

# Notable Practices in Peer Market Freight Planning: Kansas City, Toledo, Grand Rapids & Lehigh Valley

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## 1.0 Introduction

This report summarizes notable practices in metropolitan area freight planning for peer freight markets to Western New York (WNY). This report focuses on practices in Kansas City, Missouri; Toledo, Ohio; Grand Rapids, Michigan; and Bethlehem, Pennsylvania (Lehigh Valley). These metropolitan areas were identified by the WNY Regional Freight Steering Committee as metropolitan areas with successful freight markets and regions that are comparable to WNY. Information for each candidate freight market allows for comparisons across different criteria and fosters an understanding of innovative and comprehensive freight operations practices across markets that can be applied to and implemented in the WNY region. The information gathered for this report was obtained through available online resources and through interviews with key individuals in each metropolitan area.

## 2.0 Kansas City Metropolitan Region

### 2.1 Overview/ Background Information

#### 2.1.1 Metropolitan Area

The Mid-America Regional Council (MARC), which functions as the Metropolitan Planning Organization (MPO), conducts transportation planning in the greater Kansas City region. The MPO region encompasses Leavenworth, Johnson, Miami, and Wyandotte Counties in Kansas and Cass, Clay, Jackson, and Platte Counties in Missouri.

As of the 2015 update of the region's Long Range Transportation Plan (LRTP), called Transportation Outlook 2040, the regional population was 1.9 million, and expected to grow by 31% to 2.5 million by 2040. Employment is also forecast to grow from about 1 million jobs in the region in 2010 to more than 1.3 million by 2040.

Figure 1. Kansas City Region



Source: Mid-America Regional Council ([www.marc.org](http://www.marc.org)).

### 2.1.2 Regional Economic and Freight Infrastructure Profile

MARC provides this overview of transportation in the regional economy:

Kansas City owes much of its historical growth to its strategic position as a major trans-shipment point for freight, and it remains an important center for rail, truck, barge, and airfreight industries. Our region currently ranks as the second largest rail center (based on number of car loads and additional tonnage that passes through the region) in the United States. It is also among the top five trucking centers in the nation. Kansas City International Airport ranks as one of the most important air freight hubs in a six-state region, in terms of total volume.

Though the Missouri River transverses the region and marine freight played an important role in establishing the region's population and employment patterns, today the transportation system is dominated by highway and rail activity, as illustrated in the table below.

Table 1. Freight Movement in the Kansas City MSA, 2015

Type	Tons	Value (millions)
Truck	283,323,452	\$204,884
Rail	73,586,451	\$14,791
Water	188,464	\$50.7
Air (incl. truck/air)	163,472	\$6,707.5
Pipeline	10,700,304	\$37,283.5
Total	367,962,143	\$263,717.9

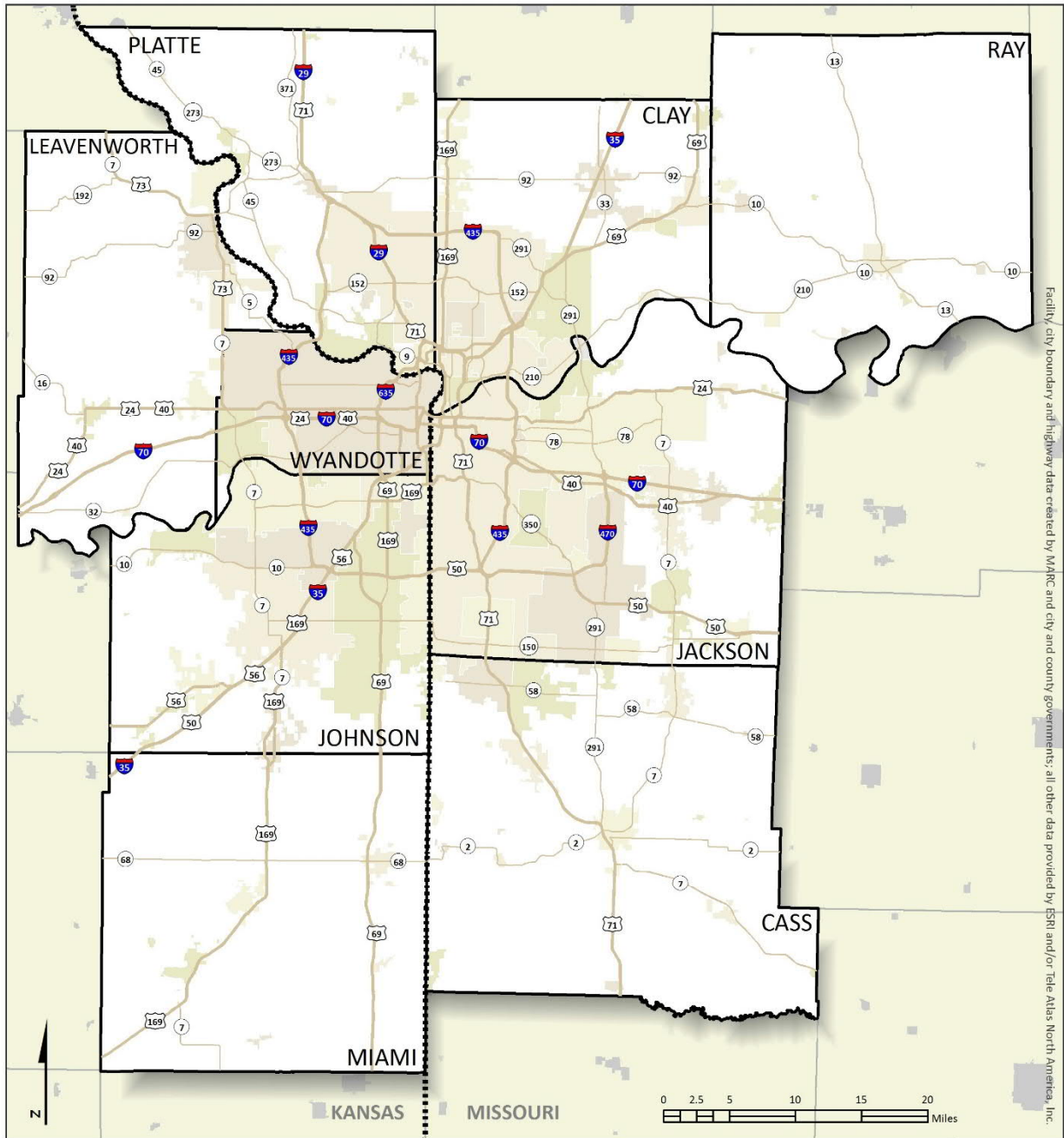
Source: Import/Export Freight Analysis Framework (FAF4).

### Highways

The Kansas City region is located at the intersection of four Interstate highways — I-70, I-35, I-29, and I-49 — which provide freight transportation from coast to coast and from international border to international border. As shown in Figure 2, numerous U.S. and state highways connect to these Interstates throughout the region.

Figure 2. Highways in the Kansas City Region

### Highways in Greater Kansas City



..... State boundary  
 □ Counties

MAY 2012

KANSAS MISSOURI

**MARC**  
 Mid-America Regional Council  
 Geographic Information Systems

More information and data use policy available at [www.marc.org/gis](http://www.marc.org/gis)

Source: Mid-America Regional Council ([www.marc.org](http://www.marc.org)).



The regional Comprehensive Economic Development Strategy (CEDS) describes the transportation system as follows:

Kansas City's system of roadways is among the most extensive in the nation. According to Federal Highway Administration statistics, the Kansas City region has the most freeway miles per person of all urbanized areas with populations greater than 500,000. The Kansas City metro area also has the second highest total roadway miles per person and the eighth highest daily vehicle miles traveled (DMVT) per person. These rankings are due in large part to the extensive highway projects implemented in the Kansas City region during the 1970s and 1980s, such as the construction of the Interstate 435 loop. In the eight-county area (not including Ray County), there are 655 miles of Interstates and 493 miles of freeways/expressways.

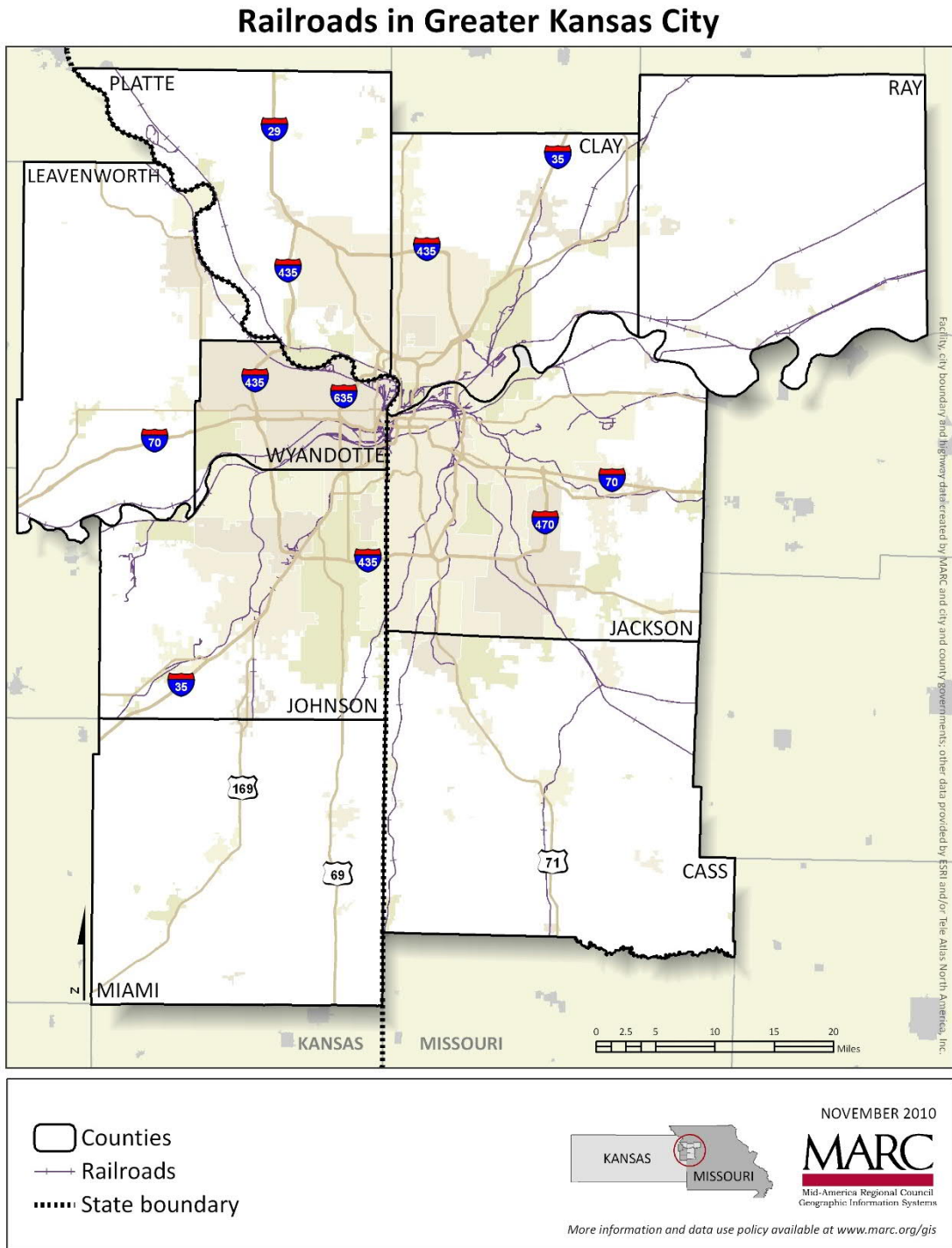
### Rail

As shown in Figure 3, Kansas City's rail system is comprised of five Class I railroads and several regional or short line carriers. BNSF Railway's Transcontinental Route runs from the southwest to the northeast, ultimately connecting the Ports of Los Angeles and Long Beach to Chicago via Kansas City with 80 to 90 trains per day. The Union Pacific (UP) Railroad operates a major east-west coal route through the region, accommodating more than 80 trains per day of loaded mile-long unit coal trains. The Kansas City Southern (KCS) north-south route connects to Mexico at Laredo, Texas, a Norfolk Southern (NS) east-west route terminates in Kansas City, and Canadian Pacific (CP) operates on the former Iowa, Chicago and Eastern Railroad (IC&E) line.

Figure 4 shows the location of the region's various intermodal terminals. There are five major truck/rail intermodal terminals, operated by BNSF, KCS, NS, and UP (which operates two), as well as numerous switching yards, classification yards, and trans-load facilities. Kansas City Southern's intermodal operations are located at the former Richards Gebaur Airport site, providing rail access for continued industrial development at the CenterPoint Intermodal Center – Kansas City. BNSF offers intermodal operations at 50 Logistics Park KC in southern Johnson County, Kansas, serving the significant warehouse space that is under development there.

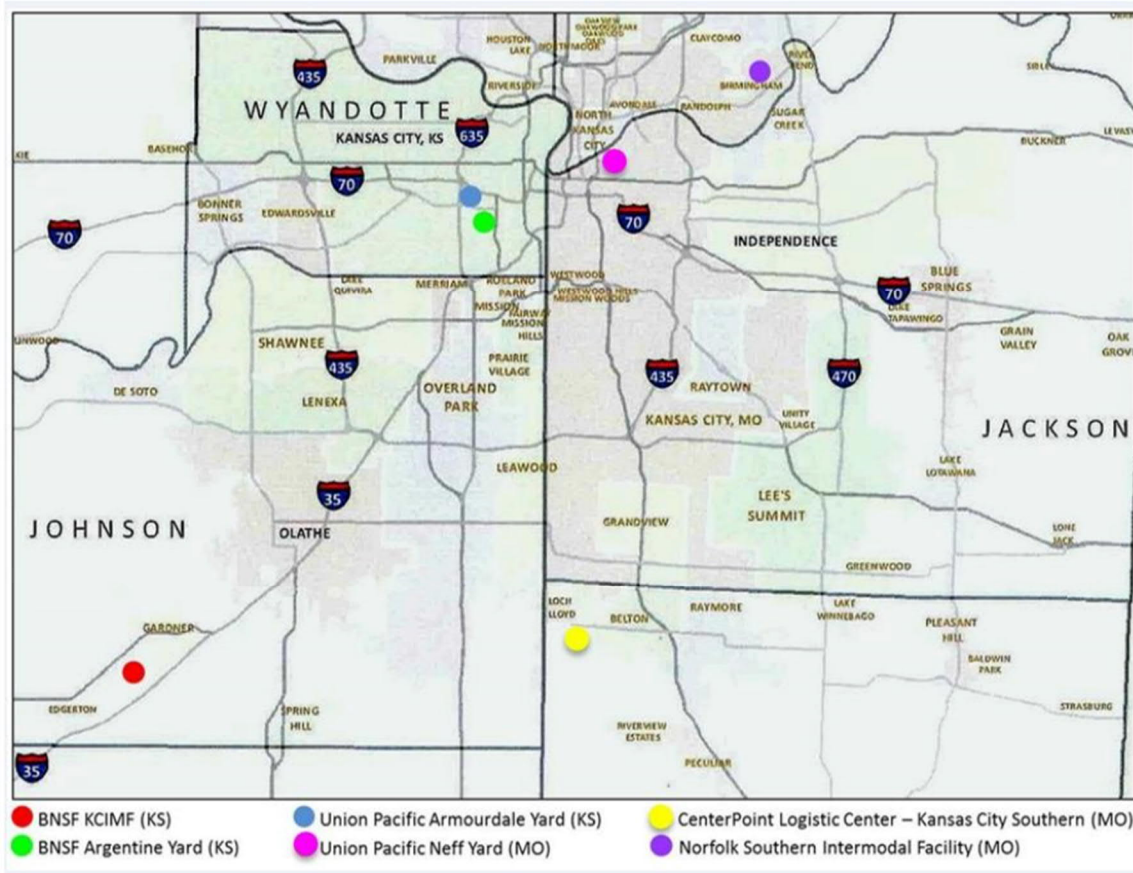


Figure 3. Kansas City Region Rail Corridors



Source: Mid-America Regional Council ([www.marc.org](http://www.marc.org)).

Figure 4. Major Intermodal Terminals in the Kansas City Region



Source: Kansas Statewide Freight Plan (November, 2017), KDOT.

### Marine Port

The region has one public port, operated by the Kansas City Port Authority. The port is an intermodal facility, where freight can be transferred between barge, truck, and rail. The region also has a number of private ports used for shipping commodities such as grains, sand and gravel, fertilizer, chemicals, coal, and coke. Due to river flow management needs, the navigation season is limited to approximately six months each year. According to the 2018 Missouri Department of Transportation Economic Impact Study for Public Ports, Port of KC facilities handled approximately 45,000 tons in 2015, the most recent year for which data was available. Commodities included fertilizer, mill scale, rebar, and scrap steel.

### 2.1.3 Institutional Structure for Freight Planning

As noted above, MARC is the designated MPO for the Kansas City region, which spans 8 counties in two states. As MPO, MARC is responsible for producing the region’s L RTP and Transportation Improvement Plan (TIP). Regional transportation policy and decisions are made by the Total Transportation Policy Committee (TTPC), convened by MARC. The body “operates as a forum for state and federal officials to communicate with local officials and representatives, as well as for citizens and members of the business community to address local officials about transportation-related issues.”

There are several sub-committees that advise the TTPC on specialized areas, including two key subcommittees relevant to freight. The Highway Committee, comprised of local government and public

works officials, advises the TTPC on highway issues, highway project priorities, and highway management. The Goods Movement sub-committee advises the TTPC on matters involving freight project priorities and policy considerations that affect the movement of freight into, around and out of the metropolitan area, and provides a forum for regional freight stakeholders to discuss public-private collaborations, public outreach and other topics related to goods movement. This sub-committee is formed by representatives from the rail, trucking, water, and aviation industries, economic development agencies, and educational institutions involved in freight planning.

## 2.2 The Story

### 2.2.1 Key Freight Investments and/or Projects in the Metropolitan Area

Notable improvements to the region's freight system have been made by both public and private sector entities. Two rail projects that significantly increased the capacity and reliability of the region's rail system are the Sheffield Flyover and the Argentine Flyover. The Kansas City Terminal Railway Co., a consortium of the major railroads operating in the area, funded by user fees, undertook both projects.<sup>1</sup>

The Sheffield Flyover, or Sheffield Junction bridge (actually a collection of three bridges) was completed in 2000. The \$75 million cost was financed primarily through bonds issued by the State of Missouri, but largely repaid by the five major railroads operating on the tracks (BNSF, KCS, NS, UP, and CP). The project greatly reduced a bottleneck at what was the second busiest rail center (after Chicago), handling some 400 trains daily.<sup>2</sup>

Building on the success of the Sheffield Flyover, the Argentine Flyover was constructed in 2004 to alleviate a bottleneck near the Argentine Rail Yard that affected some 130 trains per day.<sup>3</sup> This \$60 million project was financed through bonds issued by the State of Missouri and Wyandotte County, Kansas, repaid by the Kansas City Terminal Railway Co. consortium.

More recently, significant work has been conducted to improve access from I-35 to the BNSF logistics park in Edgerton. A prime example is the I-35 and Homestead Lane project completed in 2013 in anticipation of the BNSF logistics park that opened soon after. Before the interchange improvement, Homestead Lane was a gravel road with a bridge over the Interstate. Truck traffic tended to use the Gardner Road exit instead, which was not designed to handle a high volume of truck traffic. Furthermore, significant truck left turn activity created congestion, roadway damage, and safety concerns. The I-35 and Homestead Lane Diverging Diamond Interchange project included paving of Homestead lane between the Interstate and intermodal terminal, and a diverging diamond interchange allowing free flow left turn movements. According to Logistics Park Kansas City, which is served by the interchange, projected traffic for the interchange will increase to 43,100 vehicles by 2040, 24 % of which will be trucks. A Logistics Park Kansas City press release reports that the \$36 million project was funded by Kansas Department of Transportation and a \$14 million contribution from Johnson County.

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<sup>1</sup> "Large Transactions in 2001 come from some of KC's core businesses", Raymond C. Jones, Kansas City Business Journal, 27 Jan, 2001.

<sup>2</sup> "The Globalization of American Infrastructure: The Shipping Container and Freight Transportation", Matthew Heins (Routledge Studies in Science, Technology and Society, 2016).

<sup>3</sup> (Untitled) Stacie Hamel, Omaha World-Herald, 13 September, 2014.

The most significant project currently underway is PortKC's acquisition of a 415-acre former AK Steel Corporation steel mill site accessible to the Missouri River, I-435, and Kansas City Terminal Railroad. PortKC has announced plans to remediate the brownfield site and eventually develop it as inland port for intermodal, light manufacturing, and freight distribution via rail and barge. PortKC issued an RFP looking for firms qualified in developing Public-Private Partnerships (P3) in port, rail, and related infrastructure. PortKC received 11 proposals and ultimately selected Nossaman LLP to lead the P3 effort. PortKC has successfully mitigated several other brownfield sites. On PortKC's Northland site, PortKC has been negotiating with Google to bring a \$600 million data center to the site, which would help fund the inland port.

The real estate development community has built close to 30 million sq. ft. of spec industrial space in the last 5-6 years to have product ready for e-commerce facilities that are expanding across the region. The aggressive spec development and relative lack of congestion has given the Kansas City region an advantage over other geography favorable areas such as Dallas, Indianapolis, Columbus, and Memphis. KC SmartPort helps to fill this spec space as well as help identify spec locations and details for developers to build.

### 2.2.2 Key Drivers of Freight Planning and Investment

At least since the selection of Kansas City as the site of the first permanent rail crossing of the Missouri River in the late 1860s, being a freight transportation hub has been central to the region's identity. As the CEDS plan notes, "The region's prominence as a major transportation hub, its growing logistics industrial sector, and the need for workers to travel to and from employment centers are all factors in the region's transportation planning work."

Despite continued population and employment growth, congestion in the region is low and decreasing. Though travel distances may be long, due to the region's low-density urban form, travel times remain relatively low. Low congestion combined with the presence of robust facilities for all modes of freight transportation support a healthy transportation/logistics sector, and the absence of any unique safety issues (difficult intersections, unusual traffic patterns), drive transportation, and logistics activity, further motivating regional planning efforts focused on freight.

### 2.2.3 Stakeholder Involvement in Planning and Investment Decisions

Communication between regional transportation planners, state transportation agencies in Kansas and Missouri, and rail, port, and airport facility representatives occurs through regular MARC Freight Advisory Committee meetings. Furthermore, MARC and KC SmartPort (described in greater detail below) have forged a close relationship. Public agencies tend to participate in freight planning through MARC, and private entities tend to participate through KC SmartPort, a structure that ensures the participation of stakeholders from both public and private sectors.

### 2.2.4 Political Support and Leadership in Freight Planning and Investment

The Kansas City region economy is a significant share of both the Kansas and Missouri statewide economies, and the region's freight transportation infrastructure is significant to both states. Public funding is secured through Surface Transportation Program (STP) Priorities Committees, one for Kansas and one for Missouri, authorized by MARC to establish transportation priorities for each state's STP metropolitan federal funds. The TTPC provides the STP Priorities Committees with technical expertise regarding benefits and impacts of proposed projects.

## 2.2.5 Metropolitan Area Marketing to Freight and Logistics Industry

Economic development marketing for the region is consolidated in a private, non-profit organization called KC SmartPort ([www.kcsmartport.thinkkc.com](http://www.kcsmartport.thinkkc.com)), established to attract freight-based companies to the Kansas City Region. The organization was founded as a result of a 1998 study undertaken by MARC, the Greater Kansas City Chamber of Commerce, and the Kansas City Area Development Council to examine the feasibility of establishing the Kansas City region as a national center for international trade processing activities (Mid-Continent TradeWay Study).

KC SmartPort is funded by private investors, comprised of firms making contributions at three levels: Investor (\$3,500 annually), Partner (\$6,000 annually), and Leadership (\$11,000 annually). The basic level confers benefits such as invitation to one KC SmartPort board meeting per year, invitation to special SmartPort events, and contact on economic development projects. Partner level adds advertising on the KC SmartPort website and other publications. In addition to the networking and marketing benefits included at the Investor and Partner levels, Leadership members are granted one seat on the Board of Directors and one vote on KC SmartPort's governing body. The KC SmartPort website currently lists 44 Investor Level contributors, 15 Partnership Level contributors, and 10 Leadership Level contributors. Guidestar reports revenues of approximately \$545,600 according to KC SmartPort's 2018 IRS 990 form.

KC SmartPort uses a comprehensive, multi-layered marketing approach including a media campaign, advertising and feature placement in industry publications, and social media. About 75% of projects (expansions and relocations) are led by a site selector. KC SmartPort actively markets to site selection consultants. KC SmartPort also maintains a presence at key industrial conferences and trade shows, and also hosts its own industry conferences.

Among KC SmartPort's sponsors are commercial real estate brokers, warehousing and distribution companies, logistics companies, the major rail roads, staffing firms, and civic partners such as municipalities, municipal-level economic development agencies, and chambers of commerce. The Board of Directors is comprised of representatives of the following firms and agencies:

- BNSF Railway
- CBRE
- Commenco, Inc.
- Cushman & Wakefield
- DSI
- Dysart Taylor
- Express Employment Professionals
- Greater Topeka Chamber
- Johnson County Airport Commission
- Kansas City Aviation Department
- Kansas Department of Commerce
- Kansas Department of Transportation
- Kuecker Logistics Group
- Mid-America Regional Council
- Missouri Partnership
- Newmark Grubb Zimmer
- Olsson
- Port KC
- Scarbrough International, Ltd.
- Storage Solutions
- Trade Data Exchange
- Transystems Corporation



## 2.2.6 Metropolitan Area Freight Planning and Investment Benefits Experienced

Representatives from MARC and KC SmartPort interviewed for this case study both noted that the regional economic development planners have a good understanding of freight needs and have consistently found ways to accommodate the infrastructure needs for growth in the freight/logistics industry. The following major relocations/expansions took place in 2019:

- Walmart is opening a \$635 million, 1.8 million sq. ft. distribution center in nearby Kansas.
- Tool Source Warehouse, a nationwide wholesale distributor of machine tools and accessories is building a 153,000 square foot operation center at the Lenexa Logistics Center.
- ITRenew, a Silicon Valley IT provider, is opening a new 315,000 square foot assembly facility in the I-35 Logistics Park.
- Niagara Bottling is opening a new 400,000 square foot bottle manufacturing facility at CenterPoint Intermodal Center, with an investment of \$68 million.
- Hostess Brands has announced a new distribution center in Logistics Park Kansas City.
- PAE, a third-party logistics provider, has announced plans to lease 500,000 square feet of warehouse space at Logistics Park Kansas City.
- Amazon Flex has announced a new 80,000 square foot fulfillment center in Kansas City, MO.

## 2.3 Key Takeaways and Lessons

The most notable feature of transportation planning in the Kansas City Region is the effectiveness of the consolidated marketing effort. Throughout the research for this case study, a consistent, focused message of regional strengths (e.g., low cost, strong interstate and rail presence with supporting air and seaport facilities, low congestion) was clearly woven throughout - from agency websites, to regional planning documents, to stakeholder interviews. This consistent message, combined with prominent placement of recent success stories and endorsements from major regional companies, seems to be a particularly effective element of the region's success in freight planning.

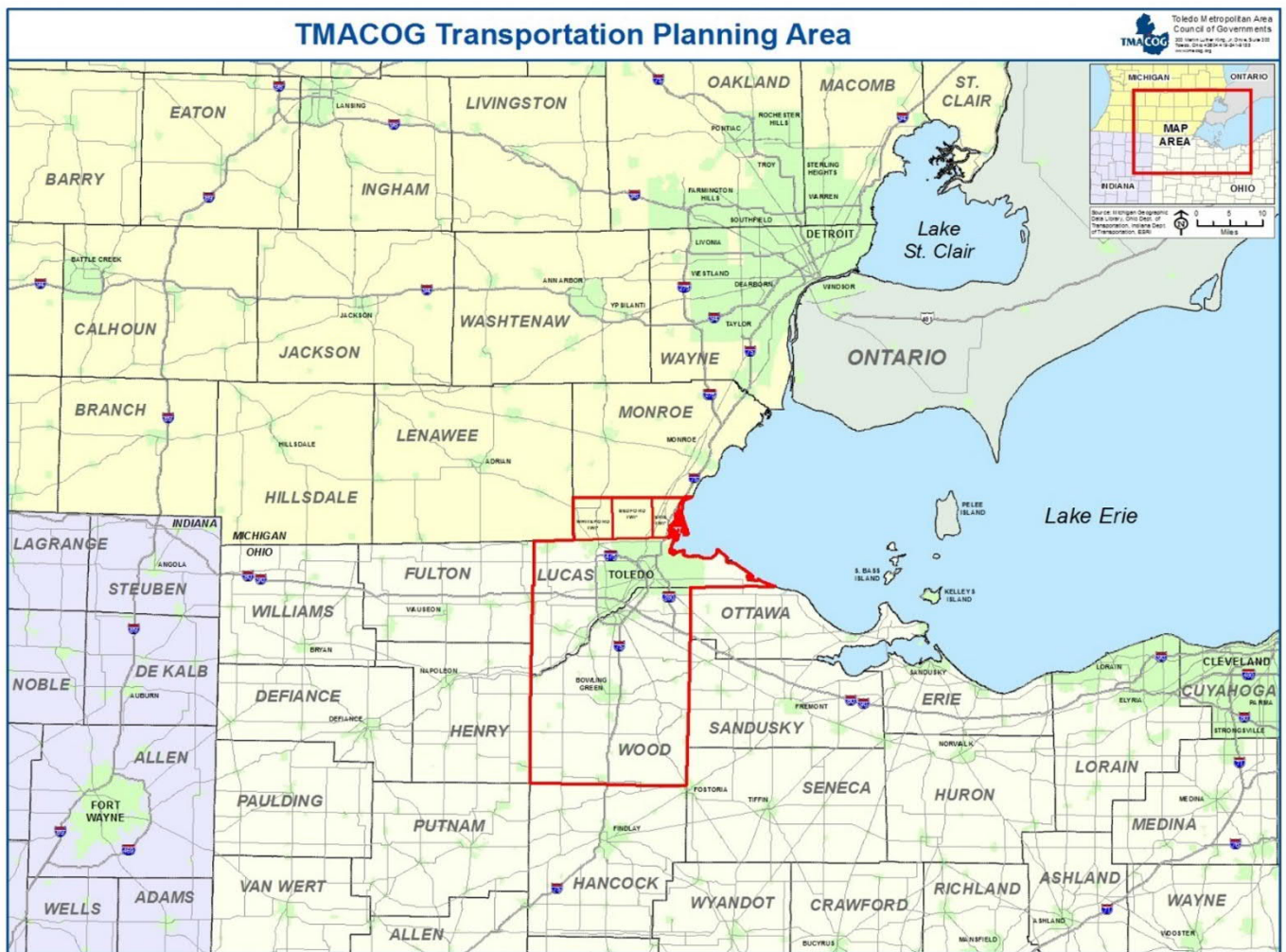
### 3.0 Toledo Metropolitan Region

#### 3.1 Overview/ Background Information

##### 3.1.1 Metropolitan Area

The Toledo Metropolitan Area is comprised of Fulton, Lucas, Ottawa, Sandusky, and Wood Counties in Ohio and Monroe County, Michigan. As shown in Figure 5, the Transportation Planning Area administered by the Toledo Metropolitan Area Council of Governments (TMACOG), the designated MPO, is a subset of these counties, comprised of Lucas and Wood counties in Ohio, as well as the Townships of Bedford, Whiteford, and Erie, and the City of Luna Pier in Monroe County, Michigan. The Michigan portion is included in TMACOG planning but funding for transportation projects in the state is coordinated through the Southeast Michigan Council of Governments (SEMCOG), the Detroit region MPO.

Figure 5. TMACOG Transportation Planning Area



Source: TMACOG.



### 3.1.2 Regional Economic and Freight Infrastructure Profile

Toledo's regional transportation system includes significant facilities for all modes of freight transportation. The region is at the national crossroads of four railroads and two transcontinental highways, connecting Toledo to Canada and Mexico, as well as the US east and west coasts. The seaport on Lake Erie and air cargo facilities provide access to broader international markets.

#### Highway

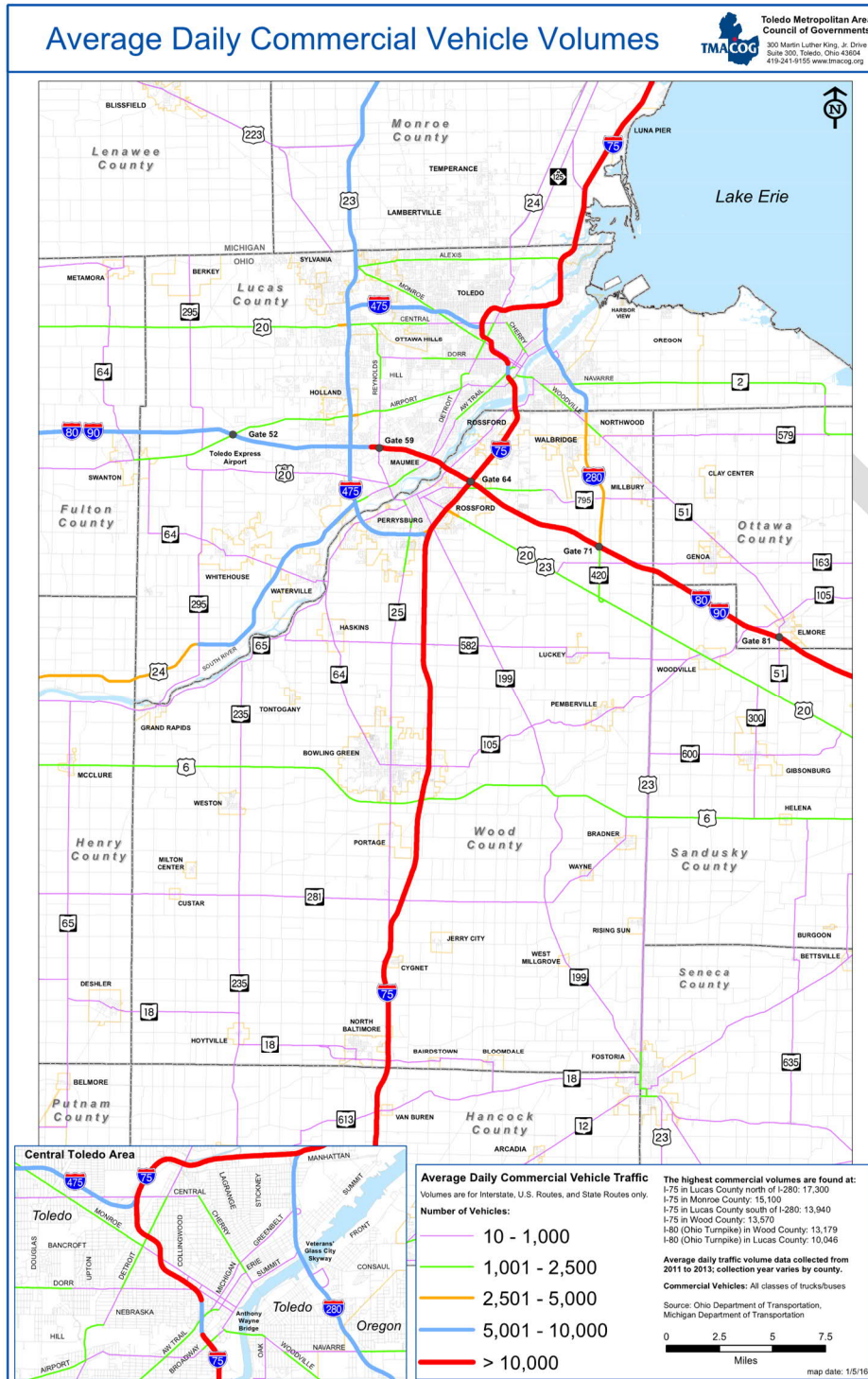
Figure 6 presents a map of the regional highway network. According to TMACOG, 43% of the U.S. industrial market and 47% of the Canadian markets are located within a one-day drive (500-mile radius) of the region. The regional highway system encompasses some 125 miles of limited access freeways. Two major Interstates, I-75 and I-80 (the Ohio Turnpike), intersect in the region. U.S. and state routes add 500 miles of roadway to the system. The region includes 700 bridges on federal-aid eligible routes.

Figure 7 shows commercial vehicle volumes on major regional highways. Truck traffic comprises approximately 11% of the region's current 2 million vehicle trips per day, accounting for nearly 9 million commercial vehicle miles traveled (VMT) per day. As noted in the regional long-range transportation plan, FHWA projections anticipate substantial increases to truck volumes in the future.

Ohio roadways typically have a maximum gross weight restriction of 80,000 lbs., while Michigan roadways typically have a much higher limit. To ensure reliable freight movement throughout the region, trucks moving cargo to or from Michigan or Canada can carry loads of up to 154,000 lbs. gross, by permit on designated "Michigan Legal" routes in the Ohio portions of the region (Figure 8).



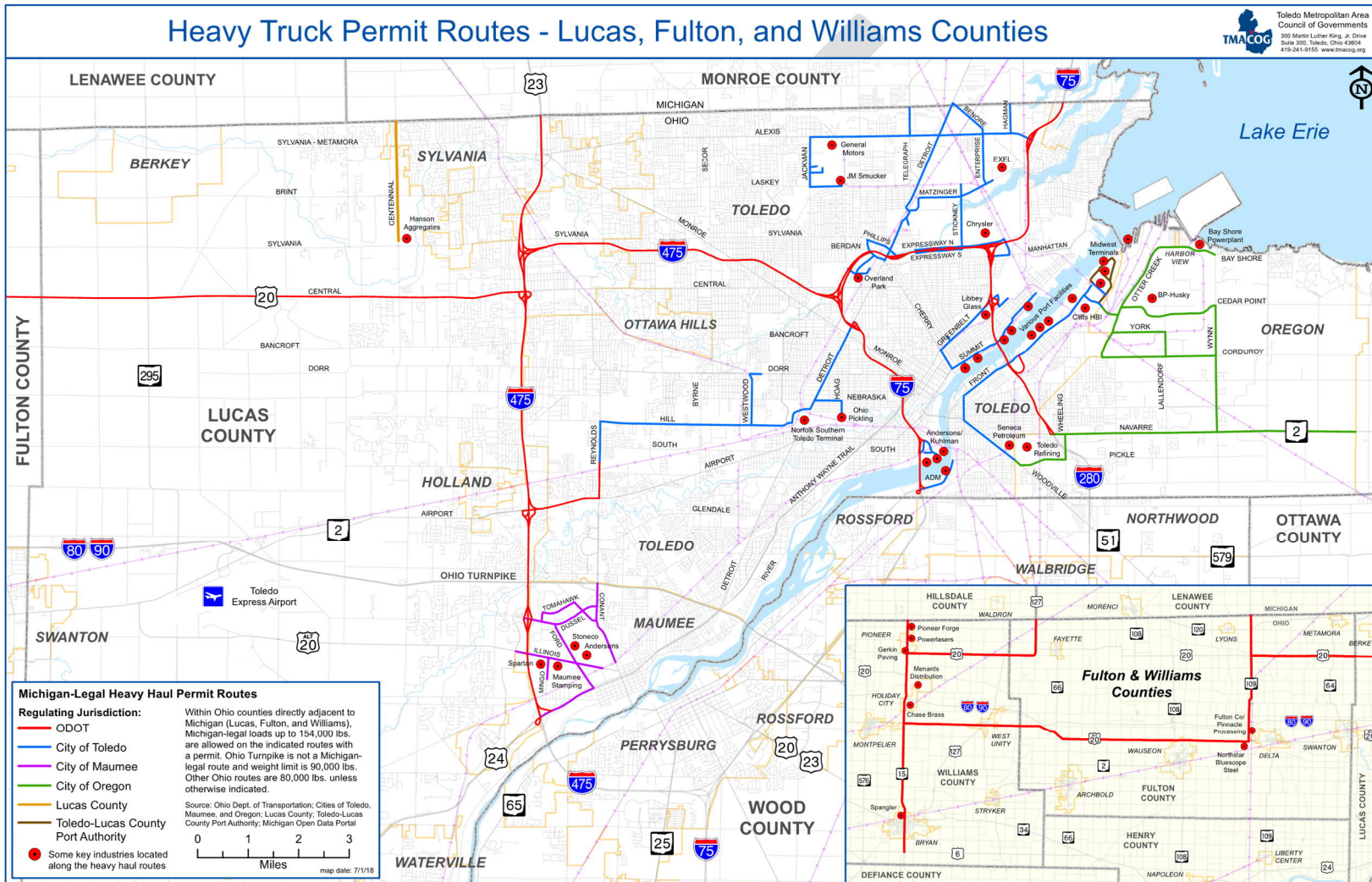
Figure 7. Average Daily Truck Volumes Map for Interstate, US, and State Routes



Source: TMACOG.



Figure 8. "Michigan Legal" Truck Routes



Source: TMACOG.

## Rail

CSX, Norfolk Southern (NS), and Canadian National (CN) each operate Class I railroads in the region, supplemented by the Ann Arbor Railroad short line, encompassing more than 350 miles of active track. The NS and CSX east-west mainlines are two of the busiest tracks in the nation, each carrying some 90 trains per day. Figure 9 depicts the regional rail system, as well as train counts for the major lines.

## Water Port

The Port of Toledo encompasses 15 marine terminals at the confluence of the Maumee River and western basin of Lake Erie. Located along 7 miles of seaway draft waterfront, the port offers integrated access to rail, trucking, and air modes, including on-dock rail connections at most terminals served by CSX, NS, and CN. Figure 10 shows Port of Toledo facilities as well as related facilities including rail yards, rail lines, industrial parks, and Foreign Trade Zone boundaries.

## Airport

Two airports offer air cargo service in the Toledo region: Toledo Express Airport and Toledo Executive Airport. Toledo Express Airport, with its 78-acre air cargo apron, provides direct access to the new Toledo Express Industrial park, a 75-plus acre facility with capacity for a million square feet of new industrial space. The park has two tenants, Plastic Technologies, Inc., which is currently operating at the site, and Airport Property Two, LLC, which announced a 10-acre, 30-year lease in March 2019 and has since broken ground on an 80,000 square foot facility.

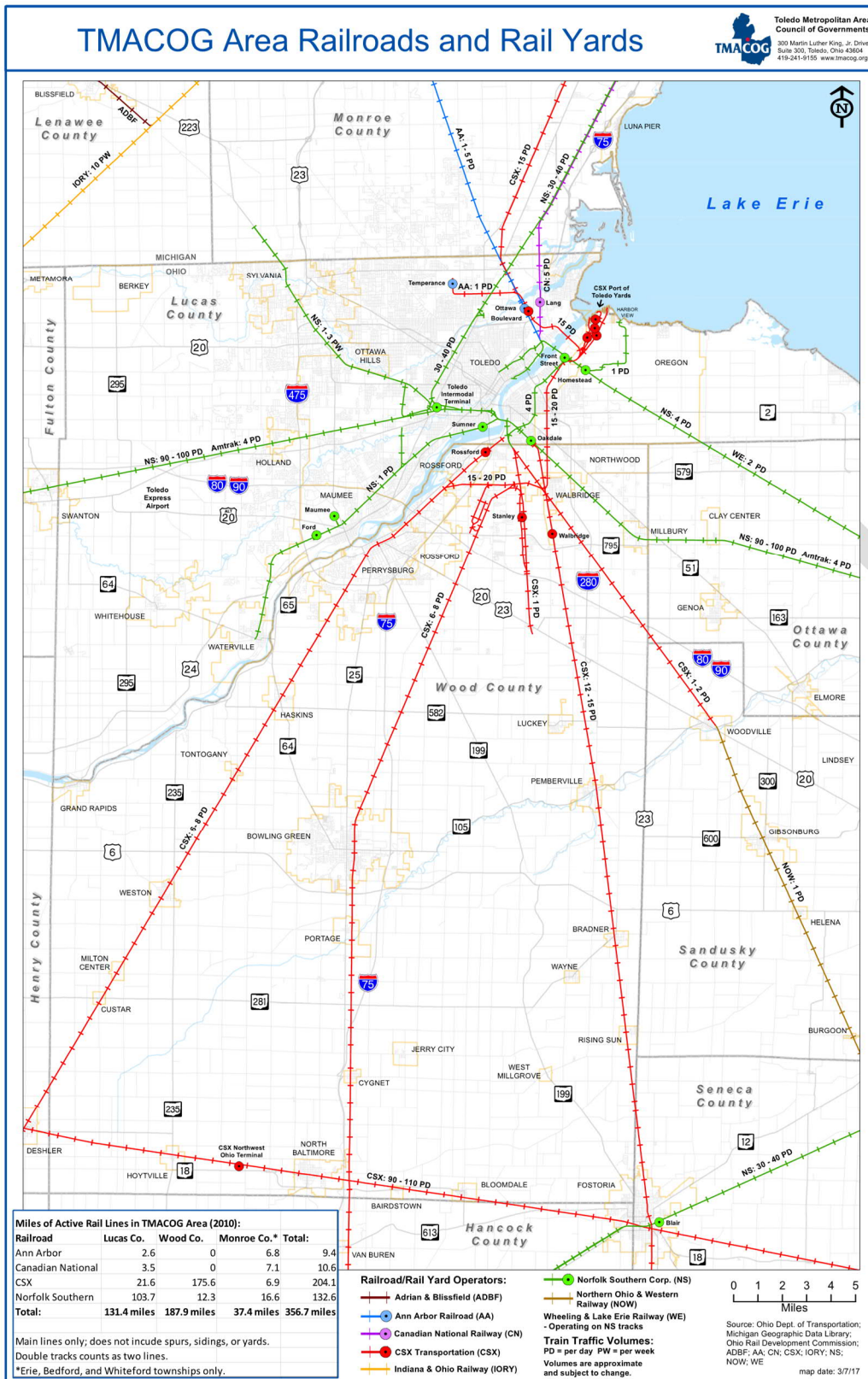
The Toledo Executive Airport originally opened in 1928 as the second largest airport east of the Rocky Mountains. It closed during the Great Depression, then re-opened for air services in 1941, however by the 1950s, its runways were unable to accommodate the larger aircraft of the time. Airlines relocated to Toledo Express Airport, leaving the Executive Airport facility unused for air service until the late 1960s.

In 1974, Crow Executive Air began operating as Executive Airport's Fixed-based Operator (FBO), and continues today. Crow advertises expedited air cargo service by chartered flight. Toledo-Lucas County Port Authority states that the 450-acre facility offers hundreds of acres of developable land available for lease. The map of available land shows two separate 80-acre greenfield sites along Executive Airport's 14-32 runway.

## Large Distribution Facilities

The transportation and logistics industry is important to the regional economy. As shown in Figure 11, numerous large distribution facilities have located in the Toledo region. The 12 largest distribution centers in the region have made \$651 million in capital investments and directly employ more than 5,300 people.

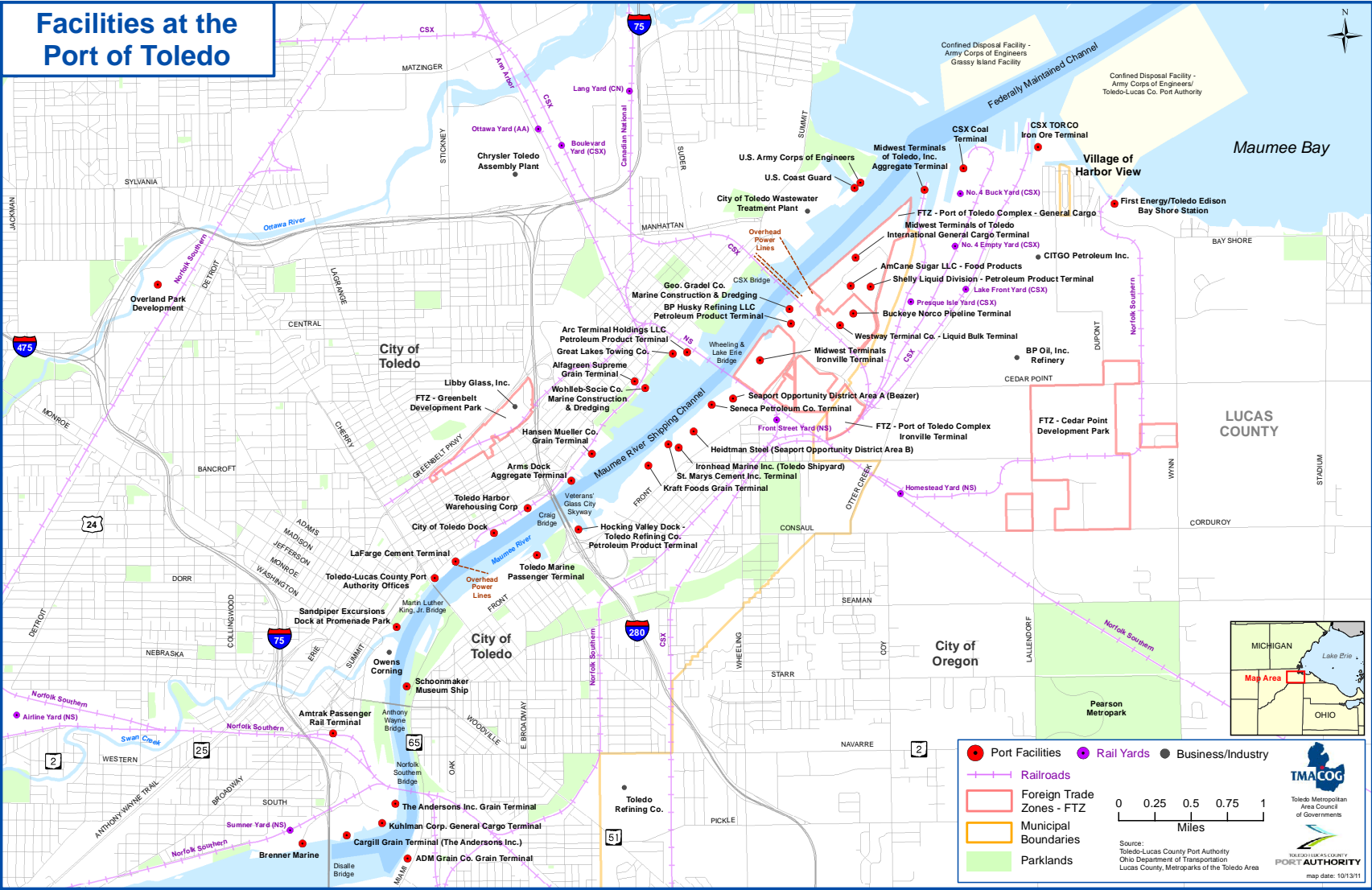
Figure 9. Railroads and Rail Yards Map (with train traffic counts)



Source: TMACOG.



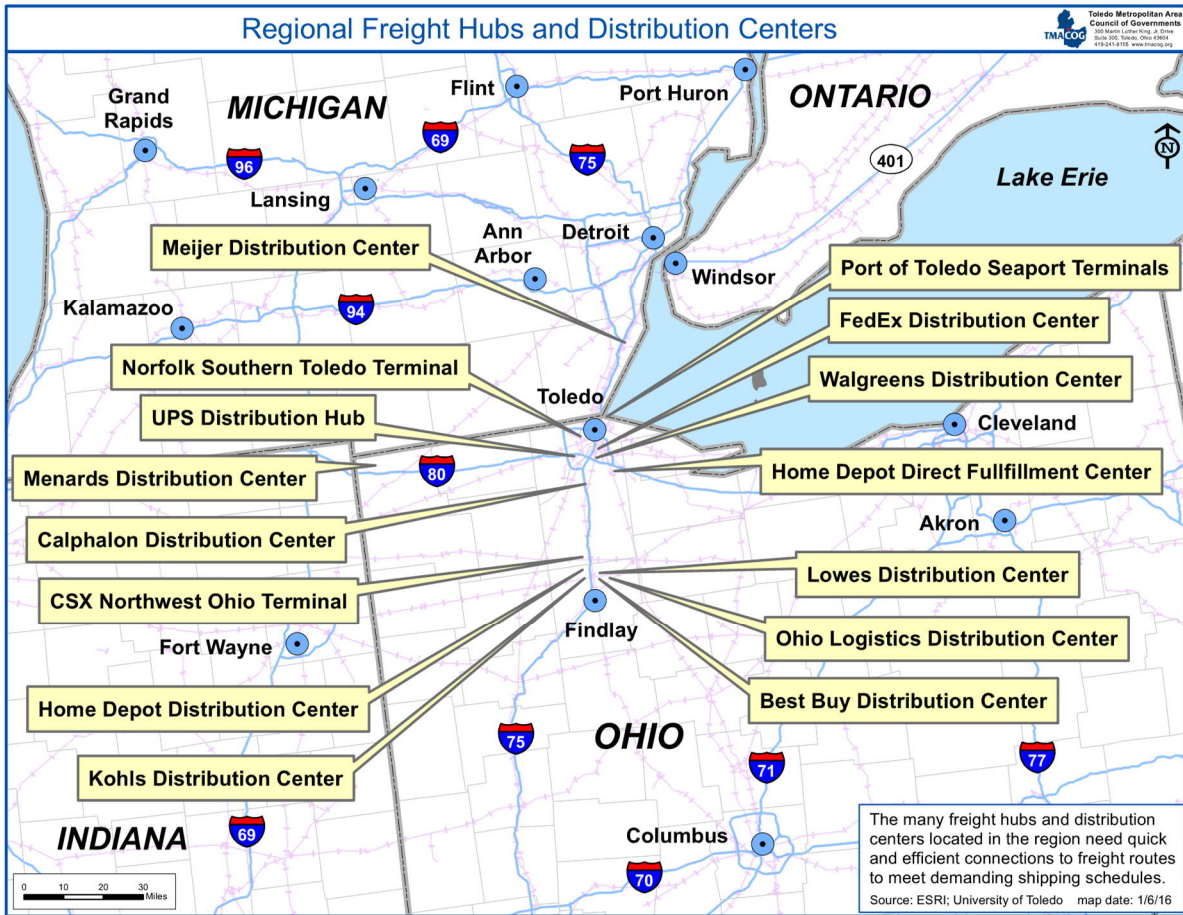
Figure 10. Map of Freight and Marine Facilities at Port of Toledo



Source: TMACOG.



Figure 11. Major Freight Hubs and Distribution Centers Map



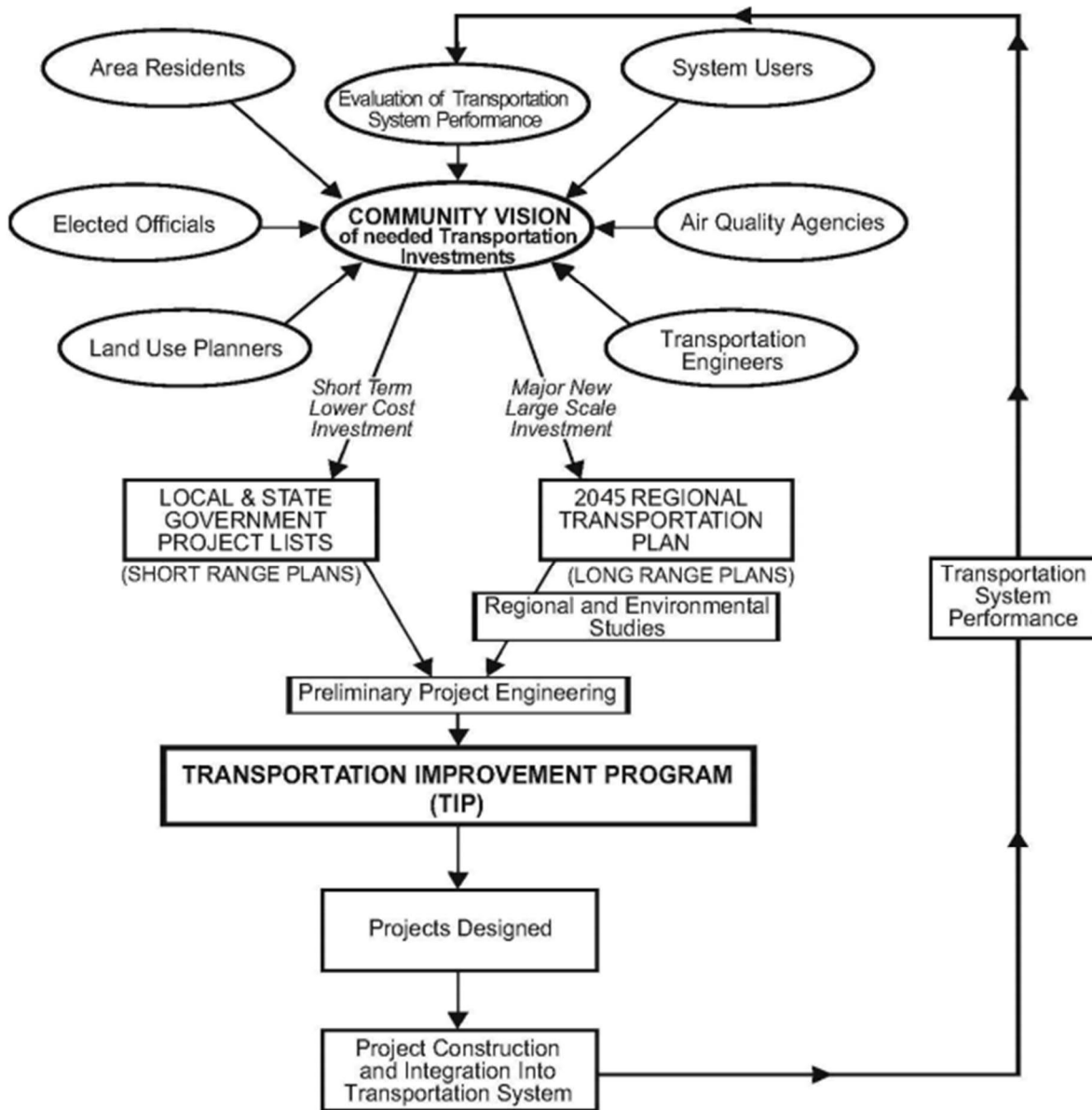
Source: TMACOG.

### 3.1.3 Institutional Structure for Freight Planning

TMACOG is responsible for coordinating freight planning in the region. Funding for transportation projects in Ohio portions of the region is handled through TMACOG, while investments in Michigan portions are coordinated through the Southeast Michigan Council of Governments (SEMCOG). Figure 12 provides a schematic from TMACOG's current TIP illustrating the region's institutional structure for transportation planning, which includes freight planning.

DRAFT

Figure 12. Regional Transportation Planning Process



Source: Fiscal Year 2018-2021 Transportation Improvement Program, April 2017 (Figure 1.1).

TMACOG convenes a Transportation Council, which manages the organization’s transportation planning and implementation functions. According to TMACOG, “The Council is responsible for the implementation of the transportation program through its subcommittees and the TMACOG Transportation Department. Finally, it maintains communication on transportation issues among and between TMACOG’s other committees, other transportation stakeholders, and the broader regional community.”

TMACOG also maintains a Freight Advisory Committee, which serves as a freight-focused subcommittee for the purpose of “[improving] the efficiency and reliability of the regional freight network and strengthen the region’s position as a multimodal freight hub.” The committee meets every other month for information sharing, and also provides input for TMACOG’s freight planning and long-range transportation planning.

TMACOG is in the process of updating the region’s long-range transportation plan (LRTP), called “On the Move: 2045 Transportation Plan.” This document establishes regional transportation goals, and identifies the list of projects, initiatives, and policies that will guide transportation investments in the Toledo metropolitan area. The plan contains a specific Freight Goal (Goal D), “Strengthen freight access to national and international trade markets to support economic development,” and sets forth four specific policies in support of that goal (Policies 14-17). Several other Plan goals directly or indirectly support freight movement, including Safety, Infrastructure Condition, Congestion Reduction, and System Reliability.

## 3.2 The Story

### 3.2.1 Key Freight Investments and/or Projects in the Metro Area

One of the most important freight-supportive projects, I-75 widening, is currently underway. I-75 runs directly through downtown Toledo through dense residential areas as well as major industrial areas. In this urban segment of the corridor, I-75 narrows from 6 lanes to just 2-4 lanes, creating a bottleneck. Under this project, the portion south of Toledo will be widened to 6 lanes, with completion expected in 2023. The remainder of I-75 is currently being widened to achieve 6 lanes the entire length from Michigan to Cincinnati.

Formerly, the I-280 beltway connector crossed the Maumee River shipping channel via a lift span bridge originally built in the 1950s, which required traffic to stop when large ships passed beneath. An article in the Toledo Blade explains,

Hundreds of times per year, I-280 traffic came to a halt so the bridge could open and allow freighters or other tall vessels to pass through. A seven-minute delay was typical, but sometimes the openings took longer. (“10th anniversary for Glass City Skyway,” June 24, 2017)

In 2007, this drawbridge was replaced by the Veteran’s Glass City Skyway Bridge (aka Toledo Skyway Bridge), a cable-stayed bridge, at a cost of \$237 million.

Continued investments by the Port of Toledo, including modernization of cargo handling equipment, allow the port to handle virtually everything ships carry (Toledo Regional Economic Plan), supporting some \$669 million in economic activity in 2018 (2018 Economic Impact Study). Concurrently, the Port continues to manage and expand available industrial lands. The Port’s flagship project is the 2008 acquisition of a former Chevron brownfield site for \$3.4 million. The Port, in partnership with Midwest Terminals of Toledo and with assistance through a \$5 million Ohio Job Ready Site grant, invested approximately \$25 million to redevelop the site into a 181-acre multi-modal (ship/rail) transportation facility, including rehabilitation of dock space, harbor dredging, equipment modernization, and a newly installed conveyor and material transfer system. Called Ironville Terminal, the facility is now the site of the Cleveland Cliffs hot briquetted iron industrial development, discussed in greater detail below.

### 3.2.2 Key Drivers of Freight Planning and Investment in the Metro Area

Freight transportation has always been a high priority in Toledo. The region has historically had a very strong manufacturing and industrial presence. The region also handles significant freight movement due to the presence of I-80 and I-75. In addition, the Port of Toledo is one of the busiest ports on the Great Lakes. Finally, while the region's role as a major rail hub has diminished over time, it still continues to be home to significant rail activity. For example, Norfolk Southern's busiest east-west line runs through the region. This confluence of transportation operations supports the region's role as a major distribution center.

### 3.2.3 Stakeholder Involvement in Planning and Investment Decisions

TMACOG has an active Freight Advisory Committee. The group originated in the 1980s, led by and focusing on the railroad companies. The committee now counts on the participation of representatives from the railroads, trucking companies, and airport and port authorities which keeps regional planners up to date on all shipping issues, and industry trends and needs. Of note is that both trucking executives and drivers participate, which gives planners special insight into how the transportation system is actually functioning, and where and when bottlenecks are forming. Industry representatives, as well as major factory operators, also participate to convey their needs to TMACOG planners. The committee meets every other month and is attended by a core group of regular participants, as well as a wider range of participants throughout the year according to specific interests and issues.

In addition to regular meetings, the Freight Advisory Committee conducts site visits to major transportation facilities in the region such as the CSX rail yard in West Baltimore (in Montgomery County, OH), as well as industrial operations such as the BP refining facility and a major mill to understand how transportation connects these operations to suppliers and customers and better understand regional freight transportation needs.

### 3.2.4 Political Support and Leadership in Freight Planning and Investment

The prominence of the transportation/logistics industry in the region, coupled with large facility operators such as railroad companies and the Port Authority, keep freight planning a high priority for ongoing investment. Active participation on the Freight Advisory Committee, reciprocated by TMACOG outreach to freight-reliant industry and system operators, conveys industry and economic development needs to transportation planners so they can be incorporated into the TIP and LRTP, as appropriate.

### 3.2.5 Metropolitan Area Marketing to Freight and Logistics Industry

Marketing to the freight and logistics industry is, for the most part, decentralized. The Port Authority, which operates the Port of Toledo as well as several industrial parks, is active in marketing and has been successful in redeveloping brownfields and attracting tenants. In addition, the City of Toledo Economic Development Department, Toledo Chamber, Wood County Economic Development, and other jurisdictions in the region undertake their own economic development marketing efforts, which due to regional strengths, is largely focused on attracting transportation/logistics and distribution operations. The Regional Growth Partnership, a statewide agency, also maintains an active branch office in Toledo that markets for the entire region.

### 3.2.6 Metropolitan Area Freight Planning and Investment Benefits Experienced

Freight planning and investments have allowed the region to respond to national and global economic trends. For example, Toledo has historically had a strong manufacturing and industrial base. However, as domestic manufacturing declined in recent decades, the region was able to build on freight transportation assets to attract major distribution centers.

A recent industrial development success, currently underway, is the new \$830 million Cleveland Cliffs hot-briquetted iron production facility at Ironville Terminal. When operational, the facility will create approximately 130 permanent jobs and generate more than 100 new vessel calls per year for inbound raw materials. Finished products will ship to market by rail and truck. The project received the Ohio Economic Development Association's Best Project Award for 2018. A press release issued by the Toledo-Lucas County Port Authority reported, "This project is unique due to strong partnerships between economic development entities, all of which brought resources to the table to ensure the success of the project. Additionally, public entities played a role that is traditionally played by private sector developers, and the calculated risk resulted in Cleveland Cliffs Inc.'s commitment to the site." JobsOhio, Midwest Terminals of Toledo, City of Toledo, Lucas County, Regional Growth Partnership, and the Ohio Rail Development Commission are all credited with partnering with the Port Authority to bring this development to the Ironville Terminal site.

According to the Northwest Ohio Regional Growth Partnership, other recent economic development successes in the region that hinged on freight transportation access include:

- Ohio Logistics, \$23 million investment in a new distribution facility
- Menards, \$28 million investment
- Walgreens, \$80 million investment
- Custom Glass Solutions, \$2.2 billion investment (over 5 years)

Additionally, the Northwest Ohio Regional Growth Partnership indicates that in the last 3 years, the logistics and transportation industry as generated 41 successful projects, 790 new jobs, and \$175 million in capital investment. The strong logistics and transportation industry has also helped the food processing, automotive, and advanced manufacturing sectors grow, including recent announcements by the Campbell Soup Company to add 220 jobs with a \$44 million capital investment, Continental Structural Plastics to add 186 jobs with a \$75 million capital investment, expansions by Fiat Chrysler and GM-Powertrain to invest \$2 billion in their Toledo operations, and Pro-Tec Coating Company to add 80 jobs with a \$410 million capital investment. The Growth Partnership produces an annual logistics and distribution report that outlines opportunities and successes of the industry.

### 3.3 Key Takeaways and Lessons

The most notable feature of freight planning in the Toledo Region is the extent to which transportation planners endeavor to understand the needs of their economic base industries. Including a broad range of knowledgeable stakeholders, from executives to truck drivers, along with regular site visits to major employers in transportation-intensive industries support this understanding, which is then incorporated into regional investment priorities.



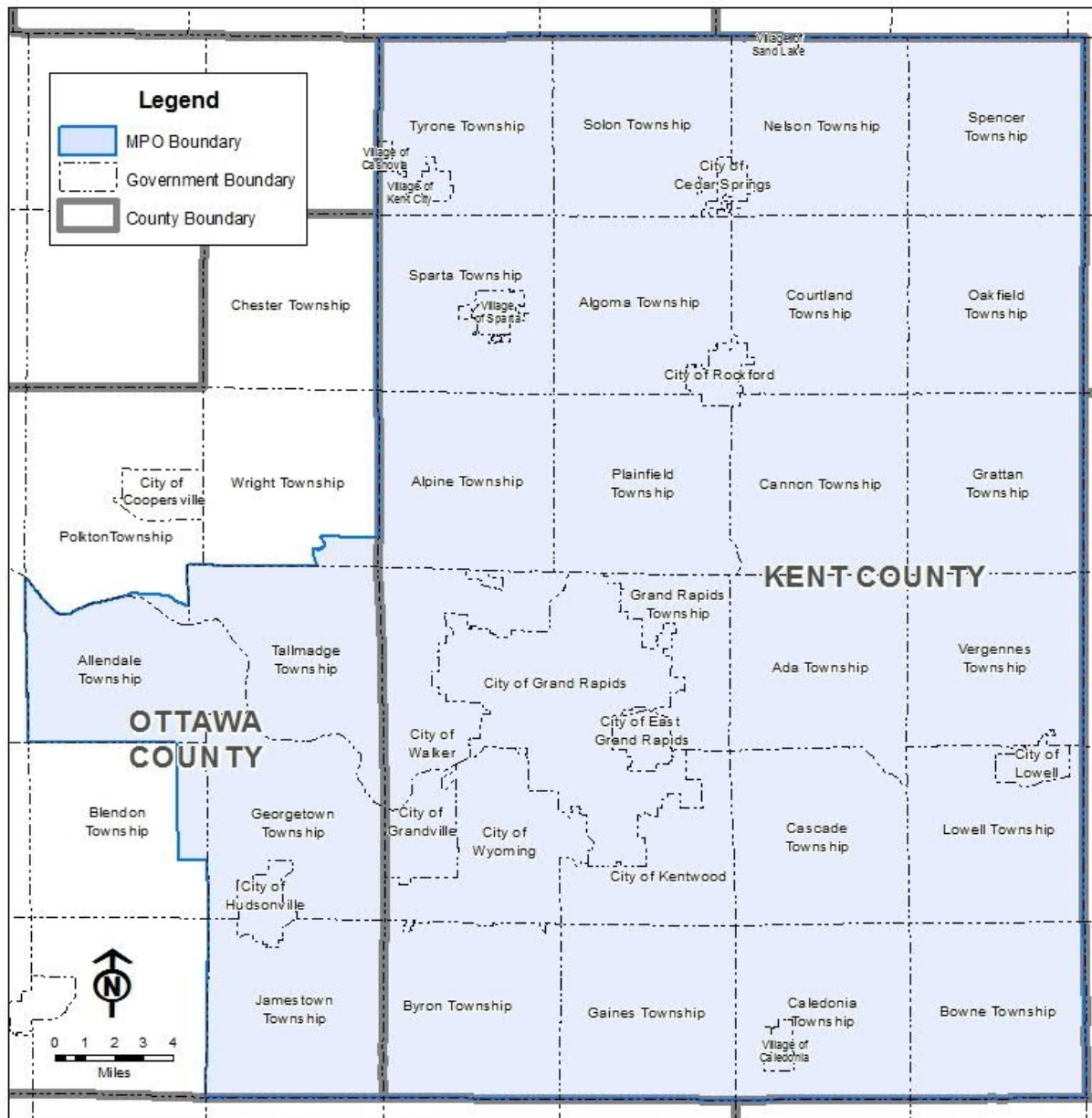
## 4.0 Grand Rapids Metropolitan Region

### 4.1 Metro Area and Core Cities

#### 4.1.1 Metropolitan Area

The Grand Rapids Metropolitan Area is anchored by Grand Rapids, in western Michigan. The Grand Valley Metropolitan Council (GVMC) is the MPO for the region and is responsible for transportation planning in Kent County, and parts of Ottawa County, including the townships of Allendale, Talmadge, Georgetown, Hudsonville, and Jamestown. Figure 13 shows the GVMC MPO region.

Figure 13. GVMC MPO Region



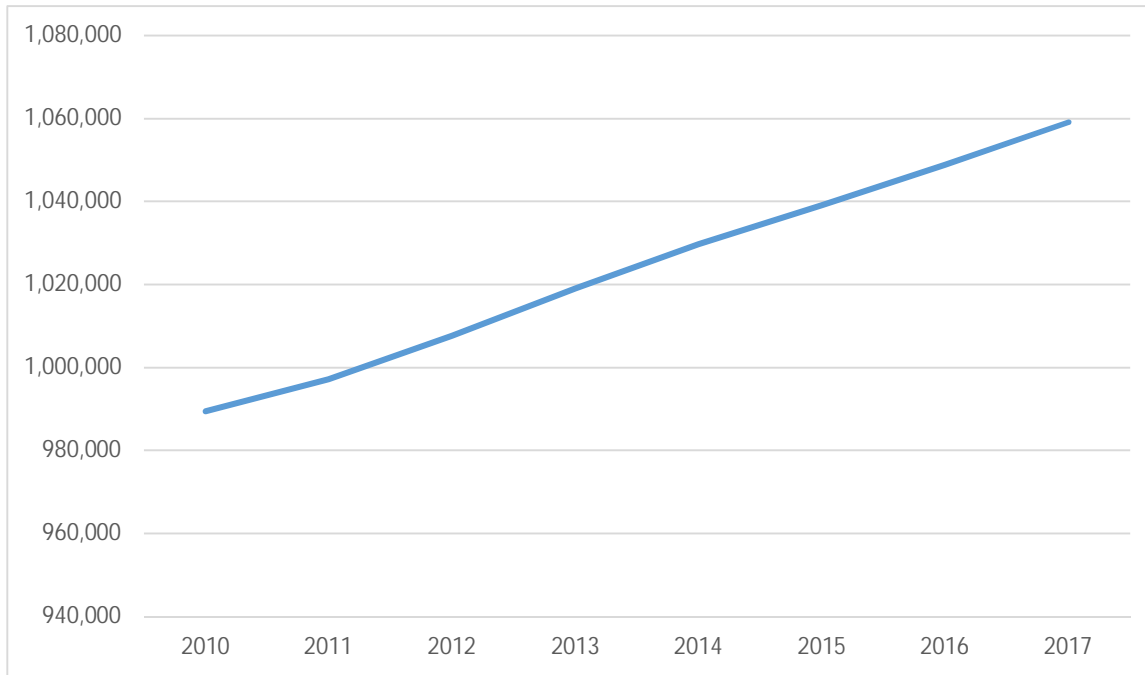
Source: GVMC



### 4.1.2 Regional Economic and Freight Infrastructure Profile

The population of the Grand Rapids Metropolitan Area is increasing steadily at about one percent per year and is now just under 1.06 million, as shown in Figure 14.

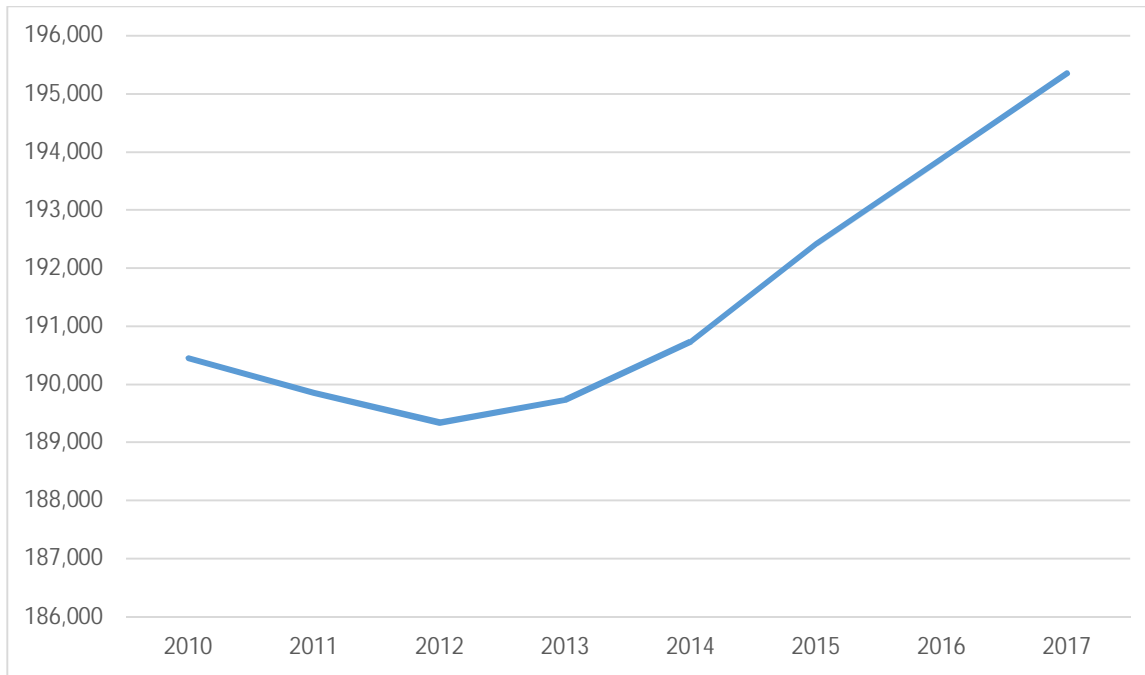
Figure 14. Population of the Grand Rapids Metropolitan Area



Source: U.S. Census Bureau

The population of the City of Grand Rapids has been more variable than the metropolitan area and has recently had a distinct upswing as shown in Figure 15. City economic development officials credit the recent growth with diversifying the local economy. The area used to be focused on furniture manufacturing. However, the area now has a strong base of employment in health care, food manufacturing, brewing, and higher education. The core manufacturing industries were harmed by the recession, but the area was able to bounce back from the recession because of its diverse economic base. In some cases, lost employers were replaced by other establishments or growth at other establishments. For example, a General Motors manufacturing plant closed, but another General Motors plant has increased in size. A graduate program for Michigan State University moved from Lansing to Grand Rapids. Brewing has also grown in the area. Grand Rapids now benefits from the momentum of these industries.

Figure 15. Population of the City of Grand Rapids



Source: U.S. Census Bureau

While Grand Rapid's economy has diversified, it is still heavily oriented toward manufacturing compared to other areas of the United States, as shown in Table 2. The location quotient measures the relative concentration of employment within a given area compared to the national average. A location quotient of one indicates that the concentration of employment is the same as the rest of the country. A location quotient of two indicates that the employment in a given industry has twice the share of the economy as compared to the rest of the country. As shown, the Grand Rapids metropolitan area has twice the concentration of employment in manufacturing compared to the U.S. total.

Table 2. Grand Rapids Metropolitan Area Sector Location Employment, Wage Quotient, First Quarter 2019

NAICS Sector	Quarterly Establishments	January Employment	February Employment	March Employment	Total Quarterly Wages	Average Weekly Wage	March Employment Location Quotient	Total Quarterly Wages Location Quotient
1011 Natural resources and mining	441	5,078	5,209	5,608	43,226,927	628	0.81	0.45
1012 Construction	2,428	23,057	22,690	23,100	324,877,097	1,089	0.84	0.96
1013 Manufacturing	1,884	117,734	117,888	117,698	1,885,642,642	1,232	2.41	2.61
1021 Trade, transportation, and utilities	4,656	93,601	92,713	92,803	1,116,593,140	923	0.89	1.05
1022 Information	387	5,627	5,644	5,632	84,414,580	1,152	0.52	0.3
1023 Financial activities	2,064	23,593	23,446	23,442	431,118,377	1,412	0.74	0.54
1024 Professional and business services	3,645	87,813	89,926	93,050	1,003,597,174	855	1.16	0.76
1025 Education and health services	1,919	88,200	88,766	89,230	1,064,242,422	923	1.01	1.2
1026 Leisure and hospitality	2,001	46,699	46,417	47,107	220,087,458	362	0.77	0.75
1027 Other services	2,239	17,139	16,997	17,262	147,107,394	660	1	1.09
1029 Unclassified	297	715	744	761	6,718,505	698	1.11	0.93

Source: U.S. Bureau of Labor Statistics

## Highways

Grand Rapids' major logistical weakness is that the area is considered a peninsula to freight. It is not located on a major freight corridor but represents a terminus, since no major metropolitan areas lie to the north or east. As one stakeholder mentioned, a freight provider must really want to travel to Grand Rapids because it is not on the way to other large metropolitan areas. This status is apparent when reviewing the concentration of commercial vehicles on Grand Rapids roadways. The highest density roads are I-96 from Lansing and Detroit, and U.S. 131 to the south. The roadways that lead north generally have lower truck volumes. Figure 16 displays commercial truck volumes on Grand Rapids area roadways.

Figure 16. 2017 Commercial Annual Average Daily Traffic for Grand Rapids Roadways



Source: Michigan Department of Transportation

## Rail

Similar to highway freight, Grand Rapids is not on a major rail corridor. It is served by CSX, but the CSX line is a relatively low density branch line and is not on the CSX intermodal network. Several short line railroads serve Grand Rapids, including the Marquette Rail to the north, the Grand Rapids Eastern Railroad to the east, and the Grand Elk Railroad to the south. Figure 17 displays the rail network in the area around Grand Rapids.

Figure 17. Rail Map of Western Michigan



Source: Michigan Department of Transportation

#### Water Port

The closest water port available to Grand Rapids shippers is the Port of Muskegon on Lake Michigan. The port handles over a million tons of freight per year, including aggregates, coal, and salt.

#### Air

Air cargo service is available at the Gerald R. Ford International Airport. UPS and FedEx each have facilities at the airport. According to data from the Federal Aviation, about 24,000 tons of freight was shipped by air cargo to and a roughly equal amount was shipped from Grand Rapids in 2018.

#### 4.1.3 Institutional Structure for Freight Planning

GVMC is responsible for freight planning in the region, and within GVMC is a freight subcommittee devoted to freight. This is an ad hoc subcommittee and while it theoretically meets twice per year, it does not have a regular meeting schedule. The Michigan Department of Transportation (MDOT) plays an active role in regional freight planning as well. MDOT works with GVMC to identify projects to include in the state's 5-year freight program. MDOT evaluates projects for inclusion in their freight program based on the following:

1. Amount of commercial traffic impacted

2. The cost of the project
3. The impacts on the economy
4. Connectivity to the transportation network
5. Value of goods moved to Michigan

The identification of critical rural and urban freight corridors is also a determinant of which projects will be included in the freight program. GVMC helps to determine the local freight network within Grand Rapids.

Private industry participation in freight planning is facilitated through two organizations: The Right Place and the Grand Rapids Area Chamber of Commerce. The Right Place is a quasi-public, quasi-private economic development agency. It was created through Michigan state law to represent 13 counties in western Michigan, to support existing businesses and attract new business. Freight planning represents one role of The Right Place staff among others. The Grand Rapids Chamber of Commerce plays an active role representing business before the GVMC.

## 4.2 The Story

### 4.2.1 Key Freight Investments and/or Projects in the Metropolitan Area

Several projects have or are being completed that are not freight projects per se, but for which freight is an important component. Freight was a major consideration for a new \$30 million interchange on I-96 at 36<sup>th</sup> Street, which was funded by MDOT's Improve/Expand program. The project was identified in the I-96 Airport Area Access Study and Gerald R. Ford International Airport Master Plan. This new interchange provides improved access to the Gerald R. Ford International Airport. The construction of this interchange dramatically cut down the drive time required for traffic traveling from I-96 to Gerald R. Ford International Airport and nearby air cargo facilities, while alleviating congestion on local streets that were previously being utilized as main routes to the airport. The project helped attract a FedEx Ship Center. The M-6, or the Paul B Henry Freeway, is a new bypass to the south of Grand Rapids that connects I-196 on the west and I-96 on the east. Freight considerations were important to the decision to build this new highway.

The area has had freight-specific success stories. For example, The Right Place facilitated the development of a truck/rail transload facility. A large brewer in the area sources malt from a company in Minnesota. The malt had been delivered by rail from Minnesota to a transload facility in Chicago and then delivered by truck to the local brewer. Meetings with the brewer, the source in Minnesota, the railroad, and a transload operator suggested a better system whereby malt could be delivered directly to Grand Rapids by rail. Now, a regional malt distribution center has been established whereby malt is delivered directly to Michigan and serves not only the large brewer, but also other nearby breweries.

Grand Rapids is also notable for projects that have not been successful but that demonstrated a cooperation between public and private sectors. While Grand Rapids is a reasonably large metropolitan area that generates significant volumes of inbound and outbound freight, no intermodal terminals are located in the area. Rather, intermodal freight must be trucked from terminals in Chicago or Detroit. This adds costs for shippers that would like to receive or deliver intermodal containers but receive no local intermodal rail service in Grand Rapids. Because the area is close to Chicago and not on an intermodal route, CSX has declined to provide intermodal service. The Chamber of Commerce first

introduced the idea of an intermodal terminal in Grand Rapids. Since then, the private and public sectors have cooperatively advocated for an intermodal terminal in the area.

#### 4.2.2 Key Drivers of Freight Planning and Investment

Freight transportation has always been a high priority in Grand Rapids. The region has historically had a very strong manufacturing and industrial presence. As shown previously, the area has an above average concentration of manufacturing. A number of prominent industries within the area are dependent on freight including:

- Manufacturing: automotive, biopharmaceuticals, metal, plastics
- Food processing
- Aerospace and defense

#### 4.2.3 Key Drivers of Freight Planning and Investment in the Metro Area

The Right Place describes its role, as well as that of the Grand Rapids Area Chamber of Commerce as the “barking dog,” highlighting concerns of local businesses and bringing these to the attention of the public agencies. A lot of these companies simply do not have time to attend public sector transportation meetings, such as through GVMC, so The Right Place and the Chamber of Commerce provide this interaction. These organizations can provide companies an anonymity that these companies prefer.

Opportunities for public involvement are provided through the GVMC ongoing planning process. Individuals can request to be added to GVMC’s interested citizen/agency list to receive agency correspondence. Members of the public can attend committee meetings and provide input to MPO plans. The method of involving the public and stakeholder depends on the planning document that GVMC is preparing. The state plays an important role in regional outreach as well. The Office of Rail meets with railroads annually. MDOT also meets with The Right Place.

#### 4.2.4 Political Support and Leadership in Freight Planning and Investment

Freight plays a prominent role for leadership for both public sector and private sector leadership. For example, the Grand Rapids Area Chamber of Commerce is active politically and advocates for infrastructure improvement on behalf of membership. As just mentioned, The Right Place also advocates for freight interests.

#### 4.2.5 Metropolitan Area Marketing to Freight and Logistics Industry

The area does not make a concerted effort to market to the freight and logistics industry. However, examples of freight operators being attracted to the area exist, such as FedEx moving into the area after access to the airport was improved or a transload operator operating a malt distribution facility. The focus of economic development officials is more oriented toward providing adequate resources to freight and logistics operators already located in the area.

The Right Place acts as the region’s economic development and marketing agency for freight and logistics. The Right Place focuses on attracting Smart Manufacturing, Information Technology, Life Sciences, Food Processing, and Aerospace and Defense industry sectors. The Right Place can provide site selection services and assemble incentive packages for industries. They can also identify local supply



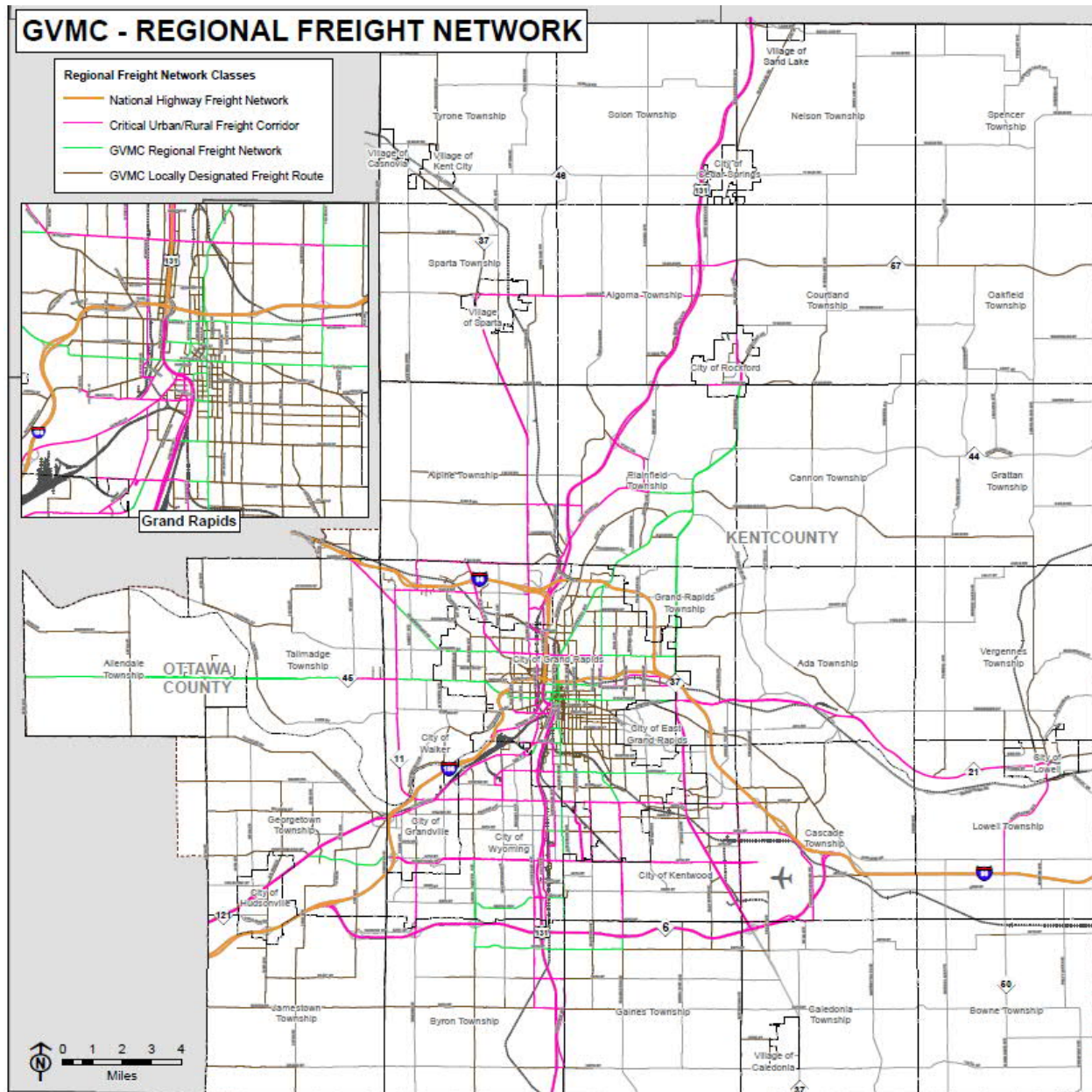
chain and partner opportunities. The Right Place has assisted thousands of West Michigan companies to invest more than \$4.8 billion and 44,000 new jobs in the region.

#### 4.2.6 Metropolitan Area Freight Planning and Investment Benefits Experienced

The Grand Rapids metropolitan area continues to grow, and the area's freight and logistics system supports this growth. Not all recent transportation improvements solely relate to freight, such as highway improvements where freight is an important component, but not the sole consideration. GVMC relies on the Michigan DOT (through its Michigan Freight Plan and State Rail Plan) to assist with its freight planning. Through this effort, Grand Rapids is identifying Critical Rural Freight Corridors (CRFCs) and Critical Urban Freight Corridors (CUFCs) in order to expand the lane miles of roadways that are eligible for National Highway Freight Network formula funds and FASTLANE Grant Program funds (FASTLANE is short for Fostering Advancement in Shipping and Transportation for the Long-Term Achievement of National Efficiencies). Figure 18 displays the draft Regional Freight Network under development. GVMC is working with The Right Place to assemble a Freight Subcommittee for the Long Range Transportation Plan development and the Chamber of Commerce to undertake a Logistics Study.

DRAFT

Figure 18. GVMC Draft Regional Freight Network



Source: GVMC

### 4.3 Key Takeaways and Lessons

The most notable feature of freight planning in the Grand Rapids region is the level of knowledge and role of stakeholder organizations. Freight planning is one of the responsibilities of The Right Place staff, and staff members are knowledgeable in this area. Similarly, The Right Place and the Grand Rapids Area Chamber of Commerce maintain an interest in freight infrastructure and actively advocates for improvements on behalf of its membership. These two organizations provide a medium by which private sector needs and interests can be communicated to politicians and public sector planners. The

state government also maintains an active role in Grand Rapids regional freight planning, communicating with local planners, The Right Place, local short line railroads, and other stakeholders. While the region has not been able to establish an intermodal terminal, the effort to do so provides an example of private stakeholders joining with public sector officials to advocate for freight improvements.

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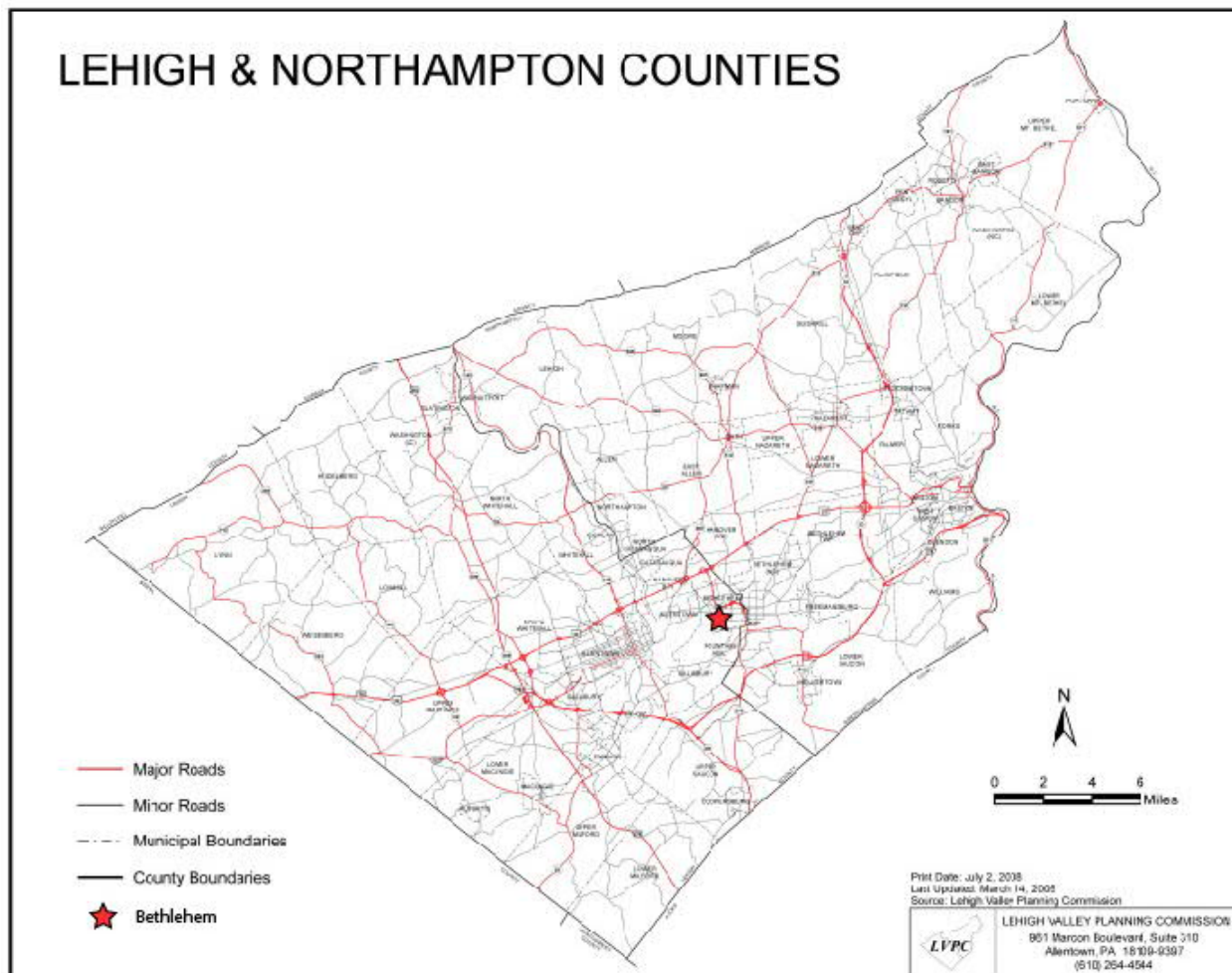
## 5.0 Bethlehem, Pennsylvania

### 5.1 Overview/ Background Information

#### 5.1.1 Metro Area and Core Cities

The Lehigh Valley Planning Commission (LVPC), which functions as the MPO for Bethlehem, conducts transportation planning for the Lehigh Valley region. The MPO region encompasses two counties, Lehigh County and Northampton County, and is anchored by Allentown, Bethlehem and Easton, shown in Figure 19.

Figure 19. LVPC Metro Region



Source LVPC

#### 5.1.2 Regional Economic and Freight Infrastructure Profile

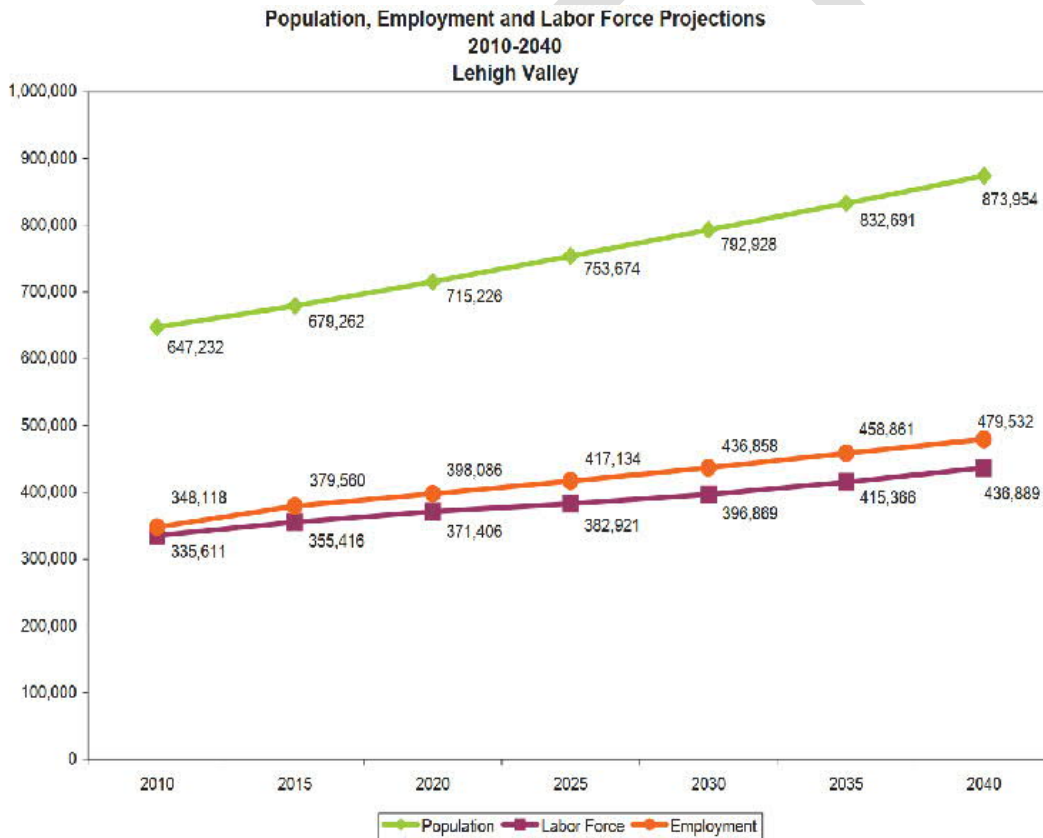
The population of the LVPC Metro in 2015 was 661,498 and is projected to grow to 873,954 by 2040. The population growth is due to a resurgent job market driven by education, healthcare, manufacturing, and culture. The region touts the fastest growing corridor in the nation for warehousing and logistics.

Although 86% of freight in the region is carried by truck, up to 103,907 tons of freight cargo is moved through Lehigh Valley International Airport each year. The region has garnered 42 million square feet of new warehouse and distribution space from 2013-2019, and projects up to \$129.6 billion of freight to move through the region by 2040. The region is part of the New York-Philadelphia-DC mega region and is a one days drive from 40% of the U.S. and 50% of Canadian consumers.

LVPC provides the following description of the growing logistics industry:

The Lehigh Valley's location at the heart of nearly 100 million potential consumers has helped make it one of the world's fastest-growing corridors for the movement of freight. As the nation's appetite for online shopping—and the need to get those goods within two days—grows, the amount of goods moving through the region increases with it. By 2040, the flow of freight is projected to increase by 96% to more than 80 million tons a year.

Figure 20. Lehigh Valley Population and Labor Force 2010-2040



Source: Lehigh Valley Planning Commission, REMI Pi+ Model, June 2012



Figure 21. Lehigh Valley Total Freight Tonnage by Mode

	Inbound		Within		Outbound		Total	
	2011	% Share	2011	% Share	2011	% Share	2011	% Share
Truck	20,850.10	86%	882.16	98%	14,917.29	95%	36,649.55	90%
Rail	3,425.02	14%	14.44	2%	768.91	5%	4,208.38	10%
Air	8.51	<1%	-	-	1.67	<1%	10.18	<1%
Other*	0.01	<1%	-	-	0.08	<1%	0.09	<1%
<b>Total</b>	<b>24,283.64</b>	<b>100%</b>	<b>896.61</b>	<b>100%</b>	<b>15,687.95</b>	<b>100%</b>	<b>40,868.20</b>	<b>100%</b>

Source: IHS Transearch, Global Insight  
 \* Not categorized, or pipelines

Highways

Trucking freight is 86% of the freight mode share in the region, making highway and trucking infrastructure crucial to commodity flow. Below are figures depicting trucking infrastructure and commodity flow in the region.

Figure 22. National Highway System

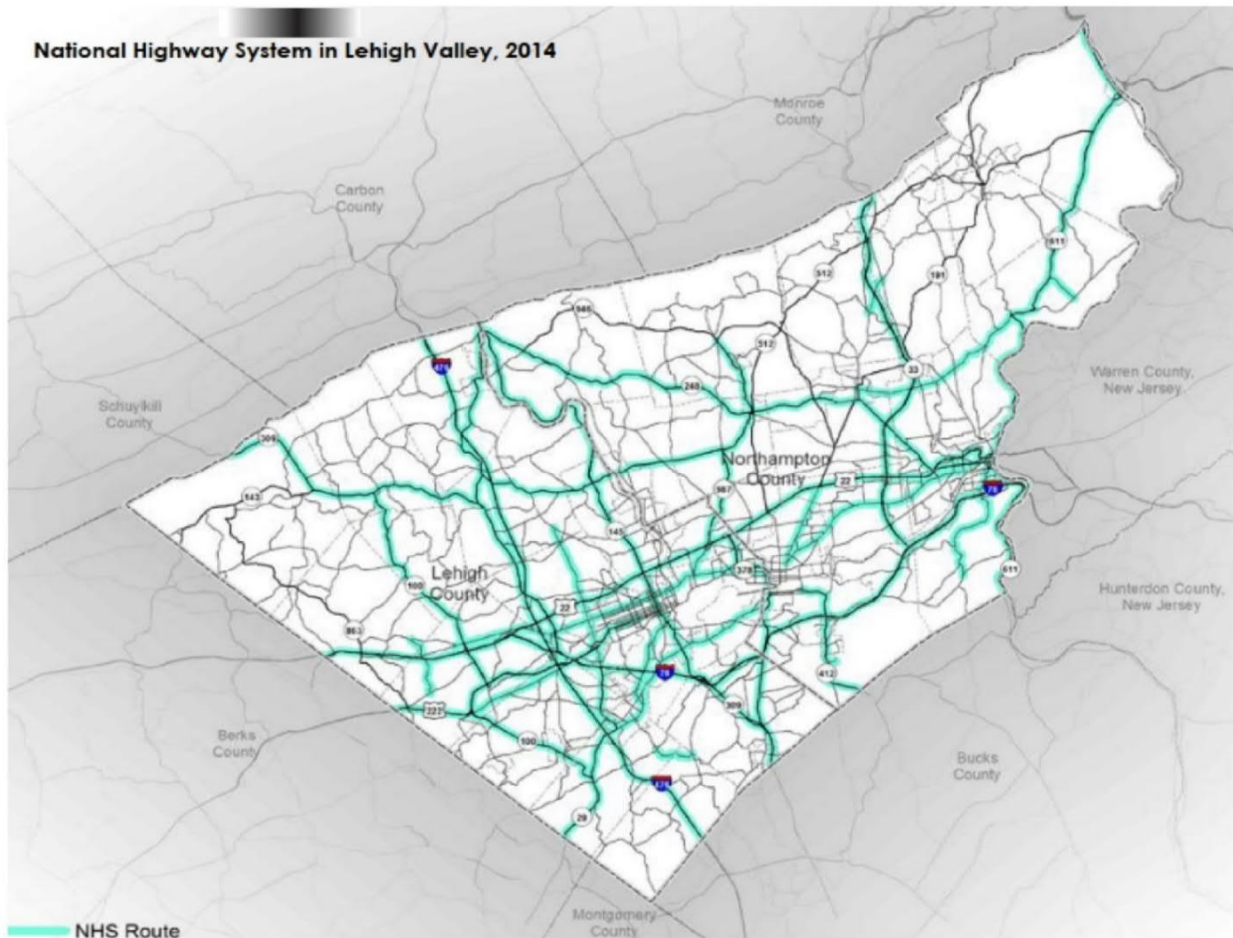


Figure 23. Outbound Truck Commodities by Tonnage and Value

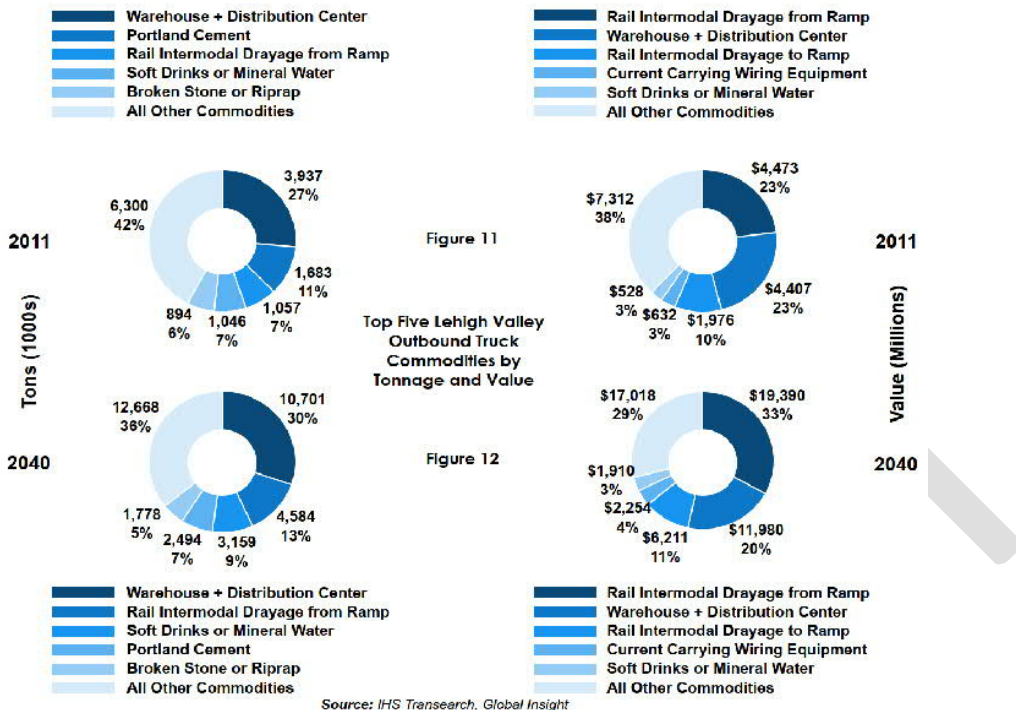
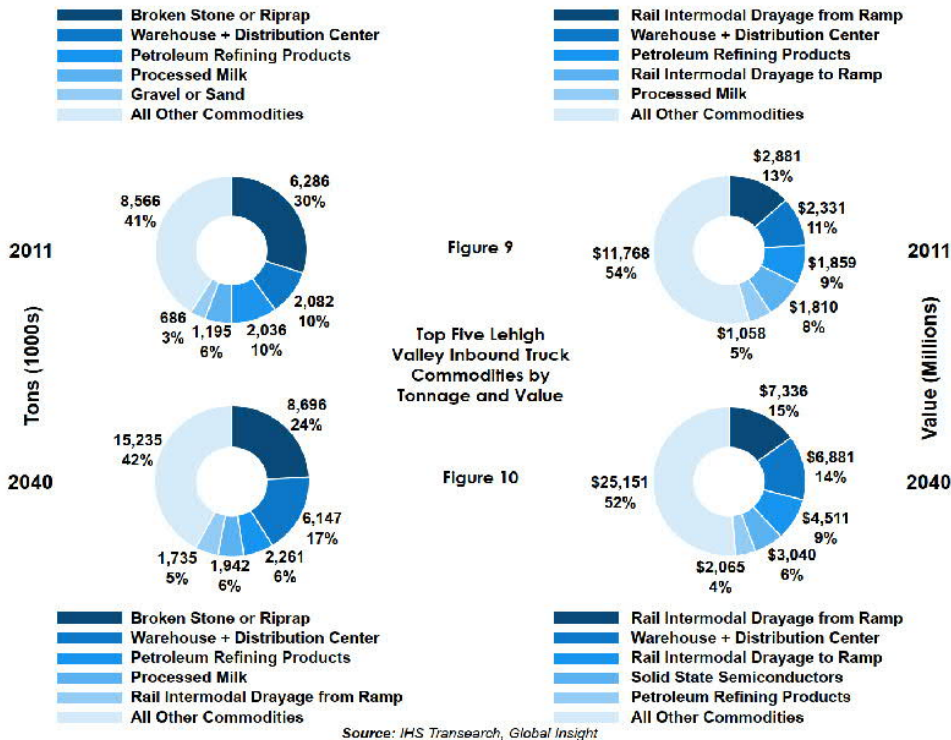


Figure 23. Inbound Truck Commodities by Tonnage and Value



Rail

As seen in Figure 24, there are several multimodal transport nodes along the rail system in the region. There are several rail connections between New York City, Washington D.C., and Philadelphia in the region's rail network. The Lehigh Valley Region has a network of nine rail companies, two of which are Class 1 railroads:

- Norfolk Southern – Class 1
- Canadian Pacific Railway – Class 1
- Lehigh Valley Rail Management
- R.J. Corman Company
- East Penn Railroad
- N.D.C. Railroad
- Belvidere & Delaware River Railroad
- Delaware-Lackawanna (PA Northeastern Regional Rail Authority)
- Southeastern Pennsylvania Transportation Authority (SEPTA)

Figure 24. Lehigh Valley Rail Commodity Flows 2040

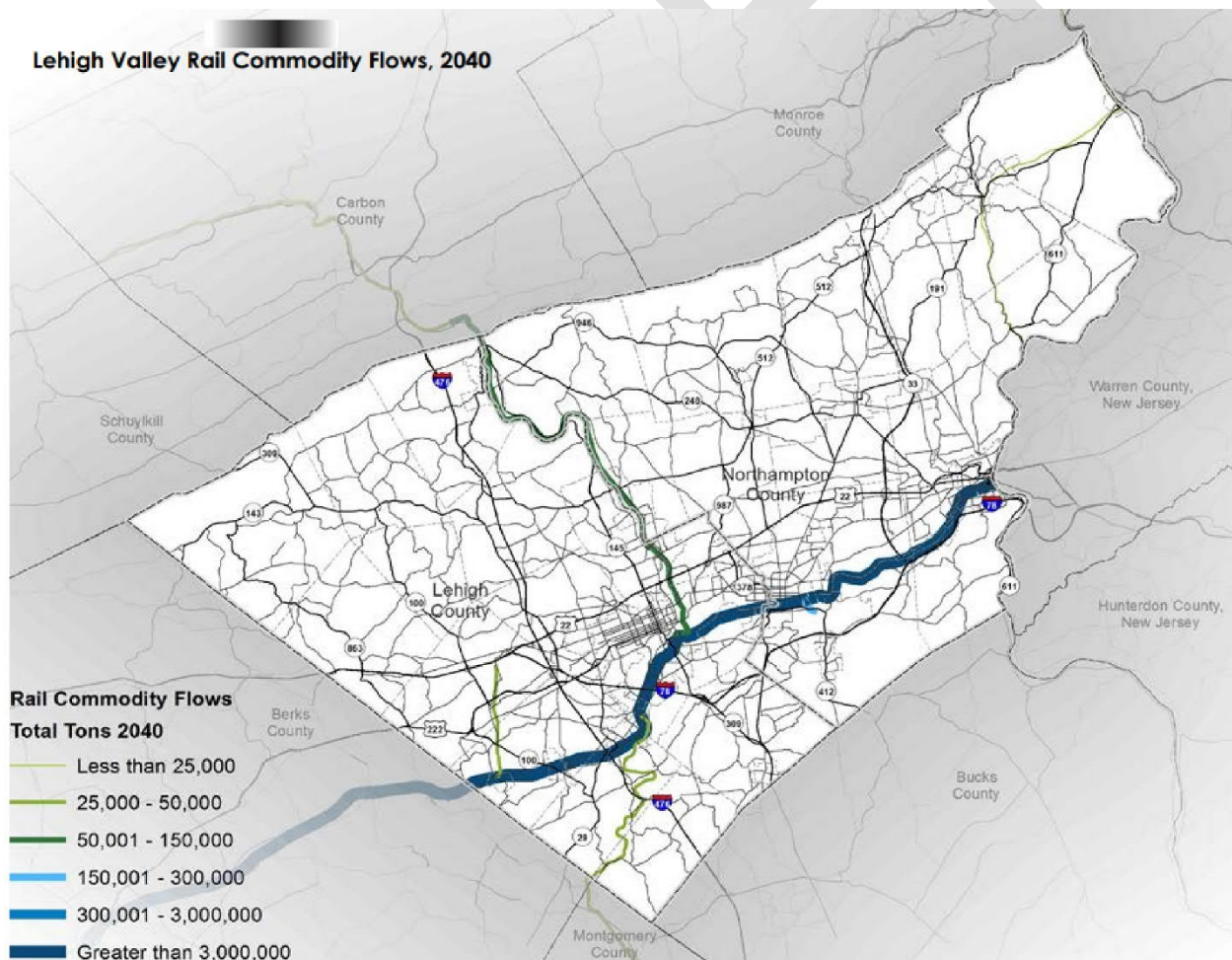
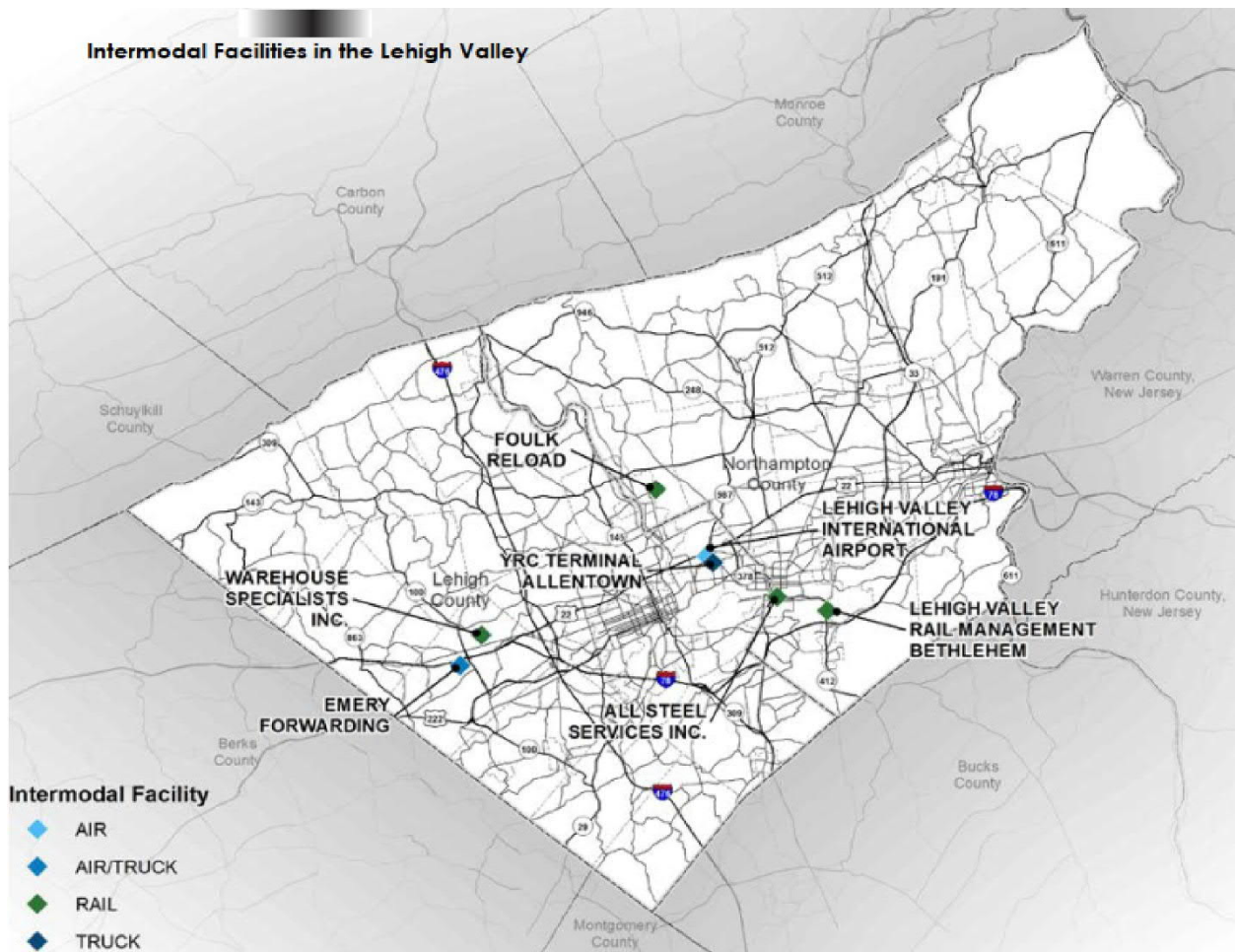




Figure 25. Intermodal Facilities Lehigh Valley



### 5.1.3 Institutional Structure for Freight Planning

Freight Planning in the region is predominantly influenced by both the Lehigh Valley Metropolitan Planning Organization and the Pennsylvania Department of Transportation (PennDOT). In conjunction, these two entities have produced two major planning documents regarding freight development in the region: Lehigh Valley Regional Freight Plan (2015) and PA's Comprehensive Freight Movement Plan (2016). The Lehigh Valley Economic Development Corporation (LVEDC) is responsible for marketing economic assets of the Lehigh Valley and creating partnerships to lead the recruitment, growth, and retention of employers. LVEDC has four target industries: High Performance Manufacturing, High Value Businesses Services, Life Science Research & Manufacturing, and Food & Beverage Processing.

## 5.2 The Story

### 5.2.1 Key Freight Investments and/or Projects in the Metropolitan Area

According to LVEDC, the transportation, warehousing, and logistics industry is the fastest-growing sector in the region, experiencing a 9.5% year-over-year growth in economic output, adding 10,000 jobs in the last 5 years. Distribution centers for Amazon, BMW, FedEx, NFI, and Walmart are all located in the

region due to its desirable location. The Lehigh Valley International Airport is also one of the fastest growing cargo airports in the country.

The region has a strong leader of its redevelopment authority (Lehigh Valley Industrial Park, Inc.), whose entire job was to develop and reuse the former 1,000-acre Bethlehem Steel site. An important aspect of this was that the historic component, which was critical, was dealt with early on in the process. Since it was a brownfield, the region backed appropriate reuse that could advance with a public investment made in these sites that would then attract private investment. To this end, the Lehigh Valley Planning Commission (LVPC) and Lehigh Valley Economic Development Corporation got an EPA grant to do phase 1/2/3 remediation on the Bethlehem Steel site to prepare it for reuse. This process allowed the locals to fully understand the site – what had to be capped, what could be residential, etc. There was a clear understanding that no one would invest in a site if they don't know what is on it (i.e. avoid a Love Canal situation). There was a significant portion of the site that could only ever be industrial because of contamination – that's where they worked on Bethlehem Intermodal, taking advantage of the ability to reuse former Bethlehem Steel rail lines. To date, 400 acres of land has been successfully redeveloped, with almost 1 million sq. ft. of office and warehousing space. This includes a 100-acre rail intermodal yard for Norfolk Southern. Spin off cluster of manufacturing/industrial development has taken place in and around the intermodal site, which is also adjacent to I-78.

Once the site plans were advanced, LVPC worked with PennDOT to advance improvements on PA 412, which serves as the primary connector between the site and I-78. Concurrently, Northampton County supported construction of Commerce Center Boulevard to improve access into the Bethlehem Steel site. Critical to the success of the site is that it is diverse. It is not simply freight/distribution uses, it includes LEED-certified office space, Sands (now Wind Creek) Casino, SteelStacks and Artquest Center, PBS-39 offices, retail, etc. LVPC worked closely with historic preservation interests to save the steel stacks – and have developed the Hoover-Mason Trestle, Bethlehem's version of New York's High Line elevated park.

Lehigh Valley Economic Development Corporation typically utilizes the Bethlehem City Revitalization & Improvement Zone (CRIZ) incentive to attract freight industries, which covers 130 acres of parcels designated for economic development and job creation. State and local taxes collected within the CRIZ are used to repay debt service to stimulate economic development projects in the CRIZ.

Recent redevelopment and growth in the Lehigh Valley region has resulted in about 30% of the industrial space being less than 6 years old, with vacancy rates for industrial buildings larger than 500,000 sq. ft. around 1.6%.

### 5.2.2 Key Drivers of Freight Planning and Investment

The entire regional economy was teetering on collapse as Bethlehem Steel fully closed in the late 80's/early 90's. Today, it can still be a challenge to overcome the stigma of the region. Since the City of Bethlehem is split between two counties, it took the combined political will of both counties to focus on making the sites apt for reuse. Leveraging the existing manufacturing base was critical, including Crayola, Mac Truck, and other Fortune 500 companies that grew up in the Lehigh Valley. The focus on the region as industrial was already there.

An important element to advance the freight industry in the region is the back that the education base (K-12, technical training, tech and vocational schools, and universities) are all wholly focused on



workforce training and education. In the region, they start young and develop potential employees early. However, it is not just about blue collar or working-class jobs, it is everything from chemists/engineers to tool/die shop operators. There is a known need to have white/grey/blue collar training and constantly reinforce it in the local culture.

There is a diverse coalition of educators that meet regularly, including the Workforce Investment Board, Lehigh Valley EDC, school districts, universities, and trade schools. These discussions include local business, where they are forthright about asking about what these businesses need – today and in the future.

Geographically, the proximity to the Port of Newark is clearly a huge driver of activity. This is strengthened by the direct link via Interstate 78, as well as connections to points west (ultimately to Interstate 81).

In terms of infrastructure, PennDOT (Harrisburg and the District) is in lockstep with the region knowing about what highways/ramps/investments/etc. are needed. There is also a general consensus that the region has to make difficult decisions to prioritize investments.

### 5.2.3 Stakeholder Involvement in Planning and Investment Decisions

The region has a strong Industrial Development Authority in the Lehigh Valley Economic Development Corporation that provides the overall backbone to define responsibilities and focus areas. This limits the tendency to compete amongst local municipalities – there is an understanding of development for the greater good of the region. This has its challenges and required a significant lift by many stakeholders. However, the well-coordinated effort built upon long term relationships and resulted in new relationships built on blind faith. There was notable and acknowledged risk in this approach, but the payoff was seen as worth the risk. Ultimately, it took time, dedication, and political will.

Outreach with the public has been advanced in many ways. The City of Bethlehem had multiple mayors that all bought in a collaborative and open process over the last 25 years – this continues today. This process involved community members in all aspects. There was an early desire to embrace the older buildings in the City – evidenced by the Smithsonian Heritage site (National Museum of Industrial History).

Community members were also allowed to feel ownership over the process. While traditional planning methods (visioning sessions, charrettes, public meetings, etc.) were part of this, the best communication seemed to come in more casual settings – existing events/festivals/places where neighbors could have open dialogues

Finally, the City openly amended their zoning several times. This included the use of shared parking, as well as the ability to included higher density or building heights where infill on a large site was a priority

### 5.2.4 Political Support and Leadership in Freight Planning and Investment

Politics in the region drives everything. As noted above, getting buy-in from all players (from the state down to local neighborhoods) required open communication. Each level of government had a part to play – it was much more organic than a typical planning process

### 5.2.5 Metropolitan Area Marketing to Freight and Logistics Industry

The region does not have to market themselves to any great degree – their locational advantage is well known and leveraged by the industry. There is some element of marketing for specific manufacturing industries where there is a local belief that it may result in the growth of existing industries in the region.

Prior to the surge in activity in the region, there was a general belief that a singular regional voice was important. Generally, it was important not to look desperate for any development, but focus on the types of development that the City and region felt were best for the advancement of the region.

### 5.2.6 Metropolitan Area Freight Planning and Investment Benefits Experienced

There are numerous freight projects, which is not surprising given that the Lehigh Valley continues to be one of the fastest growing freight clusters in the country. PennDOT Central Office has been peripherally involved, but the District executives and directors have been more heavily involved, particularly with asset management needs. The focus has generally been on higher-order roads because so freight movements in the region tend to be most heavily focused there. The City and region have worked with PennDOT to identify needs based on roadway classifications or where bridge conditions dictated. In the eyes of PennDOT, trucks will always come from any freight growth, particularly oversized/overweight movements.

Ultimately, the region continues to commit to major roadways – focusing on bang for the buck. Secondary to this, but also important, are interchanges between Interstates/freeways/expressways and arterials where you can support the biggest developments.

There was private investment where it made the most sense for investors. Majestic Realty's freight advisors were willing to support investment but most of the investment had to come from the public side. It's important to note that these investments were often infrastructure-focused – the region avoided abatements or tax incentives that were perceived as giveaways. The region has leveraged a significant amount of CRIZ (City Revitalization and Improvement Zone) grants at the Bethlehem Steel site.

### 5.3 Key Takeaways and Lessons

The Lehigh Valley has positioned itself well in generating logistics growth based upon proximity and connection to the mega region encompassing New York, Washington D.C., and Philadelphia. The major takeaway to benefit the WNY region in freight operations is to promote its proximity to large metropolitan centers with massive consumer bases. The region can use its geography on the border of a major Canadian market as an asset to help build local economy in warehousing, manufacturing, and logistics.

## 6.0 Conclusion

This report highlights the various features and advantages that define various peer region's freight operations. Through consolidated marketing efforts, coordinated public and private stakeholder engagement, and strategic regional positioning, Kansas City, Toledo, Grand Rapids, and Bethlehem all have defining characteristics in freight management and operations.

To recap, the following observations and findings are derived from this peer review:

### Kansas City

- Several rail improvements have been made by both the public and private sector, including by the Kansas City Terminal Railway Co., which is a consortium of the major railroads operating in the area. The Kansas City Terminal Railway Co. is funded by user fees to promote the rail industry in the region.
- PortKC is a multimodal hub located along the Missouri River connecting waterborne, rail, and highway logistics modes. In addition to providing transportation and logistics, PortKC plays a leadership role in facilitating the Kansas City waterfront for long-term economic and cultural success.
- KC SmartPort is a non-profit economic development organization founded in 1998 that works to attract freight-based companies, such as manufacturing, distribution, and warehousing to the Kansas City region by marketing to site selection consultants. KC SmartPort was born out of the Mid-Continent TradeWay Study undertaken by MARC, Greater Kansas City Chamber of Commerce, and the Kansas City Area Development Council to determine ways to establish the Kansas City region as a national center for international trade processing activities.
- Stakeholder involvement for freight planning is undertaken by the MARC Freight Advisory Committee, which has forged a strong relationship with KC SmartPort and other key freight stakeholders. Public agencies tend to participate in freight planning through MARC and private entities tend to participate through KC SmartPort.
- The real estate development community has built close to 30 million sq. ft. of spec industrial space in the last 5-6 years to have product ready for e-commerce facilities that are expanding across the region. The aggressive spec development and relative lack of congestion has given the Kansas City region an advantage over other geography favorable areas such as Dallas, Indianapolis, Columbus, and Memphis.
- One of the strengths of the Kansas City region indicated by stakeholder interviewed is the marketing and delivery of a consistent, focused message of regional strengths (such as low cost, strong Interstate, rail, air, and water network, and low congestion) that drives the region's success in attracting and retaining freight and logistics industry.

### Toledo

- In the Toledo region, TMACOG is responsible for coordinating freight planning and funds projects in Ohio, while funding for the projects in Michigan is coordinated through SEMCOG.
- TMACOG maintains a Freight Advisory Committee that serves as a freight-focused subcommittee, meeting quarterly. The purpose of the Freight Advisory Committee is to improve the efficiency and reliability of the regional freight network and strengthen the region's position as a multimodal freight hub. The Freight Advisory Committee includes participation from

stakeholders from the trucking, railroad, airport, and port entities to keep TMACOG planners up to speed on regional freight trends and needs. The Freight Advisory Committee routinely takes field trips to better understand existing markets, trends, and needs.

- Marketing to the freight and logistics industry is, for the most part, decentralized. Marketing is done by the Port Authority (which operates the Port of Toledo as well as several industrial parks), City of Toledo Economic Development Department, Toledo Chamber, Wood County Economic Development, Regional Growth Partnership, and other jurisdictional economic agencies.
- The TMACOG goes to great extent to involve the freight community and understand the existing market, trends, and needs of the freight and logistics community. This input is used to help shape the transportation investments in the region.
- Both the Kansas City and Toledo regions have experienced growth in freight and logistics mainly due to their centralized geographic locations along several transportation routes.

#### Grand Rapids

- GVMC is responsible for freight planning in the Grand Rapids region. Within GVMC is a freight subcommittee devoted to freight that meets twice a year. The Michigan DOT plays an integral role in freight planning in the region as well.
- Michigan DOT is working with GVMC to identify Critical Rural Freight Corridors (CRFCs) and Critical Urban Freight Corridors (CUFCs) in order to expand the lane miles of roadways that are eligible for National Highway Freight Network formula funds and FASTLANE Grant Program funds (FASTLANE is short for Fostering Advancement in Shipping and Transportation for the Long-Term Achievement of National Efficiencies).
- Private sector involvement in freight and logistics planning is facilitated by two organizations: The Right Place and the Grand Rapids Area Chamber of Commerce. The Right Place is a quasi-public, quasi-private economic development agency. It was created through Michigan state law to represent 13 counties in western Michigan, to support existing businesses and attract new business. Freight planning represents one role of The Right Place staff among others. The Grand Rapids Chamber of Commerce plays an active role representing business before the GVMC.
- The Right Place acts as the region's main economic development and marketing agency for freight and logistics. The Right Place focuses on attracting Smart Manufacturing, Information Technology, Life Sciences, Food Processing, and Aerospace and Defense industry sectors. The Right Place can provide site selection services and assemble incentive packages for industries. They can also identify local supply chain and partner opportunities. The Right Place has assisted thousands of West Michigan companies to invest more than \$4.8 billion and 44,000 new jobs in the region.
- The Right Place facilitated the development of a truck/rail transload facility, and while the transload facility hasn't attracted the amount of activity that was hoped for yet, the process in getting the transload facility was a lesson in how various entities in the region can coordinate their efforts on industry attraction.
- GVMC is currently working with The Right Place to assemble a Freight Subcommittee for the Long Range Transportation Plan development and coordinating with the Chamber of Commerce to undertake a Logistics Study.

- Grand Rapids' location is not on a freight mainline, with freight mostly only coming from/ going to the east and south, making it difficult to market the region as a freight and logistics hub.

#### Bethlehem

- Freight planning in the Lehigh Valley is highly influenced by the Lehigh Valley Metropolitan Planning Organization and PennDOT. In conjunction, these entities have produced the Lehigh Valley Regional Freight Plan (2015) and PA's Comprehensive Freight Movement Plan (2016).
- The Lehigh Valley Planning Commission and Lehigh Valley Economic Development Corporation are strong proponents of freight and logistics planning.
- Geographically, the proximity to the Port of Newark is clearly a huge driver of activity. This is strengthened by the direct link via Interstate 78, as well as connections to points west (ultimately to Interstate 81).
- An important element to advance the freight industry in the region is the fact that the education base (K-12, technical training, tech and vocational schools, and universities) are all wholly focused on workforce training and education. In the region, they start young and develop potential employees early. However, it is not just about blue collar or working-class jobs, it is everything from chemists/engineers to tool/die shop operators.
- The region has a strong Industrial Development Authority in the Lehigh Valley Economic Development Corporation that provides the overall backbone to define responsibilities and focus areas. This limits the tendency to compete amongst local municipalities – there is an understanding of development for the greater good of the region. Ultimately, it took time, dedication, and political will to build a strong regional economic development approach.
- The Lehigh Valley has positioned itself well in generating logistics growth based upon proximity and connection to the mega region encompassing New York, Washington D.C., and Philadelphia.

The Western New York region has ample multimodal transportation infrastructure to foster a flourishing freight economy. The Region can benefit by recreating the advantageous aspects of the peer cities and creating a definitive freight identity of its own. Locational advantages, such as the potential to provide a transloading facility for PANYNJ freight and proximity to Canada, as well as workforce availability and cost of living advantages should be taken advantage of. Further, the region consists of stakeholders and agencies that can promote freight and logistics, much in the way that the peer markets do, with a unified promotional agenda. Agencies such as ITGO, numerous Industrial Development Authorities (Erie County, Niagara County, Genesee County, Chautauqua County, etc.), Invest Buffalo Niagara, Buffalo Niagara Partnership, and Empire State Development are also beneficial resources for the region.