



CREATING A BLUEPRINT

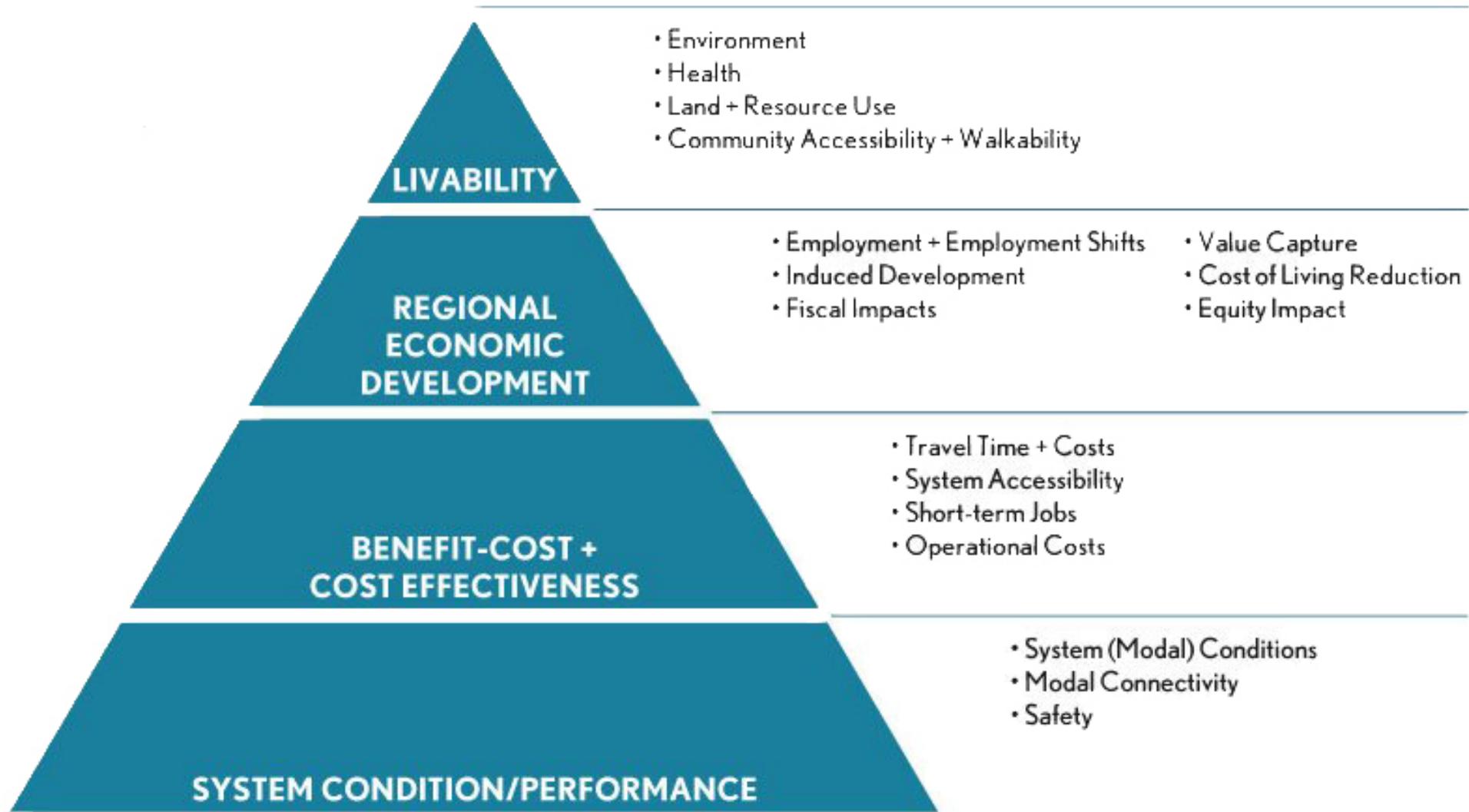
for Cargo-Oriented Development in the Minneapolis – St. Paul Region

A Project Coordinated by the Center for Neighborhood Technology +
Prime Focus LLC with support from the McKnight Foundation



ABOUT CNT

- Non-profit applied research “think and do tank” based in Chicago
- Implement strategies that benefit the environment and the economy
- Bridge information gaps
- Areas: Energy efficiency, transportation efficiency, green infrastructure



METRICS FOR COD

A form of development that integrates freight system efficiency with the development of manufacturing and logistics businesses in ways that benefit local economies, the environment, and public safety

A 5-TASK PROCESS IN THE MINNEAPOLIS – ST PAUL (MSP) REGION

1. – 3. Analyze the nexus of the MSP Region's:
Manufacturing Sector
Freight Transportation System
Environmental & Safety Initiatives
4. Conduct a workshop with MSP leaders to chart a path to COD.
5. Prepare a Blueprint for COD from analysis + workshop findings.

A PROCESS JUST BEGINNING DESIGNED TO ANSWER BASIC QUESTIONS

1. How can shipping services to MSP industrial businesses improve and shipping costs drop, increasing regional competitiveness?
2. How can employment in manufacturing and logistics reduce regional poverty?
3. How can change in MSP's industrial – freight logistics nexus raise competitiveness and lower poverty while improving environmental quality and public safety?

ADVISORY COMMITTEE

- Not to meet as a body
- Respond to questions and share contacts
- Review and comment on interim documents
- Participate in a keystone workshop



TASK 1

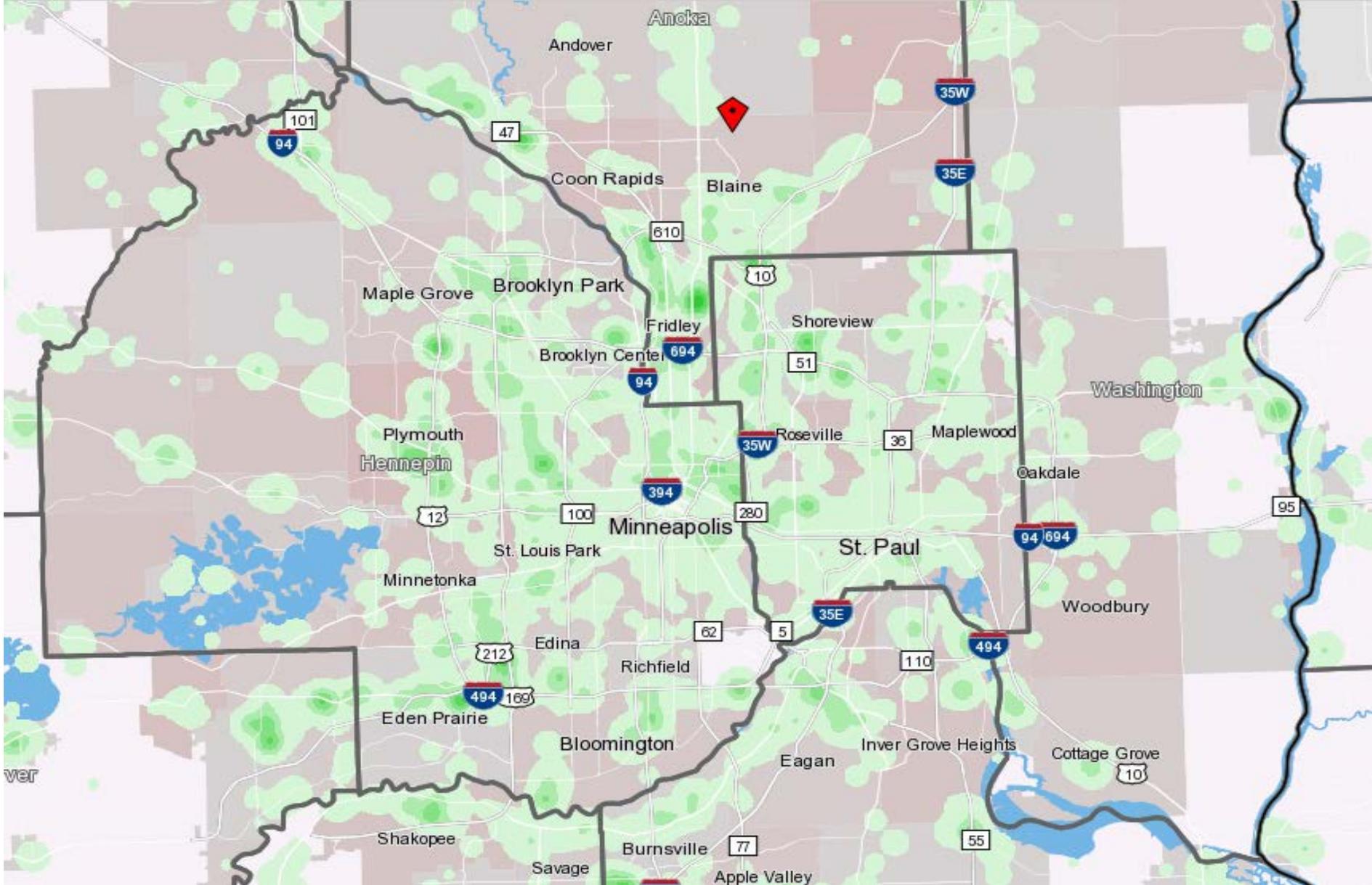
Analyze MSP's manufacturing economy in relation to the region's freight transportation system and natural environment.

BUILD ON RECENT RESEARCH + PLANNING FOR MSP'S MANUFACTURING SECTOR

- UMN, *Minneapolis-St. Paul Regional Cluster Competitiveness Study* (2013)
- City of St. Paul, *West Midway Industrial Area Comprehensive Plan Amendment* (2014)
- St. Paul Port Authority, ICIC, *Industrial Strategy for the City of St. Paul* (2012)
- Metropolitan Business Planning Initiative, *Minneapolis-Saint Paul Regional Business Plan Update* (2011)
- Brookings Institution, *Minneapolis-St. Paul Export Plan* (2012)
- Mid-America Freight Coalition (MAFC) *Economic Activity in the MAFC* (2013)

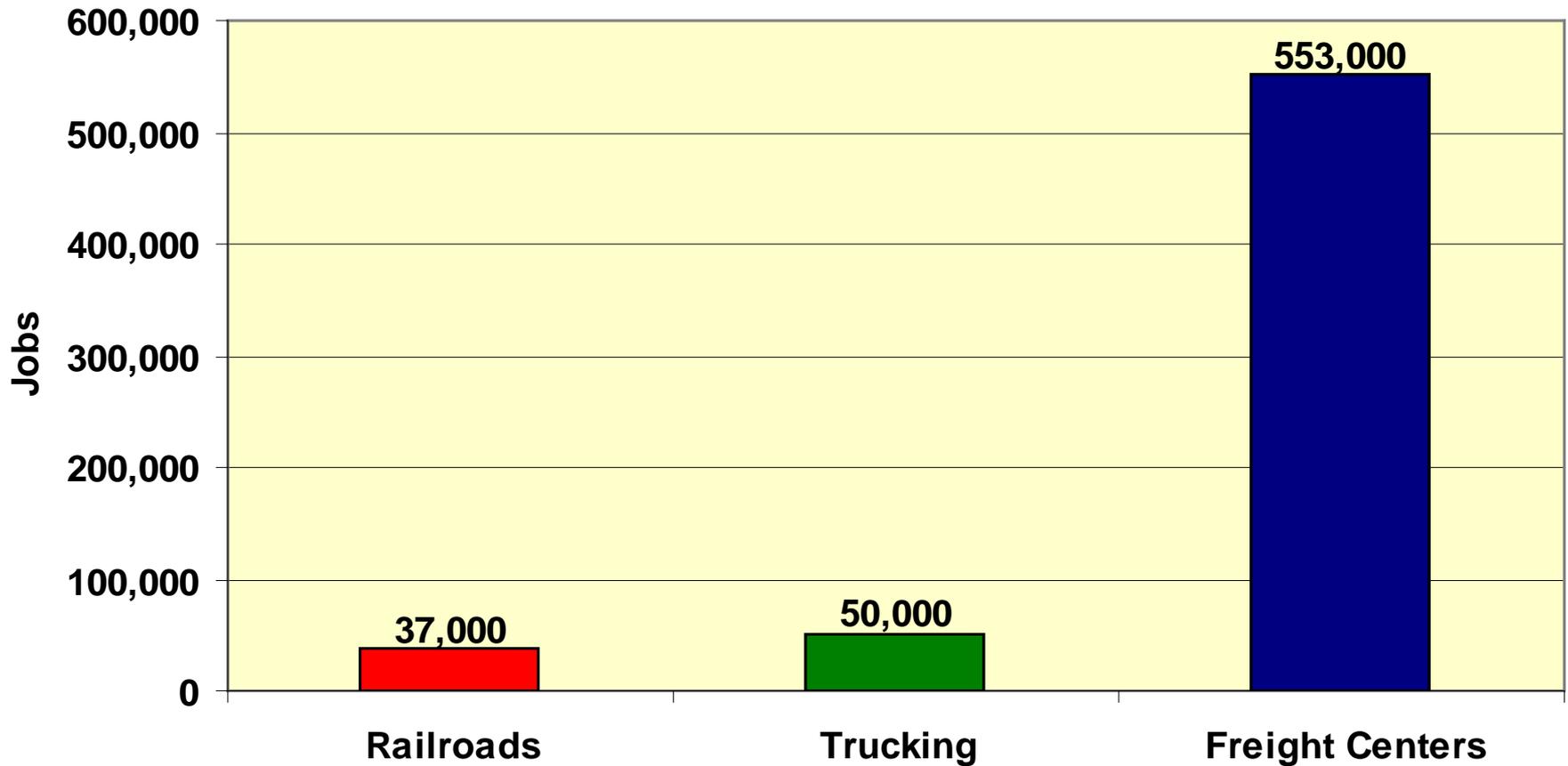
PEER MIDWEST REGIONS

- Kansas City
- Dallas – Fort Worth
- Memphis
- St. Louis
- Chicago



Manufacturing Sector Geography

Job Creation in Freight Zones

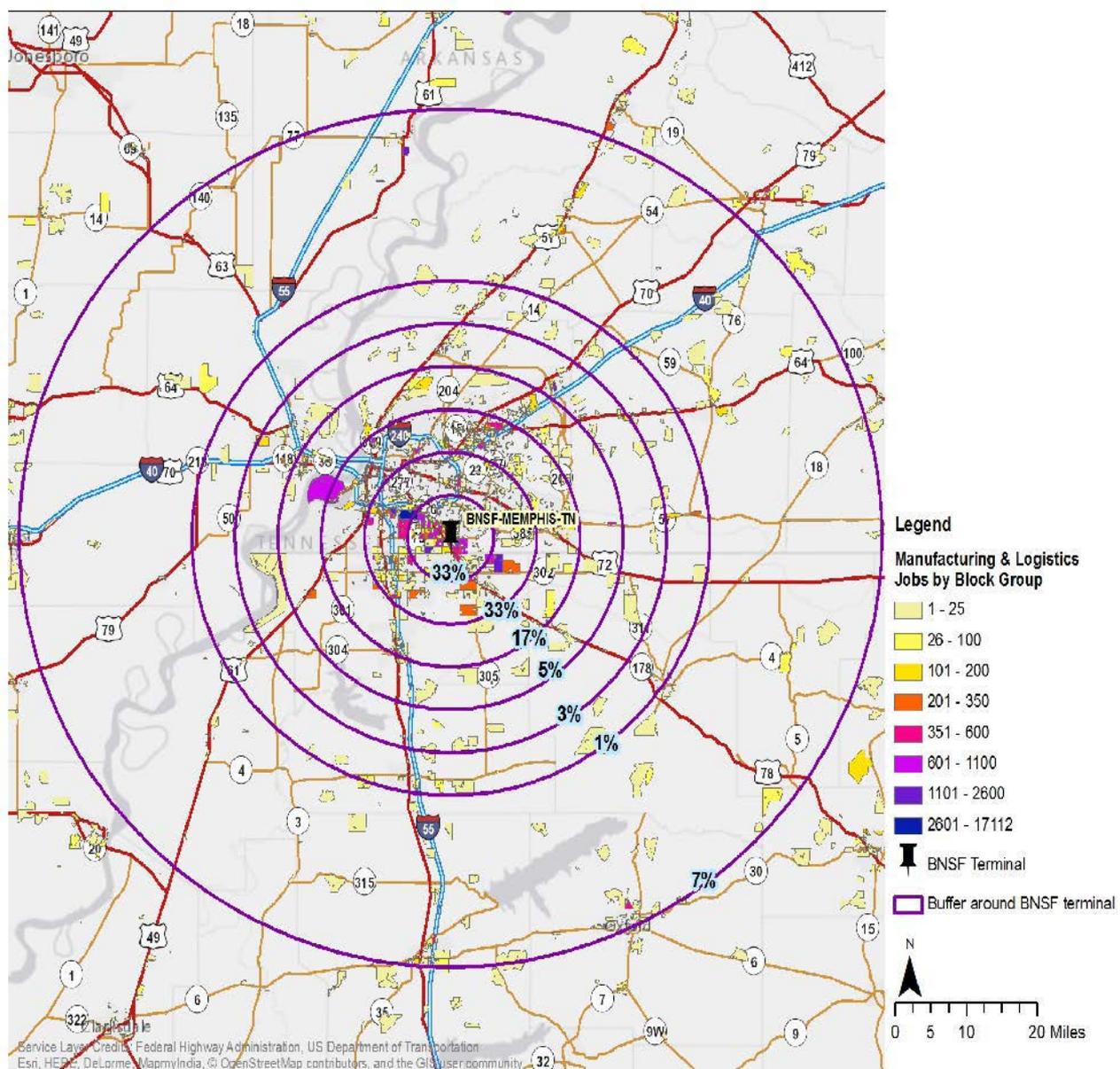


David Chandler, Albert Benedict, and Stephanie Dock. *Quality of Jobs Linked to Freight Transportation*.

87th Annual Meeting of the Transportation Research Board. January 13-17, 2008.

Based on research presented Metropolis Solutions, Chicago in their study *Critical Cargo*, 2005.

Chicago Freight Facilities Are Major Job Anchors

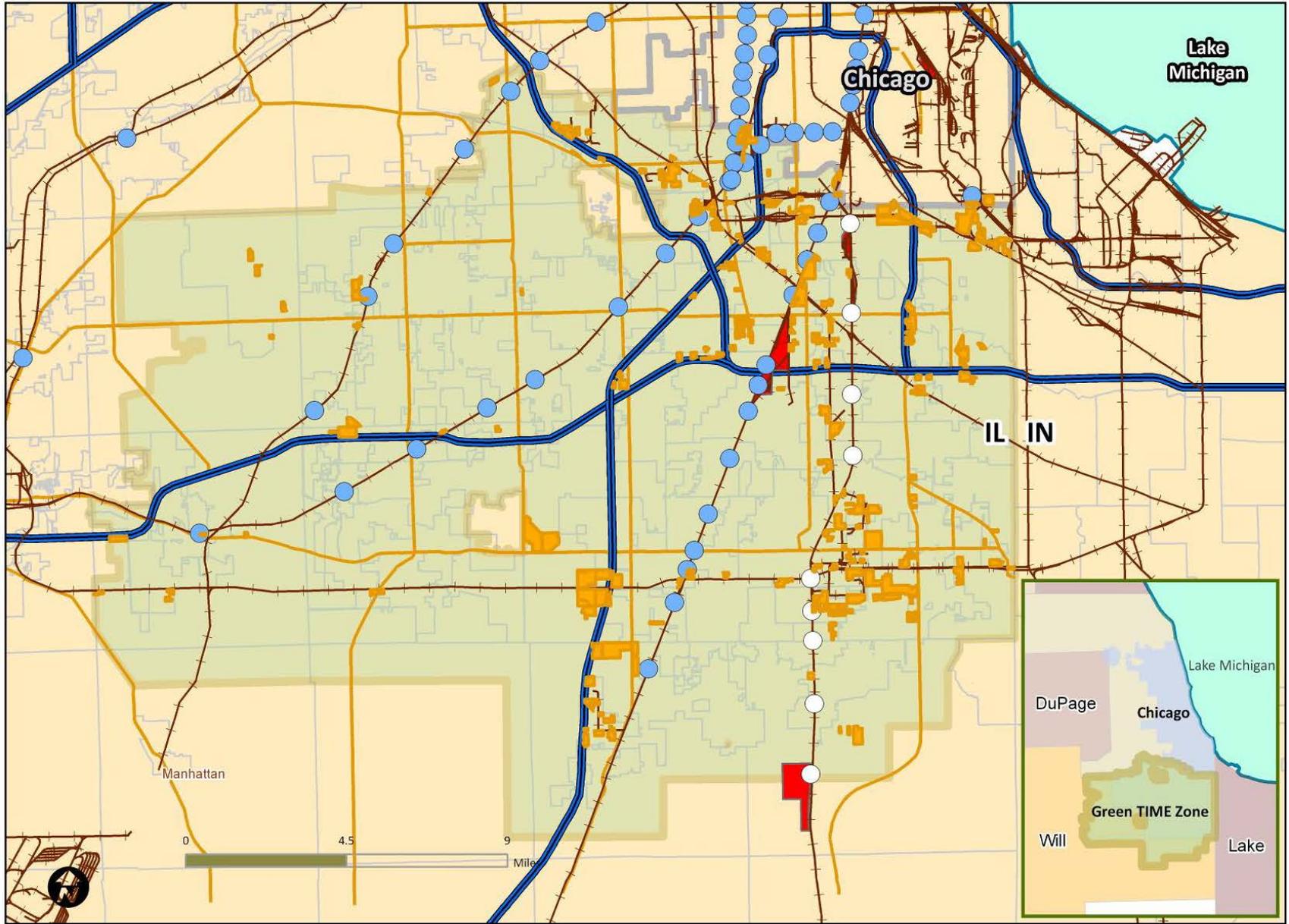


Compact Industrial Development Pattern

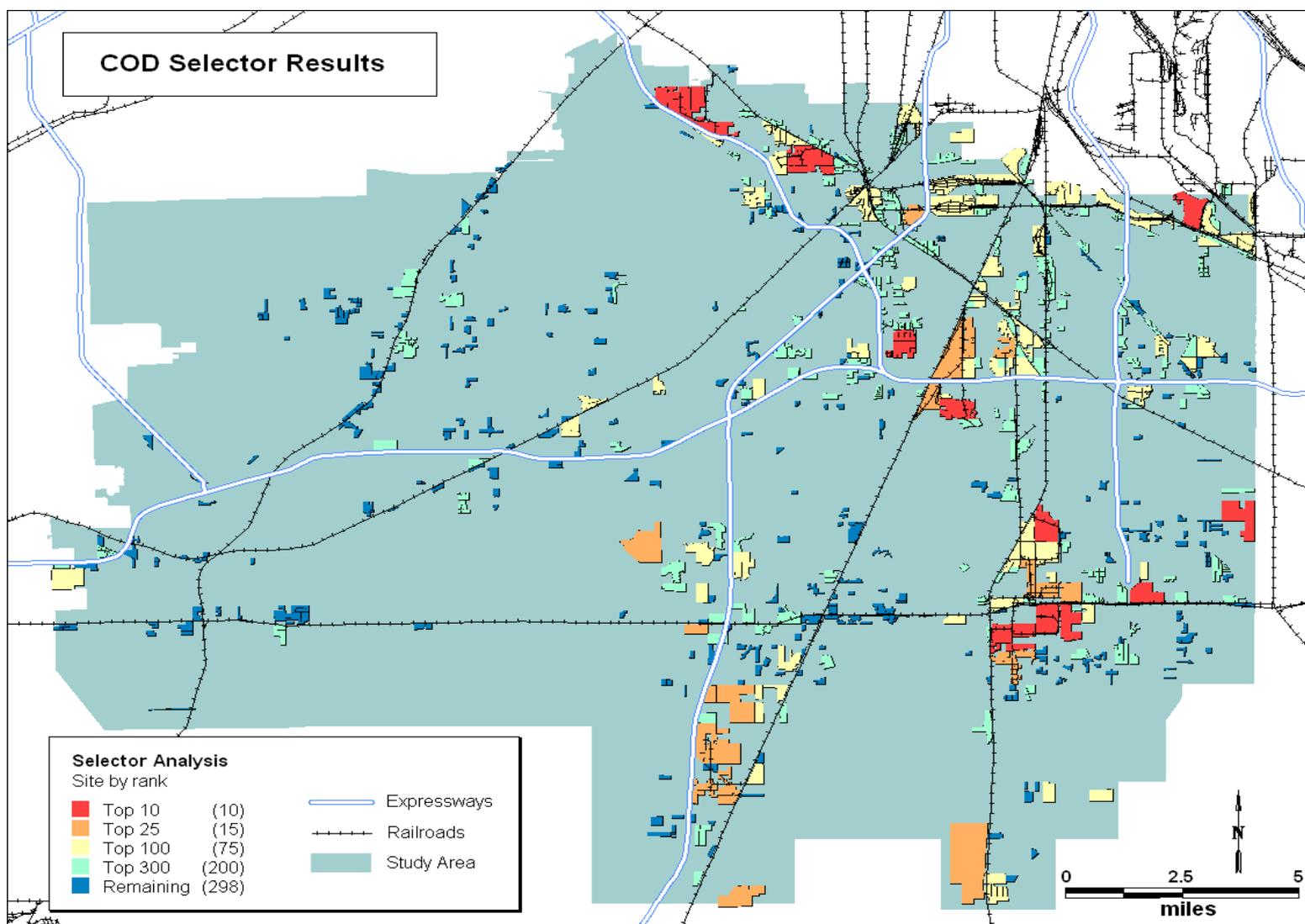
3 MILE RADIUS LEHD JOB DATA

	TOTAL JOBS	MANUFACTURING	WHOLESALE TRADE	TRANSPORTATION + WAREHOUSING
UP-Marion	447	3	121	148
NS-Rossville	674	367	3	9
BNSF-TN Yard	53,403	6,468	9,595	11,038
CSX/CN-Gateway	712	413	34	156
NS-Forest Yard	34,330	2,459	1,868	3,497

2011 LED WAC Characteristi



Chicago Southland COD + TOD Assets



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LAND ASSEMBLY, REMEDIATION



GIS	Identify Sites
Planning	Build Regional Consensus
Land Use	Assemble Land
Brownfields	Remediate Land
Transportation	Improve the “Last Mile”
Resources/Incentives	Create Funds/Programs
Economic Development	Recruit Developers
Workforce Development	Train for New Jobs

GENERATE INVESTMENT + WEALTH

Public-Private Collaboration for Redevelopment



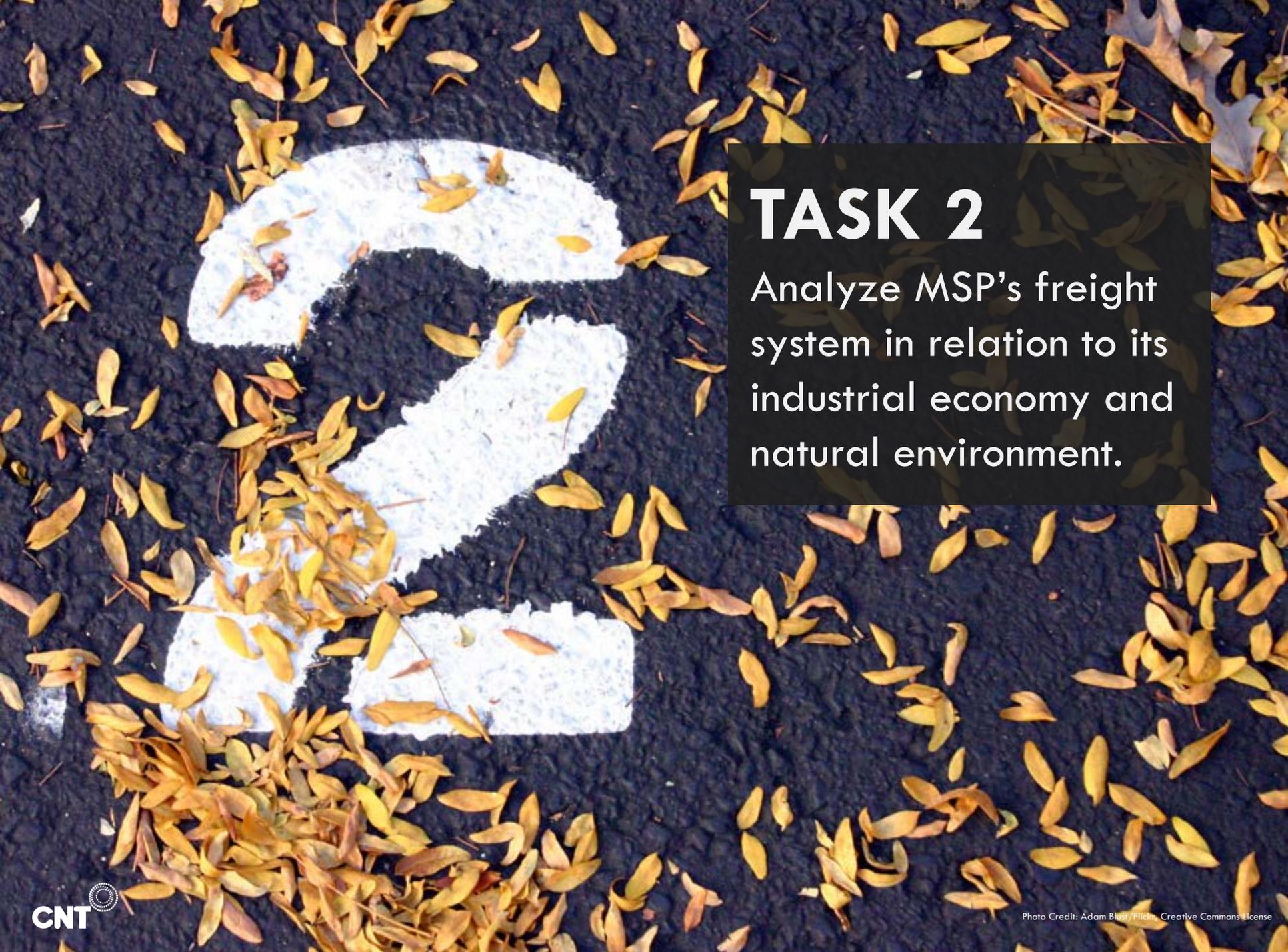


COMPLETE TASK 1

Industrial District Site Visits
Interviews with regional experts
Advisor review of a findings
memorandum.

LOCAL ECONOMIC DEVELOPMENT METRICS

- Location Efficient Land Development -- # acres
- Jobs created + careers sustained
- Worker transportation access
- Public cost savings + revenue growth



TASK 2

Analyze MSP's freight system in relation to its industrial economy and natural environment.

BUILD ON RECENT + ONGOING PLANNING FOR MSP FREIGHT TRANSPORTATION SYSTEM

- MNDOT, *The Family of Plans – related transportation and economic development plans (2010 -16)*
<http://www.dot.state.mn.us/ofrw/freight/index.html>
- USDOT/MNDOT/Metropolitan Council, *The Story of Freight in the Twin Cities (2012)*
- MNDOT, *Draft State Rail Plan (2015)*
- UMN, *Transportation Planning to Support Economic Development: An Exploratory Study of Competitive Industry Clusters and Transportation in Minnesota (2015)*
- UMN, *Understanding and Enhancing the Value of the Freight Economy in Minnesota (2014)*
- MNDOT, *Freight Rail Economic Development (2013)*

ASSESS MSP'S POSITION IN CONTINENTAL FREIGHT NETWORKS

- Commodity Freight Flow Analysis – considered with analysis of manufacturing industries
- Connections to the Pacific Northwest via BNSF and CP corridors
- Apparently indirect connections to southwest maritime ports
- Chicago as MSP's intermodal hub (400 last miles by truck)

HIGH LEVEL DESCRIPTION OF INTRA-REGIONAL FREIGHT MOVEMENT

- Comparison of freight networks and handling capacity with peer cities
- Analysis of logistics business cluster distinct from manufacturing
- Review of investments to relieve congestion and accelerate freight movement
- Appreciation of trucking's essential role and costs

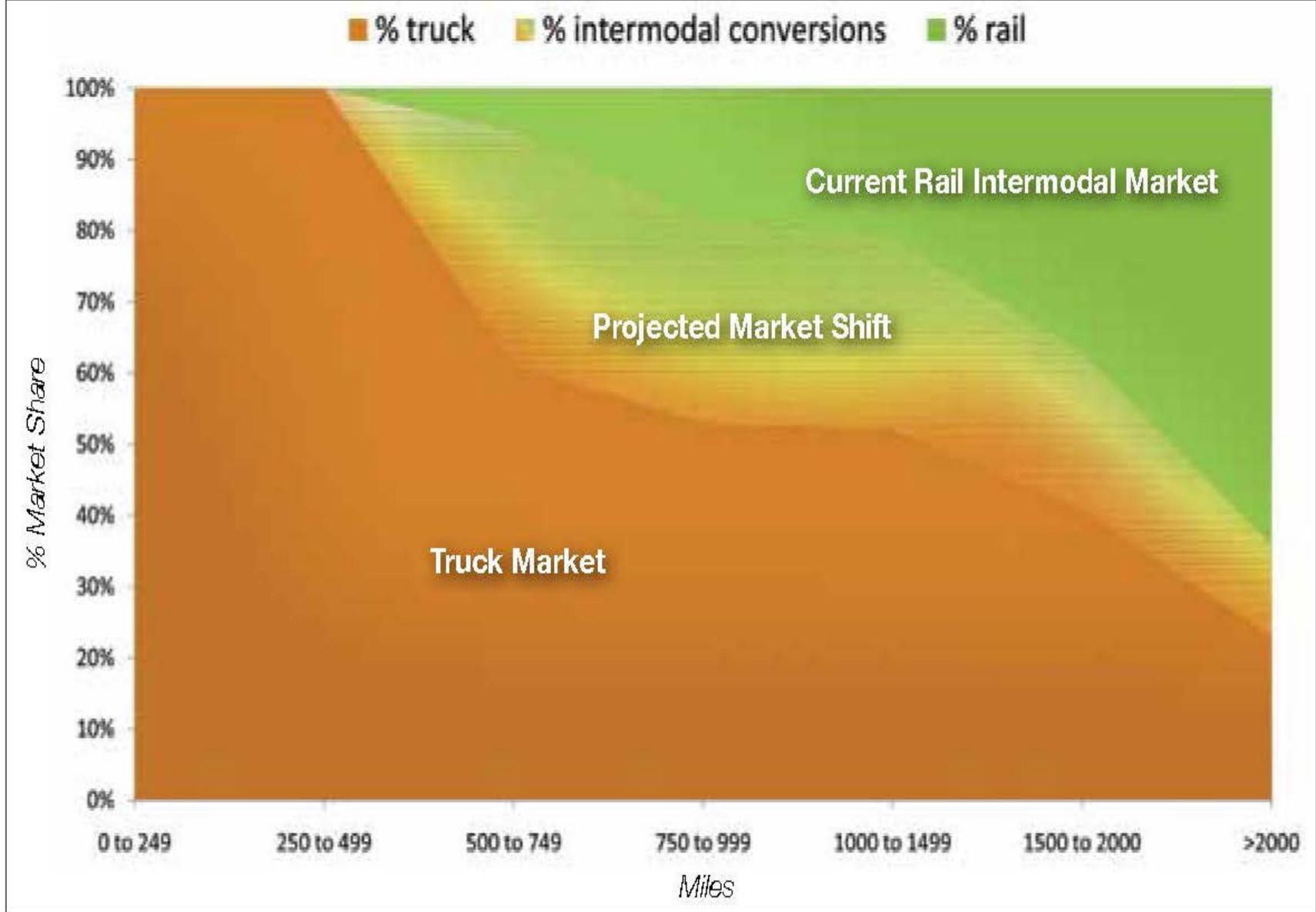
Fuel Consumption and Freight Ton-Miles Moved by Truck and Rail, 1980 -2011

Year	Truck		Rail	
	Diesel Fuel Consumed (thousands of barrels per day)*	Ton-Miles of Freight (millions)**	Diesel Fuel Consumed (thousands of barrels per day)*	Ton-Miles of Freight (millions)**
1980	1,302	1,266,631	262	932,000
1990	1,597	1,707,373	216	1,064,408
2000	2,298	2,326,524	256	1,546,319
2011	2,766	2,643,567	253	1,725,634

* *Transportation Energy Data Book, Edition 34, Table 1.14*

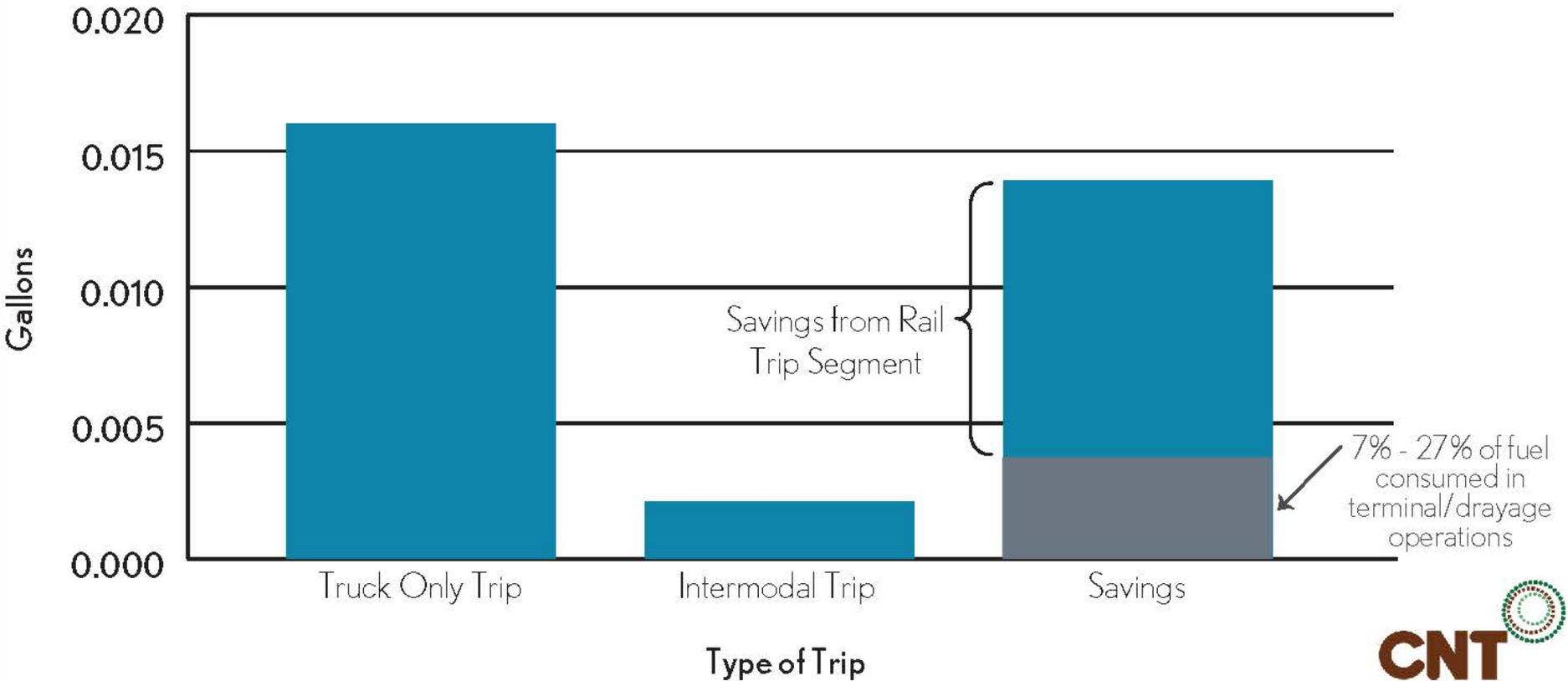
** *Bureau of Transportation Statistics, National Transportation Statistics, Table 1-50, Ton-Miles of Freight*

Basic Cost Differential of Truck to Rail



Expansion of Intermodal Market

FUEL CONSUMPTION (GALLONS PER TON-MILE)



**Intermodal Cost Benefit Depends on
Drayage + Terminal Efficiencies**

LOGISTICS COSTS RELATIVE TO COMPANY SIZE



Shipping Efficiencies Especially Important to Smaller Companies





COMPLETE TASK 2

- Freight Facility Site Visits
- Interviews with regional experts
- Advisor review of a findings memorandum

FREIGHT SYSTEM METRICS

- Truck and freight system productivity – fewer truck VMT per volume of freight moved
- Travel time and reliability
- Efficiencies in intermodal drayage & terminal operations
- Right sized shipping

TASK 3

Analyze ongoing efforts to improve the MSP region's natural environment and level of public safety.



BUILD ON RECENT RESEARCH + PLANNING FOR MSP ENVIRONMENTAL SAFETY INITIATIVES

- National Association of Regional Councils, *Planning for Regional Competitiveness, Prepared for McKnight Foundation* (2013)
- Metropolitan Council, *Thrive MSP 2040 Plan* (2014)
- Metropolitan Council, *Transportation Policy Plan* (2015)
- Metro Transit, *Arterial Transitway Corridors Study* (2012)
- Metro Transit, *Service Improvement Plan 2015-2030* (2015)
- Brookings Institution/ Minnesota DEED, *Pillars of prosperity: Leveraging regional assets to grow Minnesota's economy* (2015)

Fuel Consumption and Freight Ton-Miles Moved by Truck and Rail, 1980 -2011

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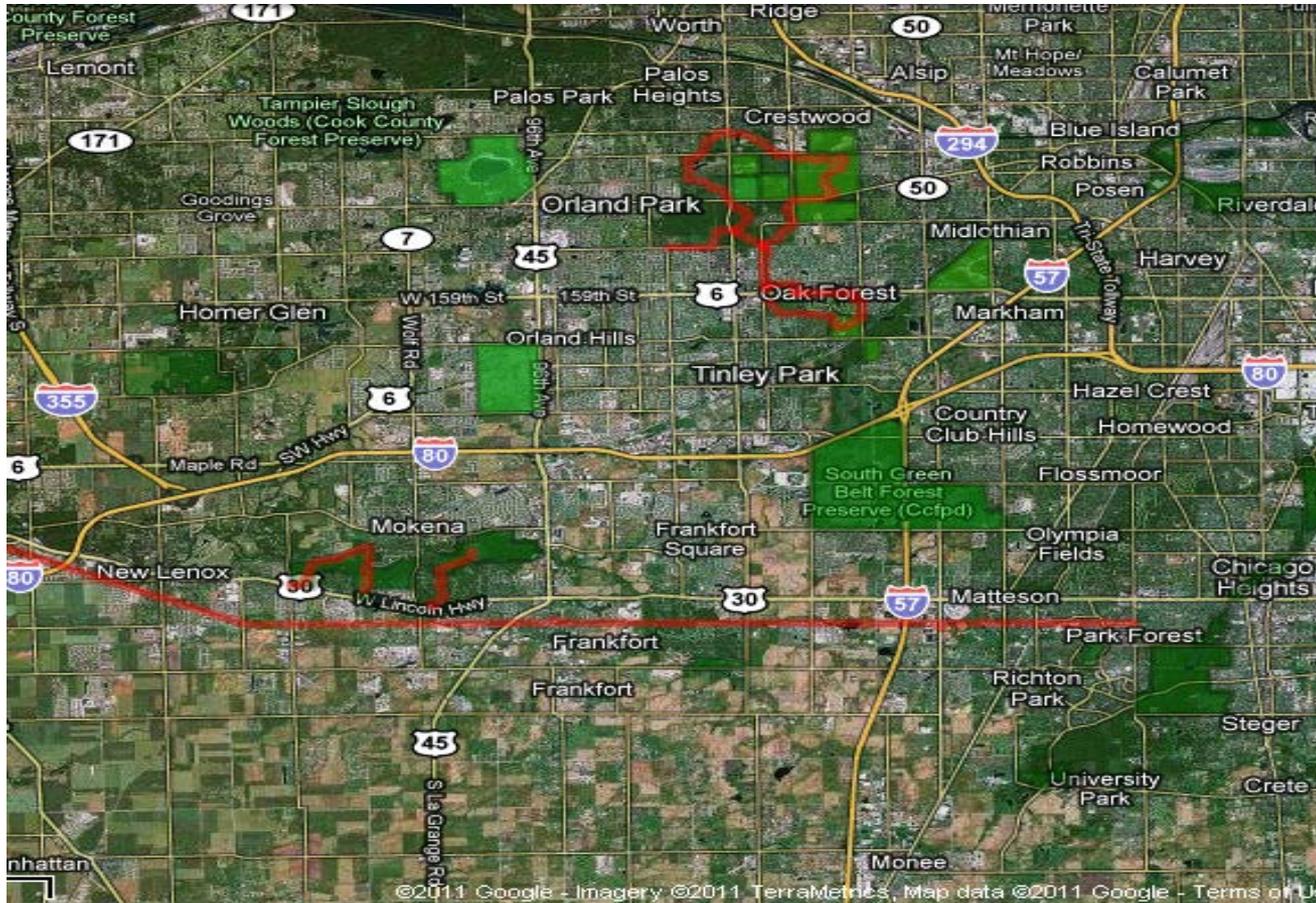
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STATE OF THE ART TERMINALS MAKE GOOD NEIGHBORS



LOCATION EFFICIENT DEVELOPMENT LEADS TO SUSTAINABLE REGIONAL LAND USE



SAFETY ENHANCED BY

- Minimization\optimal efficiency of truck VMT
- Adherence to FMCSA rules
- Adherence to FRA Guidelines, including Positive Train Control

COMPLETE TASK 3

Interviews with regional experts
Advisor review of a findings memorandum.



ENVIRONMENTAL SAFETY + METRICS

- Air quality compliance with EPA standards for specific pollutants
- Facility compliance with LEED standards for industrial properties, including noise, night lighting, and storm water containment
- Land use: acres preserved for nature or recreation, and job density on industrial sites
- Safety: adherence to federal rules and guidelines

TASK 4

Conduct key workshop with MSP leaders to chart a path for COD in the region.

MAJOR TASK 4 STEPS

- Prepare Briefing Book that summarizes information gained through Tasks 1 – 3.
- Convene regional leaders with the help of the project's Advisory Committee.
- Provide professional facilitation of sessions and documentation of proceedings.

TASK 4 ISSUES

Reach answers to the initial questions of the project:

1. How can shipping services to MSP industrial businesses improve and shipping costs drop, increasing regional competitiveness?
2. How can employment in manufacturing and logistics reduce regional poverty?
3. How can change in MSP's industrial – freight logistics nexus raise competitiveness and lower poverty while improving environmental quality and public safety?
4. Other basic questions that arise in the course of the project

Task 5

- Freight Facility Site Visits
- Write MSP's Blueprint for COD.
- Delineate specific actions steps, procedures for evaluation and updating.
- Identify short and long-term opportunities arising from FAST in conjunctions with the programs of other federal agencies including the Environmental Protection Agency, the Economic Development Administration, and the Department of Labor

CREATING A BLUEPRINT FOR CARGO-ORIENTED DEVELOPMENT IN THE MINNEAPOLIS-ST. PAUL REGION

<u>Tasks</u>	2016					
	<u>March</u>	<u>April</u>	<u>May</u>	<u>June</u>	<u>July</u>	
<i>1.0 Analyze MSP's Manufacturing Economy</i>	█					
<i>2.0 Analyze MSP's Freight Transportation System</i>	█		█			
<i>3.0 Analyze MSP's Environmental, Safety, & Workforce Initiatives</i>		█				
<i>4.0 Workshop with MSP Thought Leaders</i>			█			
<i>5.0 Prepare Blueprint for Next Steps in COD</i>					█	

THANK YOU

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Cargo-Oriented Development at CNT
www.cnt.org/cargo-oriented-development