-264&664	75,708	2011	6,989	9.2%	409	6.6%	411	6.1%	2011
CHES	I-464	Freeman Ave	Poindexter St	50,011	2011	2,410	4.8%	170	4.0%	97	2.4%	2011
CHES	Indian River Rd	Kemp Lane	Va Beach CL	28,192	2011	368	1.3%	30	1.9%	21	0.8%	2011
CHES	Johnstown Rd	Benefit Rd	Stonegate Pkwy	3,410	2011	33	1.0%	4	1.6%	1	0.3%	2011
CHES	Jolliff Rd	Airline Blvd	Dock Landing Rd	2,922	2011	48	1.6%	5	3.0%	1	0.3%	2011
CHES	Jolliff Rd	Dock Landing Rd	Portsmouth Blvd	3,550	2011	40	1.1%	4	1.7%	2	0.6%	2011
CHES	Kempsville Rd	Chesapeake Expressway	Greenbrier Pkwy	31,063	2011	495	1.6%	64	2.6%	18	0.6%	2011
CHES	Liberty St	Poindexter Rd	Old Atlantic Ave	7,254	2011	131	1.8%	12	3.4%	5	0.7%	2011
CHES	Military Hwy	Airline Blvd	I-64	7,549	2011	595	7.9%	45	4.2%	50	4.9%	2011
CHES	Military Hwy/Gilmerton Bridge	Canal Dr	Bainbridge Blvd	23,867	2011	588	2.5%	40	2.0%	38	1.7%	2011
CHES	Military Hwy	Allison Dr	Greenbrier Pkwy	24,951	2011	608	2.4%	43	2.7%	31	1.3%	2011
CHES	Moses Grandy Trail	Shipyard Rd/Cedar Rd	Cedar Rd	13,480	2011	130	1.0%	11	1.4%	9	0.7%	2011
CHES	Mount Pleasant Rd	Chesapeake Expressway	Centerville Tnpk	16,850	2011	290	1.7%	25	2.3%	16	1.0%	2011
CHES	Mount Pleasant Rd	Centerville Tnpk	Fentress Airfield Rd	9,145	2011	178	1.9%	11	1.4%	10	1.0%	2011
CHES	Poindexter St	Bainbridge Blvd	Liberty St	8,866	2008	296	3.3%	25	3.4%	17	2.1%	2008
CHES	Poplar Hill Rd	Western Branch Blvd	Churchland Blvd	14,690	2008	215	1.5%	12	2.0%	12	0.9%	2008

Appendix B – Truck Data by Location

Source: HRTPO analysis of VDOT and CBBT data. Data reflects all 438 locations in Hampton Roads where vehicle classification data is collected.

Jurisdiction	Facility Name	Segment From	Segment To	Existing Weekday Total Volume	Total Volume Data Year	Existing Weekday Truck Volume	Existing Weekday Truck %	Existing AM Peak Hour Trucks	Existing AM Peak Hour Truck %	Existing PM Peak Hour Trucks	Existing PM Peak Hour Truck %	Truck Data Year
CHES	Portsmouth Blvd	Suffolk CL	Jolliff Rd	14,323	2011	594	4.1%	38	3.9%	28	2.3%	2011
CHES	Portsmouth Blvd	I-664	Taylor Rd	23,359	2011	301	1.3%	26	2.4%	12	0.6%	2011
CHES	Pughsville Rd	Suffolk CL	I-664	9,750	2011	457	4.7%	30	5.4%	22	2.2%	2011
CHES	Pughsville Rd	I-664	Taylor Rd	21,990	2011	320	1.5%	26	1.9%	34	1.7%	2011
CHES	Route 13/58/460	Suffolk Bypass (in Suffolk)	I-664	72,716	2011	5,370	7.6%	276	5.2%	256	4.5%	2010
CHES	Sign Pine Rd	Edinburgh Pkwy	Benefit Rd	2,901	2011	37	1.3%	3	1.4%	4	1.6%	2011
CHES	Taylor Rd	Portsmouth Blvd	Bruce Rd	23,541	2011	154	0.7%	10	0.9%	4	0.2%	2011
CHES	Tyre Neck Rd	Bruce Rd	Silverwood Blvd	9,790	2011	37	0.4%	3	0.6%	2	0.2%	2011
CHES	Volvo Pkwy	Battlefield Blvd	Greenbrier Pkwy	25,162	2011	426	1.7%	33	2.2%	20	1.0%	2011
FR	Armory Dr	College Dr	Gardner St	7,199	2009	38	0.5%	6	1.7%	2	0.3%	2009
FR	Bus Route 58 (Clay St)	Route 58 (in Southampton)	College Dr	3,158	2011	42	1.3%	5	1.6%	2	0.6%	2011
FR	Fairview Dr	Cresent Dr	High St	4,479	2009	31	0.7%	4	1.4%	3	0.8%	2009
FR	High St	Homestead Rd	Fairview Dr	3,067	2009	33	1.1%	3	1.1%	3	0.9%	2009
FR	Main St	South St	Second Ave	3,090	2010	72	2.3%	8	4.0%	3	1.2%	2010
FR	Pretlow St	Morton St	Laurel St	3,371	2009	67	2.0%	7	3.0%	4	1.3%	2009
FR	Second Ave	High St	Main St	5,915	2009	41	0.7%	3	0.9%	2	0.4%	2009
FR	South St	Route 58	College Dr	6,199	2009	69	1.1%	4	1.2%	3	0.5%	2009
GLO	Guinea Rd	Route 17	Maryus Rd	8,509	2009	103	1.2%	12	2.0%	2	0.3%	2009
GLO	Hickory Fork Rd	Route 17	Belroi Rd	5,760	2009	50	0.9%	1	0.1%	2	0.4%	2009
GLO	Route 3/14	Cow Creek	Mathews CL	12,811	2009	316	2.5%	26	2.8%	18	1.5%	2009
GLO	Route 17 (Coleman Bridge)	York CL	Route 216 (Guinea Rd)	33,659	2011	844	2.5%	36	1.4%	44	1.4%	2011
GLO	Route 198	Route 606 (Harcum Rd)	Mathews CL	2,192	2009	58	2.6%	4	2.2%	3	1.2%	2009
GLO	Main St (Bus Route 17)	Route 17 (South Intersection)	Route 3/14E	21,761	2009	263	1.2%	15	1.2%	17	0.8%	2009
HAM	Aberdeen Rd	I-664	Briarfield Rd	21,822	2011	690	3.5%	42	3.1%	52	3.3%	2010
HAM	Aberdeen Rd	Briarfield Rd	Mercury Blvd	16,156	2011	234	1.4%	19	1.8%	13	0.8%	2010
HAM	Armistead Ave	HRC Parkway	Mercury Blvd	25,746	2011	212	0.8%	15	0.7%	8	0.3%	2011
HAM	Armistead Ave	Mercury Blvd	Pine Chapel Rd	19,950	2010	188	0.9%	15	1.2%	9	0.5%	2010
HAM	Armistead Ave	Pine Chapel Rd	Lasalle Ave	19,528	2011	249	1.2%	16	1.2%	11	0.6%	2010
HAM	Armistead Ave	Pembroke Ave	Settlers Landing Rd	13,021	2011	134	1.0%	14	1.5%	11	0.9%	2010
HAM	Chestnut Ave	Newport News CL	Mercury Blvd	7,945	2009	40	0.8%	5	1.5%	4	0.8%	2010
HAM	Commander Sheppard Blvd	Armistead Ave	NASA Main Gate	18,362	2011	279	1.3%	19	1.0%	8	0.4%	2010
HAM	Commander Sheppard Blvd	NASA Main Gate	Wythe Creek Rd	18,108	2011	218	1.1%	28	1.6%	7	0.3%	2010
HAM	County St	Woodland Rd	Mallory St	3,928	2010	89	1.8%	10	2.8%	6	1.1%	2010
HAM	Cunningham Dr	Coliseum Dr	Mercury Blvd	11,704	2011	28	0.3%	2	0.4%	1	0.1%	2010
HAM	Harris Creek Rd	Fox Hill Rd	Little Back River Rd	3,008	2010	24	0.8%	1	0.2%	2	0.7%	2010
HAM	HRC Parkway	Harpersville Rd (in Newport News)	Big Bethel Rd	23,297	2011	323	1.4%	26	1.5%	9	0.4%	2011
HAM	HRC Parkway	I-64	Magruder Blvd	40,401	2011	534	1.1%	44	1.2%	18	0.4%	2006
HAM	I-64/HRBT	Mallory St	15th View St (in Norfolk)	89,707	2011	3,276	3.7%	193	3.0%	160	2.6%	2011
HAM	Kecoughtan Rd	Newport News CL	Powhatan Pkwy	8,347	2011	62	1.1%	8	3.1%	5	0.9%	2010
HAM	Kecoughtan Rd	Lasalle Ave	Victoria Blvd	7,463	2011	113	1.3%	14	2.6%	4	0.5%	2010
HAM	King St	Little Back River Rd	Langley AFB	6,151	2011	24	0.3%	2	0.3%	1	0.1%	2010
HAM	Lasalle Ave	Armistead Ave	Mercury Blvd	13,256	2011	217	1.4%	13	1.0%	11	0.8%	2010
HAM	Little Back River Rd	King St	Rockwell Rd	12,585	2011	95	0.9%	12	1.4%	6	0.6%	2007
HAM	Magruder Blvd	York CL	Semple Farm Rd	23,891	2011	295	1.2%	36	1.7%	9	0.4%	2010
HAM	Mallory St	Mercury Blvd	Pembroke Ave	6,810	2011	87	1.2%	5	0.8%	10	1.5%	2007
HAM	Mellen St	Mercury Blvd	Mallory St	4,844	2011	63	1.2%	3	0.5%	3	0.4%	2007
HAM	Mercury Blvd	Newport News CL	Big Bethel Rd	50,337	2011	740	1.5%	56	2.0%	30	0.7%	2011
HAM	Mercury Blvd	Armistead Ave	Lasalle Ave	51,378	2011	694	1.1%	59	1.3%	32	0.6%	2007
HAM	Mercury Blvd	King St	Andrews Blvd	28,112	2011	181	0.6%	19	0.8%	11	0.4%	2010
HAM	Mercury Blvd	Pembroke Ave	Mallory St	6,462	2011	136	1.1%	22	1.5%	6	0.4%	2010

Appendix B – Truck Data by Location

Source: HRTPO analysis of VDOT and CBBT data. Data reflects all 438 locations in Hampton Roads where vehicle classification data is collected.

Jurisdiction	Facility Name	Segment From	Segment To	Existing Weekday Total Volume	Total Volume Data Year	Existing Weekday Truck Volume	Existing Weekday Truck %	Existing AM Peak Hour Trucks	Existing AM Peak Hour Truck %	Existing PM Peak Hour Trucks	Existing PM Peak Hour Truck %	Truck Data Year
HAM	Old Buckroe Rd	Pembroke Ave	Fox Hill Rd	6,278	2011	32	0.5%	3	0.5%	2	0.3%	2010
HAM	Pembroke Ave/39th St	Huntington Ave	Aberdeen Rd	7,425	2010	167	2.3%	5	1.0%	11	1.2%	2010
HAM	Pembroke Ave	Powhatan Pkwy	Settlers Landing Rd	11,377	2011	290	2.5%	25	3.6%	24	2.2%	2010
HAM	Pembroke Ave	Lasalle Ave	Armistead Ave	9,049	2011	293	2.3%	22	2.7%	23	2.1%	2010
HAM	Pembroke Ave	Armistead Ave	Mercury Blvd	9,398	2011	176	1.6%	13	1.6%	11	1.2%	2010
HAM	Pembroke Ave	Woodland Rd	Old Buckroe Rd	15,710	2011	119	1.0%	8	1.0%	8	0.7%	2010
HAM	Power Plant Pkwy	Briarfield Rd	Pine Chapel Rd	21,302	2011	248	1.1%	21	2.1%	13	0.7%	2010
HAM	Powhatan Pkwy	Kecoughtan Rd	Pembroke Ave	8,460	2011	125	1.2%	15	2.2%	4	0.5%	2010
HAM	Queen St	Briarfield Rd	Michigan Dr	10,643	2011	123	1.0%	7	0.7%	8	0.7%	2010
HAM	Rip Rap Rd	I-64	King St	12,481	2011	160	1.2%	14	1.5%	15	1.1%	2010
HAM	Settlers Landing Rd	Kecoughtan Rd	Armistead Ave	14,781	2011	299	1.8%	28	2.3%	18	1.1%	2010
HAM	Todds La	Newport News CL	Big Bethel Rd	17,339	2011	104	0.6%	10	1.0%	7	0.4%	2010
HAM	Todds La	Aberdeen Rd	Cunningham Dr	21,978	2010	117	0.5%	12	0.9%	3	0.1%	2010
HAM	Woodland Rd	County St	Mercury Blvd	17,869	2011	268	1.5%	14	0.9%	10	0.6%	2010
HAM	Woodland Rd	Pembroke Ave	Fox Hill Rd	9,669	2011	90	1.1%	10	1.6%	3	0.3%	2010
IW	Battery Park Rd	S Church St	Nike Park Rd	9,536	2011	63	0.7%	4	0.6%	4	0.4%	2011
IW	Benns Church Blvd	Suffolk CL	Route 10 & 32 (Brewers Neck Blvd)	11,182	2011	681	6.1%	50	6.2%	27	2.4%	2011
IW	Brewers Neck Blvd	Route 10 & 32 (Benn'S Church)	Route 17	24,015	2011	1,147	4.8%	74	4.0%	51	2.3%	2011
IW	Bus Route 10	Jenkins Lane	Route 10 Bypass	1,440	2011	22	1.5%	2	2.0%	3	1.7%	2011
IW	Bus Route 58	Route 258	Suffolk CL	2,803	2011	47	1.7%	2	1.0%	4	1.5%	2011
IW	Carrollton Blvd/James River Br	Route 258	River Rd (in Newport News)	29,792	2011	900	3.0%	61	2.4%	46	1.7%	2011
IW	Church St S	Battery Park Rd	Cypress Creek Bridge	10,771	2011	59	0.6%	3	0.5%	2	0.2%	2011
IW	Church St N	Main St	Smithfield CL	6,501	2011	32	0.5%	1	0.2%	4	0.5%	2011
IW	Route 10 Bypass	Church St S	Main St	19,239	2011	598	3.1%	54	4.3%	29	1.8%	2011
IW	Route 10 Bypass	NCL Smithfield	Bus Route 10	7,532	2011	257	3.4%	13	1.9%	9	1.1%	2011
IW	Route 258	Suffolk CL	Union Camp Dr (Route 656)	1,457	2011	171	11.7%	7	6.5%	6	4.5%	2011
IW	Route 258	River Run Trail (W Route 614)	Blackwater Rd (Route 603)	5,174	2011	257	5.0%	19	4.4%	12	2.4%	2011
IW	Route 258	Central Hill Rd (W Route 637)	Scotts Factory Rd (Route 620)	5,106	2011	247	4.8%	20	4.5%	10	2.1%	2011
IW	Route 258	Scotts Factory Rd (Route 620)	WCL Smithfield	9,428	2011	400	4.2%	27	4.0%	16	1.9%	2011
IW	Route 258/N Main St	WCL Smithfield	Route 10 Bypass	12,800	2011	415	3.2%	36	3.4%	22	1.8%	2011
IW	Smith'S Neck Rd	Reynolds Dr	Titus Creek Dr	8,162	2011	48	0.6%	2	0.3%	1	0.1%	2011
IW	Titus Creek Dr	Smiths Neck Rd	Nike Park Rd	6,449	2011	26	0.4%	1	0.2%	1	0.1%	2011
JCC	Barhamsville Rd	I-64	Route 60	9,423	2010	548	5.8%	41	5.6%	27	3.2%	2010
JCC	Centerville Rd	Longhill Rd	Richmond Rd	9,095	2010	249	2.7%	20	3.4%	6	0.7%	2010
JCC	Croaker Rd	Route 60	Maxton Ln (Route 760)	8,364	2010	234	2.8%	15	2.5%	12	1.5%	2010
JCC	Croaker Rd	I-64	Fenton Mill Rd	6,494	2010	382	5.9%	29	6.1%	21	3.7%	2010
JCC	Ironbound Rd	Monticello Ave	Longhill Conn. Rd (in Williamsburg)	11,023	2010	158	1.4%	10	1.6%	9	0.9%	2010
JCC	Jamestown Rd	Sandy Bay Rd (Route 681)	Williamsburg CL	9,567	2010	89	0.9%	6	0.8%	5	0.5%	2010
JCC	John Tyler Hwy	Ironbound Rd (Route 615)	Stanley Dr (Route 712)	10,663	2010	241	2.3%	23	2.9%	6	0.6%	2010
JCC	Longhill Rd	Olde Towne Rd (Route 658)	Route 199	16,087	2010	145	0.9%	13	1.3%	3	0.2%	2010
JCC	Monticello Ave	Route 199	Ironbound Rd (Route 615)	24,179	2010	234	1.0%	24	1.9%	11	0.6%	2010
JCC	Olde Towne Rd	Longhill Rd	Richmond Rd	8,378	2010	100	1.2%	9	2.1%	6	0.7%	2010
JCC	Pocahontas Trl	York CL	BASF Rd/Route 60 Relocation	9,243	2010	528	5.7%	47	5.9%	24	2.9%	2010
JCC	Rochambeau Dr	Route 60	Croaker Rd (Route 607)	7,164	2010	162	2.3%	21	2.5%	10	1.5%	2010
JCC	Route 199	Longhill Rd (Route 612)	Monticello Ave (Route 321)	29,041	2010	427	1.4%	47	2.3%	11	0.4%	2010
JCC	Route 199	Williamsburg CL	Henry St/Colonial Pkwy	34,542	2010	717	2.1%	74	2.6%	22	0.7%	2010
JCC	Route 60	Croaker Rd (Route 607)	Centerville Rd (Route 614)	21,419	2010	439	2.0%	36	2.9%	30	1.6%	2010
JCC	Route 60	Centerville Rd (Route 614)	Route 199	26,430	2010	788	4.0%	57	4.4%	40	2.2%	2007
JCC	Strawberry Plains Rd	John Tyler Hwy/Route 199	Ironbound Rd	8,048	2010	86	1.1%	10	2.0%	3	0.5%	2010
NN	23rd/25th Connector	Huntington Ave	Jefferson Ave	1,626	2010	33	2.0%	1	1.2%	1	0.5%	2010

Appendix B – Truck Data by Location

Source: HRTPO analysis of VDOT and CBBT data. Data reflects all 438 locations in Hampton Roads where vehicle classification data is collected.

Jurisdiction	Facility Name	Segment From	Segment To	Existing Weekday Total Volume	Total Volume Data Year	Existing Weekday Truck Volume	Existing Weekday Truck %	Existing AM Peak Hour Trucks	Existing AM Peak Hour Truck %	Existing PM Peak Hour Trucks	Existing PM Peak Hour Truck %	Truck Data Year
NN	26th St	25th St	Roanoke Ave	1,363	2011	26	2.0%	0	0.0%	2	1.4%	2010
NN	26th St	Roanoke Ave	Jefferson Ave	3,243	2011	39	1.7%	2	1.0%	2	0.8%	2010
NN	Bland Blvd	Warwick Blvd	Jefferson Ave	26,324	2011	322	1.0%	23	1.3%	23	0.8%	2010
NN	Briarfield Rd	Jefferson Ave	Hampton CL	9,805	2011	150	1.8%	10	2.2%	8	1.1%	2010
NN	Chestnut Ave	Briarfield Rd	Hampton CL	7,870	2011	170	2.1%	7	2.0%	3	0.5%	2010
NN	Denbigh Blvd	Warwick Blvd	Jefferson Ave	30,829	2011	416	1.3%	49	2.8%	14	0.5%	2010
NN	Diligence Dr	Thimble Shoals Blvd	J Clyde Morris Blvd	23,620	2011	131	1.1%	10	1.1%	9	0.9%	2010
NN	Fort Eustis Blvd	Warwick Blvd	I-64	36,172	2011	1,511	3.6%	90	2.6%	74	2.0%	2010
NN	Fort Eustis Blvd	Jefferson Ave	York CL	16,366	2011	591	3.5%	53	3.2%	20	1.4%	2009
NN	Harpersville Rd	Saunders Rd	HRC Parkway	10,342	2011	57	0.6%	6	1.1%	3	0.3%	2010
NN	Harpersville Rd	Jefferson Ave	Warwick Blvd	13,611	2011	105	1.1%	12	2.2%	3	0.3%	2010
NN	Huntington Ave	71st St	39th St	11,386	2011	165	1.4%	7	0.4%	18	1.5%	2010
NN	I-64	Oyster Point Rd	J C Morris Blvd	134,661	2011	7,037	5.2%	413	4.1%	283	2.6%	2011
NN	J Clyde Morris Blvd	Warwick Blvd	Jefferson Ave	39,123	2010	386	1.1%	33	1.4%	14	0.5%	2010
NN	Jefferson Ave	Yorktown Rd	Fort Eustis Blvd	8,495	2011	198	2.0%	24	2.8%	9	0.7%	2010
NN	Jefferson Ave	Future Atkinson Blvd	Denbigh Blvd	33,467	2011	609	1.8%	59	2.9%	24	0.8%	2011
NN	Jefferson Ave	Denbigh Blvd	Bland Blvd	45,754	2011	1,171	2.0%	109	3.1%	83	1.7%	2010
NN	Jefferson Ave	Bland Blvd	I-64	88,778	2010	1,475	1.7%	113	2.2%	79	1.1%	2010
NN	Jefferson Ave	Middle Ground Blvd	J Clyde Morris Blvd	54,132	2010	929	1.8%	93	3.0%	56	1.3%	2010
NN	Jefferson Ave	Harpersville Rd	Main St	48,426	2011	988	2.1%	89	2.9%	64	1.6%	2009
NN	Jefferson Ave	35th St	25th St	14,302	2011	378	3.4%	49	8.0%	32	3.7%	2010
NN	Main St	Warwick Blvd	Jefferson Ave	17,623	2010	103	0.9%	8	1.2%	7	0.7%	2010
NN	Main St	Jefferson Ave	Hampton CL	24,711	2010	68	0.7%	8	1.5%	2	0.2%	2010
NN	McManus Blvd/Siemens Way	Denbigh Blvd	Bland Blvd	13,490	2011	46	0.4%	2	0.3%	4	0.3%	2010
NN	Oyster Point Rd	Warwick Blvd	Jefferson Ave	44,389	2010	600	1.2%	45	1.4%	44	1.1%	2010
NN	Oyster Point Rd	Jefferson Ave	Canon Blvd	49,233	2011	613	1.3%	54	1.8%	56	1.5%	2010
NN	Richneck Rd	Denbigh Blvd	Jefferson Ave	4,206	2011	35	1.0%	5	2.4%	1	0.2%	2010
NN	Richneck Rd	Jefferson Ave	Fort Eustis Blvd	1,553	2010	11	0.7%	2	1.6%	1	0.6%	2010
NN	Roanoke Ave	I-664	Briarfield Rd	3,132	2011	31	1.9%	2	2.8%	3	1.5%	2010
NN	Saunders Rd	Harpersville Rd	Hampton CL	12,094	2011	83	0.9%	8	1.6%	5	0.5%	2010
NN	Thimble Shoals Blvd	Jefferson Ave	Diligence Dr	19,717	2010	95	0.6%	4	0.4%	3	0.2%	2010
NN	Thimble Shoals Blvd	Diligence Dr	J Clyde Morris Blvd	11,809	2011	86	0.9%	10	1.5%	6	0.7%	2010
NN	Warwick Blvd	Yorktown Rd	Fort Eustis Blvd	15,655	2011	958	5.9%	67	6.5%	29	2.2%	2010
NN	Warwick Blvd	Snidow Blvd	Denbigh Blvd	42,888	2010	470	1.1%	36	1.6%	18	0.5%	2010
NN	Warwick Blvd	Denbigh Blvd	Bland Blvd	38,145	2010	334	0.9%	22	1.1%	18	0.6%	2010
NN	Warwick Blvd	Oyster Point Rd	Deep Creek Rd	26,710	2010	241	0.8%	22	1.2%	8	0.3%	2010
NN	Warwick Blvd	J Clyde Morris Blvd	Harpersville Rd	26,745	2011	240	0.9%	25	1.5%	11	0.4%	2010
NN	Warwick Blvd	Main St	Mercury Blvd	24,128	2011	247	1.0%	10	0.6%	20	0.8%	2010
NN	Warwick Blvd	Mercury Blvd	Huntington Ave	32,319	2011	204	0.9%	12	0.5%	18	0.6%	2010
NN	Warwick Blvd	23rd St	39th St	3,915	2011	30	0.8%	1	0.3%	1	0.1%	2010
NN	Warwick Blvd	39th St	Huntington Ave	13,308	2011	162	1.2%	10	1.1%	11	0.4%	2010
NN	Yorktown Rd	Warwick Blvd	I-64	6,337	2011	389	7.2%	23	5.5%	11	2.2%	2010
NOR	21st St	Hampton Blvd	Colley Ave	8,982	2009	82	0.9%	4	0.7%	8	1.0%	2009
NOR	26th St	Monticello Ave	Church St	8,701	2009	198	2.3%	12	3.6%	10	1.1%	2009
NOR	27th St	Hampton Blvd	Llewellyn Ave	10,007	2009	366	3.7%	36	4.1%	17	2.3%	2009
NOR	38th St	Colley Ave	Llewellyn Ave	9,272	2009	67	0.7%	8	1.0%	3	0.3%	2009
NOR	4th View St	I-64	Ocean View Ave	12,289	2009	172	1.4%	9	0.9%	12	1.1%	2009
NOR	Bainbridge Blvd	Chesapeake CL	S Main St	1,587	2009	95	6.0%	20	8.5%	10	8.8%	2009
NOR	Ballentine Blvd	I-264	Va Beach Blvd	26,861	2009	2,028	7.5%	149	7.8%	77	3.7%	2009
NOR	Ballentine Blvd	Va Beach Blvd	Princess Anne Rd	14,689	2009	1,295	8.8%	69	7.2%	90	7.9%	2009

Appendix B – Truck Data by Location

Source: HRTPO analysis of VDOT and CBBT data. Data reflects all 438 locations in Hampton Roads where vehicle classification data is collected.

Jurisdiction	Facility Name	Segment From	Segment To	Existing Weekday Total Volume	Total Volume Data Year	Existing Weekday Truck Volume	Existing Weekday Truck %	Existing AM Peak Hour Trucks	Existing AM Peak Hour Truck %	Existing PM Peak Hour Trucks	Existing PM Peak Hour Truck %	Truck Data Year
NOR	Bay Ave	First View St	I-64	16,820	2009	223	1.3%	24	1.6%	16	0.9%	2009
NOR	Bayview Blvd	Tidewater Dr	Chesapeake Blvd	12,873	2009	86	0.7%	10	1.2%	4	0.3%	2009
NOR	Berkley Ave Ext	Berkley Ave/Fauquier St	Wilson Rd	4,276	2009	106	2.5%	9	3.7%	9	2.8%	2009
NOR	Brambleton Ave	Tidewater Dr	Park Ave	33,658	2009	1,599	4.2%	106	4.2%	94	3.1%	2006
NOR	Brambleton Ave	Park Ave	I-264	47,162	2006	1,795	3.8%	132	4.0%	94	2.4%	2006
NOR	Chesapeake Blvd	Chesapeake St	Ocean View Ave	5,682	2009	52	0.9%	6	2.9%	1	0.2%	2009
NOR	Church St	Princess Anne Rd	26th St	20,419	2009	470	2.3%	41	3.0%	35	2.0%	2009
NOR	Colley Ave	27th St	53rd St	14,523	2009	142	1.0%	13	1.2%	10	0.8%	2009
NOR	Granby St	Willow Wood Drive	Thole St	38,403	2009	433	1.1%	41	1.4%	17	0.5%	2009
NOR	Granby St	Bayview Blvd	Tidewater Dr	14,500	2009	164	1.1%	13	1.4%	13	0.8%	2009
NOR	Hampton Blvd	38th St	Little Creek Rd	41,351	2011	1,530	3.7%	117	4.4%	77	2.4%	2011
NOR	I-64	I-264	Indian River Rd (in Va Beach)	148,323	2011	4,955	3.3%	355	3.1%	321	2.8%	2011
NOR	I-264	Ballentine Blvd	Military Hwy	139,533	2008	4,042	2.9%	280	2.6%	143	1.3%	2008
NOR	I-564	Admiral Taussig Blvd	International Terminal Blvd	42,465	2011	987	2.3%	144	4.4%	56	1.3%	2011
NOR	Indian River Rd	Campostella Rd	Chesapeake CL	20,470	2009	492	2.4%	53	3.5%	18	1.0%	2009
NOR	Ingleside Rd	Princess Anne Rd	Tait Terrace Dr	16,228	2009	485	3.0%	54	4.3%	20	1.4%	2009
NOR	International Terminal Blvd	Hampton Blvd	I-564	31,283	2011	2,056	6.5%	183	10.3%	176	7.6%	2011
NOR	Johnstons Rd	Sewells Point Rd	Chesapeake Blvd	7,099	2009	82	1.1%	9	1.7%	7	1.0%	2009
NOR	Johnstons Rd/Halprin Ln	Military Hwy	Little Creek Rd	7,260	2009	50	0.7%	6	1.0%	2	0.3%	2009
NOR	Kempsville Rd	Newtown Rd	Va Beach Blvd	23,851	2009	135	0.6%	15	0.8%	6	0.3%	2009
NOR	Lafayette Blvd	Tidewater Dr	Chesapeake Blvd	19,141	2009	311	1.6%	26	2.2%	18	1.2%	2009
NOR	Little Creek Rd	Hampton Blvd	Granby St	22,369	2009	183	0.8%	20	1.1%	7	0.4%	2009
NOR	Llewellyn Ave	27th St	38th St	7,486	2009	55	0.7%	2	0.4%	4	0.5%	2009
NOR	Midtown Tunnel	MLK/Western Fwy (in Portsmouth)	Brambleton Ave	41,390	2011	1,771	4.3%	109	3.6%	48	1.6%	2011
NOR	Military Hwy	Va Beach CL	I-264	50,478	2009	740	1.5%	91	2.0%	43	0.9%	2009
NOR	Military Hwy	Va Beach Blvd	Prin Anne Rd/Northampton Blvd	49,231	2009	988	2.0%	66	2.4%	48	1.3%	2009
NOR	Military Hwy	Azalea Garden Rd	Norview Ave	26,064	2009	425	1.6%	33	2.5%	25	1.2%	2009
NOR	Monticello Ave	City Hall Ave	Brambleton Ave	6,917	2006	291	4.2%	23	6.1%	18	2.4%	2006
NOR	Monticello Ave	Va Beach Blvd	21st St	22,494	2009	564	2.5%	33	2.3%	31	1.8%	2009
NOR	Newtown Rd	Kempsville Rd	I-264	31,540	2009	398	1.3%	35	1.4%	27	1.0%	2009
NOR	Newtown Rd	Va Beach Blvd	Va Beach CL	41,723	2009	550	1.3%	44	1.6%	37	1.2%	2009
NOR	Norview Ave	Tidewater Dr	Chesapeake Blvd	6,518	2009	57	0.9%	8	1.9%	5	0.8%	2009
NOR	Norview Ave	Chesapeake Blvd	I-64	22,993	2009	240	1.0%	22	1.5%	8	0.4%	2008
NOR	Norview Ave	I-64	Military Hwy	28,127	2009	272	1.0%	23	1.6%	13	0.6%	2009
NOR	Norview Ave	Military Hwy	Azalea Garden Rd	14,346	2009	98	0.7%	10	1.3%	5	0.4%	2009
NOR	Ocean View Ave	4th View St	Granby St	15,220	2009	186	1.2%	14	1.5%	11	0.7%	2009
NOR	Olney Rd	Colley Ave	Duke St/Va Beach Blvd	10,595	2009	97	0.9%	10	1.0%	7	0.6%	2009
NOR	Park Ave	Brambleton Ave	Va Beach Blvd	16,483	2009	350	2.1%	31	3.4%	26	2.1%	2009
NOR	Princess Anne Rd	Monticello Ave	Church St	9,986	2009	162	1.6%	11	2.1%	6	0.7%	2009
NOR	Princess Anne Rd	Ballentine Blvd	Azalea Garden Rd	22,672	2011	697	3.1%	67	4.4%	37	2.0%	2011
NOR	Robin Hood Rd	Azalea Garden Rd	Ellsmere Ave	9,552	2009	217	2.3%	20	2.6%	9	1.0%	2009
NOR	Sewells Point Rd	Princess Anne Rd	Chesapeake Blvd	13,686	2009	274	2.0%	29	3.3%	13	1.0%	2009
NOR	Sewells Point Rd	Chesapeake Blvd	Little Creek Rd	9,124	2009	174	1.9%	16	2.8%	8	0.9%	2009
NOR	Shore Drive	21st Bay St	Little Creek Rd	23,876	2009	258	1.1%	20	1.2%	12	0.6%	2009
NOR	Thole St	Granby St	Tidewater Dr	11,383	2009	60	0.5%	11	1.0%	6	0.6%	2006
NOR	Tidewater Dr	Cromwell Dr	Norview Ave	39,390	2011	854	2.2%	63	2.4%	56	1.8%	2011
NOR	Tidewater Dr	Little Creek Rd	Bayview Blvd	19,672	2009	231	1.2%	19	1.6%	13	0.8%	2006
NOR	Va Beach Blvd	Tidewater Dr	Park Ave	15,843	2006	166	1.0%	10	1.0%	3	0.2%	2006
NOR	Va Beach Blvd	Park Ave	Ballentine Blvd	15,796	2009	589	3.2%	55	4.7%	30	1.8%	2006
NOR	Va Beach Blvd	Kempsville Rd	Newtown Rd	29,241	2009	385	1.2%	35	1.9%	21	0.7%	2006

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Jurisdiction	Facility Name	Segment From	Segment To	Existing Weekday Total Volume	Total Volume Data Year	Existing Weekday Truck Volume	Existing Weekday Truck %	Existing AM Peak Hour Trucks	Existing AM Peak Hour Truck %	Existing PM Peak Hour Trucks	Existing PM Peak Hour Truck %	Truck Data Year
NOR	Willow Wood Dr	Granby St	Tidewater Dr	11,683	2009	103	0.8%	21	1.9%	4	0.3%	2006
POQ	East Yorktown Rd	York CL	Hunts Neck Rd	4,114	2010	25	0.6%	3	0.9%	1	0.1%	2010
POQ	East Yorktown Rd	Hunts Neck Rd	Poquoson Ave	7,860	2010	50	0.6%	4	0.7%	2	0.3%	2010
POQ	Poquoson Ave	Wythe Creek Rd	Little Florida Rd	3,496	2010	75	2.0%	9	2.5%	3	0.8%	2007
POQ	Victory Blvd	York CL	Wythe Creek Rd	13,315	2010	165	1.2%	18	2.2%	8	0.7%	2010
POQ	Wythe Creek Rd	Hampton CL	Alphus St	13,551	2010	198	1.5%	11	1.1%	13	1.0%	2010
PORT	Cavalier Blvd	Chesapeake CL	Greenwood Dr	10,124	2010	84	0.8%	6	0.7%	2	0.2%	2010
PORT	Cedar Ln	High St	W Norfolk Rd	12,061	2010	113	0.9%	14	1.4%	5	0.5%	2010
PORT	Churchland Blvd	Tyre Neck Rd	High St	10,022	2010	110	1.1%	8	1.7%	8	0.8%	2010
PORT	County St	Peninsula Ave	Elm Ave	4,650	2006	357	7.7%	29	7.3%	21	5.2%	2006
PORT	Court St	County St	High St	8,322	2010	158	1.8%	4	0.6%	14	1.6%	2010
PORT	Crawford St/Bart St	County St	Court St	5,562	2010	70	1.2%	5	1.0%	5	0.8%	2010
PORT	Deep Creek Blvd	Greenwood Dr	Portsmouth Blvd	8,966	2010	112	1.3%	11	1.9%	10	1.2%	2010
PORT	Des Moines Ave	Deep Creek Blvd	I-264	8,878	2006	83	0.9%	5	1.0%	3	0.4%	2006
PORT	Effingham St	North St	Crawford Pkwy	15,467	2010	118	0.8%	19	1.5%	5	0.4%	2010
PORT	Elm Ave	South St	Portsmouth Blvd	8,742	2006	228	2.6%	11	1.9%	22	2.7%	2006
PORT	Elmhurst Ln	Airline Blvd	Portsmouth Blvd	6,649	2010	69	1.0%	3	0.5%	5	0.8%	2010
PORT	Garwood Ave	Greenwood Dr	Elmhurst Ln	3,896	2010	356	9.1%	27	9.2%	25	6.9%	2010
PORT	Greenwood Dr	Victory Blvd	Independence St	4,530	2010	52	1.1%	4	1.6%	4	0.8%	2010
PORT	High St	M L K Fwy	Elm Ave	15,017	2010	130	0.9%	9	1.0%	5	0.3%	2010
PORT	I-264	Victory Blvd	Portsmouth Blvd	63,360	2011	2,876	4.5%	149	3.4%	172	3.3%	2011
PORT	London Blvd	High St	M L K Fwy	20,631	2010	453	2.2%	33	2.4%	36	2.1%	2010
PORT	London Blvd	M L K Fwy	Elm Ave	28,332	2010	514	1.8%	18	0.9%	28	1.0%	2010
PORT	Portcentre Pkwy	Portsmouth Blvd	Crawford St	9,483	2010	144	1.5%	10	0.8%	15	1.4%	2010
PORT	Portsmouth Blvd	Elmhurst Ln	Victory Blvd	21,695	2010	201	0.9%	11	0.9%	9	0.5%	2010
PORT	Portsmouth Blvd	Frederick Blvd	Elm Ave	10,524	2010	228	2.2%	4	0.4%	18	1.4%	2010
PORT	Portsmouth Blvd	Effingham St	Portcentre Pkwy	4,825	2010	41	0.8%	2	0.3%	3	0.4%	2010
PORT	Town Point Rd	Western Freeway	Chesapeake CL	22,234	2010	152	0.7%	10	0.9%	13	0.6%	2010
PORT	Turnpike Rd	Howard St	Harbor Dr	9,992	2010	1,195	12.0%	90	13.6%	68	8.3%	2010
PORT	Twin Pines Rd	Town Point Rd	Hedgerow Ln	10,018	2010	47	0.5%	8	1.3%	4	0.4%	2010
PORT	Tyre Neck Rd	High St	Churchland Blvd	5,392	2010	39	0.7%	1	0.4%	2	0.4%	2010
PORT	Victory Blvd	I-264	Greenwood Dr	22,534	2010	531	2.4%	54	4.8%	35	1.9%	2010
PORT	Victory Blvd	George Washington Hwy	Afton Pkwy	9,822	2010	315	3.2%	24	1.8%	36	2.8%	2010
PORT	W Norfolk Rd	Tyre Neck Rd	Cedar Ln	6,182	2010	18	0.3%	1	0.1%	1	0.1%	2010
PORT	Western Fwy	College Dr	Town Point Rd	49,621	2011	2,491	5.0%	163	4.3%	130	3.0%	2011
SH	Bus Route 58	Route 35	Route 58	6,013	2009	353	5.9%	23	5.5%	28	5.3%	2009
SH	Route 35	Route 186	Route 671	3,611	2009	536	14.6%	43	15.6%	25	8.0%	2009
SH	Route 35	Route 671	Grays Shop Rd (Route 673)	1,331	2009	244	18.3%	12	9.5%	17	14.4%	2009
SH	Route 35	Ivor Rd (Route 616)	Carys Bridge Rd (Route 653)	1,953	2009	466	23.9%	23	15.4%	27	14.9%	2009
SH	Route 58	Bus Route 58 W	Camp Pkwy (Bus Route 58 E)	18,405	2011	3,228	17.5%	174	14.7%	148	10.6%	2011
SH	Route 186	NC State Line	Joyner Rd (Route 701)	1,062	2009	283	26.6%	22	27.1%	16	17.9%	2009
SH	Route 258	Route 189	Dogwood Bend Rd (Route 684)	3,645	2009	256	7.0%	11	5.9%	16	5.2%	2009
SH	Route 460	Sussex CL	Route 616 (Ivor Rd)	8,784	2011	1,955	22.3%	109	21.1%	97	13.5%	2011
SH	Route 616	Saint Lukes Rd (Route 633)	Seacock Rd (Route 614)	1,132	2009	58	5.1%	5	4.1%	4	3.4%	2009
SH	Route 616	Millfield Rd (Route 605)	SCL Ivor	1,514	2009	93	6.1%	6	5.4%	3	1.9%	2009
SH	Route 671	Cross Keys Rd (Route 665)	WCL Newsoms	2,410	2009	231	9.6%	19	10.3%	14	6.1%	2009
SH	Route 671	Delaware Rd (Route 687)	Route 58	5,258	2009	420	8.0%	26	8.0%	14	2.9%	2009
SUF	Bennetts Pasture Rd	Kings Hwy	Bridge Rd	9,110	2011	143	1.6%	16	1.9%	4	0.4%	2011
SUF	Buckhorn Dr	Route 58	Indian Trail	407	2011	16	3.8%	0	0.0%	1	2.5%	2011
SUF	Carolina Rd	NC State Line	Route 642	3,646	2011	309	8.5%	9	3.1%	19	5.3%	2011

Appendix B – Truck Data by Location

Source: HRTPO analysis of VDOT and CBBT data. Data reflects all 438 locations in Hampton Roads where vehicle classification data is collected.

Jurisdiction	Facility Name	Segment From	Segment To	Existing Weekday Total Volume	Total Volume Data Year	Existing Weekday Truck Volume	Existing Weekday Truck %	Existing AM Peak Hour Trucks	Existing AM Peak Hour Truck %	Existing PM Peak Hour Trucks	Existing PM Peak Hour Truck %	Truck Data Year
SUF	Carolina Rd	Route 675	Babbtown Rd (Route 759)	4,303	2011	317	7.4%	30	9.5%	15	3.8%	2011
SUF	College Dr	Western Freeway	Hampton Roads Pkwy	18,661	2011	181	1.0%	17	1.5%	6	0.4%	2011
SUF	College Dr	Hampton Roads Pkwy	I-664	19,849	2011	211	1.1%	18	1.4%	7	0.4%	2011
SUF	College Dr	I-664	Harbour View Blvd	7,717	2011	485	6.3%	34	5.2%	14	1.9%	2011
SUF	Constance Rd	Pitchkettle Rd	Main St	9,802	2011	109	1.1%	7	1.4%	4	0.5%	2011
SUF	Crittenden Rd	Kings Hwy	Bridge Rd (Route 17)	2,819	2011	84	3.0%	7	2.7%	1	0.4%	2011
SUF	Everetts Rd	Lake Prince Dr (Route 604)	Moore Farm Ln	1,751	2011	49	2.8%	2	1.3%	2	0.8%	2011
SUF	Everetts Rd	Moore Farm Ln	Godwin Blvd	1,616	2011	47	2.9%	1	0.5%	2	1.0%	2011
SUF	Finney Ave	N Main St	Pinner St	7,548	2011	45	0.6%	4	0.9%	5	0.8%	2011
SUF	Godwin Blvd	Kings Fork Road	Everets Rd	11,951	2011	501	4.2%	41	4.5%	25	2.3%	2011
SUF	Hampton Roads Pkwy	Harbour View Blvd	College Dr	11,657	2011	117	1.0%	11	1.4%	3	0.3%	2011
SUF	Hampton Roads Pkwy	College Dr	Portsmouth CL	8,827	2011	53	0.6%	5	1.1%	6	0.7%	2011
SUF	Harbour View Blvd	Bridge Rd	Hampton Roads Pkwy	18,752	2011	207	1.1%	19	1.4%	9	0.5%	2011
SUF	Holland Rd (Bus Route 58)	Suffolk Bypass	Constance Rd	9,826	2011	194	2.0%	19	3.0%	10	1.0%	2011
SUF	I-664	Western Fwy	College Dr	63,341	2011	4,318	6.8%	220	4.2%	250	4.3%	2011
SUF	Kings Fork Rd	Pitchkettle Rd	Pruden Blvd	2,771	2011	63	2.3%	11	3.4%	2	0.6%	2011
SUF	Kings Hwy	Godwin Blvd	Crittenden Rd	3,319	2011	133	4.0%	9	3.2%	12	4.2%	2011
SUF	Lake Prince Dr (Route 604)	Route 460 (Pruden Blvd)	Route 603 (Everetts Rd)	2,241	2011	38	1.7%	3	1.3%	2	0.9%	2011
SUF	Main St	Fayette St	Washington St	12,397	2008	112	0.9%	9	1.1%	8	0.8%	2008
SUF	Main St	Constance Rd	Pruden Blvd/Godwin Blvd	26,485	2011	255	1.0%	24	1.8%	9	0.4%	2011
SUF	Market St	Washington St	Main St	4,054	2011	39	1.0%	4	1.5%	3	0.7%	2011
SUF	Nansemond Pkwy	Kings Hwy	Shoulders Hill Rd	13,178	2008	828	6.3%	72	6.6%	17	1.4%	2008
SUF	Pinner St	Washington St	Finney Ave	5,355	2011	72	1.3%	5	1.2%	3	0.5%	2011
SUF	Pitchkettle Rd	Constance Rd	Suffolk Bypass	3,392	2008	40	1.2%	4	1.2%	1	0.1%	2008
SUF	Portsmouth Blvd	Wilroy Rd	Washington St	16,852	2011	432	2.6%	26	2.6%	23	1.5%	2011
SUF	Portsmouth Blvd	Washington St	Suffolk Bypass	23,284	2011	695	3.0%	45	2.6%	38	2.0%	2011
SUF	Providence Rd (Route 604)	Kings Fork Rd	Route 460 (Pruden Blvd)	1,333	2011	24	1.8%	3	2.3%	0	0.0%	2011
SUF	Pughsville Rd	Shoulders Hill Rd	Town Point Rd	5,558	2011	41	0.7%	5	1.1%	2	0.4%	2011
SUF	Route 189 (In Holland)	Route 58 (South of Holland)	Bus Route 58 (Ruritan Blvd)	741	2011	91	12.2%	12	18.9%	8	12.7%	2011
SUF	Route 189	Southampton CL	Route 272	2,025	2008	269	13.3%	7	4.3%	14	8.3%	2008
SUF	Route 272	Route 189	Route 58	1,540	2008	67	4.3%	3	2.6%	3	1.7%	2008
SUF	Route 616	Route 58	Whaleyville Blvd	303	2008	4	1.3%	1	1.9%	1	1.5%	2008
SUF	Ruritan Blvd (Bus Route 58)	Isle of Wight CL	Route 189 (Holland Rd Bus)	2,259	2011	50	2.2%	9	5.7%	2	1.0%	2011
SUF	Shoulders Hill Rd	Nansemond Pkwy	Pughsville Rd	7,586	2011	202	2.7%	15	2.7%	6	0.8%	2011
SUF	Southwest Suffolk Bypass	Holland Rd	Carolina Rd	9,823	2011	1,275	13.0%	90	12.0%	62	6.9%	2011
SUF	Town Point Rd	Pughsville Rd	Bridge Rd	1,270	2011	20	1.6%	3	3.7%	1	0.8%	2011
SUF	Washington St	W Constance Rd	Main St	10,030	2008	102	1.0%	8	1.2%	5	0.6%	2008
SUF	Washington St	Main St	Pinner St	10,490	2008	117	1.1%	9	1.6%	11	1.4%	2008
SUF	Whaleyville Blvd	NC State Line	Route 616 (Mineral Spring Rd)	4,604	2011	611	13.2%	32	12.4%	31	8.0%	2011
SUF	Wilroy Rd	Constance Rd	Suffolk Bypass	5,506	2011	190	3.5%	13	3.7%	6	1.3%	2011
SUF	Wilroy Rd	Suffolk Bypass	Nansemond Pkwy	8,759	2011	384	4.4%	25	3.3%	11	1.3%	2011
SUR	Route 10	Route 40	Route 31 (South)	2,517	2011	221	8.8%	8	4.6%	9	3.8%	2011
SUR	Route 31	Route 10 (North)	Jamestown-Scotland Ferry	2,012	2009	44	2.2%	5	3.2%	2	0.8%	2009
SUR	Route 40	Sussex CL	Route 615	889	2009	65	7.3%	3	4.7%	4	4.8%	2009
VB	21st St	Parks Ave	Pacific Ave	11,603	2011	180	1.2%	15	2.2%	8	0.7%	2006
VB	22nd St	Parks Ave	Pacific Ave	9,697	2011	161	1.1%	12	1.3%	10	0.9%	2009
VB	Atlantic Ave	21st St	Va Beach Blvd	9,799	2009	410	4.1%	18	5.8%	28	4.1%	2006
VB	Baxter Rd	Princess Anne Rd	Independence Blvd	22,505	2011	204	0.9%	21	1.2%	20	0.9%	2009
VB	Birdneck Rd	General Booth Blvd	Norfolk Ave	15,325	2011	245	1.9%	21	2.8%	6	0.5%	2009
VB	Blackwater Rd	Pungo Ferry Rd	Chesapeake CL	2,665	2011	137	5.6%	13	5.2%	7	3.0%	2009

Appendix B – Truck Data by Location

Source: HRTPO analysis of VDOT and CBBT data. Data reflects all 438 locations in Hampton Roads where vehicle classification data is collected.

Jurisdiction	Facility Name	Segment From	Segment To	Existing Weekday Total Volume	Total Volume Data Year	Existing Weekday Truck Volume	Existing Weekday Truck %	Existing AM Peak Hour Trucks	Existing AM Peak Hour Truck %	Existing PM Peak Hour Trucks	Existing PM Peak Hour Truck %	Truck Data Year
VB	Bonney Rd	Independence Blvd	Rosemont Rd	16,135	2011	162	1.2%	12	1.4%	9	0.7%	2009
VB	Centerville Tnpk	Jake Sears Rd	Indian River Rd	19,382	2011	604	2.9%	63	5.0%	3	0.2%	2009
VB	Chesapeake Bay Bridge-Tunnel	Shore Dr	NCL Va Beach	7,820	2011	1,112	14.2%	-	-	-	-	2011
VB	Columbus St	Independence Blvd	Constitution Dr	12,002	2011	96	0.7%	9	1.1%	7	0.6%	2009
VB	Dam Neck Rd	Harpers Rd	General Booth Blvd	26,528	2011	302	1.1%	26	1.3%	7	0.3%	2009
VB	Diamond Springs Rd	Northampton Blvd	Shore Dr	29,013	2011	746	2.7%	54	2.8%	37	1.7%	2009
VB	Elbow Rd	Indian River Rd	Salem Rd	10,910	2011	33	0.3%	2	0.2%	1	0.1%	2009
VB	Ferrell Pkwy	Indian Lakes Blvd	Pleasant Valley Rd	41,206	2011	949	2.1%	74	2.5%	22	0.6%	2009
VB	First Colonial Rd	Laskin Rd	Old Donation Pkwy	41,809	2011	285	0.7%	26	1.0%	18	0.6%	2009
VB	General Booth Blvd	Oceana Blvd/Prosperity Rd	Birdneck Rd	25,794	2011	371	1.2%	34	2.0%	15	0.5%	2009
VB	General Booth Blvd	Birdneck Rd	Harbour Point	17,090	2010	276	1.6%	22	2.0%	13	0.9%	2010
VB	Great Neck Rd	Shorehaven Rd	Shore Dr	35,632	2011	288	0.8%	25	1.1%	9	0.3%	2009
VB	Harpers Rd	Dam Neck Rd	Oceana Blvd	7,698	2011	115	1.5%	11	3.7%	3	0.4%	2009
VB	Holland Rd	Independence Blvd	South Plaza Trail	40,213	2011	419	1.0%	32	1.4%	35	1.1%	2009
VB	I-264	Witchduck Rd	Independence Blvd	201,866	2011	5,104	2.5%	341	2.2%	254	1.6%	2008
VB	Independence Blvd	Lynnhaven Pkwy	Plaza Trail	27,901	2011	328	1.2%	20	1.2%	5	0.2%	2009
VB	Independence Blvd	Va Beach Blvd	Pembroke Blvd	54,130	2011	478	0.9%	58	1.5%	17	0.4%	2011
VB	Indian Lakes Blvd	Ferrell Pkwy	Indian River Rd	12,200	2011	268	1.5%	22	1.8%	5	0.3%	2009
VB	Indian River Rd	Centerville Tnpk	Kempsville Rd	58,862	2011	1,267	1.9%	105	2.3%	97	2.2%	2009
VB	Indian River Rd	North Landing Rd	West Neck Rd	5,820	2011	117	1.6%	10	1.7%	3	0.3%	2009
VB	International Pkwy	Lynnhaven Pkwy	London Bridge Rd	12,650	2011	342	2.4%	14	1.4%	14	0.9%	2009
VB	Kempsville Rd	Centerville Tnpk	Indian River Rd	34,164	2011	303	0.9%	26	1.2%	15	0.5%	2009
VB	Kempsville Rd	Providence Rd	Princess Anne Rd	31,008	2011	244	0.8%	15	0.8%	11	0.4%	2009
VB	Laskin Rd	Va Beach Blvd	First Colonial Rd	30,294	2011	262	0.9%	23	1.5%	8	0.3%	2011
VB	Laskin Rd	First Colonial Rd	Birdneck Rd	28,957	2011	170	0.6%	18	1.3%	8	0.3%	2009
VB	London Bridge Rd	General Booth Blvd	Dam Neck Rd	23,346	2011	342	1.4%	22	1.3%	13	0.6%	2009
VB	London Bridge Rd	International Pkwy	Potters Rd	31,418	2011	502	1.9%	36	1.7%	27	1.0%	2009
VB	Lynnhaven Pkwy	Indian River Rd	Salem Rd	17,858	2011	126	0.6%	10	0.8%	6	0.3%	2009
VB	Lynnhaven Pkwy	Holland Rd	International Pkwy	33,577	2011	337	0.9%	32	1.4%	11	0.4%	2006
VB	Military Hwy	Providence Rd	Indian River Rd	27,512	2011	663	2.2%	53	2.5%	41	1.4%	2006
VB	Newtown Rd	Baker Rd	Diamond Springs Rd	26,927	2009	282	1.0%	23	1.4%	17	0.7%	2009
VB	Newtown Rd	Diamond Springs Rd	Haygood Rd	10,602	2011	51	0.7%	3	0.8%	2	0.4%	2009
VB	Norfolk Ave	Birdneck Rd	Pacific Ave	9,858	2011	87	1.0%	8	1.6%	1	0.1%	2009
VB	Northampton Blvd	Diamond Springs Rd	Independence Blvd	38,550	2011	1,327	3.4%	72	2.4%	56	1.7%	2011
VB	North Landing Rd	Salem Rd	West Neck Rd	7,095	2011	158	1.1%	11	1.0%	10	0.7%	2009
VB	Oceana Blvd/First Colonial Rd	Tomcat Blvd (NAS Main Ent)	Va Beach Blvd	36,616	2011	491	1.3%	33	1.1%	27	0.9%	2011
VB	Pembroke Blvd	Witchduck Rd	Independence Blvd	10,245	2011	89	0.8%	5	0.7%	4	0.4%	2009
VB	Plaza Trail, S.	Holland Rd	Rosemont Rd	10,087	2011	88	0.8%	11	1.5%	4	0.3%	2009
VB	Princess Anne Rd	Newtown Rd/Norfolk CL	Kempsville Rd	28,357	2011	184	0.7%	16	0.8%	10	0.4%	2009
VB	Princess Anne Rd	Providence Rd	Ferrell Pkwy	38,770	2011	282	0.7%	30	1.3%	11	0.3%	2009
VB	Princess Anne Rd	Independence Blvd	Dam Neck Rd	48,794	2009	1,015	2.2%	84	2.5%	35	0.9%	2007
VB	Princess Anne Rd	Holland Rd	General Booth Blvd	21,344	2011	377	1.4%	38	2.1%	18	0.9%	2009
VB	Princess Anne Rd	Indian River Rd	Pungo Ferry Rd	8,046	2011	443	6.1%	58	9.6%	23	3.5%	2009
VB	Providence Rd	Indian River Rd	Kempsville Rd	21,840	2011	223	1.0%	14	0.8%	16	0.7%	2009
VB	Rosemont Rd	Buckner Blvd	Lynnhaven Pkwy	17,421	2011	284	1.6%	25	2.3%	4	0.2%	2009
VB	Rosemont Rd	Holland Rd	Plaza Trail	30,749	2011	291	0.9%	27	1.3%	5	0.2%	2009
VB	Salem Rd	Elbow Rd	Independence Blvd	11,206	2011	182	1.1%	24	2.0%	5	0.3%	2009
VB	Sandbridge Rd	Princess Anne Rd	Atwoodtown Rd	10,467	2011	205	1.6%	15	1.7%	8	0.8%	2009
VB	Shore Drive	Northampton Blvd	Great Neck Rd	39,427	2011	415	1.1%	32	1.1%	19	0.5%	2011
VB	Va Beach Blvd	Newtown Rd/Norfolk CL	Witchduck Rd	37,045	2011	542	1.4%	42	1.9%	24	0.7%	2009

Appendix B – Truck Data by Location

Source: HRTPO analysis of VDOT and CBBT data. Data reflects all 438 locations in Hampton Roads where vehicle classification data is collected.

Jurisdiction	Facility Name	Segment From	Segment To	Existing Weekday Total Volume	Total Volume Data Year	Existing Weekday Truck Volume	Existing Weekday Truck %	Existing AM Peak Hour Trucks	Existing AM Peak Hour Truck %	Existing PM Peak Hour Trucks	Existing PM Peak Hour Truck %	Truck Data Year
VB	Va Beach Blvd	Witchduck Rd	Independence Blvd	34,214	2010	317	0.9%	25	1.3%	13	0.4%	2010
VB	Va Beach Blvd	S. Plaza Trail/Little Neck Rd	Lynnhaven Pkwy	38,937	2011	442	1.1%	37	1.9%	15	0.4%	2009
VB	Va Beach Blvd	Birdneck Rd	Pacific Ave	11,863	2011	212	1.5%	14	2.4%	7	0.7%	2009
VB	Wesleyan Dr	Baker Rd	Diamond Springs Rd	14,590	2011	113	0.8%	7	0.7%	7	0.5%	2009
VB	West Neck Rd	North Landing Rd	Indian River Rd	2,990	2011	84	1.2%	7	1.1%	3	0.4%	2009
VB	Witchduck Rd	I-264	Va Beach Blvd	48,294	2011	911	2.3%	71	2.9%	57	1.8%	2009
WMB	Bypass Rd	Richmond Rd	Waller Mill Rd (in York Co.)	26,802	2010	198	0.7%	16	1.3%	9	0.4%	2010
WMB	Bypass Rd	Route 132/York CL	Page St	15,868	2010	187	1.2%	13	1.7%	10	0.8%	2010
WMB	Capitol Landing Rd	Bypass Rd	Merrimac Trail	6,754	2007	136	2.0%	9	2.0%	14	2.4%	2007
WMB	Colonial Natl Hist Pkwy	James City CL/Route 199	York CL	2,919	2007	21	0.7%	1	0.6%	4	1.0%	2007
WMB	Henry St S.	Route 199	Francis St	3,801	2010	41	1.1%	2	0.6%	2	0.4%	2010
WMB	Henry St N.	Lafayette St	Route 132Y	6,853	2010	166	2.4%	9	2.1%	13	2.3%	2010
WMB	Ironbound Rd	Longhill Connector Rd	Longhill Rd	9,913	2010	84	0.8%	12	2.0%	8	1.0%	2010
WMB	Jamestown Rd	John Tyler Ln	Boundary St	13,820	2010	113	0.8%	13	1.5%	6	0.5%	2010
WMB	Lafayette St	Capitol Landing Rd	Page St	8,263	2010	167	2.0%	8	1.7%	9	1.3%	2010
WMB	Merrimac Trail	York CL (South)	Capitol Landing Rd	7,217	2010	127	1.8%	14	3.9%	9	1.4%	2010
WMB	Merrimac Trail	Capitol Landing Rd	York CL (North)	9,445	2010	131	1.4%	16	2.8%	6	0.7%	2010
WMB	Page St	Second St	York St	15,804	2010	151	1.0%	8	1.0%	8	0.6%	2010
WMB	Richmond Rd	Ironbound Rd	Bypass Rd	25,987	2010	376	1.4%	26	2.3%	15	0.7%	2010
WMB	Richmond Rd	Bypass Rd	Monticello Ave	19,001	2010	248	1.3%	15	1.6%	17	1.1%	2010
WMB	Richmond Rd	Monticello Ave	Boundary St	13,511	2010	193	1.4%	12	1.9%	13	1.1%	2010
WMB	Route 132Y	Route 132	Colonial Pkwy	6,115	2007	84	1.4%	7	1.6%	7	1.1%	2007
WMB	Second St	Page St	York CL	15,123	2010	202	1.3%	15	1.8%	8	0.6%	2010
WMB	York St	Page St	James City CL	13,385	2010	246	1.8%	15	2.2%	13	1.3%	2010
YC	Big Bethel Rd	Hampton CL	Hampton Hwy (Route 134)	9,444	2010	104	1.1%	9	1.4%	3	0.3%	2010
YC	Cook Rd	George Washington Hwy	Goosley Rd	6,368	2010	64	1.0%	6	1.4%	4	0.6%	2010
YC	Denbigh Blvd	Newport News CL	Route 17	16,045	2011	201	1.3%	14	1.4%	8	0.5%	2011
YC	George Washington Hwy	Hampton Hwy (Route 134)	Dare Rd	52,869	2011	757	1.4%	55	1.4%	24	0.6%	2010
YC	Goodwin Neck Rd	Route 17	Wolf Trap Rd	9,318	2010	400	4.3%	29	4.8%	15	1.9%	2010
YC	Hampton Hwy	Victory Blvd (Route 171)	Big Bethel Rd (Route 600)	29,041	2010	437	1.5%	43	2.0%	14	0.5%	2010
YC	I-64	Route 199/646	Route 143	55,406	2011	5,965	10.8%	360	9.9%	258	6.2%	2011
YC	Mooretown Rd	Airport Rd	Old Mooretown Rd	9,283	2010	143	1.5%	8	1.6%	8	1.0%	2010
YC	Old Williamsburg Rd	Newport News CL	Baptist Rd/Main Rd	11,325	2011	272	2.4%	13	1.3%	17	1.6%	2011
YC	Penniman Rd (Route 641)	Route 199	Colonial Pkwy	6,033	2011	103	1.7%	3	0.6%	5	0.7%	2011
YC	Route 132	Bypass Rd/Williamsburg CL	Route 143	11,135	2010	130	1.2%	9	1.4%	5	0.6%	2010
YC	Route 199	Mooretown Rd	I-64	29,588	2010	651	2.2%	48	2.5%	24	1.0%	2010
YC	Route 199	Route 60/Route 143/JCC Line	I-64	30,622	2011	912	3.0%	69	2.8%	33	1.3%	2011
YC	Victory Blvd	Newport News CL	Route 17	52,998	2010	649	1.2%	52	1.6%	59	1.3%	2010

Appendix C – Truck Delay by Location (Interstates)

Source: HRTPO analysis of INRIX, VDOT and CBBT data. Truck data type of "A" is based on actual vehicle classification count data, "E" is based on estimated vehicle classification count data.

						Northbound/Eastbound				Southbound/Westbound				Combined			
Juris	Facility Name	Segment From	Segment To	Dir	Truck Data Type	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)
JCC	I-64	NEW KENT CL	RTE 30	EW	E	0.2	0.0	0.1	0.0	0.2	0.0	0.1	0.1	0.4	0.0	0.2	0.1
JCC	I-64	RTE 30	CROAKER RD (RTE 607)	EW	E	0.3	0.0	0.2	0.0	0.7	0.0	0.3	0.2	1.0	0.0	0.5	0.2
JCC	I-64	CROAKER RD (RTE 607)	YORK CL	EW	E	0.4	0.0	0.3	0.0	0.8	0.0	0.4	0.2	1.2	0.0	0.7	0.3
YC	I-64	JAMES CITY CL	RTE 199/646	EW	E	0.3	0.0	0.2	0.0	0.5	0.0	0.3	0.1	0.8	0.0	0.5	0.2
YC	I-64	RTE 199/646	RTE 143	EW	A	1.2	0.0	1.0	0.1	2.3	0.2	1.4	0.5	3.5	0.2	2.4	0.6
YC	I-64	RTE 143	RTE 199 (EAST OF WILLIAMSBURG)	EW	E	2.9	0.4	1.9	0.4	3.5	0.3	2.3	0.6	6.3	0.7	4.2	1.1
YC	I-64	RTE 199 (EAST OF WILLIAMSBURG)	GROVE CONNECTOR	EW	E	0.8	0.1	0.5	0.1	1.1	0.2	0.6	0.2	1.8	0.2	1.2	0.3
YC	I-64	GROVE CONNECTOR	JAMES CITY CL	EW	E	0.9	0.2	0.4	0.4	0.8	0.1	0.4	0.2	1.7	0.3	0.8	0.5
JCC	I-64	YORK CL	NEWPORT NEWS CL	EW	E	2.6	0.5	1.0	1.0	2.1	0.3	1.2	0.5	4.7	0.8	2.3	1.5
NN	I-64	JAMES CITY CL	RTE 143 (NORTH)	EW	E	0.3	0.1	0.1	0.1	0.2	0.0	0.1	0.1	0.5	0.1	0.3	0.2
NN	I-64	RTE 143 (NORTH)	YORKTOWN RD	EW	E	2.7	0.7	0.6	1.3	0.9	0.1	0.6	0.2	3.6	0.8	1.3	1.4
NN	I-64	YORKTOWN RD	FORT EUSTIS BLVD	EW	E	10.8	2.9	1.9	6.0	3.1	0.4	2.0	0.5	13.9	3.4	3.9	6.5
NN	I-64	FORT EUSTIS BLVD	JEFFERSON AVE	EW	E	7.2	1.8	3.0	2.4	11.4	1.5	4.5	5.2	18.7	3.3	7.6	7.6
NN	I-64	JEFFERSON AVE	OYSTER POINT RD	EW	E	2.3	0.7	1.4	0.2	7.7	0.9	3.1	3.6	10.1	1.6	4.6	3.8
NN	I-64	OYSTER POINT RD	J C MORRIS BLVD	EW	A	3.0	1.1	1.5	0.4	2.7	0.5	1.5	0.5	5.7	1.6	3.0	0.9
NN	I-64	J C MORRIS BLVD	HAMPTON CL	EW	E	2.3	0.7	1.2	0.3	2.5	0.4	1.2	0.8	4.7	1.1	2.4	1.1
HAM	I-64	NEWPORT NEWS CL	HRC PARKWAY	EW	E	5.6	1.8	2.9	0.7	6.2	1.0	3.0	2.0	11.8	2.8	5.9	2.7
HAM	I-64	HRC PARKWAY	MAGRUDER BLVD	EW	E	1.6	0.4	1.0	0.1	3.4	0.5	1.4	1.5	5.0	1.0	2.4	1.6
HAM	I-64	MAGRUDER BLVD	MERCURY BLVD	EW	E	2.7	0.7	1.6	0.4	2.0	0.3	0.9	0.8	4.7	0.9	2.4	1.2
HAM	I-64	MERCURY BLVD	I-664	EW	E	2.3	0.7	1.3	0.2	2.4	0.5	1.3	0.6	4.7	1.2	2.6	0.8
HAM	I-64	I-664	ARMISTEAD AVE	EW	E	1.9	0.8	0.8	0.3	0.7	0.1	0.5	0.2	2.6	0.9	1.3	0.4
HAM	I-64	ARMISTEAD AVE	RIP RAP RD	EW	E	1.5	0.7	0.4	0.4	0.5	0.1	0.3	0.1	2.0	0.8	0.7	0.5
HAM	I-64	RIP RAP RD	SETTLERS LANDING RD	EW	E	21.5	11.0	3.4	7.0	1.4	0.2	0.9	0.3	22.9	11.2	4.3	7.3
HAM	I-64	SETTLERS LANDING RD	MALLORY ST	EW	E	9.8	4.3	1.9	3.5	0.6	0.1	0.4	0.1	10.4	4.3	2.2	3.7
HAM	I-64/HRBT	MALLORY ST	NORFOLK CL	EW	A	19.0	6.3	6.9	5.4	17.2	1.5	7.7	7.8	36.2	7.8	14.6	13.2
NOR	I-64/HRBT	HAMPTON CL	OCEAN VIEW AVE	EW	A	1.0	0.3	0.4	0.3	0.9	0.1	0.4	0.4	1.9	0.4	0.8	0.7
NOR	I-64	OCEAN VIEW AVE	4TH VIEW AVE	EW	E	2.4	0.4	1.4	0.6	15.4	0.5	5.3	9.4	17.8	0.9	6.7	10.0
NOR	I-64	4TH VIEW AVE	BAY AVE	EW	E	2.8	0.2	1.3	1.3	14.6	0.1	2.8	11.5	17.3	0.4	4.0	12.7
NOR	I-64	BAY AVE	GRANBY ST	EW	E	3.8	0.6	1.5	1.7	17.4	0.3	2.3	14.7	21.2	0.9	3.7	16.4
NOR	I-64	GRANBY ST	I-564/LITTLE CREEK RD	EW	E	0.6	0.0	0.1	0.4	1.7	0.1	0.2	1.4	2.3	0.1	0.3	1.9
NOR	I-64	I-564/LITTLE CREEK RD	TIDEWATER DR	EW	E	7.3	0.3	1.0	6.0	3.4	0.7	0.9	1.6	10.7	1.0	1.9	7.6
NOR	I-64	TIDEWATER DR	CHESAPEAKE BLVD	EW	A	6.2	0.4	0.9	5.0	2.1	0.9	0.6	0.4	8.4	1.3	1.5	5.3
NOR	I-64	CHESAPEAKE BLVD	NORVIEW AVE	EW	E	6.3	0.6	0.9	4.8	1.8	0.8	0.6	0.3	8.1	1.4	1.5	5.1
NOR	I-64	NORVIEW AVE	MILITARY HWY	EW	E	4.6	0.5	0.9	3.2	2.5	1.3	0.8	0.2	7.1	1.8	1.7	3.4
NOR	I-64	MILITARY HWY	NORTHAMPTON BLVD	EW	A	4.3	0.3	1.0	2.9	2.0	1.0	0.7	0.2	6.3	1.3	1.6	3.1
NOR	I-64	NORTHAMPTON BLVD	I-264	EW	E	15.1	2.4	3.6	9.0	6.1	3.3	1.6	0.9	21.2	5.7	5.2	9.9
NOR	I-64	I-264	VA BEACH CL	EW	A	3.2	0.3	0.7	2.2	5.1	3.0	1.0	1.0	8.3	3.2	1.8	3.2
VB	I-64	NORFOLK CL	INDIAN RIVER RD	EW	A	5.4	0.4	1.3	3.7	8.7	5.0	1.7	1.7	14.0	5.5	3.0	5.4
VB	I-64	INDIAN RIVER RD	CHESEAPEAKE CL	EW	A	1.4	0.3	0.7	0.4	2.2	1.3	0.7	0.2	3.6	1.6	1.3	0.6
CHES	I-64	VA BEACH CL	GREENBRIER PKWY	EW	A	1.4	0.3	0.6	0.4	2.1	1.2	0.6	0.2	3.4	1.5	1.3	0.6
CHES	I-64	GREENBRIER PKWY	BATTLEFIELD BLVD	EW	E	8.0	0.4	1.0	6.6	1.4	0.3	0.9	0.1	9.4	0.7	1.9	6.7
CHES	I-64	BATTLEFIELD BLVD	I-464	EW	A	28.8	1.0	2.9	24.8	0.6	0.1	0.4	0.1	29.4	1.0	3.3	24.9
CHES	I-64	I-464	GEORGE WASHINGTON HWY	EW	E	22.7	2.7	4.9	14.6	16.6	5.2	5.5	5.7	39.3	7.9	10.4	20.3
CHES	I-64	GEORGE WASHINGTON HWY	MILITARY HWY	EW	E	4.0	0.6	1.9	1.1	30.0	18.1	2.9	8.9	34.1	18.8	4.8	10.0
CHES	I-64	MILITARY HWY	I-264&664	EW	A	4.9	0.8	2.1	1.7	24.9	14.6	1.5	8.6	29.7	15.5	3.6	10.3
CHES	I-264	I-64&664	WCL PORTSMOUTH	EW	E	0.6	0.1	0.3	0.1	0.9	0.1	0.5	0.3	1.5	0.3	0.8	0.4
PORT	I-264	WCL PORTSMOUTH	GREENWOOD DR	EW	E	0.2	0.0	0.1	0.0	0.3	0.1	0.2	0.1	0.5	0.1	0.3	0.1
PORT	I-264	GREENWOOD DR	VICTORY BLVD	EW	E	1.1	0.2	0.6	0.3	0.8	0.1	0.4	0.2	1.9	0.3	1.0	0.5
PORT	I-264	VICTORY BLVD	PORTSMOUTH BLVD	EW	A	0.9	0.2	0.4	0.3	0.7	0.1	0.4	0.1	1.6	0.3	0.8	0.4
PORT	I-264	PORTSMOUTH BLVD	FREDERICK BLVD	EW	E	3.6	2.5	0.6	0.4	1.1	0.2	0.6	0.2	4.6	2.7	1.2	0.7

Appendix C – Truck Delay by Location (Interstates)

Source: HRTPO analysis of INRIX, VDOT and CBBT data. Truck data type of "A" is based on actual vehicle classification count data, "E" is based on estimated vehicle classification count data.

						Northbound/Eastbound				Southbound/Westbound				Combined			
Juris	Facility Name	Segment From	Segment To	Dir	Truck Data Type	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)
PORT	I-264	FREDERICK BLVD	FUTURE MLK FWY	EW	E	9.7	7.5	0.9	1.3	0.4	0.1	0.3	0.1	10.1	7.5	1.1	1.4
PORT	I-264	FUTURE MLK FWY	DES MOINES AVE	EW	E	11.0	8.4	1.0	1.5	0.5	0.1	0.3	0.1	11.5	8.5	1.3	1.6
PORT	I-264	DES MOINES AVE	EFFINGHAM ST	EW	E	24.8	16.2	4.1	4.3	1.2	0.2	0.6	0.3	26.0	16.4	4.7	4.6
PORT	I-264/DOWNTOWN TUNNEL	EFFINGHAM ST	NORFOLK CL	EW	E	23.2	8.8	8.6	5.4	28.1	4.9	12.1	10.7	51.3	13.7	20.7	16.1
NOR	I-264/DOWNTOWN TUNNEL	PORTSMOUTH CL	I-464	EW	E	12.9	4.9	4.8	3.0	15.6	2.7	6.7	6.0	28.5	7.6	11.5	8.9
NOR	I-264/BERKLEY BRIDGE	I-464	WATERSIDE/CITY HALL/TIDEWATER	EW	E	3.8	1.9	1.4	0.5	28.2	3.5	7.1	17.2	31.9	5.4	8.4	17.7
NOR	I-264	WATERSIDE/CITY HALL/TIDEWATER	BRAMBLETON AVE	EW	E	1.5	0.2	0.9	0.3	30.0	2.2	4.4	23.2	31.5	2.4	5.3	23.6
NOR	I-264	BRAMBLETON AVE	BALLENTINE BLVD	EW	E	2.5	0.6	1.6	0.3	6.9	1.2	2.6	3.0	9.4	1.8	4.2	3.4
NOR	I-264	BALLENTINE BLVD	MILITARY HWY	EW	A	5.4	1.3	3.3	0.7	6.9	1.2	4.2	1.4	12.2	2.5	7.4	2.2
NOR	I-264	MILITARY HWY	I-64	EW	E	2.1	0.4	1.0	0.6	1.6	0.3	1.1	0.3	3.7	0.7	2.1	0.9
NOR	I-264	I-64	NEWTOWN RD/WCL VA. BEACH	EW	E	3.5	0.5	1.0	2.0	3.6	0.3	1.1	2.2	7.1	0.9	2.0	4.2
VB	I-264	NEWTOWN RD/ECL NORFOLK	WITCHDUCK RD	EW	E	8.0	1.0	2.2	4.7	3.6	0.6	1.4	1.6	11.6	1.6	3.6	6.3
VB	I-264	WITCHDUCK RD	INDEPENDENCE BLVD	EW	A	4.0	0.8	1.9	1.2	2.8	0.7	1.3	0.8	6.8	1.5	3.2	1.9
VB	I-264	INDEPENDENCE BLVD	ROSEMONT RD	EW	E	4.0	0.9	2.2	0.7	3.6	1.2	1.7	0.6	7.6	2.1	3.9	1.4
VB	I-264	ROSEMONT RD	LYNNHAVEN PKWY	EW	E	2.9	0.7	1.6	0.6	1.8	0.4	1.0	0.3	4.7	1.1	2.5	0.9
VB	I-264	LYNNHAVEN PKWY	LONDON BRIDGE RD	EW	E	0.9	0.2	0.5	0.2	0.7	0.1	0.4	0.1	1.6	0.4	0.9	0.3
VB	I-264	LONDON BRIDGE RD	LASKIN RD	EW	E	1.2	0.3	0.6	0.3	0.9	0.2	0.5	0.2	2.1	0.5	1.1	0.4
VB	I-264	LASKIN RD	FIRST COLONIAL RD	EW	E	0.7	0.2	0.4	0.1	0.5	0.1	0.3	0.1	1.2	0.3	0.7	0.2
VB	I-264	FIRST COLONIAL RD	S.E. PARKWAY LOCATION	EW	E	0.6	0.2	0.3	0.1	0.4	0.1	0.3	0.1	1.0	0.2	0.6	0.2
VB	I-264	S.E. PARKWAY LOCATION	BIRDNECK RD	EW	E	0.4	0.1	0.2	0.1	0.2	0.0	0.2	0.1	0.6	0.1	0.4	0.1
VB	I-264	BIRDNECK RD	PARKS AVE	EW	E	1.1	0.2	0.7	0.2	0.2	0.0	0.1	0.1	1.4	0.2	0.9	0.2
CHES	I-464	I-64	MILITARY HWY	NS	E	1.8	0.4	1.0	0.3	2.4	0.5	1.4	0.5	4.2	0.9	2.4	0.8
CHES	I-464	MILITARY HWY	FREEMAN AVE	NS	E	1.4	0.3	0.9	0.2	1.1	0.3	0.7	0.1	2.4	0.6	1.6	0.3
CHES	I-464	FREEMAN AVE	POINDEXTER ST	NS	A	3.4	0.7	1.8	0.8	2.4	0.5	1.6	0.2	5.8	1.2	3.3	1.1
CHES	I-464	POINDEXTER ST	NORFOLK CL	NS	E	2.5	1.0	0.9	0.5	1.1	0.2	0.7	0.1	3.5	1.3	1.6	0.6
NOR	I-464	CHESAPEAKE CL	SOUTH MAIN ST	NS	E	1.4	0.6	0.5	0.3	0.6	0.1	0.4	0.1	2.1	0.7	0.9	0.4
NOR	I-464	SOUTH MAIN ST	I-264	NS	E	3.6	1.9	1.1	0.5	1.5	0.4	0.7	0.3	5.1	2.3	1.8	0.8
NOR	I-564	ADMIRAL TAUSSIG BLVD	FUTURE INTERMODAL CONNECTOR	NS	A	2.7	1.9	0.1	0.0	0.3	0.0	0.1	0.1	3.0	1.9	0.2	0.1
NOR	I-564	FUTURE INTERMODAL CONNECTOR	INTERNATIONAL TERMINAL BLVD	NS	A	7.5	5.2	0.2	0.0	0.7	0.1	0.3	0.3	8.2	5.3	0.6	0.3
NOR	I-564	INTERNATIONAL TERMINAL BLVD	I-64	NS	E	3.8	2.3	0.5	0.1	1.6	0.1	0.3	1.2	5.4	2.4	0.9	1.3
CHES	I-664	I-64 & I-264	ROUTES 13/58/460	EW	E	4.0	1.2	1.5	1.2	7.0	0.8	2.6	3.3	11.0	2.0	4.1	4.5
CHES	I-664	ROUTES 13/58/460	DOCK LANDING RD	EW	E	3.1	0.9	1.4	0.7	3.3	0.5	1.4	1.3	6.4	1.4	2.9	2.0
CHES	I-664	DOCK LANDING RD	PORTSMOUTH BLVD	EW	E	3.1	0.6	1.4	1.0	2.4	0.5	1.2	0.6	5.5	1.1	2.6	1.6
CHES	I-664	PORTSMOUTH BLVD	PUGHSVILLE RD	EW	E	5.4	0.7	1.9	2.7	2.7	0.5	1.4	0.7	8.1	1.2	3.3	3.4
CHES	I-664	PUGHSVILLE RD	SUFFOLK CL	EW	E	3.0	0.3	0.8	1.9	1.2	0.2	0.7	0.3	4.2	0.5	1.5	2.1
SUF	I-664	CHESAPEAKE CL	BRIDGE RD	EW	E	2.7	0.2	0.7	1.7	1.1	0.2	0.6	0.2	3.7	0.4	1.3	1.9
SUF	I-664	BRIDGE RD	WESTERN FWY	EW	E	0.4	0.1	0.2	0.2	0.2	0.0	0.1	0.1	0.6	0.1	0.2	0.3
SUF	I-664	WESTERN FWY	COLLEGE DR	EW	A	2.6	0.4	1.1	0.9	2.3	0.4	1.3	0.5	4.8	0.8	2.4	1.5
SUF	I-664/MMMBT	COLLEGE DR	NEWPORT NEWS CL	EW	E	5.3	0.7	2.6	1.9	4.8	0.9	2.9	0.8	10.0	1.6	5.5	2.7
NN	I-664/MMMBT	SUFFOLK CL	TERMINAL AVE	EW	E	4.6	0.6	2.2	1.6	4.1	0.8	2.5	0.7	8.7	1.4	4.8	2.3
NN	I-664	TERMINAL AVE	23RD ST	EW	E	7.0	0.3	1.5	5.2	1.6	0.2	1.1	0.3	8.6	0.4	2.6	5.5
NN	I-664	23RD ST	CHESTNUT AVE	EW	E	5.4	0.6	1.6	3.2	2.4	0.3	1.4	0.5	7.8	0.9	3.0	3.7
NN	I-664	CHESTNUT AVE	HAMPTON CL	EW	E	0.4	0.1	0.3	0.0	0.4	0.0	0.2	0.1	0.8	0.1	0.5	0.1
HAM	I-664	NEWPORT NEWS CL	ABERDEEN RD	EW	E	0.8	0.2	0.5	0.1	0.7	0.1	0.4	0.1	1.4	0.2	0.9	0.2
HAM	I-664	ABERDEEN RD	POWER PLANT PKWY	EW	E	1.3	0.3	0.8	0.1	1.1	0.1	0.7	0.3	2.4	0.4	1.5	0.4
HAM	I-664	POWER PLANT PKWY	I-64	EW	E	3.1	0.6	1.7	0.7	3.9	0.8	2.2	0.7	7.0	1.4	3.9	1.4

Appendix C – Truck Delay by Location (Non-Interstates)

Source: HRTPO analysis of INRIX, VDOT and CBBT data. Truck data type of "A" is based on actual vehicle classification count data, "E" is based on estimated vehicle classification count data.

						Northbound/Eastbound				Southbound/Westbound				Combined			
Juris	Facility Name	Segment From	Segment To	Dir	Truck Data Type	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)
CHES	22ND ST	LIBERTY ST	BERKLEY AVE/NORFOLK CL	EW	E	0.6	0.2	0.3	0.1	0.4	0.1	0.2	0.1	0.9	0.2	0.5	0.2
CHES	AIRLINE BLVD	I-664	JOLLIFF RD	EW	E	0.2	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.3	0.1	0.2	0.1
CHES	AIRLINE BLVD	JOLLIFF RD	PORTSMOUTH CL	EW	A	0.5	0.1	0.2	0.1	0.4	0.1	0.2	0.1	0.9	0.2	0.5	0.2
CHES	BAINBRIDGE BLVD	MILITARY HWY	FREEMAN AVE	NS	E	0.8	0.2	0.5	0.1	1.0	0.2	0.5	0.2	1.8	0.4	1.0	0.3
CHES	BAINBRIDGE BLVD	FREEMAN AVE	SWAIN AVE	NS	E	0.7	0.2	0.4	0.1	0.7	0.1	0.4	0.2	1.4	0.3	0.7	0.3
CHES	BAINBRIDGE BLVD	SWAIN AVE	CHESAPEAKE DR	NS	E	0.2	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.3	0.1	0.2	0.1
CHES	BAINBRIDGE BLVD	CHESAPEAKE DR	POINDEXTER ST	NS	A	0.6	0.2	0.3	0.1	0.6	0.1	0.3	0.2	1.2	0.2	0.7	0.3
CHES	BATTLEFIELD BLVD	NORTH CAROLINA STATE LINE	BALLAHACK RD	NS	A	0.3	0.0	0.2	0.1	0.3	0.1	0.2	0.1	0.6	0.1	0.4	0.1
CHES	BATTLEFIELD BLVD	BALLAHACK RD	GALLBUSH RD	NS	A	1.8	0.4	1.1	0.3	1.6	0.3	1.0	0.2	3.4	0.7	2.1	0.5
CHES	BATTLEFIELD BLVD	GALLBUSH RD	INDIAN CREEK RD	NS	E	2.5	0.4	1.7	0.4	1.9	0.4	1.3	0.2	4.4	0.8	3.0	0.6
CHES	BATTLEFIELD BLVD	INDIAN CREEK RD	CENTERVILLE TNPK	NS	E	1.4	0.2	1.0	0.2	1.2	0.2	0.8	0.2	2.6	0.5	1.8	0.3
CHES	BATTLEFIELD BLVD	CENTERVILLE TNPK	HILLCREST PKWY	NS	E	3.9	0.9	2.3	0.6	3.0	0.6	1.9	0.5	6.8	1.6	4.1	1.1
CHES	BATTLEFIELD BLVD	HILLCREST PKWY	PEACEFUL RD/HILLWELL RD	NS	E	0.2	0.0	0.1	0.0	0.3	0.1	0.1	0.1	0.5	0.1	0.3	0.1
CHES	BATTLEFIELD BLVD	PEACEFUL RD/HILLWELL RD	HANBURY RD	NS	E	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.1	0.0
CHES	BATTLEFIELD BLVD	HANBURY RD	JOHNSTOWN RD	NS	E	0.9	0.2	0.4	0.3	0.9	0.2	0.4	0.3	1.8	0.5	0.7	0.6
CHES	BATTLEFIELD BLVD	JOHNSTOWN RD	CEDAR RD	NS	A	1.0	0.1	0.5	0.3	0.8	0.1	0.4	0.2	1.7	0.3	0.9	0.6
CHES	BATTLEFIELD BLVD	CEDAR RD	GREAT BRIDGE BLVD/KEMPSVILLE RD	NS	E	2.2	0.4	1.1	0.7	3.5	0.4	1.5	1.5	5.7	0.8	2.6	2.1
CHES	BATTLEFIELD BLVD	GREAT BRIDGE BLVD/KEMPSVILLE RD	GREAT BRIDGE BYPASS	NS	E	0.2	0.0	0.1	0.0	0.5	0.1	0.2	0.2	0.7	0.2	0.3	0.3
CHES	BATTLEFIELD BLVD	GREAT BRIDGE BYPASS	VOLVO PKWY	NS	E	6.6	1.1	3.7	1.6	4.8	0.6	2.4	1.8	11.4	1.7	6.1	3.4
CHES	BATTLEFIELD BLVD	VOLVO PKWY	I-64	NS	E	1.5	0.2	0.8	0.4	3.0	0.4	1.4	1.1	4.4	0.6	2.2	1.5
CHES	BATTLEFIELD BLVD	I-64	MILITARY HWY	NS	A	3.9	0.8	2.0	0.9	3.8	0.7	1.6	1.4	7.7	1.5	3.7	2.3
CHES	BATTLEFIELD BLVD	MILITARY HWY	CAMPOSTELLA RD	NS	E	1.9	0.5	0.9	0.5	1.6	0.2	0.8	0.5	3.4	0.7	1.7	1.0
CHES	BRIDGE RD	SUFFOLK CL	CHURCHLAND BLVD	EW	A	0.5	0.1	0.3	0.1	0.4	0.1	0.2	0.1	0.9	0.1	0.5	0.2
CHES	BUTTS STATION RD	KEMPSVILLE RD	ELBOW RD	EW	E	0.5	0.1	0.3	0.1	0.4	0.1	0.3	0.1	0.9	0.2	0.5	0.1
CHES	BUTTS STATION RD	ELBOW RD	CENTERVILLE TNPK	EW	E	0.5	0.1	0.2	0.3	0.2	0.0	0.1	0.0	0.7	0.1	0.3	0.3
CHES	CANAL DR	MILITARY HWY	GEORGE WASHINGTON HWY	NS	A	1.0	0.3	0.4	0.2	1.3	0.4	0.6	0.3	2.3	0.8	1.0	0.5
CHES	CEDAR RD	DOMINION BLVD	BELLS MILL RD (WEST)	EW	A	0.5	0.1	0.3	0.1	0.6	0.2	0.3	0.1	1.1	0.3	0.6	0.2
CHES	CEDAR RD	BELLS MILL RD (WEST)	BELLS MILL RD (EAST)	EW	E	1.5	0.3	0.9	0.2	1.6	0.4	0.9	0.2	3.1	0.8	1.8	0.4
CHES	CEDAR RD	BELLS MILL RD (EAST)	BRIARFIELD DR	EW	E	0.7	0.2	0.4	0.1	0.7	0.2	0.4	0.1	1.4	0.4	0.8	0.2
CHES	CEDAR RD	BRIARFIELD DR	BATTLEFIELD BLVD	EW	E	0.6	0.1	0.4	0.1	0.6	0.2	0.4	0.1	1.2	0.3	0.7	0.2
CHES	CHESAPEAKE EXPRESSWAY	GALLBUSH RD	BATTLEFIELD BLVD (NEAR INDIAN CRI	NS	E	0.5	0.1	0.3	0.1	0.4	0.1	0.3	0.0	0.9	0.2	0.6	0.1
CHES	CHESAPEAKE EXPRESSWAY	BATTLEFIELD BLVD (NEAR INDIAN CRI	HILLCREST PKWY	NS	E	0.4	0.1	0.2	0.1	0.3	0.1	0.2	0.0	0.6	0.1	0.4	0.1
CHES	CHESAPEAKE EXPRESSWAY	HILLCREST PKWY	BATTLEFIELD BLVD (S OF GREAT BRID	NS	E	1.5	0.3	1.0	0.2	1.2	0.3	0.8	0.1	2.8	0.5	1.8	0.3
CHES	CHESAPEAKE EXPRESSWAY	BATTLEFIELD BLVD (S OF GREAT BRID	HANBURY RD	NS	E	0.4	0.1	0.2	0.1	0.4	0.1	0.3	0.0	0.8	0.2	0.5	0.1
CHES	CHESAPEAKE EXPRESSWAY	HANBURY RD	MT PLEASANT RD	NS	E	1.5	0.4	0.9	0.2	1.0	0.2	0.7	0.1	2.5	0.6	1.6	0.3
CHES	CHESAPEAKE EXPRESSWAY	MT PLEASANT RD	BATTLEFIELD BLVD (N OF GREAT BRID	NS	E	3.5	0.9	2.1	0.4	2.6	0.6	1.6	0.3	6.1	1.5	3.8	0.8
CHES	CHESAPEAKE EXPRESSWAY	BATTLEFIELD BLVD (N OF GREAT BRID	DOMINION BLVD	NS	E	2.5	0.6	1.5	0.3	2.3	0.5	1.5	0.3	4.8	1.1	2.9	0.6
CHES	CHESAPEAKE EXPRESSWAY	DOMINION BLVD	I-64	NS	E	1.3	0.6	0.6	0.1	2.0	0.4	1.3	0.2	3.3	1.0	1.8	0.3
CHES	DOCK LANDING RD	JOLLIFF RD	I-664	EW	E	0.0	0.0	0.0	0.0	-	-	-	-	-	-	-	-
CHES	DOCK LANDING RD	I-664	EAGLE HILL DR	EW	A	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.2	0.0	0.1	0.0
CHES	DOCK LANDING RD	EAGLE HILL DR	PORTSMOUTH BLVD	NS	A	0.3	0.1	0.1	0.1	0.3	0.0	0.2	0.0	0.5	0.2	0.3	0.1
CHES	GEORGE WASHINGTON HWY	NORTH CAROLINA STATE LINE	DOMINION BLVD	NS	A	3.1	0.3	1.9	0.7	1.4	0.4	0.8	0.2	4.5	0.7	2.7	0.9
CHES	GEORGE WASHINGTON HWY	DOMINION BLVD	GW HWY RELOCATED	NS	E	0.2	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.3	0.1	0.2	0.0
CHES	GEORGE WASHINGTON HWY	GW HWY RELOCATED	MOSES GRANDY TR @ HINTON AVE	NS	E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
CHES	GW HWY (DEEP CREEK BRIDGE)	MOSES GRANDY TR @ HINTON AVE	MILL CREEK PKWY	NS	E	0.1	0.0	0.0	0.0	0.3	0.0	0.1	0.1	0.4	0.1	0.1	0.1
CHES	GEORGE WASHINGTON HWY	MILL CREEK PKWY	WILLOWOOD DR	NS	E	0.8	0.3	0.3	0.1	2.1	0.4	0.6	1.1	2.9	0.7	0.9	1.2
CHES	GEORGE WASHINGTON HWY	WILLOWOOD DR	I-64	NS	E	0.4	0.2	0.1	0.1	1.0	0.2	0.3	0.5	1.4	0.3	0.4	0.6
CHES	GEORGE WASHINGTON HWY	I-64	MILITARY HWY	NS	E	5.7	1.2	3.2	1.2	2.7	0.5	1.2	1.0	8.4	1.7	4.4	2.1
CHES	GEORGE WASHINGTON HWY	MILITARY HWY	CANAL DR	NS	A	2.6	0.6	1.5	0.5	3.2	0.5	1.4	1.3	5.8	1.1	2.9	1.7
CHES	GEORGE WASHINGTON HWY	CANAL DR	PORTSMOUTH CL	NS	E	1.9	0.4	1.1	0.4	2.0	0.3	1.0	0.6	3.9	0.8	2.1	1.0

Appendix C – Truck Delay by Location (Non-Interstates)

Source: HRTPO analysis of INRIX, VDOT and CBBT data. Truck data type of "A" is based on actual vehicle classification count data, "E" is based on estimated vehicle classification count data.

						Northbound/Eastbound				Southbound/Westbound				Combined			
Juris	Facility Name	Segment From	Segment To	Dir	Truck Data Type	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)
CHES	GREAT BRIDGE BLVD	BAINBRIDGE BLVD	CAMPOSTELLA RD	EW	A	0.8	0.3	0.5	0.1	2.0	0.4	1.3	0.4	2.8	0.7	1.7	0.4
CHES	GREAT BRIDGE BLVD	CAMPOSTELLA RD	I-64	EW	E	0.7	0.2	0.4	0.0	1.7	0.3	1.0	0.3	2.3	0.6	1.4	0.3
CHES	GREAT BRIDGE BLVD	I-64	DOMINION BLVD	EW	E	0.5	0.2	0.2	0.1	2.6	0.5	1.5	0.5	3.1	0.7	1.7	0.6
CHES	GREAT BRIDGE BLVD	DOMINION BLVD	RIVERWALK PKWY WEST	EW	A	0.5	0.2	0.2	0.2	0.5	0.2	0.2	0.1	1.0	0.3	0.3	0.3
CHES	GREAT BRIDGE BLVD	RIVERWALK PKWY WEST	BATTLEFIELD BLVD	EW	A	1.8	0.6	0.6	0.6	1.8	0.7	0.6	0.5	3.6	1.3	1.2	1.1
CHES	GREENBRIER PKWY	KEMPSVILLE RD	VOLVO PKWY	NS	A	2.4	0.7	1.1	0.6	1.5	0.3	0.8	0.4	3.9	1.0	2.0	1.0
CHES	GREENBRIER PKWY	VOLVO PKWY	EDEN WAY	NS	E	0.8	0.2	0.5	0.2	0.9	0.1	0.6	0.2	1.8	0.3	1.1	0.4
CHES	GREENBRIER PKWY	EDEN WAY	I-64	NS	E	2.6	0.5	1.4	0.6	2.9	0.3	2.0	0.6	5.5	0.8	3.4	1.2
CHES	GREENBRIER PKWY	I-64	WOODLAKE DR	NS	E	2.9	0.7	1.4	0.7	0.8	0.1	0.5	0.1	3.7	0.9	1.9	0.9
CHES	GREENBRIER PKWY	WOODLAKE DR	MILITARY HWY	NS	E	0.8	0.2	0.4	0.2	0.2	0.0	0.1	0.0	1.0	0.2	0.5	0.2
CHES	INDIAN RIVER RD	NORFOLK CL	KEMP LANE	EW	E	0.2	0.1	0.1	0.0	0.3	0.1	0.2	0.0	0.6	0.1	0.3	0.1
CHES	INDIAN RIVER RD	KEMP LANE	VA BEACH CL	EW	A	1.6	0.3	0.8	0.4	1.5	0.3	0.9	0.3	3.2	0.6	1.8	0.7
CHES	KEMPSVILLE RD	BATTLEFIELD BLVD	GREENBRIER PKWY	EW	E	0.3	0.1	0.2	0.1	0.6	0.2	0.3	0.1	0.9	0.3	0.4	0.2
CHES	KEMPSVILLE RD	GREENBRIER PKWY	VOLVO PKWY	EW	E	0.7	0.2	0.4	0.1	0.7	0.2	0.4	0.2	1.4	0.4	0.8	0.3
CHES	KEMPSVILLE RD	VOLVO PKWY	VA BEACH CL	EW	E	0.3	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.6	0.1	0.3	0.1
CHES	LIBERTY ST	22ND ST	POINDEXTER RD	EW	A	0.1	0.0	0.0	0.0	-	-	-	-	-	-	-	-
CHES	MILITARY HWY	AIRLINE BLVD	I-64	EW	A	3.8	0.6	2.0	0.9	4.2	0.9	1.7	1.1	8.0	1.5	3.7	2.0
CHES	MILITARY HWY	I-64	CAVALIER BLVD	EW	E	0.6	0.2	0.3	0.1	0.4	0.1	0.2	0.1	0.9	0.2	0.4	0.2
CHES	MILITARY HWY	CAVALIER BLVD	GEORGE WASHINGTON HWY	EW	E	1.3	0.2	0.5	0.4	0.8	0.1	0.3	0.3	2.0	0.4	0.9	0.7
CHES	MILITARY HWY	GEORGE WASHINGTON HWY	CANAL DR	EW	E	1.0	0.2	0.4	0.3	1.1	0.2	0.5	0.4	2.1	0.4	1.0	0.7
CHES	MILITARY HWY/GILMERTON BRIDGE	CANAL DR	BAINBRIDGE BLVD	EW	A	9.3	2.8	3.5	2.8	4.8	0.9	2.5	1.3	14.1	3.7	6.0	4.2
CHES	MILITARY HWY	BAINBRIDGE BLVD	I-464	EW	E	1.5	0.4	0.7	0.3	4.6	0.3	1.3	3.0	6.1	0.7	2.0	3.3
CHES	MILITARY HWY	I-464	CAMPOSTELLA RD	EW	E	1.5	0.4	0.7	0.4	2.8	0.4	1.0	1.3	4.3	0.8	1.8	1.7
CHES	MILITARY HWY	CAMPOSTELLA RD	BATTLEFIELD BLVD	EW	E	0.4	0.1	0.2	0.1	1.2	0.1	0.6	0.4	1.6	0.3	0.8	0.5
CHES	MILITARY HWY	BATTLEFIELD BLVD	ALLISON DR	EW	E	1.6	0.3	1.0	0.3	1.4	0.2	0.7	0.5	3.1	0.4	1.7	0.8
CHES	MILITARY HWY	ALLISON DR	GREENBRIER PKWY	EW	A	1.3	0.2	0.8	0.3	1.1	0.1	0.6	0.4	2.4	0.3	1.3	0.6
CHES	MILITARY HWY	GREENBRIER PKWY	VA BEACH CL	EW	E	4.9	0.9	2.6	1.3	4.4	0.6	2.1	1.7	9.2	1.5	4.6	2.9
CHES	MOSES GRANDY TRAIL	GW HWY @ HINTON AVE	SHIPYARD/CEDAR RD	EW	A	0.1	0.0	0.0	0.0	0.2	0.1	0.0	0.1	0.2	0.1	0.1	0.1
CHES	MOSES GRANDY TRAIL	SHIPYARD/CEDAR RD	CEDAR RD	EW	A	0.5	0.2	0.2	0.1	1.0	0.3	0.3	0.3	1.4	0.5	0.5	0.4
CHES	MOUNT PLEASANT RD	BATTLEFIELD BLVD	CHESAPEAKE EXPRESSWAY	EW	E	0.7	0.3	0.2	0.2	0.4	0.2	0.2	0.1	1.1	0.4	0.4	0.3
CHES	MOUNT PLEASANT RD	CHESAPEAKE EXPRESSWAY	CENTERVILLE TNPK	EW	A	1.3	0.3	0.6	0.4	1.7	0.6	0.8	0.3	2.9	1.0	1.3	0.6
CHES	MOUNT PLEASANT RD	CENTERVILLE TNPK	FENTRESS AIRFIELD RD	EW	A	1.2	0.3	0.7	0.1	1.4	0.3	0.7	0.4	2.6	0.6	1.4	0.5
CHES	MOUNT PLEASANT RD	FENTRESS AIRFIELD RD	VA BEACH CL	EW	E	0.2	0.0	0.1	0.0	0.3	0.0	0.2	0.0	0.5	0.1	0.3	0.1
CHES	POINDEXTER ST	BAINBRIDGE BLVD	LIBERTY ST	EW	A	0.7	0.2	0.3	0.2	0.9	0.2	0.5	0.3	1.6	0.3	0.8	0.4
CHES	PORTSMOUTH BLVD	SUFFOLK CL	JOLLIFF RD	EW	A	0.6	0.1	0.3	0.1	1.2	0.1	0.7	0.4	1.8	0.2	1.0	0.5
CHES	PORTSMOUTH BLVD	JOLLIFF RD	I-664	EW	E	0.7	0.1	0.4	0.1	1.5	0.2	0.8	0.4	2.2	0.3	1.3	0.6
CHES	PORTSMOUTH BLVD	I-664	TAYLOR RD	EW	A	1.0	0.1	0.6	0.2	1.0	0.1	0.6	0.2	2.0	0.2	1.2	0.5
CHES	PORTSMOUTH BLVD	TAYLOR RD	PORTSMOUTH CL	EW	E	0.6	0.1	0.4	0.2	0.6	0.1	0.4	0.1	1.3	0.1	0.8	0.3
CHES	PUGHSVILLE RD	SUFFOLK CL	I-664	EW	A	0.7	0.1	0.4	0.2	0.4	0.1	0.2	0.1	1.2	0.2	0.6	0.3
CHES	PUGHSVILLE RD	I-664	TAYLOR RD	EW	A	1.2	0.4	0.5	0.3	0.3	0.0	0.2	0.1	1.5	0.4	0.6	0.4
CHES	ROUTE 13/58/460	SUFFOLK CL	I-664	EW	A	4.7	1.2	2.7	0.7	2.8	0.5	1.6	0.6	7.5	1.7	4.2	1.2
CHES	TAYLOR RD	PORTSMOUTH BLVD	ELIZABETH HARBOR RD	NS	A	0.2	0.0	0.1	0.0	0.3	0.0	0.1	0.1	0.5	0.1	0.3	0.1
CHES	TAYLOR RD	ELIZABETH HARBOR RD	BRUCE RD	NS	A	0.3	0.0	0.2	0.1	0.3	0.0	0.2	0.1	0.6	0.1	0.3	0.2
CHES	TAYLOR RD	BRUCE RD	PUGHSVILLE RD	NS	E	0.2	0.1	0.1	0.0	0.3	0.0	0.1	0.1	0.5	0.1	0.2	0.1
CHES	TAYLOR RD	PUGHSVILLE RD	WESTERN BRANCH BLVD	NS	E	0.6	0.1	0.3	0.2	0.6	0.1	0.4	0.1	1.3	0.2	0.7	0.3
CHES	TOWN POINT RD	PORTSMOUTH CL	CHURCHLAND BLVD	EW	E	0.1	0.0	0.1	0.1	0.2	0.0	0.1	0.1	0.4	0.0	0.2	0.1
CHES	VOLVO PKWY	BATTLEFIELD BLVD	GREENBRIER PKWY	EW	A	2.2	0.2	1.3	0.7	2.0	0.4	1.2	0.3	4.2	0.6	2.5	1.0
CHES	VOLVO PKWY	GREENBRIER PKWY	EDEN WAY	EW	E	0.5	0.0	0.3	0.2	0.7	0.3	0.3	0.1	1.2	0.3	0.6	0.3
CHES	VOLVO PKWY	EDEN WAY	KEMPSVILLE RD	EW	E	1.2	0.1	0.6	0.4	1.7	0.6	0.8	0.2	2.9	0.7	1.4	0.6
CHES	VOLVO PKWY	KEMPSVILLE RD	VA BEACH CL	EW	E	0.1	0.0	0.0	0.0	0.2	0.2	0.1	0.0	0.3	0.2	0.1	0.0

Appendix C – Truck Delay by Location (Non-Interstates)

Source: HRTPO analysis of INRIX, VDOT and CBBT data. Truck data type of "A" is based on actual vehicle classification count data, "E" is based on estimated vehicle classification count data.

						Northbound/Eastbound				Southbound/Westbound				Combined			
Juris	Facility Name	Segment From	Segment To	Dir	Truck Data Type	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)
CHES	WESTERN BRANCH BLVD	CHURCHLAND BLVD	TAYLOR RD	EW	E	0.2	0.0	0.1	0.0	0.2	0.0	0.1	0.1	0.4	0.1	0.3	0.1
CHES	WESTERN BRANCH BLVD	TAYLOR RD	PORTSMOUTH CL	EW	E	0.2	0.0	0.1	0.1	0.3	0.0	0.2	0.1	0.5	0.1	0.3	0.1
FR	MAIN ST	SOUTH ST	SECOND AVE	NS	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0
FR	SECOND AVE	MAIN ST	MECHANIC ST	EW	E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
FR	SECOND AVE	MECHANIC ST	ISLE OF WIGHT CL	EW	E	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0
FR	SOUTH ST	ROUTE 58	COLLEGE DR	EW	A	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0
FR	SOUTH ST	COLLEGE DR	PRETLOW ST	EW	E	0.1	0.0	0.0	0.0	0.2	0.0	0.1	0.0	0.3	0.1	0.2	0.0
FR	SOUTH ST	PRETLOW ST	HIGH ST	EW	E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
FR	SOUTH ST	HIGH ST	MAIN ST	EW	E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
GLO	RTE 17 (COLEMAN BRIDGE)	YORK CL	RTE 216 (GUINEA RD)	NS	A	3.8	0.7	2.2	1.0	4.9	0.9	3.1	0.8	8.8	1.6	5.3	1.8
GLO	RTE 17	RTE 216 (GUINEA RD)	RTE 614 (HICKORY FORK RD)	NS	E	6.0	1.0	3.4	1.5	7.7	1.4	4.9	1.3	13.7	2.5	8.3	2.8
GLO	RTE 17	RTE 614 (HICKORY FORK RD)	RTE 17 BUS S (MAIN ST)	NS	E	4.6	0.8	2.7	1.0	4.3	0.7	2.5	1.0	8.9	1.5	5.2	1.9
GLO	RTE 17	RTE 17 BUS S (MAIN ST)	RTE 17 BUS N (MAIN ST)	NS	E	0.6	0.1	0.3	0.1	0.8	0.1	0.4	0.1	1.4	0.3	0.8	0.2
GLO	RTE 17	RTE 17 BUS N (MAIN ST)	RTE 606 (ARK RD)	NS	E	0.5	0.1	0.3	0.1	0.8	0.1	0.5	0.2	1.4	0.2	0.8	0.3
GLO	RTE 17	RTE 606 (ARK RD)	ROUTE 14	NS	E	0.7	0.2	0.4	0.1	0.7	0.1	0.4	0.1	1.4	0.3	0.8	0.2
GLO	RTE 17	ROUTE 14	ROUTES 33/198	NS	E	0.4	0.1	0.2	0.1	0.3	0.1	0.2	0.0	0.7	0.2	0.4	0.1
GLO	RTE 17	ROUTES 33/198	MIDDLESEX CL	NS	E	-	-	-	-	0.4	0.1	0.2	0.1	-	-	-	-
GLO	RTE 33	KING AND QUEEN CL	ROUTE 17	EW	E	0.4	0.1	0.2	0.1	0.5	0.2	0.2	0.1	0.9	0.2	0.4	0.3
HAM	ABERDEEN RD	PEMBROKE AVE	I-664	NS	E	0.7	0.2	0.3	0.1	1.2	0.2	0.6	0.3	1.9	0.4	1.0	0.4
HAM	ABERDEEN RD	I-664	BRIARFIELD RD	NS	A	3.5	0.9	1.9	0.7	3.4	1.0	2.0	0.3	6.9	1.9	3.9	1.0
HAM	ABERDEEN RD	BRIARFIELD RD	MERCURY BLVD	NS	A	0.8	0.3	0.4	0.1	0.8	0.2	0.4	0.2	1.6	0.4	0.8	0.3
HAM	ABERDEEN RD	MERCURY BLVD	TODDS LA	NS	E	0.3	0.1	0.1	0.1	0.4	0.1	0.2	0.1	0.7	0.2	0.4	0.2
HAM	ARMISTEAD AVE	COMMANDER SHEPPARD BLVD	HRC PARKWAY	NS	E	0.7	0.2	0.5	0.1	0.9	0.1	0.6	0.1	1.6	0.3	1.0	0.2
HAM	ARMISTEAD AVE	HRC PARKWAY	MERCURY BLVD	NS	A	0.9	0.2	0.6	0.2	0.9	0.2	0.6	0.2	1.8	0.3	1.2	0.3
HAM	ARMISTEAD AVE	MERCURY BLVD	PINE CHAPEL RD	NS	A	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.1	0.0
HAM	ARMISTEAD AVE	PINE CHAPEL RD	LASALLE AVE	NS	A	1.1	0.2	0.5	0.3	0.6	0.2	0.3	0.1	1.7	0.4	0.9	0.4
HAM	ARMISTEAD AVE	LA SALLE AVE	RIP RAP RD	NS	E	0.5	0.1	0.2	0.1	0.1	0.0	0.1	0.0	0.6	0.1	0.3	0.1
HAM	ARMISTEAD AVE	RIP RAP RD	PEMBROKE AVE	NS	E	0.3	0.1	0.2	0.0	0.3	0.0	0.2	0.1	0.6	0.1	0.4	0.1
HAM	ARMISTEAD AVE	PEMBROKE AVE	SETTLERS LANDING RD	NS	A	0.1	0.0	0.1	0.0	0.4	0.1	0.2	0.1	0.5	0.1	0.3	0.1
HAM	BIG BETHEL RD	TODDS LANE	HRC PKWY	NS	E	2.2	0.5	0.5	1.2	0.8	0.2	0.3	0.3	2.9	0.6	0.7	1.6
HAM	BIG BETHEL RD	HRC PKWY	THOMAS NELSON DR	NS	E	0.5	0.1	0.1	0.3	0.3	0.1	0.1	0.2	0.8	0.1	0.2	0.5
HAM	BIG BETHEL RD	THOMAS NELSON DR	SAUNDERS RD	NS	E	0.4	0.1	0.2	0.2	0.3	0.1	0.1	0.1	0.7	0.2	0.3	0.2
HAM	BIG BETHEL RD	SAUNDERS RD	SEMPLE FARM RD	NS	E	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
HAM	BIG BETHEL RD	SEMPLE FARM RD	YORK CL	NS	E	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1
HAM	BRIARFIELD RD	NEWPORT NEWS CL	ABERDEEN RD	EW	E	0.5	0.2	0.2	0.1	0.4	0.1	0.2	0.1	0.9	0.3	0.4	0.2
HAM	BRIARFIELD RD	ABERDEEN RD	POWER PLANT PKWY	EW	E	0.4	0.1	0.2	0.1	0.4	0.2	0.2	0.1	0.8	0.3	0.4	0.2
HAM	CHESTNUT AVE	NEWPORT NEWS CL	MERCURY BLVD	NS	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HAM	COMMANDER SHEPPARD BLVD	ARMISTEAD AVE	NASA MAIN GATE	NS	A	0.2	0.1	0.1	0.0	0.3	0.0	0.2	0.0	0.5	0.1	0.3	0.1
HAM	COMMANDER SHEPPARD BLVD	NASA MAIN GATE	WYTHE CREEK RD	NS	A	0.4	0.1	0.2	0.1	0.6	0.2	0.3	0.1	1.1	0.3	0.6	0.2
HAM	COLISEUM DR	PINE CHAPEL RD	MERCURY BLVD	NS	E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
HAM	COLISEUM DR	MERCURY BLVD	MARCELLA DR	NS	E	0.2	0.0	0.1	0.1	0.2	0.0	0.1	0.1	0.5	0.0	0.3	0.1
HAM	COLISEUM DR	MARCELLA DR	HRC PARKWAY	NS	E	0.2	0.0	0.1	0.1	0.2	0.0	0.1	0.1	0.4	0.0	0.2	0.1
HAM	COUNTY ST	WOODLAND RD	MALLORY ST	EW	A	0.1	0.0	0.1	0.0	0.4	0.1	0.2	0.1	0.5	0.1	0.3	0.1
HAM	CUNNINGHAM DR	TODDS LA	COLISEUM DR	EW	E	0.3	0.0	0.2	0.1	0.3	0.0	0.2	0.1	0.5	0.1	0.4	0.1
HAM	CUNNINGHAM DR	COLISEUM DR	MERCURY BLVD	EW	A	0.1	0.0	0.1	0.0	0.2	0.0	0.1	0.1	0.3	0.0	0.2	0.1
HAM	FOX HILL RD	OLD BUCKROE RD	WOODLAND RD	EW	E	0.8	0.2	0.4	0.1	0.8	0.2	0.5	0.2	1.6	0.4	0.9	0.3
HAM	FOX HILL RD	WOODLAND RD	MERCURY BLVD	EW	E	1.3	0.4	0.8	0.2	1.3	0.3	0.8	0.3	2.7	0.6	1.5	0.5
HAM	HRC PARKWAY	NEWPORT NEWS CL	BIG BETHEL RD	EW	A	0.8	0.3	0.4	0.1	0.6	0.1	0.4	0.1	1.4	0.4	0.8	0.2
HAM	HRC PARKWAY	BIG BETHEL RD	I-64	EW	E	0.7	0.2	0.4	0.1	0.8	0.1	0.4	0.3	1.4	0.3	0.8	0.3
HAM	HRC PARKWAY	I-64	MAGRUDER BLVD	EW	A	0.6	0.1	0.4	0.1	0.6	0.1	0.4	0.1	1.2	0.2	0.8	0.2

Appendix C – Truck Delay by Location (Non-Interstates)

Source: HRTPO analysis of INRIX, VDOT and CBBT data. Truck data type of "A" is based on actual vehicle classification count data, "E" is based on estimated vehicle classification count data.

						Northbound/Eastbound				Southbound/Westbound				Combined			
Juris	Facility Name	Segment From	Segment To	Dir	Truck Data Type	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)
HAM	HRC PARKWAY	MAGRUDER BLVD	COLISEUM DR	EW	E	0.7	0.1	0.5	0.1	0.4	0.1	0.3	0.1	1.1	0.2	0.7	0.1
HAM	HRC PARKWAY	COLISEUM DR	ARMISTEAD AVE	EW	E	0.5	0.1	0.4	0.0	0.3	0.1	0.2	0.0	0.8	0.2	0.5	0.1
HAM	KECOUGHTAN RD	NEWPORT NEWS CL	POWHATAN PKWY	EW	A	0.4	0.0	0.1	0.2	0.3	0.1	0.1	0.1	0.8	0.1	0.3	0.3
HAM	KECOUGHTAN RD	POWHATAN PKWY	LA SALLE AVE	EW	E	0.3	0.1	0.2	0.0	0.2	0.0	0.1	0.0	0.5	0.1	0.3	0.1
HAM	KECOUGHTAN RD	LA SALLE AVE	VICTORIA BLVD	NS	A	0.5	0.1	0.3	0.1	0.4	0.1	0.2	0.0	0.8	0.2	0.5	0.1
HAM	KECOUGHTAN RD	VICTORIA BLVD	SETTLERS LANDING RD	NS	E	0.1	0.0	0.1	0.0	0.2	0.1	0.1	0.0	0.3	0.1	0.1	0.0
HAM	KING ST	PEMBROKE AVE	I-64 OVERPASS	NS	E	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.1	0.1
HAM	KING ST	I-64 OVERPASS	RIP RAP RD	NS	E	0.2	0.0	0.1	0.1	0.1	0.0	0.0	0.1	0.3	0.1	0.2	0.1
HAM	KING ST	RIP RAP RD	MERCURY BLVD	NS	E	0.4	0.1	0.2	0.1	0.1	0.0	0.1	0.1	0.5	0.1	0.2	0.2
HAM	KING ST	MERCURY BLVD	OLD FOX HILL RD	NS	E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
HAM	KING ST	OLD FOX HILL RD	LITTLE BACK RIVER RD	NS	E	0.2	0.0	0.1	0.0	0.2	0.0	0.1	0.0	0.3	0.1	0.2	0.1
HAM	KING ST	LITTLE BACK RIVER RD	LAMINGTON RD	NS	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
HAM	KING ST	LAMINGTON RD	OLD BUCKINGHAM RD	NS	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
HAM	KING ST	OLD BUCKINGHAM RD	LANGLEY AFB	NS	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
HAM	LA SALLE AVE	KECOUGHTAN RD	VICTORIA BLVD	NS	E	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.1
HAM	LA SALLE AVE	VICTORIA BLVD	SETTLERS LANDING RD	NS	E	0.3	0.1	0.0	0.1	0.3	0.1	0.1	0.1	0.5	0.2	0.1	0.2
HAM	LA SALLE AVE	SETTLERS LANDING RD	PEMBROKE AVE	NS	E	0.1	0.1	0.0	0.1	0.2	0.1	0.0	0.1	0.4	0.1	0.1	0.2
HAM	LA SALLE AVE	PEMBROKE AVE	ARMISTEAD AVE	NS	E	0.4	0.2	0.0	0.2	0.8	0.2	0.2	0.4	1.3	0.4	0.2	0.6
HAM	LA SALLE AVE	ARMISTEAD AVE	MERCURY BLVD	NS	A	0.3	0.1	0.2	0.0	0.2	0.1	0.1	0.0	0.5	0.2	0.3	0.1
HAM	LA SALLE AVE	MERCURY BLVD	LANGLEY GATE	NS	E	0.4	0.1	0.2	0.0	0.3	0.1	0.2	0.1	0.7	0.2	0.4	0.1
HAM	MAGRUDER BLVD	YORK CL	SEMPLE FARM RD	NS	A	0.2	0.1	0.1	0.0	0.2	0.1	0.1	0.0	0.4	0.1	0.2	0.1
HAM	MAGRUDER BLVD	SEMPLE FARM RD	COMM SHEPPARD BLVD (SOUTH)	NS	E	1.4	0.4	0.7	0.3	1.2	0.4	0.7	0.1	2.6	0.8	1.4	0.4
HAM	MAGRUDER BLVD	COMM SHEPPARD BLVD (SOUTH)	HRC PARKWAY	NS	E	1.9	0.5	1.0	0.4	3.0	0.9	1.7	0.4	4.9	1.4	2.7	0.8
HAM	MAGRUDER BLVD	HRC PARKWAY	I-64	NS	E	1.2	0.3	0.6	0.2	0.6	0.1	0.4	0.1	1.8	0.5	1.0	0.3
HAM	MALLORY ST	I-64	COUNTY ST	EW	E	0.5	0.1	0.2	0.1	0.6	0.2	0.2	0.1	1.1	0.3	0.5	0.3
HAM	MALLORY ST	COUNTY ST	MERCURY BLVD	EW	E	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.2	0.1	0.1	0.1
HAM	MALLORY ST	MERCURY BLVD	PEMBROKE AVE	EW	A	0.2	0.1	0.1	0.0	0.4	0.1	0.2	0.0	0.6	0.2	0.4	0.0
HAM	MELLEN ST	MERCURY BLVD	MALLORY ST	NS	A	0.2	0.0	0.2	0.0	-	-	-	-	-	-	-	-
HAM	MERCURY BLVD	NEWPORT NEWS CL	BIG BETHEL RD	EW	A	2.9	0.4	1.8	0.6	2.9	0.4	1.7	0.7	5.8	0.8	3.5	1.4
HAM	MERCURY BLVD	BIG BETHEL RD	ABERDEEN RD	EW	E	1.4	0.4	0.7	0.2	1.1	0.2	0.6	0.3	2.4	0.7	1.3	0.4
HAM	MERCURY BLVD	ABERDEEN RD	POWER PLANT PKWY	EW	E	1.5	0.2	0.9	0.3	1.0	0.2	0.6	0.2	2.5	0.4	1.5	0.5
HAM	MERCURY BLVD	POWER PLANT PKWY	I-64	EW	E	0.5	0.1	0.3	0.1	2.5	0.4	1.5	0.5	3.0	0.4	1.8	0.7
HAM	MERCURY BLVD	I-64	COLISEUM DR	EW	E	1.1	0.1	0.6	0.2	0.9	0.1	0.5	0.2	2.0	0.3	1.1	0.5
HAM	MERCURY BLVD	COLISEUM DR	CUNNINGHAM DR	EW	E	1.1	0.1	0.6	0.2	1.0	0.1	0.5	0.2	2.1	0.3	1.2	0.5
HAM	MERCURY BLVD	CUNNINGHAM DR	ARMISTEAD AVE	EW	E	0.7	0.1	0.4	0.1	0.6	0.1	0.3	0.1	1.3	0.2	0.7	0.3
HAM	MERCURY BLVD	ARMISTEAD AVE	LA SALLE AVE	EW	A	0.6	0.1	0.3	0.1	2.1	0.5	1.1	0.5	2.6	0.6	1.4	0.6
HAM	MERCURY BLVD	LA SALLE AVE	KING ST	EW	E	1.2	0.2	0.7	0.3	1.3	0.3	0.7	0.3	2.6	0.5	1.4	0.6
HAM	MERCURY BLVD	KING ST	FOX HILL RD	EW	A	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.3	0.1	0.1	0.1
HAM	MERCURY BLVD	FOX HILL RD	ANDREWS BLVD	EW	A	0.3	0.1	0.1	0.1	0.3	0.1	0.2	0.1	0.6	0.2	0.3	0.1
HAM	MERCURY BLVD	ANDREWS BLVD	PEMBROKE AVE	EW	E	0.2	0.1	0.1	0.0	0.2	0.1	0.1	0.0	0.4	0.1	0.2	0.1
HAM	MERCURY BLVD	PEMBROKE AVE	WOODLAND RD	EW	A	0.3	0.2	0.1	0.0	0.2	0.0	0.1	0.1	0.5	0.2	0.2	0.1
HAM	MERCURY BLVD	WOODLAND RD	MALLORY ST	EW	A	0.4	0.2	0.2	0.0	0.3	0.1	0.1	0.1	0.7	0.3	0.3	0.1
HAM	MERCURY BLVD	MALLORY ST	MELLEN ST/INGALLS RD	EW	E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
HAM	OLD BUCKROE RD	PEMBROKE AVE	FOX HILL RD	NS	A	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.2	0.0	0.2	0.0
HAM	PEMBROKE AVE	NEWPORT NEWS CL	ABERDEEN RD	EW	A	0.2	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.3	0.1	0.2	0.0
HAM	PEMBROKE AVE	ABERDEEN RD	POWHATAN PKWY	EW	E	1.3	0.3	0.8	0.1	1.0	0.2	0.7	0.2	2.3	0.5	1.5	0.3
HAM	PEMBROKE AVE	POWHATAN PKWY	SETTLERS LANDING RD	EW	A	1.1	0.2	0.6	0.3	1.1	0.2	0.6	0.3	2.2	0.4	1.3	0.5
HAM	PEMBROKE AVE	SETTLERS LANDING RD	LA SALLE AVE	EW	E	0.5	0.1	0.2	0.1	0.3	0.0	0.2	0.0	0.7	0.2	0.4	0.1
HAM	PEMBROKE AVE	LA SALLE AVE	ARMISTEAD AVE	EW	A	1.1	0.3	0.5	0.2	0.9	0.2	0.6	0.2	2.0	0.4	1.1	0.4
HAM	PEMBROKE AVE	ARMISTEAD AVE	KING ST	EW	A	0.3	0.1	0.1	0.1	0.3	0.0	0.2	0.1	0.6	0.1	0.3	0.1

Appendix C – Truck Delay by Location (Non-Interstates)

Source: HRTPO analysis of INRIX, VDOT and CBBT data. Truck data type of "A" is based on actual vehicle classification count data, "E" is based on estimated vehicle classification count data.

						Northbound/Eastbound				Southbound/Westbound				Combined			
Juris	Facility Name	Segment From	Segment To	Dir	Truck Data Type	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)
HAM	PEMBROKE AVE	KING ST	EATON ST	EW	A	0.1	0.0	0.1	0.0	0.2	0.0	0.1	0.0	0.3	0.1	0.2	0.1
HAM	PEMBROKE AVE	EATON ST	BARRON ST	EW	A	0.2	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.3	0.1	0.2	0.1
HAM	PEMBROKE AVE	BARRON ST	MERCURY BLVD	EW	A	0.3	0.1	0.2	0.1	0.2	0.0	0.1	0.1	0.5	0.1	0.3	0.1
HAM	PEMBROKE AVE	MERCURY BLVD	WOODLAND RD	EW	E	0.2	0.0	0.1	0.0	0.2	0.0	0.1	0.0	0.3	0.1	0.2	0.1
HAM	PEMBROKE AVE	WOODLAND RD	OLD BUCKROE RD	EW	A	0.5	0.1	0.2	0.1	0.5	0.1	0.3	0.1	1.0	0.2	0.5	0.2
HAM	PEMBROKE AVE	OLD BUCKROE RD	MALLORY ST	EW	E	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0
HAM	POWER PLANT PKWY	I-664	BRIARFIELD RD	NS	E	0.3	0.1	0.1	0.1	0.2	0.1	0.1	0.0	0.5	0.1	0.3	0.1
HAM	POWHATAN PKWY	KECOUGHTAN RD	PEMBROKE AVE	NS	A	0.6	0.1	0.3	0.2	0.4	0.1	0.2	0.1	1.0	0.2	0.5	0.3
HAM	POWHATAN PKWY	PEMBROKE AVE	I-664	NS	E	0.3	0.1	0.1	0.0	0.3	0.1	0.1	0.0	0.6	0.2	0.3	0.1
HAM	QUEEN ST	BRIARFIELD RD	MICHIGAN DR	EW	A	0.5	0.1	0.3	0.1	0.4	0.1	0.2	0.1	1.0	0.2	0.5	0.2
HAM	QUEEN ST	MICHIGAN DR	PEMBROKE AVE	EW	E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
HAM	ROANOKE AVE	NEWPORT NEWS CL	MERCURY BLVD	NS	E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
HAM	SETTLERS LANDING RD	PEMBROKE AVE	LA SALLE AVE	EW	E	0.3	0.1	0.1	0.0	0.2	0.0	0.1	0.0	0.4	0.1	0.2	0.1
HAM	SETTLERS LANDING RD	LA SALLE AVE	KECOUGHTAN RD	EW	E	0.4	0.1	0.2	0.0	0.2	0.1	0.1	0.1	0.6	0.2	0.3	0.1
HAM	SETTLERS LANDING RD	KECOUGHTAN RD	ARMISTEAD AVE	EW	A	0.2	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.4	0.1	0.2	0.1
HAM	SETTLERS LANDING RD	ARMISTEAD AVE	EATON ST	EW	E	0.6	0.1	0.3	0.1	0.5	0.0	0.3	0.2	1.1	0.2	0.6	0.3
HAM	SETTLERS LANDING RD	EATON ST	TYLER ST	EW	E	0.8	0.3	0.4	0.2	0.5	0.1	0.3	0.1	1.3	0.3	0.7	0.3
HAM	SETTLERS LANDING RD	TYLER ST	I-64	EW	E	0.2	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.3	0.1	0.2	0.1
HAM	TODDS LA	NEWPORT NEWS CL	BIG BETHEL RD	EW	A	0.5	0.2	0.2	0.1	0.3	0.1	0.1	0.1	0.8	0.3	0.4	0.1
HAM	TODDS LA	BIG BETHEL RD	ABERDEEN RD	EW	E	0.4	0.1	0.2	0.1	0.4	0.1	0.2	0.1	0.8	0.2	0.4	0.2
HAM	TODDS LA	ABERDEEN RD	CUNNINGHAM DR	EW	A	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.0	0.3	0.1	0.1	0.1
HAM	WOODLAND RD	I-64	COUNTY ST	NS	E	0.1	0.0	0.1	0.0	0.7	0.3	0.3	0.1	0.8	0.3	0.4	0.1
HAM	WOODLAND RD	MERCURY BLVD	PEMBROKE AVE	NS	E	0.4	0.1	0.2	0.1	0.2	0.1	0.1	0.0	0.6	0.2	0.3	0.1
HAM	WOODLAND RD	PEMBROKE AVE	FOX HILL RD	NS	A	0.5	0.1	0.2	0.1	0.5	0.1	0.2	0.1	0.9	0.3	0.4	0.2
HAM	WYTHE CREEK RD	COMMANDER SHEPPARD BLVD	POQUOSON CL	NS	E	0.6	0.1	0.3	0.1	0.4	0.1	0.3	0.1	1.0	0.2	0.6	0.2
IW	BENNS CHURCH BLVD	SUFFOLK CL	RIDDICK RD	NS	A	0.7	0.1	0.5	0.1	0.6	0.2	0.3	0.0	1.3	0.3	0.8	0.1
IW	BENNS CHURCH BLVD	RIDDICK RD	ROUTE 10 & 32 (BREWERS NECK RD)	NS	A	0.7	0.1	0.5	0.1	0.6	0.2	0.3	0.0	1.3	0.3	0.9	0.1
IW	BENNS CHURCH BLVD	ROUTE 10 & 32 (BREWERS NECK RD)	ECL SMITHFIELD (RTE 644)	NS	E	1.9	0.4	1.2	0.4	3.0	1.1	1.4	0.5	4.9	1.4	2.6	0.8
IW	BENNS CHURCH BLVD	ECL SMITHFIELD (RTE 644)	CHURCH ST S	NS	E	7.6	1.1	5.1	1.4	9.1	2.5	5.2	1.2	16.7	3.6	10.3	2.5
IW	BREWERS NECK BLVD	ROUTE 10 & 32 (BENN'S CHURCH)	RTE 670	EW	A	1.9	0.5	1.1	0.3	3.0	0.6	1.3	1.0	4.9	1.1	2.4	1.3
IW	BREWERS NECK BLVD	RTE 670	ROUTE 17	EW	A	1.1	0.3	0.6	0.1	1.7	0.3	0.7	0.6	2.8	0.6	1.4	0.7
IW	BUS RTE 58/BUS RTE 258	FRANKLIN CL	JAMESTOWN LN (RTE 691)	EW	E	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0
IW	BUS RTE 58/BUS RTE 258	JAMESTOWN LN (RTE 691)	ROUTE 258	EW	E	0.2	0.1	0.1	0.0	0.2	0.1	0.1	0.1	0.4	0.1	0.2	0.1
IW	CARROLLTON BLVD	SUFFOLK CL	WEST END CHUCKATUCK BRIDGE	NS	E	0.3	0.1	0.2	0.1	0.2	0.0	0.1	0.0	0.5	0.1	0.3	0.1
IW	CARROLLTON BLVD	WEST END CHUCKATUCK BRIDGE	ROUTE 258	NS	E	0.9	0.2	0.5	0.2	0.7	0.1	0.4	0.1	1.6	0.3	0.9	0.3
IW	CARROLLTON BLVD	ROUTE 258	SMITH'S NECK RD	NS	A	0.8	0.2	0.4	0.1	0.8	0.1	0.4	0.3	1.6	0.3	0.9	0.4
IW	CARROLLTON BLVD/JAMES RIVER BR	SMITH'S NECK RD	NEWPORT NEWS CL	NS	A	5.2	1.3	3.0	0.7	5.5	0.7	2.9	1.8	10.7	2.1	5.9	2.5
IW	ROUTE 10 (OLD STAGE HWY)	BUS RTE 10	IW/SURRY CL	NS	E	1.6	0.3	0.9	0.3	1.5	0.3	0.8	0.3	3.0	0.6	1.7	0.6
IW	ROUTE 10 BYPASS	CHURCH ST S	FAIRWAY DR	NS	A	0.5	0.1	0.2	0.2	0.6	0.1	0.3	0.2	1.1	0.2	0.5	0.4
IW	ROUTE 10 BYPASS	FAIRWAY DR	MAIN ST	NS	A	0.2	0.0	0.1	0.1	0.3	0.0	0.1	0.1	0.5	0.1	0.2	0.2
IW	ROUTE 10 BYPASS	MAIN ST	NCL SMITHFIELD	NS	E	0.3	0.0	0.2	0.0	0.4	0.1	0.2	0.1	0.7	0.2	0.4	0.1
IW	ROUTE 10 BYPASS	NCL SMITHFIELD	BUS RTE 10	NS	A	0.8	0.1	0.5	0.1	1.2	0.4	0.6	0.2	1.9	0.5	1.0	0.3
IW	ROUTE 258	CARRSVILLE HWY (BUS RTE 58)	BURDETTE RD (W RTE 619)	EW	E	0.4	0.1	0.2	0.1	0.4	0.1	0.2	0.1	0.8	0.2	0.4	0.2
IW	ROUTE 258	BURDETTE RD (W RTE 619)	RIVER RUN TRAIL (W RTE 614)	EW	E	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.1	0.0
IW	ROUTE 258	RIVER RUN TRAIL (W RTE 614)	BLACKWATER RD (RTE 603)	EW	A	0.6	0.1	0.4	0.1	0.7	0.1	0.3	0.2	1.3	0.3	0.7	0.3
IW	ROUTE 258	BLACKWATER RD (RTE 603)	WCL WINDSOR	EW	E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IW	ROUTE 258	WCL WINDSOR	ROUTE 460	EW	E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IW	ROUTE 258	ROUTE 460	ECL WINDSOR	EW	E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
IW	ROUTE 258	ECL WINDSOR	COURT ST NORTH (RTE 610)	EW	E	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0
IW	ROUTE 258	COURT ST NORTH (RTE 610)	IRON MINE SPRINGS RD (RTE 605)	EW	E	0.4	0.1	0.2	0.1	0.4	0.1	0.2	0.1	0.9	0.2	0.4	0.2

Appendix C – Truck Delay by Location (Non-Interstates)

Source: HRTPO analysis of INRIX, VDOT and CBBT data. Truck data type of "A" is based on actual vehicle classification count data, "E" is based on estimated vehicle classification count data.

						Northbound/Eastbound				Southbound/Westbound				Combined			
Juris	Facility Name	Segment From	Segment To	Dir	Truck Data Type	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)
IW	ROUTE 258	IRON MINE SPRINGS RD (RTE 605)	CENTRAL HILL RD (W RTE 637)	EW	E	0.2	0.1	0.1	0.0	0.2	0.1	0.1	0.1	0.5	0.1	0.2	0.1
IW	ROUTE 258	CENTRAL HILL RD (W RTE 637)	SCOTTS FACTORY RD (RTE 620)	EW	A	0.5	0.2	0.3	0.1	0.5	0.1	0.2	0.1	1.0	0.3	0.5	0.2
IW	ROUTE 258	SCOTTS FACTORY RD (RTE 620)	WCL SMITHFIELD	EW	A	0.4	0.1	0.3	0.1	0.4	0.1	0.2	0.1	0.8	0.2	0.5	0.2
IW	ROUTE 258/N MAIN ST	WCL SMITHFIELD	RTE 10 BYPASS	EW	A	0.6	0.1	0.4	0.1	0.5	0.1	0.3	0.1	1.1	0.2	0.6	0.2
IW	ROUTE 460	SOUTHAMPTON CL	FIRETOWER RD (RTE 644)	EW	E	0.3	0.1	0.2	0.1	0.2	0.0	0.1	0.0	0.5	0.1	0.3	0.1
IW	ROUTE 460	FIRETOWER RD (RTE 644)	WCL WINDSOR	EW	E	3.5	0.7	2.0	0.7	1.9	0.4	0.9	0.5	5.4	1.0	2.9	1.1
IW	ROUTE 460	WCL WINDSOR	ROUTE 258	EW	E	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
IW	ROUTE 460	ROUTE 258	COURT ST (RTE 610)	EW	E	3.0	0.6	1.5	0.8	5.4	1.1	2.6	1.5	8.3	1.7	4.1	2.3
IW	ROUTE 460	COURT ST (RTE 610)	ECL WINDSOR	EW	E	1.0	0.1	0.6	0.3	0.8	0.1	0.4	0.2	1.8	0.2	1.0	0.5
IW	ROUTE 460	ECL WINDSOR	SUFFOLK CL	EW	E	3.1	0.4	1.7	0.9	2.5	0.4	1.4	0.6	5.6	0.8	3.1	1.5
JCC	BARHAMSVILLE RD	I-64	ROUTE 60	NS	A	1.2	0.2	0.6	0.3	1.4	0.3	0.8	0.3	2.6	0.5	1.4	0.6
JCC	IRONBOUND RD/NEWS RD	JOHN TYLER HWY	MONTICELLO AVE	NS	E	0.9	0.1	0.4	0.4	0.8	0.1	0.4	0.3	1.7	0.2	0.8	0.7
JCC	IRONBOUND RD/SANDY BAY RD	JAMESTOWN RD	JOHN TYLER HWY	NS	E	0.6	0.1	0.3	0.2	0.5	0.1	0.3	0.2	1.2	0.2	0.6	0.3
JCC	JAMESTOWN RD	COLONIAL PARKWAY (RTE 359)	SANDY BAY RD (RTE 681)	EW	E	0.2	0.0	0.1	0.0	0.2	0.0	0.1	0.0	0.4	0.1	0.2	0.1
JCC	JAMESTOWN RD	SANDY BAY RD (RTE 681)	NECK-O-LAND RD	EW	A	0.2	0.0	0.1	0.1	0.2	0.0	0.1	0.0	0.4	0.1	0.2	0.1
JCC	JAMESTOWN RD	NECK-O-LAND RD	WILLIAMSBURG CL	EW	A	0.4	0.0	0.2	0.1	0.3	0.1	0.1	0.1	0.6	0.1	0.3	0.2
JCC	JOHN TYLER HWY	CHARLES CITY CL	MONTICELLO AVE	EW	E	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.2	0.0	0.1	0.0
JCC	JOHN TYLER HWY	MONTICELLO AVE	CENTERVILLE RD (RTE 614)	EW	E	0.2	0.0	0.2	0.0	0.4	0.1	0.2	0.1	0.6	0.1	0.4	0.1
JCC	JOHN TYLER HWY	CENTERVILLE RD (RTE 614)	IRONBOUND RD (RTE 615)	EW	E	1.0	0.4	0.4	0.2	0.8	0.1	0.5	0.2	1.8	0.5	0.9	0.3
JCC	JOHN TYLER HWY	IRONBOUND RD (RTE 615)	STANLEY DR (RTE 712)	EW	A	1.0	0.3	0.6	0.1	1.0	0.2	0.6	0.2	2.0	0.4	1.2	0.4
JCC	JOHN TYLER HWY	STANLEY DR (RTE 712)	ROUTE 199	EW	E	0.2	0.1	0.1	0.0	0.3	0.0	0.2	0.1	0.5	0.1	0.3	0.1
JCC	MERRIMAC TRL	NEWPORT NEWS CL @ I-64	YORK CL (SOUTH OF GROVE INT)	EW	E	2.3	1.2	0.8	0.2	2.3	0.4	0.9	1.0	4.6	1.6	1.7	1.2
JCC	MERRIMAC TRL	YORK CL @ ROUTE 199	PENNIMAN RD (YORK CL)	EW	E	0.5	0.2	0.2	0.1	0.7	0.1	0.4	0.2	1.2	0.3	0.6	0.3
JCC	OLD STAGE RD	NEW KENT CL	BARNES RD (RTE 601 S)	EW	E	1.1	0.3	0.5	0.3	1.1	0.1	0.4	0.5	2.2	0.4	0.9	0.8
JCC	OLD STAGE RD	BARNES RD (RTE 601 S)	I-64	EW	E	1.0	0.4	0.3	0.3	0.5	0.1	0.2	0.2	1.5	0.4	0.5	0.5
JCC	POCAHONTAS TRL	WILLIAMSBURG CL	YORK CL @ 199	EW	E	0.4	0.0	0.2	0.1	0.5	0.1	0.3	0.1	0.9	0.1	0.5	0.2
JCC	POCAHONTAS TRL	YORK CL	BASF RD	EW	A	1.6	0.4	0.8	0.3	1.5	0.4	0.7	0.4	3.1	0.7	1.5	0.7
JCC	POCAHONTAS TRL	BASF RD	NEWPORT NEWS CL	EW	E	0.7	0.2	0.4	0.1	0.6	0.2	0.3	0.2	1.3	0.3	0.6	0.3
JCC	RICHMOND RD	ROUTE 199	OLDE TOWNE RD (RTE 658)	EW	E	1.0	0.1	0.7	0.2	1.0	0.1	0.6	0.2	2.0	0.2	1.3	0.4
JCC	RICHMOND RD	OLDE TOWNE RD (RTE 658)	WILLIAMSBURG CL	EW	E	0.4	0.1	0.2	0.1	0.6	0.1	0.3	0.1	0.9	0.1	0.6	0.2
JCC	ROCHAMBEAU DR	ROUTE 60	CROAKER RD (RTE 607)	EW	A	0.7	0.2	0.3	0.2	0.5	0.2	0.2	0.1	1.1	0.4	0.5	0.3
JCC	ROUTE 199	YORK CL	RICHMOND RD (RTE 60)	EW	E	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.2	0.0	0.1	0.0
JCC	ROUTE 199	RICHMOND RD (RTE 60)	LONGHILL RD (RTE 612)	EW	E	0.3	0.0	0.2	0.0	0.4	0.1	0.3	0.0	0.7	0.1	0.5	0.1
JCC	ROUTE 199	LONGHILL RD (RTE 612)	MONTICELLO AVE (RTE 321)	EW	A	0.4	0.1	0.3	0.1	0.4	0.1	0.2	0.1	0.8	0.2	0.5	0.1
JCC	ROUTE 199	MONTICELLO AVE (RTE 321)	JOHN TYLER HWY (RTE 5)	EW	E	1.4	0.3	0.9	0.2	0.6	0.1	0.4	0.1	2.0	0.4	1.3	0.3
JCC	ROUTE 199	JOHN TYLER HWY (RTE 5)	WILLIAMSBURG CL	EW	E	0.9	0.2	0.5	0.2	0.8	0.2	0.4	0.1	1.7	0.3	0.9	0.4
JCC	ROUTE 199	WILLIAMSBURG CL	HENRY ST/COLONIAL PKWY	EW	A	3.1	0.5	1.7	0.8	3.6	0.9	2.0	0.6	6.7	1.4	3.8	1.4
JCC	ROUTE 199	HENRY ST/COLONIAL PKWY	MOUNTS BAY RD/QUARTERPATH RD	EW	E	1.9	0.3	1.2	0.4	3.5	0.8	1.8	0.8	5.4	1.1	3.0	1.2
JCC	ROUTE 199	MOUNTS BAY RD/QUARTERPATH RD	RTE 60/RTE 143/YORK CL	EW	E	0.7	0.1	0.5	0.1	2.0	0.5	1.1	0.4	2.7	0.5	1.5	0.6
JCC	ROUTE 60	NEW KENT CL	ROUTE 30	EW	E	0.4	0.1	0.2	0.1	0.4	0.1	0.3	0.1	0.8	0.1	0.5	0.2
JCC	ROUTE 60	ROUTE 30	CROAKER RD (RTE 607)	EW	E	1.4	0.3	0.8	0.2	1.3	0.2	0.8	0.3	2.7	0.6	1.6	0.5
JCC	ROUTE 60	CROAKER RD (RTE 607)	LIGHTFOOT RD (RTE 646)	EW	A	2.8	0.5	1.8	0.4	2.2	0.4	1.3	0.5	5.0	0.9	3.1	1.0
JCC	ROUTE 60	LIGHTFOOT RD (RTE 646)	CENTERVILLE RD (RTE 614)	EW	A	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.2	0.0	0.1	0.0
JCC	ROUTE 60	CENTERVILLE RD (RTE 614)	ROUTE 199	EW	A	0.9	0.3	0.4	0.2	1.2	0.2	0.7	0.2	2.1	0.5	1.2	0.4
NN	23RD/25TH CONNECTOR	HUNTINGTON AVE	JEFFERSON AVE	EW	A	0.1	0.0	0.1	0.0					0.1	0.0	0.1	0.0
NN	25TH ST	JEFFERSON AVE	26TH ST	EW	E	0.8	0.1	0.6	0.1					0.8	0.1	0.6	0.1
NN	25TH ST	26TH ST	HAMPTON CL	EW	E	0.3	0.0	0.1	0.1	0.3	0.1	0.1	0.1	0.5	0.1	0.3	0.1
NN	26TH ST	25TH ST	ROANOKE AVE	EW	A					0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1
NN	26TH ST	ROANOKE AVE	JEFFERSON AVE	EW	A					0.4	0.1	0.3	0.1	0.4	0.1	0.3	0.1
NN	26TH ST	JEFFERSON AVE	WARWICK BLVD	EW	E					0.2	0.1	0.1	0.0	0.2	0.1	0.1	0.0

Appendix C – Truck Delay by Location (Non-Interstates)

Source: HRTPO analysis of INRIX, VDOT and CBBT data. Truck data type of "A" is based on actual vehicle classification count data, "E" is based on estimated vehicle classification count data.

						Northbound/Eastbound				Southbound/Westbound				Combined			
Juris	Facility Name	Segment From	Segment To	Dir	Truck Data Type	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)
NN	26TH ST	WARWICK BLVD	HUNTINGTON AVE	EW	E					0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0
NN	39TH ST	HUNTINGTON AVE	MADISON AVE	EW	A	0.3	0.1	0.2	0.0	0.3	0.0	0.2	0.0	0.6	0.1	0.4	0.1
NN	39TH ST	MADISON AVE	HAMPTON CL	EW	A	0.5	0.1	0.3	0.1	0.4	0.1	0.3	0.0	0.9	0.2	0.6	0.1
NN	BRIARFIELD RD	JEFFERSON AVE	HAMPTON CL	EW	A	0.7	0.2	0.3	0.1	0.6	0.1	0.3	0.1	1.2	0.3	0.7	0.3
NN	CHESTNUT AVE	39TH ST	44TH ST	NS	E	0.1	0.0	0.1	0.0	0.2	0.0	0.1	0.0	0.3	0.0	0.2	0.0
NN	CHESTNUT AVE	44TH ST	BRIARFIELD RD	NS	E	0.5	0.1	0.3	0.1	0.9	0.1	0.7	0.1	1.3	0.2	1.0	0.2
NN	CHESTNUT AVE	BRIARFIELD RD	HAMPTON CL	NS	A	0.4	0.0	0.3	0.1	0.6	0.0	0.5	0.1	1.0	0.1	0.8	0.2
NN	DENBIGH BLVD	LUCAS CREEK RD	WARWICK BLVD	EW	E	0.7	0.3	0.3	0.1	0.6	0.2	0.2	0.2	1.3	0.5	0.5	0.3
NN	DENBIGH BLVD	WARWICK BLVD	JEFFERSON AVE	EW	A	1.4	0.4	0.8	0.2	1.8	0.4	1.0	0.4	3.2	0.8	1.7	0.6
NN	DENBIGH BLVD	JEFFERSON AVE	YORK CL	EW	E	0.9	0.1	0.5	0.2	0.9	0.1	0.6	0.1	1.8	0.3	1.1	0.4
NN	FORT EUSTIS BLVD	WARWICK BLVD	I-64	EW	A	0.9	0.2	0.4	0.3	1.1	0.3	0.6	0.1	2.0	0.5	1.0	0.4
NN	FORT EUSTIS BLVD	I-64	JEFFERSON AVE	EW	E	0.3	0.1	0.2	0.1	0.5	0.1	0.3	0.1	0.9	0.2	0.5	0.1
NN	FORT EUSTIS BLVD	JEFFERSON AVE	.54 MILES EAST OF RTE 143	EW	A	0.7	0.2	0.4	0.1	0.7	0.2	0.4	0.1	1.4	0.4	0.8	0.2
NN	FORT EUSTIS BLVD	.54 MILES EAST OF RTE 143	YORK CL	EW	A	0.9	0.2	0.5	0.2	1.0	0.3	0.6	0.1	1.9	0.5	1.1	0.3
NN	HRC PARKWAY	HARPERSVILLE RD	HAMPTON CL	EW	A	0.4	0.1	0.2	0.0	0.3	0.1	0.2	0.0	0.7	0.2	0.4	0.1
NN	HUNTINGTON AVE	71ST ST	39TH ST	NS	A					0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NN	HUNTINGTON AVE	39TH ST	26TH ST	NS	E					0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NN	J CLYDE MORRIS BLVD	JEFFERSON AVE	THIMBLE SHOALS BLVD	NS	E	2.1	0.5	1.1	0.5	2.6	0.7	1.4	0.5	4.8	1.3	2.5	1.0
NN	J CLYDE MORRIS BLVD	THIMBLE SHOALS BLVD	I-64	NS	E	3.3	0.8	1.6	0.8	4.0	1.1	2.1	0.7	7.3	2.0	3.7	1.5
NN	J CLYDE MORRIS BLVD	I-64	HARPERSVILLE RD	NS	E	1.5	0.2	0.9	0.4	0.8	0.3	0.4	0.1	2.3	0.5	1.2	0.6
NN	J CLYDE MORRIS BLVD	HARPERSVILLE RD	YORK CL	NS	E	0.3	0.1	0.2	0.1	0.3	0.1	0.2	0.1	0.6	0.1	0.3	0.1
NN	JEFFERSON AVE	JAMES CITY CL	YORKTOWN RD	NS	E	0.5	0.2	0.2	0.1	0.5	0.1	0.2	0.2	1.0	0.3	0.5	0.2
NN	JEFFERSON AVE	YORKTOWN RD	FORT EUSTIS BLVD	NS	A	0.7	0.3	0.4	0.1	0.7	0.2	0.4	0.2	1.4	0.5	0.7	0.2
NN	JEFFERSON AVE	FORT EUSTIS BLVD	FUTURE ATKINSON BLVD	NS	E	2.2	0.6	1.1	0.4	2.0	0.5	1.0	0.5	4.2	1.1	2.1	0.9
NN	JEFFERSON AVE	FUTURE ATKINSON BLVD	DENBIGH BLVD	NS	A	3.5	0.9	1.8	0.7	3.1	0.8	1.5	0.7	6.5	1.7	3.3	1.4
NN	JEFFERSON AVE	DENBIGH BLVD	BLAND BLVD	NS	A	6.2	0.9	2.8	2.4	4.5	0.8	2.7	0.9	10.8	1.7	5.6	3.3
NN	JEFFERSON AVE	BLAND BLVD	I-64	NS	A	5.7	0.8	2.7	1.9	4.9	0.9	2.5	1.4	10.6	1.7	5.1	3.4
NN	JEFFERSON AVE	I-64	OYSTER POINT RD	NS	E	3.7	0.7	2.0	0.9	4.1	0.8	2.3	1.0	7.8	1.5	4.3	1.9
NN	JEFFERSON AVE	OYSTER POINT RD	MUELLER LA	NS	E	3.1	0.7	1.5	0.9	3.6	1.0	1.9	0.6	6.6	1.7	3.4	1.5
NN	JEFFERSON AVE	MUELLER LA	MIDDLE GROUND BLVD	NS	E	1.7	0.4	0.8	0.5	1.9	0.5	1.0	0.4	3.6	0.9	1.8	0.8
NN	JEFFERSON AVE	MIDDLE GROUND BLVD	J CLYDE MORRIS BLVD	NS	A	4.2	0.8	1.9	1.5	5.1	1.6	2.6	0.8	9.3	2.4	4.5	2.3
NN	JEFFERSON AVE	J CLYDE MORRIS BLVD	HARPERSVILLE RD	NS	E	5.0	1.0	2.7	1.1	3.5	1.1	1.8	0.6	8.5	2.1	4.5	1.8
NN	JEFFERSON AVE	HARPERSVILLE RD	MAIN ST	NS	A	4.3	1.0	2.3	1.0	3.9	1.2	2.0	0.7	8.2	2.2	4.2	1.7
NN	JEFFERSON AVE	MAIN ST	CENTER AVE	NS	E	1.4	0.3	0.8	0.3	2.1	0.5	1.0	0.5	3.5	0.9	1.8	0.8
NN	JEFFERSON AVE	CENTER AVE	MERCURY BLVD	NS	E	1.3	0.2	0.7	0.4	1.7	0.4	1.0	0.3	3.0	0.6	1.7	0.7
NN	JEFFERSON AVE	MERCURY BLVD	BRIARFIELD RD	NS	E	2.1	0.6	1.1	0.4	1.5	0.3	0.8	0.3	3.6	0.9	2.0	0.7
NN	JEFFERSON AVE	BRIARFIELD RD	41ST ST	NS	E	1.8	0.6	0.9	0.3	0.9	0.3	0.5	0.2	2.7	0.8	1.4	0.5
NN	JEFFERSON AVE	41ST ST	35TH ST	NS	E	0.3	0.1	0.1	0.1	0.4	0.1	0.2	0.1	0.6	0.2	0.3	0.1
NN	JEFFERSON AVE	35TH ST	25TH ST	NS	A	0.9	0.2	0.4	0.2	2.5	0.2	1.8	0.5	3.4	0.4	2.2	0.7
NN	MAIN ST	WARWICK BLVD	JEFFERSON AVE	EW	A	0.3	0.0	0.2	0.1	0.3	0.1	0.1	0.1	0.5	0.1	0.3	0.1
NN	MAIN ST	JEFFERSON AVE	HAMPTON CL	EW	A	0.1	0.0	0.0	0.0	0.2	0.1	0.1	0.0	0.3	0.1	0.1	0.0
NN	MERCURY BLVD/JAMES RIVER BR	ISLE OF WIGHT CL	RIVER RD	EW	A	0.2	0.0	0.1	0.0	0.2	0.0	0.1	0.1	0.4	0.1	0.2	0.1
NN	MERCURY BLVD	RIVER RD	WARWICK BLVD	EW	E	0.2	0.0	0.1	0.0	0.2	0.0	0.1	0.1	0.3	0.1	0.2	0.1
NN	MERCURY BLVD	WARWICK BLVD	JEFFERSON AVE	EW	E	0.4	0.1	0.3	0.1	0.5	0.1	0.2	0.1	0.9	0.2	0.5	0.2
NN	MERCURY BLVD	JEFFERSON AVE	HAMPTON CL	EW	E	0.5	0.1	0.3	0.1	0.5	0.1	0.3	0.1	1.0	0.1	0.6	0.2
NN	OYSTER POINT RD	WARWICK BLVD	JEFFERSON AVE	EW	A	3.2	0.5	1.6	1.0	3.3	0.7	1.5	1.1	6.5	1.2	3.2	2.0
NN	OYSTER POINT RD	JEFFERSON AVE	CANON BLVD	EW	A	1.5	0.4	0.7	0.3	3.6	0.4	1.1	2.1	5.1	0.8	1.8	2.5
NN	OYSTER POINT RD	CANON BLVD	I-64	EW	E	0.4	0.1	0.2	0.1	2.5	0.3	0.7	1.4	2.8	0.5	0.9	1.4
NN	ROANOKE AVE	I-664	43RD ST	NS	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
NN	ROANOKE AVE	43RD ST	BRIARFIELD RD	NS	A	0.2	0.0	0.1	0.0	0.2	0.0	0.1	0.0	0.4	0.1	0.2	0.1

Appendix C – Truck Delay by Location (Non-Interstates)

Source: HRTPO analysis of INRIX, VDOT and CBBT data. Truck data type of "A" is based on actual vehicle classification count data, "E" is based on estimated vehicle classification count data.

						Northbound/Eastbound				Southbound/Westbound				Combined			
Juris	Facility Name	Segment From	Segment To	Dir	Truck Data Type	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)
NN	ROANOKE AVE	BRIARFIELD RD	HAMPTON CL	NS	E	1.1	0.1	0.7	0.3	0.4	0.0	0.2	0.2	1.5	0.1	0.9	0.5
NN	VICTORY BLVD	I-64	YORK CL	EW	E	1.3	0.2	0.6	0.5	0.7	0.1	0.4	0.2	2.0	0.3	0.9	0.7
NN	WARWICK BLVD	JAMES CITY CL	YORKTOWN RD	NS	E	1.1	0.3	0.5	0.3	1.2	0.3	0.6	0.3	2.3	0.6	1.2	0.5
NN	WARWICK BLVD	YORKTOWN RD	FORT EUSTIS BLVD	NS	A	2.9	0.7	1.8	0.4	3.3	0.7	2.0	0.6	6.2	1.4	3.8	1.0
NN	WARWICK BLVD	FORT EUSTIS BLVD	SNIDOW BLVD	NS	E	2.9	0.6	1.6	0.6	3.0	0.5	1.7	0.7	5.9	1.2	3.3	1.3
NN	WARWICK BLVD	SNIDOW BLVD	DENBIGH BLVD	NS	A	2.6	0.6	1.4	0.6	2.7	0.5	1.5	0.6	5.3	1.0	2.9	1.2
NN	WARWICK BLVD	DENBIGH BLVD	BLAND BLVD	NS	A	1.7	0.2	1.0	0.5	1.3	0.2	0.7	0.4	3.0	0.4	1.7	0.8
NN	WARWICK BLVD	BLAND BLVD	OYSTER POINT RD	NS	E	1.5	0.2	0.9	0.4	1.5	0.3	0.8	0.4	3.0	0.5	1.7	0.8
NN	WARWICK BLVD	OYSTER POINT RD	MAXWELL LN	NS	A	1.1	0.3	0.6	0.2	1.1	0.2	0.6	0.3	2.2	0.5	1.2	0.5
NN	WARWICK BLVD	MAXWELL LN	DEEP CREEK RD	NS	A	0.5	0.1	0.2	0.1	0.5	0.1	0.3	0.1	0.9	0.2	0.5	0.2
NN	WARWICK BLVD	DEEP CREEK RD	J CLYDE MORRIS BLVD	NS	E	1.2	0.3	0.6	0.2	1.2	0.2	0.7	0.3	2.4	0.5	1.3	0.5
NN	WARWICK BLVD	J CLYDE MORRIS BLVD	HARPERSVILLE RD	NS	A	0.7	0.1	0.4	0.2	0.3	0.0	0.2	0.1	1.0	0.2	0.6	0.2
NN	WARWICK BLVD	HARPERSVILLE RD	MAIN ST	NS	E	1.1	0.2	0.7	0.3	1.2	0.1	0.9	0.2	2.3	0.3	1.5	0.5
NN	WARWICK BLVD	MAIN ST	CENTER AVE	NS	A	0.7	0.1	0.4	0.1	0.5	0.1	0.3	0.1	1.2	0.3	0.7	0.3
NN	WARWICK BLVD	CENTER AVE	MERCURY BLVD	NS	A	0.5	0.1	0.3	0.1	0.4	0.1	0.2	0.1	0.9	0.2	0.5	0.2
NN	WARWICK BLVD	MERCURY BLVD	HUNTINGTON AVE	NS	A	0.2	0.0	0.1	0.0	0.3	0.1	0.2	0.1	0.6	0.1	0.3	0.1
NN	WARWICK BLVD	23RD ST	39TH ST	NS	A	0.0	0.0	0.0	0.0					0.0	0.0	0.0	0.0
NN	WARWICK BLVD	39TH ST	HUNTINGTON AVE	NS	A	0.0	0.0	0.0	0.0					0.0	0.0	0.0	0.0
NOR	26TH ST	HAMPTON BLVD	COLLEY AVE	EW	E	0.4	0.1	0.2	0.1					0.4	0.1	0.2	0.1
NOR	26TH ST	COLLEY AVE	LLEWELLYN AVE	EW	E	1.6	0.3	1.0	0.3					1.6	0.3	1.0	0.3
NOR	26TH ST	LLEWELLYN AVE	MONTICELLO AVE	EW	E	0.6	0.1	0.4	0.1					0.6	0.1	0.4	0.1
NOR	26TH ST	MONTICELLO AVE	CHURCH ST	EW	A	0.3	0.1	0.2	0.1					0.3	0.1	0.2	0.1
NOR	26TH ST	CHURCH ST	27TH ST	EW	E	0.3	0.0	0.2	0.1					0.3	0.0	0.2	0.1
NOR	27TH ST	HAMPTON BLVD	COLLEY AVE	EW	A					1.6	0.5	0.8	0.3	1.6	0.5	0.8	0.3
NOR	27TH ST	COLLEY AVE	LLEWELLYN AVE	EW	A					1.8	0.4	0.9	0.3	1.8	0.4	0.9	0.3
NOR	27TH ST	LLEWELLYN AVE	MONTICELLO AVE	EW	E					1.0	0.2	0.5	0.2	1.0	0.2	0.5	0.2
NOR	27TH ST	MONTICELLO AVE	CHURCH ST	EW	E					0.6	0.2	0.4	0.1	0.6	0.2	0.4	0.1
NOR	27TH ST	CHURCH ST	26TH ST	EW	E					0.5	0.2	0.2	0.1	0.5	0.2	0.2	0.1
NOR	38TH ST	HAMPTON BLVD	COLLEY AVE	EW	E	0.1	0.0	0.1	0.0	0.2	0.0	0.1	0.0	0.3	0.0	0.2	0.1
NOR	38TH ST	COLLEY AVE	LLEWELLYN AVE	EW	A	0.3	0.1	0.2	0.1	0.2	0.0	0.1	0.0	0.5	0.1	0.3	0.1
NOR	38TH ST	LLEWELLYN AVE	GRANBY ST	EW	E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
NOR	4TH VIEW ST	I-64	OCEAN VIEW AVE	EW	A	0.4	0.1	0.3	0.1	0.4	0.0	0.1	0.3	0.8	0.1	0.4	0.3
NOR	ADMIRAL TAUSSIG BLVD	HAMPTON BLVD	I-564	EW	E	2.8	0.7	1.8	0.2	3.5	0.8	2.3	0.4	6.3	1.5	4.1	0.6
NOR	AZALEA GARDEN RD	VA BEACH BLVD	PRINCESS ANNE RD	NS	E	1.6	0.5	0.9	0.2	1.4	0.3	0.8	0.3	3.0	0.8	1.7	0.5
NOR	AZALEA GARDEN RD	PRINCESS ANNE RD	SEWELLS POINT RD	NS	E	0.5	0.2	0.3	0.1	0.8	0.2	0.4	0.2	1.3	0.3	0.8	0.2
NOR	AZALEA GARDEN RD	SEWELLS POINT RD	ROBIN HOOD RD	NS	E	0.7	0.2	0.4	0.1	1.0	0.2	0.6	0.2	1.7	0.4	1.0	0.3
NOR	AZALEA GARDEN RD	ROBIN HOOD RD	I-64	NS	E	0.7	0.3	0.3	0.1	0.6	0.1	0.3	0.1	1.3	0.4	0.6	0.2
NOR	AZALEA GARDEN RD	I-64	MILITARY HWY	NS	E	0.6	0.2	0.3	0.1	0.5	0.1	0.3	0.1	1.1	0.3	0.5	0.2
NOR	AZALEA GARDEN RD	MILITARY HWY	NORVIEW AVE	NS	E	0.5	0.1	0.3	0.1	0.5	0.1	0.4	0.0	1.0	0.2	0.7	0.1
NOR	AZALEA GARDEN RD	NORVIEW AVE	LITTLE CREEK RD	NS	E	0.9	0.4	0.4	0.1	1.0	0.2	0.6	0.2	2.0	0.6	1.0	0.3
NOR	BALLENTINE BLVD	I-264	VA BEACH BLVD	NS	A	8.3	1.6	5.1	1.6	12.1	2.8	6.7	2.4	20.4	4.4	11.8	4.0
NOR	BALLENTINE BLVD	VA BEACH BLVD	PRINCESS ANNE RD	NS	A	1.7	0.4	1.0	0.3	5.3	0.6	2.5	1.9	7.0	1.0	3.5	2.2
NOR	BALLENTINE BLVD	PRINCESS ANNE RD	CHESAPEAKE BLVD	NS	E	2.0	0.5	1.2	0.3	6.8	0.6	2.7	3.0	8.9	1.0	3.9	3.4
NOR	BAYVIEW BLVD	GRANBY ST	TIDEWATER DR	EW	E	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.3	0.1	0.1	0.1
NOR	BAYVIEW BLVD	TIDEWATER DR	CHESAPEAKE BLVD	EW	A	0.2	0.0	0.1	0.1	0.2	0.1	0.1	0.0	0.4	0.1	0.2	0.1
NOR	BAYVIEW BLVD	CHESAPEAKE BLVD	CAPE VIEW AVE	EW	E	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.0	0.5	0.2	0.2	0.1
NOR	BOUSH ST/WATERSIDE DR	ST PAULS BLVD	CITY HALL AVE	NS	E	2.7	0.6	1.2	0.8	1.7	0.6	0.7	0.4	4.4	1.2	1.9	1.2
NOR	BOUSH ST	CITY HALL AVE	BUTE STREET	NS	E	2.0	0.4	1.0	0.5	0.9	0.3	0.4	0.2	2.9	0.7	1.4	0.8
NOR	BOUSH ST	BUTE STREET	BRAMBLETON AVE	NS	E	0.5	0.1	0.3	0.1	0.2	0.1	0.1	0.1	0.7	0.2	0.4	0.2
NOR	BRAMBLETON AVE	HAMPTON BLVD	COLLEY AVE	EW	E	4.8	1.1	3.3	0.5	4.6	0.2	1.3	3.1	9.5	1.3	4.6	3.6

Appendix C – Truck Delay by Location (Non-Interstates)

Source: HRTPO analysis of INRIX, VDOT and CBBT data. Truck data type of "A" is based on actual vehicle classification count data, "E" is based on estimated vehicle classification count data.

						Northbound/Eastbound				Southbound/Westbound				Combined			
Juris	Facility Name	Segment From	Segment To	Dir	Truck Data Type	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)
NOR	BRAMBLETON AVE	COLLEY AVE	BOUSH ST	EW	E	8.5	1.5	5.8	1.1	7.6	1.4	4.8	1.4	16.1	2.9	10.6	2.5
NOR	BRAMBLETON AVE	BOUSH ST	MONTICELLO AVE	EW	E	1.6	0.4	1.1	0.1	1.6	0.3	1.0	0.2	3.2	0.7	2.1	0.4
NOR	BRAMBLETON AVE	MONTICELLO AVE	ST PAULS BLVD	EW	E	1.1	0.2	0.7	0.1	1.1	0.2	0.7	0.2	2.1	0.5	1.4	0.3
NOR	BRAMBLETON AVE	ST PAULS BLVD	CHURCH ST	EW	E	1.1	0.3	0.5	0.3	1.3	0.2	0.7	0.4	2.3	0.4	1.3	0.6
NOR	BRAMBLETON AVE	CHURCH ST	TIDEWATER DR	EW	E	1.5	0.4	0.8	0.4	1.8	0.2	1.0	0.5	3.3	0.6	1.8	0.9
NOR	BRAMBLETON AVE	TIDEWATER DR	PARK AVE	EW	A	1.8	0.4	1.0	0.4	6.0	0.9	3.3	1.7	7.9	1.3	4.4	2.1
NOR	BRAMBLETON AVE	PARK AVE	I-264	EW	A	1.0	0.2	0.6	0.2	3.1	0.5	1.8	0.8	4.1	0.7	2.3	1.0
NOR	CAMPOSTELLA RD	WILSON RD	S. END CAMPOSTELLA BRIDGE	NS	E	1.5	0.6	0.7	0.1	2.0	0.3	1.0	0.6	3.5	0.9	1.6	0.8
NOR	CAMPOSTELLA RD	S. END CAMPOSTELLA BRIDGE	KIMBALL TERR	NS	E	3.3	1.3	1.7	0.3	2.5	0.5	1.4	0.6	5.8	1.7	3.1	0.8
NOR	CAMPOSTELLA RD	KIMBALL TERR	I-264	NS	E	0.7	0.3	0.4	0.1	0.6	0.1	0.3	0.1	1.3	0.4	0.7	0.2
NOR	CHESAPEAKE BLVD	LAFAYETTE BLVD	CROMWELL DR	NS	E	0.9	0.1	0.5	0.3	0.6	0.1	0.3	0.2	1.5	0.2	0.8	0.5
NOR	CHESAPEAKE BLVD	CROMWELL DR	ROBIN HOOD RD	NS	E	0.3	0.0	0.2	0.1	0.2	0.0	0.1	0.0	0.5	0.1	0.3	0.1
NOR	CHESAPEAKE BLVD	ROBIN HOOD RD	HYDE CIR	NS	E	1.4	0.2	0.9	0.3	0.9	0.2	0.5	0.2	2.3	0.3	1.4	0.5
NOR	CHESAPEAKE BLVD	HYDE CIR	NORVIEW AVE	NS	E	0.2	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.3	0.1	0.2	0.1
NOR	CHESAPEAKE BLVD	NORVIEW AVE	I-64	NS	E	0.8	0.4	0.3	0.1	1.9	0.3	1.0	0.5	2.7	0.8	1.3	0.6
NOR	CHESAPEAKE BLVD	I-64	JOHNSTONS RD	NS	E	0.5	0.1	0.3	0.1	0.2	0.0	0.2	0.0	0.7	0.2	0.4	0.1
NOR	CHESAPEAKE BLVD	JOHNSTONS RD	LITTLE CREEK RD	NS	E	0.8	0.2	0.4	0.1	0.4	0.1	0.3	0.1	1.1	0.3	0.7	0.2
NOR	CHESAPEAKE BLVD	LITTLE CREEK RD	SHEPPARD AVE	NS	E	0.4	0.1	0.2	0.1	0.5	0.1	0.3	0.1	0.9	0.2	0.5	0.2
NOR	CHESAPEAKE BLVD	SHEPPARD AVE	BAYVIEW BLVD	NS	E	0.3	0.1	0.1	0.0	0.3	0.1	0.2	0.1	0.6	0.2	0.3	0.1
NOR	CHESAPEAKE BLVD	BAYVIEW BLVD	CHESAPEAKE ST	NS	E	0.2	0.1	0.1	0.0	0.3	0.1	0.2	0.1	0.5	0.1	0.3	0.1
NOR	CHESAPEAKE BLVD	CHESAPEAKE ST	OCEAN VIEW AVE	NS	A	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.1	0.0
NOR	CHURCH ST	MONTICELLO AVE	GRANBY ST	NS	E	0.4	0.1	0.2	0.1	0.4	0.1	0.2	0.1	0.9	0.2	0.5	0.2
NOR	CITY HALL AVE	BOUSH ST	GRANBY ST	EW	E	0.2	0.0	0.1	0.1	0.1	0.0	0.1	0.0	0.3	0.1	0.1	0.1
NOR	CITY HALL AVE	GRANBY ST	MONTICELLO AVE	EW	E	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.0	0.1	0.1
NOR	CITY HALL AVE	MONTICELLO AVE	ST PAULS BLVD	EW	E	0.7	0.1	0.3	0.3	0.4	0.1	0.2	0.1	1.1	0.2	0.5	0.4
NOR	COLLEY AVE	BRAMBLETON AVE	OLNEY RD	NS	E	0.2	0.1	0.1	0.1	0.3	0.0	0.1	0.1	0.5	0.1	0.3	0.1
NOR	COLLEY AVE	OLNEY RD	PRINCESS ANNE RD	NS	E	0.3	0.1	0.2	0.1	0.5	0.1	0.2	0.1	0.8	0.1	0.4	0.2
NOR	COLLEY AVE	PRINCESS ANNE RD	21ST ST	NS	E	0.5	0.1	0.3	0.1	0.4	0.0	0.2	0.1	0.9	0.1	0.6	0.3
NOR	COLLEY AVE	21ST ST	26TH ST	NS	E	0.3	0.1	0.2	0.0	0.2	0.0	0.1	0.1	0.5	0.1	0.3	0.1
NOR	COLLEY AVE	26TH ST	27TH ST	NS	E	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0
NOR	COLLEY AVE	27TH ST	38TH ST	NS	A	0.2	0.0	0.1	0.1	0.2	0.0	0.1	0.1	0.4	0.0	0.2	0.1
NOR	COLLEY AVE	38TH ST	53RD ST	NS	A	0.4	0.1	0.2	0.1	0.4	0.0	0.2	0.2	0.8	0.1	0.4	0.3
NOR	GRANBY ST	CHURCH ST	38TH ST	NS	E	0.5	0.1	0.3	0.1	0.5	0.1	0.2	0.1	1.0	0.2	0.5	0.2
NOR	GRANBY ST	38TH ST	LLEWELLYN AVE	NS	E	0.6	0.2	0.2	0.1	0.5	0.1	0.3	0.1	1.0	0.3	0.5	0.2
NOR	GRANBY ST	LLEWELLYN AVE	WILLOW WOOD DRIVE	NS	E	0.6	0.2	0.2	0.1	0.5	0.1	0.3	0.1	1.0	0.3	0.5	0.2
NOR	GRANBY ST	WILLOW WOOD DRIVE	THOLE ST	NS	A	1.2	0.4	0.6	0.3	1.2	0.3	0.7	0.2	2.4	0.7	1.3	0.5
NOR	GRANBY ST	THOLE ST	LITTLE CREEK RD	NS	E	1.3	0.3	0.6	0.3	1.2	0.2	0.6	0.3	2.5	0.6	1.2	0.6
NOR	GRANBY ST	LITTLE CREEK RD	I-564	NS	E	0.5	0.1	0.2	0.1	0.5	0.1	0.2	0.1	1.0	0.2	0.5	0.2
NOR	GRANBY ST	I-564	I-64	NS	E	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.0	0.4	0.1	0.2	0.1
NOR	GRANBY ST	I-64	BAYVIEW BLVD	NS	E	0.4	0.1	0.1	0.1	0.5	0.2	0.2	0.0	0.9	0.4	0.4	0.1
NOR	GRANBY ST	BAYVIEW BLVD	BAY AVE	NS	A	0.3	0.1	0.1	0.1	0.3	0.1	0.1	0.0	0.6	0.2	0.3	0.1
NOR	GRANBY ST	BAY AVE	TIDEWATER DR	NS	A	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.0	0.4	0.1	0.2	0.1
NOR	GRANBY ST	TIDEWATER DR	OCEAN VIEW AVE	NS	E	0.3	0.1	0.1	0.1	0.2	0.0	0.1	0.0	0.5	0.1	0.3	0.1
NOR	HAMPTON BLVD	BRAMBLETON AVE	PRINCESS ANNE RD	NS	E	3.0	0.6	2.0	0.4	6.8	0.6	3.5	2.7	9.8	1.2	5.5	3.1
NOR	HAMPTON BLVD	PRINCESS ANNE RD	21ST ST	NS	E	3.6	0.7	2.5	0.5	8.2	0.8	4.2	3.2	11.8	1.5	6.6	3.7
NOR	HAMPTON BLVD	21ST ST	26TH ST	NS	E	1.0	0.2	0.6	0.1	1.4	0.2	0.7	0.5	2.3	0.5	1.3	0.6
NOR	HAMPTON BLVD	26TH ST	27TH ST	NS	E	0.6	0.1	0.5	0.0	0.6	0.1	0.4	0.1	1.3	0.2	0.9	0.2
NOR	HAMPTON BLVD	27TH ST	38TH ST	NS	E	1.3	0.3	0.9	0.2	1.4	0.2	0.9	0.2	2.7	0.5	1.8	0.4
NOR	HAMPTON BLVD	38TH ST	JAMESTOWN CRESCENT	NS	A	10.5	2.5	6.7	1.2	11.1	1.8	7.5	1.8	21.5	4.2	14.2	3.1
NOR	HAMPTON BLVD	JAMESTOWN CRESCENT	LITTLE CREEK RD	NS	A	6.2	1.7	3.9	0.5	3.3	0.5	2.2	0.6	9.5	2.2	6.1	1.1

Appendix C – Truck Delay by Location (Non-Interstates)

Source: HRTPO analysis of INRIX, VDOT and CBBT data. Truck data type of "A" is based on actual vehicle classification count data, "E" is based on estimated vehicle classification count data.

						Northbound/Eastbound				Southbound/Westbound				Combined			
Juris	Facility Name	Segment From	Segment To	Dir	Truck Data Type	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)
NOR	HAMPTON BLVD	LITTLE CREEK RD	INTERNATIONAL TERMINAL BLVD	NS	E	0.9	0.2	0.6	0.1	0.5	0.1	0.3	0.1	1.3	0.3	0.9	0.2
NOR	HAMPTON BLVD	INTERNATIONAL TERMINAL BLVD	FUTURE INTERMODAL CONNECTOR	NS	E	6.7	1.8	4.2	0.5	5.0	0.7	3.6	0.7	11.8	2.6	7.8	1.2
NOR	HAMPTON BLVD	FUTURE INTERMODAL CONNECTOR	ADM TAUSSIG BLVD	NS	E	6.2	1.7	3.8	0.5	4.6	0.7	3.3	0.6	10.8	2.4	7.2	1.1
NOR	INDIAN RIVER RD	MARSH ST	WILSON RD	EW	E	0.2	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.3	0.1	0.2	0.0
NOR	INDIAN RIVER RD	WILSON RD	CAMPOSTELLA RD	EW	E	0.3	0.1	0.1	0.1	0.2	0.1	0.1	0.0	0.5	0.1	0.3	0.1
NOR	INDIAN RIVER RD	CAMPOSTELLA RD	CHESAPEAKE CL	EW	A	0.7	0.1	0.4	0.1	1.4	0.5	0.7	0.1	2.0	0.6	1.2	0.3
NOR	INGLESIDE RD	VA BEACH BLVD	PRINCESS ANNE RD	NS	E	1.7	0.5	1.0	0.2	1.9	0.7	1.0	0.2	3.6	1.1	2.0	0.5
NOR	INGLESIDE RD	PRINCESS ANNE RD	TAIT TERRACE DR	NS	A	0.7	0.2	0.5	0.1	0.9	0.2	0.6	0.1	1.7	0.4	1.0	0.2
NOR	JAMESTOWN CRESCENT	53RD ST	HAMPTON BLVD	NS	E	0.2	0.0	0.1	0.1	0.2	0.0	0.1	0.1	0.3	0.0	0.2	0.1
NOR	LAFAYETTE BLVD	27TH ST	TIDEWATER DR	EW	E	0.8	0.1	0.4	0.3	0.6	0.2	0.2	0.1	1.4	0.3	0.6	0.4
NOR	LAFAYETTE BLVD	TIDEWATER DR	CHESAPEAKE BLVD	EW	A	1.2	0.2	0.6	0.3	0.9	0.3	0.4	0.2	2.1	0.5	1.1	0.5
NOR	LLEWELLYN AVE	VA BEACH BLVD	PRINCESS ANNE RD	NS	E	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.1	0.0
NOR	LLEWELLYN AVE	PRINCESS ANNE RD	21ST ST	NS	E	0.2	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.3	0.0	0.2	0.1
NOR	LLEWELLYN AVE	21ST ST	26TH ST	NS	E	0.2	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.2	0.0	0.2	0.1
NOR	LLEWELLYN AVE	27TH ST	35TH ST	NS	A	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0
NOR	LLEWELLYN AVE	35TH ST	38TH ST	NS	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
NOR	LLEWELLYN AVE	38TH ST	DELAWARE AVE	NS	E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
NOR	LLEWELLYN AVE	DELAWARE AVE	GRANBY ST	NS	E					0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NOR	MIDTOWN TUNNEL	PORTSMOUTH CL	BRAMBLETON AVE	NS	A	10.8	5.5	3.6	1.5	7.6	0.9	2.9	3.7	18.4	6.5	6.5	5.2
NOR	MILITARY HWY	VA BEACH CL	I-264	NS	A	1.0	0.3	0.4	0.2	1.7	0.3	0.8	0.5	2.6	0.7	1.2	0.7
NOR	MILITARY HWY	I-264	VA BEACH BLVD	NS	E	2.1	0.3	1.3	0.4	3.8	0.6	1.9	1.2	5.9	0.9	3.2	1.7
NOR	MILITARY HWY	VA BEACH BLVD	LOWERY RD	NS	A	2.4	0.4	1.6	0.4	2.2	0.3	1.1	0.8	4.6	0.7	2.6	1.2
NOR	MILITARY HWY	LOWERY RD	PRIN ANNE RD/NORTHAMPTON BLVD	NS	A	3.6	0.6	2.4	0.6	3.3	0.4	1.6	1.2	6.9	1.0	4.0	1.7
NOR	MILITARY HWY	PRIN ANNE RD/NORTHAMPTON BLVD	I-64	NS	E	1.0	0.3	0.5	0.2	2.9	0.4	1.4	1.1	3.9	0.6	1.8	1.3
NOR	MILITARY HWY	I-64	AZALEA GARDEN RD	NS	E	0.9	0.2	0.5	0.2	2.3	0.5	1.1	0.7	3.2	0.8	1.5	0.9
NOR	MILITARY HWY	AZALEA GARDEN RD	NORVIEW AVE	NS	A	0.8	0.1	0.4	0.2	0.9	0.2	0.5	0.2	1.6	0.3	0.9	0.4
NOR	MILITARY HWY	NORVIEW AVE	JOHNSTONS RD	NS	E	1.6	0.2	0.8	0.5	2.5	0.3	1.2	0.8	4.0	0.6	2.1	1.3
NOR	MILITARY HWY	JOHNSTONS RD	LITTLE CREEK RD	NS	E	0.6	0.1	0.3	0.2	0.5	0.1	0.3	0.2	1.1	0.2	0.5	0.4
NOR	MONTICELLO AVE	ST PAULS BLVD	VA BEACH BLVD	NS	E	0.6	0.1	0.3	0.1	0.5	0.1	0.2	0.1	1.1	0.2	0.6	0.2
NOR	MONTICELLO AVE	VA BEACH BLVD	PRINCESS ANNE RD	NS	A	0.9	0.2	0.5	0.1	0.7	0.1	0.4	0.2	1.6	0.4	0.9	0.3
NOR	MONTICELLO AVE	PRINCESS ANNE RD	21ST ST	NS	A	2.0	0.5	1.2	0.3	1.5	0.4	0.7	0.4	3.5	0.8	1.8	0.7
NOR	MONTICELLO AVE	21ST ST	26TH ST	NS	E	1.0	0.3	0.4	0.2	0.8	0.1	0.4	0.2	1.7	0.4	0.8	0.4
NOR	MONTICELLO AVE	26TH ST	27TH ST	NS	E	0.2	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.3	0.1	0.2	0.1
NOR	MONTICELLO AVE	27TH ST	CHURCH ST	NS	E	0.6	0.2	0.3	0.1	0.5	0.1	0.2	0.1	1.1	0.2	0.5	0.3
NOR	NEWTOWN RD	KEMPSVILLE RD	I-264	NS	A	0.8	0.2	0.4	0.2	0.8	0.1	0.4	0.3	1.6	0.3	0.8	0.5
NOR	NEWTOWN RD	I-264	VA BEACH BLVD	NS	E	3.3	0.5	1.5	1.3	2.4	0.4	1.0	0.9	5.7	0.9	2.5	2.2
NOR	NEWTOWN RD	VA BEACH BLVD	VA BEACH CL	NS	A	0.3	0.1	0.1	0.1	0.6	0.1	0.3	0.3	0.9	0.2	0.4	0.3
NOR	NORTHAMPTON BLVD	MILITARY HWY	KEMPSVILLE RD	EW	E	1.0	0.2	0.5	0.3	0.9	0.1	0.4	0.4	1.9	0.4	0.9	0.6
NOR	NORTHAMPTON BLVD	KEMPSVILLE RD	I-64	EW	E	2.2	0.5	1.0	0.6	2.1	0.3	0.9	0.8	4.2	0.8	1.9	1.3
NOR	NORTHAMPTON BLVD	I-64	WESLEYAN DR/VA BEACH CL	EW	E	4.6	1.1	2.2	1.1	4.9	0.9	2.2	1.6	9.5	2.0	4.4	2.6
NOR	NORVIEW AVE	CHESAPEAKE BLVD	I-64	EW	A	0.5	0.2	0.2	0.0	0.4	0.1	0.2	0.1	0.9	0.3	0.4	0.1
NOR	OCEAN VIEW AVE	4TH VIEW ST	TIDEWATER DR	EW	A	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0
NOR	OCEAN VIEW AVE	TIDEWATER DR	GRANBY ST	EW	A	0.4	0.0	0.3	0.1	0.8	0.1	0.4	0.2	1.2	0.2	0.6	0.3
NOR	OCEAN VIEW AVE	GRANBY ST	CHESAPEAKE BLVD	EW	E	0.4	0.0	0.3	0.1	0.2	0.1	0.1	0.0	0.6	0.1	0.4	0.1
NOR	PARK AVE	BRAMBLETON AVE	VA BEACH BLVD	EW	A	0.5	0.1	0.3	0.1	1.6	0.3	0.7	0.6	2.2	0.4	1.0	0.7
NOR	PARK AVE	VA BEACH BLVD	PRINCESS ANNE RD	EW	E	0.1	0.0	0.0	0.0	0.3	0.0	0.2	0.1	0.3	0.0	0.2	0.1
NOR	PRINCESS ANNE RD	HAMPTON BLVD	COLLEY AVE	EW	E	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.2	0.1	0.1	0.0
NOR	PRINCESS ANNE RD	COLLEY AVE	LLEWELLYN AVE	EW	E	0.4	0.1	0.2	0.1	0.6	0.2	0.2	0.1	1.0	0.2	0.5	0.3
NOR	PRINCESS ANNE RD	LLEWELLYN AVE	MONTICELLO AVE	EW	E	0.3	0.1	0.2	0.1	0.3	0.1	0.1	0.1	0.6	0.2	0.3	0.1
NOR	PRINCESS ANNE RD	MONTICELLO AVE	CHURCH ST	EW	A	0.4	0.1	0.2	0.1	0.5	0.2	0.2	0.1	0.9	0.2	0.4	0.2

Appendix C – Truck Delay by Location (Non-Interstates)

Source: HRTPO analysis of INRIX, VDOT and CBBT data. Truck data type of "A" is based on actual vehicle classification count data, "E" is based on estimated vehicle classification count data.

						Northbound/Eastbound				Southbound/Westbound				Combined			
Juris	Facility Name	Segment From	Segment To	Dir	Truck Data Type	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)
NOR	PRINCESS ANNE RD	CHURCH ST	TIDEWATER DR	EW	E	0.4	0.1	0.2	0.1	0.5	0.2	0.2	0.1	0.8	0.2	0.4	0.2
NOR	PRINCESS ANNE RD	TIDEWATER DR	MAY AVE	EW	E	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.3	0.1	0.2	0.0
NOR	PRINCESS ANNE RD	MAY AVE	PARK AVE	EW	E	0.3	0.1	0.2	0.1	0.3	0.1	0.2	0.0	0.7	0.1	0.4	0.1
NOR	PRINCESS ANNE RD	PARK AVE	BALLENTINE BLVD	EW	E	2.1	0.6	1.0	0.4	2.3	0.5	1.1	0.6	4.3	1.1	2.1	1.0
NOR	PRINCESS ANNE RD	BALLENTINE BLVD	INGLESIDE RD	EW	A	1.4	0.4	0.7	0.2	1.5	0.3	0.8	0.3	2.9	0.7	1.6	0.6
NOR	PRINCESS ANNE RD	INGLESIDE RD	AZALEA GARDEN RD	EW	A	1.1	0.3	0.5	0.3	1.1	0.3	0.6	0.3	2.2	0.6	1.1	0.5
NOR	PRINCESS ANNE RD	AZALEA GARDEN RD	SEWELLS POINT RD	EW	E	0.7	0.2	0.3	0.2	0.7	0.2	0.3	0.2	1.4	0.4	0.6	0.3
NOR	PRINCESS ANNE RD	SEWELLS POINT RD	MILITARY HWY	EW	E	2.5	0.7	1.1	0.6	2.5	0.6	1.3	0.6	5.0	1.3	2.4	1.2
NOR	SEWELLS POINT RD	PRINCESS ANNE RD	AZALEA GARDEN RD	NS	A	0.3	0.1	0.1	0.1	0.4	0.1	0.2	0.1	0.7	0.2	0.3	0.2
NOR	SEWELLS POINT RD	AZALEA GARDEN RD	ROBIN HOOD RD	NS	A	0.5	0.2	0.2	0.1	0.7	0.2	0.3	0.2	1.3	0.4	0.6	0.3
NOR	SEWELLS POINT RD	ROBIN HOOD RD	CHESAPEAKE BLVD	NS	A	0.5	0.2	0.2	0.1	0.6	0.1	0.3	0.1	1.1	0.3	0.5	0.2
NOR	SEWELLS POINT RD	CHESAPEAKE BLVD	PARTRIDGE ST	NS	A	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.2	0.1	0.1	0.1
NOR	SEWELLS POINT RD	PARTRIDGE ST	PHILPOTTS RD	NS	A	0.2	0.1	0.1	0.1	0.3	0.1	0.2	0.1	0.5	0.1	0.2	0.1
NOR	SEWELLS POINT RD	PHILPOTTS RD	I-64	NS	A	0.3	0.1	0.1	0.1	0.3	0.0	0.2	0.1	0.5	0.1	0.3	0.1
NOR	SEWELLS POINT RD	I-64	LITTLE CREEK RD	NS	A	0.9	0.2	0.5	0.2	0.9	0.2	0.5	0.2	1.8	0.4	1.0	0.4
NOR	SHORE DRIVE	21ST BAY ST	LITTLE CREEK RD	EW	A	0.9	0.1	0.5	0.3	0.7	0.1	0.4	0.2	1.6	0.3	0.9	0.4
NOR	SHORE DRIVE	LITTLE CREEK RD	VA BEACH CL	EW	E	0.9	0.2	0.4	0.2	0.8	0.1	0.5	0.2	1.7	0.3	0.9	0.4
NOR	ST PAULS BLVD	WATERSIDE DR	CITY HALL AVE	NS	E	0.6	0.1	0.2	0.3	0.3	0.1	0.1	0.0	0.9	0.2	0.3	0.3
NOR	ST PAULS BLVD	CITY HALL AVE	I-264 RAMP/MACARTHUR MALL	NS	E	0.8	0.2	0.3	0.3	0.6	0.2	0.2	0.1	1.4	0.4	0.5	0.4
NOR	ST PAULS BLVD	I-264 RAMP/MACARTHUR MALL	BRAMBLETON AVE	NS	E	1.1	0.4	0.5	0.2	1.5	0.7	0.5	0.3	2.6	1.1	1.0	0.5
NOR	ST PAULS BLVD	BRAMBLETON AVE	MONTICELLO AVE	NS	E	1.4	0.3	0.8	0.2	1.1	0.2	0.5	0.3	2.4	0.5	1.3	0.5
NOR	TIDEWATER DR	CITY HALL AVE	BRAMBLETON AVE	NS	E	0.8	0.2	0.5	0.1	1.5	0.2	0.8	0.4	2.3	0.5	1.3	0.5
NOR	TIDEWATER DR	BRAMBLETON AVE	VA BEACH BLVD	NS	E	1.1	0.3	0.5	0.2	1.7	0.2	0.8	0.7	2.8	0.6	1.3	0.9
NOR	TIDEWATER DR	VA BEACH BLVD	PRINCESS ANNE RD	NS	E	0.4	0.1	0.2	0.1	0.6	0.1	0.2	0.2	1.0	0.2	0.4	0.3
NOR	TIDEWATER DR	PRINCESS ANNE RD	LAFAYETTE BLVD	NS	E	3.0	0.6	1.7	0.7	3.1	0.5	1.3	1.2	6.2	1.1	3.0	1.9
NOR	TIDEWATER DR	LAFAYETTE BLVD	CROMWELL DR	NS	E	1.4	0.4	0.7	0.3	1.3	0.2	0.6	0.5	2.7	0.5	1.3	0.8
NOR	TIDEWATER DR	CROMWELL DR	NORVIEW AVE	NS	A	1.3	0.4	0.6	0.2	2.3	0.3	1.1	0.9	3.6	0.7	1.7	1.1
NOR	TIDEWATER DR	NORVIEW AVE	THOLE ST	NS	E	1.5	0.4	0.7	0.4	1.3	0.2	0.7	0.4	2.8	0.6	1.4	0.7
NOR	TIDEWATER DR	THOLE ST	I-64	NS	E	0.4	0.1	0.2	0.1	0.3	0.1	0.1	0.1	0.7	0.1	0.3	0.2
NOR	TIDEWATER DR	I-64	LITTLE CREEK RD	NS	E	1.3	0.2	0.6	0.4	1.1	0.4	0.5	0.2	2.5	0.6	1.1	0.6
NOR	TIDEWATER DR	LITTLE CREEK RD	BAYVIEW BLVD	NS	A	0.6	0.1	0.3	0.1	0.4	0.1	0.2	0.1	1.0	0.2	0.5	0.2
NOR	TIDEWATER DR	BAYVIEW BLVD	GRANBY ST	NS	E	0.3	0.1	0.2	0.1	0.3	0.1	0.2	0.0	0.6	0.1	0.3	0.1
NOR	TIDEWATER DR	GRANBY ST	OCEAN VIEW AVE	NS	E	0.4	0.0	0.1	0.3	0.1	0.0	0.1	0.0	0.6	0.1	0.2	0.3
NOR	VA BEACH BLVD	MONTICELLO AVE	CHURCH ST	EW	E	0.2	0.1	0.1	0.1	0.2	0.0	0.1	0.1	0.5	0.1	0.2	0.1
NOR	VA BEACH BLVD	CHURCH ST	TIDEWATER DR	EW	E	0.2	0.0	0.1	0.0	0.2	0.0	0.1	0.0	0.3	0.1	0.2	0.1
NOR	VA BEACH BLVD	TIDEWATER DR	PARK AVE	EW	A	0.2	0.0	0.1	0.1	0.5	0.1	0.3	0.1	0.7	0.1	0.4	0.2
NOR	VA BEACH BLVD	PARK AVE	BALLENTINE BLVD	EW	A	1.7	0.3	1.0	0.4	1.1	0.2	0.6	0.2	2.9	0.6	1.6	0.6
NOR	VA BEACH BLVD	BALLENTINE BLVD	INGLESIDE RD	EW	E	2.1	0.6	1.1	0.4	2.3	0.9	1.0	0.3	4.4	1.5	2.1	0.7
NOR	VA BEACH BLVD	INGLESIDE RD	AZALEA GARDEN RD	EW	E	2.3	0.4	1.3	0.5	1.7	0.4	0.9	0.3	3.9	0.7	2.3	0.8
NOR	VA BEACH BLVD	AZALEA GARDEN RD	JETT ST	EW	E	1.5	0.2	0.9	0.4	0.8	0.2	0.5	0.1	2.3	0.4	1.4	0.5
NOR	VA BEACH BLVD	JETT ST	MILITARY HWY	EW	E	3.4	0.5	2.0	0.9	1.9	0.4	1.2	0.2	5.3	0.9	3.2	1.1
NOR	VA BEACH BLVD	MILITARY HWY	GLENROCK RD	EW	E	0.7	0.1	0.4	0.2	0.4	0.0	0.2	0.1	1.1	0.2	0.6	0.3
NOR	VA BEACH BLVD	GLENROCK RD	KEMPSVILLE RD	EW	E	1.0	0.2	0.5	0.3	0.6	0.1	0.3	0.2	1.6	0.2	0.9	0.5
NOR	VA BEACH BLVD	KEMPSVILLE RD	NEWTOWN RD	EW	A	2.2	0.3	1.2	0.7	1.2	0.1	0.7	0.4	3.4	0.5	1.9	1.0
NOR	WILSON RD	BERKLEY AVE/CHESAPEAKE CL	INDIAN RIVER RD	EW	E	0.6	0.1	0.3	0.1	0.5	0.1	0.2	0.1	1.0	0.2	0.5	0.3
NOR	WILSON RD	INDIAN RIVER RD	CAMPOSTELLA RD	EW	E	0.3	0.1	0.1	0.1	0.2	0.0	0.1	0.1	0.5	0.1	0.2	0.1
POQ	VICTORY BLVD	YORK CL	WYTHE CREEK RD	EW	A	0.4	0.1	0.2	0.1	0.4	0.1	0.2	0.1	0.8	0.2	0.4	0.2
POQ	WYTHE CREEK RD	HAMPTON CL	ALPHUS ST	NS	A	0.4	0.1	0.2	0.1	0.3	0.0	0.2	0.0	0.7	0.2	0.4	0.2
POQ	WYTHE CREEK RD	ALPHUS ST	LITTLE FLORIDA RD	NS	E	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0
PORT	AIRLINE BLVD	CHESAPEAKE CL	GREENWOOD DR	EW	E	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.3	0.1	0.2	0.1

Appendix C – Truck Delay by Location (Non-Interstates)

Source: HRTPO analysis of INRIX, VDOT and CBBT data. Truck data type of "A" is based on actual vehicle classification count data, "E" is based on estimated vehicle classification count data.

						Northbound/Eastbound				Southbound/Westbound				Combined			
Juris	Facility Name	Segment From	Segment To	Dir	Truck Data Type	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)
PORT	AIRLINE BLVD	GREENWOOD DR	ELMHURST LN	EW	E	0.2	0.0	0.1	0.0	0.2	0.0	0.1	0.1	0.4	0.1	0.2	0.1
PORT	AIRLINE BLVD	ELMHURST LN	.55 MI E ELMHURST LN	EW	E	0.4	0.1	0.2	0.1	0.5	0.1	0.3	0.1	1.0	0.2	0.5	0.2
PORT	AIRLINE BLVD	.55 MI E ELMHURST LN	VICTORY BLVD	EW	E	0.6	0.1	0.3	0.1	0.7	0.1	0.4	0.2	1.3	0.2	0.7	0.3
PORT	AIRLINE BLVD	VICTORY BLVD	PORTSMOUTH BLVD	EW	E	0.3	0.1	0.1	0.1	0.3	0.0	0.2	0.1	0.6	0.1	0.3	0.1
PORT	AIRLINE BLVD	PORTSMOUTH BLVD	FREDERICK BLVD	EW	E	1.8	0.3	1.1	0.4	2.1	0.2	1.3	0.5	4.0	0.6	2.4	0.9
PORT	AIRLINE BLVD	FREDERICK BLVD	HIGH ST	EW	E	0.3	0.1	0.1	0.1	0.5	0.1	0.3	0.2	0.8	0.1	0.4	0.2
PORT	CEDAR LN	HIGH ST	W NORFOLK RD	NS	A	0.4	0.1	0.2	0.1	0.4	0.1	0.2	0.1	0.8	0.2	0.4	0.2
PORT	CEDAR LN	W NORFOLK RD	WESTERN FREEWAY	NS	E	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.2	0.0	0.1	0.1
PORT	ELM AVE	LONDON BLVD	HIGH ST	NS	E	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.1	0.0
PORT	ELM AVE	HIGH ST	COUNTY ST	NS	E	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.2	0.1	0.1	0.1
PORT	ELM AVE	COUNTY ST	SOUTH ST	NS	E	0.2	0.0	0.1	0.0	0.2	0.1	0.1	0.1	0.4	0.1	0.2	0.1
PORT	ELM AVE	SOUTH ST	I-264	NS	A	0.2	0.0	0.1	0.0	0.3	0.0	0.2	0.1	0.5	0.1	0.3	0.1
PORT	ELM AVE	I-264	PORTSMOUTH BLVD	NS	A	1.7	0.3	1.0	0.4	2.1	0.2	1.2	0.6	3.8	0.5	2.3	1.0
PORT	ELM AVE	PORTSMOUTH BLVD	EFFINGHAM ST	NS	E	0.2	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.3	0.0	0.2	0.1
PORT	FREDERICK BLVD	GEORGE WASHINGTON HWY	PORTSMOUTH BLVD	NS	E	1.8	0.6	0.8	0.3	1.0	0.2	0.5	0.3	2.8	0.8	1.3	0.7
PORT	FREDERICK BLVD	PORTSMOUTH BLVD	DEEP CREEK BLVD	NS	E	0.2	0.0	0.1	0.0	0.2	0.0	0.1	0.1	0.3	0.1	0.2	0.1
PORT	FREDERICK BLVD	DEEP CREEK BLVD	I-264	NS	E	1.5	0.3	0.9	0.3	1.6	0.3	0.7	0.6	3.1	0.6	1.5	0.9
PORT	FREDERICK BLVD	I-264	TURNPIKE RD	NS	E	3.1	0.8	1.7	0.6	2.2	0.4	1.1	0.7	5.3	1.2	2.7	1.2
PORT	FREDERICK BLVD	TURNPIKE RD	AIRLINE BLVD	NS	E	0.7	0.1	0.4	0.1	0.6	0.1	0.3	0.1	1.3	0.3	0.7	0.3
PORT	FREDERICK BLVD	AIRLINE BLVD	HIGH ST	NS	E	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.1	0.0
PORT	GEORGE WASHINGTON HWY	CHESAPEAKE CL	VICTORY BLVD	NS	E	0.5	0.1	0.3	0.1	0.6	0.1	0.3	0.2	1.1	0.2	0.6	0.3
PORT	GEORGE WASHINGTON HWY	VICTORY BLVD	DAVIS ST	NS	E	0.6	0.1	0.4	0.1	0.6	0.1	0.3	0.2	1.2	0.2	0.7	0.3
PORT	GEORGE WASHINGTON HWY	DAVIS ST	GREENWOOD DR	NS	E	1.5	0.3	0.9	0.3	1.4	0.2	0.8	0.4	2.9	0.4	1.7	0.7
PORT	GEORGE WASHINGTON HWY	GREENWOOD DR	FREDERICK BLVD	NS	E	1.3	0.2	0.7	0.3	1.2	0.2	0.7	0.3	2.4	0.4	1.4	0.6
PORT	GREENWOOD DR	AIRLINE BLVD	I-264	EW	E	0.1	0.0	0.0	0.0	0.2	0.0	0.1	0.0	0.3	0.1	0.2	0.1
PORT	GREENWOOD DR	I-264	CAVALIER BLVD	EW	E	0.4	0.1	0.2	0.1	0.1	0.0	0.1	0.0	0.5	0.1	0.3	0.2
PORT	GREENWOOD DR	CAVALIER BLVD	VICTORY BLVD	EW	E	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.0	0.4	0.1	0.2	0.1
PORT	GREENWOOD DR	VICTORY BLVD	INDEPENDENCE ST	EW	A	0.3	0.0	0.1	0.1	0.2	0.0	0.1	0.0	0.4	0.1	0.2	0.1
PORT	GREENWOOD DR	INDEPENDENCE ST	DEEP CREEK BLVD	EW	E	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.1	0.0
PORT	GREENWOOD DR	DEEP CREEK BLVD	GEORGE WASHINGTON HWY	EW	E	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.1	0.0
PORT	HIGH ST	TYRE NECK RD	CHURCHLAND BLVD	EW	E	0.1	0.0	0.1	0.0	0.2	0.0	0.1	0.0	0.3	0.0	0.2	0.1
PORT	HIGH ST	CHURCHLAND BLVD	CEDAR LA	EW	E	0.7	0.1	0.4	0.2	0.8	0.1	0.5	0.2	1.5	0.2	0.9	0.3
PORT	HIGH ST	CEDAR LA	FREDERICK BLVD	EW	E	2.0	0.4	1.1	0.4	2.1	0.4	1.2	0.5	4.1	0.8	2.4	0.9
PORT	LONDON BLVD	HIGH ST	MT VERNON AVE	EW	A	0.2	0.1	0.1	0.1	1.1	0.1	0.5	0.4	1.3	0.2	0.7	0.4
PORT	LONDON BLVD	MT VERNON AVE	M L K FWY	EW	A	0.2	0.0	0.1	0.0	0.8	0.1	0.5	0.2	1.0	0.2	0.6	0.3
PORT	MIDTOWN TUNNEL	MLK FWY/WESTERN FREEWAY	NORFOLK CL	NS	A	17.4	8.9	5.8	2.4	12.2	1.5	4.7	6.0	29.6	10.4	10.5	8.4
PORT	M L K FREEWAY	LONDON BLVD	WESTERN FREEWAY/MIDTOWN TUNN	NS	E	3.1	1.2	1.3	0.5	2.7	0.7	1.8	0.2	5.7	1.9	3.1	0.7
PORT	PORTSMOUTH BLVD	CHESAPEAKE CL	ELMHURST LN	EW	E	0.6	0.0	0.4	0.2	0.7	0.1	0.4	0.2	1.3	0.1	0.8	0.4
PORT	PORTSMOUTH BLVD	ELMHURST LN	VICTORY BLVD	EW	A	0.5	0.1	0.3	0.1	0.9	0.1	0.5	0.2	1.4	0.2	0.8	0.3
PORT	PORTSMOUTH BLVD	VICTORY BLVD	AIRLINE BLVD	EW	E	0.2	0.0	0.1	0.0	0.2	0.0	0.1	0.0	0.4	0.1	0.2	0.1
PORT	PORTSMOUTH BLVD	AIRLINE BLVD	TURNPIKE RD	EW	E	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.2	0.0	0.1	0.0
PORT	PORTSMOUTH BLVD	TURNPIKE RD	I-264	EW	E	0.1	0.0	0.0	0.0	0.3	0.0	0.2	0.1	0.4	0.1	0.2	0.1
PORT	PORTSMOUTH BLVD	I-264	DEEP CREEK BLVD	EW	E	0.8	0.1	0.6	0.1	0.6	0.1	0.4	0.2	1.5	0.2	1.0	0.3
PORT	PORTSMOUTH BLVD	DEEP CREEK BLVD	FREDERICK BLVD	EW	E	0.2	0.0	0.2	0.0	0.1	0.0	0.1	0.0	0.3	0.0	0.2	0.1
PORT	PORTSMOUTH BLVD	FREDERICK BLVD	ELM AVE	EW	A	0.8	0.1	0.5	0.3	1.0	0.1	0.4	0.4	1.8	0.1	1.0	0.7
PORT	PORTSMOUTH BLVD	ELM AVE	EFFINGHAM ST	EW	E	0.1	0.0	0.0	0.0	0.2	0.1	0.1	0.0	0.3	0.1	0.2	0.0
PORT	PORTSMOUTH BLVD	EFFINGHAM ST	PORTCENTRE PKWY	EW	A	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0
PORT	TOWN POINT RD	SUFFOLK CL	TWIN PINES RD	EW	E	0.1	0.0	0.1	0.1	0.2	0.0	0.1	0.1	0.4	0.1	0.1	0.1
PORT	TOWN POINT RD	TWIN PINES RD	WESTERN FREEWAY	EW	E	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.1
PORT	TOWN POINT RD	WESTERN FREEWAY	CHESAPEAKE CL	EW	A	0.2	0.0	0.1	0.0	0.2	0.0	0.1	0.1	0.4	0.0	0.2	0.1

Appendix C – Truck Delay by Location (Non-Interstates)

Source: HRTPO analysis of INRIX, VDOT and CBBT data. Truck data type of "A" is based on actual vehicle classification count data, "E" is based on estimated vehicle classification count data.

						Northbound/Eastbound				Southbound/Westbound				Combined			
Juris	Facility Name	Segment From	Segment To	Dir	Truck Data Type	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)
PORT	VICTORY BLVD	PORTSMOUTH BLVD	AIRLINE BLVD	EW	E	0.2	0.0	0.1	0.1	0.2	0.1	0.1	0.0	0.4	0.1	0.2	0.1
PORT	VICTORY BLVD	AIRLINE BLVD	I-264	EW	E	1.5	0.1	0.7	0.5	1.3	0.3	0.7	0.2	2.7	0.4	1.5	0.8
PORT	VICTORY BLVD	I-264	GREENWOOD DR	EW	A	1.5	0.2	0.7	0.6	1.5	0.4	0.8	0.2	3.0	0.6	1.5	0.8
PORT	VICTORY BLVD	GREENWOOD DR	DEEP CREEK BLVD	EW	E	1.4	0.2	0.7	0.4	1.4	0.4	0.7	0.2	2.8	0.6	1.4	0.6
PORT	VICTORY BLVD	DEEP CREEK BLVD	GEORGE WASHINGTON HWY	EW	E	0.7	0.1	0.5	0.1	1.0	0.2	0.5	0.3	1.7	0.3	1.0	0.4
PORT	VICTORY BLVD	GEORGE WASHINGTON HWY	AFTON PKWY	EW	A	0.3	0.0	0.2	0.0	1.3	0.2	0.6	0.5	1.6	0.2	0.8	0.5
PORT	VICTORY BLVD	AFTON PKWY	ELM AVE	EW	E	0.1	0.0	0.0	0.0	0.3	0.0	0.1	0.1	0.3	0.0	0.2	0.1
PORT	WESTERN BRANCH BLVD	CHESAPEAKE CL	TYRE NECK RD	EW	E	0.1	0.0	0.1	0.0	0.2	0.0	0.1	0.0	0.3	0.0	0.2	0.1
PORT	WESTERN FWY	SUFFOLK CL	TOWN POINT RD	EW	A	1.3	0.3	0.9	0.1	1.7	0.3	1.0	0.3	3.0	0.6	1.9	0.4
PORT	WESTERN FWY	TOWN POINT RD	CEDAR LN	EW	A	2.1	0.7	1.2	0.1	1.8	0.3	1.2	0.4	3.9	1.0	2.4	0.5
PORT	WESTERN FWY	CEDAR LN	APM BLVD	EW	A	2.6	1.5	1.0	0.1	1.4	0.3	0.9	0.2	4.1	1.8	1.9	0.3
PORT	WESTERN FWY	APM BLVD	WEST NORFOLK RD	EW	A	1.6	0.9	0.6	0.1	0.9	0.2	0.6	0.1	2.5	1.1	1.2	0.2
PORT	WESTERN FWY	WEST NORFOLK RD	MLK FREEWAY/MIDTOWN TUNNEL	EW	E	13.3	7.6	4.8	0.6	7.9	1.9	5.1	0.9	21.2	9.5	9.9	1.6
SH	ROUTE 35	NC STATE LINE	SCL BOYKINS	NS	E	0.4	0.0	0.2	0.1	0.2	0.0	0.1	0.1	0.6	0.1	0.3	0.2
SH	ROUTE 35	SCL BOYKINS	ROUTE 1324	NS	E	0.2	0.0	0.1	0.1	0.1	0.0	0.1	0.1	0.3	0.0	0.2	0.1
SH	ROUTE 35	ROUTE 1324	ROUTE 186	NS	E	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.1	0.1
SH	ROUTE 35	ROUTE 186	NCL BOYKINS	NS	A	0.6	0.1	0.3	0.2	0.6	0.1	0.3	0.2	1.2	0.2	0.7	0.3
SH	ROUTE 35	NCL BOYKINS	ROUTE 671	NS	A	0.6	0.1	0.4	0.2	0.6	0.1	0.4	0.2	1.3	0.2	0.7	0.3
SH	ROUTE 35	ROUTE 671	GRAYS SHOP RD (RTE 673)	NS	A	0.7	0.2	0.5	0.1	0.8	0.1	0.4	0.3	1.5	0.3	0.9	0.3
SH	ROUTE 35	GRAYS SHOP RD (RTE 673)	ROUTE 58	NS	E	0.5	0.1	0.3	0.1	0.5	0.1	0.3	0.1	1.0	0.2	0.5	0.2
SH	ROUTE 35/BUS ROUTE 58	ROUTE 58	WCL COURTLAND	EW	E	0.3	0.1	0.2	0.1	0.4	0.0	0.2	0.1	0.7	0.1	0.4	0.2
SH	ROUTE 35/BUS ROUTE 58	WCL COURTLAND	BUS RTE 58	EW	E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SH	ROUTE 35	BUS RTE 58	NCL COURTLAND	NS	E	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.2	0.0	0.1	0.0
SH	ROUTE 35	NCL COURTLAND	IVOR RD (RTE 616)	NS	E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SH	ROUTE 35	IVOR RD (RTE 616)	CARYS BRIDGE RD (RTE 653)	NS	A	1.6	0.2	0.8	0.4	2.0	0.3	1.2	0.4	3.6	0.5	2.0	0.8
SH	ROUTE 58	GREENSVILLE CL	ADAMS GROVE RD (RTE 615)	EW	E	0.6	0.2	0.2	0.2	-	-	-	-	-	-	-	-
SH	ROUTE 58	ADAMS GROVE RD (RTE 615)	DREWRY RD (RTE 659)	EW	E	0.5	0.1	0.2	0.2	-	-	-	-	-	-	-	-
SH	ROUTE 58	DREWRY RD (RTE 659)	PINOPOLIS RD (ROUTE 653)	EW	E	0.8	0.2	0.4	0.3	1.3	0.2	0.6	0.3	2.1	0.4	0.9	0.6
SH	ROUTE 58	PINOPOLIS RD (ROUTE 653)	ROUTE 35	EW	E	0.9	0.3	0.3	0.3	1.2	0.3	0.5	0.3	2.1	0.5	0.8	0.6
SH	ROUTE 58	ROUTE 35	BUS RTE 58 W	EW	E	3.0	0.7	1.5	0.7	2.1	0.4	1.1	0.6	5.1	1.0	2.6	1.2
SH	ROUTE 58	BUS RTE 58 W	CAMP PKWY (BUS RTE 58 E)	EW	A	3.8	0.7	1.9	1.0	9.2	1.2	4.7	2.8	13.0	1.9	6.6	3.8
SH	ROUTE 58	CAMP PKWY (BUS RTE 58 E)	ARMORY DR (RTE 671)	EW	E	1.3	0.3	0.6	0.3	1.2	0.2	0.6	0.3	2.5	0.5	1.2	0.6
SH	ROUTE 58	ARMORY DR (RTE 671)	ROUTE 258	EW	E	0.7	0.2	0.3	0.1	0.5	0.1	0.2	0.1	1.1	0.3	0.6	0.2
SH	ROUTE 58	ROUTE 258	PRETLOW RD (RTE 714)	EW	E	0.6	0.1	0.3	0.2	0.7	0.1	0.3	0.2	1.3	0.2	0.6	0.4
SH	ROUTE 58	PRETLOW RD (RTE 714)	SUFFOLK CL	EW	E	0.4	0.1	0.2	0.1	0.3	0.0	0.1	0.1	0.7	0.1	0.3	0.2
SH	ROUTE 258	NC STATE LINE	ROUTE 189	EW	E	1.3	0.2	0.8	0.3	0.5	0.1	0.3	0.1	1.9	0.2	1.1	0.5
SH	ROUTE 258	ROUTE 189	DOGWOOD BEND RD (RTE 684)	EW	A	0.6	0.0	0.4	0.2	0.3	0.1	0.2	0.1	0.9	0.1	0.6	0.2
SH	ROUTE 258	DOGWOOD BEND RD (RTE 684)	ROUTE 58	EW	E	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0
SH	ROUTE 460	SUSSEX CL	WCL IVOR	EW	A	1.8	0.4	1.0	0.4	2.7	0.4	1.4	0.7	4.5	0.8	2.4	1.1
SH	ROUTE 460	WCL IVOR	ROUTE 616 (IVOR RD)	EW	A	0.3	0.1	0.1	0.1	0.4	0.1	0.2	0.1	0.7	0.1	0.4	0.2
SH	ROUTE 460	ROUTE 616 (IVOR RD)	ECL IVOR	EW	E	0.4	0.1	0.2	0.1	0.2	0.0	0.1	0.0	0.6	0.1	0.3	0.1
SH	ROUTE 460	ECL IVOR	ISLE OF WIGHT CL	EW	E	2.4	0.5	1.3	0.5	1.3	0.2	0.6	0.3	3.7	0.7	2.0	0.8
SUF	BRIDGE RD	ISLE OF WIGHT CL	E. END CHUCKATUCK BRIDGE	EW	E	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0
SUF	BRIDGE RD	E. END CHUCKATUCK BRIDGE	CRITTENDEN RD	EW	E	0.3	0.1	0.1	0.0	0.4	0.1	0.2	0.1	0.6	0.1	0.4	0.1
SUF	BRIDGE RD	CRITTENDEN RD	N. END NANSEMOND RIVER	EW	E	0.3	0.1	0.2	0.0	0.3	0.0	0.2	0.1	0.6	0.1	0.3	0.1
SUF	BRIDGE RD	N. END NANSEMOND RIVER	S. END NANSEMOND RIVER	EW	E	0.3	0.1	0.2	0.0	0.3	0.0	0.2	0.1	0.6	0.1	0.3	0.1
SUF	BRIDGE RD	S. END NANSEMOND RIVER	BENNETTS PASTURE RD	EW	E	0.3	0.1	0.2	0.1	0.3	0.0	0.2	0.1	0.7	0.1	0.4	0.1
SUF	BRIDGE RD	BENNETTS PASTURE RD	SHOULDERS HILL RD	EW	E	2.4	0.6	1.4	0.4	1.7	0.3	1.0	0.4	4.2	0.9	2.4	0.8
SUF	BRIDGE RD	SHOULDERS HILL RD	HARBOUR VIEW BLVD	EW	E	2.2	0.5	1.3	0.4	4.2	0.7	2.4	1.1	6.4	1.1	3.7	1.5
SUF	BRIDGE RD	HARBOUR VIEW BLVD	WESTERN FWY	EW	E	0.3	0.1	0.2	0.1	0.6	0.1	0.3	0.1	0.9	0.2	0.5	0.2

Appendix C – Truck Delay by Location (Non-Interstates)

Source: HRTPO analysis of INRIX, VDOT and CBBT data. Truck data type of "A" is based on actual vehicle classification count data, "E" is based on estimated vehicle classification count data.

						Northbound/Eastbound				Southbound/Westbound				Combined			
Juris	Facility Name	Segment From	Segment To	Dir	Truck Data Type	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)
SUF	BRIDGE RD	WESTERN FWY	I-664	EW	E	0.5	0.1	0.3	0.1	0.5	0.1	0.4	0.1	1.0	0.2	0.6	0.2
SUF	BRIDGE RD	I-664	COLLEGE DR	EW	E	0.4	0.0	0.2	0.1	0.3	0.1	0.2	0.0	0.7	0.1	0.4	0.1
SUF	BRIDGE RD	COLLEGE DR	CHESAPEAKE CL	EW	A	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
SUF	CAROLINA RD	NC STATE LINE	RTE 642	NS	A	0.4	0.1	0.2	0.1	0.5	0.1	0.3	0.0	0.8	0.2	0.5	0.1
SUF	CAROLINA RD	RTE 642	RTE 675	NS	E	0.3	0.1	0.2	0.1	0.4	0.1	0.2	0.0	0.7	0.1	0.4	0.1
SUF	CAROLINA RD	RTE 675	BABBTOWN RD (RTE 759)	NS	A	0.2	0.0	0.1	0.0	0.2	0.1	0.1	0.0	0.4	0.1	0.2	0.1
SUF	CAROLINA RD	BABBTOWN RD (RTE 759)	WHALEYVILLE BLVD	NS	E	0.5	0.1	0.3	0.1	0.6	0.2	0.3	0.0	1.0	0.3	0.6	0.1
SUF	CAROLINA RD	WHALEYVILLE BLVD	TURLINGTON RD	NS	E	2.3	0.5	1.2	0.5	4.2	0.7	2.5	0.9	6.5	1.3	3.7	1.3
SUF	CAROLINA RD	TURLINGTON RD	SW SUFFOLK BYPASS	NS	E	2.3	0.4	1.3	0.5	1.7	0.3	0.9	0.5	4.0	0.7	2.2	1.0
SUF	CAROLINA RD	SW SUFFOLK BYPASS	FAYETTE ST	NS	E	5.8	0.8	3.5	1.2	5.4	0.9	3.0	1.0	11.2	1.7	6.5	2.2
SUF	COLLEGE DR	BRIDGE RD	WESTERN FREEWAY	NS	E	0.2	0.0	0.1	0.0	0.2	0.1	0.1	0.0	0.4	0.1	0.2	0.1
SUF	COLLEGE DR	WESTERN FREEWAY	HAMPTON ROADS PKWY	NS	A	0.3	0.1	0.1	0.1	0.2	0.1	0.1	0.0	0.5	0.2	0.2	0.1
SUF	COLLEGE DR	HAMPTON ROADS PKWY	I-664	NS	A	0.3	0.1	0.1	0.1	0.2	0.1	0.1	0.0	0.5	0.1	0.3	0.1
SUF	CONSTANCE RD	HOLLAND RD	PITCHKETTLE RD	EW	E	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0
SUF	CONSTANCE RD	PITCHKETTLE RD	MAIN ST	EW	A	0.4	0.0	0.2	0.1	0.3	0.1	0.2	0.1	0.7	0.1	0.4	0.2
SUF	CONSTANCE RD	MAIN ST	WILROY RD	EW	E	1.1	0.1	0.6	0.3	1.4	0.2	0.9	0.4	2.5	0.3	1.5	0.7
SUF	GODWIN BLVD	PRUDEN BLVD	SUFFOLK BYPASS	NS	E	1.4	0.3	0.7	0.3	1.8	0.5	0.9	0.3	3.1	0.8	1.6	0.6
SUF	GODWIN BLVD	SUFFOLK BYPASS	KINGS FORK RD	NS	E	5.0	1.1	2.4	1.4	5.6	1.5	2.7	1.3	10.7	2.6	5.1	2.7
SUF	GODWIN BLVD	KINGS FORK ROAD	1.36 MI N OF KINGS FORK RD	NS	A	0.4	0.1	0.2	0.1	0.4	0.2	0.2	0.0	0.8	0.3	0.4	0.1
SUF	GODWIN BLVD	1.36 MILES N OF KINGS FORK RD	EVERETS RD	NS	A	1.0	0.2	0.5	0.2	1.0	0.4	0.4	0.1	2.0	0.7	1.0	0.3
SUF	GODWIN BLVD	EVERETS RD	KINGS HWY	NS	E	0.6	0.1	0.3	0.1	0.5	0.2	0.3	0.1	1.1	0.3	0.6	0.2
SUF	GODWIN BLVD	KINGS HWY	ISLE OF WIGHT CL	NS	E	0.3	0.1	0.2	0.1	0.2	0.1	0.1	0.0	0.5	0.1	0.3	0.1
SUF	HAMPTON ROADS PKWY	HARBOUR VIEW BLVD	COLLEGE DR	EW	A	0.3	0.1	0.1	0.0	0.4	0.1	0.1	0.1	0.7	0.3	0.3	0.1
SUF	HAMPTON ROADS PKWY	COLLEGE DR	PORTSMOUTH CL	EW	A	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.1	0.2	0.1	0.1	0.1
SUF	HOLLAND RD (BUS RTE 58)	SUFFOLK BYPASS	CONSTANCE RD	EW	A	0.9	0.1	0.5	0.2	0.7	0.2	0.4	0.2	1.7	0.3	0.9	0.4
SUF	MAIN ST	FAYETTE ST	WASHINGTON ST	NS	A	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.2	0.0	0.1	0.0
SUF	MAIN ST	WASHINGTON ST	CONSTANCE RD	NS	E	0.3	0.0	0.2	0.0	0.2	0.0	0.1	0.1	0.5	0.1	0.3	0.1
SUF	MAIN ST	CONSTANCE RD	PRUDEN BLVD/GODWIN BLVD	NS	A	0.9	0.1	0.6	0.2	1.8	0.3	1.1	0.3	2.7	0.4	1.7	0.5
SUF	PITCHKETTLE RD	CONSTANCE RD	SUFFOLK BYPASS	NS	A	0.2	0.0	0.1	0.0	0.2	0.0	0.1	0.1	0.3	0.1	0.2	0.1
SUF	PITCHKETTLE RD	SUFFOLK BYPASS	KINGS FORK RD	NS	E	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.2	0.0	0.1	0.1
SUF	PORTSMOUTH BLVD	WILROY RD	WASHINGTON ST	EW	A	1.9	0.3	1.1	0.4	2.1	0.3	1.2	0.6	3.9	0.6	2.3	1.0
SUF	PORTSMOUTH BLVD	WASHINGTON ST	SUFFOLK BYPASS	EW	A	1.1	0.2	0.6	0.2	1.3	0.2	0.8	0.4	2.4	0.4	1.4	0.5
SUF	PRUDEN BLVD	ISLE OF WIGHT CL	LAKE PRINCE DR	EW	E	4.0	0.5	2.2	1.1	3.2	0.5	1.7	0.8	7.2	1.0	4.0	1.9
SUF	PRUDEN BLVD	LAKE PRINCE DR	KINGS FORK RD	EW	E	4.7	0.9	2.5	1.1	4.8	1.0	2.4	1.2	9.5	1.9	4.9	2.4
SUF	PRUDEN BLVD	KINGS FORK RD	SUFFOLK BYPASS	EW	E	5.7	1.6	2.9	1.0	8.1	2.0	3.9	1.9	13.8	3.7	6.8	2.9
SUF	PRUDEN BLVD	SUFFOLK BYPASS	GODWIN BLVD	EW	E	0.3	0.0	0.2	0.1	0.3	0.0	0.1	0.1	0.6	0.1	0.4	0.1
SUF	PUGHSVILLE RD	SHOULDERS HILL RD	TOWN POINT RD	EW	A	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.2	0.1	0.1	0.0
SUF	PUGHSVILLE RD	TOWN POINT RD	CHESAPEAKE CL	EW	A	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0
SUF	ROUTE 13/58/460	SUFFOLK BYPASS	CHESAPEAKE CL	EW	A	6.8	1.8	3.8	0.9	4.0	0.7	2.3	0.8	10.8	2.5	6.1	1.8
SUF	ROUTE 58	SOUTHAMPTON CL	RTE 189/258	EW	E	0.6	0.1	0.2	0.2	0.4	0.0	0.2	0.1	1.0	0.1	0.4	0.3
SUF	ROUTE 58	RTE 189/258	RTE 272 (S. QUAY RD)	EW	E	0.1	0.0	0.0	0.1	0.4	0.0	0.2	0.1	0.5	0.1	0.2	0.2
SUF	ROUTE 58	RTE 272	S. QUAY RD (ROUTE 189)	EW	E	1.4	0.3	0.6	0.5	1.6	0.2	0.6	0.6	3.0	0.4	1.1	1.1
SUF	ROUTE 58 (HOLLAND BYPASS)	S. QUAY RD (ROUTE 189)	BUS RTE 58 (HOLLAND RD)	EW	E	0.4	0.1	0.1	0.1	0.9	0.1	0.4	0.3	1.3	0.2	0.5	0.4
SUF	ROUTE 58 (HOLLAND RD)	BUS RTE 58 (HOLLAND RD)	RTE 649 (LUMMIS RD)	EW	E	4.6	1.1	2.1	1.2	3.6	0.2	1.5	1.4	8.2	1.3	3.6	2.7
SUF	ROUTE 58 (HOLLAND RD)	RTE 649 (LUMMIS RD)	RTE 643 (MANNING BRIDGE RD)	EW	E	2.5	0.6	1.1	0.7	1.9	0.1	0.8	0.8	4.4	0.7	2.0	1.4
SUF	ROUTE 58 (HOLLAND RD)	RTE. 643 (MANNING BRIDGE RD)	COVE POINT DR	EW	E	1.5	0.3	0.7	0.4	1.2	0.1	0.5	0.5	2.7	0.4	1.2	0.9
SUF	ROUTE 58 (HOLLAND RD)	COVE POINT DR	SUFFOLK BYPASS	EW	E	12.3	2.3	6.9	2.6	14.0	2.3	7.2	4.0	26.3	4.5	14.1	6.6
SUF	SOUTHWEST SUFFOLK BYPASS	HOLLAND RD	CAROLINA RD	NS	A	1.1	0.2	0.6	0.2	1.5	0.4	0.9	0.2	2.6	0.6	1.5	0.4
SUF	SUFFOLK BYPASS	HOLLAND RD	PITCHKETTLE RD	EW	E	2.0	0.3	1.1	0.4	8.3	1.2	4.2	2.5	10.3	1.5	5.3	2.9
SUF	SUFFOLK BYPASS	PITCHKETTLE RD	PRUDEN BLVD	EW	E	1.2	0.2	0.7	0.3	0.5	0.1	0.3	0.1	1.7	0.3	0.9	0.4

Appendix C – Truck Delay by Location (Non-Interstates)

Source: HRTPO analysis of INRIX, VDOT and CBBT data. Truck data type of "A" is based on actual vehicle classification count data, "E" is based on estimated vehicle classification count data.

						Northbound/Eastbound				Southbound/Westbound				Combined			
Juris	Facility Name	Segment From	Segment To	Dir	Truck Data Type	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)
SUF	SUFFOLK BYPASS	PRUDEN BLVD	GODWIN BLVD	EW	E	0.6	0.1	0.3	0.2	0.6	0.1	0.3	0.2	1.2	0.2	0.6	0.3
SUF	SUFFOLK BYPASS	GODWIN BLVD	WILROY RD	EW	E	0.8	0.1	0.4	0.2	1.2	0.2	0.6	0.4	2.0	0.3	1.0	0.5
SUF	SUFFOLK BYPASS	WILROY RD	ROUTES 13/58/460	EW	E	1.1	0.1	0.6	0.3	0.6	0.1	0.3	0.2	1.6	0.2	0.8	0.5
SUF	WASHINGTON ST	MAIN ST	PINNER ST	EW	A	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.2	0.0	0.1	0.0
SUF	WASHINGTON ST	PINNER ST	PORTSMOUTH BLVD	EW	E	1.7	0.3	0.9	0.4	1.5	0.2	0.9	0.3	3.2	0.5	1.8	0.8
SUF	WESTERN FWY	I-664	COLLEGE DR	EW	E	0.9	0.2	0.6	0.1	0.6	0.1	0.3	0.1	1.5	0.3	0.9	0.2
SUF	WESTERN FWY	COLLEGE DR	PORTSMOUTH CL	EW	A	0.3	0.1	0.2	0.0	0.3	0.1	0.2	0.1	0.6	0.1	0.4	0.1
SUF	WHALEYVILLE BLVD	NC STATE LINE	RTE 616 (MINERAL SPRING RD)	NS	A	1.8	0.3	1.0	0.4	1.7	0.3	0.9	0.4	3.5	0.6	1.9	0.8
SUF	WHALEYVILLE BLVD	RTE 616 (MINERAL SPRING RD)	RTE 677 (GREAT FORK RD)	NS	E	0.5	0.1	0.3	0.1	0.5	0.1	0.3	0.1	1.0	0.2	0.6	0.2
SUF	WHALEYVILLE BLVD	RTE 677 (GREAT FORK RD)	RTE 675 (CYPRESS CHAPEL RD)	NS	E	0.4	0.1	0.2	0.1	0.4	0.1	0.2	0.1	0.8	0.2	0.5	0.2
SUF	WHALEYVILLE BLVD	RTE 675 (CYPRESS CHAPEL RD)	RTE 759 (BABBTOWN RD)	NS	E	2.0	0.4	1.1	0.4	1.9	0.4	1.0	0.4	3.9	0.7	2.1	0.9
SUF	WHALEYVILLE BLVD	RTE 759 (BABBTOWN RD)	RTE 32 (CAROLINA RD)	NS	E	1.7	0.3	0.9	0.4	1.6	0.3	0.8	0.4	3.3	0.6	1.7	0.7
SUR	ROUTE 10	PRINCE GEORGE CL	ROUTE 40	EW	E	0.4	0.1	0.3	0.1	0.6	0.1	0.3	0.2	1.0	0.2	0.6	0.2
SUR	ROUTE 10	ROUTE 40	ROUTE 31 (SOUTH)	EW	A	0.8	0.1	0.5	0.1	0.9	0.1	0.6	0.2	1.7	0.3	1.1	0.3
SUR	ROUTES 10/31	ROUTE 31 (SOUTH)	ROUTE 31 (NORTH)	NS	E	0.7	0.1	0.5	0.0	0.8	0.1	0.5	0.2	1.4	0.2	1.0	0.2
SUR	ROUTE 10	ROUTE 31 (NORTH)	ROUTE 617	EW	E	1.6	0.3	0.9	0.3	1.9	0.4	1.0	0.5	3.5	0.7	1.9	0.8
SUR	ROUTE 10	ROUTE 617	ISLE OF WIGHT CL	EW	E	0.6	0.1	0.3	0.1	0.7	0.1	0.4	0.2	1.3	0.2	0.7	0.3
SUR	ROUTE 40	SUSSEX CL	ROUTE 615	NS	A	0.3	0.1	0.1	0.0	0.3	0.0	0.2	0.1	0.6	0.1	0.4	0.1
SUR	ROUTE 40	ROUTE 615	ROUTE 10	NS	E	0.3	0.1	0.2	0.0	0.4	0.0	0.3	0.1	0.7	0.2	0.4	0.1
VB	21ST ST	PARKS AVE	PACIFIC AVE	EW	A	1.2	0.2	0.7	0.2					1.2	0.2	0.7	0.2
VB	21ST ST	PACIFIC AVE	ATLANTIC AVE	EW	E	0.0	0.0	0.0	0.0					0.0	0.0	0.0	0.0
VB	22ND ST	PARKS AVE	PACIFIC AVE	EW	A					0.7	0.1	0.5	0.1	0.7	0.1	0.5	0.1
VB	22ND ST	PACIFIC AVE	ATLANTIC AVE	EW	E					0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
VB	ATLANTIC AVE	83RD ST	PACIFIC AVE	NS	E	1.6	0.3	0.9	0.3	1.5	0.2	0.9	0.4	3.1	0.5	1.9	0.7
VB	ATLANTIC AVE	PACIFIC AVE	LASKIN RD	NS	E	1.3	0.1	0.8	0.4	1.9	0.2	0.9	0.8	3.2	0.3	1.7	1.3
VB	ATLANTIC AVE	LASKIN RD	22ND ST	NS	E	1.5	0.0	0.8	0.5	2.4	0.1	1.2	1.0	3.9	0.2	2.0	1.5
VB	ATLANTIC AVE	22ND ST	21ST ST	NS	E	0.2	0.0	0.1	0.0	0.4	0.0	0.2	0.1	0.5	0.0	0.4	0.1
VB	ATLANTIC AVE	21ST ST	VA BEACH BLVD	NS	A	1.1	0.0	0.7	0.3	1.9	0.0	1.3	0.5	3.1	0.0	2.0	0.8
VB	ATLANTIC AVE	VA BEACH BLVD	5TH ST	NS	E	1.3	0.1	1.0	0.1	1.6	0.0	1.4	0.1	2.8	0.2	2.4	0.2
VB	BAXTER RD	PRINCESS ANNE RD	INDEPENDENCE BLVD	NS	A	0.8	0.4	0.3	0.1	1.1	0.2	0.4	0.4	1.9	0.6	0.7	0.5
VB	BIRDNECK RD	GENERAL BOOTH BLVD	NORFOLK AVE	NS	A	2.5	0.4	1.7	0.4	2.3	0.4	1.6	0.3	4.8	0.8	3.2	0.7
VB	BIRDNECK RD	NORFOLK AVE	VA BEACH BLVD	NS	A	0.3	0.1	0.2	0.1	0.3	0.1	0.2	0.0	0.6	0.1	0.4	0.1
VB	BIRDNECK RD	VA BEACH BLVD	I-264	NS	E	1.4	0.2	1.0	0.2	1.0	0.1	0.7	0.2	2.4	0.3	1.7	0.4
VB	BIRDNECK RD	I-264	LASKIN RD	NS	E	2.1	0.3	1.2	0.6	1.5	0.2	1.1	0.2	3.5	0.5	2.3	0.7
VB	CHESAPEAKE BAY BRIDGE-TUNNEL	SHORE DR	TOLL PLAZA	NS	A	2.6	0.6	1.3	0.5	0.5	0.1	0.3	0.1	3.2	0.7	1.6	0.6
VB	CHESAPEAKE BAY BRIDGE-TUNNEL	TOLL PLAZA	NCL VA BEACH	NS	A	0.2	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.1	0.0
VB	DAM NECK RD	VA BEACH AMPHITHEATER	PRINCESS ANNE RD	EW	E	1.6	0.3	1.0	0.2	0.8	0.2	0.5	0.1	2.4	0.5	1.5	0.3
VB	DAM NECK RD	PRINCESS ANNE RD	ROSEMONT RD	EW	E	0.3	0.2	0.1	0.1	0.5	0.1	0.2	0.1	0.8	0.3	0.3	0.2
VB	DAM NECK RD	ROSEMONT RD	HOLLAND RD	EW	E	0.4	0.2	0.1	0.1	0.6	0.2	0.3	0.1	1.0	0.4	0.4	0.2
VB	DAM NECK RD	HOLLAND RD	DRAKESMILE RD	EW	E	1.0	0.4	0.5	0.1	1.1	0.1	0.6	0.4	2.1	0.5	1.1	0.5
VB	DAM NECK RD	DRAKESMILE RD	LONDON BRIDGE RD	EW	E	1.1	0.5	0.5	0.1	1.2	0.1	0.7	0.4	2.3	0.6	1.2	0.5
VB	DAM NECK RD	LONDON BRIDGE RD	HARPERS RD	EW	E	0.2	0.1	0.1	0.0	0.3	0.0	0.2	0.1	0.6	0.1	0.4	0.1
VB	DAM NECK RD	HARPERS RD	GENERAL BOOTH BLVD	EW	A	0.8	0.3	0.4	0.1	1.2	0.1	0.8	0.2	1.9	0.4	1.2	0.3
VB	DIAMOND SPRINGS RD	NEWTOWN RD	WESLEYAN RD	NS	E	0.3	0.1	0.1	0.1	0.3	0.1	0.1	0.1	0.5	0.2	0.2	0.2
VB	DIAMOND SPRINGS RD	WESLEYAN RD	NORTHAMPTON BLVD	NS	E	0.6	0.3	0.2	0.1	0.6	0.3	0.1	0.2	1.3	0.5	0.4	0.3
VB	DIAMOND SPRINGS RD	NORTHAMPTON BLVD	SHORE DR	NS	A	2.6	0.8	1.4	0.4	4.0	0.8	2.3	0.8	6.7	1.6	3.8	1.2
VB	FIRST COLONIAL RD	VA BEACH BLVD	I-264	NS	E	0.3	0.1	0.2	0.1	0.8	0.2	0.5	0.1	1.1	0.2	0.6	0.2
VB	FIRST COLONIAL RD	I-264	LASKIN RD	NS	E	0.5	0.1	0.3	0.1	0.6	0.1	0.4	0.1	1.1	0.2	0.7	0.2
VB	FIRST COLONIAL RD	LASKIN RD	OLD DONATION PKWY	NS	A	1.5	0.3	0.9	0.2	2.1	0.2	1.3	0.5	3.6	0.5	2.3	0.7
VB	FIRST COLONIAL RD	OLD DONATION PKWY	GREAT NECK RD	NS	A	1.2	0.2	0.8	0.2	1.7	0.2	1.1	0.4	2.9	0.4	1.8	0.6

Appendix C – Truck Delay by Location (Non-Interstates)

Source: HRTPO analysis of INRIX, VDOT and CBBT data. Truck data type of "A" is based on actual vehicle classification count data, "E" is based on estimated vehicle classification count data.

						Northbound/Eastbound				Southbound/Westbound				Combined			
Juris	Facility Name	Segment From	Segment To	Dir	Truck Data Type	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)
VB	GENERAL BOOTH BLVD	PRINCESS ANNE RD	NIMMO PKWY	NS	E	0.5	0.1	0.3	0.1	0.7	0.1	0.3	0.3	1.2	0.3	0.6	0.3
VB	GENERAL BOOTH BLVD	NIMMO PKWY	LONDON BRIDGE RD	NS	E	0.9	0.2	0.5	0.2	1.3	0.2	0.6	0.4	2.2	0.4	1.1	0.6
VB	GENERAL BOOTH BLVD	LONDON BRIDGE RD	DAM NECK RD	NS	E	2.0	0.5	1.2	0.4	2.8	0.5	1.3	1.0	4.9	1.0	2.4	1.3
VB	GENERAL BOOTH BLVD	DAM NECK RD	OCEANA BLVD/PROSPERITY RD	NS	E	1.1	0.4	0.5	0.2	1.8	0.2	1.0	0.5	2.9	0.6	1.5	0.7
VB	GENERAL BOOTH BLVD	OCEANA BLVD/PROSPERITY RD	BIRDNECK RD	NS	A	0.5	0.1	0.2	0.1	0.9	0.2	0.5	0.3	1.4	0.3	0.7	0.3
VB	GENERAL BOOTH BLVD	BIRDNECK RD	HARBOUR POINT	NS	A	0.8	0.2	0.4	0.2	0.5	0.1	0.3	0.1	1.3	0.2	0.7	0.3
VB	GREAT NECK RD	VA BEACH BLVD	OLD DONATION PKWY	NS	E	1.2	0.2	0.8	0.3	2.4	0.3	1.3	0.7	3.6	0.6	2.1	0.9
VB	GREAT NECK RD	OLD DONATION PKWY	FIRST COLONIAL RD	NS	E	0.7	0.1	0.5	0.1	0.7	0.1	0.4	0.2	1.5	0.2	0.9	0.3
VB	GREAT NECK RD	FIRST COLONIAL RD	SHOREHAVEN RD	NS	E	0.8	0.2	0.5	0.1	0.8	0.1	0.5	0.2	1.6	0.3	0.9	0.3
VB	GREAT NECK RD	SHOREHAVEN RD	SHORE DR	NS	A	1.6	0.4	0.9	0.2	1.6	0.3	1.0	0.3	3.2	0.6	1.9	0.6
VB	HOLLAND RD	INDEPENDENCE BLVD	SOUTH PLAZA TRAIL	NS	A	0.6	0.1	0.3	0.2	0.4	0.1	0.2	0.1	1.0	0.2	0.5	0.3
VB	HOLLAND RD	SOUTH PLAZA TRAIL	ROSEMONT RD	NS	E	2.0	0.3	0.9	0.7	1.4	0.3	0.8	0.3	3.4	0.6	1.7	1.1
VB	HOLLAND RD	ROSEMONT RD	LYNNHAVEN PKWY	NS	E	1.7	0.4	0.7	0.5	1.0	0.2	0.6	0.2	2.6	0.5	1.3	0.7
VB	HOLLAND RD	LYNNHAVEN PKWY	DAM NECK RD	NS	E	1.6	0.3	0.8	0.5	1.4	0.5	0.7	0.3	3.0	0.7	1.5	0.8
VB	HOLLAND RD	DAM NECK RD	FUTURE NIMMO PKWY	NS	E	1.2	0.5	0.4	0.2	1.0	0.7	0.3	0.1	2.2	1.2	0.7	0.3
VB	HOLLAND RD	FUTURE NIMMO PKWY	PRINCESS ANNE RD	NS	E	0.4	0.2	0.1	0.1	0.3	0.2	0.1	0.0	0.7	0.4	0.2	0.1
VB	INDEPENDENCE BLVD	INDIAN RIVER RD	SALEM RD	NS	E	0.3	0.0	0.2	0.0	0.2	0.0	0.1	0.0	0.5	0.1	0.3	0.0
VB	INDEPENDENCE BLVD	SALEM RD	PRINCESS ANNE RD	NS	E	0.6	0.1	0.3	0.1	0.2	0.1	0.1	0.0	0.8	0.2	0.5	0.1
VB	INDEPENDENCE BLVD	PRINCESS ANNE RD	LYNNHAVEN PKWY	NS	E	0.9	0.1	0.5	0.2	1.0	0.2	0.6	0.1	1.8	0.3	1.2	0.3
VB	INDEPENDENCE BLVD	LYNNHAVEN PKWY	PLAZA TRAIL	NS	A	0.8	0.2	0.5	0.2	0.9	0.2	0.6	0.1	1.8	0.4	1.1	0.3
VB	INDEPENDENCE BLVD	PLAZA TRAIL	HOLLAND RD	NS	E	1.0	0.2	0.6	0.2	0.6	0.1	0.4	0.1	1.6	0.3	1.0	0.3
VB	INDEPENDENCE BLVD	HOLLAND RD	BAXTER RD	NS	E	3.4	0.8	1.4	1.1	1.4	0.3	0.6	0.4	4.7	1.1	2.1	1.5
VB	INDEPENDENCE BLVD	BAXTER RD	I-264	NS	E	0.6	0.1	0.2	0.3	0.5	0.1	0.2	0.1	1.1	0.2	0.4	0.4
VB	INDEPENDENCE BLVD	I-264	BONNEY RD	NS	E	0.6	0.2	0.3	0.1	0.9	0.2	0.5	0.2	1.4	0.3	0.8	0.3
VB	INDEPENDENCE BLVD	BONNEY RD	COLUMBUS ST	NS	E	0.6	0.2	0.3	0.1	0.9	0.2	0.5	0.2	1.5	0.4	0.8	0.3
VB	INDEPENDENCE BLVD	COLUMBUS ST	VA BEACH BLVD	NS	E	0.3	0.1	0.2	0.1	0.5	0.1	0.3	0.1	0.8	0.2	0.4	0.2
VB	INDEPENDENCE BLVD	VA BEACH BLVD	JEANNE ST	NS	A	0.3	0.1	0.1	0.1	0.5	0.1	0.3	0.1	0.8	0.2	0.4	0.2
VB	INDEPENDENCE BLVD	JEANNE ST	PEMBROKE BLVD	NS	A	1.1	0.3	0.5	0.2	1.9	0.5	1.0	0.4	3.0	0.7	1.6	0.7
VB	INDEPENDENCE BLVD	PEMBROKE BLVD	HAYGOOD RD	NS	E	1.7	0.5	0.9	0.3	1.7	0.3	0.9	0.4	3.4	0.8	1.8	0.8
VB	INDEPENDENCE BLVD	HAYGOOD RD	NORTHAMPTON BLVD	NS	E	1.4	0.4	0.7	0.3	2.6	0.5	1.3	0.8	4.1	1.0	2.0	1.1
VB	INDEPENDENCE BLVD	NORTHAMPTON BLVD	SHORE DR	NS	E	0.5	0.2	0.2	0.1	0.1	0.0	0.1	0.0	0.7	0.3	0.3	0.1
VB	INDIAN RIVER RD	CHESAPEAKE CL	MILITARY HWY	EW	E	0.7	0.1	0.4	0.2	0.7	0.1	0.4	0.1	1.4	0.3	0.8	0.3
VB	INDIAN RIVER RD	MILITARY HWY	PROVIDENCE RD	EW	E	0.9	0.2	0.4	0.2	0.9	0.2	0.4	0.2	1.8	0.5	0.9	0.4
VB	INDIAN RIVER RD	PROVIDENCE RD	I-64	EW	E	0.9	0.1	0.3	0.4	1.7	0.3	0.8	0.5	2.6	0.4	1.1	1.0
VB	INDIAN RIVER RD	I-64	CENTERVILLE TNPK	EW	E	7.5	1.0	2.3	4.0	1.9	0.3	1.1	0.5	9.4	1.4	3.4	4.5
VB	INDIAN RIVER RD	CENTERVILLE TNPK	KEMPSVILLE RD	EW	A	5.9	0.8	1.6	3.5	3.0	0.5	1.8	0.6	8.9	1.3	3.4	4.1
VB	INDIAN RIVER RD	KEMPSVILLE RD	FERRELL PKWY	EW	E	0.6	0.1	0.2	0.2	1.5	0.3	0.7	0.4	2.0	0.4	1.0	0.6
VB	INDIAN RIVER RD	FERRELL PKWY	LYNNHAVEN PKWY	EW	E	0.2	0.0	0.1	0.0	0.2	0.0	0.1	0.0	0.3	0.1	0.2	0.1
VB	INDIAN RIVER RD	LYNNHAVEN PKWY	INDEPENDENCE BLVD	EW	E	0.5	0.1	0.3	0.1	0.4	0.1	0.2	0.1	0.9	0.2	0.5	0.1
VB	INDIAN RIVER RD	INDEPENDENCE BLVD	ELBOW RD	EW	E	0.2	0.0	0.1	0.0	0.2	0.0	0.1	0.0	0.3	0.1	0.2	0.1
VB	INDIAN RIVER RD	ELBOW RD	S.E. PARKWAY LOCATION	EW	E	0.2	0.0	0.1	0.0	0.2	0.1	0.1	0.0	0.4	0.1	0.2	0.1
VB	INDIAN RIVER RD	S.E. PARKWAY LOCATION	NORTH LANDING RD	EW	E	0.3	0.1	0.2	0.0	0.3	0.1	0.1	0.1	0.5	0.2	0.3	0.1
VB	INDIAN RIVER RD	NORTH LANDING RD	WEST NECK RD	EW	A	0.4	0.1	0.3	0.1	0.5	0.1	0.3	0.1	0.9	0.2	0.6	0.1
VB	INDIAN RIVER RD	WEST NECK RD	PRINCESS ANNE RD	EW	A	0.3	0.1	0.2	0.0	0.3	0.1	0.2	0.0	0.6	0.1	0.4	0.1
VB	KEMPSVILLE RD	CHESAPEAKE CL	CENTERVILLE TNPK	EW	E	0.8	0.2	0.5	0.1	0.6	0.1	0.3	0.2	1.4	0.4	0.8	0.3
VB	KEMPSVILLE RD	CENTERVILLE TNPK	INDIAN RIVER RD	EW	A	1.5	0.4	0.8	0.3	0.9	0.2	0.4	0.3	2.4	0.6	1.2	0.5
VB	KEMPSVILLE RD	INDIAN RIVER RD	PROVIDENCE RD	EW	E	0.9	0.2	0.4	0.3	0.6	0.1	0.3	0.3	1.5	0.3	0.7	0.6
VB	KEMPSVILLE RD	PROVIDENCE RD	PRINCESS ANNE RD	EW	A	1.3	0.4	0.6	0.3	0.6	0.1	0.3	0.1	1.9	0.6	0.9	0.4
VB	LASKIN RD	VA BEACH BLVD	FIRST COLONIAL RD	EW	A	1.5	0.3	1.0	0.2	1.0	0.1	0.7	0.2	2.5	0.4	1.6	0.5
VB	LASKIN RD	FIRST COLONIAL RD	WINWOOD DR	EW	A	0.2	0.0	0.2	0.0	0.4	0.0	0.3	0.1	0.6	0.1	0.4	0.1

Appendix C – Truck Delay by Location (Non-Interstates)

Source: HRTPO analysis of INRIX, VDOT and CBBT data. Truck data type of "A" is based on actual vehicle classification count data, "E" is based on estimated vehicle classification count data.

						Northbound/Eastbound				Southbound/Westbound				Combined			
Juris	Facility Name	Segment From	Segment To	Dir	Truck Data Type	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)
VB	LASKIN RD	WINWOOD DR	BIRDNECK RD	EW	A	0.5	0.0	0.3	0.1	0.7	0.1	0.5	0.1	1.2	0.1	0.8	0.2
VB	LASKIN RD	BIRDNECK RD	30TH ST	EW	E	0.7	0.1	0.5	0.1	0.5	0.1	0.3	0.1	1.3	0.2	0.8	0.2
VB	LASKIN RD	30TH ST	PACIFIC AVE	EW	E	0.4	0.1	0.3	0.0	0.3	0.0	0.2	0.1	0.7	0.1	0.4	0.1
VB	LONDON BRIDGE RD	GENERAL BOOTH BLVD	DAM NECK RD	NS	A	1.9	0.4	1.0	0.5	1.3	0.2	0.7	0.4	3.2	0.6	1.7	0.9
VB	LONDON BRIDGE RD	DAM NECK RD	DRAKESMILE RD	NS	E	0.5	0.1	0.2	0.1	0.3	0.1	0.2	0.1	0.8	0.1	0.4	0.2
VB	LONDON BRIDGE RD	POTTERS RD	I-264	NS	E	0.5	0.1	0.3	0.1	0.5	0.0	0.3	0.1	0.9	0.2	0.5	0.2
VB	LONDON BRIDGE RD	I-264	VA BEACH BLVD	NS	E	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0
VB	LYNNHAVEN PKWY	INDIAN RIVER RD	SALEM RD	EW	A	0.6	0.2	0.3	0.1	0.5	0.1	0.2	0.1	1.1	0.3	0.5	0.3
VB	LYNNHAVEN PKWY	SALEM RD	PRINCESS ANNE RD	EW	E	0.2	0.0	0.1	0.1	0.2	0.0	0.1	0.1	0.5	0.1	0.2	0.1
VB	LYNNHAVEN PKWY	PRINCESS ANNE RD	INDEPENDENCE BLVD	EW	E	0.3	0.1	0.2	0.1	0.3	0.0	0.2	0.1	0.6	0.1	0.4	0.1
VB	LYNNHAVEN PKWY	INDEPENDENCE BLVD	ROSEMONT RD	EW	E	0.5	0.1	0.3	0.1	0.6	0.1	0.3	0.1	1.0	0.2	0.6	0.2
VB	LYNNHAVEN PKWY	ROSEMONT RD	HOLLAND RD	EW	E	0.4	0.1	0.2	0.1	0.5	0.1	0.3	0.1	0.9	0.1	0.5	0.2
VB	LYNNHAVEN PKWY	HOLLAND RD	S LYNNHAVEN RD	EW	A	1.0	0.1	0.7	0.1	0.8	0.1	0.6	0.1	1.8	0.2	1.3	0.3
VB	LYNNHAVEN PKWY	S LYNNHAVEN RD	INTERNATIONAL PKWY	NS	A	1.1	0.2	0.6	0.2	0.9	0.2	0.6	0.1	2.0	0.3	1.2	0.4
VB	LYNNHAVEN PKWY	INTERNATIONAL PKWY	POTTERS RD	NS	E	2.4	0.4	1.4	0.5	2.0	0.3	1.3	0.3	4.4	0.7	2.7	0.8
VB	LYNNHAVEN PKWY	POTTERS RD	I-264	NS	E	0.7	0.1	0.4	0.1	0.6	0.1	0.4	0.1	1.3	0.2	0.8	0.2
VB	LYNNHAVEN PKWY	I-264	VA BEACH BLVD	NS	E	0.8	0.1	0.5	0.2	0.6	0.2	0.3	0.1	1.4	0.3	0.8	0.2
VB	MILITARY HWY	CHESAPEAKE CL	PROVIDENCE RD	NS	E	0.5	0.1	0.3	0.1	0.5	0.1	0.2	0.2	1.0	0.2	0.5	0.3
VB	MILITARY HWY	PROVIDENCE RD	INDIAN RIVER RD	NS	A	1.6	0.4	0.7	0.6	1.1	0.2	0.6	0.3	2.8	0.6	1.3	0.9
VB	MILITARY HWY	INDIAN RIVER RD	NORFOLK CL	NS	E	1.1	0.4	0.4	0.2	1.9	0.4	0.9	0.6	3.0	0.8	1.4	0.8
VB	NEWTOWN RD	NORFOLK CL	BAKER RD	NS	E	0.3	0.1	0.2	0.1	0.7	0.1	0.3	0.2	1.0	0.2	0.5	0.3
VB	NEWTOWN RD	BAKER RD	DIAMOND SPRINGS RD	NS	A	0.5	0.1	0.3	0.1	1.0	0.2	0.4	0.3	1.5	0.3	0.7	0.4
VB	NORTHAMPTON BLVD	WESLEYAN DR/NORFOLK CL	DIAMOND SPRINGS RD	EW	E	9.6	2.3	4.6	2.2	10.3	1.9	4.7	3.3	19.9	4.2	9.3	5.5
VB	NORTHAMPTON BLVD	DIAMOND SPRINGS RD	INDEPENDENCE BLVD	EW	A	2.1	0.5	1.2	0.4	5.0	0.6	2.6	1.6	7.2	1.1	3.8	2.0
VB	NORTHAMPTON BLVD	INDEPENDENCE BLVD	SHORE DR	EW	E	1.4	0.3	0.6	0.4	2.2	0.3	1.2	0.6	3.6	0.6	1.8	1.0
VB	NORTH LANDING RD	CHESAPEAKE CL	INDIAN RIVER RD	EW	E	0.2	0.0	0.1	0.0	0.2	0.0	0.1	0.0	0.4	0.1	0.3	0.0
VB	NORTH LANDING RD	INDIAN RIVER RD	SALEM RD	EW	A	0.2	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.3	0.1	0.2	0.1
VB	NORTH LANDING RD	SALEM RD	WEST NECK RD	EW	A	1.1	0.3	0.7	0.2	0.8	0.2	0.5	0.1	1.9	0.5	1.2	0.3
VB	NORTH LANDING RD	WEST NECK RD	PRINCESS ANNE RD	EW	A	0.3	0.1	0.2	0.0	0.2	0.1	0.1	0.0	0.5	0.1	0.3	0.1
VB	OCEANA BLVD	GENERAL BOOTH BLVD	HARPERS RD	NS	E	0.9	0.1	0.6	0.2	1.1	0.2	0.6	0.3	2.0	0.4	1.2	0.4
VB	OCEANA BLVD	HARPERS RD	TOMCAT BLVD (NAS MAIN ENT)	NS	E	0.3	0.1	0.2	0.1	0.2	0.1	0.1	0.0	0.6	0.1	0.3	0.1
VB	OCEANA BLVD/FIRST COLONIAL RD	TOMCAT BLVD (NAS MAIN ENT)	VA BEACH BLVD	NS	A	3.0	0.6	1.8	0.7	2.2	0.6	1.2	0.3	5.2	1.1	3.0	1.0
VB	PACIFIC AVE	ATLANTIC AVE	LASKIN RD	NS	E	0.6	0.1	0.5	0.1	0.8	0.1	0.5	0.2	1.4	0.1	0.9	0.3
VB	PACIFIC AVE	LASKIN RD	22ND ST	NS	E	0.7	0.1	0.4	0.2	0.8	0.1	0.5	0.3	1.5	0.2	0.9	0.5
VB	PACIFIC AVE	22ND ST	21ST ST	NS	E	0.2	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.3	0.1	0.2	0.1
VB	PACIFIC AVE	21ST ST	VA BEACH BLVD	NS	E	0.4	0.1	0.3	0.1	0.4	0.1	0.2	0.1	0.8	0.1	0.5	0.2
VB	PACIFIC AVE	VA BEACH BLVD	NORFOLK AVE	NS	E	0.6	0.1	0.4	0.1	0.6	0.1	0.4	0.2	1.2	0.2	0.8	0.2
VB	PACIFIC AVE	NORFOLK AVE	HARBOUR POINT	NS	A	0.9	0.1	0.7	0.1	0.6	0.1	0.4	0.1	1.5	0.2	1.1	0.3
VB	PEMBROKE BLVD	WITCHDUCK RD	INDEPENDENCE BLVD	EW	A	0.2	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.3	0.0	0.2	0.1
VB	PRINCESS ANNE RD	NEWTOWN RD/NORFOLK CL	KEMPSVILLE RD	EW	A	1.1	0.2	0.6	0.3	1.0	0.2	0.6	0.2	2.2	0.4	1.2	0.5
VB	PRINCESS ANNE RD	KEMPSVILLE RD	BAXTER RD	EW	E	0.3	0.1	0.2	0.1	0.6	0.2	0.3	0.2	0.9	0.2	0.4	0.2
VB	PRINCESS ANNE RD	BAXTER RD	PROVIDENCE RD	EW	E	1.1	0.3	0.5	0.2	1.2	0.4	0.5	0.3	2.3	0.7	1.1	0.5
VB	PRINCESS ANNE RD	PROVIDENCE RD	FERRELL PKWY	EW	A	0.7	0.2	0.4	0.1	0.5	0.1	0.2	0.1	1.2	0.3	0.6	0.3
VB	PRINCESS ANNE RD	FERRELL PKWY	LYNNHAVEN PKWY	EW	E	2.2	0.3	1.3	0.5	1.4	0.3	0.8	0.2	3.6	0.6	2.2	0.7
VB	PRINCESS ANNE RD	LYNNHAVEN PKWY	INDEPENDENCE BLVD	EW	E	1.0	0.2	0.6	0.2	1.2	0.3	0.7	0.2	2.2	0.5	1.4	0.4
VB	PRINCESS ANNE RD	INDEPENDENCE BLVD	DAM NECK RD	EW	A	3.4	0.6	2.1	0.6	4.1	1.0	2.4	0.6	7.5	1.5	4.6	1.2
VB	PRINCESS ANNE RD	DAM NECK RD	S.E. PARKWAY LOCATION	EW	E	0.7	0.2	0.4	0.1	0.6	0.1	0.4	0.2	1.4	0.2	0.8	0.3
VB	PRINCESS ANNE RD	S.E. PARKWAY LOCATION	NIMMO PKWY	EW	E	0.9	0.2	0.5	0.2	0.7	0.1	0.4	0.2	1.5	0.3	0.9	0.3
VB	PRINCESS ANNE RD	NIMMO PKWY	NORTH LANDING RD	EW	E	0.3	0.1	0.2	0.0	0.2	0.0	0.1	0.1	0.5	0.1	0.3	0.1
VB	PRINCESS ANNE RD	NORTH LANDING RD	HOLLAND RD	EW	E	0.2	0.1	0.1	0.1	0.4	0.1	0.1	0.2	0.6	0.2	0.2	0.3

Appendix C – Truck Delay by Location (Non-Interstates)

Source: HRTPO analysis of INRIX, VDOT and CBBT data. Truck data type of "A" is based on actual vehicle classification count data, "E" is based on estimated vehicle classification count data.

						Northbound/Eastbound				Southbound/Westbound				Combined			
Juris	Facility Name	Segment From	Segment To	Dir	Truck Data Type	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)
VB	PRINCESS ANNE RD	HOLLAND RD	SEABOARD RD	EW	A	1.0	0.3	0.4	0.3	2.0	0.5	0.5	1.0	3.0	0.7	1.0	1.3
VB	PRINCESS ANNE RD	SEABOARD RD	GENERAL BOOTH BLVD	EW	A	1.0	0.3	0.4	0.3	2.0	0.5	0.5	1.0	3.0	0.7	1.0	1.3
VB	PRINCESS ANNE RD	GENERAL BOOTH BLVD	SANDBRIDGE RD/UPTON DR	NS	E	0.3	0.1	0.2	0.0	0.4	0.1	0.1	0.2	0.7	0.2	0.3	0.2
VB	PRINCESS ANNE RD	SANDBRIDGE RD/UPTON DR	SEABOARD RD	NS	E	2.5	0.6	1.5	0.4	1.5	0.4	0.8	0.3	4.0	1.0	2.3	0.6
VB	PRINCESS ANNE RD	SEABOARD RD	INDIAN RIVER RD	NS	E	0.6	0.1	0.3	0.1	0.4	0.1	0.2	0.1	0.9	0.2	0.5	0.1
VB	PRINCESS ANNE RD	INDIAN RIVER RD	PUNGO FERRY RD	NS	A	3.5	1.1	1.9	0.4	3.1	1.0	1.8	0.3	6.6	2.1	3.7	0.7
VB	PRINCESS ANNE RD	PUNGO FERRY RD	NORTH CAROLINA STATE LINE	NS	E	1.2	0.4	0.7	0.1	1.1	0.3	0.6	0.1	2.3	0.7	1.3	0.2
VB	ROSEMONT RD	LYNNHAVEN PKWY	HOLLAND RD	NS	E	1.3	0.5	0.6	0.1	1.5	0.2	1.0	0.4	2.8	0.6	1.6	0.5
VB	ROSEMONT RD	HOLLAND RD	PLAZA TRAIL	NS	A	1.7	0.4	0.9	0.3	1.0	0.2	0.6	0.2	2.8	0.6	1.6	0.6
VB	ROSEMONT RD	PLAZA TRAIL	I-264	NS	E	1.0	0.2	0.5	0.2	0.6	0.1	0.4	0.1	1.6	0.3	0.9	0.3
VB	ROSEMONT RD	I-264	VA BEACH BLVD	NS	E	0.4	0.1	0.2	0.1	0.2	0.0	0.1	0.0	0.6	0.1	0.3	0.1
VB	SHORE DRIVE	NORFOLK CL	DIAMOND SPRINGS RD	EW	E	0.2	0.0	0.1	0.1	0.2	0.0	0.1	0.0	0.4	0.1	0.2	0.1
VB	SHORE DRIVE	DIAMOND SPRINGS RD	INDEPENDENCE BLVD	EW	E	1.7	0.7	0.8	0.3	1.1	0.2	0.6	0.2	2.8	0.9	1.3	0.5
VB	SHORE DRIVE	INDEPENDENCE BLVD	NORTHAMPTON BLVD	EW	E	0.5	0.1	0.3	0.1	0.6	0.1	0.4	0.2	1.1	0.2	0.6	0.3
VB	SHORE DRIVE	NORTHAMPTON BLVD	GREAT NECK RD	EW	A	3.7	0.8	2.1	0.8	3.7	0.6	2.1	0.9	7.4	1.4	4.2	1.8
VB	SHORE DRIVE	GREAT NECK RD	ATLANTIC AVE	EW	E	1.5	0.2	0.9	0.4	1.7	0.2	1.0	0.5	3.2	0.4	1.9	0.9
VB	VA BEACH BLVD	NEWTOWN RD/NORFOLK CL	WITCHDUCK RD	EW	A	3.1	0.6	1.8	0.7	2.1	0.4	1.4	0.4	5.2	0.9	3.1	1.0
VB	VA BEACH BLVD	WITCHDUCK RD	INDEPENDENCE BLVD	EW	A	1.7	0.3	1.1	0.3	1.8	0.2	1.1	0.4	3.5	0.5	2.2	0.7
VB	VA BEACH BLVD	INDEPENDENCE BLVD	CONSTITUTION DR	EW	E	0.7	0.1	0.4	0.2	0.5	0.1	0.3	0.1	1.2	0.2	0.7	0.3
VB	VA BEACH BLVD	CONSTITUTION DR	ROSEMONT RD	EW	E	4.1	0.7	2.2	1.1	3.1	0.3	2.0	0.7	7.2	1.0	4.2	1.8
VB	VA BEACH BLVD	ROSEMONT RD	S. PLAZA TRAIL/LITTLE NECK RD	EW	E	0.6	0.1	0.4	0.2	0.8	0.1	0.5	0.2	1.4	0.2	0.9	0.3
VB	VA BEACH BLVD	S. PLAZA TRAIL/LITTLE NECK RD	LYNNHAVEN PKWY	EW	A	2.0	0.3	1.1	0.5	2.4	0.3	1.5	0.6	4.4	0.6	2.6	1.1
VB	VA BEACH BLVD	LYNNHAVEN PKWY	GREAT NECK RD	EW	E	1.8	0.5	1.0	0.2	1.9	0.4	1.2	0.4	3.7	0.9	2.2	0.6
VB	VA BEACH BLVD	GREAT NECK RD	LASKIN RD	EW	E	0.2	0.1	0.1	0.0	0.2	0.0	0.1	0.0	0.4	0.1	0.2	0.1
VB	VA BEACH BLVD	LASKIN RD	FIRST COLONIAL RD	EW	E	1.8	0.3	1.0	0.4	0.8	0.1	0.5	0.2	2.6	0.4	1.5	0.6
VB	VA BEACH BLVD	FIRST COLONIAL RD	N OCEANA BLVD	EW	E	0.3	0.0	0.2	0.1	0.4	0.0	0.3	0.1	0.8	0.1	0.5	0.1
VB	VA BEACH BLVD	N OCEANA BLVD	BIRDNECK RD	EW	E	0.5	0.1	0.4	0.1	0.8	0.1	0.6	0.1	1.3	0.1	0.9	0.2
VB	VA BEACH BLVD	BIRDNECK RD	PACIFIC AVE	EW	A	2.0	0.1	1.6	0.2	1.4	0.1	1.0	0.2	3.4	0.2	2.6	0.4
VB	WITCHDUCK RD	PRINCESS ANNE RD	I-264	NS	E	3.0	0.5	1.6	0.9	4.4	0.7	1.8	1.9	7.4	1.2	3.4	2.8
VB	WITCHDUCK RD	I-264	VA BEACH BLVD	NS	A	3.2	0.5	1.6	1.1	4.9	1.2	2.6	1.0	8.1	1.7	4.2	2.1
VB	WITCHDUCK RD	VA BEACH BLVD	PEMBROKE BLVD	NS	E	0.5	0.1	0.4	0.1	0.5	0.1	0.3	0.1	1.0	0.1	0.6	0.2
WMB	BYPASS RD	RICHMOND RD	YORK CL	EW	A	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.1	0.0
WMB	BYPASS RD	ROUTE 132/YORK CL	PAGE ST	EW	A	0.4	0.1	0.2	0.1	0.3	0.0	0.1	0.1	0.6	0.1	0.3	0.1
WMB	FRANCIS ST	BOUNDARY ST	HENRY ST	EW	E	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0
WMB	HENRY ST S.	ROUTE 199	FRANCIS ST	NS	A	0.3	0.0	0.2	0.0	0.2	0.0	0.2	0.0	0.5	0.0	0.4	0.0
WMB	HENRY ST	FRANCIS ST	LAFAYETTE ST	NS	E	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.2	0.0	0.1	0.1
WMB	HENRY ST N.	LAFAYETTE ST	RTE 132Y	NS	A	0.3	0.0	0.2	0.1	0.3	0.0	0.2	0.0	0.6	0.1	0.4	0.1
WMB	JAMESTOWN RD	JAMES CITY CL	RTE 199	EW	E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
WMB	JAMESTOWN RD	RTE 199	JOHN TYLER LN	EW	E	0.2	0.1	0.1	0.0	0.1	0.0	0.1	0.0	0.3	0.1	0.2	0.0
WMB	JAMESTOWN RD	JOHN TYLER LN	COLLEGE CREEK	EW	A	0.4	0.1	0.2	0.1	0.2	0.0	0.1	0.0	0.6	0.1	0.4	0.1
WMB	JAMESTOWN RD	COLLEGE CREEK	BOUNDARY ST	EW	A	0.7	0.1	0.4	0.2	0.3	0.1	0.2	0.0	1.0	0.2	0.6	0.2
WMB	MERRIMAC TRAIL	YORK CL (SOUTH)	CAPITOL LANDING RD	NS	A	0.3	0.0	0.2	0.0	0.2	0.1	0.1	0.0	0.5	0.1	0.3	0.1
WMB	MERRIMAC TRAIL	CAPITOL LANDING RD	YORK CL (NORTH)	NS	A	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0
WMB	PAGE ST	BYPASS RD	SECOND ST	NS	E	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.2	0.0	0.1	0.0
WMB	PAGE ST	SECOND ST	YORK ST	NS	A	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.1	0.0
WMB	RICHMOND RD	JAMES CITY CL	IRONBOUND RD	NS	E	1.2	0.2	0.7	0.2	1.4	0.2	0.9	0.3	2.6	0.4	1.6	0.5
WMB	RICHMOND RD	IRONBOUND RD	BYPASS RD	NS	A	0.4	0.0	0.3	0.1	0.4	0.1	0.2	0.1	0.8	0.1	0.5	0.2
WMB	ROUTE 132	ROUTE 132Y	BYPASS RD/YORK CL	NS	E	0.2	0.0	0.1	0.1	-	-	-	-	-	-	-	-
WMB	ROUTE 199	JAMES CITY CL (WEST)	JAMESTOWN RD	EW	E	0.9	0.2	0.5	0.3	0.8	0.2	0.5	0.1	1.7	0.4	1.0	0.4
WMB	ROUTE 199	JAMESTOWN RD	JAMES CITY CL (EAST)	EW	E	0.3	0.0	0.2	0.1	0.4	0.1	0.2	0.1	0.7	0.1	0.4	0.1

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Source: HRTPO analysis of INRIX, VDOT and CBBT data. Truck data type of "A" is based on actual vehicle classification count data, "E" is based on estimated vehicle classification count data.

						Northbound/Eastbound				Southbound/Westbound				Combined			
Juris	Facility Name	Segment From	Segment To	Dir	Truck Data Type	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)	Total Weekday Truck Delay (hours)	Total Truck Delay 6:00AM-9:00AM (hours)	Total Truck Delay 9:00AM-3:00PM (hours)	Total Truck Delay 3:00PM-7:00PM (hours)
WMB	YORK ST	PAGE ST	JAMES CITY CL	EW	A	0.3	0.0	0.2	0.1	0.4	0.1	0.2	0.1	0.6	0.1	0.3	0.1
YC	BIG BETHEL RD	HAMPTON CL	HAMPTON HWY (RTE 134)	NS	A	0.3	0.1	0.2	0.0	0.2	0.1	0.2	0.0	0.5	0.1	0.4	0.1
YC	BIG BETHEL RD	HAMPTON HWY (RTE 134)	VICTORY BLVD (RTE 171)	NS	E	0.2	0.1	0.1	0.0	0.2	0.0	0.1	0.0	0.4	0.1	0.2	0.0
YC	BYPASS RD	WILLIAMSBURG CL	WALLER MILL RD	EW	A	0.1	0.0	0.1	0.0	0.2	0.0	0.1	0.0	0.3	0.0	0.1	0.1
YC	BYPASS RD	WALLER MILL RD	ROUTE 132/WILLIAMSBURG CL	EW	A	0.5	0.1	0.3	0.1	0.7	0.1	0.4	0.2	1.2	0.2	0.7	0.3
YC	DENBIGH BLVD	NEWPORT NEWS CL	ROUTE 17	EW	A	0.9	0.1	0.5	0.2	0.9	0.1	0.6	0.1	1.8	0.3	1.1	0.4
YC	FORT EUSTIS BLVD	NEWPORT NEWS CL	ROUTE 17	EW	E	2.9	0.8	1.6	0.5	3.3	0.9	1.9	0.4	6.2	1.6	3.6	0.8
YC	GEORGE WASHINGTON HWY	NEWPORT NEWS CL	VICTORY BLVD (RTE 171)	NS	E	2.4	0.4	1.3	0.6	2.4	0.5	1.4	0.4	4.8	1.0	2.7	1.1
YC	GEORGE WASHINGTON HWY	VICTORY BLVD (RTE 171)	HAMPTON HWY (RTE 134)	NS	E	0.9	0.1	0.4	0.4	2.0	0.4	1.1	0.5	3.0	0.5	1.5	0.9
YC	GEORGE WASHINGTON HWY	HAMPTON HWY (RTE 134)	DARE RD	NS	A	6.3	1.2	3.0	2.0	7.9	1.7	4.6	1.5	14.2	2.9	7.6	3.4
YC	GEORGE WASHINGTON HWY	DARE RD	DENBIGH BLVD (RTE 173)	NS	E	2.1	0.4	1.0	0.7	2.6	0.6	1.5	0.5	4.7	1.0	2.5	1.1
YC	GEORGE WASHINGTON HWY	DENBIGH BLVD (RTE 173)	FORT EUSTIS BLVD (RTE 105)	NS	E	1.2	0.3	0.6	0.3	1.8	0.4	1.0	0.4	3.0	0.7	1.6	0.6
YC	GEORGE WASHINGTON HWY	FORT EUSTIS BLVD (RTE 105)	COOK RD	NS	E	1.0	0.2	0.5	0.3	1.3	0.3	0.7	0.3	2.3	0.5	1.2	0.6
YC	GEORGE WASHINGTON HWY	COOK RD	GOOSLEY RD (RTE 238)	NS	E	3.2	0.6	1.6	0.9	4.2	0.9	2.4	0.9	7.4	1.5	4.0	1.8
YC	GEORGE WASHINGTON HWY	GOOSLEY RD (RTE 238)	GLOUCESTER CL (COLEMAN BRIDGE)	NS	E	1.4	0.2	0.8	0.3	1.8	0.3	1.1	0.3	3.2	0.6	1.9	0.6
YC	GOODWIN NECK RD	ROUTE 17	WOLF TRAP RD	EW	A	1.5	0.4	0.9	0.3	1.7	0.4	0.8	0.4	3.2	0.7	1.7	0.7
YC	HAMPTON HWY	ROUTE 17	VICTORY BLVD (RTE 171)	NS	E	0.9	0.3	0.3	0.3	0.7	0.2	0.4	0.2	1.6	0.4	0.7	0.4
YC	HAMPTON HWY	VICTORY BLVD (RTE 171)	BIG BETHEL RD (RTE 600)	NS	A	1.8	0.5	1.0	0.3	2.0	0.5	1.1	0.3	3.8	1.0	2.1	0.7
YC	HAMPTON HWY	BIG BETHEL RD (RTE 600)	NCL HAMPTON	NS	E	1.8	0.6	0.9	0.3	2.1	0.7	1.1	0.3	3.9	1.2	2.0	0.7
YC	MERRIMAC TRAIL	JAMES CITY CL	BUSCH GARDENS INTERCHANGE	NS	E	0.7	0.2	0.3	0.2	0.5	0.2	0.2	0.1	1.1	0.3	0.5	0.3
YC	MERRIMAC TRAIL	BUSCH GARDENS INTERCHANGE	ROUTE 199/JAMES CITY CL	NS	E	0.6	0.2	0.3	0.1	0.4	0.1	0.2	0.1	1.0	0.3	0.5	0.2
YC	MERRIMAC TRAIL	PENNIMAN RD/JAMES CITY CL	SECOND ST	NS	E	0.9	0.2	0.5	0.2	0.7	0.1	0.4	0.2	1.6	0.3	0.9	0.5
YC	MERRIMAC TRAIL	SECOND ST	SCL WILLIAMSBURG	NS	E	0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.2	0.0	0.1	0.0
YC	MERRIMAC TRAIL	NCL WILLIAMSBURG	ROUTE 132	NS	E	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0
YC	PENNIMAN RD (RTE 641)	ROUTE 199	COLONIAL PKWY	EW	A	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.2	0.0	0.2	0.0
YC	POCAHONTAS TRAIL	JCC LINE @ RTE 199	KINGSMILL RD	EW	E	0.7	0.2	0.4	0.1	0.9	0.2	0.5	0.2	1.7	0.3	0.9	0.3
YC	POCAHONTAS TRAIL	KINGSMILL RD	BUSCH GARDENS INTERCHANGE	EW	E	1.8	0.4	1.0	0.3	2.3	0.4	1.3	0.5	4.1	0.8	2.3	0.8
YC	POCAHONTAS TRAIL	BUSCH GARDENS INTERCHANGE	JAMES CITY CL	EW	E	0.5	0.1	0.2	0.1	0.4	0.1	0.2	0.1	0.9	0.2	0.4	0.2
YC	ROUTE 132	BYPASS RD/WILLIAMSBURG CL	ROUTE 143	NS	A	0.2	0.0	0.1	0.1	0.2	0.0	0.1	0.0	0.4	0.1	0.3	0.1
YC	ROUTE 143	ROUTE 132	I-64	NS	E	0.6	0.1	0.4	0.1	0.5	0.2	0.2	0.0	1.1	0.3	0.6	0.2
YC	ROUTE 199	JCC LINE (WESTSIDE)	MOORETOWN RD	EW	E	0.3	0.1	0.2	0.0	0.3	0.1	0.2	0.0	0.6	0.1	0.4	0.1
YC	ROUTE 199	MOORETOWN RD	I-64	EW	A	0.4	0.1	0.2	0.1	0.2	0.1	0.1	0.0	0.6	0.1	0.4	0.1
YC	ROUTE 199	RTE 60/RTE 143/JCC LINE	I-64	EW	A	0.6	0.1	0.3	0.1	0.4	0.1	0.2	0.1	0.9	0.2	0.5	0.2
YC	VICTORY BLVD	NEWPORT NEWS CL	ROUTE 17	EW	A	2.3	0.4	1.0	0.9	1.2	0.2	0.6	0.4	3.5	0.6	1.6	1.2
YC	VICTORY BLVD	ROUTE 17	HAMPTON HWY (RTE 134)	EW	E	0.8	0.2	0.4	0.1	0.7	0.2	0.4	0.1	1.5	0.4	0.8	0.3
YC	VICTORY BLVD	HAMPTON HWY (RTE 134)	BIG BETHEL RD (RTE 600)	EW	E	0.8	0.2	0.4	0.3	0.6	0.2	0.3	0.1	1.4	0.4	0.6	0.3
YC	VICTORY BLVD	BIG BETHEL RD (RTE 600)	CARYS CHAPEL RD (RTE 782)	EW	E	0.9	0.2	0.5	0.2	1.0	0.3	0.5	0.2	1.9	0.5	1.0	0.4
YC	VICTORY BLVD	CARYS CHAPEL RD (RTE 782)	POQUOSON CL	EW	A	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.2	0.1	0.1	0.0

Appendix D – Public Comments

The Hampton Roads Regional Freight Study was released for public comment from July 13, 2012 until August 1, 2012. All public comments and HRTPO staff responses are included below:

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HRTPO Public Comment (via email)

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RE: Public Comment Regarding the Hampton Roads Regional Freight Study Draft Report
(HRTPO Staff Response Follows Public Comment)

Name: Leigh Fenigsohn
Date: July 31, 2012
Subject: Regional Freight Study Comments

Dear Keith,

Thorough analysis of current freight use. Great job!

However, I want to suggest addition of an exciting new mode of transportation that could be included in future long range options for moving freight: aeroscraft. This exciting new craft/vehicle is a non-polluting, small environmental land impact, heavy freight mover that could effectively by-pass the need for additional road/rail infrastructure for moving freight from the port of Hampton Roads.

"Float the freight" could accurately describe the mode. With vertical take off and landing, and without costly jet fuel, it has some exciting applications. (For example, I can envision Craney Island being an excellent terminal as a hub for distribution from ship to aeroscraft.)

Using such a new mode of transportation, could effectively eliminate the need for widening our roads to accommodate the projected increase in freight you outline in your study.

More may be learned at: www.aeroscraft.com

Yours truly,
Leigh Fenigsohn

HRTPO Staff Response:
Thank you for taking the time to review the Hampton Roads Regional Freight Study and providing us with your comment. This is the first that we've heard about aeroscraft but it definitely looks like an interesting technology. We will review the information regarding this new concept and see if and how it could be applied to the ports in the Hampton Roads region.

If you have any additional questions or comments about any of our studies, please feel free to submit them to us.