

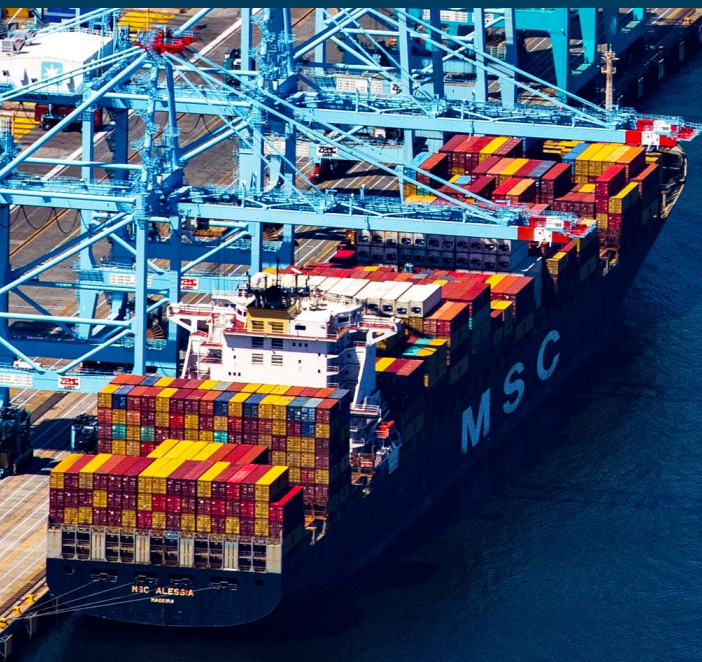


THE PORT OF
VIRGINIA®

FY2022-2065 2065 Master Plan

Executive Summary

FY2022 Base



Leadership

Senior Leadership Team



STEPHEN A. EDWARDS

CEO and Executive Director



TOM D. CAPOZZI

Chief Sales and Marketing Officer



JOSEPH P. RUDDY

Chief Innovation Officer



SARAH J. MCCOY

General Counsel



KEVIN PRICE

Chief Operations Officer



MONICA STURGIS

Chief Human Resources Officer



CATHIE J. VICK

Chief Development and Government Affairs Officer



RODNEY W. OLIVER

Chief Financial Officer

State Leadership

Ralph Northam, Governor

Justin Fairfax, Lt Governor

Shannon Valentine, Secretary of Transportation

Board of Commissioners

John G. Milliken,
Chairman

Faith B. Power,
Vice Chairman

John C. Asbury

Manju S. Ganeriwala

Eva Teig Hardy

Joni L. Ivey

Maurice A. Jones

Aubrey L. Layne, Jr.

Val S. McWhorter

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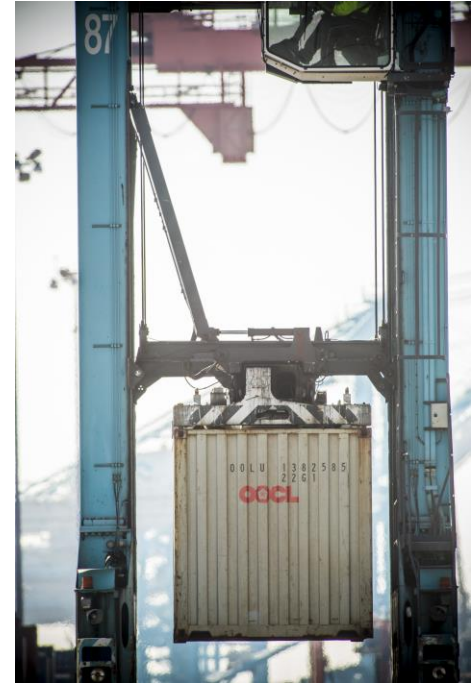
Stewards of Tomorrow

The Port of Virginia Mission

The Port of Virginia delivers opportunity by driving business to, *and through*, the Commonwealth.

Vision

The Port of Virginia's diverse talent, agile use of technology, and command of our ever-changing industry sets the pace for the supply chain of today, while plotting the course for its tomorrow.



Values

Innovation – We embrace challenges as opportunities. We leverage technology and experience to move our business and our industry forward

Helpfulness – We are dedicated to making a positive impact on the world. We offer assistance and are appreciative when it's accepted – and understanding when it isn't. We ask questions and offer our best solutions

Fortitude – We are clear in our intent, thoughtful in our approach, and professional in our execution

Accessibility – We build strong, enduring relationships with our customers by listening, fostering dialogue, and creating connections

Mindfulness – We drive business and deliver opportunities today while maintaining a clear vision for the future

Sustainability – We are responsible stewards of the communities in which we operate, the relationships we foster, and all of the resources entrusted to our care

Introduction and Plan Purpose



The port is the fifth largest container port in the nation, moving more than 3 million TEUs of cargo through its terminals every year. The port is composed of up of four deep-water marine terminals, an upriver terminal and an inland intermodal terminal:

NORFOLK INTERNATIONAL TERMINALS (NIT)
NEWPORT NEWS MARINE TERMINAL (NNMT)
VIRGINIA INTERNATIONAL GATEWAY (VIG)
PORTSMOUTH MARINE TERMINAL (PMT)
RICHMOND MARINE TERMINAL (RMT)
VIRGINIA INLAND PORT (VIP)

Virginia's 50-foot channels and unobstructed terminal access have allowed the number and size of the vessels calling at The Port of Virginia to increase significantly since the last Master Plan was developed. Dredging is underway to deepen the channels to 55-feet, and widen them as well. When this work is complete in 2024, the port will be the deepest port on the US East Coast. The deeper water will make way for larger ships, ore cargo and greater revenue, which is reinvested in the port's terminals through its Capital Investment Plan.

Opportunities are plentiful for the port to stimulate commerce, facilitate growth, and accrue economic benefits for Virginia by expanding its presence as one of the premier US gateways to international trade. The

port will continue working tirelessly to support the advanced logistic networks that deliver goods to the nation's consumers and allow US manufacturers to successfully compete in the global marketplace.

The 2065 Master Plan integrates these growth opportunities into updated demand forecasts and aligns the port's capital improvement project schedules to enable the port to capture it. These projects are composed of:

- expanding the use of advanced equipment at NIT
- leveraging the expanded VIG
- constructing the Craney Island Marine Terminal
- investment at Richmond Marine Terminal to upgrade the equipment and facilities,
- reinvesting in PMT and NNMT for non-containerized cargo services

The plan further provides a near and long-term strategy for the port that ensures the delivery of needed infrastructure that is fiscally responsible and sustainable, recognizes the value of regional transportation investments, and supports operational excellence through innovation. Successful execution of the 2065 Master Plan will stimulate commerce, facilitate growth and accrue economic benefits to the Commonwealth and the nation.

NEXT PAGE
Economic Benefit



Economic Benefits

The port is the economic engine for Hampton Roads and the Commonwealth of Virginia. According to an economic impact study conducted by the Mason School of Business at the College of William & Mary, 400,000 Virginia jobs – nearly ten percent of the state’s resident workforce – are linked to port activity at its six terminals.*

THOSE JOBS GENERATE APPROXIMATELY \$23 BILLION IN ANNUAL COMPENSATION AND \$2.1 BILLION IN STATE AND LOCAL TAXES.

With nearly two-thirds of the U.S. population located within one day’s drive of the port’s primary facilities, the port is in an ideal position to provide access to its customers. The port primarily ships to customers in Virginia, North Carolina, Maryland, and West Virginia via truck, and to Midwest manufacturing and population centers in Ohio, Indiana, Illinois, Tennessee, Kentucky and farther West, via Norfolk Southern and CSX railway.

To reach its markets, the port relies on efficient highway and rail connections that are maintained and improved as cargo demand grows. The port collaborates with the Virginia Department of Transportation (VDOT), the Department of Rail and Public Transportation (DRPT), the Transportation Planning Organization (TPO), the Hampton Roads

Transportation Accountability Commission (HRTAC), and others to coordinate and prioritize their interests in efficient transportation corridors with state transportation plans and generate economic benefits to the state.

The port drives business expansion and attraction across Virginia and the Mid-Atlantic. During the FY17 – FY21 time period 208 port-related businesses expanded or located in the region. These expansions and locations of businesses new to the region. This activity produced investments of more than \$7.5 billion and created more than 21,000 jobs. Additionally, it is driving renewed attention to site development across the region and private development of more than 10 million square feet of speculative industrial space.

THESE PORT CUSTOMERS BENEFIT COMMUNITIES BY CREATING LOCAL JOBS, SPURRING ECONOMIC ACTIVITY, AND INCREASING TAX REVENUES THAT SUPPORT THE REGION.

The net effect is a diverse, vibrant, and resilient economy within the Commonwealth and increased opportunities for its citizens to prosper

22.1 Million
Tons of cargo moved

\$92.1 Billion
In spending

\$39.3 Billion
In Virginia GSP

397,094
Jobs in Virginia

\$23.0 Billion
In Virginia labor income

\$2.1 Billion
In state and local
taxes
NEXT PAGE
Current Volume

Current Volume

Cargo moves across the port's terminals and from markets around the globe and helps keep the economy moving. The cargo includes the goods and supplies that manufactures, businesses, retailers, and individual consumers use everyday. This cargo is moved by way of:

6 TERMINALS
1,592 ACRES
DREDGING TO 55', CURRENTLY UP TO 50'
DEEP BERTHS AND APPROACHES
18,480 LINEAR FEET OF BERTH
64,605 LINEAR FEET OF ON-DOCK RAIL

The Norfolk Harbor is home to the world's largest naval base; a robust shipbuilding and repair industry; a thriving export coal trade and The Port of Virginia.

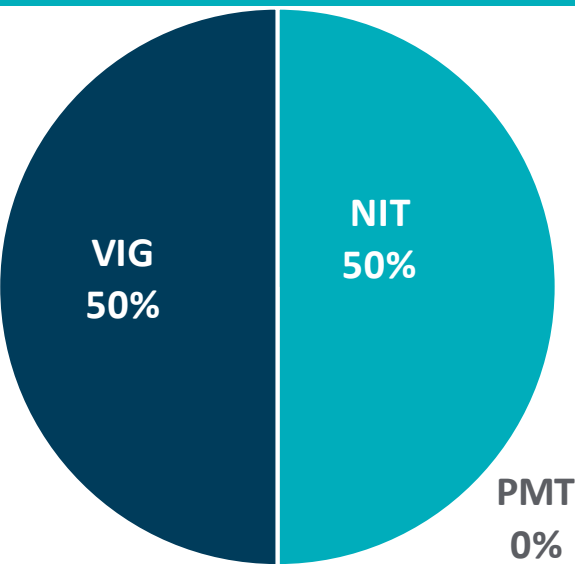
The port is served by 50-foot in- and outbound channels, which are currently being dredged to 55-feet, and there are no bridges in the Norfolk Harbor. When the work is complete in 2024, Virginia will be home to the deepest port in the US East Coast. And, in an era where container ships are carrying 16,000+ TEUs per voyage,

deep water and the absence of overhead restrictions give the port a significant competitive advantage.

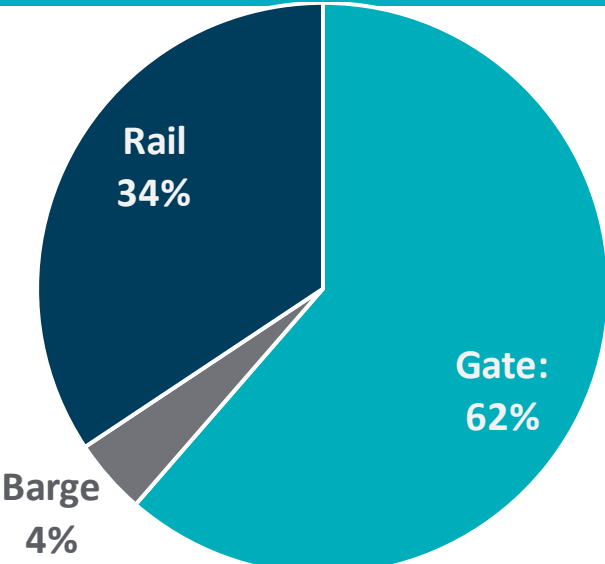
Nearly 20 international shipping lines offer direct, dedicated service to and from Virginia, with connections to 200+ countries around the world. In an average week, more than 40 international container, breakbulk and roll-on/roll-off vessels are serviced at the port's marine terminals.

Two Class I railroads, Norfolk Southern and CSX, serve the port via on-dock intermodal container transfer facilities at Virginia International Gateway and Norfolk International Terminals. The railroad service is augmented by vital short line rail partners including the Norfolk & Portsmouth Belt Line and the Commonwealth Railway. Virginia's intermodal rail connections allow the port to reach customers in the Ohio Valley and the upper Midwest with scheduled daily service. The Virginia Inland Port facility helps to quickly move containerized cargo from the marine terminals to its location 220 miles inland, and closer to port customer's distribution centers

Current Volume



Current Rail Gate Barge Mix



NEXT PAGE
Existing Conditions

Existing Conditions

Terminal	Description
Norfolk International Terminals (NIT)	567-acre container terminal with six 50' deep berths and 16 Super Post Panamax ship-to-shore cranes, with 2 additional on order. Southern half of the facility makes use of semi-automated rail-mounted stacking cranes. The Northern half relies primarily on straddle carriers. Also includes an on-dock rail yard with 18,000 feet of working track, with a project about to start to expand the rail yard.
Virginia International Gateway (VIG)	231-acre container terminal with three 50' deep berths and 12 Super Post Panamax ship-to-shore cranes. Container operations make use of semi-automated rail-mounted stacking cranes, with waterside transfers to vessels via shuttle carriers. Also includes an on-dock rail yard with 19,000 feet of working track.
Portsmouth Marine Terminal (PMT)	285-acre mixed use terminal with two 43' deep berths. It is in the process of being repurposed as a dedicated off-shore wind hub.
Newport News Marine Terminal (NNMT)	165-acre general cargo terminal supporting Ro/Ro, break-bulk, and warehouse operations, with one heavy-lift ship-to-shore crane.
Virginia Inland Port (VIP)	161-acre intermodal container transfer facility in Front Royal (approx. 60 miles west of Washington D.C.) with container rail service to/from NIT and VIG.
Richmond Marine Terminal (RMT)	121-acre general cargo terminal on the James River, near I95, that supports a container barge service to NIT and VIG, as well as bulk agriculture exports, transloading, warehouse, break-bulk, and bulk agriculture operations. Also includes on-dock rail service.

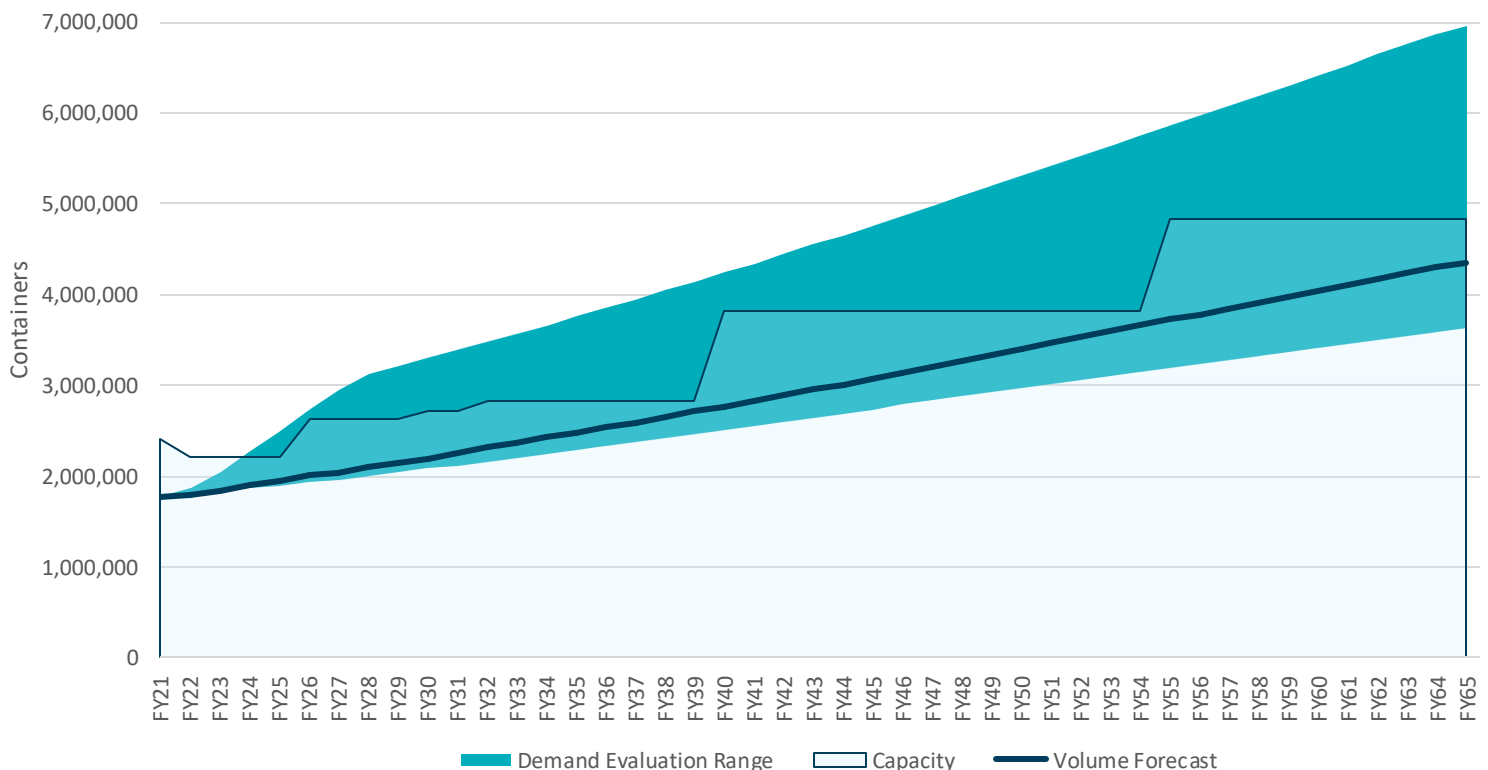
Future Outlook

The future holds significant opportunities and challenges for the port. Growing populations and the continued globalization of manufacturing will drive increased cargo demand through marine terminals beyond what the existing facilities and supporting transportation networks can currently accommodate.

The pursuit of greater economies of scale, supported by the deepening of harbor channels, continues to move ocean carriers to larger vessels and fewer port calls. Supply chains are growing increasingly sophisticated as businesses seek to minimize inventory costs while maximizing flexibility to deliver products and supplies when and where they are needed. These trends are changing how The Port of Virginia experiences demand, both in terms of patterns in volume and customer expectations.

Recent public and private investment in port and transportation infrastructure is spurring further competition between ports for cargo and the accompanying development of nearby manufacturing and distribution centers with access to international trade routes. Successful ports will be those that are fully integrated with the connecting inland transportation network and that offer the lowest cost, highest reliability, and best responsiveness in meeting customers' ever changing needs.

The 2065 Master Plan guides the port in maximizing its valuable waterside real estate and in developing the associated infrastructure needed to accommodate the modern cargo vessels that call on its facilities, both in the near-and-long term.



Strategy Near Term



During the next five years, the Virginia Port Authority will be investing in its terminals and regional infrastructure to improve both efficiency and safety.

Key elements of the port's near-term strategy include:

- Continue expanding NIT to include adding semi-automated stacks to the North yard to expand capacity, and optimize rail operations through implementing CRMG technology.
- Bolstering interim operations to mitigate terminal construction activities and anticipated terminal

congestion.

- Continuing to promote the use of VIP and RMT inland access points to the port.
- Continue positioning PMT as the US East Coast's offshore-wind logistics hub
- Partnering with the USACE on completing the deepening and widening Hampton Roads' navigation channels for larger vessels.
- Advocate for critical rail and highway improvements necessary to ensure efficient access to all port terminals.

Strategy Long Term

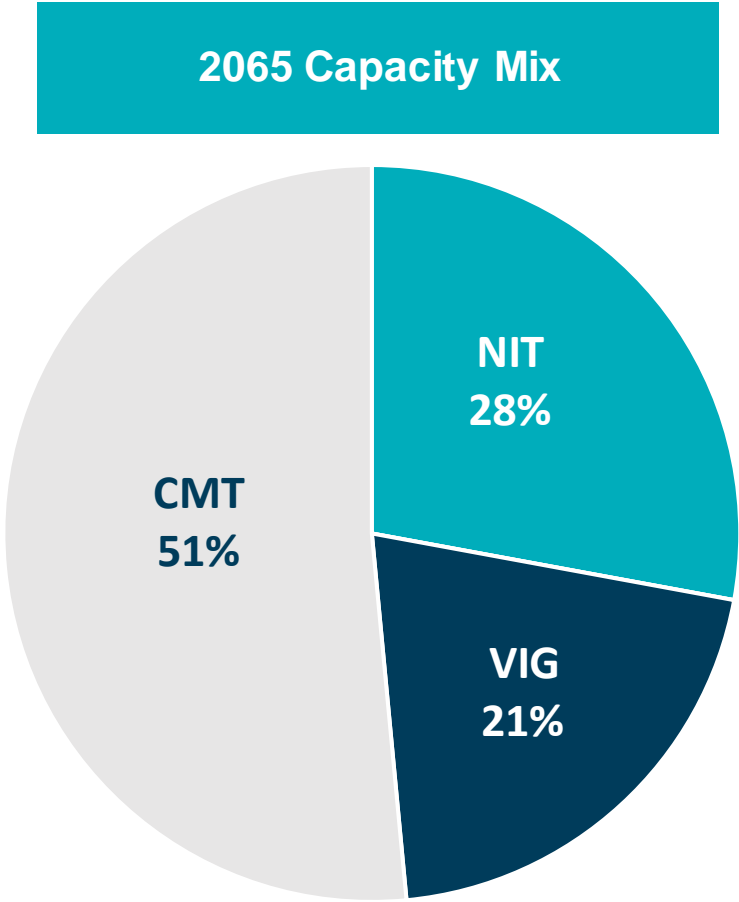
The completion of the widening and deepening effort will position the port to keep pace with anticipated cargo and ship growth. In addition, the optimization of NIT North and expansion of the Central Rail Yard will create the capacity to process more cargo.

Strategic long-term investments will be made to continue development of the Craney Island Eastward Expansion so that the expansion cell will be completed by the time a new marine terminal is needed to handle increased cargo capacity.

In addition, the port will focus on diversifying its portfolio of cargo by attracting and retaining high-value noncontainerized cargo and services by reinvesting in PMT to facilitate its transformation into the East Coast's premier hub for the off shore wind industry.

The port will continue to work closely with other state and local agencies and private stakeholders, such as the railroads, to plan improvements and ensure connectivity to markets.

As these port, state, and private investments are realized, the improved access will be leveraged by the port's economic development and commercial teams to promote greater industrial development and market share gain for the benefit of the Commonwealth.



Capital Investment Plan

The projects scheduled in the Capital Investment Plan (CIP) will expand port capacity by building new facilities and increasing utilization and efficiency of existing facilities. Over the 43-year planning horizon of the 2065 Master Plan, significant capital will also be put toward rehabilitating and maintaining existing port facilities.

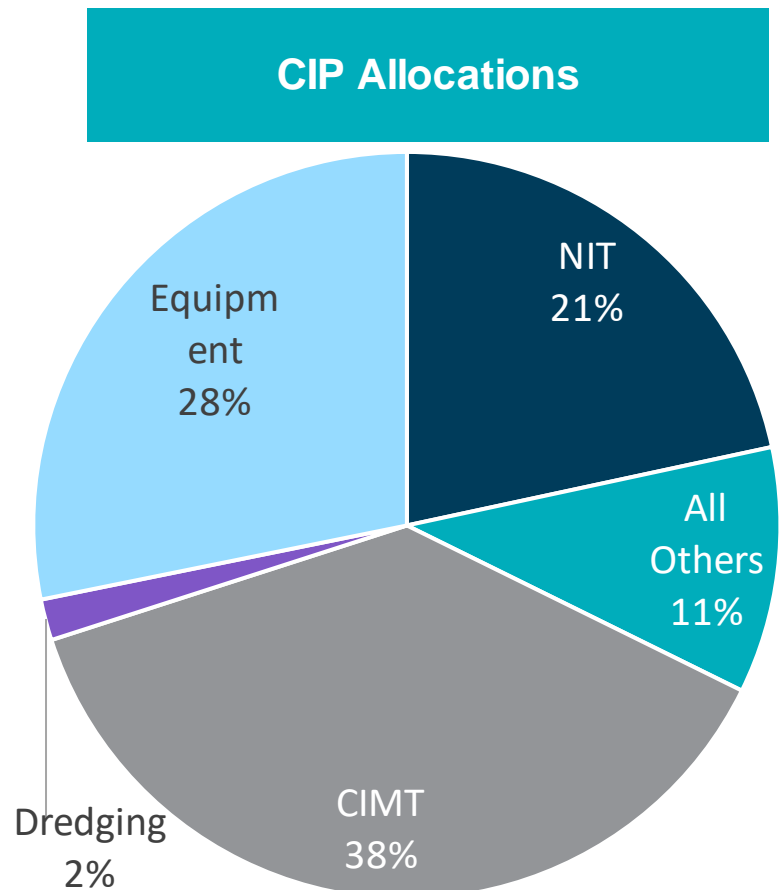
The fleet of container handling equipment represents an ongoing and significant capital investment to ensure that it keeps pace with day-to-day operational demands and advances in technology.

The base case CIP is tested against the financial forecast and capital available from known and planned sources, and each project has been cost-estimated with contingency added.

An annual allocation has also been included in the forecast to replace aging terminal equipment and infrastructure. The CIP has been aligned to the forecasted financial results. It can be funded from a combination of current income, financing through debt

issuances, and federal and state funding sources.

Funding the CIP uses a tiered approach and prioritizes uses of funds and results in the anticipated allocation of funding, as shown in the adjacent chart.



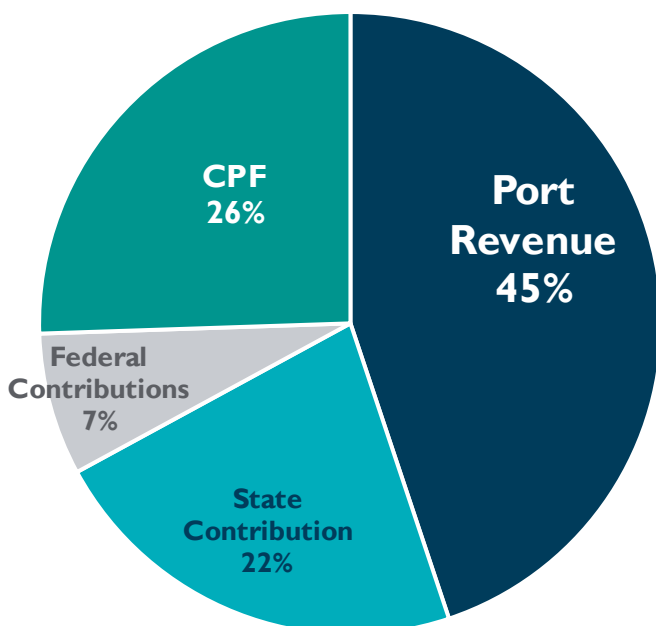
Funding for the CIP considers increased revenue generation from the forecasted growth, retirement of existing debt, issuance of new debt, and likely state and federal funding sources.

Under the assumptions used in the financial forecast model, the CIP can be executed on a schedule that provides unconstrained growth capacity through 2065 while maintaining annual positive cash flow and required debt service coverage requirements.

The CIP is funded by the following:

- **TERMINAL REVENUES** generated from charges for handling containerized cargo, handling and storage charges for non-containerized cargo, and fees associated with chassis and empty container management.
- **COMMONWEALTH PORT FUND (CPF)** is a scheduled allocation of state funding to the Virginia Port Authority for investment in port-related infrastructure.
- **STATE AND REGIONAL FUNDS** may be available for specific port-related projects such as the first phase of redevelopment at NIT and road and rail projects that connect to Craney Island.
- **FEDERAL FUNDS** are authorized to fund 50% of the Craney Island Eastward Expansion dike and mitigation construction on an ongoing basis.
- **A COMBINATION OF STATE AND FEDERAL FUNDING** will be available for dredging Norfolk Harbor and Channels to 55-feet.

CIP Funding Sources



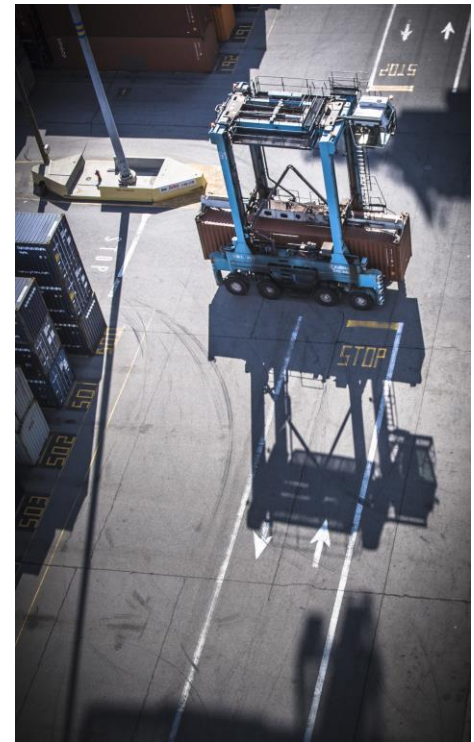
Conclusion


The Port of Virginia's success in capturing the tremendous opportunities created by the globalization of trade relies on leveraging Virginia's natural advantages, infrastructure investments, and private business ventures. Its success depends on embracing the need for continual improvement and adapting to evolving world trade trends such as: larger ships, changing regions of production, and more decentralization of logistics.

The strategy presented in the 2065 Master Plan:

- **PROVIDES** the capital investments needed to support the unconstrained growth projections.
- **DEFINES** a continuous program to improve level of service and operational efficiencies.
- **POSITIONS** the port to act on new opportunities and conditions.
- **ALIGNS** port improvements with statewide investments in transportation corridors to provide cost-competitive access to international trade.

Execution of this strategy supports the Commonwealth's continued success in attracting diverse businesses that seek efficient access to growing markets via international trade lanes and inland freight corridors. These ventures go on to spur further growth in local businesses and create more jobs, economic activity, and opportunities for a prosperous Commonwealth.





The Port of Virginia delivers
opportunity by driving
business to, *and through*, the
Commonwealth.

10/31/2021