



**THE DELAWARE VALLEY
FREIGHT CENTER INVENTORY**

TAKING STOCK OF A VITAL REGIONAL ASSET

April 2012





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The Delaware Valley Regional Planning Commission is dedicated to uniting the region's elected officials, planning professionals, and the public with a common vision of making a great region even greater. Shaping the way we live, work, and play, DVRPC builds consensus on improving transportation, promoting smart growth, protecting the environment, and enhancing the economy. We serve a diverse region of nine counties: Bucks, Chester, Delaware, Montgomery, and Philadelphia in Pennsylvania; and Burlington, Camden, Gloucester, and Mercer in New Jersey. DVRPC is the federally designated Metropolitan Planning Organization for the Greater Philadelphia Region — leading the way to a better future.



The symbol in our logo is adapted from the official DVRPC seal and is designed as a stylized image of

the Delaware Valley. The outer ring symbolizes the region as a whole while the diagonal bar signifies the Delaware River. The two adjoining crescents represent the Commonwealth of Pennsylvania and the State of New Jersey.

DVRPC is funded by a variety of funding sources including federal grants from the U.S. Department of Transportation's Federal Highway Administration (FHWA) and Federal Transit Administration (FTA), the Pennsylvania and New Jersey departments of transportation, as well as by DVRPC's state and local member governments. The authors, however, are solely responsible for the findings and conclusions herein, which may not represent the official views or policies of the funding agencies.

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Executive Summary

Producing and distributing freight requires dedicated, significant expanses of land in order to meet the needs of businesses and consumers. This land is an essential resource for the economic vitality of the region and an important part of many communities. This report will advance the status of freight-related land uses by inventorying and categorizing areas where this activity is clustered and most pronounced. This study identifies the region's largest concentrations of freight-related land uses as Freight Centers.

The goal for DVRPC in identifying Freight Centers is twofold:

- 📍 For Freight Centers to thrive, boosting the region's job market and economy.
- 📍 For freight, land use needs to be taken into account when considering future development both within and surrounding Freight Centers

DVRPC created three categories of Freight Centers based primarily on size:

- 📍 There are 8 Mega Freight Centers Identified
 - ❖ Mega Freight Centers have 1,500 or more acres, or 700+ acres and over 3,000 manufacturing jobs
- 📍 There are 13 Major Freight Centers Identified
 - ❖ Major Freight Centers have 700-1,499 acres, or 250-699 acres and over 3,000 manufacturing jobs
- 📍 There are 23 Intermediate Freight Centers Identified
 - ❖ Intermediate Freight Centers have 250-699 acres, or under 250 acres and over 3,000 manufacturing jobs

Each Freight Center has a one-page profile included in this report. The 44 Freight Centers profiled account for 60,090 manufacturing jobs, which is 35% of the manufacturing jobs in the region. The facilities within centers also have non-manufacturing jobs, as well as spur commercial and other related economic growth in and around the Freight Centers. It is estimated that a total of 338,030 people are employed either within or adjacent to a Freight Center.

Using advanced techniques and extensive field work, this study provides a new way to look at the region's largest concentrations of freight-related activity. Freight Centers make up roughly 42,658 acres of land. In the profiles, all land within the limits of the Freight Center is designated as one of six different land use types: light manufacturing (40.3% of total freight-related land), heavy manufacturing (25.0%), transportation (14.4%), utility (9.4%), distribution (9.1%), and quarry / mining (1.8%).

The final section of the report includes action steps for Freight Center stakeholders. Stakeholders include, but are not limited to, DVRPC, counties, cities, municipalities, economic development agencies, and private businesses. Actions include:

- ✎ Integrate the concept of Freight Centers into regional and county plans
- ✎ Create and track Freight Center activity indicators
- ✎ Study access into Freight Centers
- ✎ Advance Freight Center designation methodology
- ✎ Protect Freight Centers through zoning and comprehensive planning
- ✎ Encourage re-use of brownfields
- ✎ Participate in Freight as a good neighbor strategies
- ✎ Share services and amenities
- ✎ Create branding efforts focused around Freight Centers
- ✎ Identify and implement projects needed to improve access to Freight Centers

As with all work from DVRPC's Office of Freight Planning, this report was made possible by the continued support of the Delaware Valley Goods Movement Task Force.

Introduction

Producing and distributing freight requires dedicated, significant expanses of land in order to meet the needs of businesses and consumers. This land is an essential resource for the economic vitality of the region and an important part of many communities. This report will advance the status of freight-related land uses by inventorying and categorizing areas where this activity is clustered and most pronounced. This study identifies the region's largest concentrations of freight-related land uses as Freight Centers.

Within Freight Centers, there are six types of land use identified:

- 📍 Light Manufacturing
- 📍 Heavy Manufacturing
- 📍 Distribution
- 📍 Transportation
- 📍 Quarry / Mining
- 📍 Utility

Each of these land use types will be described in detail in Chapter 2. DVRPC used field observations and additional research to make land use type assignments. These assignments represent DVRPC's best estimate of current land use, but do not represent official local zoning designations. Due to the number of centers and the regional nature of this report, the inventory is not a parcel by parcel accounting of the businesses and land uses within each center. This report provides a profile of each center which generalizes land use over multiple parcels and provides some illustrative businesses within each center.

Background

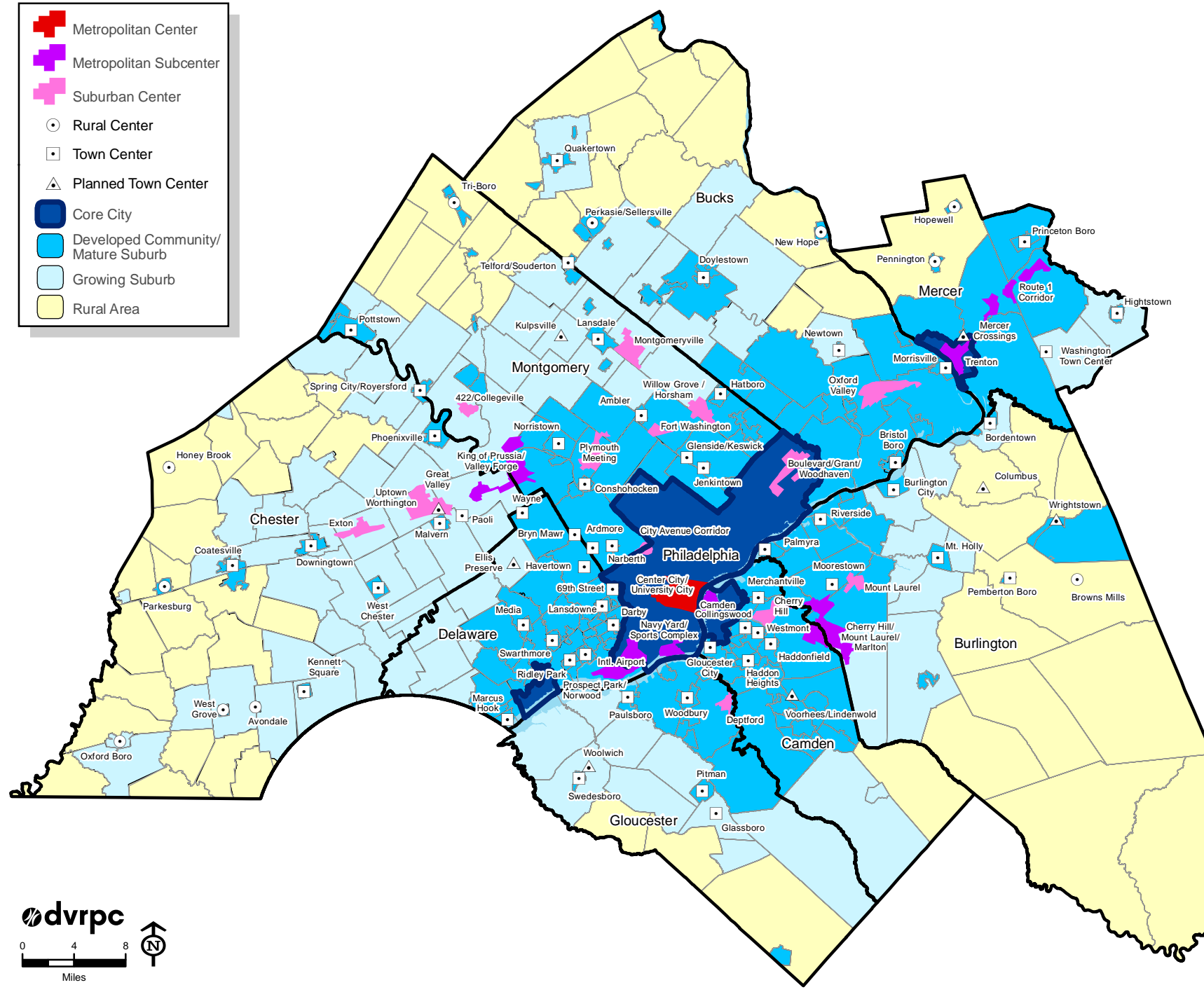
As the federally designated Metropolitan Planning Organization for the Greater Philadelphia Area, DVRPC works to foster regional cooperation in a nine-county, two state area. City, county and state representative's work together to address key issues, including transportation, land use, environmental protection and economic development. All of these issues relate either directly or indirectly to the Freight Center concept. DVRPC's land use plans are closely coordinated with its member governments, municipalities and communities throughout the region. In the past, DVRPC's land use work has focused on residential development, commercial development, and open space.

The demarcation of land use centers was a building block of the DVRPC Long Range Plan, *Connections 2035: A Regional Plan for a Sustainable Future*. The plan employed the centers concept as a key land use and transportation principle and identified seven different types of centers in the Delaware Valley Region ranging from the Metropolitan Core of Center City / University City in Philadelphia to rural centers such as Pennington in Mercer County. (See Figure 1 for a full map of the centers in the region.) The goal was that by identifying centers and attempting to concentrate new growth around centers, the region would be able to both preserve open space and reduce infrastructure costs.

The goals of *The Delaware Valley Freight Center Inventory* are largely the same, with the added goal that by identifying Freight Centers, DVRPC can continue to highlight the importance of freight activity to the DVRPC regional economy. The centers identified in this report are the bedrocks of industry and freight activity for the Delaware Valley region. The centers contain clusters of land parcels dedicated to freight-related uses that vary in size, activity levels, and industry types. Focusing freight-related development on the identified centers will minimize the need to devote new, unused land to freight-related purposes.

The most well-known freight center in the country may be Silicon Valley in Northern California. The name originally referred to the large number of silicon chip innovators and manufacturers that were located there, but the area has experienced massive growth and the name has grown to cover an array of high tech businesses. The center started modestly as the Stanford Industrial Park, a standard post World War II suburban-style industrial park, which was developed to provide more local employment opportunities for Stanford University graduate students. Silicon Valley is an example of what a freight center can grow into given the market conditions, in this case the rapid growth of silicon chip usage and production. The area was helped along the way by having first-rate leadership and branding.

FIGURE 1 : DELAWARE VALLEY PLANNING AREAS AND CENTERS



Over the last 100 years, the nature of the centers has changed greatly. Previously, freight-related land uses were primarily made up of manufacturing plants that were built along rivers and the rail lines. These facilities relied on ships and trains to carry both the raw goods into the plants as well as the finished goods away from the plants. Residential communities were often developed around the plants, so employees could easily get to work.

From the middle of the 20th Century onward, Americans began to move out of urban areas into neighborhoods that were more suburban in nature. This trend led to greater reliance on the automobile to get to work and on the truck to move goods. This shift was further accelerated the creation of the Interstate Highway System and the modern shipping container in 1956. Industrial Parks were built to accommodate this trend. What followed was a flow of freight-related businesses out of their former buildings, which were often more urban in nature, into these industrial parks, which were often more suburban in nature.

Today, a robust series of suburban-style industrial parks exist in the suburbs of Philadelphia. Meanwhile, there remains a core of major manufacturing facilities; some of which still operate, some of which have been redeveloped to support modern industry, and some of which have been redeveloped for non-industrial uses.

The size and types of land uses that will be needed to meet future demand is not clear. What is known, given population growth and future freight projections, is that more goods will be moving into, out of, and within the region. Land for businesses focused on freight-related activities will be needed in order for the region to take full economic advantage of this growth.

One of the largest Freight Centers in the world is located in Saudi Arabia in the Jubail Industrial City. This massive complex contains an industrial area that houses 19 main factories and 136 ancillary businesses on 20,000 acres of land. The industrial land is currently being expanded, and upon completion will total 35,500 acres. The site also includes a deep water port, an airport, residential land for workers (currently 40,000 residents with room for 375,000 in the future), and parks.

Activity in Freight Centers

All goods progress through a complex supply chain before consumption or use. This supply chain can be simplified into three stages, each of which requires land. This section will introduce each of these three stages (extraction, manufacturing, and distribution) and explain their presence within the DVRPC region.

Extraction

The majority of raw materials used for manufacturing in the DVRPC region are imported from other parts of the U.S. and from around the world. For example, crude petroleum is brought in for processing at the regional refineries; steel plates are brought in and manufactured into a more finished product at regional steel mills; and pharmaceutical companies import chemicals from all over the world to make medicines.

The main materials being extracted in the DVRPC region are sand and stone products that are primarily used in construction. The southeastern portion of Pennsylvania sits on a bed of limestone that area quarries extract and crush to create a variety of gravel, concrete, and asphalt products. Meanwhile, southern New Jersey has extensive reserves of very high quality sand which is used locally and also exported for many uses such as construction, glass making, and solar panels. Another product being extracted just outside the DVRPC region is natural gas. The State of Pennsylvania was recently discovered to sit atop a large natural gas play (i.e., the Marcellus Shale), which has attracted companies to the state in an effort to set up extraction facilities.

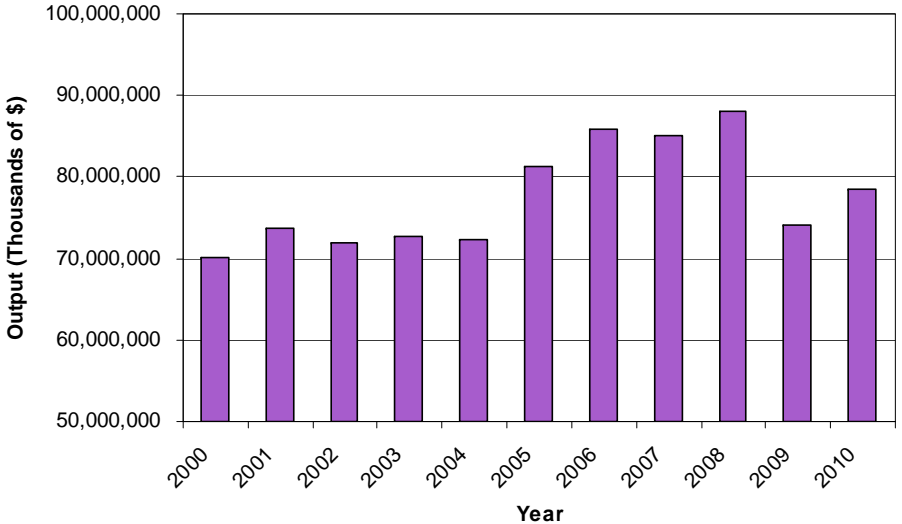
Manufacturing

The manufacturing industry has a rich tradition in the Delaware Valley, and Philadelphia was once known as “the workshop of the world”. While the DVRPC region lost over 250,000 manufacturing jobs from 1970-2000,¹ the manufacturing industry remains an important aspect of the regional economy. In the past, the region’s manufacturing sector was supported by production facilities where raw materials were turned into finished products.

¹ Bureau of Economic Analysis, 2002 REIS data

The modern-day manufacturing sector in the Delaware Valley looks very different. Today, the region is more focused on value-added production processes, and manufacturing facilities are often part of a larger, sometimes global, manufacturing process.

Figure 2: Delaware Valley Regional Economic Output from Manufacturing: 2000-2010



*Source IHS Global Insight, 2010.
Business Markets Intelligence Database*

Figure 2 shows the economic output the manufacturing sector contributed to the Delaware Valley’s economy over the last 11 years. From 2000 through 2008 the sector grew 25%, before sustaining an extreme loss in 2009 due to a worldwide economic recession. In 2010, the region began to rebound to pre-recession levels as manufacturing output rose 6% over 2009 levels. Despite the 2009 recession, total economic output from manufacturing grew by 11% from 2000 to 2010.

In terms of the manufacturing sector, the region’s greatest asset is diversity. The North American Industry Classification System (NAICS) breaks manufacturing into 21 different sectors, and in the DVRPC region, 15 of the 21 sectors produced more than \$1 billion in 2010 economic output. 8 of the 21 sectors (summarized in Table 1) produced over \$3 billion in economic output.

Table 1: Manufacturing Sectors with over \$3 billion in 2010 Economic Output

Sector	2010 Economic Output
Chemical Manufacturing	\$19,444,129,125
Petroleum & Coal Products Manufacturing	\$12,088,490,240
Food Manufacturing	\$7,774,427,594
Computer & Electronic Product Manufacturing	\$6,635,780,140
Fabricated Metal Product Manufacturing	\$4,311,017,729
Transportation Equipment Manufacturing	\$4,124,707,104
Machinery Manufacturing	\$3,351,779,076
Paper Manufacturing	\$3,058,377,863

Source IHS Global Insight, 2010.
Business Markets Intelligence Database

The region is particularly strong in producing products related to healthcare (i.e., pharmaceuticals, medical devices, and biotechnology). Chemical Manufacturing, which includes pharmaceuticals, provided the region with \$19.4 billion in economic output in 2010, the most of any manufacturing sector. According to a study², 80 percent of the world's largest pharmaceutical companies have a presence in the Delaware Valley metropolitan area, and employment in the industry is second only to the New York metropolitan area.

On March 11, 2010, President Barack Obama released an executive order for a National Export Initiative. The President declared that it “shall be an Administration initiative to improve conditions that directly affect the private sector’s ability to export.”³ This executive order followed a stated goal of the Administration of doubling national exports from 2010 to 2015. Manufacturing facilities within Freight Centers are a key for growing the region’s exports.

² Back to Prosperity: A Competitive Agenda for Renewing Pennsylvania. Brookings Institution. 2003.

³ Executive Order – National Export Initiative. The White House, Office of the Press Secretary, March 11, 2010.

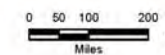
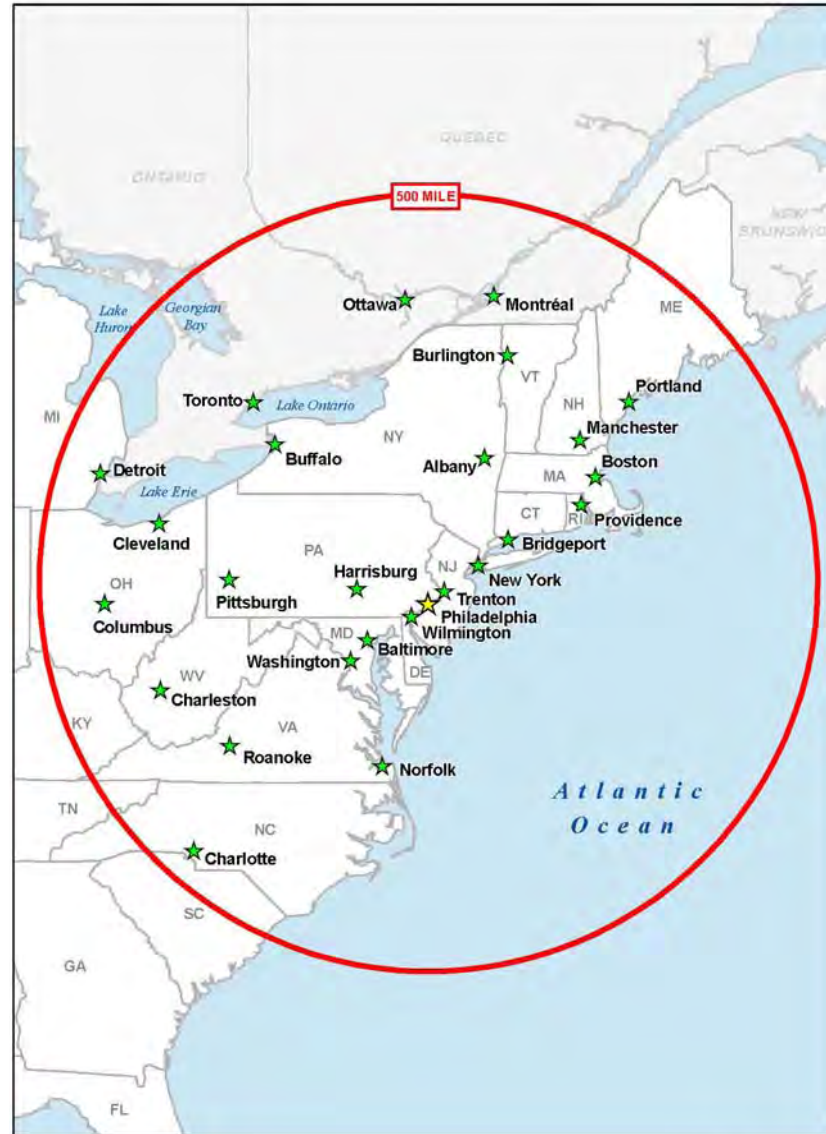
Distribution

Distribution activities include the transportation and storage of a product from where it is made to where it is consumed. These activities are referred to as a product's supply chain. Over the last 50 years, supply chains have grown longer as more goods are produced overseas. Globalized production and transportation services mean a longer average distance of shipments, thus an increased need for the United States and Delaware Valley to provide infrastructure that allows for the movement of goods across all modes. In terms of land use, this trend has led to an increased need for large warehouse facilities which store and sort products for delivery to their final destinations.

The Delaware Valley region is positioned in the middle of the densest population center in the United States. This makes the region ideally situated to be a launching pad for distribution activity serving these markets. Figure 3 shows the area that is within 500 miles of the DVRPC region. This distance represents roughly the distance a truck could travel in one day in compliance with the federal hours-of-service regulations in place for commercial vehicle drivers.

Over 100 million people live within a 500 mile radius of Philadelphia, representing a vast consumer base with needs for finished goods.

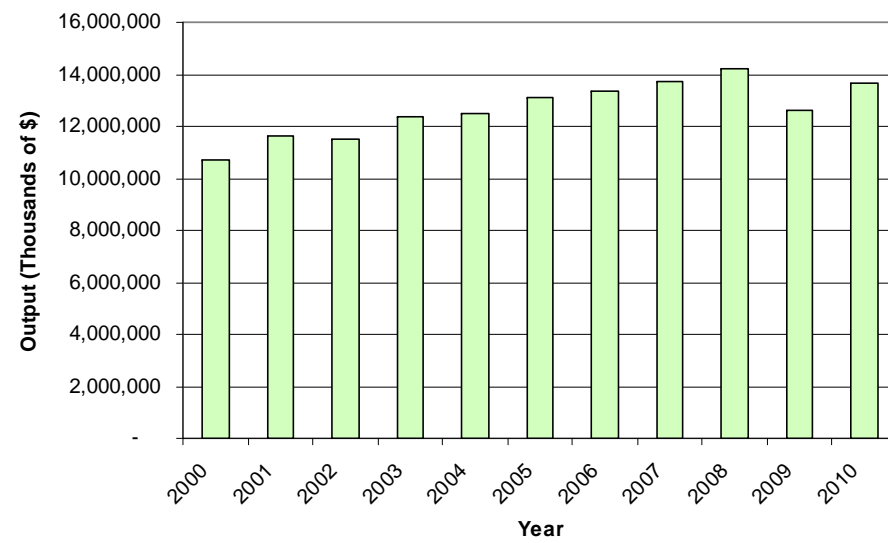
Figure 3: A 500 Mile Radius around Philadelphia, Pennsylvania



DVRPC

Figure 4 shows the economic output from all transportation and warehousing operations in the Delaware Valley region over the last 11 years. Note that not all transportation output is freight-related (e.g. taxi service is included, but the majority is freight-related). Like manufacturing, distribution output grew from 2000-2008 (35%), before taking a step back in 2009 and then recovering in 2010.

Figure 4: Delaware Valley Regional Transportation and Warehousing Output: 2000-2010



Source IHS Global Insight, 2010.
Business Markets Intelligence Database

Median Yearly Incomes by Sector

Freight-related jobs provide above-average wages, which contribute to the region's total economic prosperity. The following are a sampling of median earnings by industry sector provided by the US Census Bureau's American Community Survey for all civilian employees 16 years of age and older (following the median income is the total percent of the workforce the sector covers nationally):

- 🔗 Finance and Insurance: \$44,006 (5%)
- 🔗 Transportation and Warehousing: \$39,277 (4%)
- 🔗 Manufacturing: \$39,259 (11%)
- 🔗 Real Estate: \$33,943 (2%)
- 🔗 **Average for all sectors: \$32,044 (100%)**
- 🔗 Healthcare and Social Assistance: \$30,620 (13%)
- 🔗 Retail Trade: \$21,321 (12%)

Both the manufacturing and transportation industries have a median yearly income over \$7,000 above the average for an American worker. More publicized industries such as healthcare, real estate, and retail trade actually have median incomes that are lower than manufacturing and transportation. Finance and insurance is roughly \$5,000 more per year, but provides far fewer total jobs than the manufacturing sector.

Report Organization

The Delaware Valley Freight Center Inventory is organized as follows:

- 🔗 Freight Center Methodology
 - ❖ This section defines how the Freight Centers were categorized by DVRPC, provides an overview of the center profiles, and defines the different land use types used to designate land use within the Freight Centers.

📌 Mega Freight Centers

❖ This section contains the profiles for all the Mega Freight Centers.

📌 Major Freight Centers

❖ This section contains the profiles for all the Major Freight Centers.

📌 Intermediate Freight Centers

❖ This section contains the profiles for all the Intermediate Freight Centers.

📌 County Center Summary

❖ This section contains a one-page summary of the Freight Centers for each county in the Delaware Valley. Included in this section is employment data for each of the Freight Centers.

📌 Next Steps

❖ This section contains a series of possible next steps for DVRPC and its partners in regards to the region's Freight Centers.

Acknowledgements

Each of the counties in the DVRPC region has an economic or industrial development agency, and they were a great resource in providing information and guidance for this study. Additionally, each county has its own planning staff that were consulted and provided invaluable local assistance and input into making center designations and to the overall content of this report. As with all products and efforts undertaken by DVRPC's Office of Freight Planning, this report was enriched by the continuing support of the Delaware Valley Goods Movement Task Force's members and friends.



Methodology

This section will detail the methodology DVRPC used in identifying Freight Centers, categorizing Freight Centers, and designating land uses within Freight Centers, and outline the contents of the Freight Center profiles contained in Chapters 3, 4, and 5.

Freight Center Identification

DVRPC first identified Freight Centers (initially referring to them as “Industrial Centers”) through its County Freight Scans project. (For more information about County Freight Scans, or to download the County Freight Brochures published through the project, visit www.dvrpc.org/freight/countyfreightscans). These centers were primarily identified by reviewing light and heavy manufacturing parcels in the DVRPC 2005 land use data, which was the most up-to-date data available at the time the technical work for this study was produced. Clusters with a minimum of 200 acres were defined as a center, and a total of 41 centers were initially identified.

DVRPC contacted county and economic development planners in order to review the initial list of identified centers. Meanwhile, staff performed internet-based research into the contents of the centers and started the process of designating land use within each center (more details about how land use types were designated are available in the coming sections). This research led to DVRPC further refining the limits of each center, and adding polygon data that clearly define freight-related land uses within each center.

Thorough fieldwork was a key to establishing the limits for each center and assigning land use types to freight-related areas within each center. The DVRPC Office of Freight Planning staff spent five days and logged over 1,000 miles traveling to each center to verify all assignments made through the research and outreach process.

Some Freight Centers have very clear limits, but others are more spread out. When initially considering where a center begins and ends it can be unclear where exactly the limits should be. Because of this, DVRPC developed a set of factors that might unite a Freight Center and used them to help designate the limits.

DVRPC used the factors and field observations to make final decisions on limits. Below is the list of the factors DVRPC used:

- ❧ **Proximity.** The most important factor in determining center limits is that the freight-related businesses and activities be in close proximity to each other, ideally adjacent (e.g., a suburban-style industrial park, like that in the Pennsauken / NJ 90 Freight Center, in Camden County).
- ❧ **Infrastructure.** Whether it be a rail spur, an Interstate interchange, or a major road, freight-related land uses that are not adjacent, but still in relatively close proximity may be grouped in the same center if they share a vital piece of transportation infrastructure (e.g., the Delaware River along the Camden / Gloucester City Freight Center in Camden County).
- ❧ **Commodity.** Freight activities in a center may be linked because they are devoted to related goods (e.g., food related businesses, such as mushroom farms, in the New Garden / Baltimore Pike Freight Center in Chester County).
- ❧ **Ownership.** A single entity may own multiple buildings within a center which they sell or lease to a variety of businesses (e.g., Whitesell Construction Company in the Burlington Twp. / Haines Industrial Center Freight Center in Burlington County).
- ❧ **Historical Presence.** Some centers have been in existence for over 100 years, and may have a historic business which operated in them and spurred much of the surrounding development (e.g., the US Steel plant, now referred to as the Keystone Industrial Port Complex, in the Falls / KIPC Freight Center in Bucks County).

The result of all this research was that the initial set of 41 Industrial Centers became reorganized as 44 Freight Centers, a complete map of which can be found in Figure 5. Some Freight Centers were removed, split or added through the process of research, outreach, and fieldwork. Below is a summary of the major changes:

- ❧ Added Freight Center entitled “Ewing / Mercer County Airport”.
- ❧ Split the center in the Port Richmond area of Philadelphia into two Freight Centers entitled “Port Richmond / North Delaware Avenue” and “Bridesburg / Bridge Street”.
- ❧ Split the center in the vicinity of Lansdale in Montgomery County into three Freight Centers entitled “Lansdale / Bethlehem Branch,” “Montgomery Twp. / PA 309,” and “Upper Gwynedd / West Point”.

- ✎ Split the center near Hainesport in Burlington County into two centers entitled “Moorestown / Lockheed Martin”, and “Hainesport / Lumberton.”
- ✎ Removed centers near Cherry Hill in Camden County, as well as near Oaks in Montgomery County due to a lack of minimum acreage.

Freight Center Categories

From the beginning of the study, DVRPC attempted to sort the centers into three different categories. These categories changed in both scale and name as the study evolved. In the original iteration the categories were called “regional”, “county”, and “sub-county.” DVRPC felt that since the main consideration was size, that the names should directly reflect scale, not geography. Mega is a popular term in planning (e.g., “Mega-Region”) and was an ideal fit for the top category. Major reflects the scale of the second category, which is significant but clearly smaller than Mega. The last category was entitled Intermediate, in order to allow for the possibility of creating additional smaller categories.

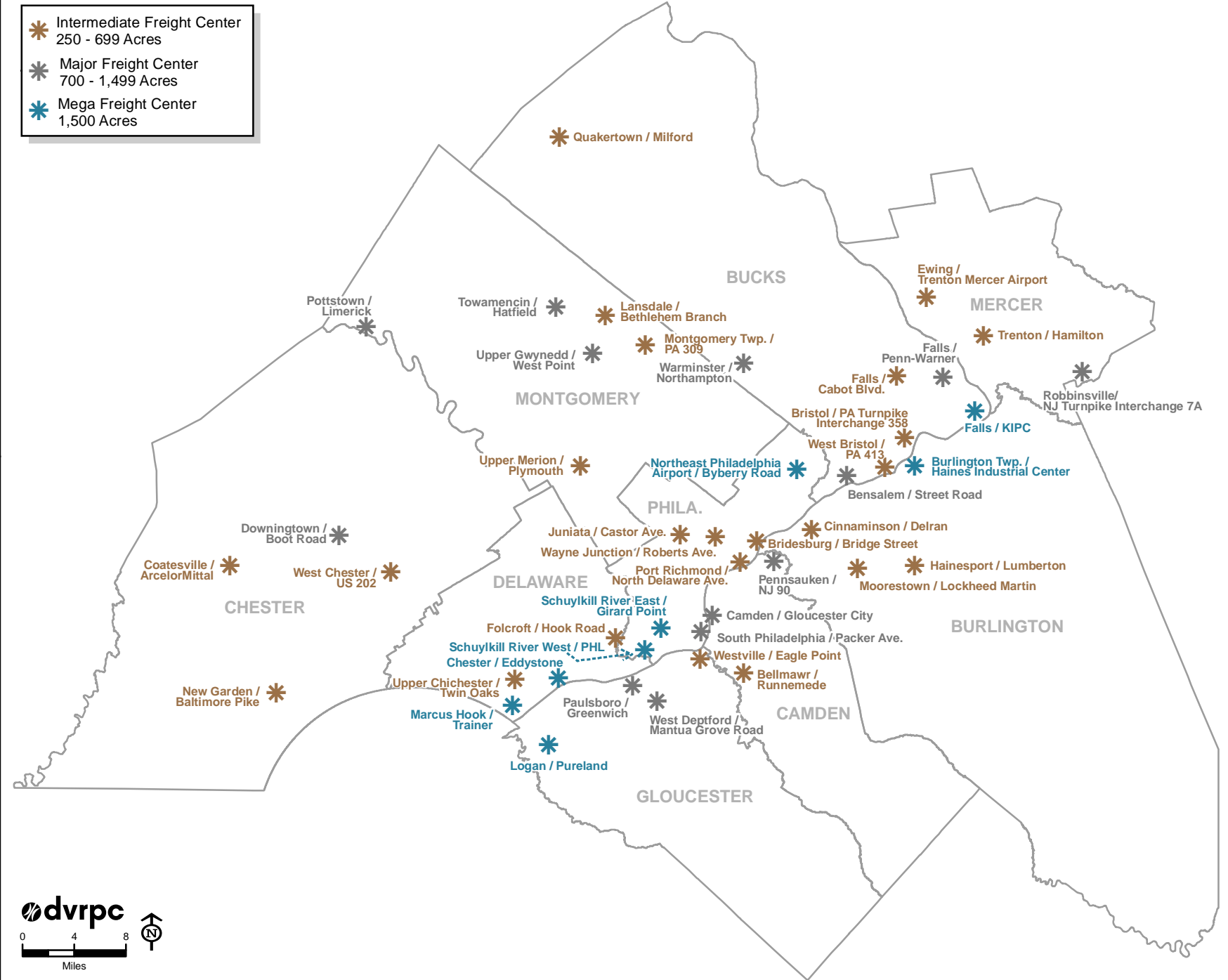
Size was the main consideration when designating the centers, but DVRPC also considered employment data as a minor consideration. It was determined that Freight Centers with over 3,000 manufacturing jobs would be “bumped up” to the next highest designation. The final categories are listed below as well as the final criteria by which centers were sorted:

- ✎ Mega Freight Centers
 - ❖ 1,500 or more acres, or 750+ acres and over 3,000 manufacturing jobs
- ✎ Major Freight Centers
 - ❖ 700-1,499 acres, or 250+ acres and over 3,000 manufacturing jobs
- ✎ Intermediate Freight Centers
 - ❖ 250-699 acres, or under 250 acres and over 3,000 manufacturing jobs

Each Freight Center category has a chapter of the report dedicated to it (Chapters 3, 4, and 5), and more in-depth descriptions of each category can be found there.

FIGURE 5: DELAWARE VALLEY FREIGHT CENTERS

- ✱ Intermediate Freight Center
250 - 699 Acres
- ✱ Major Freight Center
700 - 1,499 Acres
- ✱ Mega Freight Center
1,500 Acres



Mapping of Freight Centers

For the purposes of this report, a profile of each Freight Center was created. One of the main features of the profile is a map of the center. Constructing the maps involved creating base maps of each center using the DVRPC 2005 land use data and any maps or GIS layers submitted by the county contacts or gathered during the County Freight Scans. For some centers, DVRPC reached out to the county contacts and/or members of the Delaware Valley Goods Movement Task Force with specific questions. These resources were used to designate land within each center into one of the following land use types.

- ☞ Light Manufacturing
- ☞ Heavy Manufacturing
- ☞ Distribution
- ☞ Transportation
- ☞ Quarry / Mining
- ☞ Utility

For all designations of land use type, the entire parcel was assigned to that land use, not just the building. This includes, but is not limited to, truck staging, employee parking, and surrounding land. Land use type refers only to the activity observed during DVRPC's field views, and does not in any way reflect the zoning. The final product is a map showing the land use types, roadways, railroads, and municipal boundaries, all placed over an aerial image of each Freight Center.

Land Use Types

This section provides a definition of each land use category. The color of the heading is identical to the color of the land use type on the maps in the profiles contained in Chapters 3, 4, and 5. (Note: for a comparison of how the land use definitions in this report compare to the DVRPC Land Use data, see the section entitled, "DVRPC 2005 Land Use Data versus Freight Center Land Use Types," on page 24).

Light Manufacturing

This designation covers all small-scale and mixed-use freight-related land. Light manufacturing facilities produce a wide variety of products, but generally produce items of relatively high value per unit weight. Examples of products that may be produced at light manufacturing facilities are clothes, food products, furniture, consumer electronics and home appliances.

Many clusters of light manufacturing are branded as industrial parks and have a diverse portfolio of freight-related businesses. In recent years, many of these areas have been renaming themselves using phrases such as “business park,” “commerce center,” and other naming conventions in lieu of industrial park, that take the focus off of industry. These areas, by whatever naming convention used, are often named after the municipality they reside in.

Heavy Manufacturing

This classification is used to identify land parcels on which large-scale manufacturing facilities are located. Heavy manufacturing facilities generally produce products that are heavy in weight. Examples of products that may be produced at heavy manufacturing facilities are ships, gasoline, and steel products. There are exceptions to these criteria; for example, Kimberly Clark produces Scott Paper products at a facility in the Chester / Eddystone Freight Center that is categorized as heavy manufacturing.

Facilities where heavy manufacturing historically took place, but are now vacant are also designated under this category. Additionally, tank farms are classified under this land use type because they are directly related to the refinery businesses that are located in the region. While there is no direct manufacturing going on in these facilities, DVRPC felt that the nature of the business made this the best classification.



*National Gypsum in
Burlington County, New Jersey.
Source DVRPC*

Distribution

This land use type includes major warehouses and distribution centers. For any area that was designated under this category, the main purpose of the facility was the storage and distribution of finished goods to retailers, wholesalers, or directly to consumers. This land use type is mainly made up of warehouses and distribution centers (often referred to as simply DCs). From the outside they may look identical, but there is a distinct difference between the two. Warehouses are mainly privately owned, and lease space to a variety of different companies who need storage or product handling services. Many warehouses have a trucking company associated with them, allowing them to supply full logistics services to their clients. On the other hand, all the materials in a distribution center usually have a single owner. Most distribution centers are larger than warehouses and are operated by major retail chains.

Transportation

The definition of transportation in the DVRPC 2005 land use data refers to physical roadways, railways and airports. For this study, the transportation land use designation was used to refer to facilities which are dedicated to freight transportation. In the DVRPC region, this consists of airports, sea ports, and rail yards. Many of the facilities in this designation are intermodal in nature (i.e., where goods are shifted from one mode to another).



Sleepy's Mattress Distribution Center in Mercer County, New Jersey.
Source DVRPC



Beckett Street Terminal in Camden County, New Jersey.
Source South Jersey Port Corporation

Quarry / Mining

Any facility where material is extracted for commercial purposes is designated in this category. In the DVRPC region this material is primarily stone. Some quarry / mining facilities have manufacturing components where the extracted materials are processed. For the purpose of this report, the whole site is included under this land use type.

Utility

Utility facilities maintain infrastructure for a public service. The term utilities can refer to the set of services provided by these facilities consumed by the public. Electricity, gas, solid waste, water and sewage are the most prevalent utility facilities in DVRPC Freight Centers.

Freight Center Profiles

In addition to the detailed map, each Freight Center profile contains a written component on land use in the center and adjacent to the center, and how trucks and trains, if applicable, access the center. How each center fits into the larger freight transportation network is displayed on a county-by-county basis in Chapter 6.

Land Use and Business Summary

This section of the profile focuses on the land uses and businesses within each center. This section goes into more detail than what is included on the map and draws connections between the different parks and businesses. The summary provides names of businesses and draws attention to situations in which a cluster of businesses in the same sector are located.



Hanson Downingtown Quarry in Chester County, Pennsylvania.
Source DVRPC



Limerick Nuclear Generation Station in Montgomery County, Pennsylvania.
Source Wikipedia

Adjacent Land Use and Buffer Zones

This section describes the non-freight-related land use that is adjacent to the Freight Center. When considering the future of a center and its ability to grow, the surrounding land use is vitally important. Buffer zones are also important for centers near residential communities. These zones can range from a wide area of open space, a transition land use (e.g. a commercial district separating the Freight Center and residential community), or simply a line of trees along the edge of a property (as in the photo to the right).



*Roosevelt Paper in
Burlington County, New Jersey.
Source DVRPC*

Transportation Report

For each center, basic information about the transportation facilities which serve the center is provided in the profile under the following headings:

- 📍 **Interstates and Freeways:** The Interstates, US Routes, and other limited-access roadways which provide the most efficient means of over-the-road transportation for each center.
- 📍 **Local / Connectors Roadways:** The state, county, and local roads that provide access from the center to the highway system. These “last mile / first mile” connections are vitally important and often overlooked. For intermodal facilities these connections are known as NHS Connectors and are an official part of the National Highway System. While most centers do not have officially designated NHS connectors, the last and first miles are still crucial.
- 📍 **Rail Access:** The region has a dense system of both Class I and shortline railroads. This section discusses how local rail deliveries are made in a center and how those deliveries are linked to the larger rail system.

Legend for Map and Table Contents

The following are the definitions for the contents of the maps and tables contained in Chapters 3, 4, and 5:

- ✎ **Name:** The Freight Center names are based on two of the following attributes: the township the center is located in, a major facility in the center, a piece of common infrastructure, or a general geographic area.
- ✎ **Center Type:** There are three types of Freight Centers: Mega, Major, and Intermediate. For the complete definition of each see page 17.
- ✎ **Total Acres:** Total acres of freight-related land uses as derived from the center profile maps. DVRPC used GIS to calculate the acreages once mapped. Total acres include all land highlighted regardless of if the land is currently active. Additionally, land for which the future is unclear, such as the Marcus Hook Refinery, is also included in all totals in this report.
- ✎ **Total Jobs:** DVRPC derived this data on a census tract level for each center. The census tracts are typically a good fit with the Freight Center limits, but some are slightly larger than the corresponding center.⁴
- ✎ **Major Highways:** Major highways are shown in purple on all Freight Center profile maps. These roads represent all toll roads, interstates, US routes, and state routes.
- ✎ **Local Roads:** Major local roads are shown with solid gray lines on each profile map. In Pennsylvania, the displayed roads are all state maintained local roads, while in New Jersey they are defined as County Routes in the 500 or 600 series.
- ✎ **Freight Rail Network:** The freight rail network is shown in orange of each map and represents all rail with freight trackage rights, regardless of ownership. The freight rail network as shown focuses on main and secondary lines and industrial track, but does not generally show sidings and spurs into individual facilities.

DVRPC 2005 Land Use Data versus Freight Center Land Use Types

DVRPC primarily uses aerial photography to designate each land parcel in the region into one of 31 different land use categories. Of these 31, four share a name and have a similar definitions as the six freight-related land uses put forward in this report. They are Light Manufacturing, Heavy Manufacturing, Quarry / Mining, and Utility.

⁴ U.S. Census Bureau. 2011. OnTheMap Data. Longitudinal-Employer Household Dynamics Program. <http://lehd.did.census.gov/led/onthemap/>

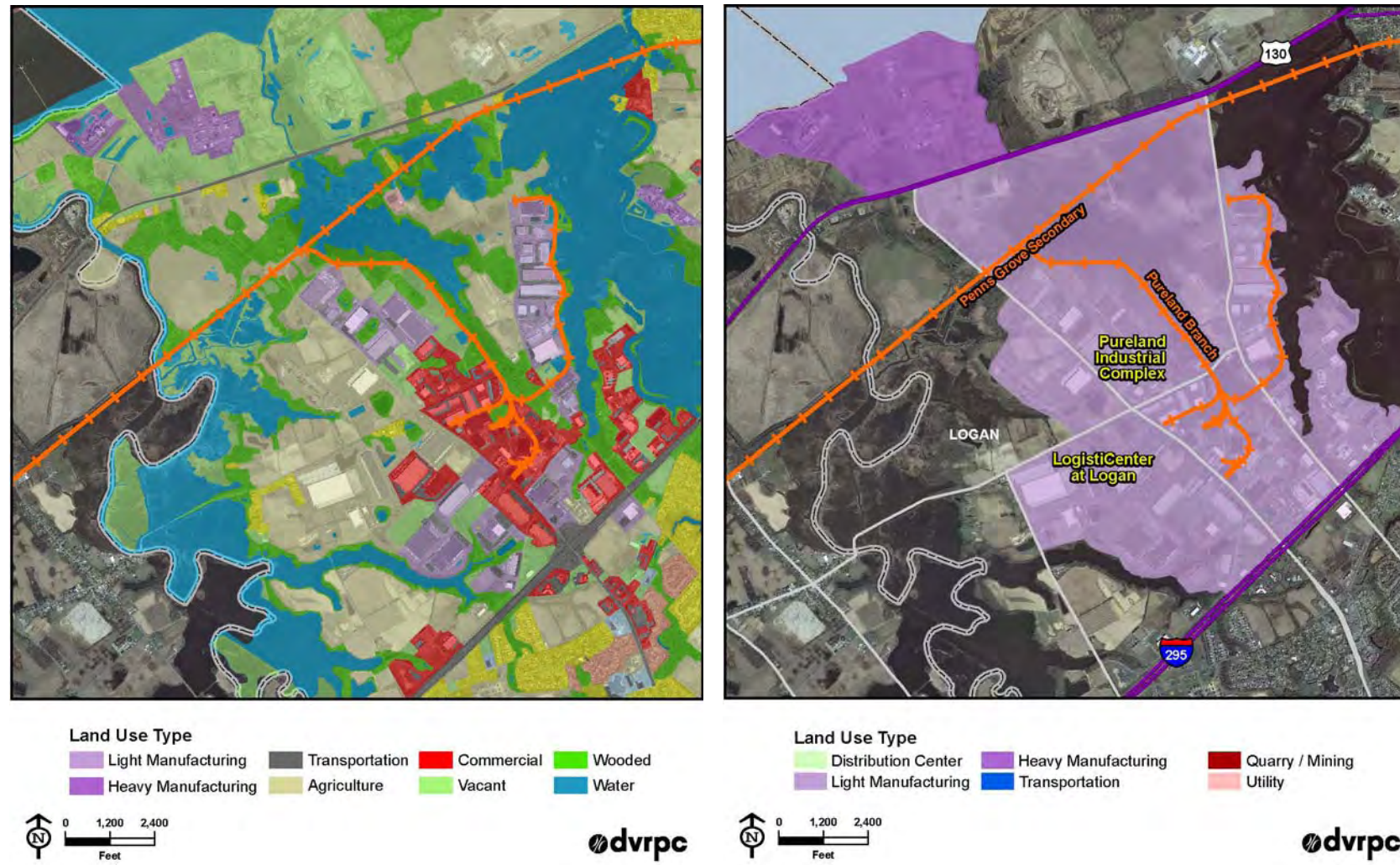
Transportation and Distribution are the two categories contained in this inventory, which vary significantly from the DVRPC 2005 land use data. In the DVRPC land use data Transportation is defined primarily as the physical transportation infrastructure (e.g., the physical roadway or rail line). In this inventory the physical transportation infrastructure is identified, but is not included as freight-related land use under any category. Transportation is instead made up of transportation facilities (e.g., ports and rail yards). Because of this difference in definition no comparison can be made. Distribution is a new category being introduced for the first time. In the DVRPC 2005 land use data most of the land that is designated to distribution in this inventory was previously categorized as either light manufacturing or commercial.

(Disclaimer: These designations contained in this study are for the purposes of this report only and will not be reflected as official changes in the DVRPC 2005 land use data.)

As mentioned on page 19, for all six of these categories the inventory designates parcel blocks as one land use based on the primary activity. This differs from the methodology of the DVRPC land use data which separates parcels for different land uses (for example, the parking lot of a facility is classified separately from the building). Because of this even for the four categories which have similar definitions, no direct comparisons between the acreage is appropriate.

Figure 6 provides a vivid example of the difference between the DVRPC 2005 land use data and the approach applied in this inventory. The majority of the Logan / Pureland Freight Center was originally (shown in Figure 6 on the left) designated either Agricultural or Commercial land use. Based on the field views conducted for this report, all of this land is currently used or has plans to be used by freight-related businesses. This is reflected in the image, where a large light manufacturing area has been identified.

Figure 6: Logan / Pureland (Left: DVRPC 2005 Land Use Layer; Right: Freight Center Land Use Types)



CHAPTER 3

Mega Freight Centers

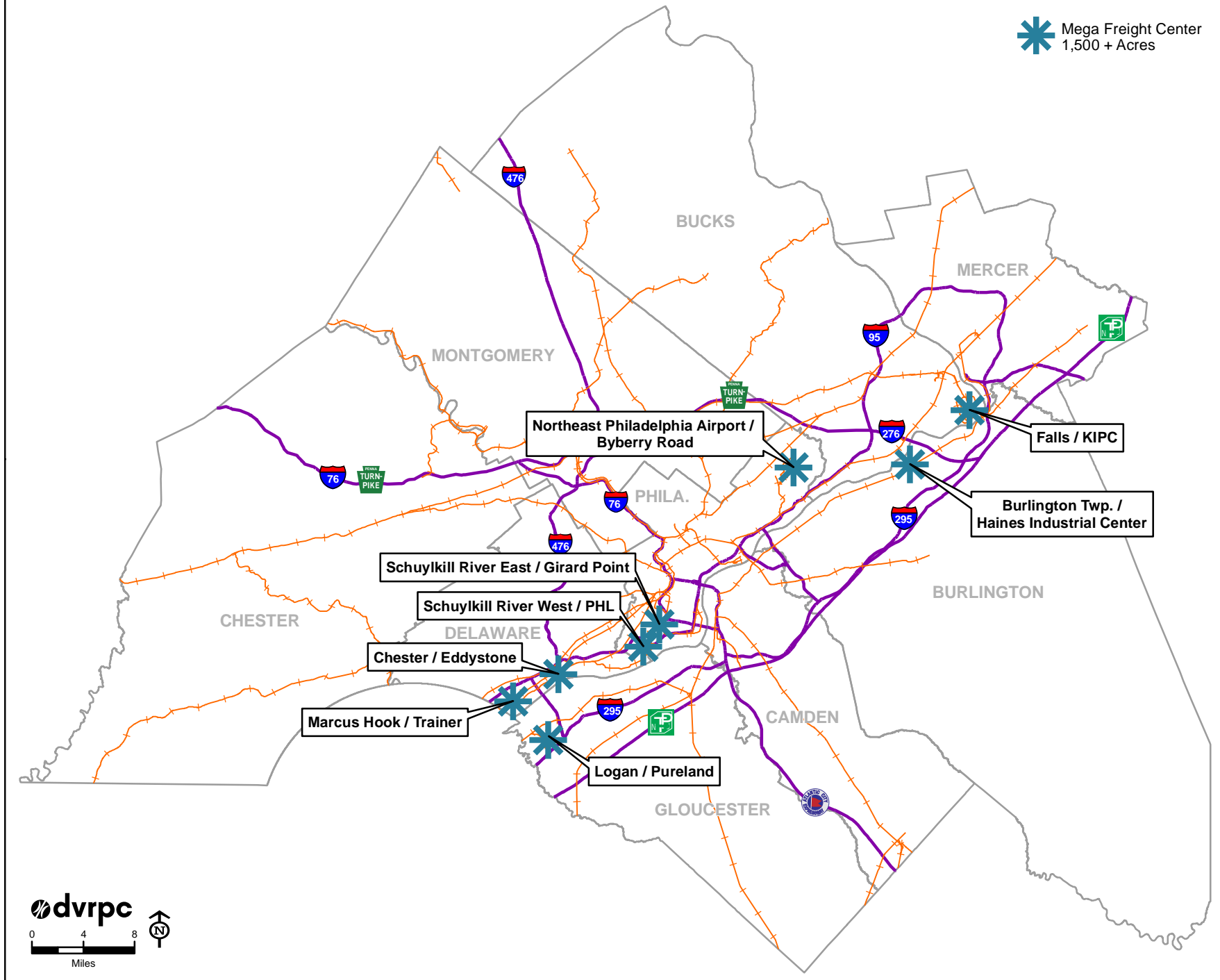
With 19,360 acres of freight-related land and 81,884 total jobs the eight Mega Freight Centers act as the heart of the Delaware Valley’s freight network. Mega Freight Centers are the largest of the centers inventoried, and are defined as having at least 1,500 acres of freight-related land uses or over 3,000 manufacturing jobs. The freight-related land in these centers tends to be more contiguous than with the other two designations. The highways and railroads used to access these centers are particularly important because they may serve thousands of acres of land, thousands of employees, and hundreds of trucks and rail cars each day. Of the eight Mega Freight Centers, seven have a portion that is adjacent to the Delaware or Schuylkill River. Additionally, all 8 are served, or have the possibility of being served, by at least three different modes of transportation.

Table 2: Mega Freight Centers

Name of Center	County Located	Total Acreage	Total Jobs
Falls / KIPC	Bucks	4,507	1,580
Schuylkill River West / PHL	Philadelphia / Delaware	4,108	22,548
Logan / Pureland	Gloucester	2,648	7,275
Northeast Philadelphia Airport / Byberry Road	Philadelphia	2,315	23,104
Schuylkill River East / Girard Point	Philadelphia	1,794	6,085
Marcus Hook / Trainer	Delaware	1,528	2,381
Burlington Twp. / Haines Industrial Center	Burlington	1,517	6,019
Chester / Eddystone	Delaware	943	12,892
Total		19,360	81,884

Source U.S. Census Bureau 2011, DVRPC 2011

FIGURE 7: DELAWARE VALLEY MEGA FREIGHT CENTERS

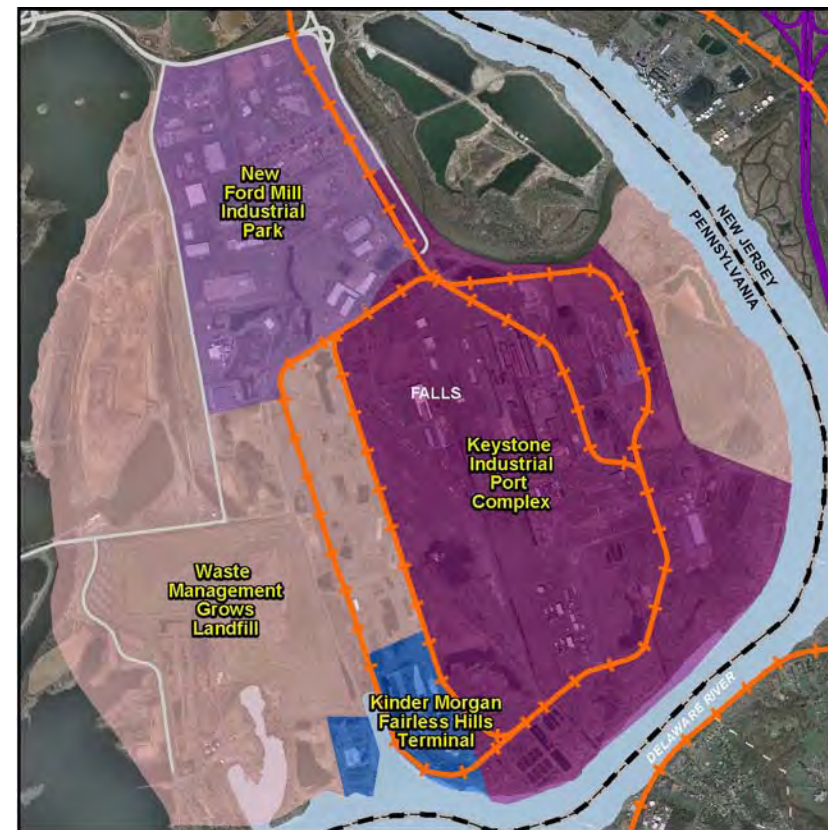


Falls / Keystone Industrial Port Complex

Falls Township, Bucks County

Land Use and Business Summary: This Mega Freight Center has mostly heavy manufacturing and utility land uses, along with some light manufacturing and transportation. The Keystone Industrial Port Complex (KIPC) is located on the former site of a US Steel plant. It is being redeveloped as a hub of manufacturing businesses to take advantage of the infrastructure that services the area. Kinder Morgan operates a chemical facility, as well as a full service port operation and the rail lines within the complex. Another company in KIPC is the Gamesa Wind Corporation, which assembles nacelles, the piece of equipment that connects the base of a wind turbine to the blades. The New Ford Mill Industrial Park is a large industrial park with mostly smaller buildings. One company in the park is Sims Metal Management, which recycles metal for new uses. In the southeast quadrant sits the Grows Landfill, which is owned and operated by Waste Management.

Figure 8: Freight-Related Land Use Types within Falls / Keystone Industrial Port Complex



Land Use Type

■ Distribution	■ Heavy Manufacturing	■ Quarry / Mining
■ Light Manufacturing	■ Transportation	■ Utility

0 1,250 2,500
Feet

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Adjacent Land Use and Buffer Zones: The center is surrounded by water (i.e., the Delaware River) on three sides, which provides a buffer from other land uses such as residential or commercial.

Interstates and Freeways: To the north of the center is US 1, a limited access highway that connects into I-95.

Local / Connector Roadways: Pennsylvania Avenue runs from US 1 to the front gate of the Keystone Industrial Port Complex and is an officially designated NHS connector. Tyburn Road to US 13 is also used by trucks to access US 1.

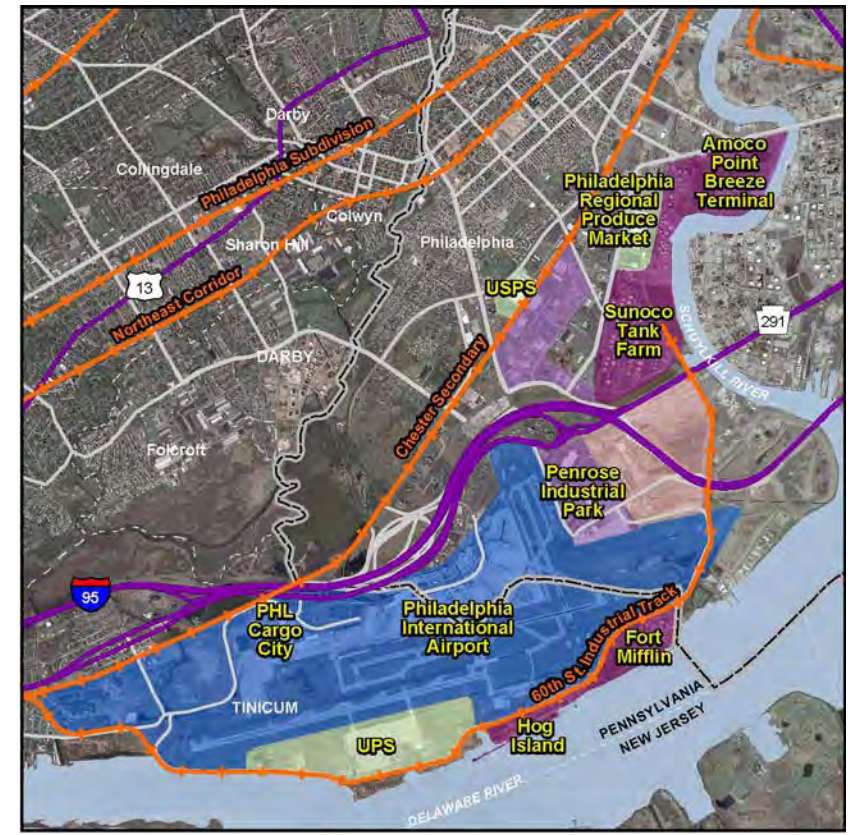
Rail Access: Kinder Morgan operates the rail line within this center and Conrail switches the rail cars with Norfolk Southern in the Morrisville Rail Yard. From there the cars connect into the Morrisville Line and ultimately the Harrisburg Line. Additionally, just north of this center is a 14 acre transload facility owned by Tyburn Railroad, LLC.

Schuylkill River West / Philadelphia International Airport

Philadelphia City and Tinicum Township, Delaware County

Land Use and Business Summary: This Mega Freight Center contains five of the six different types of land uses contained in this inventory. The Philadelphia International Airport is the hub of this center. It serves mostly passenger aviation, but has freight capacity through belly cargo and night time freight dedicated service. Cargo City is the focal point of much of this activity, along with the nation's second largest UPS Distribution Center. Two other distribution centers are located here, the Philadelphia Regional USPS facility, and the Philadelphia Regional Produce Market, which brands itself as the world's largest refrigerator.

Figure 9: Freight-Related Land Use Types within Schuylkill River West / Philadelphia International Airport



Cargo City is the focal point of much of this activity, along with the nation's second largest UPS Distribution Center. Two other distribution centers are located here, the Philadelphia Regional USPS facility, and the Philadelphia Regional Produce Market, which brands itself as the world's largest refrigerator. There are four heavy manufacturing facilities. Hog Island and Fort Mifflin are both owned by Sunoco and receive ships laden with crude oil; additionally, there are two tank farms located along the Schuylkill River, one owned by Sunoco and the other by Amoco. One other notable facility in this center is a regional warehouse for the Pennsylvania Liquor Control Board located in the Penrose Industrial Park. The Philadelphia Water Department owns water treatment facilities to the east of the Airport.

Adjacent Land Use and Buffer Zones: Nearby residential communities in Philadelphia are buffered by a series of hotels, airport parking, and an auto mall. The residential community of Tinicum on the western edge of the center has less of a buffer.

Interstates and Freeways: I-95 runs through the center.

Local / Connector Roadways: Hog Island Road, Island Avenue, and Bartram Avenue make up an officially designated NHS Connector serving this Center. US 291 and Essington Avenue are also essential roadways for local access.

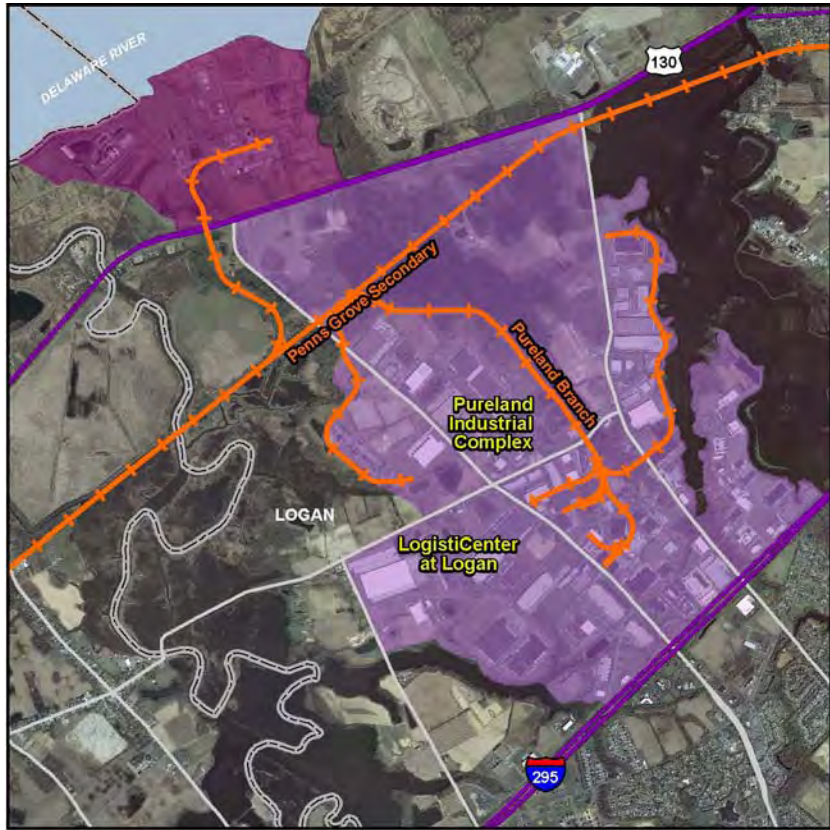
Rail Access: This center has access provided by the Chester Secondary and the 60th Street Industrial Track. The Chester Secondary connects to the CSX Philadelphia Subdivision just north of the center.

Logan / Pureland

Logan Township, Gloucester County

Land Use and Business Summary: This Mega Freight Center contains two large light manufacturing concentrations in the Pureland Industrial Complex and the LogistiCenter at Logan, as well as a heavy manufacturing area. Much of the center fits the

Figure 10: Freight-Related Land Use Types within Logan / Pureland



category of light manufacturing because of the diverse mix of production, distribution, and service facilities located within them. A sampling of some of the businesses located within the Center is: Mitsubishi Motor Sales, Home Depot Distribution Center, Freightliner, Drugstore.Com, U.S. Food Service, and Advanced Drainage Systems. Both light manufacturing areas are branded: Pureland Industrial Complex is marketed by the Pureland Group, while the LogistiCenter is marketed by DP Partners. The Heavy Manufacturing area in the north of the center is made up of the Ferro Corporation and a site known as Crown Landing, which was proposed to be a Liquefied Natural Gas facility in 2003. After a lengthy legal battle and change of ownership the future of the site is uncertain, but it is currently owned by the Hess Corporation.

Adjacent Land Use and Buffer Zones: The center is well-buffered from any residential communities and has nearby commercial amenities, such as restaurants, grocery stores, and hotels.

Interstates and Freeways: I-295 is directly adjacent to the center. I-95 and the New Jersey Turnpike are also in close proximity.

Local / Connector Roadways: Center Square Road connects to I-295, with many local roads providing internal movements through the center. US 130 runs along the northern edge of the center, and US 322, which connects to I-95 and the NJ Turnpike, is just outside the scope of the map.

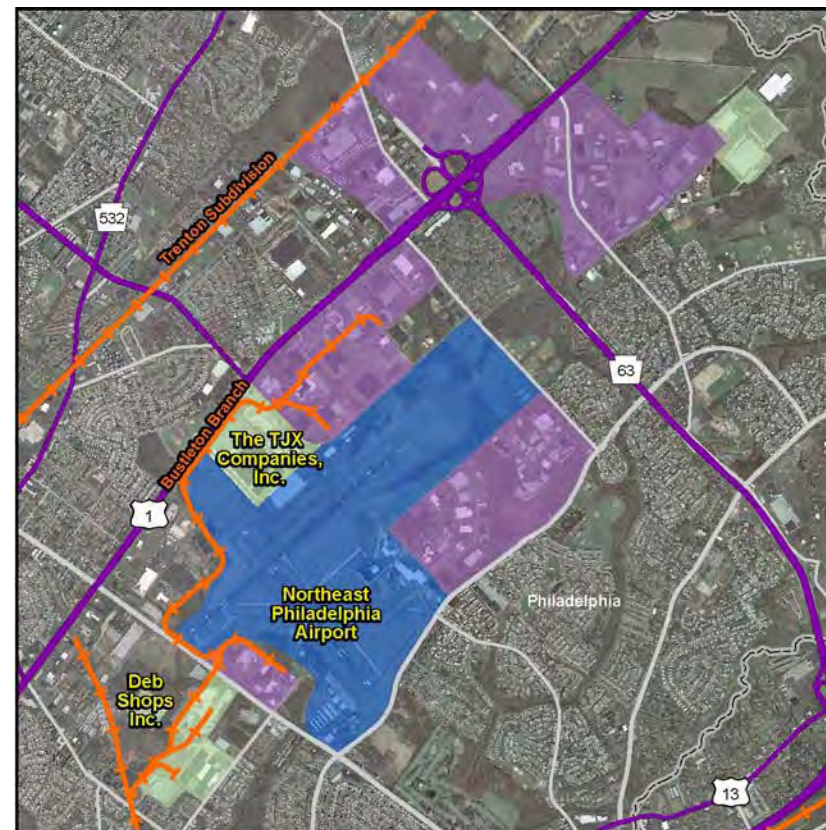
Rail Access: SMS Rail Lines runs service throughout the center. SMS switches with Conrail along the Penns Grove Secondary. The Penns Grove Secondary feeds into the Vineland Secondary, then the RiverLine, and then the Delair Bridge, which connects into the North American rail network.

Northeast Philadelphia Airport / Byberry Road

Philadelphia City

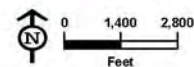
Land Use and Business Summary: This Mega Freight Center includes transportation, light manufacturing, and distribution land uses. The Northeast Philadelphia Airport is at the middle of the center, and while it does not have much freight activity, it does

Figure 11: Freight-Related Land Use Types within Northeast Philadelphia Airport / Byberry Road



Land Use Type

■ Distribution	■ Heavy Manufacturing	■ Quarry / Mining
■ Light Manufacturing	■ Transportation	■ Utility



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support freight-related businesses. The largest airport-related business is an AgustaWestland facility, which serves as the U.S. Headquarters and the parts supply depot for the Americas. Other illustrative light manufacturing businesses in this center include Allied Tube and Conduit, an industry leader in electrical and metal products; a production facility for Kraft Foods, specializing in baked goods such as crackers and cookies; and Catalent Pharma Solutions, a worldwide pharmaceutical company that maintains its packaging and printing division here. The distribution land uses in this center consist of two major clothing facilities: one for the TJX Companies, who supply apparel to TJ Maxx and Marshalls, and the Deb Shops, Inc. regional distribution center. In addition to clothing there is a concentration of beer distributors located in this center, as well as a FedEx Ground Facility.

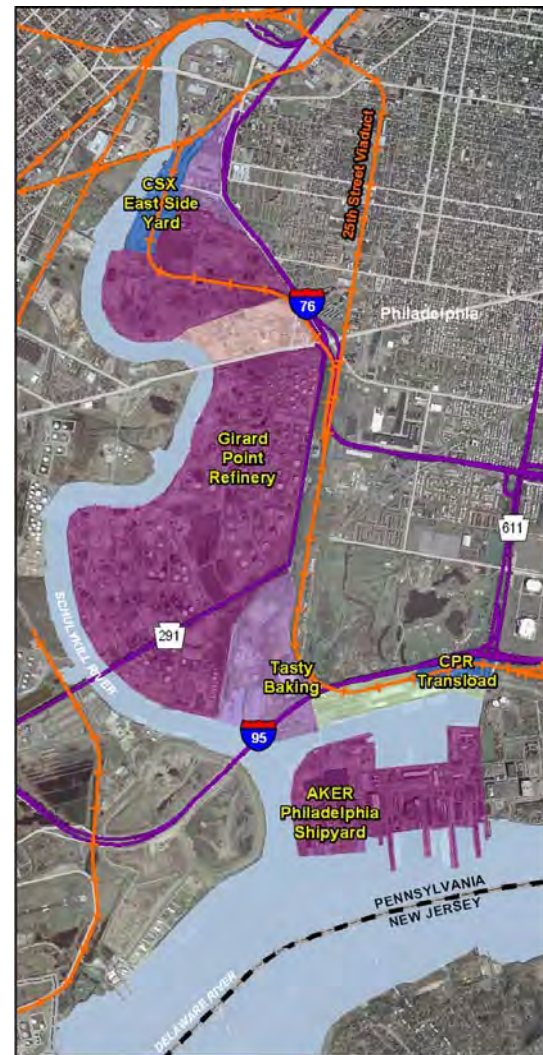
Adjacent Land Use and Buffer Zones: There is significant and dense residential housing near the center on most sides. Along US 1 there has been significant commercial growth which provides a buffer for the center, but also threatens to further expand into freight-related land areas.

Interstates and Freeways: US 1, Roosevelt Boulevard, a 12-lane surface arterial with local and express lanes and select at-grade intersections, runs through the center. The nearest Interstate is I-95 which is roughly 2 miles east of the center.

Local / Connector Roadways: Due to the size of this center there are many local roads, but Woodhaven Road (PA 63) and Cottman Avenue are the most important for providing Interstate access.

Rail Access: The Bustleton Branch is owned by Conrail and operated in this center by East Penn Railroad LLC. It can connect to CSX or Norfolk Southern (via Conrail) at the Northeast Corridor.

Figure 12: Freight-Related Land Use Types within Schuylkill River East / Girard Point



Schuylkill River East / Girard Point

Philadelphia City

Land Use and Business Summary: This Mega Freight Center is centered around the region's largest heavy manufacturing facility, the Girard Point Refinery, and also includes areas of light manufacturing, transportation, and distribution center land uses. The Girard Point Refinery, currently owned by Sunoco, has production capabilities of more than 300,000 barrels (12,000,000 U.S. gallons) per day of gasoline. It can produce all grades of gasoline required in Pennsylvania, New Jersey, New York, Delaware and Maryland, including sub-octane grades for blending with ethanol. At the time of this report's publication the future of the Girard Point Refinery remains unclear, as Sunoco announced the property is for sale. The other heavy manufacturing facility in this center produces the largest product in the region. The Aker Philadelphia Shipyard has two dry docks that are producing ships for commercial shipping. Of the light manufacturing facilities, the most well known is the Tasty Baking facility where all types of Tastykake products are made. There are two rail-oriented areas of transportation land use. The CSX Eastside Yard serves as both a general classification rail yard for CSX, and is the home to a Transflo facility where trucks can pick up bulk materials that are brought to the yard in liquid or pellet form for transfer via hose. A Canadian Pacific facility is operated by CPR Transload and is used for transporting bulk materials. There is a collection of small warehouses surrounding the CPR Transload facility.

Adjacent Land Use and Buffer Zones: The northern section of this center is bordered by dense residential communities with I-76 separating them from the Girard Point Refinery. The southern section of the center is well-buffered by FDR Park.

Interstates and Freeways: I-76 and I-95 both run through this center.

Local / Connector Roadways: 26th Street, Passyunk Avenue, and US 291 are the main access roads for I-95 and I-76. The CSX transload facility is served by a series of local roads that are classified as NHS Connector roadways.

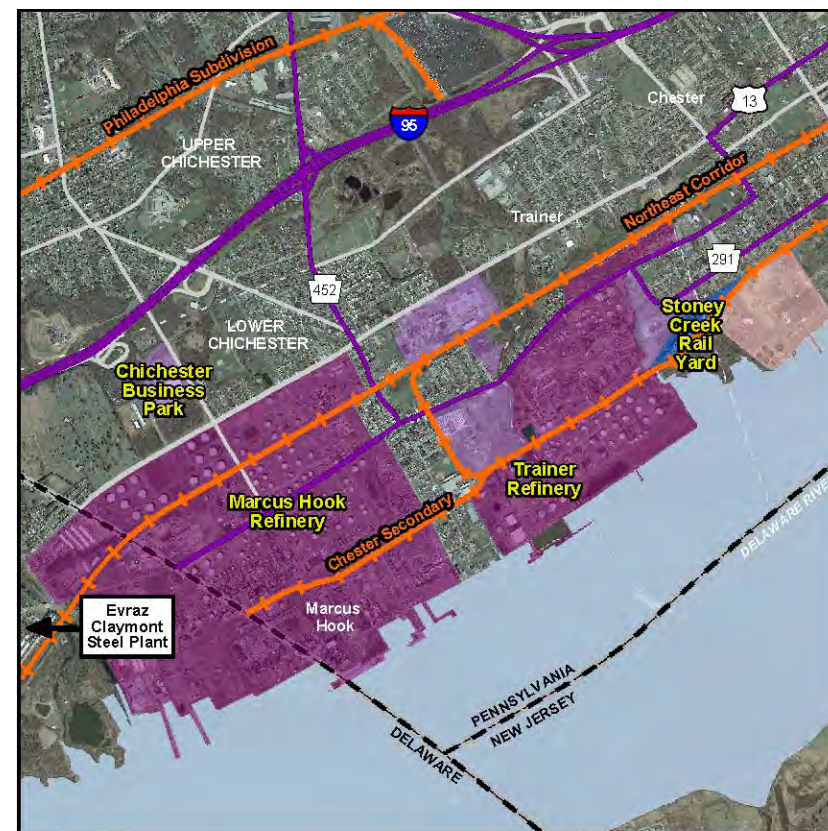
Rail Access: The South Philadelphia lead track leads to and from the 25th Street Viaduct, which provides access for three Class I railroads. The Eastside Yard is ideally located to serve north and southbound interstate rail traffic via the Trenton and Philadelphia Subdivisions, both owned by CSX.

Marcus Hook / Trainer

Lower Chichester Township and Marcus Hook and Trainer Boroughs, Delaware County

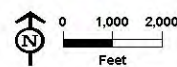
Land Use and Business Summary: This Mega Freight Center is home to two heavy manufacturing facilities, some small light manufacturing land uses that have cropped up adjacent to them, and a transportation and a utility facility. The Marcus Hook Refinery is capable of refining and processing 175,000 barrels per day into a wide range of petroleum and petrochemical products. The Trainer Refinery, currently owned and operated by Conoco Phillips, has a crude oil processing capacity of 185,000 barrels per day and processes mainly light, low-sulfur crude oil. As of the publication of this report, the future of the refineries in this center remains unclear. Sunoco has closed the Marcus Hook Refinery and both of the refineries are for sale. To the south of this center, in Delaware, is another heavy manufacturing facility, the Evraz Claymont Steel Plant. The light manufacturing areas are highlighted by the Chichester Business Park, whose largest tenant is a FedEx facility. The Stoney Creek Rail Yard to the north of the center is serviced by Conrail and services the two refineries with tanker cars. At the extreme northern edge of the center is a pair of county utility facilities managing municipal waste and waste water.

Figure 13: Freight-Related Land Use Types within Marcus Hook / Trainer



Land Use Type

■ Distribution	■ Heavy Manufacturing	■ Quarry / Mining
■ Light Manufacturing	■ Transportation	■ Utility



Adjacent Land Use and Buffer Zones: There is little buffer between the two refineries and the surrounding communities.

Interstates and Freeways: I-95 is just north of the Center.

Local / Connector Roadways: US 13 is used as the corridor for trucks that enter the refineries. From US, 13 trucks can use PA 452 to access I-95 at Interchange 2 or use Chichester Avenue to access I-95 at Interchange 1.

Rail Access: Both the refineries are rail-served via the Chester Secondary. The Chester Secondary connects to the Interstate rail system at its junction with the CSX Philadelphia Subdivision. The Northeast Corridor also runs through the center, carrying mostly passenger traffic, including local SEPTA trains.

Burlington Township / Haines Industrial Center

Burlington and Florence Townships, Burlington County

Land Use and Business Summary: This Mega Freight Center is made up of mostly distribution land uses, but also houses two heavy manufacturing facilities, two small areas of light manufacturing, and a utility facility. The most prominent cluster in this center is the Haines Industrial Center, which is owned and developed by the Whitesell Construction Company. Major tenants include distribution centers for BJ's and the Christmas Tree Store. Other distribution land uses include a Burlington Coat Factory Distribution Center (this facility is also their corporate headquarters), a U.S. General Services Administration distribution center, and an area of land south of the Haines Industrial Center on which new distribution centers are planned. Next to the Haines Industrial Center is a National Gypsum facility, which has a dock where barges bring in gypsum ash which is manufactured into wallboards and distributed out of this facility. The other heavy manufacturing facility is U.S. Pipe which produces ductile iron pipe and fittings for the water and wastewater industries.

Figure 14: Freight-Related Land Use Types within Burlington Township / Haines Industrial Center



Adjacent Land Use and Buffer Zones: The New Jersey Turnpike and US 130 provide a buffer for the Haines Industrial Center from nearby residential development.

Interstates and Freeways: The New Jersey Turnpike Extension is adjacent to this center, which connects into both the Pennsylvania and New Jersey Turnpikes.

Local / Connector Roadways: Neck Road runs along the Delaware River and provides access to US 130. Daultys Lane and John Gait Way are local roadways within the Haines Industrial Center and connect directly to US 130. US 130 connects into the New Jersey Turnpike Extension.

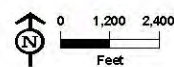
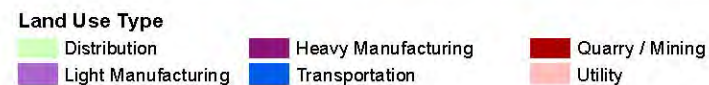
Rail Access: Passenger rail service provided by the RiverLine, which is owned by New Jersey Transit. Conrail also has trackage rights to run freight at night. The RiverLine feeds into the Delair Bridge which connects into the North American rail network.

Chester / Eddystone

Eddystone Borough and Chester City, Delaware County

Land Use and Business Summary: This Mega Freight Center contains heavy manufacturing, light manufacturing, transportation, distribution and utility land uses. There are three heavy manufacturing facilities: a Boeing facility, which contributes to the

Figure 15: Freight-Related Land Use Types within Chester / Eddystone



manufacturing of both the V-22 Osprey and the CH-47 Chinook; a Kimberly Clark Facility, which manufactures and distributes Scott Paper Products; and Piasecki Aircraft Group, which conducts research and development towards the advancement of aviation technologies. In the middle of the center is Penn Terminals. Penn Terminals is a privately owned port which handles container, perishable, project and other breakbulk cargoes. Scattered amongst these facilities and along the waterfront are light manufacturing and distribution areas named the Eddystone Industrial Center and the Riverbridge Industrial Complex. One business is M. Gerace Inc., a full service trucking and warehousing company, including crossdock and transload services. A utility facility, the PECO Generation Station, supplies power to homes and businesses throughout the region.

Adjacent Land Use and Buffer Zones: In both Eddystone and Chester, residential development is adjacent to the industrial land, with the primary buffer being provided by US 291.

Interstates and Freeways: I-95 is adjacent to the center with direct access at multiple interchanges; however, due to the residential nature of the nearby communities, and the height restrictions caused by the overhead Amtrak line, most companies advise trucks to use Interchange 8 (Stewart Avenue). I-476 is also conveniently nearby.

Local / Connector Roadways: Stewart Avenue is the local road used by most trucks to connect I-95 to US 291. There are a series of small local roads which connect US 291 to the businesses.

Rail Access: The center is served by the Chester Secondary, which is owned and operated by Conrail. The Chester Secondary connects into the North American rail network in Philadelphia.

CHAPTER 4

Major Freight Centers

Totaling 11,365 total acres and 106,504 jobs, Major Freight Centers provide strong economic benefits to both their host counties and the DVRPC region. Major Freight Centers are large, between 700 and 1,499 acres of freight-related land use, or 250-699 acres with over 3,000 manufacturing jobs. Major Freight Centers hold some highly significant facilities, such as the largest port facility in the region, the Packer Avenue Marine Terminal in the South Philadelphia / Packer Avenue Freight Center, and the largest provider of manufacturing employment, Merck's West Point facility in the Upper Gwynedd / West Point Freight Center. Seven of the nine counties in the DVRPC region have a Major Freight Center and six of the Major Freight Centers are located along the Delaware River.

Table 3: Major Freight Centers

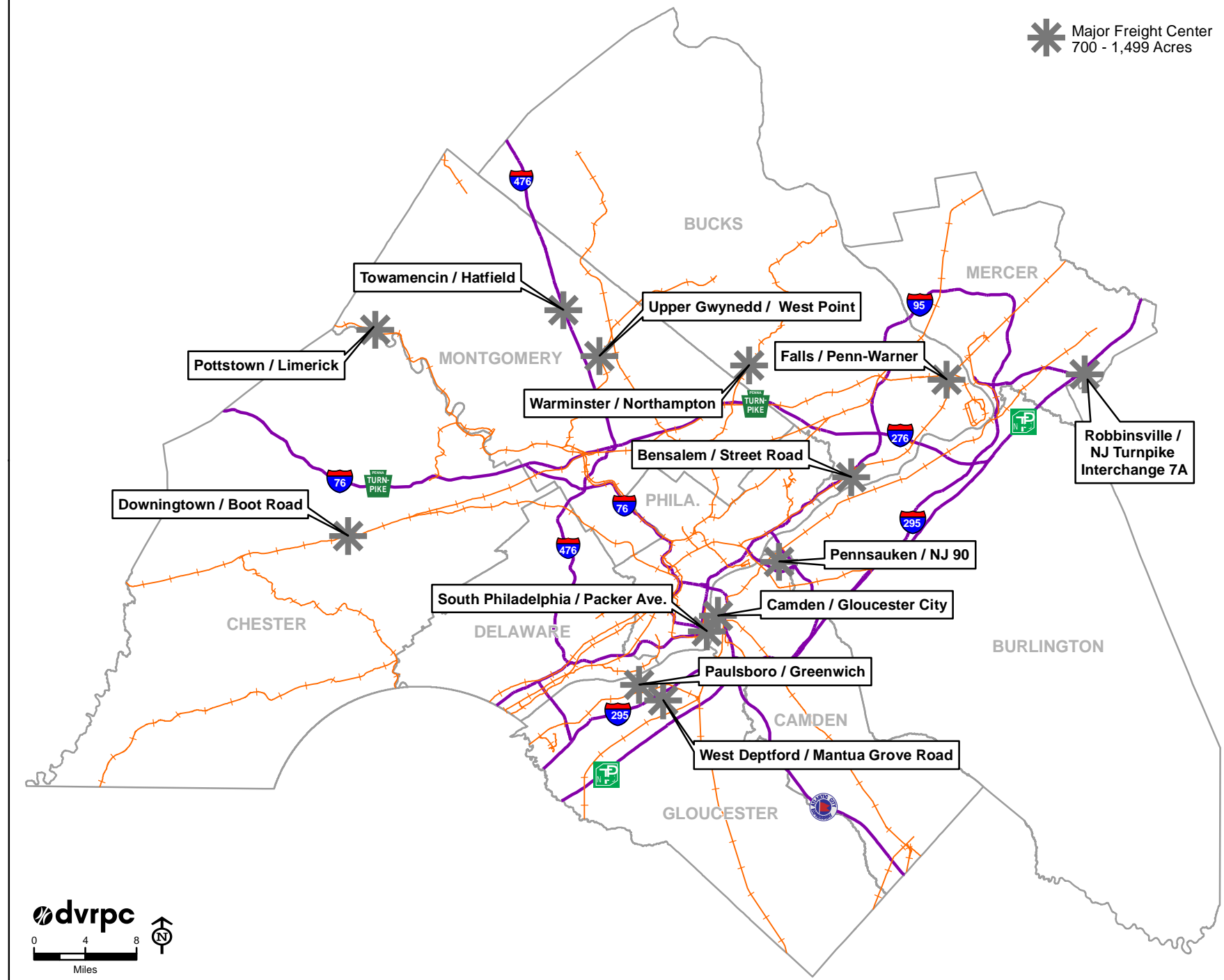
Name of Center	County Located	Total Acreage	Total Jobs
Paulsboro / Greenwich	Gloucester	1,495	5,844
South Philadelphia / Packer Avenue	Philadelphia	1,282	8,767
Warminster / Northampton	Bucks	957	12,483
Pennsauken / NJ 90	Camden	936	6,810
West Deptford / Mantua Grove Road	Gloucester	930	7,571
Robbinsville / NJ Turnpike Interchange 7A	Mercer	907	6,244
Downingtown / Boot Road	Chester	787	9,137
Falls / Penn-Warner	Bucks	773	2,581
Bensalem / Street Road	Bucks	735	7,208
Camden / Gloucester City	Camden	735	4,072

Table 3: Major Freight Centers, continued

Name of Center	County Located	Total Acreage	Total Jobs
Pottstown / Limerick	Montgomery	702	9,215
Upper Gwynedd / West Point	Montgomery	670	17,750
Towamencin / Hatfield	Montgomery	456	8,822
Total		11,365	106,504

Source U.S. Census Bureau 2011, DVRPC 2011

FIGURE 16: DELAWARE VALLEY MAJOR FREIGHT CENTERS



Paulsboro / Greenwich

Greenwich and West Deptford Townships, and Paulsboro Borough, Gloucester County

Land Use and Business Summary: This Major Freight Center has a cluster of heavy manufacturing facilities. The focal point of the center is the Paulsboro Refinery, currently owned by PBF Energy (previously owned by Valero). A former BP Oil Corporation facility is being redeveloped in Paulsboro as a general cargo terminal by the South Jersey Port Corporation, and will be known as the Port of Paulsboro. Also within the center are the Paulsboro Asphalt Refining facility, currently owned by Nustar Energy, and Plains Pipeline, both of which use the Delaware River to access barges carrying raw materials. Two facilities at the Southwestern end of the center are closed plants which are undergoing environmental remediation.

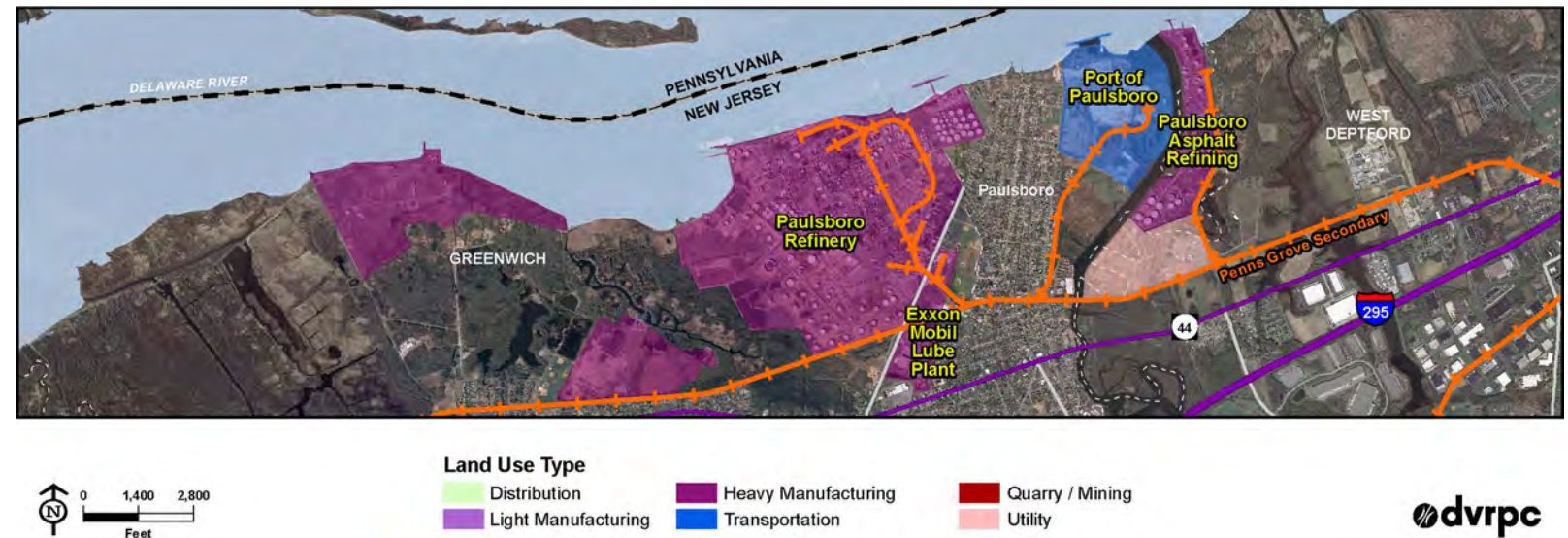
Adjacent Land Use and Buffer Zones: The residential community in Paulsboro sits directly between the Paulsboro Refinery and the Port of Paulsboro. Recent efforts have been made to redirect truck traffic out of the residential areas of Paulsboro by building a truck-only access road to connect the Port of Paulsboro with NJ 44.

Interstates and Freeways: I-295 Interchanges #16, #17, #18, and #19 are all in the vicinity.

Local / Connector Roadways: NJ 44 runs near the center providing truck access for each facility. From NJ 44, I-295 can be accessed using: Democrat Road, Harmony Road, Billingsport Road, Berkley Road, Delaware Street, or Mantua Grove Road.

Rail Access: The Penns Grove Secondary, which is owned and operated by Conrail, runs through the center. SMS Rail Lines switches with Conrail to manage rail traffic within the Paulsboro Refinery. The Penns Grove Secondary runs to the Vineland Secondary then to the RiverLine, and over the Delair Bridge, which connects into the rest of the North American rail network.

Figure 17: Freight-Related Land Use Types within Paulsboro / Greenwich



South Philadelphia / Packer Avenue

Philadelphia City

Land Use and Business Summary: The South Philadelphia / Packer Avenue Major Freight Center is the largest hub of freight transportation facilities for the Delaware Valley Region. Around these transportation facilities are also utility, distribution, light manufacturing, and heavy manufacturing land uses. The

Figure 18: Freight-Related Land Use Types within South Philadelphia / Packer Avenue



transportation land use is highlighted by the Packer Avenue Marine Terminal, the busiest port facility in the region, and the Greenwich Intermodal Rail Facility, owned by CSX, the largest intermodal rail facility in the region. In addition, there are a number of piers that receive various break bulk products, such as fruit, cocoa beans, and paper. A large port expansion, entitled Southport, is planned south of Packer Avenue Marine Terminal, hoping to capitalize on the growing international container business. Norfolk Southern also owns an intermodal rail yard in this center, the Mustin Field Yard. In terms of distribution land uses the largest site is the Food Distribution Center. This area services restaurants and other food related businesses. The largest tenant at the Food Distribution Center is Sysco. Heavy manufacturing is highlighted by a Hyundai facility in which new rail cars are being assembled for SEPTA. The utility land use in the center is a PECO generating station along a finger pier, and a water treatment plant just east of the Food Distribution Center.

Adjacent Land Use and Buffer Zones: This center has diverse neighboring land uses in the stadium complex, the Navy Yard, Interstate Highways, and a big box commercial corridor.

Interstates and Freeways: I-76 and I-95 run through this center.

Local / Connector Roadways: Access to the Interstate system is along Front Street, 7th Street, and Broad Street. There is an NHS Connector along Old Delaware Avenue serving the transportation facilities along the Delaware River.

Rail Access: This Center is served by three Class I railroads, CSX, Norfolk Southern, and Canadian Pacific, which permits inbound and outbound rail movements from every direction.

Figure 19: Freight-Related Land Use Types within Warminster / Northampton



Warminster / Northampton

Warminster, Northampton, and Warwick Townships, and Ivyland Borough, Bucks County

Land Use and Business Summary: This Major Freight Center is home to a number of light manufacturing industrial parks. Of the light manufacturing areas, the largest is in the north, the Northampton Industrial Park. This park contains many small facilities highlighted by a series of food service companies, including a NY Bagels wholesaler and a Neshaminy Valley Natural Foods Distributor. The nearby Warwick Commons Industrial Park is smaller; a sample business is Henry Schein, which is a distributor of healthcare products. The light manufacturing areas to the south are not as well connected or branded under a single industrial park name. Some illustrative businesses include: one of the Philadelphia Macaroni Company's three production facilities; Double H Plastics, which provides high quality plastic cores for the paper, film and foil converting industry; and Philip Rosenau Co., Inc., a distributor of sanitary maintenance supplies and equipment, supplying cleaning products to the janitorial industry. To the far south of the center is the Bonair Industrial Center, a small light manufacturing park highlighted by a Grainger industrial supply facility.

Adjacent Land Use and Buffer Zones: Residential communities border the industrial areas with little buffering. The area is an historic military facility, which has always had industry around it.

Interstates and Freeways: Both I-95 and I-276 (Pennsylvania Turnpike) are within 5 miles of the center.

Local / Connector Roadways: Street Road / PA 132 runs through the center and connects to I-95. PA 332 runs south to I-276. Along the western edge of the center Mearns Road, Ivyland Road and Bristol Road provide local traffic circulation.

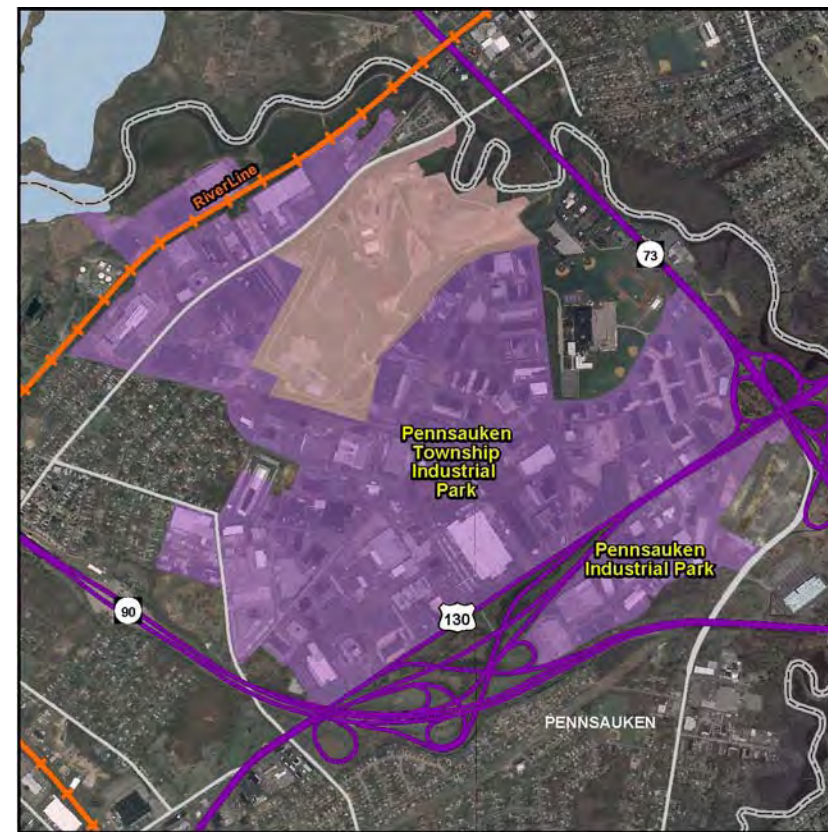
Rail Access: The Warminster Line, owned by SEPTA runs through the center, and while it mostly serves passenger trains, there is freight trackage rights on the line and some facilities have sidings directly into their facilities. The Warminster Line connects to the SEPTA Jenkintown / Lansdale Main Line which runs into the CSX Trenton Subdivision. Also, this center represents the point where the ownership changes from SEPTA to a shortline railroad named the New Hope and Ivyland.

Pennsauken / NJ 90

Pennsauken Township, Camden County

Land Use and Business Summary: This Major Freight Center contains mainly light manufacturing, with some utility land use in the form of a landfill. The largest aspect of this center is the Pennsauken Township Industrial Park. The area has industrial structures ranging from very small to very large. The largest building in the park is a bottling facility for Pepsi-Cola. The park has a great deal of trucking activity highlighted by truck depots for both Old Dominion Freight Line and New England Motor Freight.

Figure 20: Freight-Related Land Use Types within Pennsauken / NJ 90



Land Use Type

■ Distribution	■ Heavy Manufacturing	■ Quarry / Mining
■ Light Manufacturing	■ Transportation	■ Utility



dvrpc

Highlighting production in the park is a Barry Callebaut facility where chocolate products are made and developed.

Adjacent Land Use and Buffer Zones: Pennsauken High School is located adjacent to the Industrial Park, and there is a small residential community in between the Industrial Park and NJ 90. However, the rest of the industrial land is well buffered from the nearby communities by a network of limited access freeways and the Delaware River.

Interstates and Freeways: NJ 73 provides access to I-295 and the New Jersey Turnpike, while NJ 90 provides access to I-95 via the Betsy Ross Bridge.

Local / Connector Roadways: US 130 allows for local north – south movements, as well as the best connections onto NJ 90 and NJ 73. River Road runs along the western edge of the center and is designated an NHS Connector Roadway for Petty’s Island, which is just south of the center. Within the Pennsauken Township Industrial Park, John Tipton Highway carries traffic onto US 130 or River Road.

Rail Access: Local rail access is provided by the RiverLine, which is owned and operated by New Jersey Transit. Conrail has trackage rights to run freight on the line at night, and some facilities near the line have rail sidings. The RiverLine feeds into the Delair Bridge which connects into the North American rail network.

West Deptford / Mantua Grove Road

West Deptford Township, Gloucester County

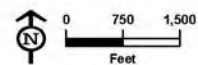
Land Use and Business Summary: This Major Freight Center has diverse types of land uses including heavy manufacturing, light manufacturing, and distribution. The Mid-Atlantic Corporate Center is a traditional industrial park with a range of companies including

USA Wood Doors, J. Ambrogi Food Distribution, and Marine Equipment and Supply. The Forest Park Corporate Center is a planned collection of seven buildings, all of which look identical and serve as distribution centers for various businesses. The largest and most well-known business in Forest Park is Nine West, which distributes shoes and clothing. To the southern end of the center is a former Shell Chemical Company facility that has been closed since 1999. The facility is in the process of being redeveloped with manufacturing facilities for Johnson Matthey (a specialty chemicals company), Bostik (a company that makes adhesives and sealants), and Coim USA (a manufacturer of chemical products) being located there. Colonial Pipeline's Woodbury Junction Tank Farm operates in the far southeastern corner of the center.

Figure 21: Freight-Related Land Use Types within West Deptford / Mantua Grove Road



Land Use Type		
■ Distribution	■ Heavy Manufacturing	■ Quarry / Mining
■ Light Manufacturing	■ Transportation	■ Utility



Adjacent Land Use and Buffer Zones: This center manages to be relatively well-buffered from residential development due to a series of parks, trees, and baseball fields.

Interstates and Freeways: I-295 interchanges #19 and #20 are adjacent to the center.

Local / Connector Roadways: Access to I-295 is provided by Mantua Grove Road and Grove Road. Local access is provided by a network of roads within the industrial areas, mainly Forest Parkway and Mid-Atlantic Parkway.

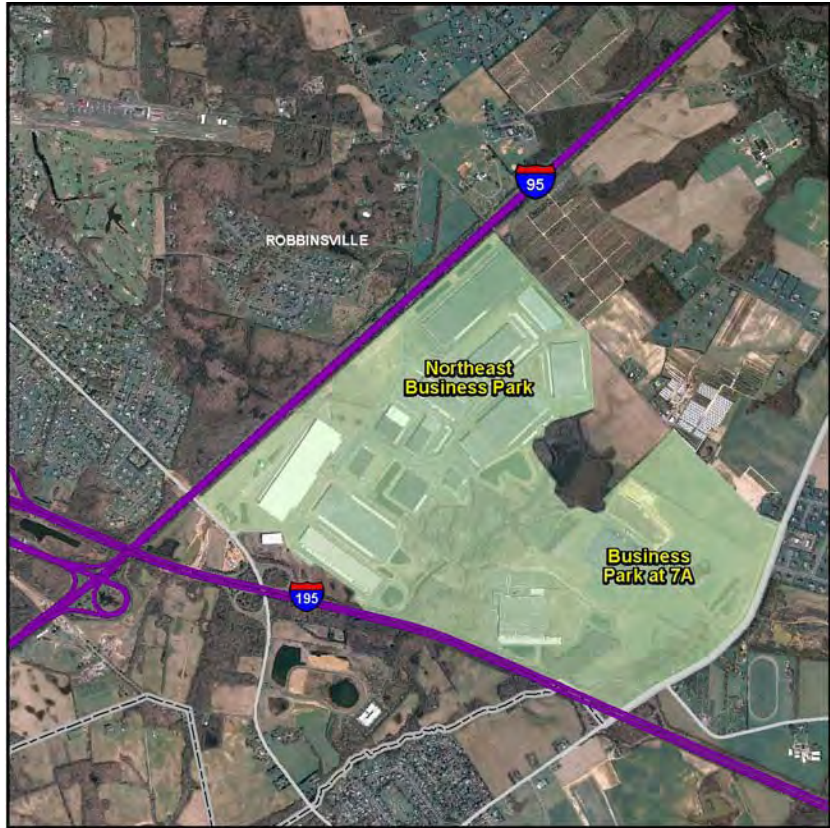
Rail Access: The Shell Industrial Track, which is owned and operated by Conrail, runs through the center with access into numerous facilities. The industrial track connects to the Penns Grove Secondary, which runs to the Vineland Secondary, the RiverLine, and over the Delair Bridge into the rest of the North American rail network.

Robbinsville / New Jersey Turnpike Interchange 7A

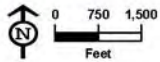
Robbinsville Township, Mercer County

Land Use and Business Summary: This Major Freight Center contains two adjacent clusters of distribution land. The Northeast Business Park and the Business Park at Exit 7A are both owned and managed by the Matrix Development Group. Both of these parks specialize in warehousing and distribution-related activities.

Figure 22: Freight-Related Land Use Types within Robbinsville / New Jersey Turnpike Interchange 7A



Land Use Type
 Distribution (Green)
 Light Manufacturing (Yellow)
 Heavy Manufacturing (Purple)
 Transportation (Blue)
 Quarry / Mining (Red)
 Utility (Pink)



Matrix Development Group constructs the buildings on speculation and then leases them to various companies. Some sample companies in the Northeast Business Park include Sleepy's, which specializes in mattresses; Lifetime Brands, which specializes in kitchenware under well known brand names such as Farberware, KitchenAid, and Cuisinart; and Grainger Industrial Supply, which is a distributor of industrial supplies, tools and materials. The Business Park at Exit 7A currently has just two buildings, one of which is a facility for Mercedes. Both parks are designated Foreign Trade Zones which enhances their attractiveness to potential users.

Adjacent Land Use and Buffer Zones: The center is well buffered by Interstate highways on two sides and open space and farm land on the other sides.

Interstates and Freeways: Two Interstate Highways, I-95 (New Jersey Turnpike), and I-195 intersect directly adjacent to this industrial center. Access to I-195 is available at interchanges #7 and #7A and access to I-95 can be made via I-195.

Local / Connector Roadways: Robbinsville – Allentown Road provides local access to Interchange 7, and Old York Road provides local access to Interchange 7A. Within the Northeast Business Park, West Manor Way is the main local road and within the Business Park at 7A, New Canton Way is the main local road.

Rail Access: There is no direct rail service to this center.

MAJOR FREIGHT CENTER

Downingtown / Boot Road

East Caln and West Whiteland Townships, and Downingtown Borough, Chester County

Land Use and Business Summary: This Major Freight Center has areas of light manufacturing and a large quarry / mining facility in the middle tying everything together. The Trestle Bridge Business Center, Downingtown Industrial Park, and Clover Mill Commerce Center are all located along the Amtrak Keystone Corridor. These parks have a wide array of businesses, including a cluster of industrial design and packaging companies. Rite Envelope & Graphics designs and creates custom envelopes and paper products; Tri-Pac Inc. specializes in packaging and delivering jewelry and skin care products; and Dupaco Inc. creates innovative packaging for the food industry. The Hanson Downingtown Quarry extracts rock and crushes it into gravel for use in various construction applications.

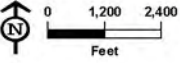
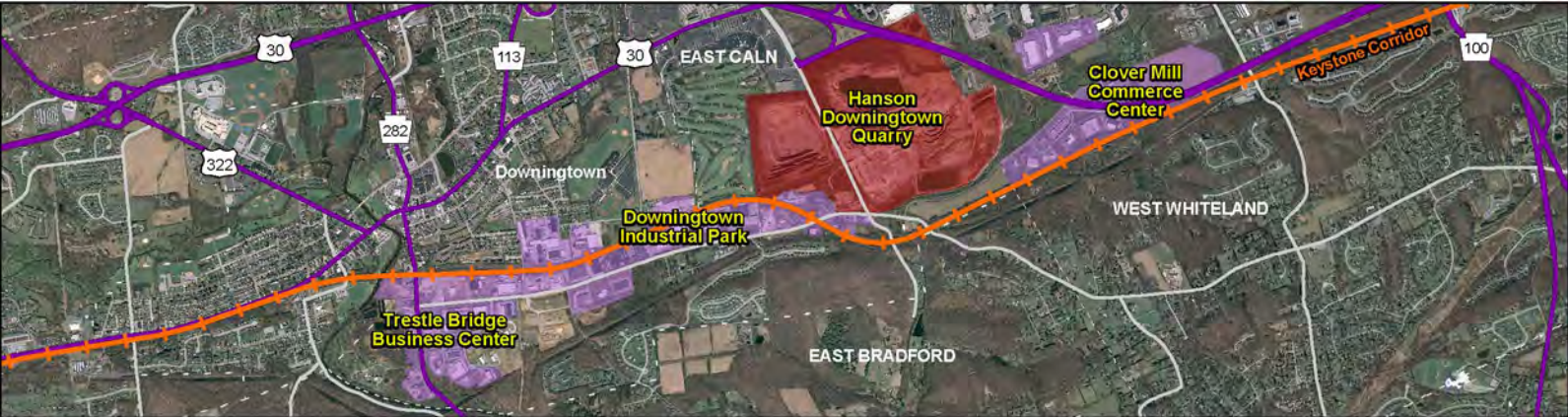
Adjacent Land Use and Buffer Zones: Residential land abuts along the northern edge of the Trestle Bridge Business Center, but the southern edge of the center is well buffered by the Keystone Corridor and an abandoned rail corridor known as the Philadelphia and Thorndale Branch.

Interstates and Freeways: The US 30 Bypass, a limited access highway, runs through the center.

Local / Connector Roadways: Boot Road runs through Trestle Bridge Business Center and the Downingtown Industrial Park, while Clover Mill Road provides local access for the Clover Mill Commerce Center.

Rail Access: The Amtrak Keystone Corridor runs through the center. It primarily carries passenger rail traffic, but freight rail has trackage rights.

Figure 23: Freight-Related Land Use Types within Downingtown / Boot Road



Land Use Type		
 Distribution	 Heavy Manufacturing	 Quarry / Mining
 Light Manufacturing	 Transportation	 Utility

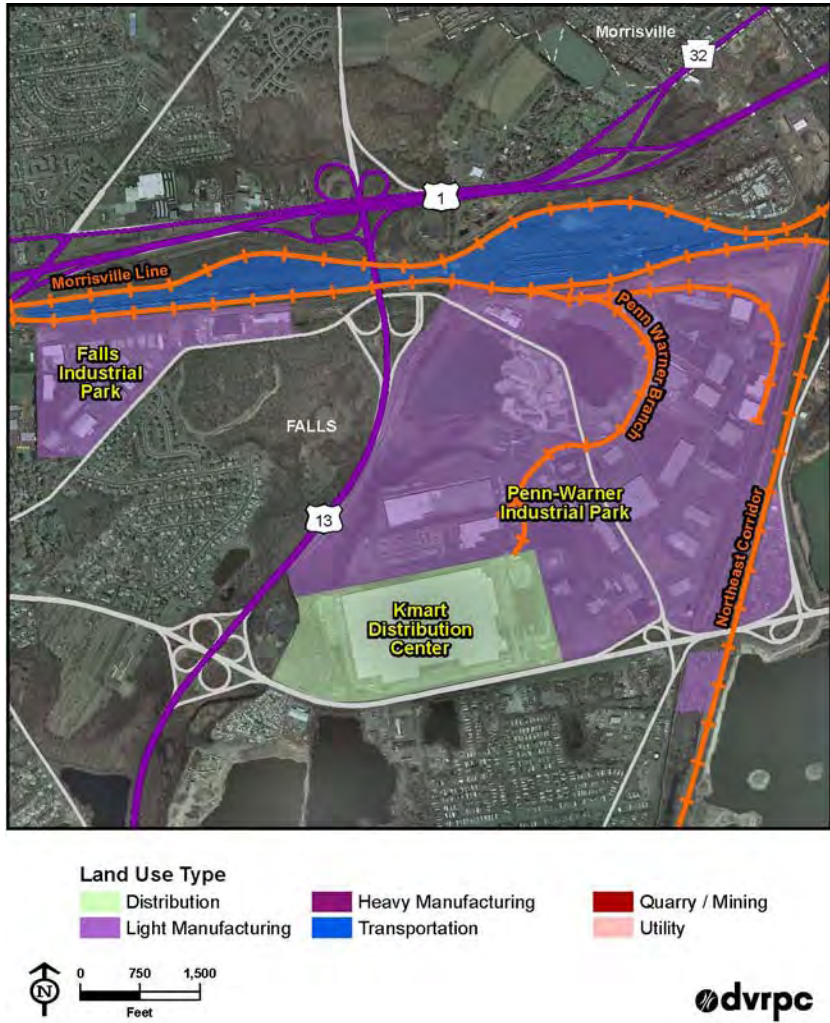


Falls / Penn Warner

Falls Township, Bucks County

Land Use and Business Summary: This Major Freight Center contains two areas of light manufacturing, and one distribution and one transportation facility. The Penn-Warner Industrial Park holds both manufacturing and distribution facilities. The largest facility is

Figure 24: Freight-Related Land Use Types within Falls / Penn-Warner



in the southwestern quadrant, a K-Mart Distribution Center that serves the Northeast United States. There are a series of smaller manufacturing facilities: TaraTape makes a full line of adhesive products, the Bucks County Courier Times has its printing press and distribution facility located in this center, Future Foam has a carpet cushion plant, and Hydro Farm is the nation's largest maker of hydroponic equipment and grow lights for indoor farming operations. The Morrisville Rail Yard serves Norfolk Southern and operates as the switch point for SMS and Conrail serving this center and the Falls / KIPC Freight Center.

Surrounding Land Use: The Penn Warner Industrial Park has a combination of trees and transportation infrastructure that provides a buffer for surrounding residential development. The Falls Industrial Park, however, has little buffer.

Interstates and Freeways: US 1 is a limited access freeway running along the northern edge of the center and connects into I-95.

Local / Connector Roadways: New Bold Road runs through the Center providing access to US 13 which connects to US 1. Tyburn Road runs along the southern edge of the center connecting to both US 13 and US 1.

Rail Access: SMS Rail Lines owns and operates the Penn-Warner Branch serving businesses directly throughout the park. The Penn Warner Branch feeds into the Norfolk Southern Morrisville Line which connects to the Norfolk Southern Harrisburg Line. The Amtrak Northeast Corridor runs through this center, but handles primarily passenger rail traffic.

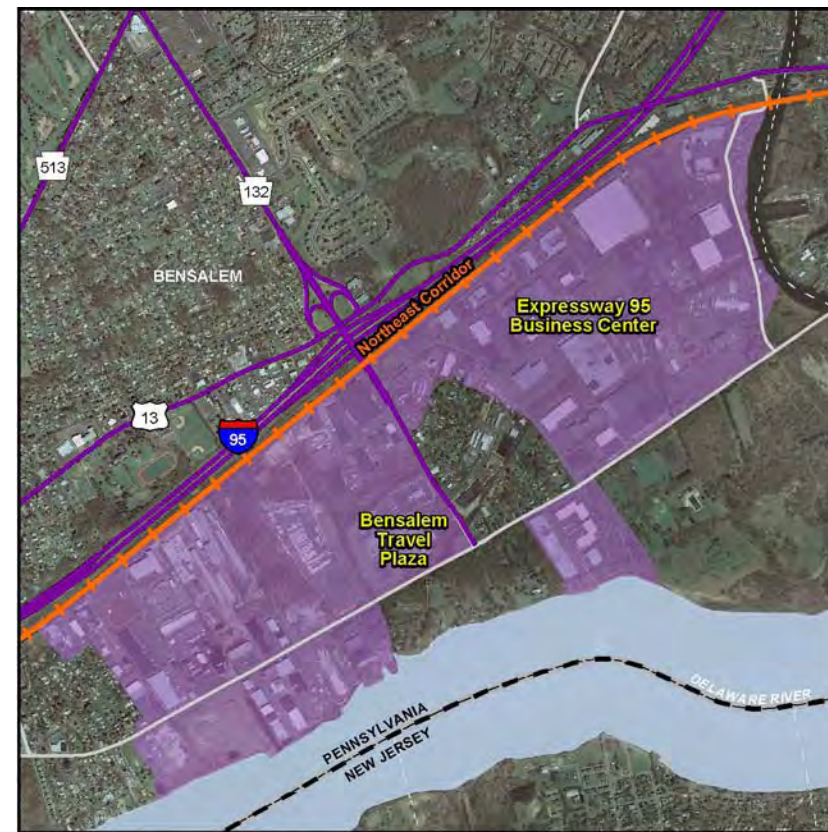
MAJOR FREIGHT CENTER

Bensalem / Street Road

Bensalem Township, Bucks County

Land Use and Business Summary: This Major Freight Center contains a concentration of transportation businesses in exclusively light manufacturing land. The Expressway 95 Business Center has a diverse mix of building sizes. Located in the Business Center is the corporate headquarters for Charming Shoppes which supplies the clothing for Lane Bryant, Fashion Bug, and Catherines; and National Sales & Supply which supplies Majestic brand rubber mulch to their clients. The other light manufacturing areas are highlighted by a strong connection to the trucking sector. Some sample businesses include Atkinson Freight Lines, Penske Truck Rental, Pardo's Truck Service Parts Warehouse, and Premier Trailer Leasing. Serving all these trucking interests is the Bensalem Travel Plaza, a truck stop set up by Atkinson Freight Lines on their facility. This is the only center in the region to have an active truck parking facility physically within the center limits.

Figure 25: Freight-Related Land Use Types within Bensalem / Street Road



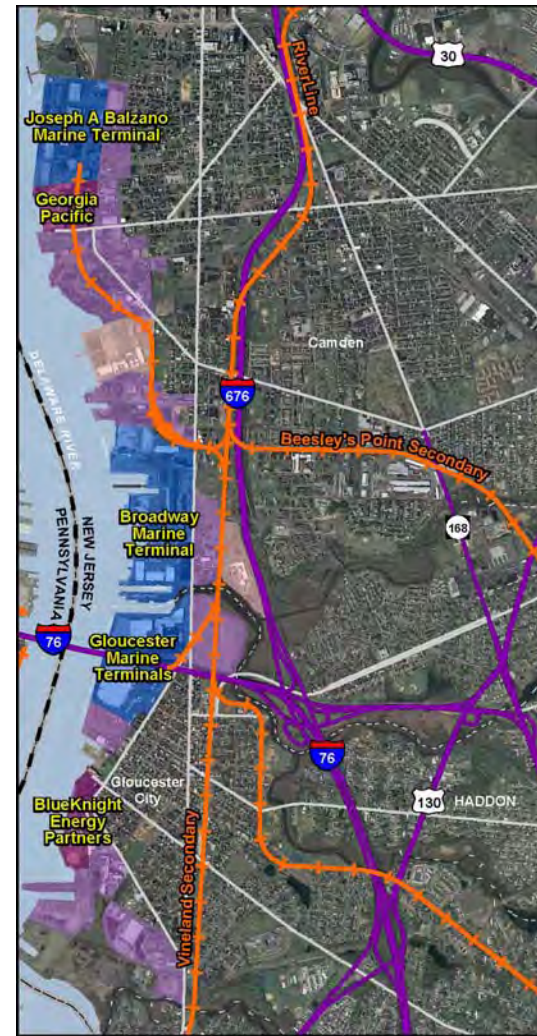
Adjacent Land Use and Buffer Zones: The center is well buffered from the majority of Bensalem by the wide corridor formed by I-95 and the Northeast Corridor. There is a small community in the middle of the center that is not buffered.

Interstates and Freeways: I-95 runs adjacent to the north edge of the center.

Local / Connector Roadways: State Road runs along the center connecting all the businesses. Street Road / PA 132 connects State Road into I-95.

Rail Access: The Northeast Corridor runs along the center and some businesses have sidings.

Figure 26: Freight-Related Land Use Types within Camden / Gloucester City



Camden / Gloucester City Waterfront

Camden and Gloucester City, Camden County.

Land Use and Business Summary: This Major Freight Center contains historic industrial areas along the waterfronts of Camden and Gloucester Cities. The land in the center is split between transportation and areas of light manufacturing and utility which surround the ports. The three port terminals are the focal point of this center. Joseph A Balzano, Broadway, and Gloucester Marine Terminals, attract ships carrying products from all over the world. The center also has two heavy manufacturing sites, both of which receive ships carrying bulk materials: BlueKnight Energy Partners, which imports a byproduct of the process of refining crude petroleum in order to make liquid asphalt; and Georgia Pacific, which manufactures a wide array of gypsum products such as drywall and industrial plaster. In the surrounding light manufacturing areas are a series of facilities that manufacture, store, and distribute an array of goods. Products include foodstuffs (there are both pickle and licorice facilities) as well as scrap metal, highlighted by Camden Iron and Metal, which purchases, processes, and sells scrap iron and non-ferrous materials to consumers all over the world.

Adjacent Land Use and Buffer Zones: The eastern edge of the center is directly adjacent to urban residential areas, while the western edge is the Delaware River.

Interstates and Freeways: Interchanges #3, #4 and #5A along I-676 are adjacent to the center.

Local / Connector Roadways: Officially designated NHS Connector roadways exist for connecting Joseph A Balzano, Broadway, and Gloucester Marine Terminals to the NHS system. These roadways include: Martin Luther King Boulevard, 3rd Street, Clinton Street, 2nd Street, Ferry Avenue, and Atlantic Avenue for the Josepha A Balzano Marine Terminal; and Morgan Boulevard, Broadway, and King Street for the Broadway and Gloucester Marine Terminals.

Rail Access: The Bulson Street Running Track and a network of terminal lead tracks provide direct rail access to the center. The Vineland Secondary leads into the RiverLine, which then feeds into the Delair Bridge, which connects into the North American rail network.

MAJOR FREIGHT CENTER

Pottstown / Limerick

Lower Pottsgrove and Limerick Townships, Montgomery County

Land Use and Business Summary: This Major Freight Center historically served the steel industry, but many of the facilities have been repurposed into light manufacturing, utility, or distribution center land uses. The center contains two utility facilities, the Pottstown Waste Water Plant and the Limerick Nuclear Generating Station. The generating station, currently owned by Exelon, produces 2,345 net megawatts of electricity, which is enough energy to power more than two million average American homes. In the western half of the center are a series of companies including, but not limited to: the Mayer Pollock Steel Corporation’s demolition and dismantling division; the Dana Holding Corporation, which supplies driveline products (axles, driveshafts, and transmissions), and genuine service parts for light- and heavy-duty vehicle manufacturers; and Prostar Packaging, which specializes in a variety of packaging solutions and warehousing. The Pottstown Trap Rock Quarry extracts a red aggregate stone with which it produces asphalt, crushed stone, sand, gravel, fill materials, and recycled concrete.

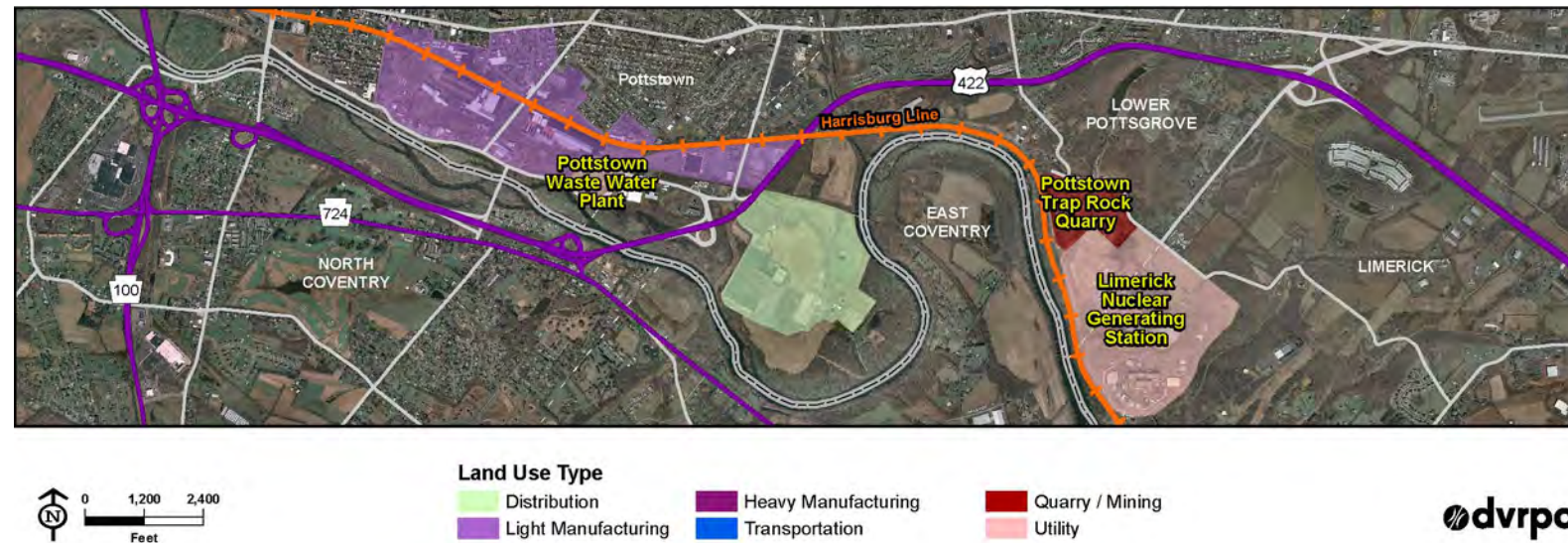
Adjacent Land Use and Buffer Zones: The residential and commercial center of Pottstown is just north of the western part of this center with little buffer. This is an historic industrial area, which may help foster a good relationship with neighboring communities.

Interstates and Freeways: US 422 is a limited access freeway running through the center with multiple access points.

Local / Connector Roadways: Hanover Street, Keim Street, Industrial Highway, and Evergreen Road connect the center to US 422.

Rail Access: The Harrisburg Line is a Class I main line owned and operated by Norfolk Southern.

Figure 27: Freight-Related Land Use Types within Pottstown / Limerick



Upper Gwynedd / West Point

Upper Gwynedd Township and Lansdale Borough, Montgomery County

Land Use and Business Summary: This Major Freight Center is home to a large heavy manufacturing facility, a series of light manufacturing facilities, and a utility facility. The Merck West Point facility highlights this center, and it is because of this facility that

Figure 28: Freight-Related Land Use Types within Upper Gwynedd / West Point



this center has more manufacturing jobs than any other center in this inventory. Merck's operations in Upper Gwynedd include research and development, manufacturing, and administration services. Merck is one of the world's largest pharmaceutical companies, well known for a wide array of products meant to improve the health of both humans and animals. In the light manufacturing areas of the center are Lehigh Valley Dairy Farms, which produces a variety of milk, cream, and juice products; and, Precision Tube Company, which manufactures non ferrous, cold drawn, seamless tubing.

Adjacent Land Use and Buffer Zones: There are many residential developments intermingled with the freight facilities in this center. The Merck facilities are built with the industrial activity in the middle of the facility, which allows the non-industrial activities to create a buffer.

Interstates and Freeways: I-476 (PA Turnpike) is located about 3.5 miles to the west of the center.

Local / Connector Roadways: Sumneytown Pike runs east-west through the middle of the center and connects all traffic into I-476. West Point Pike, Allentown Road, and Church Road provide access to most other sections of the center.

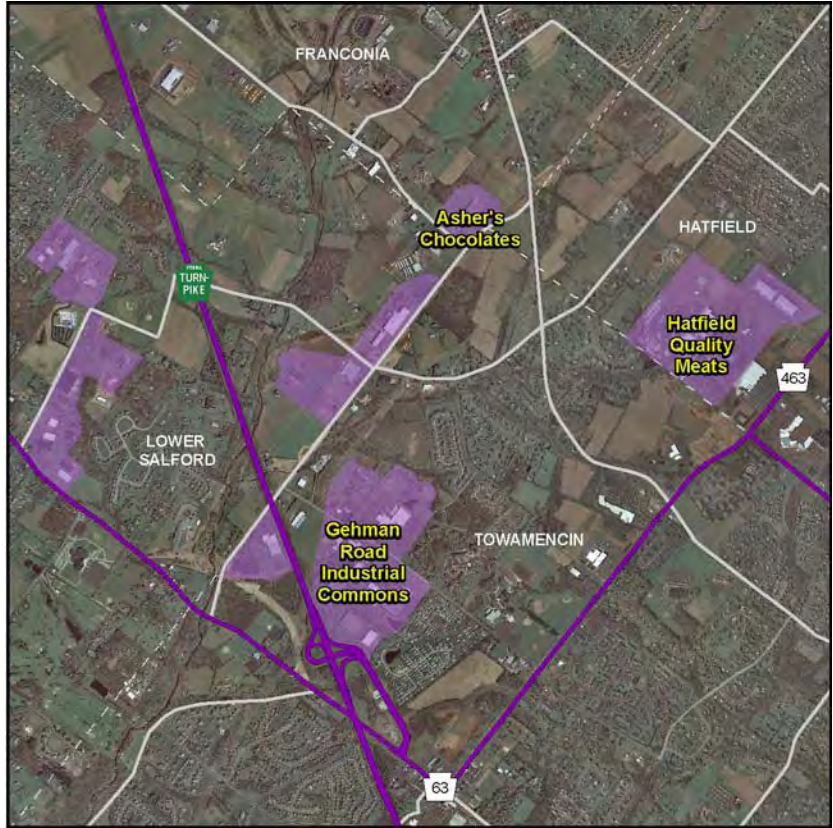
Rail Access: The Stony Creek Branch and the Jenkintown / Lansdale Main Line run through the center, but there appears to be very little use of the rail lines by the facilities in this center.

Towamencin / Hatfield

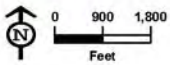
Lower Salford, Towamencin, Hatfield, and Franconia Townships, Montgomery County

Land Use and Business Summary: This Major Freight Center contains exclusively light manufacturing land use spread out in a non-contiguous fashion. The largest facility is a production facility for Hatfield Quality Meats. Hatfield produces a number of pork products at this facility. Their most famous product is the hot dogs served at Philadelphia Phillies games. Other businesses in this center include: Asher's Chocolates, which makes a full line of chocolate candies, as well as produces jelly beans through the Jelly Belly label; Pecora Corporation, which is a manufacturer of weatherproofing products, offering a full line of silicone, urethane and latex sealants; Green, Tweed, & Co., which manufactures specialty seals and engineered plastic components, and whose products are used in a wide range of applications including in the aerospace and defense industry; and Accupac manufactures, fills, and packages a wide range of over-the-counter and prescription health care products.

Figure 29: Freight-Related Land Use Types within Towamencin / Hatfield



Land Use Type		
■ Distribution	■ Light Manufacturing	■ Heavy Manufacturing
■ Transportation	■ Quarry / Mining	■ Utility



Adjacent Land Use and Buffer Zones: There is suburban residential development adjacent to this center. There is little buffer, but given the lack of density in both industrial and residential areas, the houses are not directly adjacent to the freight-related businesses contained in this center.

Interstates and Freeways: Interchange #31 of I-476 (Pennsylvania Turnpike Northeast Extension) is located in this center.

Local / Connector Roadways: Sumneytown Pike provides access to I-476. PA 63 (Forty Foot Road), Wambold Road, and Allentown Road accommodate most internal movements.

Rail Access: There is no direct rail access in this center.

Intermediate Freight Centers

While not the largest in size, the 23 Intermediate Freight Centers supply the region with 149,642 total jobs. The Mega and Major Freight Centers tend to be very tightly bunched, while many of the Intermediate Freight Centers are more spread out. Most Intermediate Freight Centers tend to fall under two categories: a series of industrial parks; or, an area centered on a single historic manufacturing facility. The Intermediate Freight Centers are the most numerous of the three center designations and represent a considerable geographic diversity. Unlike the other two designations, this diversity is spread relatively equally throughout the region, instead of being concentrated along the Delaware River.

Table 4: Intermediate Freight Centers

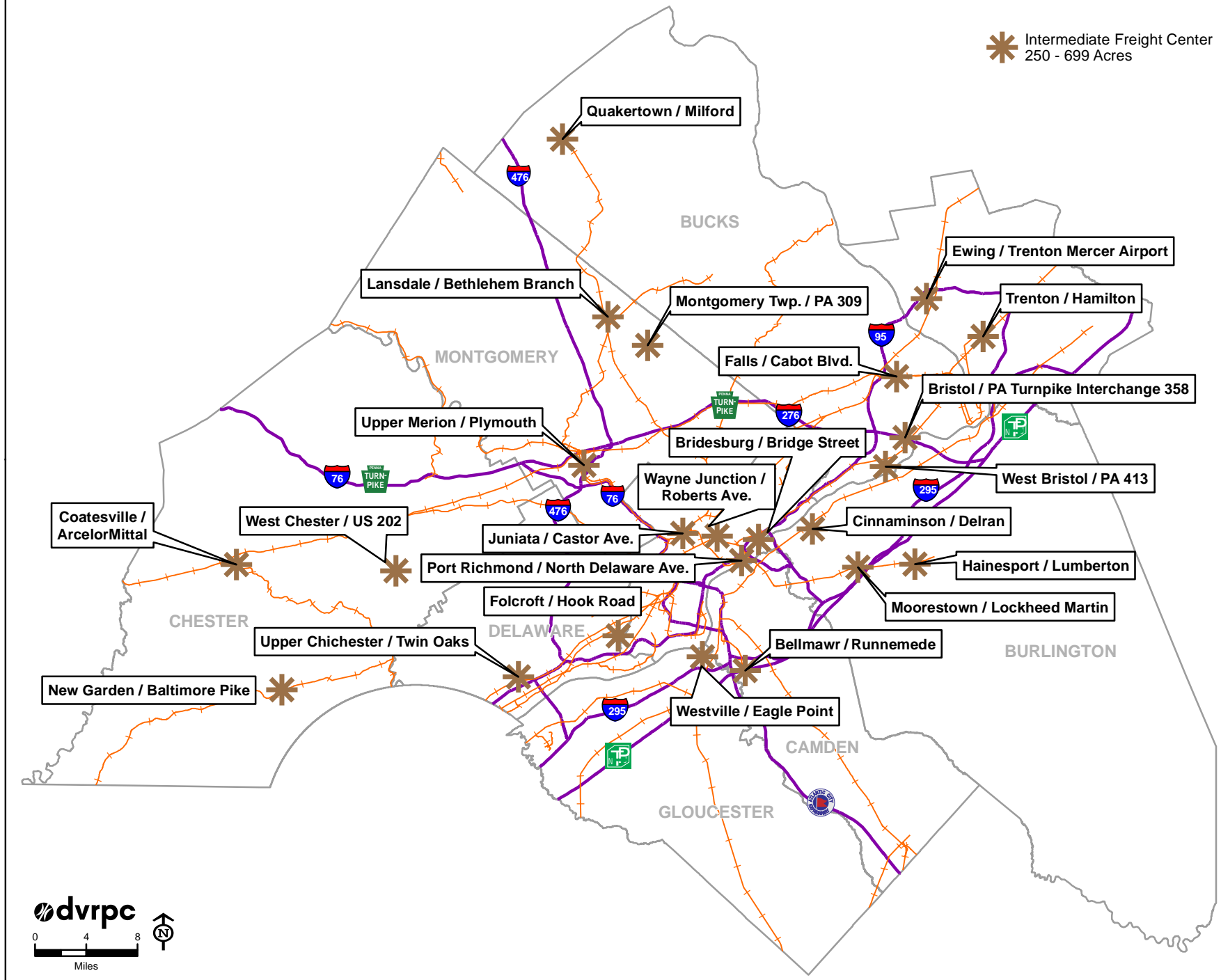
Name of Center	County Located	Total Acreage	Total Jobs
Westville / Eagle Point	Gloucester	1,194	477
Cinnaminson / Delran	Burlington	677	7,436
West Bristol / PA 413	Bucks	675	7,113
Upper Merion / Plymouth	Montgomery	673	21,272
West Chester / US 202	Chester	650	13,271
Port Richmond / North Delaware Avenue	Philadelphia	610	977
Ewing / Trenton Mercer Airport	Mercer	591	10,379
Upper Chichester / Twin Oaks	Delaware	645	6,515
Quakertown / Milford	Bucks	559	5,301
Bristol / PA Turnpike Interchange 358	Bucks	549	4,947

Table 4: Intermediate Freight Centers, Continued

Name of Center	County Located	Total Acreage	Total Jobs
Coatesville / ArcelorMittal	Chester	535	3,193
Montgomery Twp. / PA 309	Montgomery	533	6,724
Trenton / Hamilton	Mercer	524	7,118
Folcroft / Hook Road	Delaware	457	4,940
Bridesburg / Bridge Street	Philadelphia	453	2,828
New Garden / Baltimore Pike	Chester	431	5,987
Hainesport / Lumberton	Burlington	425	7,540
Juniata / Castor Avenue	Philadelphia	379	6,308
Wayne Junction / Roberts Avenue	Philadelphia	370	3,637
Falls / Cabot Blvd.	Bucks	325	5,590
Bellmawr / Runnemede	Camden	276	3,751
Lansdale / Bethlehem Branch	Montgomery	270	5,207
Moorestown / Lockheed Martin	Burlington	133	9,131
Total		11,934	149,642

Source U.S. Census Bureau 2011, DVRPC 2011

FIGURE 30: DELAWARE VALLEY INTERMEDIATE FREIGHT CENTERS



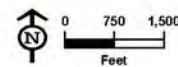
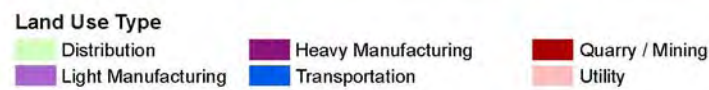
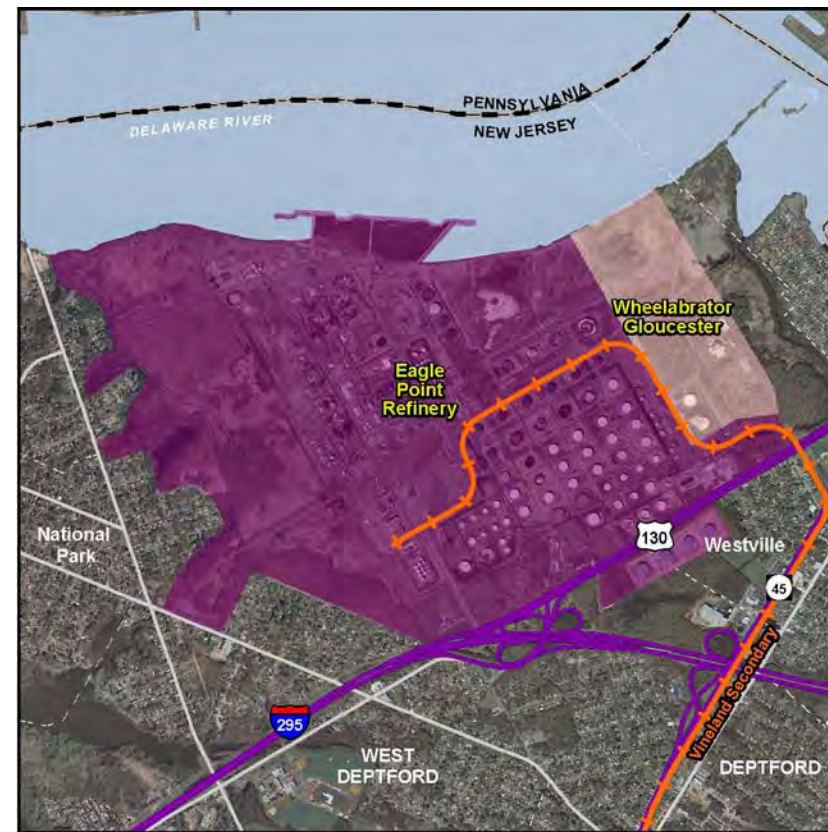
INTERMEDIATE FREIGHT CENTER

Westville / Eagle Point

Westville Borough, Gloucester County

Land Use and Business Summary: This Intermediate Freight Center includes a heavy manufacturing facility, the Eagle Point Refinery, and a utility operation, Wheelabrator's Gloucester County facility. Sunoco purchased the Eagle Point Plant in 1994 and ran the plant until 2009. In 2010, Sunoco reorganized their chemical manufacturing operations and the plant was closed. As of the publication of this report, Sunoco had reopened a portion of the plant through its subsidiary, Sunoco Logistics. Sunoco Logistics uses the plant's storage capacity to both store and distribute petroleum products, but the manufacturing aspect of the plant sits idle. Wheelabrator operates a waste-to-energy facility providing environmentally safe disposal of municipal solid waste for Gloucester County while generating electricity for sale.

Figure 31: Freight-Related Land Use Types within Westville / Eagle Point



Adjacent Land Use and Buffer Zones: This center includes empty land surrounding most of the active operations which provides a buffer for nearby residential development.

Interstates and Freeways: Direct access to I-295 is provided via interchange #23, which is adjacent to the center.

Local / Connector Roadways: US 130 provides the short connection from the gates to the I-295 interchange.

Rail Access: The Vineland Secondary, which is owned and operated by Conrail, runs along the center with a lead track running into the Eagle Point Refinery. The Vineland Secondary, the RiverLine and the Delair Bridge connect this center with the North American rail network.

Cinnaminson / Delran

Delran and Cinnaminson Townships, Burlington County

Land Use and Business Summary: This Intermediate Freight Center is made up of four light manufacturing industrial parks which are linked together by two utility facilities. The Cindel Industrial Park, owned and operated by the Whitesell Construction Company, is a planned industrial park with 11 buildings, ranging in size, all designed for industrial use. Quickie Manufacturing Corporation, which makes household cleaning supplies, is located in the Cindel Industrial Park as well as Empire Today, which specializes in flooring. The Taylor Industrial Park and East Riverton Industrial Park are both smaller-scale parks with varying building designs. The Industry Center of Cinnaminson is a traditional mixed-use industrial park that has a concentration of trucking operations. Pitt-Ohio Express, Conway, and New Penn Motor Express all have truck depots located in this center. In the middle of the light manufacturing areas lies a resource recovery facility, and along the northeastern edge is a water treatment plant.

Figure 32: Freight-Related Land Use Types within Cinnaminson / Delran



Land Use Type		
■ Distribution	■ Heavy Manufacturing	■ Quarry / Mining
■ Light Manufacturing	■ Transportation	■ Utility

0 750 1,500
Feet

odvrpc

Adjacent Land Use and Buffer Zones: The center has sufficient buffer zones, created by parks, woods, and commercial land uses.

Interstates and Freeways: The most direct Interstate access is provided by traveling south on US 130 to NJ 73 which connects to I-295 and I-95.

Local / Connector Roadways: Union Landing Road and Taylor's Lane run through the center connecting traffic into US 130. River Road / Broad Street runs along the western end of the center and can also be used to access NJ 90.

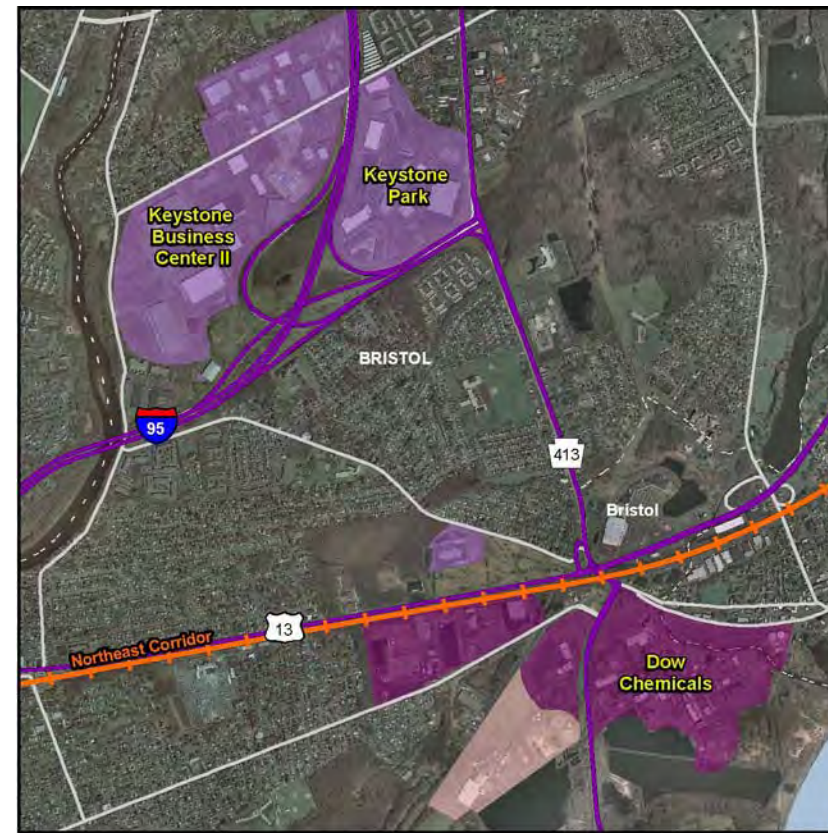
Rail Access: Local rail access is provided by the RiverLine, which is owned and operated by New Jersey Transit; however Conrail has trackage rights to run freight on the line at night, and some facilities near the line have rail sidings. The RiverLine then feeds into the Delair Bridge which connects into the North American rail network.

West Bristol / PA 413

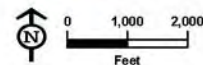
Bristol Township and Bristol Borough, Bucks County

Land Use and Business Summary: This Intermediate Freight Center has two specific areas, one exclusively light manufacturing and one primarily heavy manufacturing that also includes a utility facility. The heavy manufacturing facilities in the south are

Figure 33: Freight-Related Land Use Types within West Bristol / PA 413



■ Distribution	■ Heavy Manufacturing	■ Quarry / Mining
■ Light Manufacturing	■ Transportation	■ Utility



highlighted by a Dow Chemicals Plant, which produces coating materials such as interior and exterior paints, floor polishes, adhesives, roof coatings, and caulks. To the west of the Dow Chemicals facility is a cluster of smaller manufacturing facilities including A-1 Specialized Services & Supply Inc., which is the world's leading recycler of platinum group metals from automotive catalysts; also, there is Railway Specialties Corporation, which manufactures watertight door and hatches. In the northern area of this center are adjacent light manufacturing industrial parks. These parks focus mostly on distribution, highlighted by an Office Max Distribution Center, a FedEx facility, Vintage Imports, which imports and stores fine wines, and Drugstore Direct.

Adjacent Land Use and Buffer Zones: The southern area of the center is well-buffered by the Northeast Corridor and US 13. The Northern part of the center is well buffered in all areas except the northwest quadrant, which has little to no buffer other than the local road.

Interstates and Freeways: I-95 runs through the center.

Local / Connector Roadways: PA 413 provides access to I-95 and Ford Road connects PA 413 to the industrial parks in the northern section.

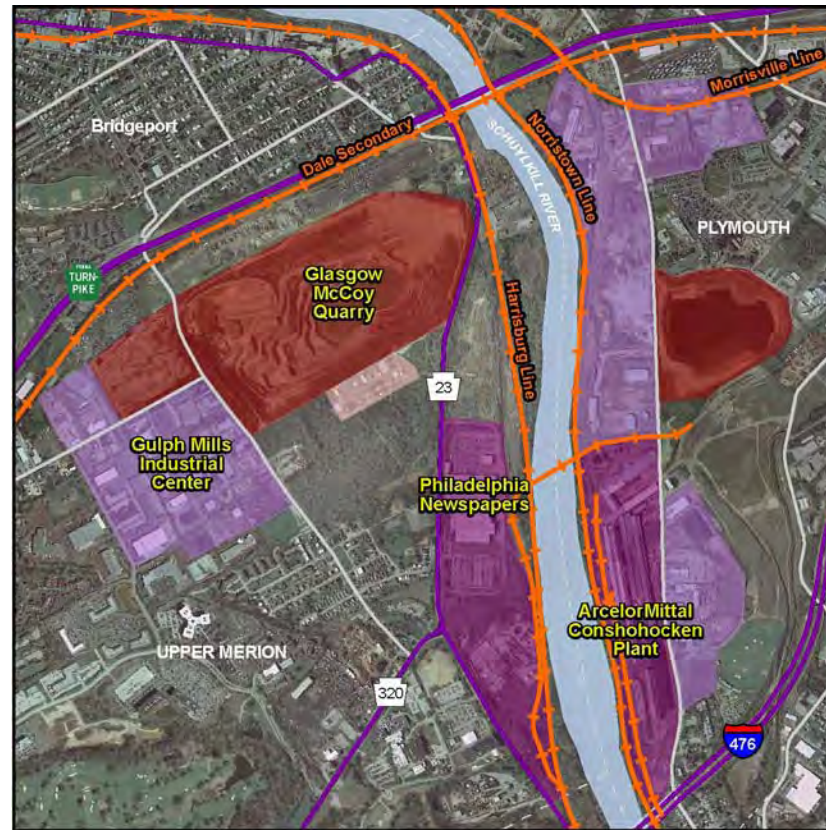
Rail Access: The heavy manufacturing facilities in the southern section are almost all rail served by Conrail along the Northeast Corridor, which is owned by Amtrak. No areas of the industrial parks are rail served.

Upper Merion / Plymouth

Upper Merion and Plymouth Townships, Montgomery County

Land Use and Business Summary: This Intermediate Freight Center contains a wide variety of land uses, including heavy manufacturing, light manufacturing, quarry / mining and a utility facility. The heavy manufacturing land use is made up of three facilities: the ArcelorMittal Conshohocken Steel Plant, Philadelphia Newspapers (where the Philadelphia Inquirer and Philadelphia Daily News are printed and distributed), and a Johnson Matthey facility where chemical products are both produced and stored. The center includes light manufacturing land uses such as Mohawk Tile and Marble, which supplies ceramic tile, marble, granite and related products; Sims Metal which recycles metals and electronics; and Spray Products Corporation, an aerosol manufacturer offering industrial and automotive aerosol products and spray paints. The quarry and mining operation at Glasgow McCoy Quarry extracts rock and processes it into various concrete and asphalt products on site.

Figure 34: Freight-Related Land Use Types within Upper Merion / Plymouth



Adjacent Land Use and Buffer Zones: The majority of this center is surrounded by commercial land uses, either corporate offices or automobile sales.

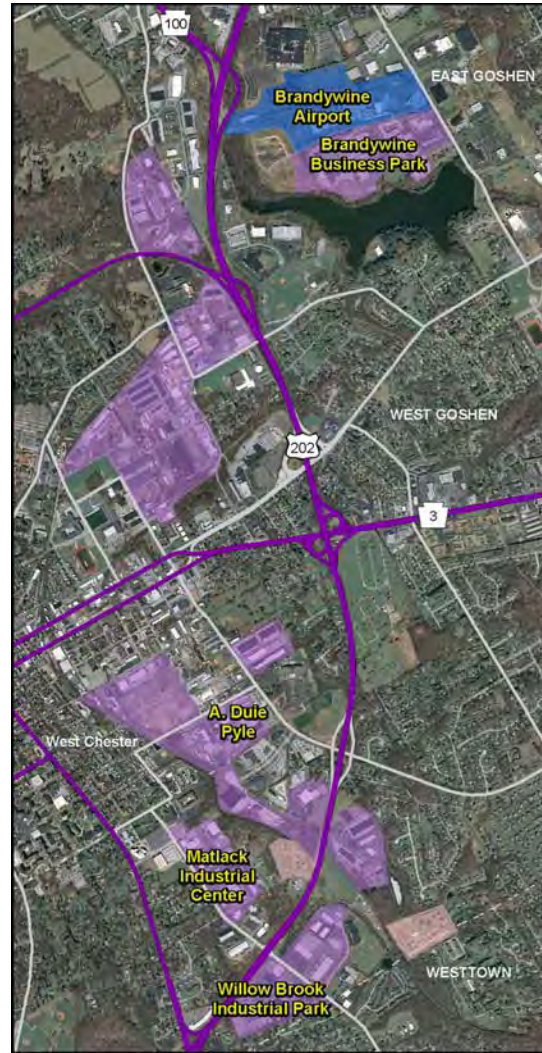
Interstates and Freeways: I-76, I-476, and I-276 (Pennsylvania Turnpike) are all in the vicinity of the center.

Local / Connector Roadways: Conshohocken Road and Front Street (PA 23) are the most important local roads for this center, but neither connect to the interstate. In order to connect to an Interstate, vehicles must access Gulph Road, Fayette Street, Ridge Pike, or Germantown Pike.

Rail Access: The Norfolk Southern Harrisburg Line, which runs through the center, is a Class I main line. The largest rail user in this center is ArcelorMittal which is served by a shortline railroad named the Upper Merion and Plymouth.

INTERMEDIATE FREIGHT CENTER

Figure 35: Freight-Related Land Use Types within West Chester / US 202



West Chester / US 202

West Goshen and Westtown Townships and West Chester Borough, Chester County

Land Use and Business Summary: This Intermediate Freight Center contains a collection of light manufacturing areas along US 202 in the vicinity of West Chester. This center also contains some utility land uses in the south, and a transportation facility in the north, the Brandywine Airport. On the southern edge are two industrial parks, Willow Brook Industrial Park and Matlack Industrial Center. Both are small parks with a wide array of businesses. An example of the range of businesses is Skylar Surgical Instruments, which manufactures extremely high quality surgical instruments for the healthcare sector, and Media Rooms Incorporated, which specializes in designing and custom fitting deluxe living rooms for their clients. Bordering West Chester is the A. Duie Pyle corporate headquarters and truck depot. A. Duie Pyle is a full service logistics and trucking company with a rich history in the area. Along the south side of the Brandywine Airport is the Brandywine Business Park which has the largest buildings in this center and is home to a UPS facility.

Adjacent Land Use and Buffer Zones: The West Chester Auto Mall provides a buffer between the Freight Center and the residential areas of West Chester Borough. The industrial areas to the north and south have limited development adjacent to them.

Interstates and Freeways: US 202, a limited access freeway, forms the spine of this center. Trucks and cars use US 202 to access I-76 to the north and I-95 to the south.

Local / Connector Roadways: Matlack Street, Westtown Road, Market Street, and Ward Road all provide access from the various industrial areas to US 202.

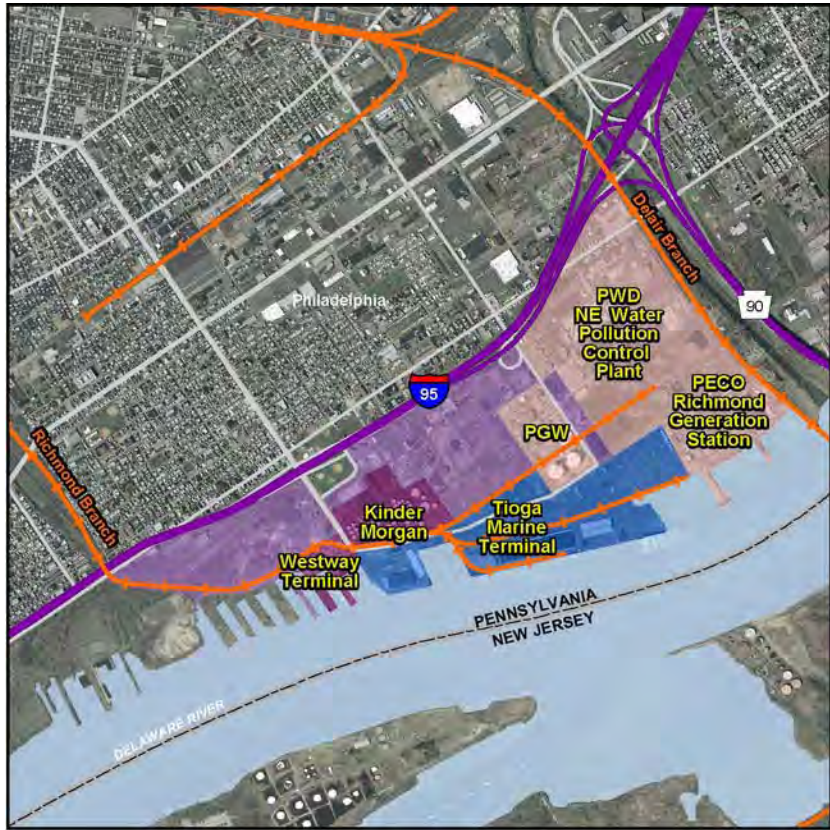
Rail Access: There is no active freight rail service in this center, but there is an historic rail line, on which tourist trains currently run. Thus, the right-of-way still exists and freight rail service could potentially be re-activated.

Port Richmond / North Delaware Avenue

Philadelphia City

Land Use and Business Summary: This Intermediate Freight Center has areas of transportation, utility, and both heavy and light manufacturing. The transportation land use is highlighted by the Tioga Marine Terminal which is owned by the Philadelphia Regional Port Authority. This terminal specializes in shipments of fresh fruit and break bulk specialty products. There are three utility facilities located in this center: a PECO generating station, a large Philadelphia Water Department facility, and a Philadelphia Gas Works facility which has tanks storing bulk products at this location. The heavy manufacturing land uses are made up of two facilities: the Kinder Morgan facility has 100 tanks that store and distribute primary chemicals and petroleum products; Westway Terminals is a chemical storage facility with 37 tanks on site. Both Kinder Morgan and Westway Terminals have access to the Delaware River for moving materials, mostly by barge. There are a number of light manufacturing facilities in this center, such as Rhino Recycling, which packages scrap metal before being sent to sorting facilities.

Figure 36: Freight-Related Land Use Types within Port Richmond / North Delaware Avenue



Surrounding Land Use: The community of Port Richmond is adjacent to this center. I-95 is elevated in this area and in effect provides a buffer.

Interstates and Freeways: I-95 runs adjacent to the center with access at interchanges #25 and #26.

Local / Connector Roadways: Allegheny Avenue, Castor Avenue, and Old Delaware Avenue provide virtually all movements and are designated as NHS Connector roadways.

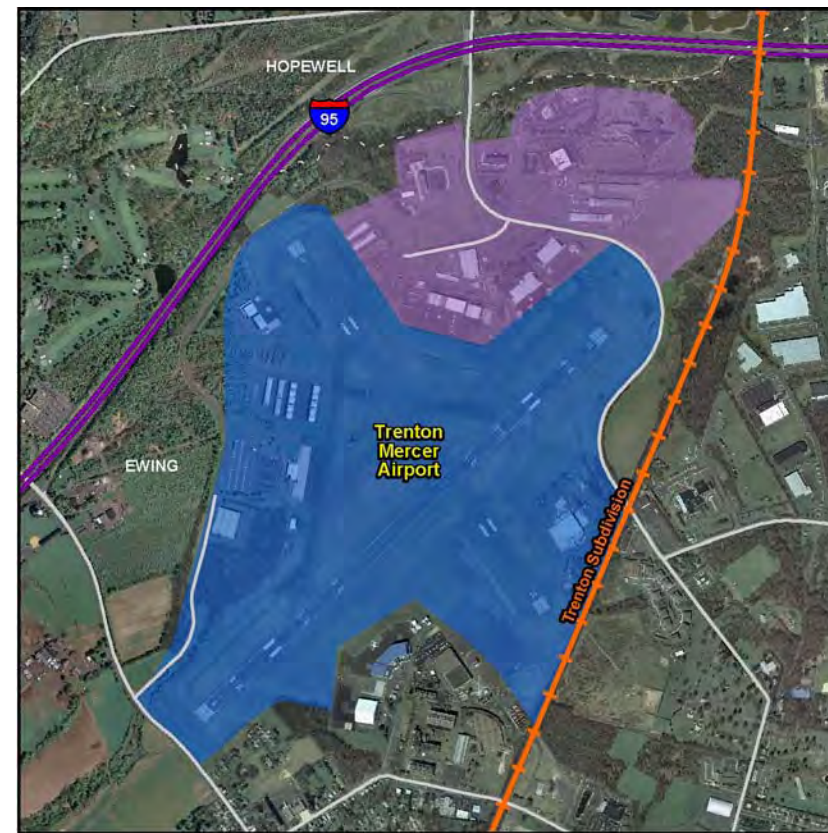
Rail Access: Rail access is provided by the Richmond Branch, which is owned and operated by Conrail. The Richmond Branch connects into the CSX Trenton Subdivision.

Ewing / Trenton Mercer Airport

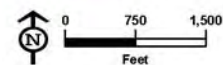
Ewing Township, Mercer County

Land Use and Business Summary: This Intermediate Center is made up primarily of transportation land use and an area of light manufacturing. The Trenton Mercer Airport is a publicly owned commercial service airport. The airport is home to two commercial air carriers, corporate aviation operations for a number of Fortune 500 Companies, the National Guard, New Jersey State Police, US Customs, several flight schools, a Fixed Based Operator (FBO), air charter service, rental car services, and a restaurant. While the airport does not currently offer dedicated freight operations, it is linked to surrounding freight businesses. The nearby light manufacturing area is home to businesses that are likely attracted to the area due to the aviation operations, such as Ronson Aviation and Unisys.

Figure 37: Freight-Related Land Use Types within Ewing / Trenton Mercer Airport



Land Use Type		
■ Distribution	■ Heavy Manufacturing	■ Quarry / Mining
■ Light Manufacturing	■ Transportation	■ Utility



Adjacent Land Use and Buffer Zones: There is no directly adjacent commercial or residential land. However, because of the nature of air traffic, impacted neighborhoods are not just restricted to immediately adjacent land.

Interstates and Freeways: I-95 runs along the northern edge of the center and interchanges #2 and #3 serve the center.

Local / Connector Roadways: Bear Tavern Road runs along the western edge and links into interchange #2. Scotch Road runs along the eastern edge of the center and links into interchange #3.

Local / Connector Roadways: Bear Tavern Road runs along the western edge and links into interchange #2. Scotch Road runs along the eastern edge of the center and links into interchange #3.

Rail Access: The Trenton Subdivision, owned and operated by CSX, runs adjacent to this center. No facilities in this center appear to currently have direct rail service.

Upper Chichester / Twin Oaks

Upper Chichester and Chester Townships, Delaware County

Land Use and Business Summary: This Intermediate Freight Center contains areas of light manufacturing, a transportation facility, and a heavy manufacturing facility. The transportation facility is the Twin Oaks Rail Yard, owned and operated by CSX, which

Figure 38: Freight-Related Land Use Types within Upper Chichester / Twin Oaks



operates as an automobile distribution center. CSX trains bring finished automobiles into the facility, and trucks deliver them to local businesses. There are three light manufacturing areas: the Bridgewater Industrial Park, the I-95 Campus Industrial Park, and the Dutton's Mill Business Park. All three contain large buildings and a mixture of distribution and manufacturing activities. Some major companies in these parks include: Mustang Expediting, which is a trucking company specializing in pickup and delivery for sensitive and high value commodities; Heyday Wines, which imports and warehouses Argentine and Italian wines and is among a handful of businesses related to the food and beverage industry; and Chalmers & Kubeck Inc., which specializes in industrial repairs and maintenance. This center is also home to the Twin Oaks Tank Farm, which is owned and operated by Sunoco Logistics.

Adjacent Land Use and Buffer Zones: There is residential development surrounding the center on all sides, but a network of roadways and trees provide a transitional buffer.

Interstates and Freeways: I-95 is nearby with access at Interchange #2 and #4 or access via US 322 at Interchange #3.

Local / Connector Roadways: Concord Road connects both of the industrial parks to I-95 at interchange #4. Bethel Road connects the Twin Oaks facility to US 322. PA 452 connects into I-95 just south of the center and interchange #2.

Rail Access: The Philadelphia Subdivision, a Class I main line, is owned and operated by CSX and runs through the center serving the Twin Oaks intermodal facility. A spur connects into multiple businesses in the I-95 Campus Industrial Park for direct rail service.

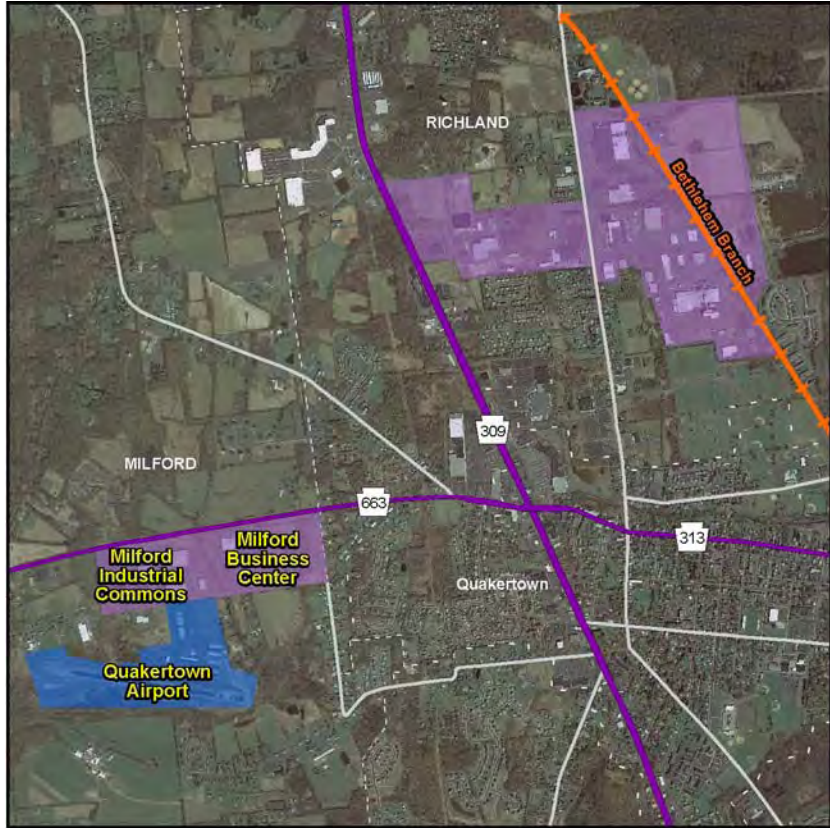
Quakertown / Milford

Milford and Richland Townships, Bucks County

Land Use and Business Summary: This Intermediate Freight Center has two areas of light manufacturing and a transportation facility. The light manufacturing in the northeast quadrant of the center has a wide array of building sizes. Some illustrative

businesses from this area include: Millennium Manufacturing, which does production and design of high precision components; Avery Dennison, which creates and manufactures labels and package materials; Wilsey Tool Company, which produces instruments for industry leaders in the areas of orthopedic, trauma, and cardiac implants; and a Shelly's Lumber facility that acts as a distribution center for lumber, hardware, building materials and manufactured components in Eastern Pennsylvania. The Milford Industrial Commons is highlighted by Milford Enterprises, a manufacturer of custom display and graphic products. The Quakertown Airport is administered by the Bucks County Airport Authority.

Figure 39: Freight-Related Land Use Types within Quakertown / Milford



Adjacent Land Use and Buffer Zones: The abundant open space around this center creates an adequate amount of buffer between the center and residential housing. There is a commercial corridor along PA 309. Because of the nature of air traffic, impacted neighborhoods are not limited to immediately adjacent land.

Interstates and Freeways: I-476 (Pennsylvania Turnpike Northeast Extension) is about 3 miles to the west of this center.

Local / Connector Roadways: PA 309 runs through the spine of the center. PA 663 allows for the connections to I-476. Pumping Station Road connects the light manufacturing areas on the north edge of the center to PA 309.

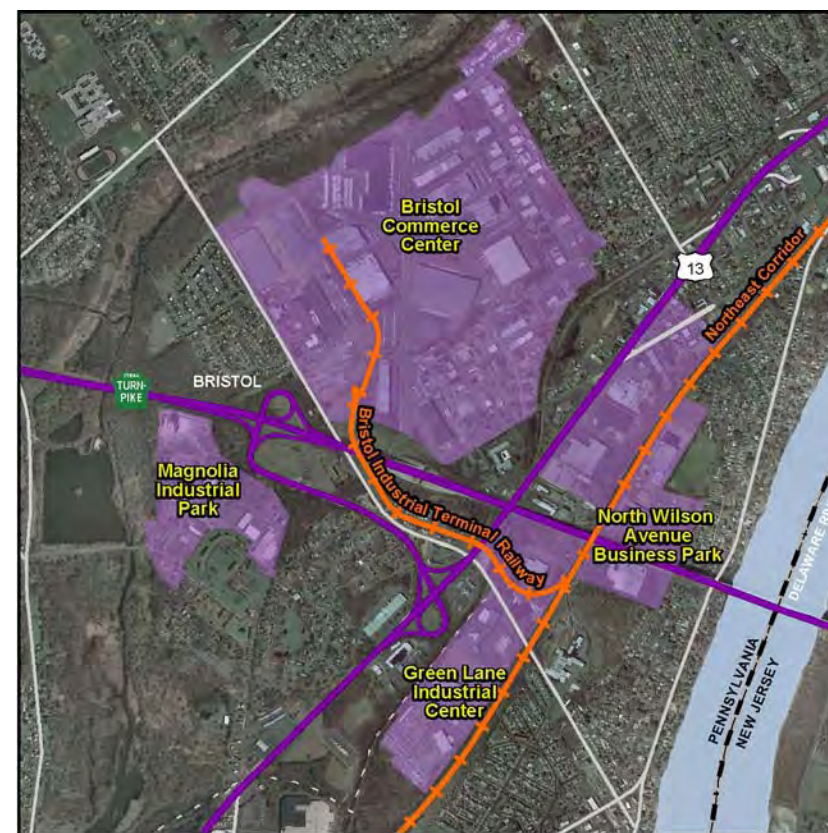
Rail Access: The Bethlehem Branch, owned by SEPTA, is operated by East Penn Railroad LLC, who provide shortline rail service. The Bethlehem Branch connects to the Lansdale Rail Yard which can take multiple routes to the rest of the rail system, with CSX providing the connection.

Bristol / Pennsylvania Turnpike Interchange 358

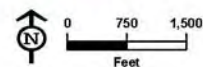
Bristol Township, Bucks County

Land Use and Business Summary: This Intermediate Freight Center has exclusively light manufacturing land use. The northern section has an industrial park, the Bristol Commerce Center, with a series of large-scale buildings to the west and a series of small-scale buildings to the east. Some sample businesses from this park include the Equipment Depot which sells, services, rents, and provides parts for construction equipment; Fiberglass Technologies, which manufactures a full line of fiberglass windows; J&W PharmLab, which is a research and development pharmaceutical company; a Jacobson Warehouse facility, which is a third-party logistics provider; and Tri-State Metals, which offers a complete line of steel and metals products, as well as value-added services such as flame cutting, plasma cutting, shearing, and sawing. This center also is home to a biodiesel fueling station.

Figure 40: Freight-Related Land Use Types within Bristol / Pennsylvania Turnpike Interchange 358



Land Use Type		
■ Distribution	■ Heavy Manufacturing	■ Quarry / Mining
■ Light Manufacturing	■ Transportation	■ Utility



Adjacent Land Use and Buffer Zones: Much of the center borders residential land-use without much buffer. The best buffer exists along the northwestern edge where a wide swath of open space and a creek exist.

Interstates and Freeways: I-276 (Pennsylvania Turnpike) runs through the center with interchange #358 directly adjacent.

Local / Connector Roadways: Green Lane runs through the center connecting into I-276. Runway Road provides local access to the Bristol Commerce Center.

Rail Access: The Northeast Corridor is adjacent to the center. The Bristol Industrial Terminal Railway, owned and operated by East Penn Railroad LLC, provides local access in the Commerce Center. East Penn switches with CSX and Norfolk Southern (via Conrail) along the Northeast Corridor which connects into the North American rail network.

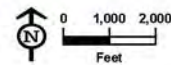
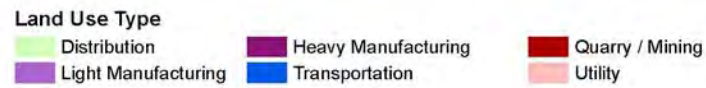
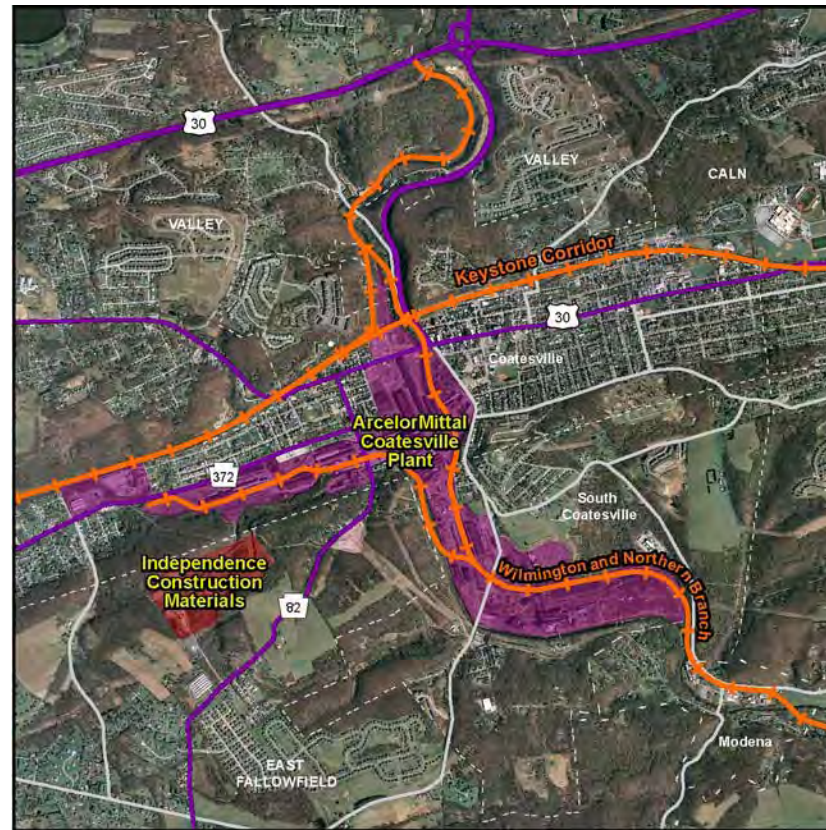
Coatesville / ArcelorMittal

Coatesville and South Coatesville Boroughs, and East Fallowfield Township, Chester County

Land Use and Business Summary: This Intermediate Freight Center is primarily made up of a single heavy manufacturing facility, the ArcelorMittal Coatesville Steel Plant. A steel plant has been functioning in this location since 1810. The ArcelorMittal plant

currently produces steel plate from scrap using an electric arc furnace. The plant has the capacity to produce 900,000 tons of steel per year. An additional, much smaller heavy manufacturing facility is located at the extreme western edge of this center, owned by Allegheny Ludlum. There is also a quarry / mining operation in this center, the Independence Construction Materials facility, which produces a wide array of asphalt products. The center also contains a small utility facility.

Figure 41: Freight-Related Land Use Types within Coatesville / ArcelorMittal



Adjacent Land Use and Buffer Zones: The southern part of the facility has little surrounding development, but the north side of the center borders portions of the residential community of Coatesville. Coatesville primarily developed as a place for workers at the steel plant to live.

Interstates and Freeways: The US 30 Bypass is a limited access highway that runs just north of the center. Traffic on the bypass can connect to I-76 using multiple routes.

Local / Connector Roadways: South 1st Street runs along the east side of the center and becomes PA 82 north of US 30. This is the main road used to access the US 30 Bypass.

Rail Access: The center is served by the Brandywine Valley Railway, which is a wholly owned subsidiary of ArcelorMittal Steel. Brandywine Valley Railway connects with Norfolk Southern in Coatesville along the Keystone Corridor, and with East Penn Railroad LLC in Modena along the Wilmington and Northern Branch. East Penn connects to CSX in Wilmington, Delaware for freight movements to and from this center.

Montgomery Township / PA 309

Montgomery and Lower Gwynedd Townships, Montgomery County

Land Use and Business Summary: This Intermediate Freight Center is made up of light manufacturing land uses and a single quarry / mining facility. The largest light manufacturing facility is owned by Teva Pharmaceuticals. The rest of the light

manufacturing areas are made up of many buildings ranging in size. Some illustrative companies occupying these buildings include: Lansdale Warehouse, which owns two warehouses in this center; Mid-Atlantic Packaging, which offers a complete line of custom printed bags, boxes, tissue, and labels; Saint Gobain, a French-based company, which produces a complete line of products made for sanding, cutting, polishing, or sharpening; and Gemalta, which manufactures security devices such as smart cards. The Glasgow Springhouse Quarry and Asphalt Plant is an active quarry extracting rock from the ground in order to produce a wide range of asphalt products at the adjacent plant.

Adjacent Land Use and Buffer Zones: Almost this entire center is surrounded by suburban style residential development with inadequate transitional buffers. In addition, a brand new development was recently built directly adjacent to the Glasgow facility.

Interstates and Freeways: I-476 (Pennsylvania Turnpike Northeast Extension) runs seven miles to the west of the center and I-276 (Pennsylvania Turnpike) runs 10 miles to the south.

Local / Connector Roadways: PA 309 runs through the center and connects to I-276. Hartman and Stump Roads are the two most important local roads for access to the light manufacturing areas.

Rail Access: There is no rail access in this center.

Figure 42: Freight-Related Land Use Types within Montgomery Township / PA 309



INTERMEDIATE FREIGHT CENTER

Trenton / Hamilton

Trenton City and Lawrence and Hamilton Townships, Mercer County

Land Use and Business Summary: This Intermediate Freight Center contains one heavy manufacturing facility and a number of pockets of light manufacturing along the Amtrak Northeast Corridor. The Congoleum Corporation facility manufactures sheet and tile flooring and houses the company's corporate offices. The light manufacturing areas host an array of businesses, with the areas to the west of the Northeast Corridor handling primarily recycled metals and business related to the automobile sector and construction. These businesses are exemplified by Jersey Precast, which designs, engineers, and manufactures precast and prestressed concrete products. The facilities to the east of the Northeast Corridor are slightly larger in scale, highlighted by a UPS Customer Care Center which services greater Mercer County. There is also a heavy presence of trucking facilities in this center, with YRC, Con-way, New Penn, FedEx, and Pitt-Ohio all located here.

Figure 43: Freight-Related Land Use Types within Trenton / Hamilton



Surrounding Land Use: There is a thin ring of trees which serves as a buffer between the industrial and nearby residential land uses. The Hamilton Grounds for Sculpture runs both adjacent and through parts of this center.

Interstates and Freeways: I-295 is nearby with access provided by US 1 and NJ 33.

Local / Connector Roadways: State Street runs parallel to the Northeast Corridor connecting the center to I-295. Whitehead Road branches off from State Street to serve the areas west of the Northeast Corridor and to connect into US 1.

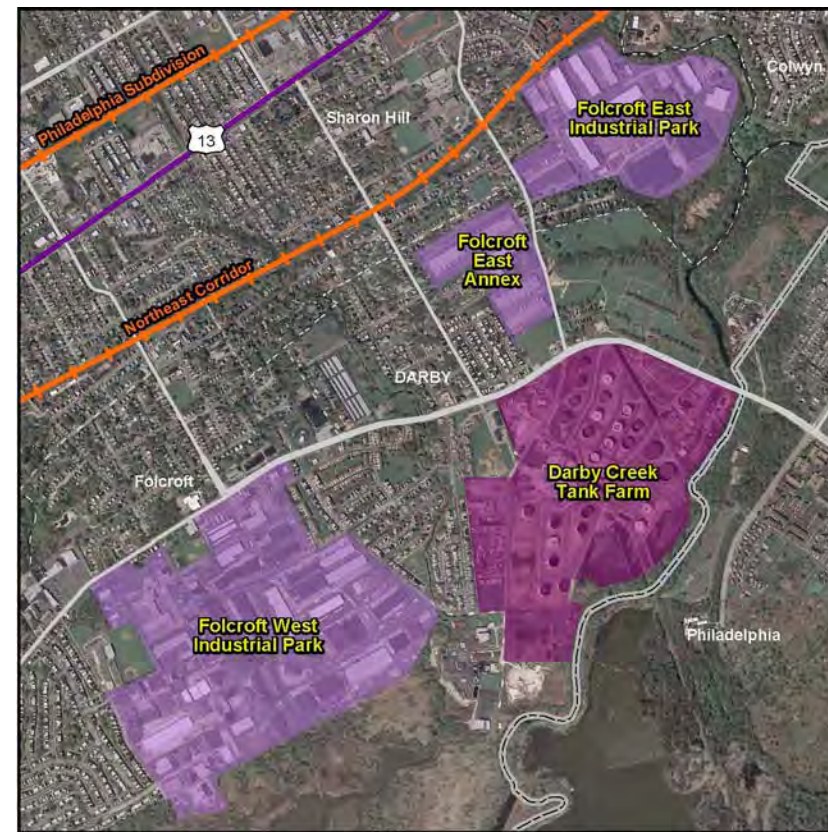
Rail Access: The Northeast Corridor, owned and operated by Amtrak, runs through the center, serving mainly passenger rail operations. The Bordentown Secondary, owned and operated by Conrail, crosses the Northeast Corridor just south of the center, looping around to connect into the Northeast Corridor.

Folcroft / Hook Road

Darby Township and Folcroft Borough, Delaware County

Land Use and Business Summary: This Intermediate Freight Center contains three areas of light manufacturing, as well as one heavy manufacturing facility. The light manufacturing is made up of three industrial parks, the Folcroft West Industrial Park, the Folcroft East Industrial Park, and the Folcroft East Annex. All three parks are highlighted by businesses that take advantage of the proximity of the center to the Philadelphia International Airport. The Folcroft West Industrial Park is home to Forward Air Corporation and Pilot Air Freight, which are both fully integrated logistics companies with a heavy focus and reliance on air cargo. The Folcroft East Industrial Park, which is slightly smaller in size, is home to Philadelphia Truck Lines which provides local pick-up and delivery for a host of both domestic and international air freight forwarders. The parks have non-air freight-related businesses as well, for example, NP Precision and Sperry Graphic. Along the border with Philadelphia is a heavy manufacturing facility, the Darby Creek Tank Farm, which is owned and operated by Sunoco Logistics.

Figure 44: Freight-Related Land Use Types within Folcroft / Hook Road



Adjacent Land Use and Buffer Zones: This center abuts residential communities in all three townships, with only minimal tree line and local roads providing a buffer.

Interstates and Freeways: I-95 is located roughly 1 mile southeast of the center.

Local / Connector Roadways: Hook Road turns into 84th Street, which leads traffic to US 291, which allows for access to both I-95 and the Philadelphia International Airport. Calcon Hook Road provides access into Hook Road for the Folcroft East Industrial Park.

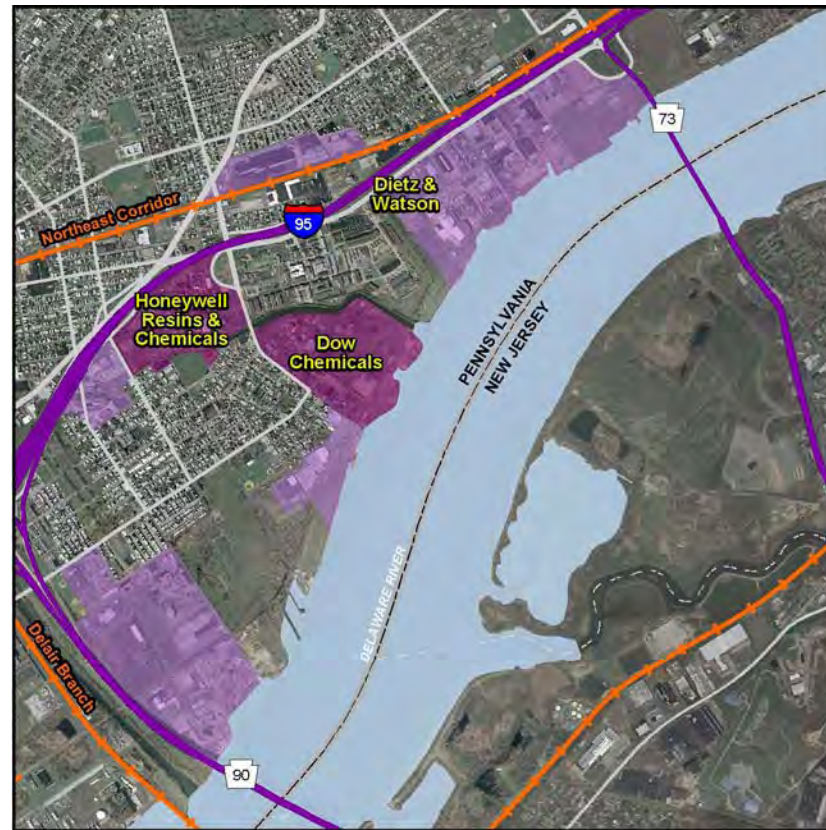
Rail Access: The Amtrak Northeast Corridor runs just north of the center, but does not appear to have any spurs by which to directly serve any facility within this center.

Bridesburg / Bridge Street

Philadelphia City

Land Use and Business Summary: This Intermediate Freight Center contains a series of light manufacturing areas as well as two heavy manufacturing facilities. The Dow Chemicals heavy manufacturing facility was one of the first chemical plants in the country,

Figure 45: Freight-Related Land Use Types within Bridesburg / Bridge Street



dating back to 1847, but was closed in 2010. At present activity at the site is limited to ongoing environmental remediation efforts.

The Honeywell Resins & Chemicals facility was purchased from Sunoco in 2011. Honeywell will use the plant to produce phenol and acetone. The light manufacturing areas in the north of this center are highlighted by Dietz and Watson, which produces deli meats and cheeses. This building was opened in 1975 and also houses the corporate headquarters. Also highlighting the light manufacturing areas in the north is Newman and Company, Inc., which produces more than 60,000 tons of paperboard annually. Meanwhile, the light manufacturing areas towards the south of the center are mostly trucking-related activities highlighted by truck depots for H&M International Transportation and Galasso Trucking.

Adjacent Land Use and Buffer Zones: The Bridesburg community of Philadelphia lies within this center with very little buffer. Local newspaper articles have detailed complaints of truck traffic on local streets in this center.

Interstates and Freeways: I-95 runs adjacent to the center.

Local / Connector Roadways: The southern part of this center is served by Richmond, Hedley, and Bridge Streets, while the northern part is served by Tacony Street.

Rail Access: The rail spurs which serve businesses in this center come off both the Northeast Corridor and the Delair Branch. The Delair Branch is owned and operated by Conrail, while the Northeast Corridor is owned by Amtrak with Conrail retaining trackage rights.

New Garden / Baltimore Pike

New Garden Township and Avondale Borough, Chester County

Land Use and Business Summary: This Intermediate Freight Center contains some light manufacturing activity in and around New Garden, as well as a transportation facility and a quarry / mining facility. This center is primarily devoted to the food industry. Some

Figure 46: Freight-Related Land Use Types within New Garden / Baltimore Pike



of the finest mushrooms in the world are grown in this center by companies like Modern Mushroom Farms, Mushroom Express, Mushroom Central, and ToJo Mushrooms. Basciani Foods and Manfredi Cold Storage are an example of some of the businesses that have been founded around the distribution of food products. At the western edge of the center, East Penn Railroad LLC operates a transload facility so that area businesses can have rail service without having a direct siding (a truck is used to transport the goods from the transload facility to the business). The center is also home to the New Garden Airport, which is a municipally owned, public use reliever airport. Full aircraft maintenance services, a flight school, air taxi, storage and aircraft rental services are offered at the airport by New Garden Aviation.

Adjacent Land Use and Buffer Zones: Most of the surrounding land in this center is either open space or farms.

Interstates and Freeways: US 1 is a limited access highway running about a mile north of the Center.

Local / Connector Roadways: Baltimore Pike runs through the center serving as the main local road. PA 41 runs along the southern end of the center.

Rail Access: The Octoraro Branch is owned by East Penn Railroad LLC and serves clients directly and through the transload facility in this center. The Octoraro Branch connects to the Wilmington and Northern Branch which connects to the Keystone Corridor to the north and to a CSX facility in Elsmere, Delaware in the south.

Hainesport / Lumberton

Mount Laurel, Hainesport, and Lumberton Townships, Burlington County

Land Use and Business Summary: This Intermediate Freight Center does not consist of adjacent parcels but a scattering of freight-related land uses along a corridor represented by NJ 38 and the Pemberton Secondary Rail Line. On the western end are light manufacturing areas highlighted by Roosevelt Paper, which uses the leftover paper from major paper mills to supply low cost paper products. Hainesport Industrial Park has a mix of businesses, such as Independent Metal Sales and the American Agip Distribution Center that houses the operations for a complete line of industrial lubricants. At the eastern edge is the Lumberton Corporate Center, which houses the regional distribution center for CVS Caremark.

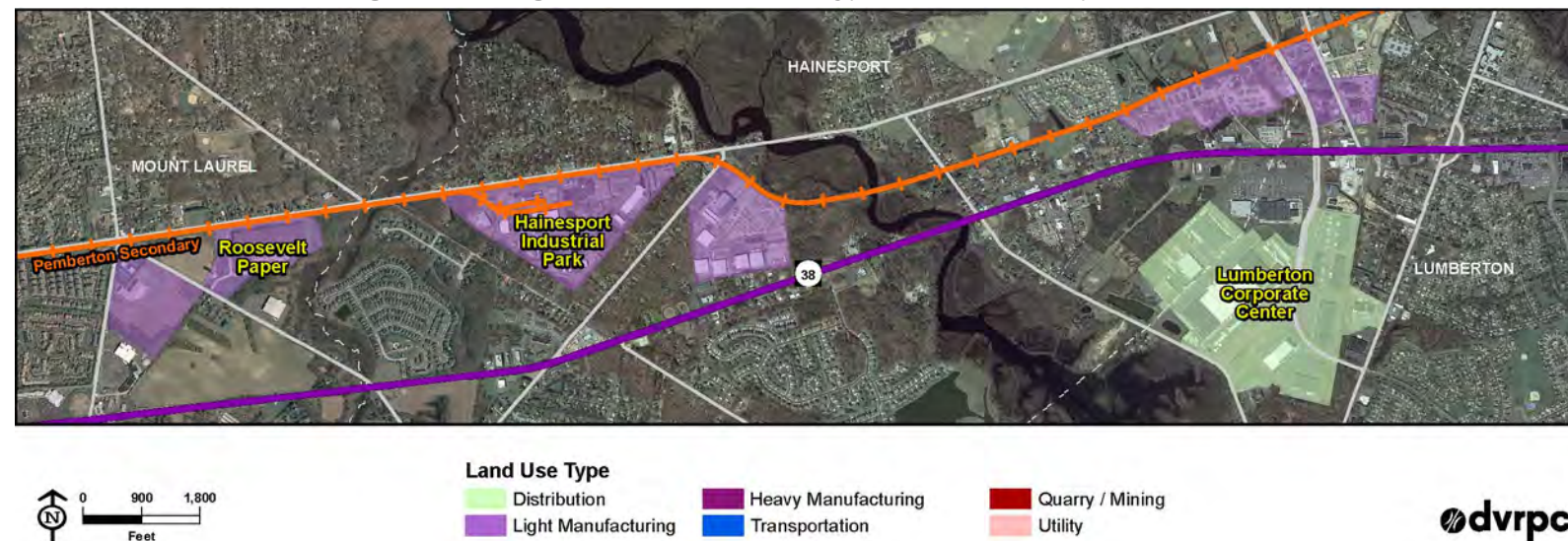
Surrounding Land Use: While most areas in the center have small buffer zones around the industrial facilities, the residential and commercial growth in the area is encroaching very close to the businesses.

Interstates and Freeways: NJ 38 connects into I-295 to the west of the center.

Local / Connector Roadways: Marne Highway provides most local movement for this center.

Rail Access: The Pemberton Secondary is operated by Conrail and the Hainesport Industrial Railroad operates shortline service within the Hainesport Industrial Park. The Pemberton Secondary feeds into the Delair Bridge, which connects into the North American rail network.

Figure 47: Freight-Related Land Use Types within Hainesport / Lumberton



Juniata / Castor Avenue

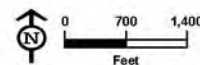
Philadelphia City

Land Use and Business Summary: This Intermediate Freight Center contains mostly light manufacturing, but also a heavy manufacturing facility and a utility facility. The light manufacturing facilities are highlighted by: Philadelphia Coca-Cola Bottling Company, one of the larger distributors of Coca-Cola products in the US, serving 6 million consumers in southeastern Pennsylvania, Delaware, and central and southern New Jersey; Case Paper Company, which warehouses a complete line of paper and board products; GE Energy, which has a 160,000 square foot facility in the center; and Tony Depaul and Sons which operates a facility that supplies construction materials. The heavy manufacturing facility, owned by Conoco Phillips, stores and distributes crude oil, refined products, and natural gas. The utility facility is a PECO generating station that provides energy to Philadelphia and the surrounding areas.

Figure 48: Freight-Related Land Use Types within Juniata / Castor Avenue



Land Use Type		
■ Distribution	■ Heavy Manufacturing	■ Quarry / Mining
■ Light Manufacturing	■ Transportation	■ Utility



Surrounding Land Use: This center borders a mix of urban commercial and residential development. There is little buffer between the Freight Center and the areas of residential development.

Interstates and Freeways: I-95 is roughly 2.5 miles to the east of this center with multiple access points. US 1, Roosevelt Boulevard, runs about 1.5 miles to the north of this center.

Local / Connector Roadways: A series of local roads allows for movement in the center including, but not limited to: Front Street, Hunting Park Avenue, G Street, Luzerne Street, and Erie Avenue.

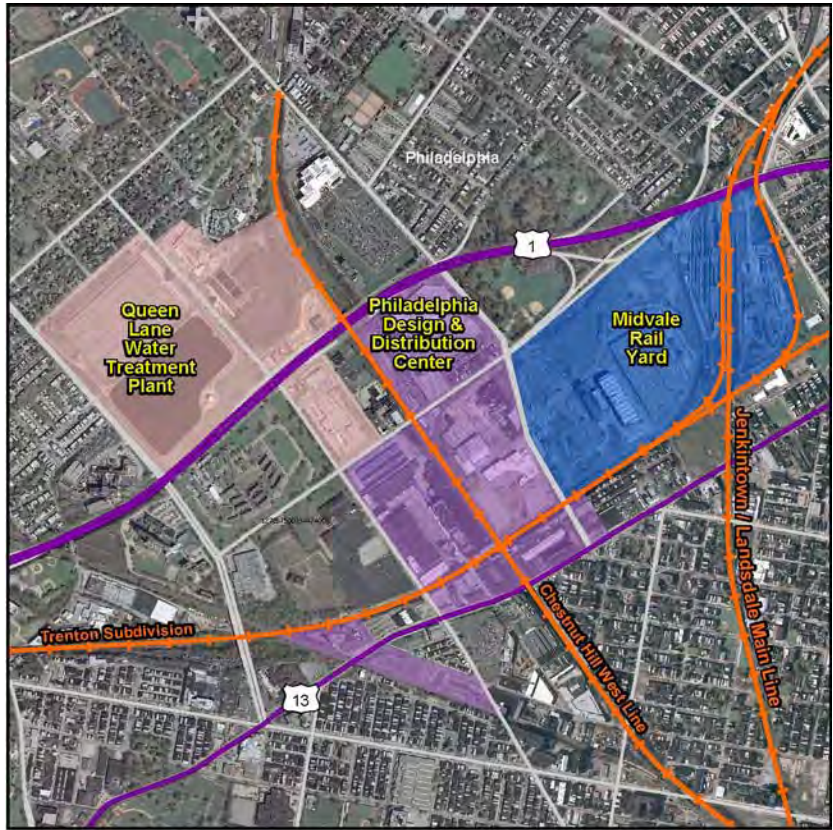
Rail Access: The Amtrak Northeast Corridor runs through the center, but is mainly used for passenger movements. Conrail has freight trackage rights on the line and some facilities have direct sidings.

Wayne Junction / Roberts Avenue

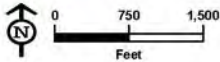
Philadelphia City

Land Use and Business Summary: This Intermediate Freight Center contains utility, transportation, and light manufacturing land uses in relatively equal portions. The utility facilities in this center are highlighted by the Queen Lane Water Treatment Plant and the Queen Lane Filter Station, both operated by the Philadelphia Water Department. This center was historically home to two large manufacturing plants: one owned by Tasty Baking, which was recently moved to the Schuylkill River East / Girard Point Freight Center; and one owned by Edward G. Budd Manufacturing Company, which manufactured train and auto parts. The light manufacturing areas are largely in buildings that used to be part of these two facilities, and are largely in flux in terms of future use. The transportation facility in this center is the Midvale Yard, which is owned and operated by SEPTA. This facility is mostly used for maintenance operations.

Figure 49: Freight-Related Land Use Types within Wayne Junction / Roberts Avenue



Land Use Type		
■ Light Manufacturing	■ Transportation	■ Utility
■ Distribution	■ Heavy Manufacturing	■ Quarry / Mining



Adjacent Land Use and Buffer Zones: This center is surrounded by urban residential development, but land use buffers do exist, and the area has an industrial past that binds it to the community.

Interstates and Freeways: US 1 is a limited access freeway in the Center and connects into I-76 within 2 miles of the center.

Local / Connector Roadways: Fox Street, Roberts Street, and Wissahickon Avenue are the most vital local roadways for this center.

Rail Access: Rail access is provided via the CSX Trenton Subdivision, and two SEPTA Lines, the Chestnut Hill West Line, and the SEPTA Jenkintown / Lansdale Main Line.

Falls / Cabot Boulevard

Falls and Middletown Townships, Bucks County

Land Use and Business Summary: This Intermediate Freight Center has mostly light manufacturing land use and a transportation facility. The heart of this center is the Norfolk Southern Morrisville Intermodal Yard. This facility handles intermodal trains, containers, and trailers. Trucks pick up goods for local delivery and drop off goods for outbound shipments. The light manufacturing areas are branded under the name Bucks County Business Park and have a wide array of businesses. The businesses at the Bucks County Business Park are highlighted by a General Motors Service Parts Operation; a Metals USA plates and shapes facility, where they make bars, beams, and pipes; and the headquarters, manufacturing and warehousing facility for Eastern Catalytic, a catalytic converter manufacturing company which also performs research and development for new emissions control products.

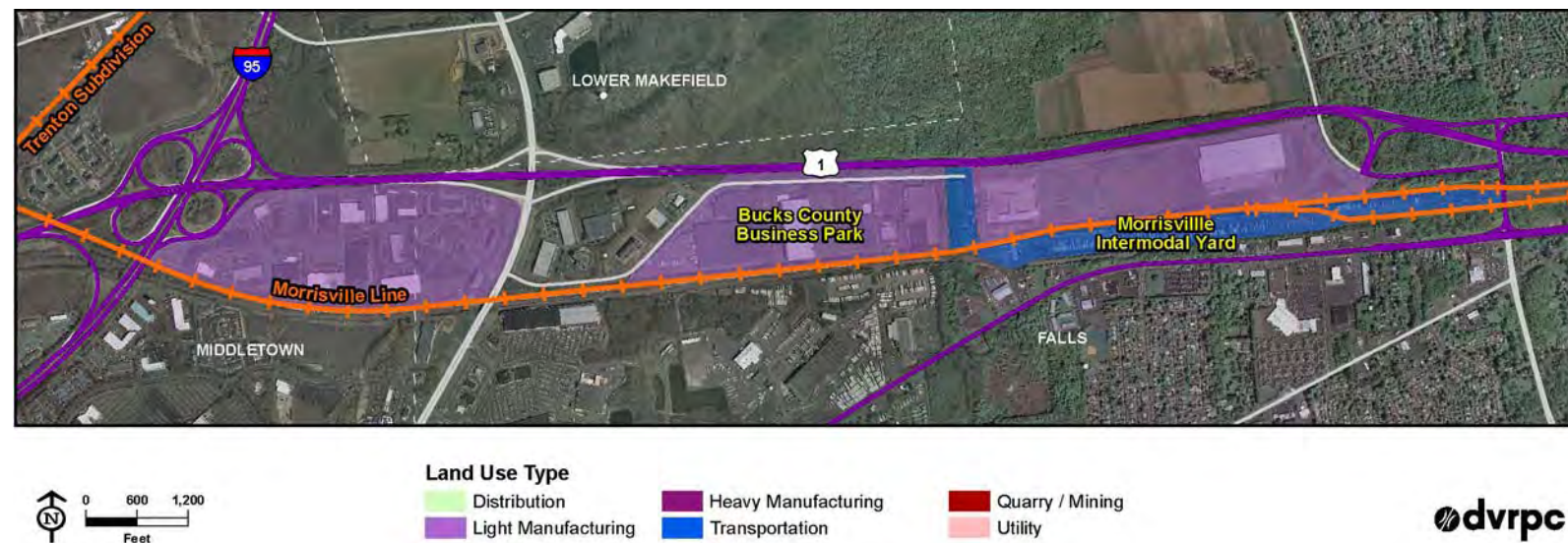
Adjacent Land Use and Buffer Zones: This center has buffering provided by US 1 and the Morrisville Rail Line.

Interstates and Freeways: US 1 is a limited access highway running along the northern edge of the center and connects into I-95.

Local / Connector Roadways: Oxford Valley Road provides the access to US 1 and Cabot Boulevard provides the local access to the Bucks County Business Park and the Norfolk Southern Intermodal Yard. These roadways are a designated NHS Connector.

Rail Access: The Morrisville Line is a Class I main line owned and operated by Norfolk Southern and serves the intermodal facility in the center, but does not directly serve any of the businesses in the Bucks County Business Park.

Figure 50: Freight-Related Land Use Types within Falls / Cabot Boulevard

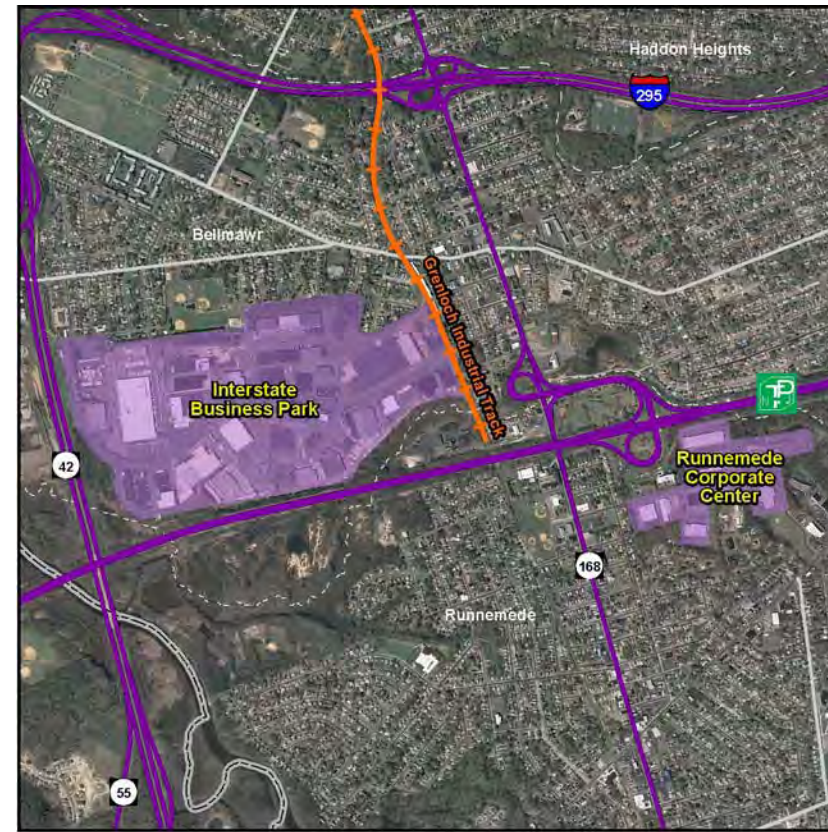


Bellmawr / Runnemede

Bellmawr and Runnemede Boroughs, Camden County

Land Use and Business Summary: This Intermediate Freight Center contains two areas of light manufacturing, the Interstate Business Park and the Runnemede Corporate Center. The Interstate Business Park is a mixture of large and small buildings with a diverse range of light manufacturing businesses. The largest facility in the Interstate Business Park is a US Post Office Distribution Center. While the USPS facility is focused on distribution, the International Paper Bellmawr Container Plant produces industrial packaging, exemplifying the range of operations. The Runnemede Corporate Center is smaller and has roughly ten small-scale buildings. A sample business from the Runnemede Corporate Center is G & K Services which supplies high-quality work apparel.

Figure 51: Freight-Related Land Use Types within Bellmawr / Runnemede



Adjacent Land Use and Buffer Zones: The center is split; about half the center is well buffered by limited access freeways, while the other half has little buffer between the surrounding residential development.

Interstates and Freeways: The New Jersey Turnpike (interchange #3) is located directly in the middle of this center. I-295 (interchange #28) runs just to the north of the center, while NJ 42 runs just to the west of the center and connects into I-76 and the Atlantic City Expressway.

Local / Connector Roadways: NJ 168 (Black Horse Pike) provides access to both I-295 and New Jersey Turnpike. Benigno Boulevard runs through the Interstate Business Park and connects it to NJ 168 and NJ 42. 9th Avenue runs through the Runnemede Corporate Center connecting into NJ 168.

Rail Access: The Grenloch Industrial Track, which is operated by Conrail, provides rail access to a limited number of facilities in the center. The Grenloch Industrial Track connects into the Vineland Secondary which leads into the RiverLine which then feeds into the Delair Bridge which connects into the North American rail network.

Lansdale / Bethlehem Branch

Hatfield Township and Lansdale Borough, Montgomery County

Land Use and Business Summary: This Intermediate Freight Center has a distribution center facility, a utility facility, and a series of light manufacturing areas. The distribution center facility is the Lansdale Warehouse, a family owned and operated full service

Figure 52: Freight-Related Land Use Types within Lansdale / Bethlehem Branch



logistics and warehousing company. The largest light manufacturing facility is Jet Plastica, which manufactures plastic disposable products for the food and beverage industries. Other light manufacturing facilities include: Rex Heat Treat (heat treating is a group of industrial and metalworking processes used to alter the physical, and sometimes chemical, properties of a material); Berk Wiper Converting & Packaging, LLC, which produces disposable wiping cloths for many processes, serving industries such as janitorial, foodservice, healthcare, and automotive; and Zeigler's, which manufactures a full line of juice products but are renowned for their apple cider. The utility facility contains both electrical and waste water operations for the area.

Adjacent Land Use and Buffer Zones: The communities of Lansdale and Hatfield are both adjacent to portions of the center, but there is a tree line surrounding most of the facilities which provides a buffer.

Interstates and Freeways: The PA 309 Bypass runs roughly three miles to the east of this center and I-476 runs about four miles to the west of this center.

Local / Connector Roadways: Broad Street and Main Street are crucial to movements in the center and both provide access to Sumneytown Pike which connects to I-476. Cowpath Road (PA 463) runs near the top of the center and connects to PA 309.

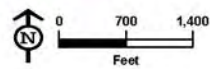
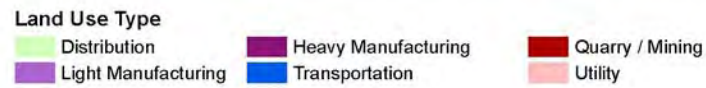
Rail Access: The Lansdale Rail Yard is just south of this center and facilities are served via both the Doylestown Line and the Bethlehem Branch, both owned by SEPTA. From the Lansdale Yard the rest of the North American rail network can be accessed via the Stony Creek Branch or the Jenkintown/Lansdale Main Line.

Moorestown / Lockheed Martin

Moorestown Township, Burlington County

Land Use and Business Summary: This Intermediate Freight Center is made up of one heavy manufacturing facility owned by the Lockheed Martin Corporation. Lockheed Martin’s Mission Systems & Sensors (MS2) division, which operates the facility, provides

Figure 53: Freight-Related Land Use Types within
Moorestown / Lockheed Martin



surface, air, and undersea applications for U.S. and allied forces. The MS2 portfolio includes radar and surveillance systems, undersea combat systems and C4I, surface combat systems and sensors, and advanced technology products including some of the most advanced ship hull forms operating today.

Adjacent Land Use and Buffer Zones: The triangular facility is bounded by three different types of land use. To the west is residential development, to the north open space, and to the south commercial development. The parking lots for the over 5,000 employees provide an excellent buffer from any industrial activity.

Interstates and Freeways: I-295 interchange #40 is in close proximity to the center.

Local / Connector Roadways: Marter Avenue to NJ 38 provides the most direct access to I-295.

Rail Access: The Pemberton Secondary runs along the southern edge of this center, but there does not appear to be a siding or any evidence of direct rail service.

County and Regional Summaries

This chapter will provide a summary of the Freight Centers in each of the nine DVRPC counties, as well as a summary for the entire DVRPC region. Each county summary contains three major pieces of information:

- A table which displays each Freight Center with the following fields: center type, total acres, manufacturing jobs, total jobs, freight rail served, and proximity to Interstate Highways.
- A map of both the Freight Centers and the freight transportation network in each county is provided to enhance the understanding of how the centers fit into the larger goods movement picture.
- A pie chart which summarizes the different freight-related land uses for all freight centers in each county.

The definitions for this chapter remain the same as for chapters 3, 4, and 5 (see page 24). Additional information provided in this chapter is explained below:

- **Manufacturing Jobs (2009):** This field in the tables uses the same data source as total jobs.
- **Freight Rail Served:** For the tables this will simply be filled in as yes or no. If at least one business in the center has direct rail service, the whole center is considered rail served.
- **Proximity to Interstate Highways:** For simplicity, each center is defined by either having an Interstate highway within ½ miles, ½ - 2 miles, 2-5 miles, or more than 5 miles.

Bucks County Freight Centers

Bucks County is the home to one Mega Freight Center, three Major Freight Centers, and four Intermediate Freight Centers. Combined, they have 9,080 acres of freight-related land and 46,803 total jobs, 8,893 of which are in the manufacturing sector.

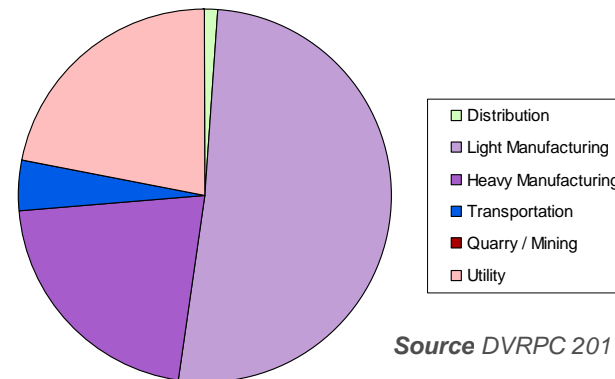
Table 5: Bucks County Freight Centers

Name	Center Type	Total Acres	Manufacturing Jobs (2009)	Total Jobs (2009)	Freight Rail Served	Proximity to Interstate Highways
Falls / KIPC	Mega	4,507	345	1,580	Yes	More than 5 Miles
Warminster / Northampton	Major	957	2,684	12,483	Yes	More than 5 Miles
Falls / Penn-Warner	Major	773	474	2,581	Yes	More than 5 Miles
Bensalem / Street Road	Major	735	1,395	7,208	Yes	Less Than ½ Mile
West Bristol / PA 413	Intermediate	675	2,089	7,113	Yes	Less Than ½ Mile
Quakertown / Milford	Intermediate	559	954	5,301	Yes	2-5 Miles
Bristol / PA Turnpike Interchange #358	Intermediate	549	630	4,947	Yes	Less Than ½ Mile
Falls / Cabot Blvd.	Intermediate	325	322	5,590	Yes	½ - 2 Miles

Source U.S. Census Bureau 2011, DVRPC 2011

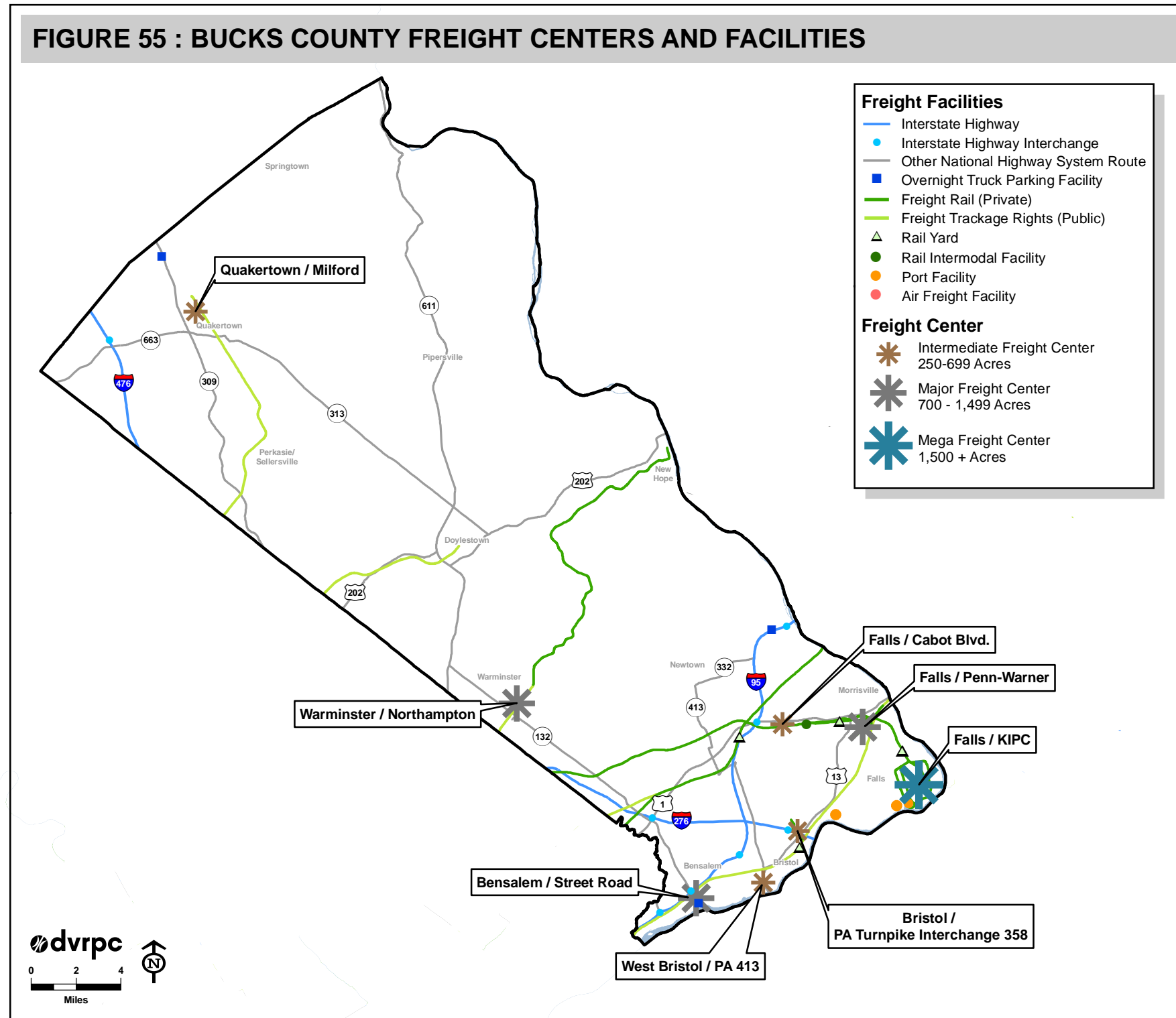
Six of the Bucks County Freight Centers are located in the lower part of the county, near the Delaware River (Figure 55). The majority, 51%, of the freight-related land use is light manufacturing (Figure 54). 23% of all Bucks County manufacturing jobs are located in Freight Centers, but only 2.3% of Bucks County land is found in a Freight Center.

Figure 54: Land Use Types within Bucks County Freight Centers



Source DVRPC 2011

FIGURE 55 : BUCKS COUNTY FREIGHT CENTERS AND FACILITIES



Burlington County Freight Centers

Burlington County is the home to one Mega Freight Center, and three Intermediate Freight Centers. Combined, Burlington County Freight Centers have 2,752 acres of freight-related land, and 30,126 total jobs, 7,541 of which are in the manufacturing sector.

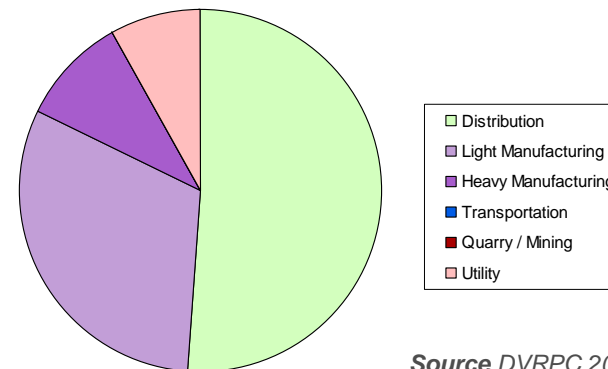
Table 6: Burlington County Freight Centers

Name	Center Type	Total Acres	Manufacturing Jobs (2009)	Total Jobs (2009)	Freight Rail Served	Proximity to Interstate Highways
Burlington Twp. / Haines Industrial Center	Mega	1,517	886	6,019	Yes	Less Than ½ Mile
Cinnaminson / Delran	Intermediate	677	1,297	7,436	Yes	More than 5 Miles
Hainesport / Lumberton	Intermediate	425	341	7,540	Yes	More than 5 Miles
Moorestown / Lockheed Martin	Intermediate	133	5,017	9,131	No	Less Than ½ Mile

Source U.S. Census Bureau 2011, DVRPC 2011

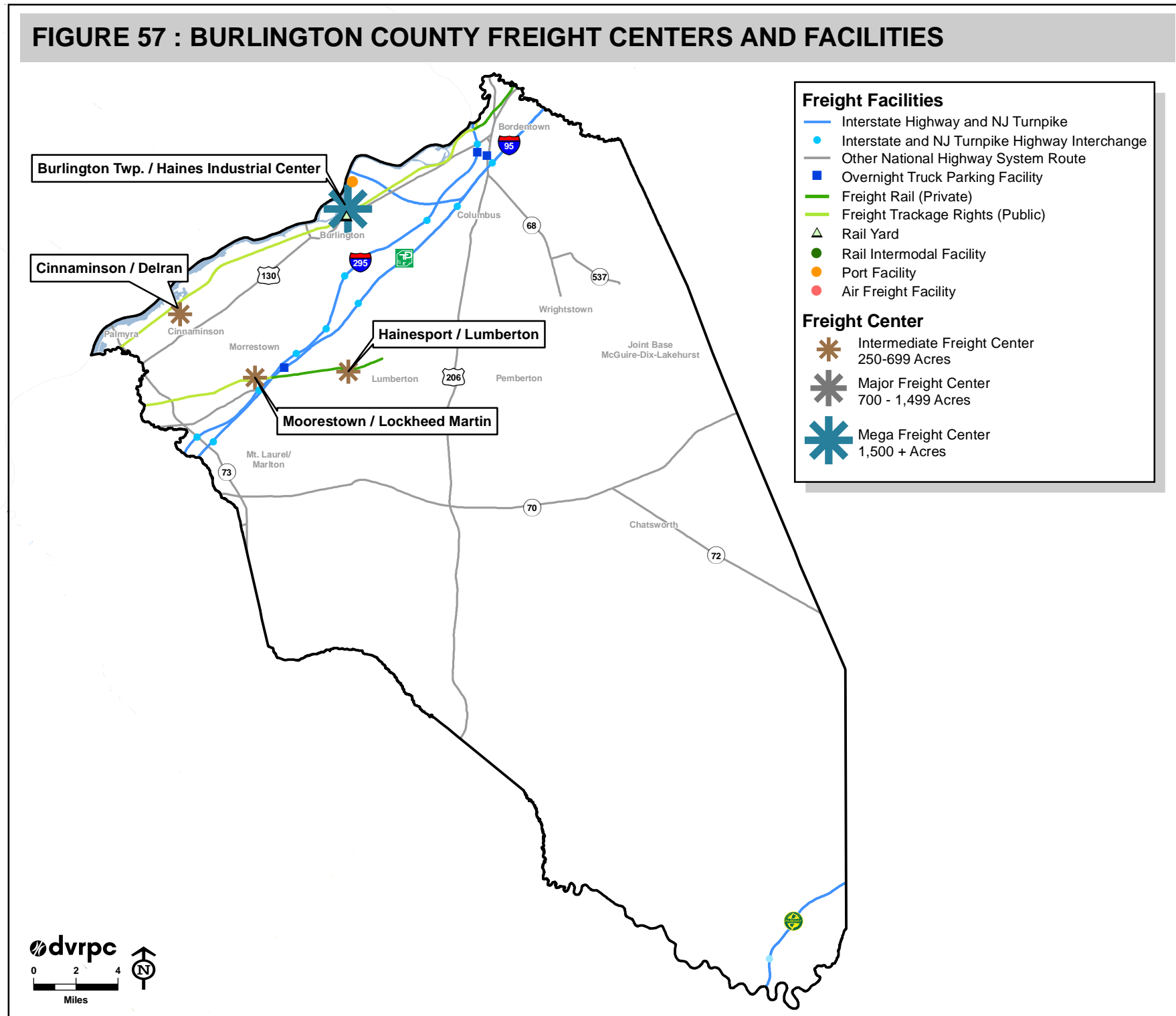
Figure 56: Land Use Types within Burlington County Freight Centers

All four Burlington County Freight Centers are located in the northeastern part of the county (Figure 57). The majority, 51%, of the freight-related land use in the centers is distribution (Figure 56). 42% of the manufacturing jobs in Burlington County are found in the Freight Centers, while only 0.5% of county land is located in the Freight Centers.



Source DVRPC 2011

FIGURE 57 : BURLINGTON COUNTY FREIGHT CENTERS AND FACILITIES



Camden County Freight Centers

Camden County is home to two Major Freight Centers and one Intermediate Freight Center. Combined the Camden County Freight Centers have 1,946 acres of freight-related land use and 14,633 total jobs, 3,506 of which are in the manufacturing sector.

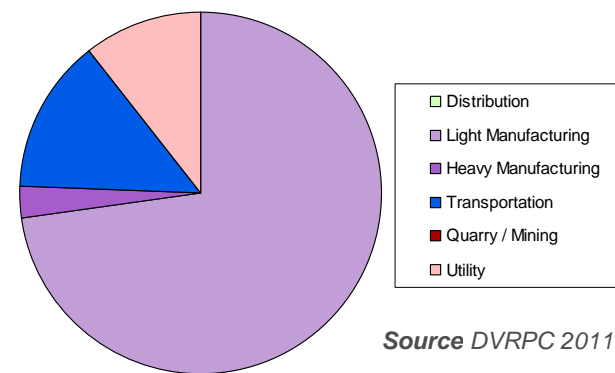
Table 7: Camden County Freight Centers

Name	Center Type	Total Acres	Manufacturing Jobs (2009)	Total Jobs (2009)	Freight Rail Served	Proximity to Interstate Highways
Pennsauken / NJ 90	Major	936	2,076	6,810	Yes	2 – 5 Miles
Camden / Gloucester City	Major	734	1,004	4,072	Yes	Less Than ½ Mile
Bellmawr / Runnemede	Intermediate	276	426	3,751	Yes	Less Than ½ Mile

Source U.S. Census Bureau 2011. DVRPC 2011

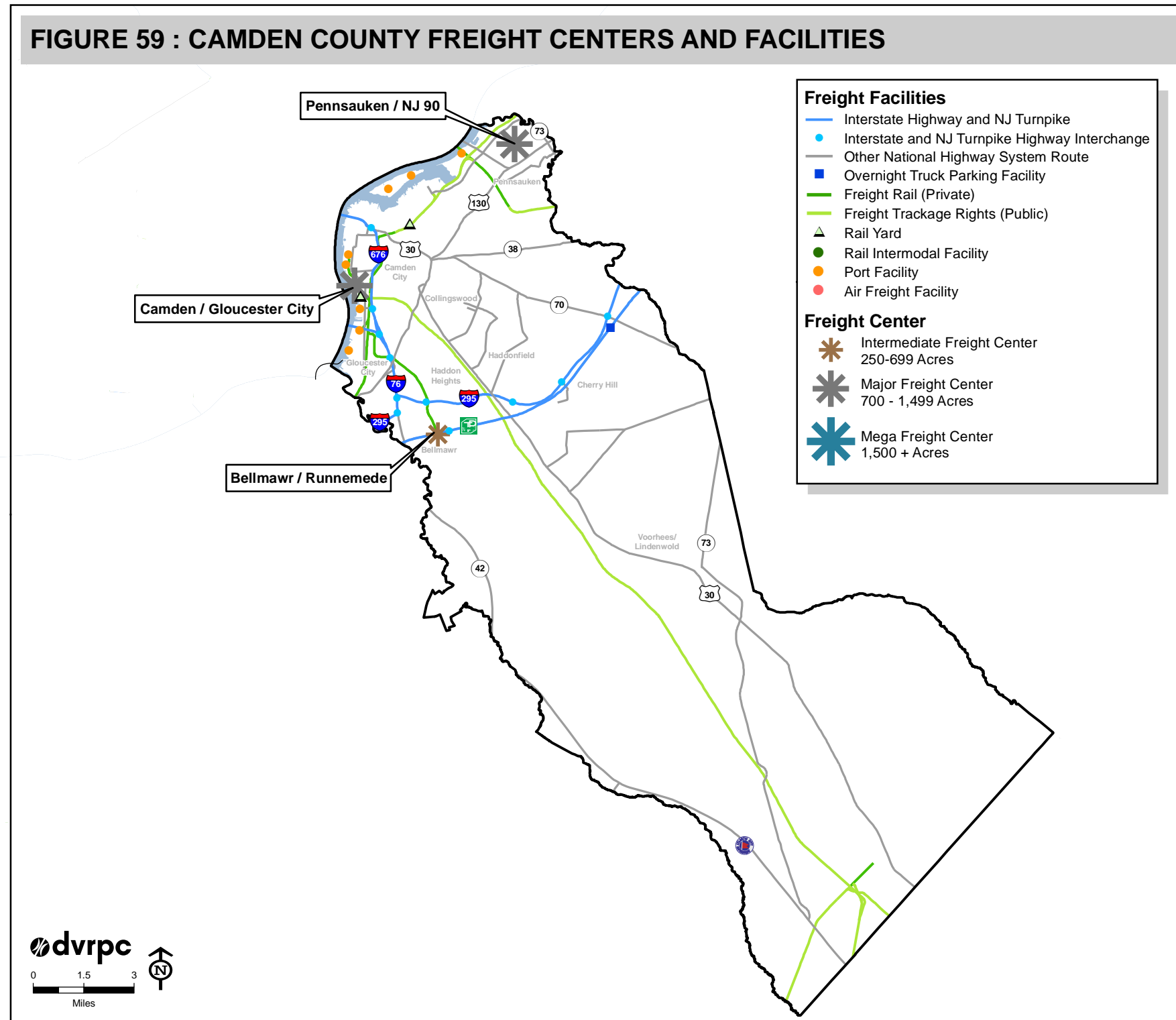
Of the three Freight Centers in Camden County, two are largely made up of industrial parks (Pennsauken / NJ 90 and Bellmawr / Runnemede), while the other (Camden / Gloucester City) is made up of ports and mainly port-related business. This can be seen in the freight-related land use for the Camden County Freight Centers with the majority, 73%, being light manufacturing, but transportation still having significant acreage, 14%. 24% of all Camden County manufacturing jobs are located in Freight Centers, but only 1.3% of Camden County land is assigned to a Freight Center.

Figure 58: Land Use Types within Camden County Freight Centers



Source DVRPC 2011

FIGURE 59 : CAMDEN COUNTY FREIGHT CENTERS AND FACILITIES



Chester County Freight Centers

Chester County is the home to one Major Freight Center and three Intermediate Freight Centers. Combined, Chester County Freight Centers have 2,403 acres of freight-related land and 31,588 total jobs, 4,602 of which are in the manufacturing sector.

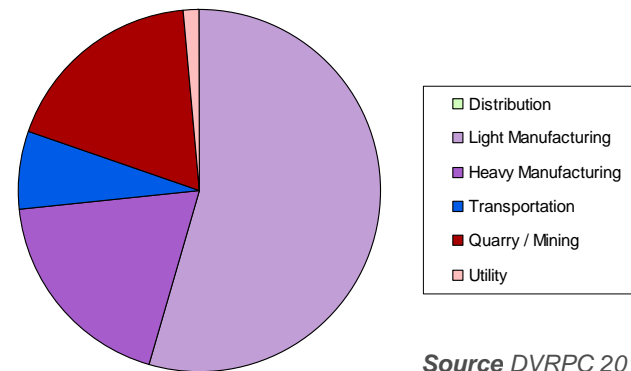
Table 8: Chester County Freight Centers

Name	Center Type	Total Acres	Manufacturing Jobs (2009)	Total Jobs (2009)	Freight Rail Served	Proximity to Interstate Highways
Downingtown / Boot Road	Major	787	1,053	9,137	Yes	More than 5 Miles
West Chester / US 202	Intermediate	650	1,119	13,271	No	More than 5 Miles
Coatesville / ArcelorMittal	Intermediate	535	966	3,193	Yes	More than 5 Miles
New Garden / Baltimore Pike	Intermediate	431	1,464	5,987	Yes	More than 5 Miles

Source U.S. Census Bureau 2011, DVRPC 2011

The four Chester County Freight Centers are spaced evenly throughout the county, with a limited-access arterial being in close proximity to each one, either US 202, US 30, or US 1 (Figure 61). The majority, 54% of freight-related land use is light manufacturing, and there are significant amounts of heavy manufacturing, 19%, and quarry / mining, 18% as well (Figure 60). 21% of all Chester County manufacturing jobs are located in Freight Centers, but only 0.5% of Chester County land is in a Freight Center.

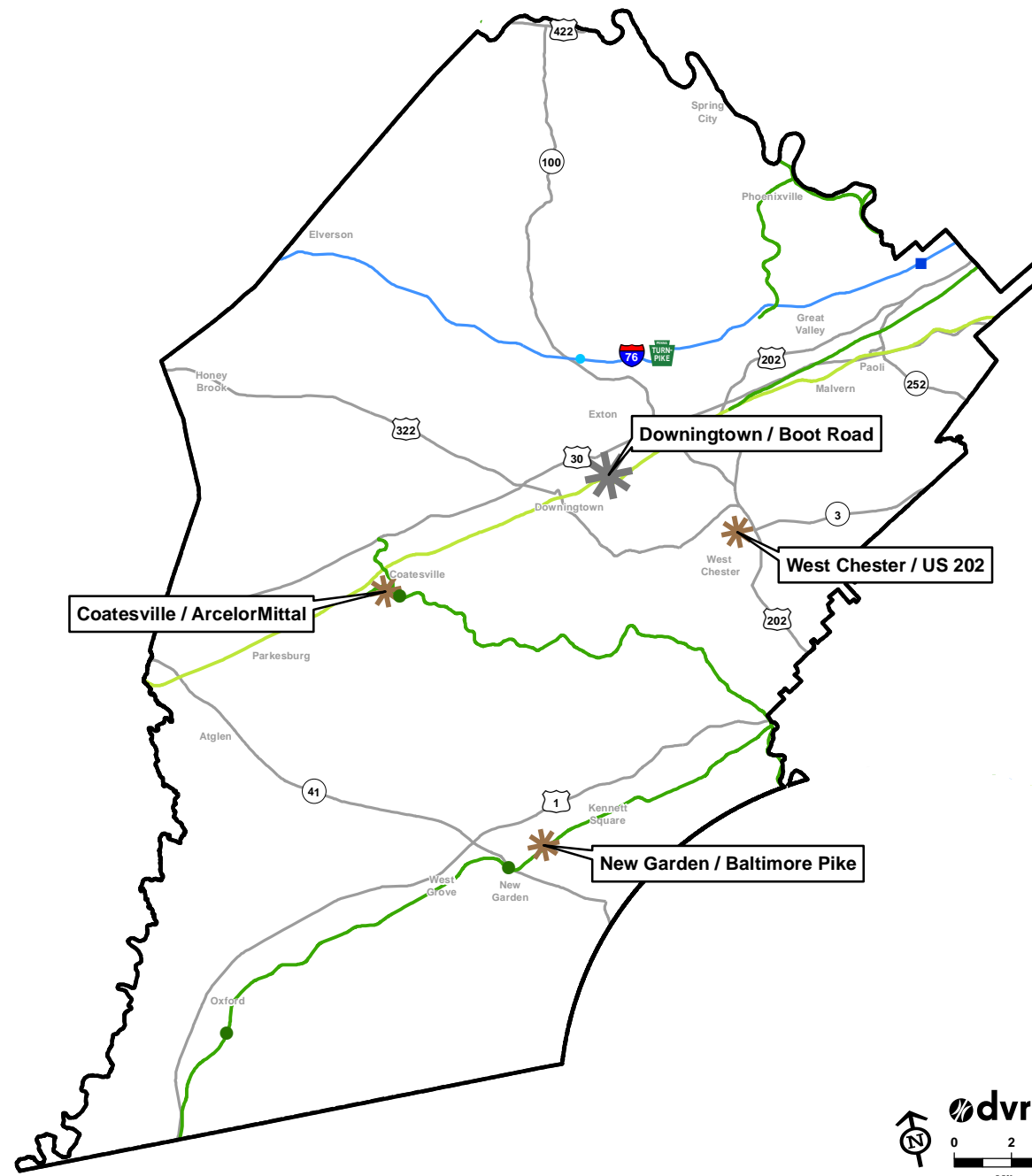
Figure 60: Land Use Types within Chester County Freight Centers



Source DVRPC 2011

FIGURE 61 : CHESTER COUNTY FREIGHT CENTERS AND FACILITIES

- Freight Facilities**
- Interstate Highway
 - Interstate Highway Interchange
 - Other National Highway System Route
 - Overnight Truck Parking Facility
 - Freight Rail (Private)
 - Freight Trackage Rights (Public)
 - △ Rail Yard
 - Rail Intermodal Facility
 - Port Facility
 - Air Freight Facility
- Freight Center**
- ✱ Intermediate Freight Center
250-699 Acres
 - ✱ Major Freight Center
700 - 1,499 Acres
 - ✱ Mega Freight Center
1,500 + Acres



Delaware County Freight Centers

Delaware County is home to three Mega Freight Centers and two Intermediate Freight Centers. Combined, the Freight Centers in Delaware County have 5,760 acres of freight-related land and 33,372 total jobs, 7,600 of which are in the manufacturing sector.

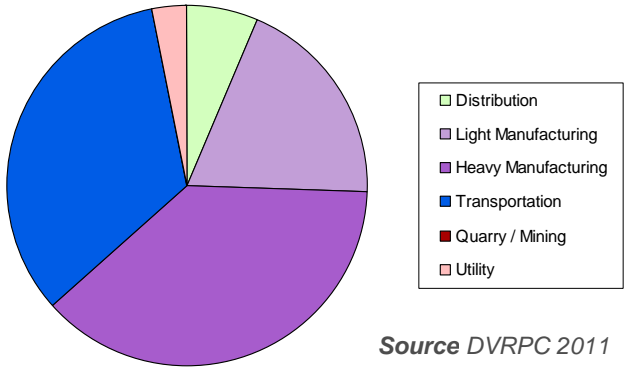
Table 9: Delaware County Freight Centers

Name	Center Type	Total Acres	Manufacturing Jobs (2009)	Total Jobs (2009)	Freight Rail Served	Proximity to Interstate Highways
Schuylkill River West / PHL*	Mega	2,187	151	6,644	Yes	Less than ½ Mile
Marcus Hook / Trainer	Mega	1,528	830	2,381	Yes	½ - 2 Miles
Chester / Eddystone	Mega	943	4,448	12,892	Yes	Less Than ½ Mile
Upper Chichester / Twin Oaks	Intermediate	645	1,596	6,515	Yes	½ - 2 Miles
Folcroft / Hook Road	Intermediate	457	575	4,940	Yes	2-5 Miles

Source U.S. Census Bureau 2011, DVRPC 2011 * Delaware County Portion














All Delaware County Freight Centers are located in the eastern portion of the county, with the three Mega Freight Centers along the Delaware River and the two Intermediate Freight Centers slightly inland (Figure 63). Heavy Manufacturing is the most prevalent freight-related land use, 38%, with transportation, 34%, and light manufacturing, 19%, both having significant footprints (Figure 62). 47% of all Delaware County manufacturing jobs are located in Freight Centers; 6.3% of Delaware County land is in a designated Freight Centers.

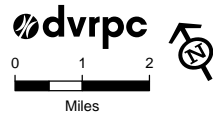
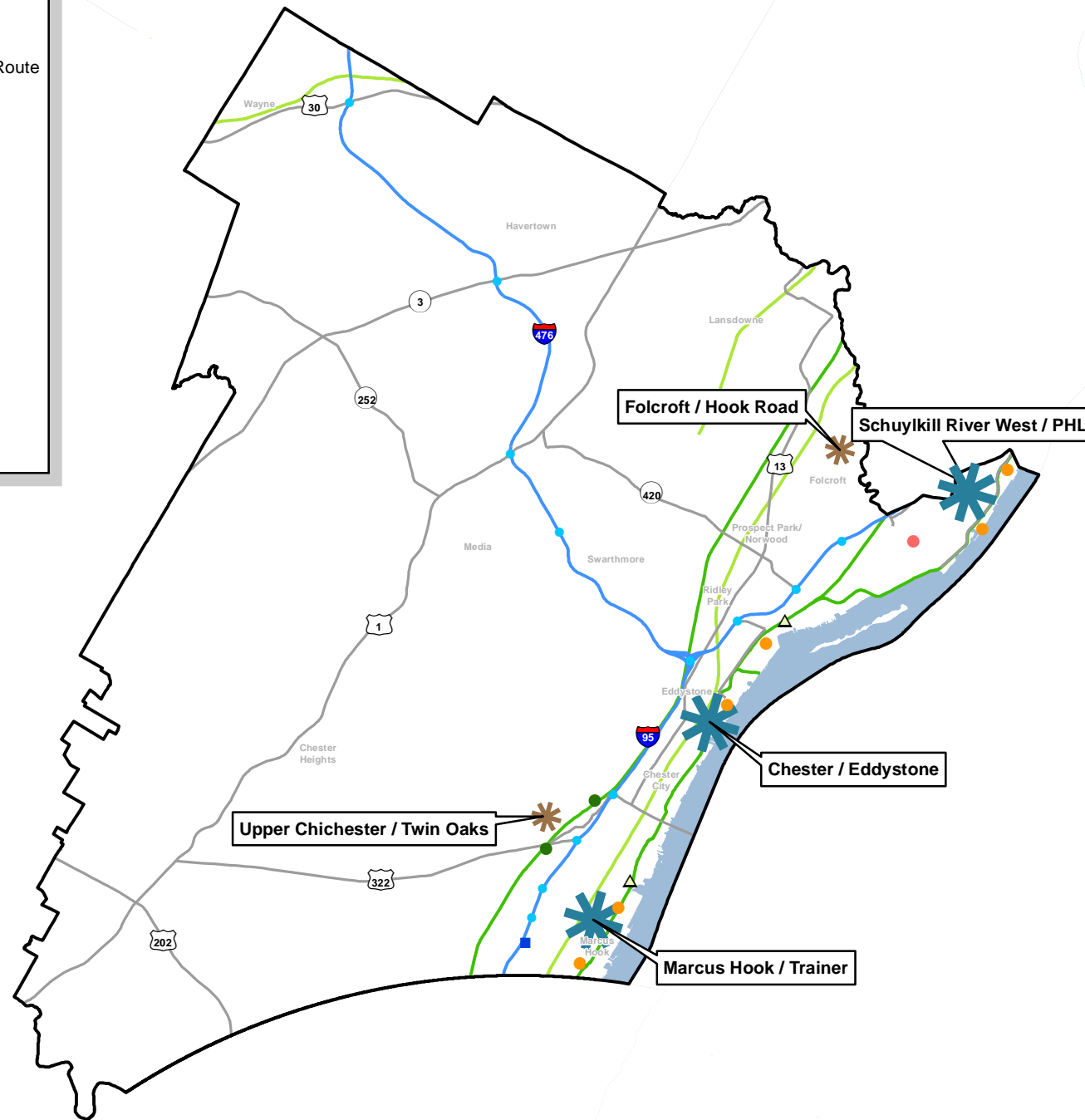
Figure 62: Land Use Types within Delaware County Freight Centers



Source DVRPC 2011

FIGURE 63 : DELAWARE COUNTY FREIGHT CENTERS AND FACILITIES

- Freight Facilities**
-  Interstate Highway
 -  Interstate Highway Interchange
 -  Other National Highway System Route
 -  Overnight Truck Parking Facility
 -  Freight Rail (Private)
 -  Freight Trackage Rights (Public)
 -  Rail Yard
 -  Rail Intermodal Facility
 -  Port Facility
 -  Air Freight Facility
- Freight Center**
-  Intermediate Freight Center
250-699 Acres
 -  Major Freight Center
700 - 1,499 Acres
 -  Mega Freight Center
1,500 + Acres



Gloucester County Freight Centers

Gloucester County is the home to one Mega Freight Center, two Major Freight Centers and one Intermediate Freight Center. Combined all Gloucester County Freight Centers have 6,267 acres of freight-related land use and 21,167 total jobs, 4,163 of which are in the manufacturing sector.

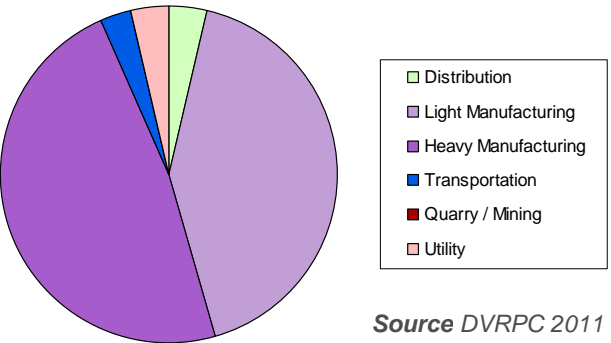
Table 10: Gloucester County Freight Centers

Name	Center Type	Total Acres	Manufacturing Jobs (2009)	Total Jobs (2009)	Freight Rail Served	Proximity to Interstate Highways
Logan / Pureland	Mega	2,648	1,419	7,275	Yes	Less Than ½ Mile
Paulsboro / Greenwich	Major	1,495	1,190	5,844	Yes	½ - 2 Miles
West Deptford / Mantua Grove Road	Major	930	1,470	7,571	Yes	Less Than ½ Mile
Westville / Eagle Point	Intermediate	1,194	84	477	Yes	Less Than ½ Mile

Source U.S. Census Bureau 2011. DVRPC 2011

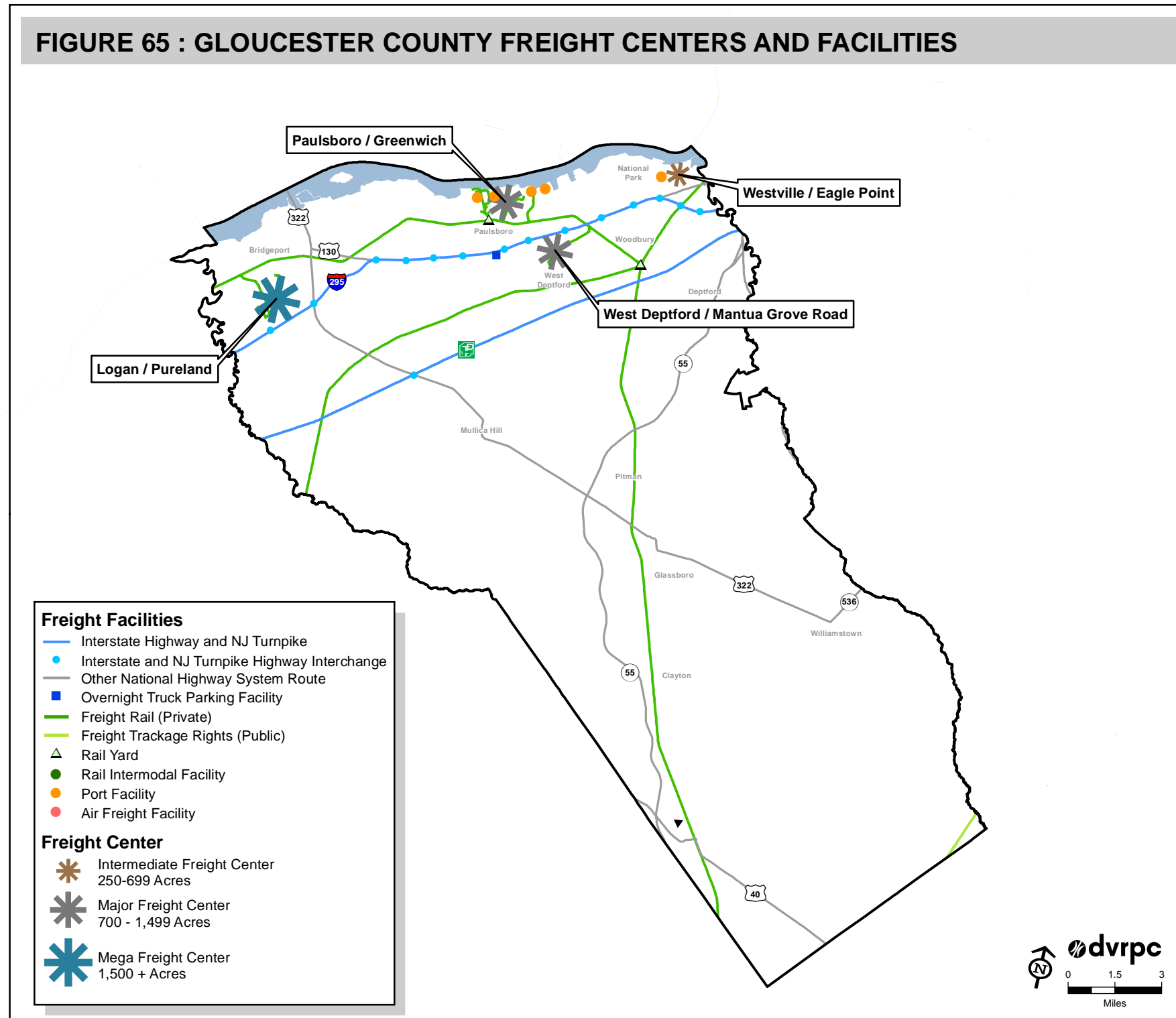
All Gloucester County Freight Centers are located in the northern portion of the county, with three along the Delaware River and one slightly inland (Figure 63). Heavy Manufacturing is the most prevalent freight-related land use, 48%, with light manufacturing, 42%, also having a significant presence (Figure 64). 46% of all Gloucester County manufacturing jobs are located in Freight Centers, but only 2.9% of Gloucester County land is located in a Freight Center.

Figure 64: Land Use Types within Gloucester County Freight Centers



Source DVRPC 2011

FIGURE 65 : GLOUCESTER COUNTY FREIGHT CENTERS AND FACILITIES



Mercer County Freight Centers

Mercer County is the home to one Major Freight Center and two Intermediate Freight Centers. Combined, the Mercer County Freight Centers have 2,022 acres of freight-related land use and 23,741 total jobs, 2,461 of which are in the manufacturing sector.

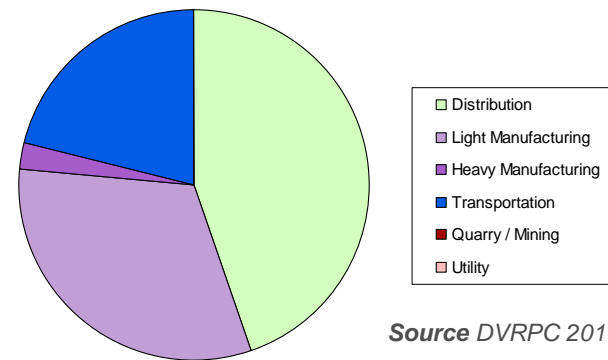
Table 11: Mercer County Freight Centers

Name	Center Type	Total Acres	Manufacturing Jobs (2009)	Total Jobs (2009)	Freight Rail Served	Proximity to Interstate Highways
Robbinsville / NJ Turnpike Interchange 7A	Major	907	747	6,244	No	Less Than ½ Mile
Ewing / Trenton Mercer Airport	Intermediate	591	354	10,379	Yes	Less Than ½ Mile
Trenton / Hamilton	Intermediate	524	1,360	7,118	Yes	Less Than ½ Mile

Source U.S. Census Bureau 2011, DVRPC 2011

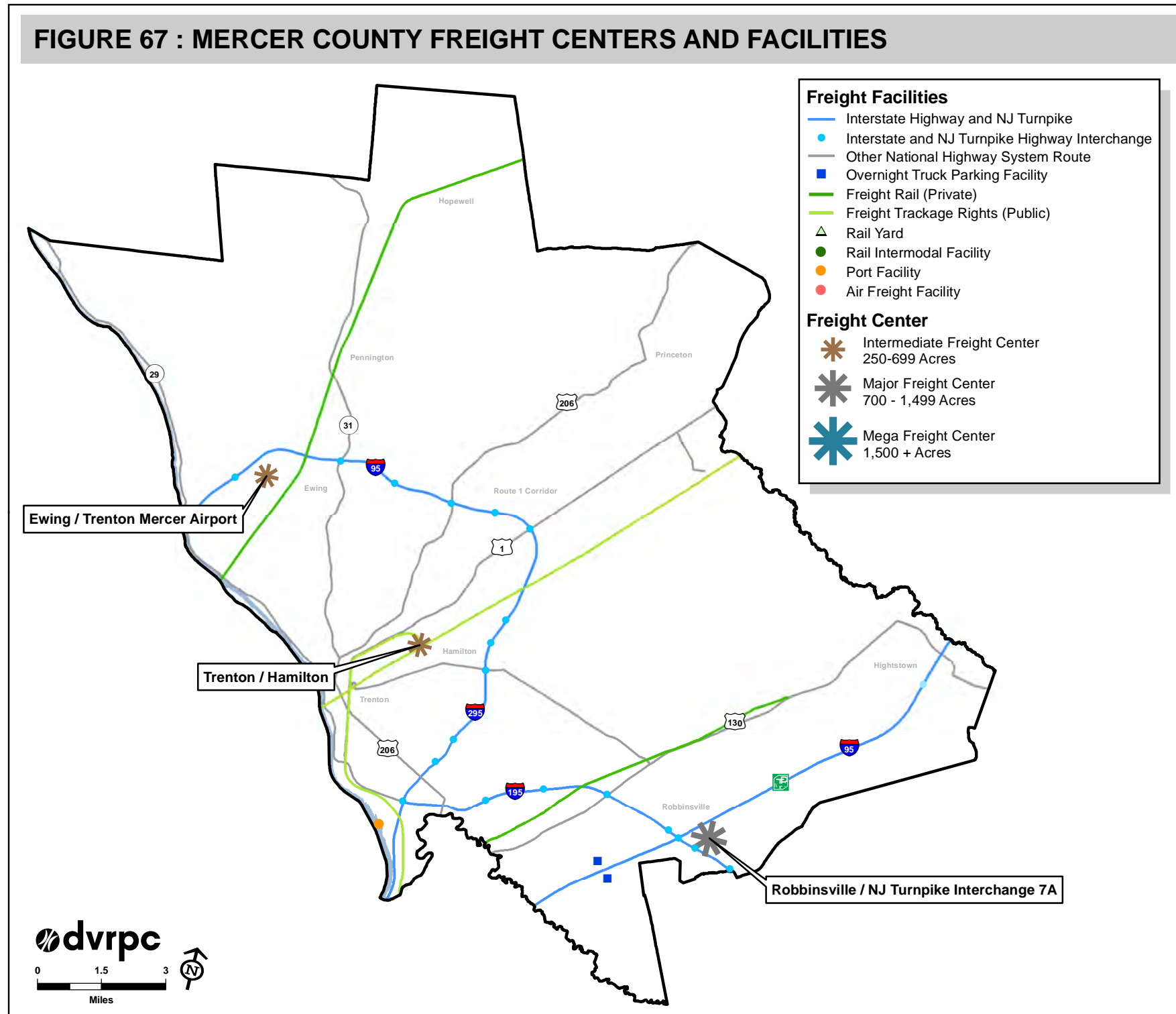
Figure 66: Land Use Types within Mercer County Freight Centers

The Mercer County Freight Centers are uniquely situated through the county (Figure 67). The three centers are also very different in terms of land use, which leads to three freight-related land use categories standing out in Figure 66. Distribution makes up 45% of freight-related land in the Mercer County Freight Centers, while light manufacturing accounts for 31% and transportation for 21%. 27% of all Mercer County manufacturing jobs are located in Freight Centers, but only 1.4% of Mercer County land is found in a Freight Center.



Source DVRPC 2011

FIGURE 67 : MERCER COUNTY FREIGHT CENTERS AND FACILITIES



Montgomery County Freight Centers

Montgomery County is the home to three Major Freight Centers and three Intermediate Freight Centers. Combined, the Montgomery County Freight Centers have 3,304 acres of freight-related land and 68,990 total jobs, 16,812 of which are in the manufacturing sector.

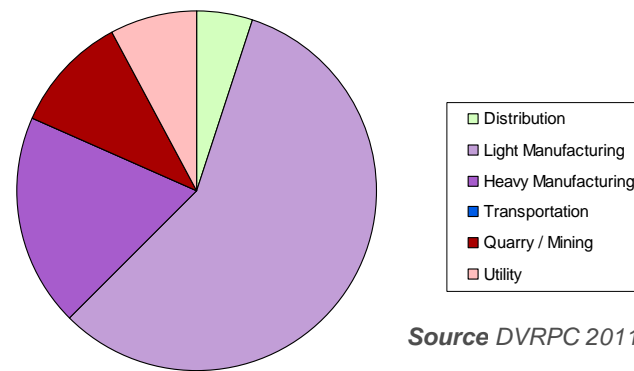
Table 12: Montgomery County Freight Centers

Name	Center Type	Total Acres	Manufacturing Jobs (2009)	Total Jobs (2009)	Freight Rail Served	Proximity to Interstate Highways
Pottstown / Limerick	Major	702	1,404	9,215	Yes	More than 5 Miles
Upper Gwynedd / West Point	Major	670	8,081	17,750	Yes	2-5 Miles
Towamencin / Hatfield	Major	456	3,256	8,822	No	Less than ½ Mile
Upper Merion / Plymouth	Intermediate	673	1,146	21,272	Yes	Less than ½ Mile
Montgomery Twp. / PA 309	Intermediate	533	1,921	6,724	No	More than 5 Miles
Lansdale / Bethlehem Branch	Intermediate	270	1,004	5,207	Yes	2-5 Miles

Source U.S. Census Bureau 2011, DVRPC 2011

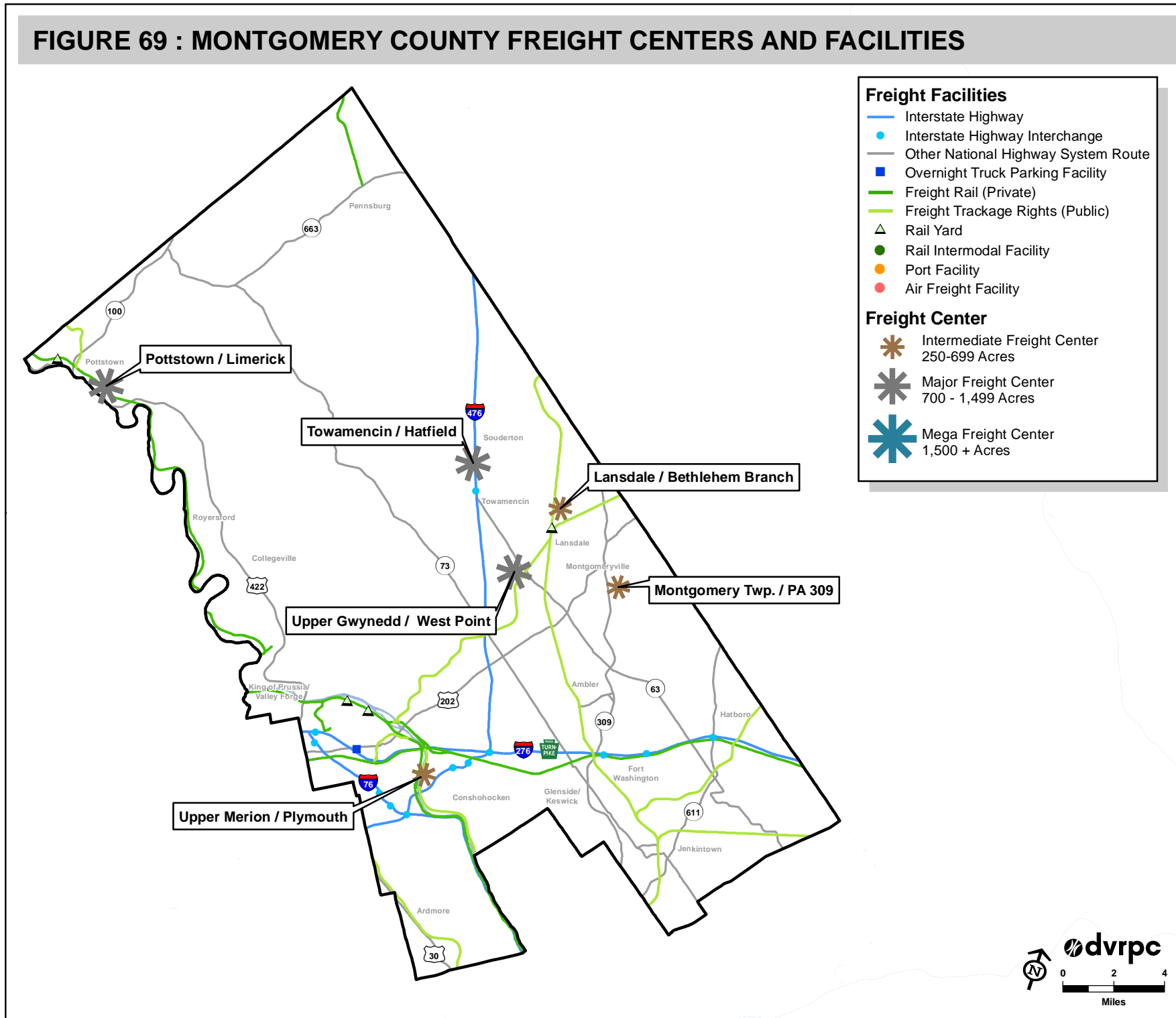
Four of the six Montgomery County Freight Centers are located in close proximity to each other in the general vicinity of Lansdale (Figure 67). Light manufacturing makes up most of the freight-related land use, 58% (Figure 68). 35% of all Montgomery County manufacturing jobs are located in Freight Centers, but only 1.1% of Montgomery County land is in a Freight Center.

Figure 68: Land Use Types within Montgomery County Freight Centers



Source DVRPC 2011

FIGURE 69 : MONTGOMERY COUNTY FREIGHT CENTERS AND FACILITIES



Philadelphia County Freight Centers

Philadelphia County is home to three Mega Freight Centers, one Major Freight Center, and four Intermediate Freight Centers. Combined, Philadelphia County Freight Centers have 9,200 acres of land and 67,610 total jobs, 10,512 of which are in the manufacturing sector.

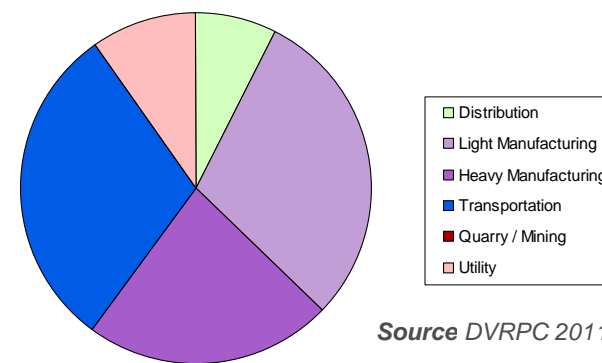
Table 13: Philadelphia County Freight Centers

Name	Center Type	Total Acres	Manufacturing Jobs (2009)	Total Jobs (2009)	Freight Rail Served	Proximity to Interstate Highways
Northeast Philadelphia Airport / Byberry Road	Mega	2,315	4,655	23,104	Yes	2-5 Miles
Schuylkill River West / PHL*	Mega	1,921	867	15,904	Yes	Less than ½ Mile
Schuylkill River East / Girard Point	Mega	1,794	988	6,085	Yes	Less than ½ Mile
South Philadelphia / Packer Avenue	Major	1,282	163	8,767	Yes	Less than ½ Mile
Port Richmond / North Delaware Avenue	Intermediate	610	289	977	Yes	Less than ½ Mile
Bridesburg / Bridge Street	Intermediate	453	888	2,828	Yes	Less than ½ Mile
Juniata / Castor Ave.	Intermediate	379	1,917	6,308	Yes	2-5 Miles
Wayne Junction / Roberts Ave.	Intermediate	370	745	3,637	Yes	½ - 2 Miles

Source U.S. Census Bureau 2011, DVRPC 2011 *Philadelphia County Portion

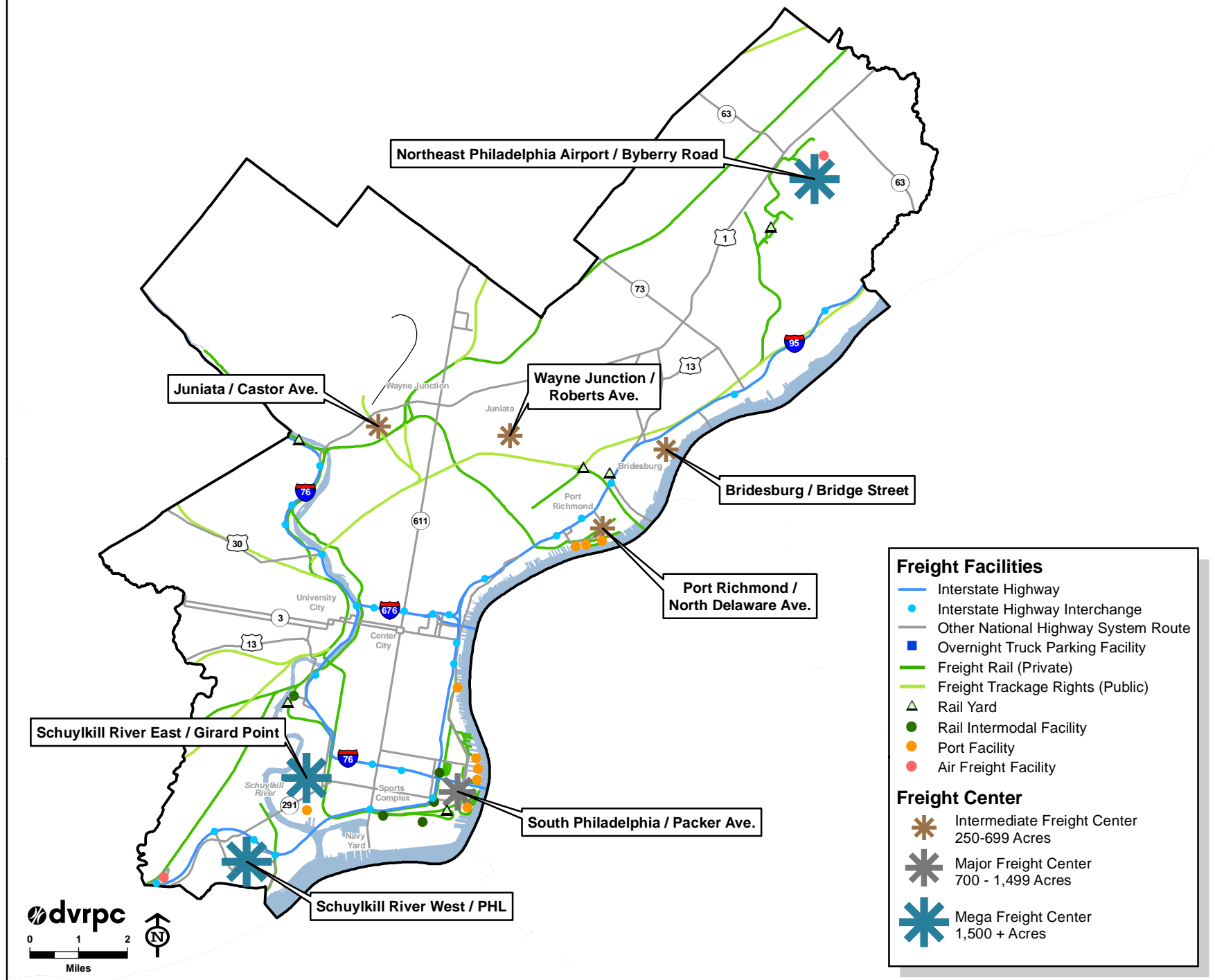
Freight Centers are equally spread through the city (Figure 71). Transportation land use is the most prevalent, 33%, but light manufacturing, 32%, and heavy manufacturing, 25%, also use significant amounts of land (Figure 70). 39% of manufacturing jobs are located in Freight Centers, but only 9.3% of Philadelphia land is used by a Freight Center.

Figure 70: Land Use Types within Philadelphia County Freight Centers



Source DVRPC 2011

FIGURE 71 : PHILADELPHIA COUNTY FREIGHT CENTERS AND FACILITIES



DVRPC Region Freight Centers

The DVRPC region has eight Mega Freight Centers, 13 Major Freight Centers and 23 Intermediate Freight Centers. Combined these 44 Freight Centers have 42,658 acres of freight-related land and 338,030 total jobs, 66,090 of which are in the manufacturing sector.

Table 14: Freight Center Summary by County

County	Mega Freight Centers	Major Freight Centers	Intermediate Freight Centers	Total Acres	2009 Manufacturing Jobs	2009 Total Jobs	Freight Rail Served Centers
Bucks	1	3	4	9,080	8,893	46,803	8 of 8
Burlington	1	0	3	2,752	7,541	30,126	3 of 4
Camden	0	2	1	1,946	3,506	14,633	3 of 3
Chester	0	1	3	2,403	4,602	31,588	3 of 4
Delaware	2	0	2	5,760	7,600	33,372	4 of 4
Gloucester	1	2	1	6,267	4,163	21,167	4 of 4
Mercer	0	1	2	2,022	2,461	23,741	2 of 3
Montgomery	0	3	3	3,304	16,812	68,990	4 of 6
Philadelphia	3	1	4	9,124	10,512	67,610	8 of 8
Total	8	13	23	42,658	66,090	338,030	39 of 44

Source U.S. Census Bureau 2011, DVRPC 2011

The 66,090 manufacturing jobs in Freight Centers represent 35% of the manufacturing jobs for the region. While many manufacturing jobs are not located in designated Freight Centers, many smaller manufacturing sites and businesses are dependent on and related to the larger scale facilities that are located in Freight Centers.

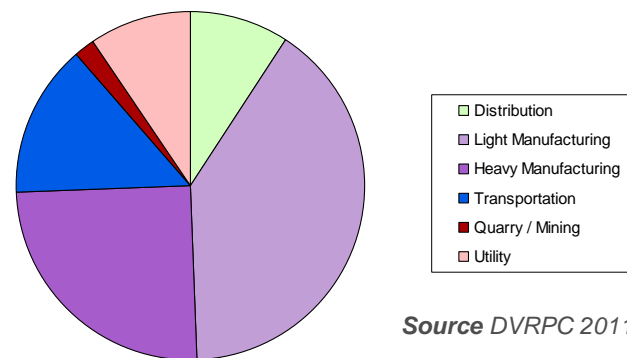
The Freight Centers also provide freight-related jobs that are not in the manufacturing sector, as well as help sustain other non-freight-related employment. It is estimated that a total of 338,030 people are employed either within or adjacent to a Freight Center.

The 42,658 acres of freight-related land accounts for 1.71% of the total land in the nine county DVRPC region. Freight Centers account for roughly one manufacturing job for every 0.65 acre of land, and one total job for every 0.14 acre of land.

Area	Acres
Aruba	44,160
District of Columbia	43,712
Delaware Valley Freight Centers	42,658
Liechtenstein	39,680

Source: Wikipedia

Figure 72: Land Use Types within DVRPC Region Freight Centers



Source DVRPC 2011

The most prevalent, 40.3%, of the freight-related land use in the DVRPC region was designated Light Manufacturing, which is not surprising given that all mixed use areas were designated under this category. The second most prominent land use by acreage is heavy manufacturing with 25.0%. Transportation land use accounts for 14.4% of total Freight Center land with the Philadelphia International Airport being the largest

contributor to this land use type. Utility and Distribution Center land uses were both just over 9%, which may seem low but each has over 3,000 acres of land designated in this inventory.

CHAPTER 7
Next Steps

This inventory vividly demonstrates the variety and extent of Freight Centers in the Delaware Valley. Desirable goals for the Freight Centers are for businesses within them to thrive economically, and for these areas to be taken into account when considering future development within and surrounding the Freight Centers inventoried in this report.

The findings that support the continued study and advancement of Freight Centers are:

- ❧ The Delaware Valley has a large amount of clustered freight-related land.
 - ❖ 42,658 acres of freight-related land was inventoried for this report.
- ❧ Freight Centers are important job centers.
 - ❖ 66,090 manufacturing jobs, 35% of the total manufacturing jobs in the region are located in Freight Centers.
- ❧ The majority of Freight Centers are rail served.
 - ❖ 39 of the 44 Freight Centers have the possibility of freight rail service.
- ❧ The spread and location of existing Freight Centers conform to desirable regional land use patterns and support anti-sprawl strategies (as defined by the DVRPC Long-Range Plan, see Figure 1 on page 5).
 - ❖ 11 Freight Centers are located in a Core City.
 - ❖ 27 Freight Centers are located in a Developed Community / Mature Suburb.
 - ❖ 6 Freight Centers are located in a Growing Suburb.
 - ❖ 0 Freight Centers are located in a Rural Area.
- ❧ Freight Centers are multifaceted and may offer inherent efficiencies and economies of scale.
 - ❖ 2 Freight Centers have five different land use types.

- ❖ 9 Freight Centers have four different land use types.
 - ❖ 13 Freight Centers have three different land use types.
 - ❖ 13 Freight Centers have two different land use types.
 - ❖ 7 Freight Center have only one land use type.
- 📍 Freight Centers are well located to use the Interstate Highway System.
- ❖ 21 Freight Centers are located within a ½ mile of an Interstate Highway.
- 📍 Freight Centers may have a distinct international flavor.
- ❖ 17 Freight Centers have either an airport or port facility within their boundary.

Based on the above findings, a range of action steps have been identified for three different groups of Freight Center stakeholders: the planning community, local government, and private business. Lastly, a series of action steps which apply to all stakeholders are identified.

Action Steps for the Planning Community

Below are a series of action steps that DVRPC, county planning departments, county economic development agencies and the greater DVRPC planning community can take to advance Freight Centers.

Integrate the Concept of Freight Centers into Regional and County Plans

The first step is to elevate the concept of Freight Centers within the traditional planning structure. At a regional level, this can be done through the DVRPC Long-Range Plan. The Long-Range Plan includes a regional land use and open space plan which identifies appropriate areas for future growth and infrastructure investment. Also included in the plan is an interconnected system of natural resource areas targeted for protection. The future inclusion of the Freight Centers and adoption of their goals is a major step towards preserving these important regional resources for freight-related uses.

At the county and city level, many planning departments and economic / industrial development agencies have comprehensive planning documents that could also include the concept of Freight Centers.

Furthermore, the Freight Center categories herein allow for the potential designation of smaller centers, such as an additional category for areas of 100-250 acres. For example, in Camden County there are three freight facilities in Cherry Hill near the Woodcrest train station that make up 112 acres of freight-related land which could be designated a center under this additional category.

Create and Track Freight Center Activity Indicators

An increasingly important factor in planning is the development and tracking of activity indicators. This inventory has already outlined one activity indicator by providing employment data for each center. With the completion and update of each new Census, employment data can be updated and the change charted.

Another possible activity indicator that is not directly addressed in the report is traffic counts on major roads within each center. DVRPC uses pneumatic tubes to collect traffic count information at over 3,000 locations within the DVRPC region every year. A portion of these counts are done by class, which can determine the volume of vehicles and the number of trucks that pass that location. DVRPC and the regional planning community, can review existing counts and suggest new counts to try to build a regional database of freight center traffic volumes.

Study Access into Freight Centers

In order to stay operational Freight Centers need access to the national freight systems across all modes. For all Freight Centers this means connections to the National Highway System (NHS), and for some it extends to the rail, port, aviation, and pipeline systems as well.

NHS Connectors are the roadways that connect intermodal facilities to the greater NHS system. DVRPC has studied NHS Connectors in depth, and highlighted by the most recent update performed in 2007 (which is available at: www.dvrpc.org/reports/07024.pdf). When studying NHS Connectors, DVRPC focuses on safe truck movements to and from the intermodal facility. Major factors include: appropriate roadway width, good pavement condition, adequate acceleration and deceleration lanes at highway interchange, and proper

signage. Freight Centers provide a sound context for examining freight generators and attractors beyond the more limited focus on intermodal facilities. This inventory documents the roadways which provide the connections between freeways and the Freight Centers. In the future, these roadways could be studied like their NHS Connector counterparts.

Advance of Freight Center Designation Methodology

In the future, the sophistication by which centers are classified could be expanded at the regional level for all Freight Centers, or by a county for its Freight Centers. There are multiple general directions that a future advancement of the methodology contained in this inventory could take. This section will list some ideas as to what these directions may be.

Further Sophistication of Freight Center Designation

The methodology in this report uses acreage, with a slight accounting for employment, as the basis for determining which of three designations a Freight Center is categorized into. Future approaches to categorizing Freight Centers could create a weighting system based on multiple criteria in order to assign centers to specific categories. Some possible criteria for such a weight system include, but are not limited to:

- Acreage
- Employment
- Number of Modes serving the Center
- Freight Specific Amenities (such as truck parking)
- Activity (such as tons or value of goods moved)
- Traffic Counts and Truck Counts on access roads

Different Approach to Freight Center Designation

Using the center designation provided in this inventory, a future study could focus on determining the status and long-term prospects of each center. A sample categorization approach that could be considered under this scenario is:

- 🔗 **Growing Freight Centers.** These Centers may need additional transportation infrastructure investment in order to properly handle anticipated growth. The focus may be on the Freight Centers identified in this report that have areas of freight-related land use that are not adjacent, in an attempt to in-fill those centers to a greater density.
- 🔗 **Transitional Freight Centers.** As discussed, the manufacturing and industrial sectors have undergone and continue to undergo change. At certain centers, this may mean that different freight-related businesses and land uses may be present in the future, and have different needs. This is particularly true for Freight Centers containing petroleum refining facilities.
- 🔗 **At-Risk Freight Centers.** These centers have high vacancy rates and / or non-compatible surrounding land uses that are threatening to encroach upon freight-related land.
- 🔗 **Stable Freight Centers.** These centers do not have much room to grow, but are established economically.

More Detailed Analysis of Freight Centers

Due to the scope of this inventory it was not possible to look at individual parcels of land within each Freight Center. Further iterations of Freight Center identification could take a parcel by parcel approach and use zoning and tax maps to more precisely determine the land use of each parcel. This would be particularly valuable in updating and adding additional company names, determining vacancy rates, and targeting new industries for future growth.

A best practice example is a recent effort in Philadelphia. The Philadelphia Industrial Development Corporation (PIDC) has recently completed a study, entitled *An Industrial Land & Market Strategy for the City of Philadelphia*, in which industrial districts were identified and mapped, using a parcel by parcel approach. The full study is available for download at: www.pidc-pa.org/reports-and-studies.

Additionally, DVRPC can do more work internally to ensure that the findings of this report are incorporated in the DVRPC 2010 land use data. While the two use slightly different designations, major differences should be examined and reconciled where possible.

Action Steps for Local Government

In a home rule area such as the Delaware Valley, local governments have significant control over local land use, zoning, and development decisions. The following are potential action steps for the local government agencies that have oversight for these areas.

Protect Freight Centers through Zoning and Comprehensive Planning

Beyond their benefit to the region as a whole, the businesses in Freight Centers are desirable for local communities because they pay local taxes and preserve a vibrant and diverse local job market. The local taxes that these businesses pay can be used to create additional amenities for the community or a lower tax threshold for residents. Manufacturing and distribution activities create family-sustaining jobs, which are essential for healthy, thriving communities.

As communities grow, Freight Centers may experience pressure for land from non-freight-related uses. Protecting the land within Freight Centers for freight-related uses is crucial, not just for the efficient movement of freight through the region, but to building strong, sustainable communities. Local governments, with oversight over zoning, can help ensure that the land within Freight Centers is maintained for freight-related uses.

A best practice example is the Industrial Protection Areas within the Philadelphia City Wide Vision, *Philadelphia2035*:

- “An Industrial Protection Area (IPA) is a proposed designation that reinforces industrial use through zoning, infrastructure investment, and special district management. The intent is to preserve the viability of industrial land by reducing market pressures to convert to non-industrial uses, and to ensure the availability of industrial real estate at locations and scales needed to grow industry and related operations.”
(*Philadelphia2035*, page 83)

While the land within Freight Centers is the most necessary asset to maintaining freight usage, the land directly adjacent to a Freight Center is also important. Each Freight Center profile contained in Chapters 3, 4, and 5 of this report, went into detail about the surrounding land use of each Freight Center. Local governments should pay special attention to these sections as this land is crucial for creating and maintaining a positive relationship between the freight-related businesses located within Freight Centers and the local community. Non-compatible land uses, such as a residential development, should not be located next to Freight Centers unless buffer areas between the two are worked into the plans.

Encourage re-use of Brownfields

Brownfield sites are abandoned or underused industrial and some commercial facilities available for re-use. Brownfield sites can take many forms and sizes, ranging from abandoned factories and rail yards to abandoned gas stations. Brownfields often have existing utilities that are needed for freight development. When redeveloping a brownfield site, municipalities should take into account the surrounding land uses, the property characteristics, the historical use, and connecting infrastructure. For properties that are in identified DVRPC Freight Centers and have historically been used for industrial purposes, municipalities should attempt to work with developers to retain a manufacturing or transportation related usage. For more information, including the incentives municipalities can offer developers and details about environmental remediation, refer to the DVRPC report “Reclaiming Brownfields: A Primer for Municipalities” (Publication #09002).

Action Steps for Private Businesses within Freight Centers

The identification of Freight Centers is designed to help private businesses succeed and grow. This section will lay out steps that private businesses within Freight Centers can take in order to help the Freight Center thrive, have better interactions with surrounding communities, and take full advantage of being in a Freight Center.

Participate in Freight as a Good Neighbor Strategies

In 2003, the Transportation Research Board published a report entitled *Integrating Freight Facilities and Operations with Community Goals* (NCHRP Synthesis 320). This report contains many helpful practices that can be undertaken to improve relations between freight facilities and the local communities surrounding them. Stakeholders may find that some practices are more relevant to their business or specific location. Below is a sampling of some that are especially applicable to Freight Centers:

- ✎ **Develop truck-only access routes.** Once these routes are developed and identified they should also be clearly marked and improved for efficient and safe truck movements.
- ✎ **Identify truck parking locations and encourage their use.** Truck drivers need places to rest and park. DVRPC performed a study inventorying the region's truck parking facilities and analyzing the current and projected future usage (the full *Regional Truck Parking Study* is available online at www.dvrpc.org/reports/09057.pdf).
- ✎ **Create incident management programs.** Incidents can cause delays for freight and for local traffic. By creating incident management task forces and including Freight Center stakeholders, quicker response to incidents can be created, leading to savings in time and money for all.
- ✎ **Expand sustainability measures.** One of the main concerns local communities have with freight operations is pollution and air quality. Working together stakeholders can do a number of things to improve the sustainability practices. Some examples include:
 - ❖ Encourage use of alternative fueled vehicles.
 - ❖ Use vacant land or roof tops to install solar panels.
 - ❖ Encourage the use of anti-idling technology.
- ✎ **Hire locally.** Nothing can improve a business image more with the local community than by hiring locally. The common bond of having workers live in the adjacent communities can severely negate any ill will and foster good neighbor practices.

Share Services and Amenities

By working together it may be possible for businesses to pool money to pay for services and create employee amenities that are available to all employees within the center.

Some examples of services that could be shared are:

- 🔗 Marketing
- 🔗 Snow Removal
- 🔗 Lawn Care
- 🔗 Security

Some examples of employee amenities that could be pooled together:

- 🔗 Day Care
- 🔗 Cafeteria
- 🔗 Gym / Workout Area
- 🔗 Lounge / Community Room
- 🔗 Park / Picnic Area
- 🔗 Transit / Shuttle Bus Service

Action Steps for All Stakeholders

Some action steps can be taken by a number of stakeholders, or need to be coordinated among all stakeholders. They are listed in this section.

Create Branding Efforts Focused around Freight Centers

Branding a center entails agreeing on a name and message, and then marketing a Freight Center based on that name and message. Branding provides recognition and may bring some added prestige to the companies located within the center as the recognition of the brand grows. This prestige can lead to an increase in how customers view the company's quality and reliability and improve a company's bottom line. In addition to improving the conditions for existing companies, branding may help attract new businesses.

The Freight Centers and facilities inventoried in this report use various naming conventions. Being named after a local road, the host township, or a major nearby facility are some of the most popular naming conventions in the DVRPC region. Whatever naming convention is in place should be incorporated into any branding effort when feasible.

Part of branding a Freight Center may include creating a common aesthetic among the buildings, signage, and landscaping. This simple act can create a bond amongst the facilities and make great strides in the creation of a brand. One strategy may be to brand Freight Centers in a similar way DVRPC has dealt with "Classic Towns" (to learn more about Classic Towns visit www.classictowns.org).

Identify and Implement Projects needed to Improve Access to Freight Centers

The first step in improving the access to a specific Freight Center is an understanding of the transportation patterns and needed improvements. Improvements can be identified through studies completed by planning agencies, as suggested on page 103, or by outreach to the businesses and users of a Freight Center. The most successful way to identify projects is to combine the two approaches and create a working group of planners, local officials, and local businesses which identify and prioritize projects.

Once projects are identified, finding the proper funding becomes imperative. Funding levels vary and most programs require matching funds. The best candidate projects are those that use a mixture of private and public funding (these are referred to as public-private-partnerships or P3's). The following are an example of some funding programs that freight specific projects can seek out:

- Congestion Mitigation and Air Quality (CMAQ): CMAQ funds are available to regions that do not meet the National Ambient Air Quality Standards (of which DVRPC is one). In 2003, DVRPC awarded \$2.7 million in

funding for five freight projects through the CMAQ program. Projects included funding for a transload facility, a truck electrification project, and a rail siding to alleviate traffic at a highway-rail grade crossing.

- ✎ Pennsylvania Rail Funding: In Pennsylvania, there are two options for funding railroad projects. The first is the Rail Freight Assistance Program (RFAP) that provides funding for small projects, which do not exceed \$700,000. Total funding for the RFAP in 2010 was \$10.5 million. Also available in Pennsylvania is the Rail Transportation Assistance Program (Rail TAP). In 2010, the available funding for the Rail TAP is \$30 million. For more information visit: www.dot.state.pa.us/Internet/Bureaus/pdBRF.nsf/.
- ✎ New Jersey Rail Funding: The New Jersey Rail Freight Assistance Program aims to increase rail service across the state. Funding is available for new rail lines, reconstruction, maintenance, and certain demonstration projects. In 2010, the program distributed \$10 million in funding to 12 projects. For more information visit: www.state.nj.us/transportation/freight/rail/.
- ✎ Innovative Financing: Beyond these programs, there are additional ways to finance freight projects such as the issuance of bonds and applying for the TIGER program. For example, in December 2011 the South Jersey Port Corporation was awarded \$18,500,000 in TIGER III funding for a project that will repair the rail network from the Delair Bridge to Swedesboro.

All projects using Federal Transportation funds must be listed on the DVRPC Transportation Improvement Program (TIP). The TIP provides a regionally agreed-upon list of priority transportation projects. The TIP must list all projects that intend to use federal funds, along with all non-federally funded projects that are regionally significant. Priority for TIP projects is given to projects that appear on the DVRPC Long-Range Plan.

Conclusion

This inventory represents a significant first step in documenting and protecting freight-related land uses which are essential to a prosperous region. The Freight Centers identified in this report, along with the freight infrastructure (roadways, rail, waterways, airports, and pipelines), create a diverse and dynamic system in the Delaware Valley that needs to be cultivated and preserved for the region to continue to thrive.

The profiles included in this report can be used by stakeholders to help promote a specific Freight Center. The land use maps represent an advanced way of conceiving of freight-related land use to allow for a greater understanding of what land requirements freight-related businesses have beyond just their buildings. Lastly,

NEXT STEPS

while the next steps identify specific actions for different stakeholders it is only by having all stakeholders work together that any specific Freight Center will reach its full potential.

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Abstract: This report defines three different types of Freight Centers and inventories 44 clusters of freight related activity in the DVRPC region. A total of 42,658 acres of land are designated into six freight related land use types. The report provides methodologies for others looking to replicate the study, and next steps for DVRPC and for Freight Center Stakeholders. The goal of this report is to enhance Freight Centers allowing the regional economy to thrive, and to protect Freight Centers for future industrial development.

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