2024 SJTPO Regional Freight Plan
Executive Summary

Final Report – May 20, 2024

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Introduction

The South Jersey Transportation Planning Organization (SJTPO) is the federally designated Metropolitan Planning Organization (MPO) for the four southernmost counties in New Jersey, which include Atlantic County, Cape May County, Cumberland County, and Salem County (see figure below). SJTPO has historically been an active participant in statewide planning efforts, and in 2020 and 2021 SJTPO identified the need for further region-specific freight planning to be conducted. To advance this freight planning effort, SJTPO embarked upon two consecutive planning efforts, the second of which is this *2024 Regional Freight Plan*. The first effort was the *2022 Regional Freight Plan Data Gathering and Analysis Study*. That study identified many key components of the regional freight planning process, including major freight generators in the SJTPO region, an identified regional freight network inclusive of municipal and county roadways, and issues within the freight network. All efforts within that study were intended to serve as preparation for this document, the *2024 SJTPO Regional Freight Plan*.

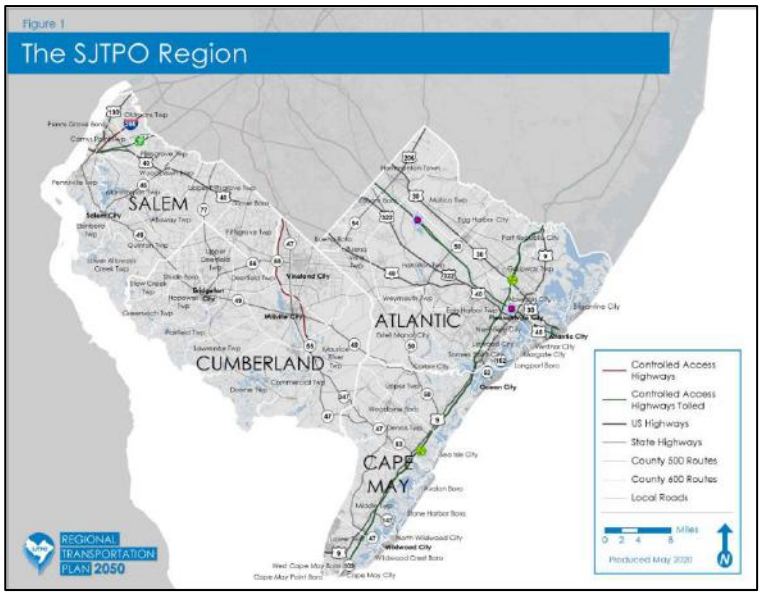

Figure 1-1: The SJTPO Region (Source: SJTPO)

Regional Overview

The SJTPO region consists of Atlantic County, Cape May County, Cumberland County, and Salem County. As the four southernmost counties in New Jersey, these counties are located on a peninsula between the Delaware River, Delaware Bay, and Atlantic Ocean. The freight landscape in this region is changing with the influx of distribution centers (including cold-storage distribution centers), and rapidly changing supply chain patterns worldwide. This has led to changing freight networks within the South Jersey region, necessitating planning efforts to prepare for the impacts of these changes.

Atlantic County primarily has a freight market driven by the consumer needs of Atlantic City and the surrounding areas, which represent a significant regional population center. Freight into and out of Atlantic County tends to travel via the Atlantic City Expressway, Garden State Parkway, US-9, US-30, US-40, or US-322. Freight growth within Atlantic County is anticipated to include future development at the Atlantic City Airport, which is currently anticipating new air cargo tenants.

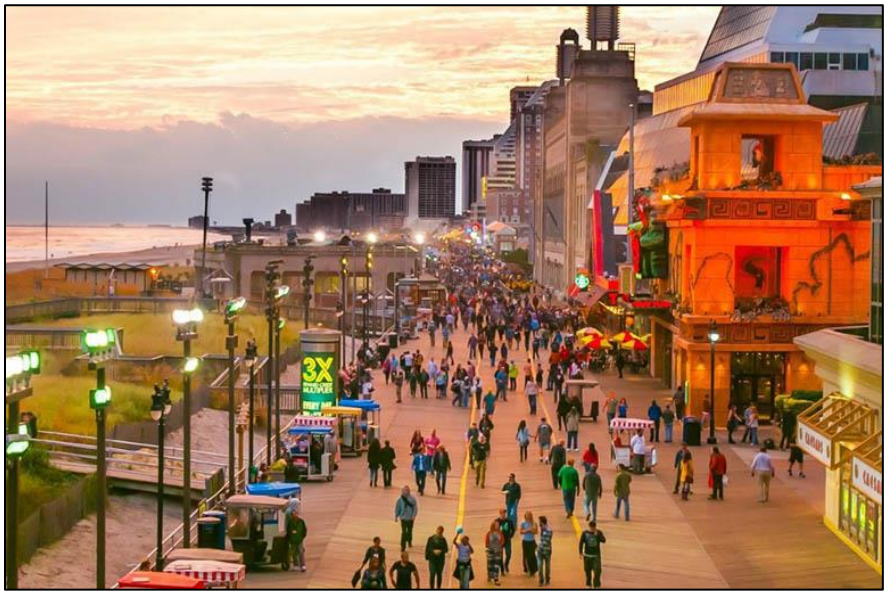

Figure 1-2: Atlantic City Boardwalk (Source: https://www.acnj.gov/page/about-atlantic-city)

Cape May County does not have a significant amount of freight generation or traffic, generally reflecting its physical location at the end of the peninsula, as well as development restrictions that have been enacted as much of the county is within Coastal Area Facility Review Act (CAFRA) or Pinelands areas. However, the coastal areas of Cape May County have dense development, leading to freight challenges with local deliveries.

Figure 1-3: Cape May County Fisheries (Source: https://capemaycountynj.gov/)

In Cumberland County, the NJ 55 corridor through Vineland and Millville contains the most significant freight generation within the SJTPO region. Because of easy access to NJ 55 and points west, this corridor has seen significant warehousing development in recent years, development which is generally likely to continue. Secondarily to the Vineland/Millville area, Cumberland County also sees significant freight generation from the Bridgeton area, which connects to NJ 55 via NJ 56 or other parallel local or county roads.

Figure 1-4: Vineland Industrial Park South (Source: City of Vineland)

Within Salem County, freight traffic is largely focused on the westernmost portion of the county, along the I-295 / NJ Turnpike / US-130 corridor. With both long-haul freight traffic stopping overnight in this area, and warehouse development adjacent to the interstate, freight within this corridor is dense. Outside of this corridor, other freight within Salem County includes port traffic at Wind Port and the Port of Salem.

Figure 1-5: South Jersey Wind Port Rendering (Source: https://www.nj.gov/windport/about/index.shtml)

Plan Objectives

The overall objective for this *2024 SJTPO Regional Freight Plan* is "the development of a Regional Freight Plan that is grounded in good quality, well-documented data and makes well-supported recommendations on the identified regional freight network". To achieve this overall objective, this Plan was developed through multiple technical memorandums identified by SJTPO, which have been modified and incorporated into the Final Report.

These interim tasks included:

1. Supplemental Stakeholder Outreach
2. A Freight Network Data Quality Assessment
3. Network and Facilities Issues and Analysis, Including Intermodal and Truck Parking Analysis
4. Identification of Model Policies and Best Practices Relevant to SJTPO Regional Issues
5. Freight Plan Recommendations, Including a Prioritized List of Regional Actions
6. Identification of Funding Opportunities

With Chapter 1 of the Plan providing an introduction, Chapters 2 through 7 of the Plan correlate to the interim tasks identified above, as well as the overarching objectives of the Plan.

Chapter 2: SJTPO Regional Overview

This chapter provides an overview of the key demographic and economic indicators for freight within the SJTPO region, providing critical context for the remainder of the Plan. It begins with an overview of the region's population, population distribution, employment, and overburdened communities.

2020 SJTPO County Populations			
Atlantic	**Cape May**	**Cumberland**	**Salem**
274,534	95,263	154,152	64,837

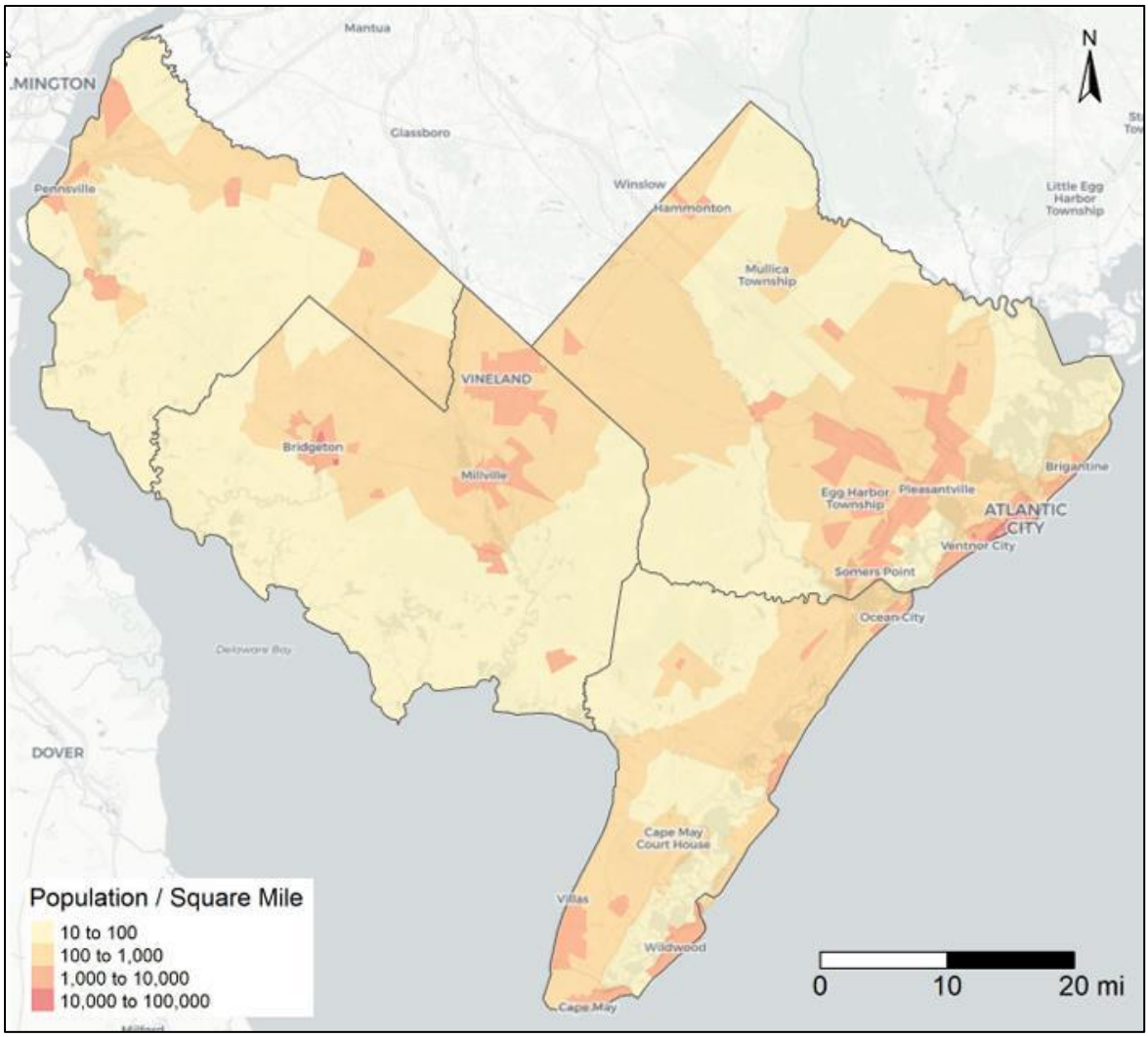

Figure 2-2: SJTPO Population Distribution (Source: 2022 Regional Freight Plan Data Gathering & Analysis)

Next, Chapter 2 provides an overview of the regional freight networks, including the highway, rail, maritime, and pipeline modes. Each of these modes contributes to the SJTPO region's freight landscape in different ways, with the highway network being the primary freight network within the region.

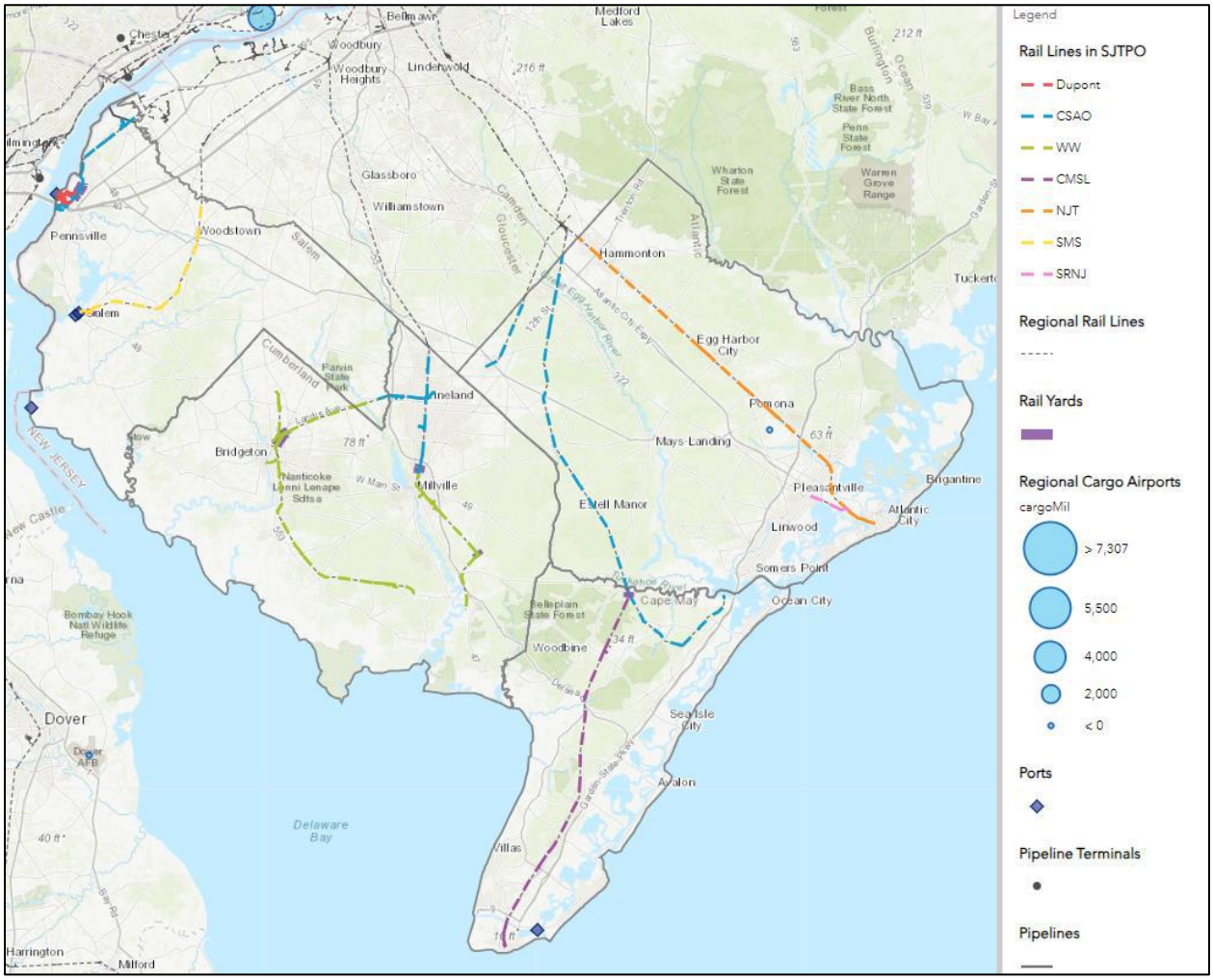

Figure 2-8: Multimodal Freight (Source: 2022 Regional Freight Plan Data Collection & Analysis)

Finally, Chapter 2 provides an overview of Regional Freight Trends and Challenges. These include the growth of warehousing within the SJTPO region, offshore wind development, sand and gravel production, future Atlantic City Airport cargo, and the impact of the Pinelands and CAFRA areas on land development for freight uses.

Chapter 3: Freight Network Data Quality Assessment

Chapter 3 reviews the data developed within the *2022 Regional Freight Plan Data Collection and Analysis Study*, providing insight into the applicability of the data to this Freight Plan and providing information about supplemental traffic count efforts conducted as part of this Plan. This review was specifically requested by SJTPO as part of this Plan, based on stakeholder feedback after the initial study.

Within Chapter 3, a Quality Assessment Methodology is developed and incorporated to analyze the data set. The methodology process includes four primary component reviews. These are:

1. Requirements Gathering & Outcome Expectations
2. Data and System Identification and Collection
3. Preparation of Data for Analysis
4. Review of Data Analysis

Following the quality review, a potential discrepancy was found stemming from the use of Freight Analysis Framework (FAF) Version 5 estimates of truck data, which were produced for the Federal Highway Administration (FHWA) by Oak Ridge National Laboratories. These data points exhibited notable disparities between actual truck counts and the FAF estimates, with the FAF estimates having a significantly lower volume in many cases. The FAF model network primarily consists of higher classification roadways on the National Highway System, such as Interstate, US Routes, and major state highways. Because these roadways carry a significant portion of the freight traffic in the SJTPO region, local roadways near the higher classification roadways were generally estimated to have lower counts by the study model. This applied in almost all cases where FAF estimates were used. The usage of FAF estimates was widespread within the Estimated Daily Truck Volumes and Percentages developed as part of the 2022 effort. To mitigate potential adverse effects of FAF estimates, this Plan was largely developed utilizing actual counts, truck data extrapolated from non-FAF estimates (where applicable), truck origin-destination pairs from RITIS probe data, and stakeholder feedback.

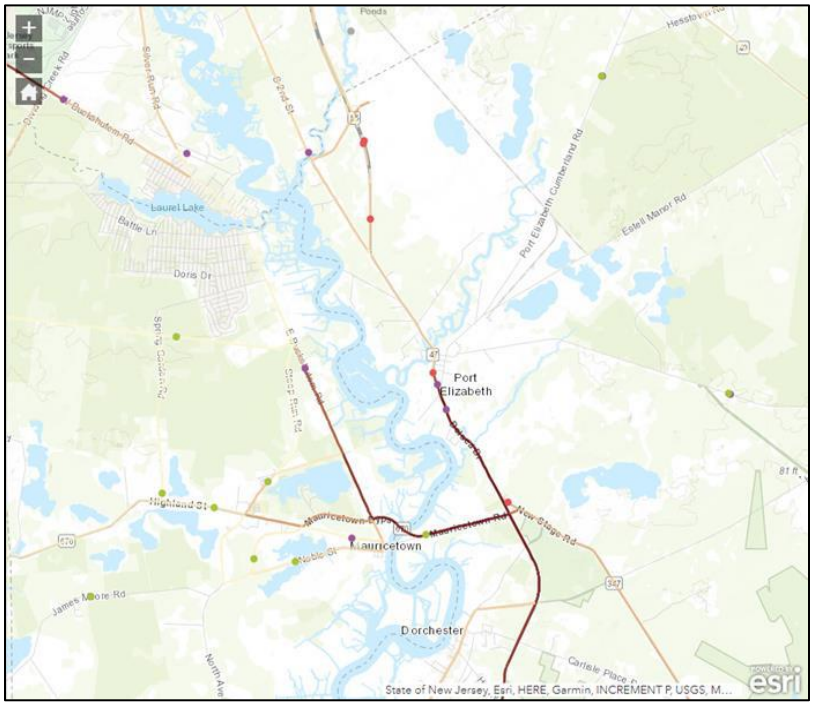

Figure 3-6: Truck Count Extrapolations Route 47 Through Port Elizabeth & South Millville (FAF estimates shown in red)

Chapter 3 additionally includes a number of individual corridor reviews verifying the impact of FAF estimates within the estimated daily truck volumes, supplemental classification count information for counts conducted as part of this Plan's development, multimodal data review, and an overview of supplemental stakeholder outreach conducted.

Chapter 4: Network and Facility Issues and Analysis

Chapter 4 provides a deep-dive into an analysis of network and facility issues that have been detected within the SJTPO region. It is broken into two primary sections. The first section identifies and prioritizes network and facility issues throughout the SJTPO region. The development of this section was informed by the *2022 SJTPO Freight Plan Data Collection and Analysis Study,* additional Stakeholder Outreach conducted during the development of this Plan, and a review of other regional studies.

The network and facility issues list identifies and prioritizes both specific, location-based issues, such as an intersection in need of improvement, as well as general issues, which include policy ideas and broad concerns about freight or freight growth in the area. These are identified within the "Local" and "General" sections of the list. In total, 72 local issues and 31 general issues are identified.

The second section of Chapter 4 provides Truck Parking Capacity Analysis and Recommendations. It discusses the two primary categories of truck drivers within the SJTPO region, namely those travelling over-the-road (OTR), who are stopping to rest in the SJTPO region as part of a longer journey between endpoints outside of the region, and first-mile/last-mile drivers, who are headed to or from locations within the SJTPO region. The largest truck stops in the region are located in the Carney's Point / Deepwater area and primarily serve OTR drivers, whereas numerous other smaller, dispersed truck stops serve drivers making local pickups and deliveries.

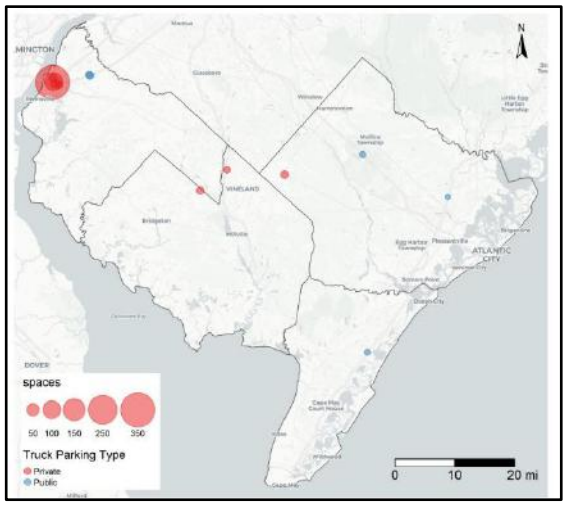

Figure 4-1: SJTPO Truck Parking Facilities, Source: 2022 SJTPO Regional Freight Plan Data Collection and Analysis Final Report

There are two primary types of truck parking facilities currently operating within the SJTPO region, including publicly operated service areas and welcome centers located on regional toll roads, and private truck stops located nearby regional freight generators and freight corridors. Informally, numerous retailers permit overnight truck parking within their parking lots. A data collection analysis of truck parking supply and demand at existing truck parking facilities within the SJTPO region identifies an overall 75% current weekday utilization rate and a 79% weekend utilization rate, however these findings are not even throughout the region, with the truck stops in Carney's Point operating at or over capacity, and Vineland area truck stops operating near capacity. Furthermore, local stakeholders have identified multiple locations within the SJTPO region where unauthorized parking occurs on local streets, outside of truck stops.

Chapter 4 also provides truck parking recommendations for incorporation by SJTPO in the regional planning process. These include multi-regional actions, strategies for OTR truck parking needs including Public-Private Partnership (P3) approaches, and strategies for first-mile/last-mile needs, including the truck parking utilization of locally available locations, development of additional truck parking capacity, and development and enforcement of ordinances related to truck parking.

Table 1: Overnight Truck Parking Facilities Within the SJTPO Region

Name of Facility	County Located	Type of Facility	Truck Amenities	Access From	Direction Served	Number of Truck Parking Spaces
Carney's Point Sunoco Truck Stop	Salem	Private Truck Stop	Yes	US-140 (off I-295 Exit 2)	Both	75
Clara Barton Service Area	Salem	Service Plaza	No	NJ Turnpike	Southbound	18
Deepwater Truck Stop	Salem	Private Truck Stop	Yes	US-130	Both	25
Deepwater Welcome Center	Salem	Welcome Center	No	I-295	Northbound	33
Flying J Travel Center	Salem	Private Truck Stop	Yes	US-140 (off I-295 Exit 2)	Both	265
Frank S. Farley Service Plaza	Atlantic	Service Plaza	No	Atlantic City Expressway	Both	15
Frank Sinatra Service Area (Atlantic City Service Area)	Atlantic	Service Plaza	No	Garden State Parkway	Both	11
G Fuel	Salem	Private Truck Stop	Yes	US-40	Both	16
Garden Truck Stop	Cumberland	Private Truck Stop	Yes	W Garden Rd (CR 674)	Both	25
John Fenwick Service Area	Salem	Service Plaza	No	NJ Turnpike	Northbound	18
Major Auto Truck Plaza	Cumberland	Private Truck Stop	No	Route 56	Both	20
Pilot Travel Center	Salem	Private Truck Stop	Yes	Hawks Bridge Rd (off I-295 Exit 2)	Both	25
Phillips 66	Cumberland	Private Truck Stop	No	N Main Rd	Both	50
Riggins Auto Truck Plaza	Cumberland	Private Truck Stop	Yes*	S Main Rd	Both	20
Toni Morrison Service Area (Ocean View Service Area)	Cape May	Service Plaza	No	Garden State Parkway	Both	16
Vineland Truck Stop Gulf	Atlantic	Private Truck Stop	Yes	US-40	Both	20
					Total Number of Spaces in the Region:	**652**

Chapter 5: Model Policies and Best Practices Relevant to SJTPO Regional Issues

Chapter 5 conducts a peer review of similar regions to SJTPO and identifies examples of policies and practices that are typical to comparable areas and can inform approaches within the SJTPO region. Two peer review regions were selected, based on an analysis of regional population, urban/rural makeup, roadway network, multimodal connections, and major transportation partners.

The first peer review region is the Tri-County Regional Planning Commission (TCRPC), which is located in central Pennsylvania and includes Cumberland, Dauphin, and Perry Counties. Also included within the TCRPC is the Harrisburg Area Transportation Study (HATS), which is the regional MPO. The second peer review region is that covered by the Lehigh Valley Planning Commission (LVPC), geographically comprised of the Lehigh and Northampton County areas in eastern Pennsylvania near the New Jersey border. Model policies and best practices are identified within five primary areas. These areas include Land Use and Transportation Policies and Practices, Freight Mobility Efficiency, Safety, Technology, and Innovation.

Land Use and Transportation Policies and Practices
Model policies and practices in this area are focused on the development of forward-looking land use policies, development of reference material for local officials, and conducting land use capacity analysis. Practices include ensuring transition zones around freight generators, promoting rail freight, and encouraging the development of "logistics villages" which cluster freight activity. Reference material for local officials and land use capacity analyses are both tools for encouraging smart growth and development regionally.

Freight Mobility Efficiency
Improving freight mobility is largely associated with eliminating barriers to the movement of freight. Recommendations within this area include spot improvements to secondary roads, intersection geometry improvements, and first-mile/last-mile intermodal connections. Examples are provided including air freight intermodal facilities and allowable truck widths on local roads.

Safety
Two common safety goals are identified which include the reduction of both the number and severity of truck crashes and the improvement of safety at railroad grade crossings. Recommendations within this area include improvements to truck crash cluster locations, supporting the Operation Lifesaver program for rail safety awareness, and supporting both truck parking and freight rail investments.

Technology
Technological advancements such as Intelligent Transportation Systems (ITS), truck routing systems, real-time truck parking information, and automated safety measures have the potential to greatly benefit multiple facets of freight transportation within the SJTPO region. This section explores each of these technologies, providing guidance on how they may be implemented and utilized within the region.

Innovation
Innovations such as Public-Private Partnerships (P3s) and training programs for commercial drivers are highlighted within this section.

Chapter 6: Freight Plan Recommendations and Prioritized List of Regional Actions

This chapter represents the culmination of both the 2022 effort and this one, providing prioritized recommendations for regional actions within the SJTPO area which would benefit freight movements and communities within the area. Six strategic freight corridors are identified through a review of truck travel patterns and analysis developed in this *2024 SJTPO Regional Freight Plan* and the *2022 Regional Freight Plan Data Collection and Analysis Final Report.* These corridors are centered around higher classification regional roadways. Within the SJTPO region, which is located on a peninsula, the local and county road network generally acts as a feeder network for freight to access the state and interstate highway network.

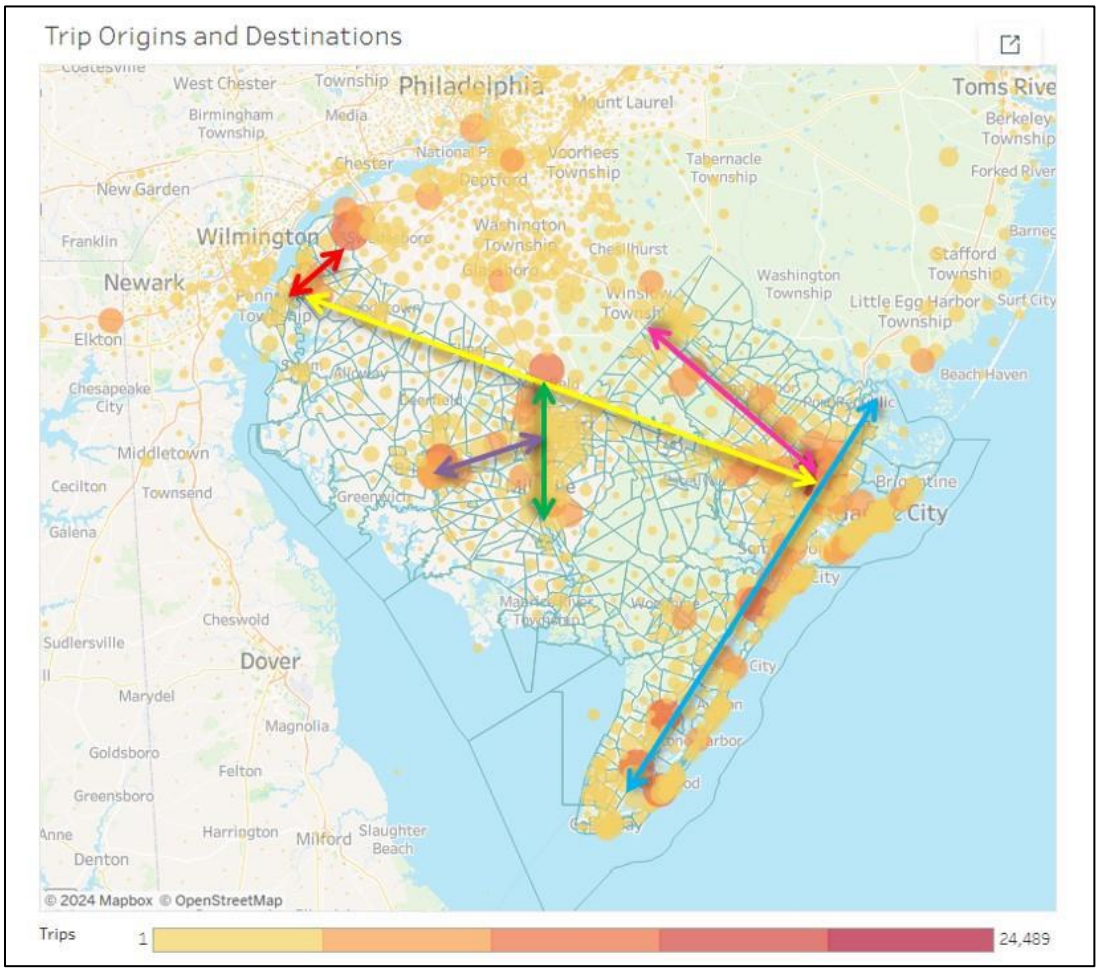

Figure 6-27: Strategic Freight Corridors

Chapter 6 also develops a Regional Action prioritization method which assigns a score on a 15 point scale based on the Action's impact on current conditions, safety, mobility, accessibility, reliability, cost-effectiveness, usage of efficient modes, resiliency, Environmental Justice populations, consistency with land use policy, the regional economy, constructability, and location on the county / municipal roadway system. Ten Regional Actions, as well as associated projects, are further developed in Chapter 6. The Prioritized List of Regional Actions is as follows:

Priority	Recommended Regional Action
1	Enhance freight connections to NJ 55 in the Vineland and Millville area through improvements to the local road network.
2	Enhance freight connections to the James R. Hurley (Millville Airport) Industrial Park in Millville through improvements to the local road network.
3	Support the development of additional local truck parking in the SJTPO Region.
4	Improve connectivity to the Atlantic City Airport for future air cargo growth.
5	Enhance highway freight connections to I-295.
6	Improve localized truck congestion and safety concerns.
7	Upgrade rail freight rail branch lines to preserve and enhance future multimodal and rail freight growth.
8	Improve local freight delivery in coastal areas of Cape May County.
9	Support Salem County ocean freight development in the Port of Salem and Wind Port.
Policy	Support regional policy development which promotes responsible, equitable freight growth and economic opportunity.

Within each Regional Action, supporting projects are categorized by their time horizon, and include the following categories:

- **Quick-Start Projects:** low cost, with a short implementation horizon
- **Program Enhancements for Improving Freight:** short implementation horizon for freight action strategies, policies, and projects that can enhance existing planning activities of SJTPO and planning partners to better incorporate freight considerations in an ongoing manner
- **Future Surface Transportation Projects:** medium implementation horizon potential projects that will require further analysis prior to implementation
- **SJTPO Freight Horizon Projects:** projects that, due to their nature, are relatively high cost and/or may require long time horizons (e.g. more than 5 years)

Regional Action	Category	Recommendation
Action #1	Quick-Start Projects	Improve left turn conditions for movements from NJ 55 Southbound off-ramp to South Main Road in Vineland.
		Improve turning conditions at the intersection of Wade Boulevard and Wheaton Avenue (CR 555) in Millville.
	Program Enhancements for Improving Freight	Perform a detailed assessment of truck congestion patterns on West Garden Road (CR 674) to identify and implement short implementation horizon improvements.
		Perform a detailed assessment of intersection geometry at intersections along Mill Road in Vineland to identify deficiencies in corner radii.
	Future Surface Transportation Projects	Improve turning conditions at the intersection of Wade Boulevard and East Broad Street (CR 552) in Millville.
		Increase width of Sherman Avenue (CR 552) near the intersection of NJ 55 in Vineland.

		Improve turning conditions at the intersection of NJ 49 and Port Elizabeth - Cumberland Road (CR 646) in Maurice River Township.
	SJTPO Freight Horizon Projects	Study the freight utilization of Wheaton Avenue south of Wade Boulevard in Millville.
Action #2	Quick-Start Projects	Provide a dedicated right-turn lane from Cedar Street (CR 610) onto Bogden Boulevard in Millville.
	Future Surface Transportation Projects	Nabb Avenue Extension Project
Action #3	Quick-Start Projects	Implement strategies for first-mile/last-mile truck parking needs.
	Program Enhancements for Improving Freight	Research and develop a potential model for concession agreements to create truck stops on publicly owned land.
		Support creation of new truck parking near the I-295 / US-130 / NJ Turnpike corridor.
	Future Surface Transportation Projects	Support truck parking congesting mitigation on the barrier islands.
	SJTPO Freight Horizon Projects	Support emerging approaches to truck parking.
Action #4	Quick-Start Projects	Improve geometry and signaling at the intersection of Tilton Road (CR 563) and Wrangleboro Road (CR 575).
	Future Surface Transportation Projects	Increase capacity on Wrangleboro Road (CR 575) approaching the intersection of US-322 / US-40.
	SJTPO Freight Horizon Projects	Improve freight conditions through May's Landing on the US-40 corridor.
		Construct a rail station at the Atlantic City Airport.
Action #5	Quick-Start Projects	Improve roadway signage and consider signalizing the intersection of Straughns Mill Road and I-295 NB.
	Program Enhancements for Improving Freight	Work with local municipalities and developers to understand upcoming developments and make appropriate regional planning decisions.
Action #6	Quick-Start Projects	Salem County Five Points and Six Points Roundabout Projects
		Improve signage and pavement markings at Greenman Avenue (CR 737) and North Shiloh Avenue (CR 735) in Deerfield Township to better identify the nearby railroad crossing.
	Future Surface Transportation Projects	Improve intersection geometry at Cedarville Road (CR 610) and Newport-Centre Grove Road (CR 629) in Lawrence Township.
		Improve intersection geometry at Bridgeton Avenue (CR 666) and Kenyon Avenue (CR 717) in Deerfield Township.
	SJTPO Freight Horizon Projects	Support state of good repair investments on Dennisville – Petersburg Road (CR 610) and Mount Pleasant Road (CR 664) in Woodbine.
Action #7	Quick-Start Projects	Complete state of good repair upgrades to grade crossings along the Salem Branch.
	Program Enhancements for Improving Freight	Support freight capacity improvements in the Millville area.
	SJTPO Freight Horizon Projects	Rehabilitate last 10 miles of Winchester and Western (WW) Seashore Branch.

Action #8	Program Enhancements for Improving Freight	Support public transit connections to industrial development opportunities at the Cape May County Airport.
	SJTPO Freight Horizon Projects	Upgrade Ocean Drive (CR 619/621) bridges between barrier islands to remove truck weight restrictions.
		Support the construction of a connection between Woodbine Landfill and a sewer plant.
Action #9	Program Enhancements for Improving Freight	Study potential alternative freight utilization opportunities near Wind Port.
	Future Surface Transportation Projects	Increase draft at Port of Salem.
Regional Policy Action	N/A	Promote public transit to freight-based employment across the SJTPO region.
		Promote strategies which raise awareness in low-income communities of job opportunities within the freight sector.
		Incorporate regional environmental concerns, such as flooding and water quality issues, into freight development considerations.
		Coordinate with adjacent regions to improve environmental conditions for Overburdened Communities.
		Support the 2030 New Jersey Long-Range Transportation Plan Objective to prioritize projects that can support brownfields for freight use.
		Support infrastructure development which responsibly creates opportunities for freight-related job growth.

Chapter 7: Funding Opportunities

Chapter 7 provides an overview of funding sources available for freight projects, as well as recommended actions from Chapter 6, which could be accomplished with the varying funding sources. By identifying and analyzing various available funding sources, the chapter provides insight for SJTPO and its partners to obtain and leverage funds effectively. Funding sources examined include:

Funding Source	Funding Available
Advanced Transportation Technologies and Innovative Mobility Deployment (ATTIMD)	$120M (2023)
Charging and Fueling Infrastructure Grant Program	$2.5B (over 5-yr period)
Consolidated Rail Infrastructure and Safety Improvements	$1.4B (FY22)
FAA Airport Improvement Grant	$1.1B (2023)
Federal Highway Administration Strategic Innovation for Revenue Collection	$15M (annually through 2026)
FHWA Bridge Investment Program	$10B (2023)
Port Infrastructure Development Program	$450M (FY24)
Promoting Resilient Operations for Transformative, Efficient, and Cost-saving Transportation Program	$1.4B (over 5-yr period)
Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Discretionary Grant	$1.5B (2024)
Reconnecting Communities and Neighborhoods Grant Program	$185M (2023)
Safe Streets and Roads for All (SS4A)	$813M (2023)
USDOT Multimodal Project Discretionary Grants: INFRA Grant Program	$5B (through 2026)
USDOT Multimodal Project Discretionary Grants: The Mega Grant Program	$5B (FY23)
USDOT Multimodal Project Discretionary Grants: The Rural Surface Transportation Grant Program	$645M (FY23)
New Jersey Local Freight Impact Fund	$30.1M (FY24)
NJDOT Multimodal Grants: Rail Freight Assistance Program	$27.8M (2023)

Following the identification and analysis of funding sources, Chapter 7 provides recommended next steps to procure project funding. Also included is an overview of Public Private Partnerships (P3s), including potential types of P3 projects which could be pursued within the region.