

CHAPTER 4: PROVIDING TRANSPORTATION OPTIONS



"A comprehensive transportation system — rare among cities of its size — that offers a wide variety of choices, while also serving as a regional transportation hub."

Norfolk continues to plan for a multi-modal transportation system that will improve and enhance the safety, mobility, and quality of life for all citizens of the City. Even though the automobile is expected to continue as the primary means of commuting, the development of a multi-modal transportation network that emphasizes public transit, bicycle, and pedestrian facilities can reduce this dependence and sustain Norfolk's position as the business, cultural, educational, and medical center of Hampton Roads.

Norfolk's network of highways and arterial streets (see Map T-1) is the City's primary link to the larger Hampton Roads region, and also the nation. Highways and arterials generally provide the fastest method of travel and typically have limited accessibility from neighboring roads, while collector roads (see Map T-2) are used as a connection between local roads and arterial roads. In support of Norfolk's future planning and development goals, maintaining and improving travel along the highway system is a top priority. Norfolk continues to address roadway congestion and strives to reduce congestion, particularly during peak travel hours, so that people and goods move as quickly and efficiently as possible. Norfolk participates fully in the federally-mandated,

MAP T-1. EXISTING FEDERAL FUNCTIONAL CLASSIFICATION PRINCIPAL ARTERIALS



MAP T-2. EXISTING FEDERAL FUNCTIONAL CLASSIFICATION MINOR ARTERIALS AND COLLECTOR ROADS



regionally-based long range transportation planning process for urbanized areas which is coordinated through the Hampton Roads Transportation Planning Organization (HRTPO).

As part of a balanced transportation network, a varied mass transportation system is available in the City of Norfolk. It includes a light rail starter system running from the Eastern Virginia Medical Center on the west to the Virginia Beach border on the east, as well as buses, ferries, services for the disabled, and a series of programs that support transportation demand management, including ridesharing.

Planning for pedestrian and bicycle facilities is directly incorporated into all transportation improvement programs in Norfolk. In most instances, such facilities share rights-of-way with the main streets creating multi-use corridors. However, opportunities for separate facilities for bicycles and pedestrians are also considered and endorsed where feasible and appropriate.

The continued ability to move both people and goods efficiently throughout the region and beyond is important to sustaining Norfolk's role as the business, cultural, educational, and medical center of the Hampton Roads region. Norfolk is home to the region's major airport facility, Norfolk International Airport, as well as one of the busiest international ports on the East Coast of the United States and the corporate headquarters of Norfolk Southern, operating approximately 21,000 miles of rail in the United States (see Map T-3).

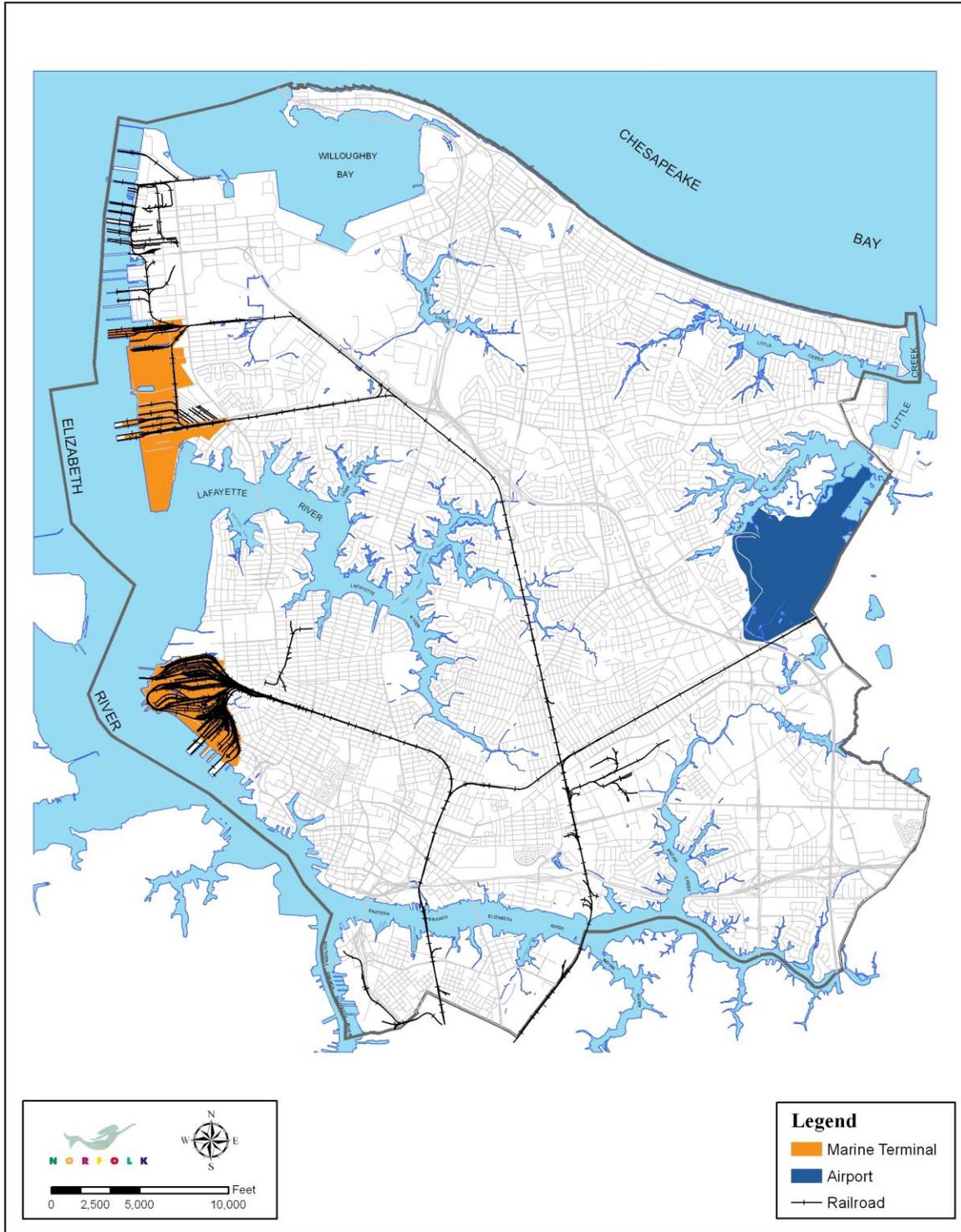
KEY ISSUES

Based on existing conditions and trends, the following are key issues involving transportation in Norfolk:

1. Addressing roadway congestion, particularly at water crossing facilities.
2. Expanding light rail transit within the City, as well as regionally, to serve additional activity and employment centers.
3. Creating a bicycle and pedestrian network that enhances Norfolk's multi-modal transportation facilities.
4. Supporting economic development activities through transportation investments.
5. Maintaining the efficient connection between the ports and the roadway/railway networks.
6. Improving transportation connections.
7. Maintaining existing roadway networks.



MAP T-3. PORT AND RAIL FACILITIES



IMPORTANT LINKAGES

The goals, outcomes, and actions outlined in this chapter are linked to goals, outcomes, and actions found in the following chapters:

- Creating and Maintaining Healthy and Vibrant Neighborhoods
- Enhancing Economic Vitality
- Promoting Environmental Sustainability
- Fostering Responsible Regional Cooperation

Transportation Goal 1. Connect residents and visitors with business, employment, shopping, educational, and activity centers through a safe and efficient multi-modal regional transportation system.

Outcome T1.1. A street and highway system that allows people and goods to be moved safely, conveniently, and efficiently.

Metrics:

- *Percent of the road network operating at a congestion level of “Low” or “Moderate.”*
- *Percent of lane miles of roads exceeding a Pavement Quality Management (PQM) rating of 60.*

Action T1.1.1. Monitor congestion levels and strive for low or moderate congestion on all roadway segments at peak times and prioritize improvements on those roads that are rated severe congestion. (see Map T-4).

Comments: Each roadway segment is classified as having “low,” “moderate,” or “severe” level of peak period congestion based on actual travel time data.



MAP T-4. EXISTING AND FUTURE CONGESTION LEVEL OF "SEVERE"



Action T1.1.2. Consider revising the Zoning Ordinance to require submission of a traffic impact analysis for new projects that are projected to generate over 5,000 new daily trips.

Action T1.1.3. Support efforts to address existing congestion at entry points to the City through the development of additional bridges and tunnels.

Comments: Midtown Tunnel expansion and construction of the Patriot's Crossing as the first phase of the larger Third Crossing project are the immediate priorities for implementation.

Action T1.1.4. Optimize the operation of the existing roadway network through signal timing and technological advances.

Comments: A system of advanced technologies, known as the Intelligent Transportation Systems (ITS), is being used to develop strategies to help reduce traffic congestion, improve operations, and increase safety on roadways. ITS programs include methods such as the use of highway variable message signs, video cameras, on-line communications, and coordinated traffic signal systems.



Action T1.1.5. Use the Long Range Roadways Improvements Map to assist in decision making on major roadway improvements (see Table T-1 and Map T-5).

TABLE T-1
COST ESTIMATES – LONG RANGE TRANSPORTATION IMPROVEMENTS

Source: Virginia Department of Transportation, Hampton Roads Transportation Planning Organization, and Norfolk Department of Public Works

Project	Cost Estimate*
1. Intermodal Connector	\$189,131,000
2. Patriot's Crossing	\$4,224,000,000
3. I-564/Air Terminal Interchange	\$60,916,000
4. Hampton Blvd./Terminal Blvd. Grade Separation**	n/a
5. Midtown Tunnel Expansion/Downtown Tunnel Refurbishment***	\$2,381,496,000
6. Chesapeake Blvd. Bridge/Lindenwood Connector**	n/a
7. Military Hwy. Widening (Lowery to Robin Hood)	\$111,805,000
8. I-64/Norview Ave. Interchange Reconstruction	\$7,019,000
9. Wesleyan Drive Widening	\$12,303,000
10. Virginia Beach Boulevard Widening**	n/a
11. I-64 Westbound to I-264 Eastbound Ramp	\$133,466,000
12. Tidewater Drive/Little Creek Road	\$4,875,000
13. I-64/Northampton Boulevard Interstate Modification Study****	\$400,000
14. I-264/Ballentine Boulevard Diverging Diamond Interchange****	\$7,400,000

* - Cost estimates from September 2012 unless noted otherwise

** Future project – No current cost estimate available (n/a)

*** Cost includes a second Midtown Tunnel, refurbishments of the existing Downtown and Midtown Tunnels and construction of Martin Luther King, Jr. Freeway Extension in Portsmouth

**** Cost estimate from May 2015

MAP T-5. LONG RANGE ROADWAY IMPROVEMENTS



Action T1.1.6. Coordinate new roadway projects with civic leagues, business associations, and institutions in order to mitigate roadway construction impacts.

Action T1.1.7. Improve access to neighborhoods and employment centers with traffic sign and signal enhancements, as well as roadway condition and intersection improvements.



Action T1.1.8. Evaluate and implement traffic calming strategies such as pedestrian bulbouts, speed bumps, and stop signs, where appropriate, in conjunction with transportation improvements or with spot efforts to protect residential areas and other sensitive land uses from the impacts of inappropriate volumes of through traffic or excessive speed.



Action T1.1.9. Evaluate and implement access management strategies such as reductions in curb cuts or the addition of medians, where appropriate, as part of any transportation improvement or development proposal to improve traffic operations and safety.



Action T1.1.10. Continue to seek funding for the implementation of roadway safety improvements in high crash rate areas and rail crossings.

Action T1.1.11. Ensure roads, bicycle facilities, sidewalks, and bridges are upgraded and maintained at adequate levels.

Comments: Roadway maintenance is measured based on a Pavement Quality Management (PQM) rating system on a scale to 100. Adequate is determined to be a rating exceeding 60.

Action T1.1.12. Continue to support the use of Traffic Demand Management (TDM) strategies and programs such as ridesharing, telecommuting, and staggered work hours to increase the efficiency of existing transportation systems.

Outcome T1.2. A comprehensive transit system that promotes efficient transportation options that are environmentally sensitive.

Metrics:

- Percent change in revenue hours of services for transit systems operating within Norfolk.
- Percent change in light rail ridership.

Action T1.2.1. Work with Hampton Roads Transit (HRT) to improve transit connections to major Norfolk employers, such as the Naval Base and hospitals, and other activity centers, including universities, retail centers, the Virginia Zoo and Norfolk Botanical Gardens, as well as to Norfolk International Airport, the Port of Virginia, and other transportation centers.

Comments: Light rail extension to Naval Station Norfolk is a priority within the City of Norfolk.

Action T1.2.2. Work with HRT to improve transit service so that it is more comfortable, convenient, and reliable.

Action T1.2.3. Work with HRT to ensure the placement of bus shelters at all stops serving at least 50 passengers a day in order to provide seating, weather protection, and information to riders.



Action T1.2.4. Explore the potential for a transit ridership incentive program that offers reduced fares and yearly incentive bonus.

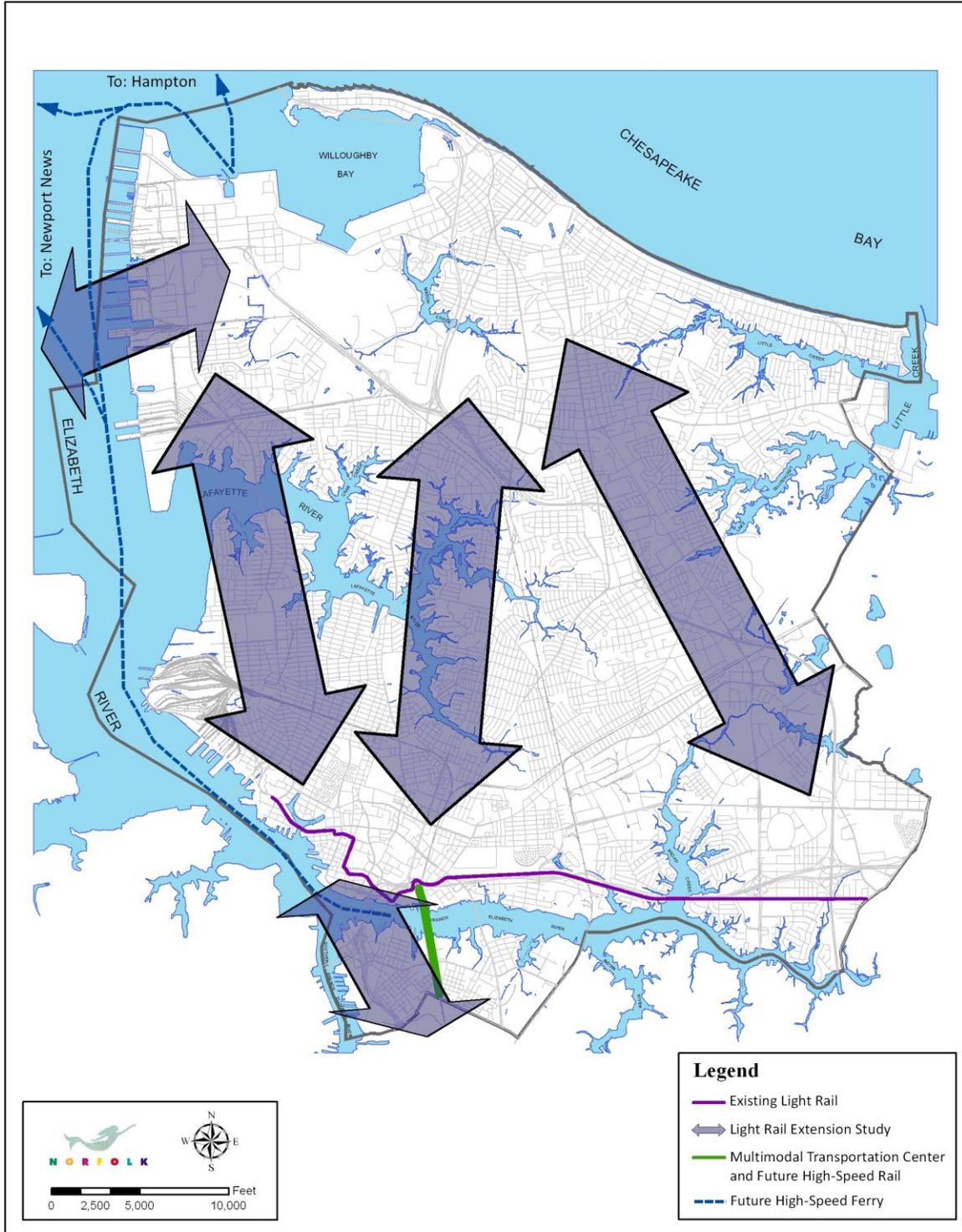
Action T1.2.5. Use the Long Range Transit Improvements Map to assist in decision making on future expansion of light rail, high speed rail, ferry services, and other modes (see Map T-6).



Action T1.2.6. Continue planning for a Multi-Modal Transportation Center at Harbor Park to connect passenger rail, light rail, regional bus, and ferry services.

Action T1.2.7. Continue seeking State and federal funds to improve and expand the existing transit network.

MAP T-6. LONG RANGE TRANSIT IMPROVEMENTS



Action T1.2.8. Encourage land use patterns designed to support transit, including compact, walkable, mixed use developments (see the Identifying Land Use Strategies chapter).

Outcome T1.3. An expanded pedestrian and bicycle network that promotes improved public health and provides opportunities for alternative forms of transportation.

Metrics:

- *Percent change in bicycle racks and storage areas.*
- *Percent change in mileage of bicycle facilities (sharrows, delineated bike lanes, or multi-use trails).*

Action T1.3.1. Implement the Complete Streets Policy (Appendix B) in order to develop, operate and maintain an integrated, connected network of streets that are safe and accessible for all people or chosen mode of travel, in a balanced, responsible and equitable manner consistent with and supportive of the surrounding community.



Action T1.3.2. Utilize regulatory standards for building placement to create pedestrian-oriented environments in Downtown, the Transit Oriented Development zoning districts, and designated Pedestrian Commercial Overlay zoning districts.



Action T1.3.3. Add sidewalks and bicycle facilities to reduce gaps between segments in established neighborhoods and developed areas, with particular focus around schools, hospitals, parks, and transit stops.



MAP T-7. EXISTING AND PROPOSED BICYCLE FACILITIES



Action T1.3.4. Continue to remove obstacles to handicapped accessibility throughout the City.

Action T1.3.5. Improve pedestrian and bicycle crossings of major streets where necessary.

Action T1.3.6. Revise the Zoning Ordinance to encourage bicycle and pedestrian travel including provisions for bicycle parking in the design of new facilities.

Action T1.3.7. Develop and maintain a map of safe bicycle routes in the city, considering the recommendations of Norfolk’s officially designated bicycle advisory panel and provide the map to entities such as HRT for distribution and inclusion in city and regional wayfinding materials.

Action T1.3.8. Continue to fund and implement the recommendations of the City of Norfolk Bicycle and Pedestrian Strategic Plan (Appendix B).

Action T1.3.9. Implement recommended proposed bicycle facilities from the bicycle facilities map (Map T-7) in conjunction with any transportation improvements in the identified corridors and also through stand-alone programs and funds made available for such purposes.



Action T1.3.10. Seek funding from State and federal sources to aid implementation of the bicycle map (Map T-7) recommendations with priority given to the proposed strategic corridors.

Action T1.3.11. Work with neighboring jurisdictions to ensure that bicycle facilities extend across boundaries where feasible.

Action T1.3.12. Ensure bicycle facilities are adequately maintained.

Action T1.3.13. Encourage, among motorists and bicyclists alike, a culture of respect and shared usage by developing informational materials and programs to be

distributed and made available in a variety of formats to help educate cyclists and drivers about the rights and responsibilities of cyclists and drivers in Virginia.

Action T1.3.14. Provide additional training for police in order to increase enforcement of laws related to pedestrians and bicyclists.

Action T1.3.15. Continue to support early education and access to bicycle and pedestrian options through programs such as Safe Routes to School.

Action T1.3.16. Continue to explore the feasibility of reusing former rail lines and former or underutilized rights-of-way for trails and connections.

Action T1.3.17. Explore innovative programs that offer expanded transportation choices, such as bicycle or car share, in Norfolk and in cooperation with other jurisdictions and institutions.

Transportation Goal 2. Support the continued development of transportation linkages connecting Norfolk to the larger region, nation, and world.

Outcome T2.1. Improved and increased regional, national, and international connections for both people and goods.

Metrics:

- *Percent change in airport passenger enplanements.*
- *Percent change in rail and port cargo volumes.*
- *Percent change in intercity rail passenger volumes.*
- *Percent change in commuting times.*

Action T2.1.1. Support development of the Multi-Modal Transportation Center at Harbor Park to connect passenger rail, light rail, regional bus, and ferry services.



Action T2.1.2. Evaluate the inclusion of multi-modal options in all planning for new facilities crossing the waters surrounding the City.

Comments: Midtown Tunnel expansion and construction of the Patriot's Crossing as the first phase of the larger Third Crossing project are the immediate priorities for implementation.

Action T2.1.3. Cooperate with State and regional officials on improvements to the highway network linking Norfolk to the region and the nation.

Action T2.1.4. Support improvements at congested key entrance points to Norfolk to reinforce the City's role as the historic and economic center of Hampton Roads.

Action T2.1.5. Support the maintenance and potential expansion of intercity bus services connecting to Norfolk.

Action T2.1.6. Support the re-establishment of intercity passenger rail service to Norfolk with increased service frequencies above the initial single daily train that is currently proposed.

Action T2.1.7. Support the establishment of high speed passenger rail service in the US Route 460 corridor.

Action T2.1.8. Support the implementation of the Norfolk International Airport Master Plan to ensure its continued role as the primary air travel facility for the Hampton Roads region, while also working to protect its unique natural environment and setting.

Action T2.1.9. Support the implementation of the Virginia Port Authority's Master Plan for Norfolk International Terminals, while also working to ensure that the overall impacts of port operations on adjacent communities are mitigated.



Action T2.1.10. Identify potential improvement projects in Norfolk that will assist with efficient goods movement, while minimizing impacts on affected communities by monitoring regional studies of freight movements and needs.

Action T2.1.11. Support the implementation of harbor channel and rail improvement projects that could serve to increase cargo traffic through Norfolk.

