



ST. LOUIS REGIONAL FREIGHT STUDY EXECUTIVE SUMMARY



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Introduction

Stakeholders in the greater St. Louis Region collectively witnessed the need for a Regional Freight Study to examine current conditions, as well as position the Region to anticipate and take advantage of future opportunities. The East-West Gateway Council of Governments (EWG), with the financial support of the Missouri Department of Transportation and the Illinois Department of Transportation, stepped forward to engage AECOM Technical Services Inc. (AECOM) along with their project partners Civil Design, IHS Global Insight, and Vector Communications to complete the study.

Interviews with more than 75 Regional stakeholders representing public and private interests related to freight movement, manufacturing, industrial attraction and retention and economic development were conducted. Related work efforts identified an array of global shifts in freight movement and infrastructure that could impact the Region in the future. Key Regional, national, and global trends that will influence the study have been summarized, clarifying critical factors to track over the planning horizon.

Freight transportation-linked GIS data related to each mode's freight infrastructure was collected, along with analysis of Regional economic and industrial market data, including a summation of broader economic factors linked with transportation, with specific

focus on freight flows by rail, truck, air and water in, out, and thru the Region. The effort also drilled down to focus on 23 specific areas in the Region where transportation modes align with industrial land use. For each area, we identified core metrics related to total industrial space, employment, train counts, truck counts, and crashes. The resulting data is presented in matrix form to help identify how industrial areas in the Region are performing.

The study also places transportation sectors in context with the broader Regional economy, broken down into over 400 other industry sectors that each require varying levels of transportation as an input cost.

The study frames how the Region's use of transportation has changed over the past 10 years, with implications for the future.

Freight Forecasts were prepared to 2040, summarizing trends by mode and commodity type, as well as geographic origins and destinations.

The intent of these efforts is to frame support for conclusions regarding the current status of freight movement through the Region, as well as the future ability of local freight infrastructure to sustain growth in jobs and economic opportunity for the Region in rapidly changing domestic and global economies.

Why This Study Matters

The study unfolds in a broader context defined by 40 years of manufacturing realignment that the St. Louis Region (the Region) has endured, the impact of which cannot be understated:

- Stockyards closure in East St. Louis (1970's),
- Initial auto industry / manufacturing losses (1980's),
- Defense adjustment (1990's), and
- Loss of Chrysler and Ford (2000's).

Moving forward to today, and in spite of the above challenges, the Region continues to sustain an important manufacturing focus, anchored by companies such as Boeing, General Motors, and Conoco Phillips. To properly frame the immense value of manufacturing to the Region, the study has focused attention on 23 specific areas covering about 118,000 acres where manufacturing continues to interact with the freight transportation system. The economic value of these 23 areas to the Region cannot be understated:

- The 23 areas support about 230,000 jobs, with about 127,000 in manufacturing and goods production.

- Manufacturing concentrated in the 23 areas directly sustain about \$55.5 billion or 24% of total Regional output (about \$227 billion). Put another way, the average manufacturing job sustains a total output per worker of about \$563,400, about four times greater than the average for all workers in the Region (\$146,300).
- These areas sustain about 160 million square feet of industrial and distribution space, which generates a stream of tax payments to local units of government.

St. Louis is the 18th largest port district in the nation.



“Change is inevitable. Change for the Better is a Full Time Job”

Adlai Stevenson

Key Project Drivers

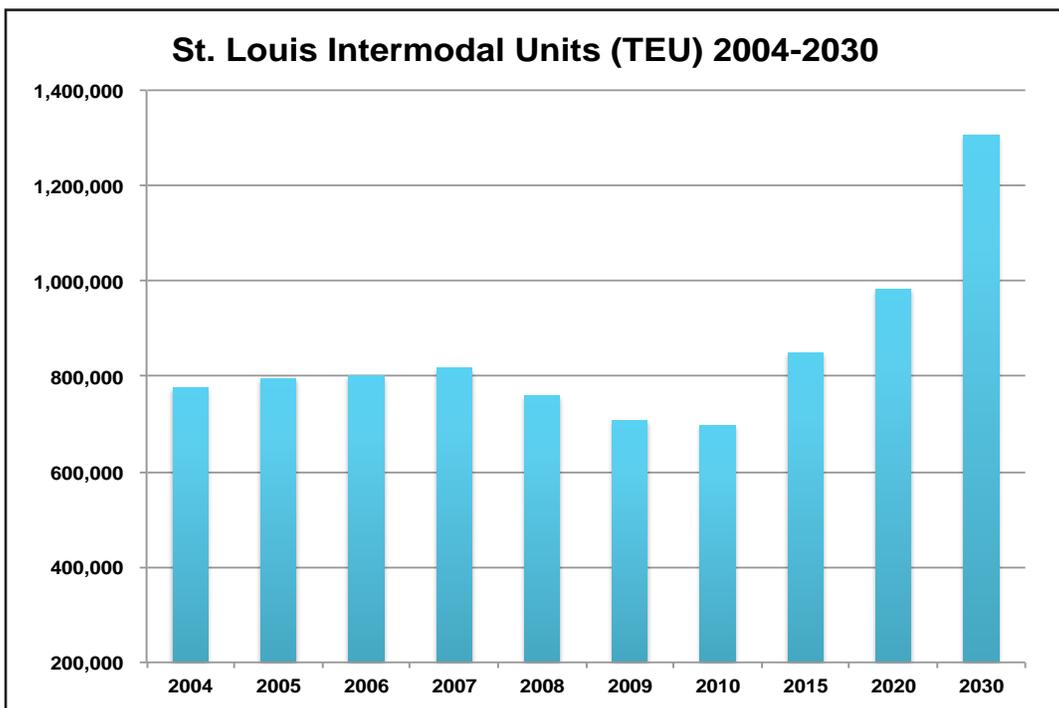
The analysis has focused on the following key project drivers:

DRIVER #1

While the Region focuses on I-70 between Kansas City and St. Louis, the analysis points the significantly higher values per ton of freight that move along I-44 connecting with I-70 toward Indianapolis and the US East Coast.



Local Intermodal Growth - Twenty-Foot Equivalent Units (TEU)



DRIVER #2

While the Region is not viewed as an intermodal hub, the analysis suggest that domestic intermodal movement has increased since 2010, with clear expectations for future growth. Regional freight infrastructure and land use will need to adjust, with a focus on intermodal yards and related interstate and arterial connections.



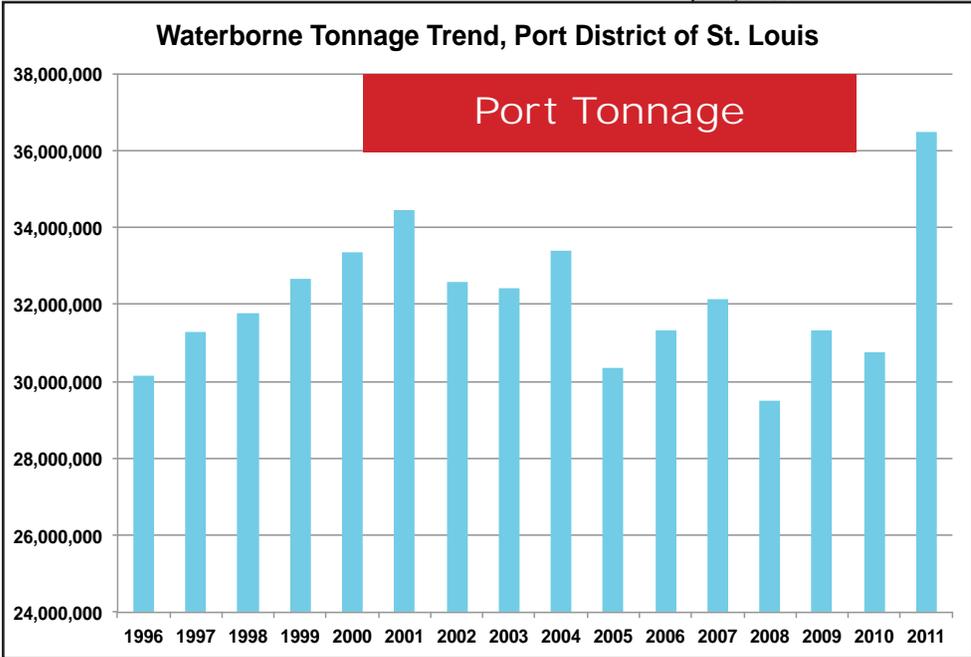
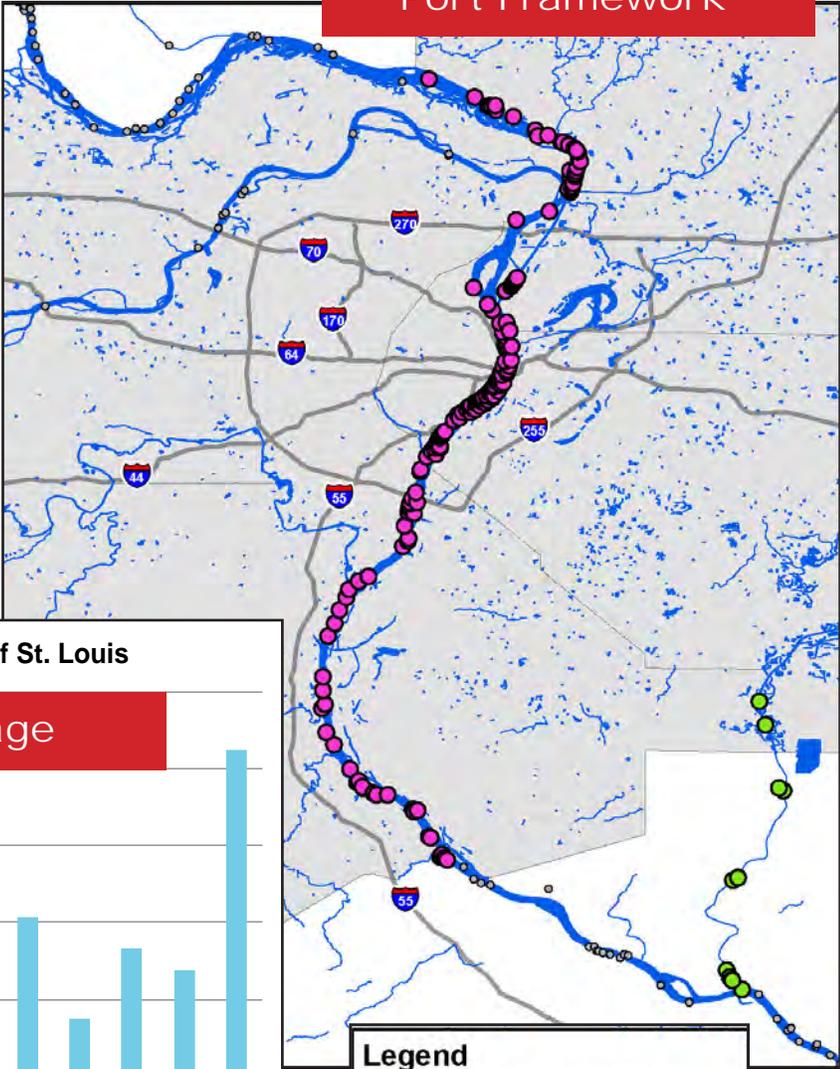
DRIVER #3

Between 2013 and 2017, the Region will have invested about \$1 billion in six major bridge projects, and increased capacity across the Mississippi by at least 20%. The Region's future growth will depend in large measure on efforts to maximize the economic benefit of these present and future investments.

DRIVER #4

The Region is a cost effective location for transloading commodities from truck/unit train to barge. Commodity movement along the Mississippi River has increased, with the 70-mile St. Louis Port District moving a reported 36 million tons in 2011, making it the 18th largest port district in the nation. Combined with the current opening of new unit-train transload facilities in Metro East, as well as growth expectations for the Kaskaskia Port District, additional growth is achievable.

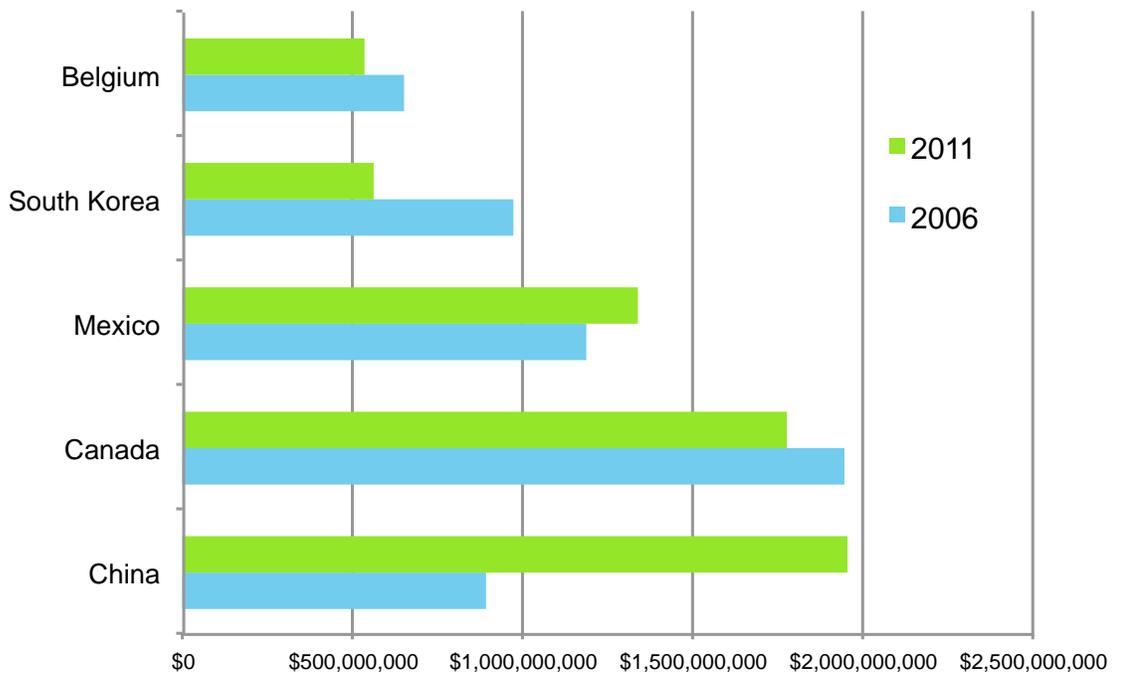
Port Framework



DRIVER #5

Since 2006, the Region has increased the value of exports with core trading partners from \$5.6 billion to \$6.1 billion. Within this increase, exports to China have grown the fastest. While Regional debate has remained focused on air cargo connections to Asia, rail and truck connections to Mexico and Canada need to figure equally in the Region's future thinking.

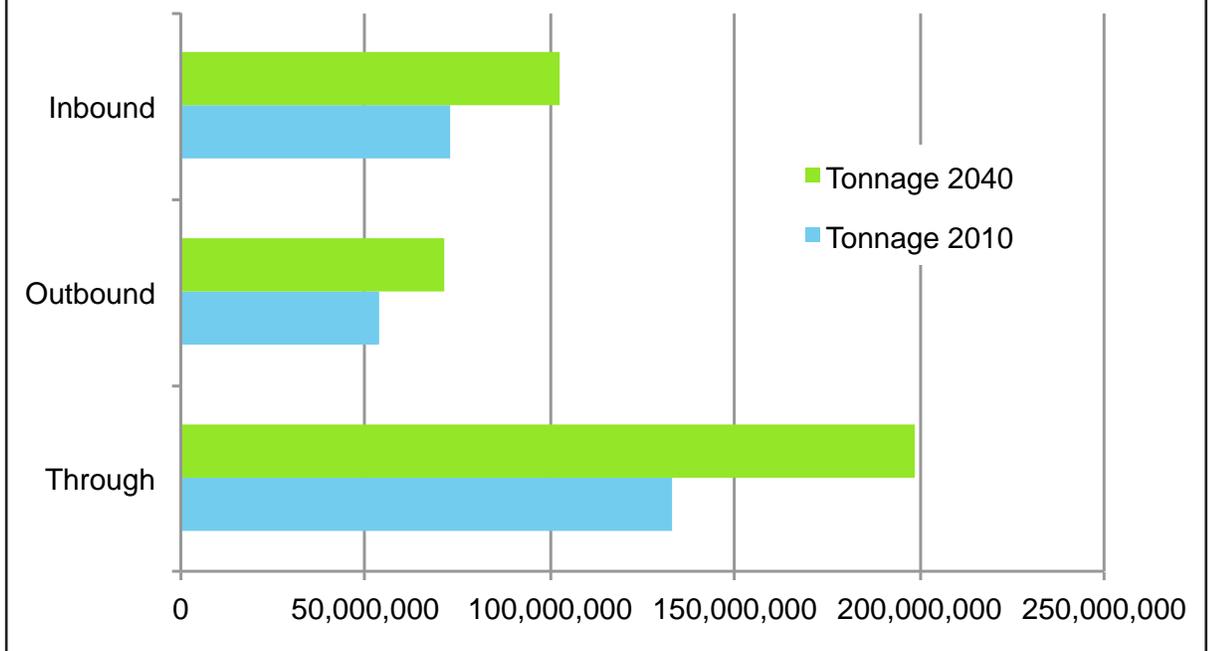
Growth in Export Value, Noted Trading Partners, 2006 to 2011



DRIVER #6

A majority of freight that currently moves through the Region does not stop locally. Looking to the future, the Region has the opportunity to add value to this through traffic, aligning global supply chains with local workforce strengths, in automotive for example. Alternatively, if what moves through the Region won't stop locally, the Region needs to consider strategies to minimize the resulting impacts.

Forecast Growth in Freight Tonnage Linked with the St. Louis Region



Regional Land Use and Transportation Context

The Industrial Land Use context is shaped first and foremost by clear expectations that freight volumes through Regions such as St. Louis will only increase with time. Expectations for a 60% increase in freight volumes nationally over the next 25 years are driving considerable debate about funding strategies and solutions that maximize alignment of modes, increase operating efficiencies, and manage costs.

While expectations for growth are clear, challenges are also apparent:

- Urbanization leads to encroachment of non-compatible land uses, particularly the impact of truck traffic and use of otherwise highly desirable riverfronts.
- Growing freight volumes and congestion create conflicts.
- While “Freight doesn’t vote,” it impacts lives and creates unique challenges.
- Transportation planning does not fully account for freight impacts and vice versa.
- Economic development and transportation planning are disconnected.
- The connection between freight movement, land use, and climate change is increasingly important, with growing awareness of air quality impacts on adjacent / at risk populations.

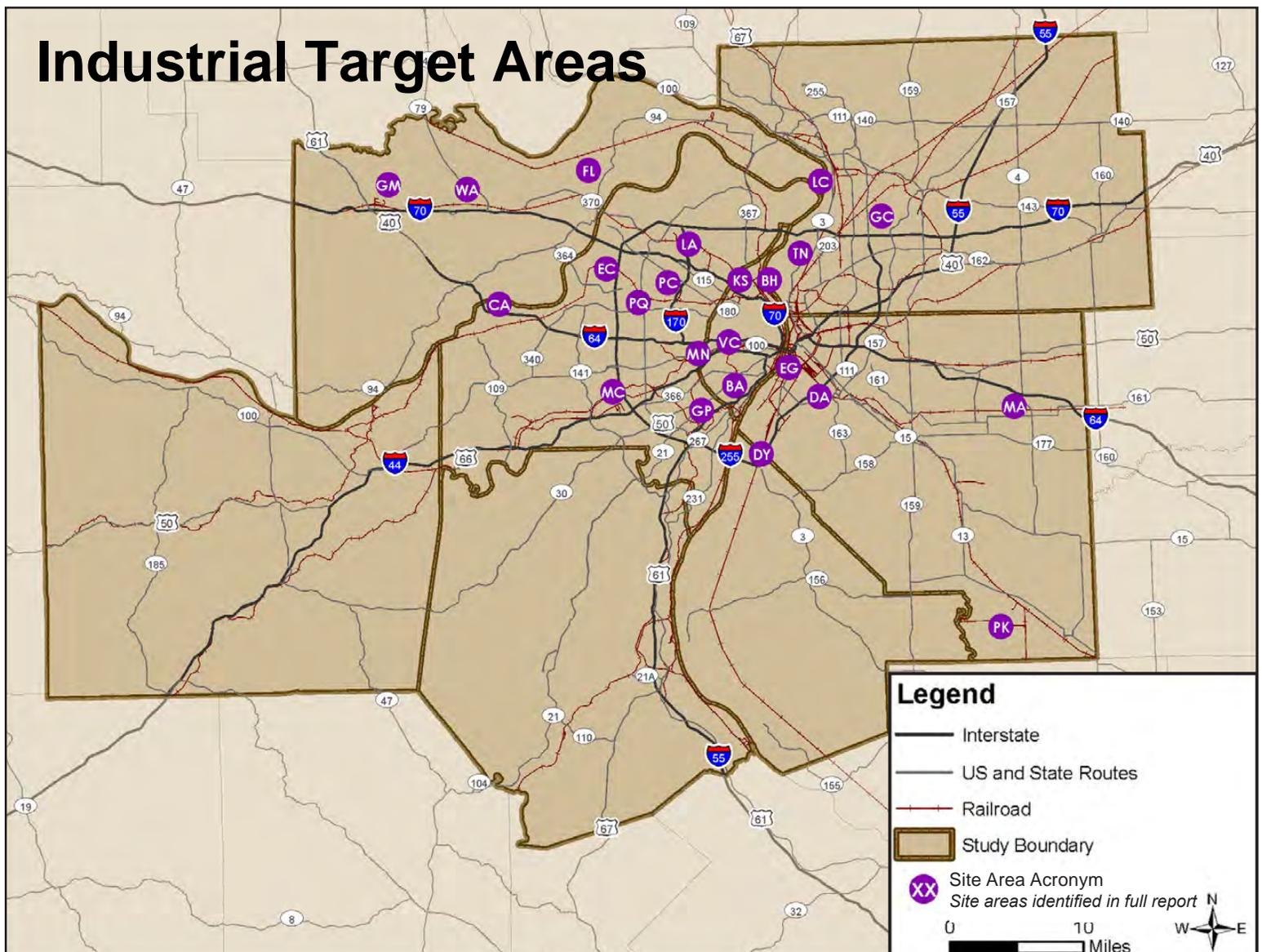
Expectations for a 60% increase in freight volumes nationally over the next 25 years are driving considerable debate.

The Team focused on the analysis of freight performance for each of 23 distinct industrial areas across the region. The analysis confirmed the following:

1. These areas are critical to economic vitality of the Region, supporting an estimated 127,200 jobs in manufacturing and goods production.
2. There is a considerable supply of vacant land to support new industrial development, with emphasis on brownfield sites, with perhaps 3,000 acres of underutilized land in areas such as East St. Louis & Fairmont City in Illinois and along Hall Street in Missouri.
3. While many brownfield sites are well located in the Region, their future is complicated by overlapping municipal boundaries. For example, 11 municipalities influence land use around Lambert-St. Louis International Airport; similar patterns exist around the Region.
4. While intermodal capacity concerns are real, several waterfront transload sites can attract as many as 500 semi-trailers per day, raising long term concern for truck traffic linked with barge loading along the riverfront.

Regional Land Use and Transportation Context

The study drilled down into 23 specific areas in the Region where transportation modes align with manufacturing and distribution. For each area, performance metrics related to occupied industrial space, employment, train counts, truck counts, accidents, and similar factors have been collected to better understand the health of industrial areas in the Region, and to quantify how the transportation system is performing; results are presented in the study document. The areas combine to house 230,000 jobs and 24% of Regional economic output.



Policy Recommendations

In completing our analysis, it is clear that the constellation of County-level economic development organizations, supported by entities such as the Regional Business Council, Civic Progress, and the Chamber serve the Region well in supporting site selection and project specific economic development initiatives. At the same time, it is apparent that there is a **“missing piece”** in the puzzle, specifically in how the Region manages the movement of freight.

The **“missing piece”** stems from the reality that IDOT and MoDOT look at the Region differently. It is also influenced by the reality of the federal boundary along the Mississippi River, which is a relevant constraint in how the Region functions on a day to day basis.



Freight Planning Recommendations

Recommendations include:

1. The Region needs to implement a Regional Freight Transportation District that can work effectively on both sides of the river. The clear goal is an organization that can see the big picture, track the details, and sustain implementation over time for freight transportation infrastructure and repurposing industrial land use.
2. Given the Region’s success with the plant and life sciences, similar pursuit of a “Sector Champion” strategy for freight and logistics is needed.
3. Given the volume of freight that moves through the Region both now and into the future, being able to align economic development with supply chains will be essential.
4. The existing leverage that the Region currently enjoys for bulk transportation movement should be enhanced by increasing freight velocity and railroad network access.

Policy recommendations build from the underlying premise that the Region needs to be less accidental and more deliberate with how freight planning and economic development align, focusing on the evolving “missing piece” in better linking freight movement and economic development. The strategy links with the need to resolve specific connection issues between modes of freight movement locally:

- Water to rail connections
- Truck to water and rail
- Rail to rail (intermodal) connections
- The need to repurpose older industrial sites

Industrial Transportation Recommendations

In completing the analysis, our team has focused on the significance of the following for the Region, going into the future:

1. Complete a rail network study for the Region, with the active participation of Class 1 and Short Line Railroads, to resolve the balance of operational and infrastructure adjustments that the Regional rail network needs in order to remain competitive as freight volumes recover.
2. Develop a more robust Regional freight Geographic Information System (GIS), supported by annually updated freight performance metrics. The existing freight system GIS is a patchwork of local county and federal data, with several missing or poorly defined elements, including rail right of way.
3. Re-engage with the private sector, including manufacturers, logistics providers, and the railroads.
4. Focus on Hall Street and Route 3, where viable business locations conflict with old infrastructure.
5. Pursue public-private strategies to move toward a smaller number of high capacity transload terminals, looking at Memphis as a benchmark for success, rather than the Huntington Tri-State Port District.
6. Emphasize strategies to assemble / reuse older waterfront sites for higher value activity.
7. Initiate studies to widen the I-270 New Chain of Rocks Bridge to 3 lanes each way.
8. Improve monitoring of truck traffic levels on key arterials and near intermodal yards.
9. Explore a Regional compressed natural gas (CNG) strategy for truck fueling.





Broader Guidance

Industrial land use and development, freight transportation infrastructure, operations, and the global economy are in a constant state of flux. While “change” is constant in freight movement, the AECOM Team also recognize the Region’s need to collaborate more successfully across jurisdictions to capture emerging opportunities, as our forecasts point to future growth in freight movement for which the existing Regional infrastructure does not appear ready. Considerations include:

1. Repurposing existing and developing future industrial land while preserving the critical features of transportation access to industrial sites.
2. Building upon the Region’s Core strengths in transportation and its inherent locational advantages while fostering greater connectivity to global markets.
3. Acknowledging a legacy of cherished neighborhoods while a broader Regional perspective is necessary to move forward as domestic and global markets unfold.
4. Appreciating the evolving need for appropriate Regional institutions that sustain a transparent dialogue with existing stakeholders, communicating both needs and challenges together with contributions and commitments.



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