

# IL ROUTE 53/120

## Blue Ribbon Advisory Council

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**Environment & Sustainability  
Working Group**

**November 14, 2011**

Lake County Central Permit Facility





# WORKING GROUP OVERVIEW – NOVEMBER

<p><b>Mobility &amp; Finance</b></p> <p><i>How much traffic and revenue would different scenarios generate? What problems are we trying to solve? What trips do we want to accommodate?</i></p>	<p><b>Design &amp; Land Use</b></p> <p><i>What is the purpose of the proposed road? How does current and desired future land use inform the potential design for 53/120?</i></p>	<p><b>Environment &amp; Sustainability</b></p> <p><i>What are the environmental issues &amp; constraints? How should we measure success?</i></p>
<p><b>NOVEMBER AGENDAS</b></p>		
<p><b>Background</b> Results of past studies Status of other area improvements</p> <p><b>Travel Forecast Basics</b> Current volumes How scenarios could impact behavior</p> <p><b>Projections for Various Scenarios</b> Traffic Revenue</p> <p><b>Establish Evaluation Criteria</b></p> <p><b>Next Steps</b></p>	<p><b>Background</b> Results of past studies Status of other area improvements</p> <p><b>Land Use Overview</b></p> <p><b>Define Purpose of the Road</b> <i>Discuss decision points and outline roadway concepts to carry forward</i></p> <p>Lanes Speed Trucks Transit</p> <p><b>Next Steps</b></p>	<p><b>Background</b> Results of past studies Status of other area improvements</p> <p><b>Review Environmental Features and Constraints</b></p> <p><b>Review I-LAST Manual</b></p> <p><b>Suggest Draft Environment &amp; Sustainability Metrics for 53/120</b></p> <p><b>Next Steps</b></p>



# BACKGROUND

## Lake County Transportation Improvement Project (LCTIP)

- Countywide needs assessed
- Alternatives evaluated; narrowed to two final
- Also reviewed transit alternatives
- Project office closed April 2002 – no decision
- Provided foundation for next steps
- Future studies to update traffic, engineering and environmental

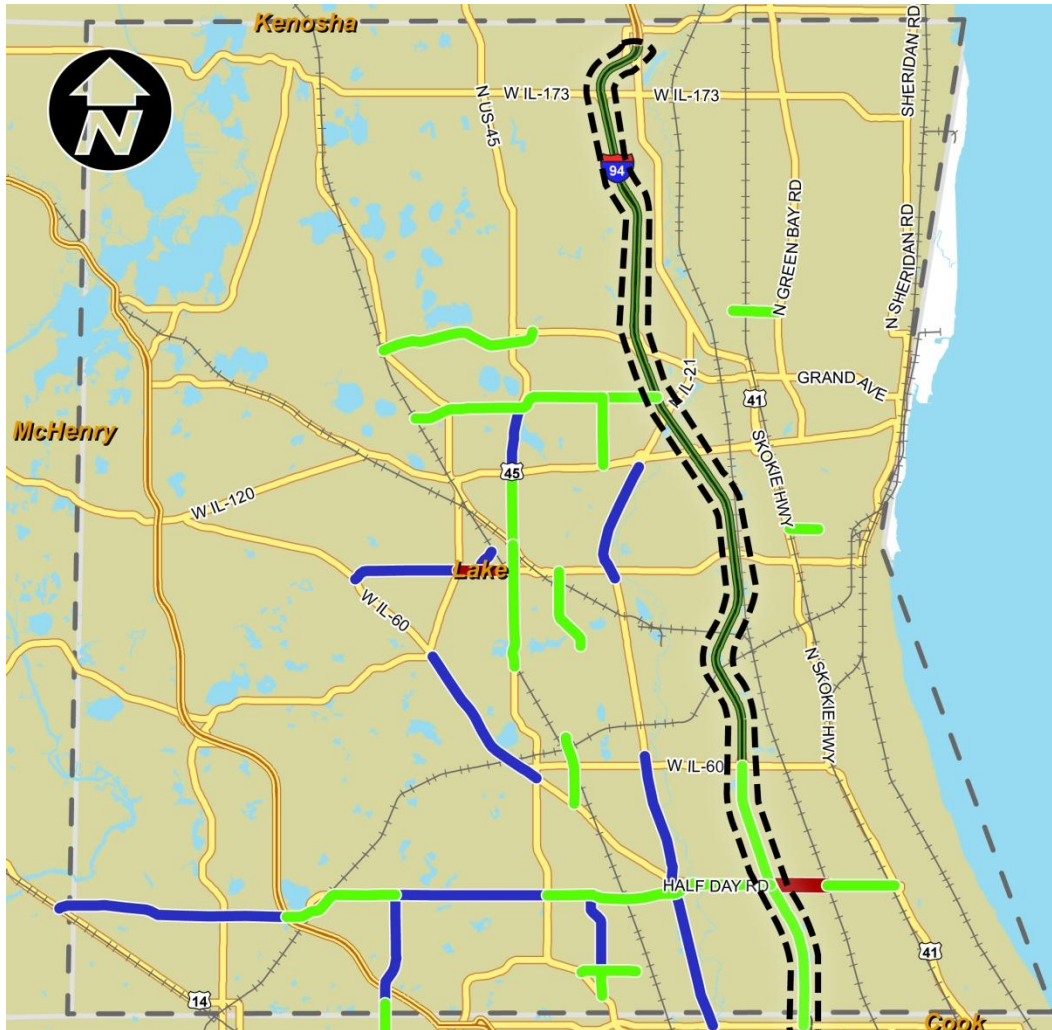
## IL Route 120 Unified Vision Process

- Considered alignments, configurations and interchange types/locations for improved 120
- 14.5 miles of existing 120 from Rt. 12 to Rt. 41
- Five alternatives evaluated
- Selected IL Route 120 bypass, four-lane, signalized boulevard
- Change to expressway if Route 53 is extended
- Could include extension of three existing roads (Hainesville Rd., Cedar Lake Rd., Lake St.) and connector to IL-83
- Analysis deferred: grade separations, environmental mitigation and intersection/interchange types





# STATUS OF LCTIP BASELINE PROJECTS



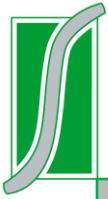
## LEGEND

- Complete
- Construction
- Design

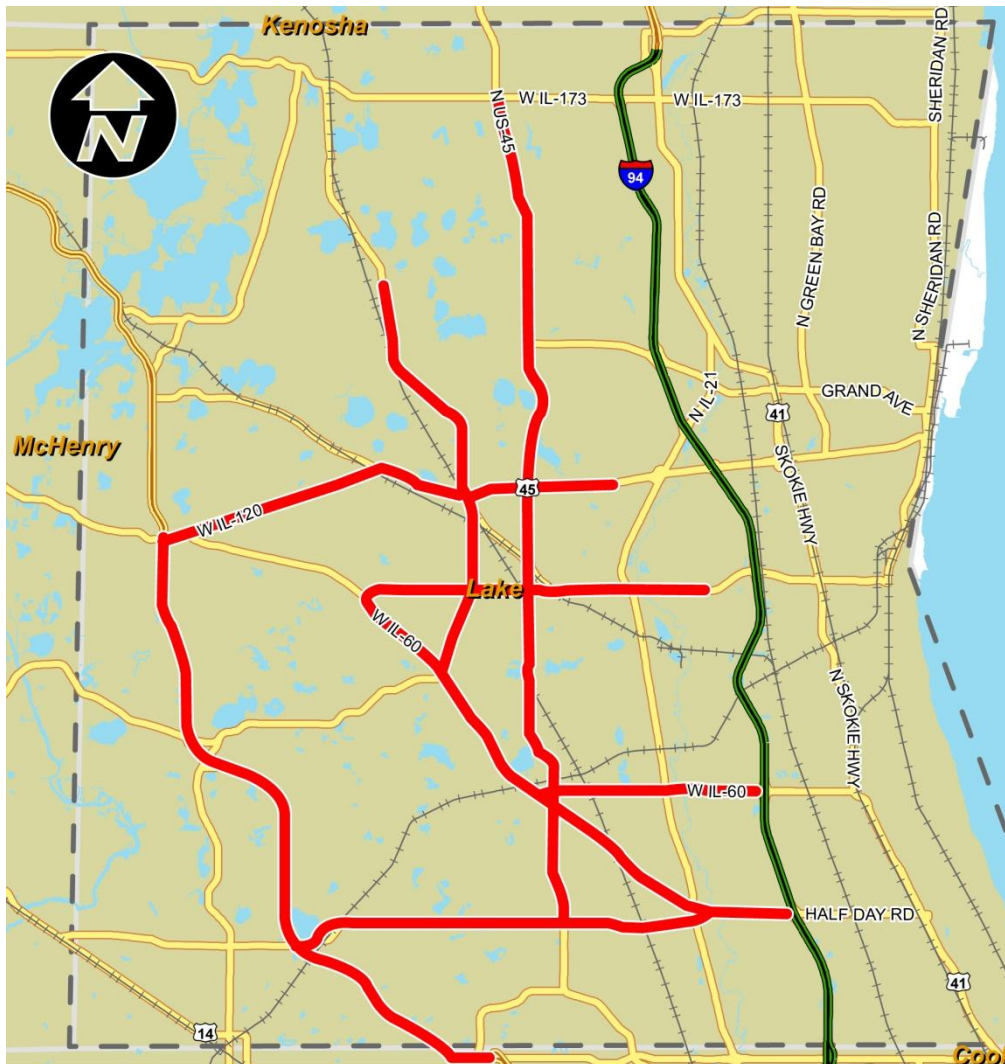
## NOTE:

I-94 not in LCTIP baseline, but Tollway widened from 3 to 4 lanes in 2008





# CURRENT LAKE COUNTY CONGESTION



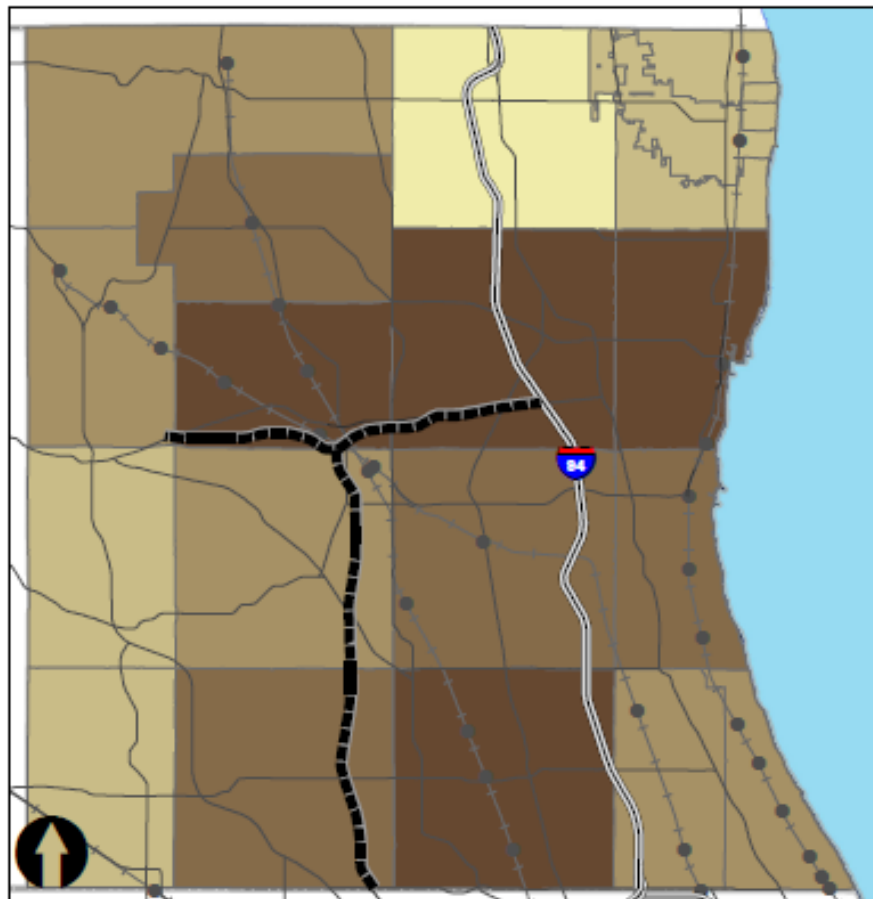
## High-level illustration of current congestion

- Based on CMAP 2009 Air Quality Conformity Output
- Based on peak hour volumes (not all day)
- Focused on congestion at intersections (areas of greatest delay)
- Measured by volume of traffic on the road (V) compared to the road's capacity (C)
  - V/C ratio of 1 = congested
  - V/C ratio of 1.1= severely congested
  - Red shown exceeds 1.1

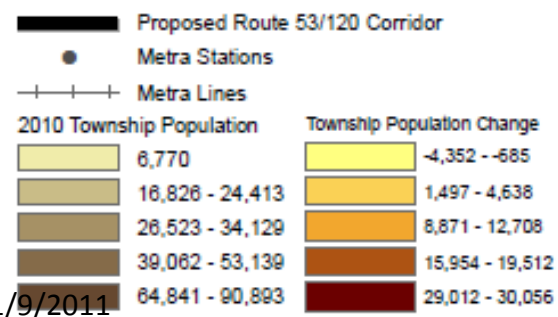


# Proposed Lake County Corridor: Lake County Population by Township

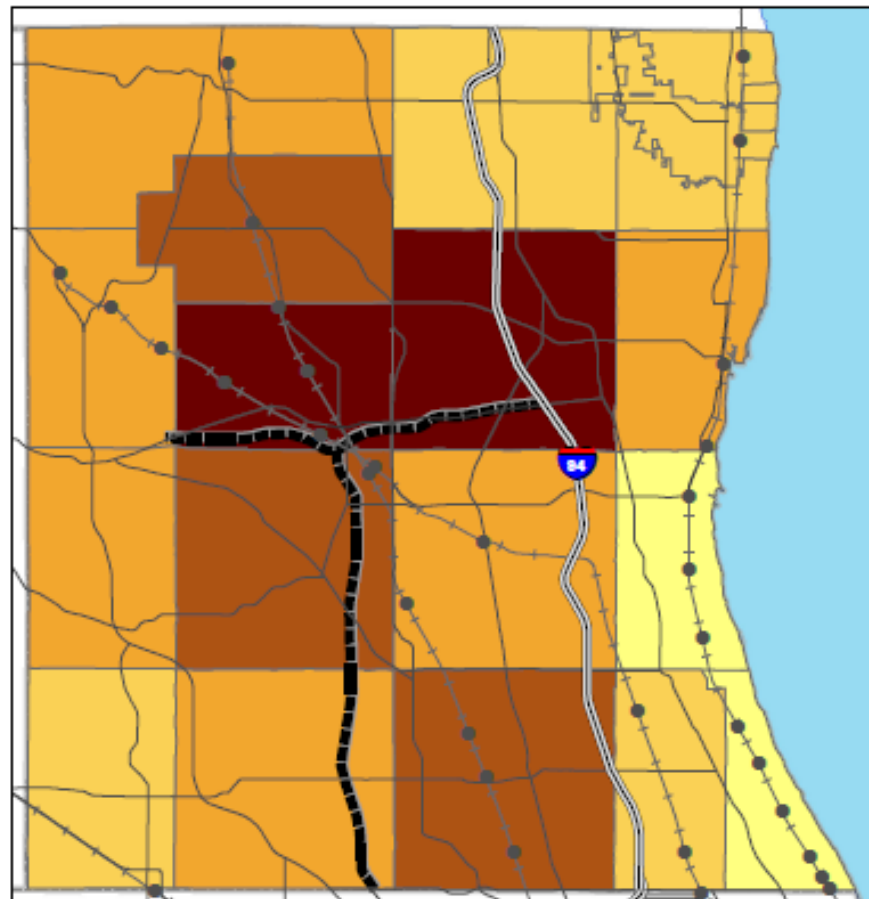
2010 Population



0 2 4 8 Miles



Population Change, 1990 to 2010



Lake County Population and Employment			
	1990	2000	2010
Population	440,372	644,356	703,462
Employment	210,671	298,220	309,034

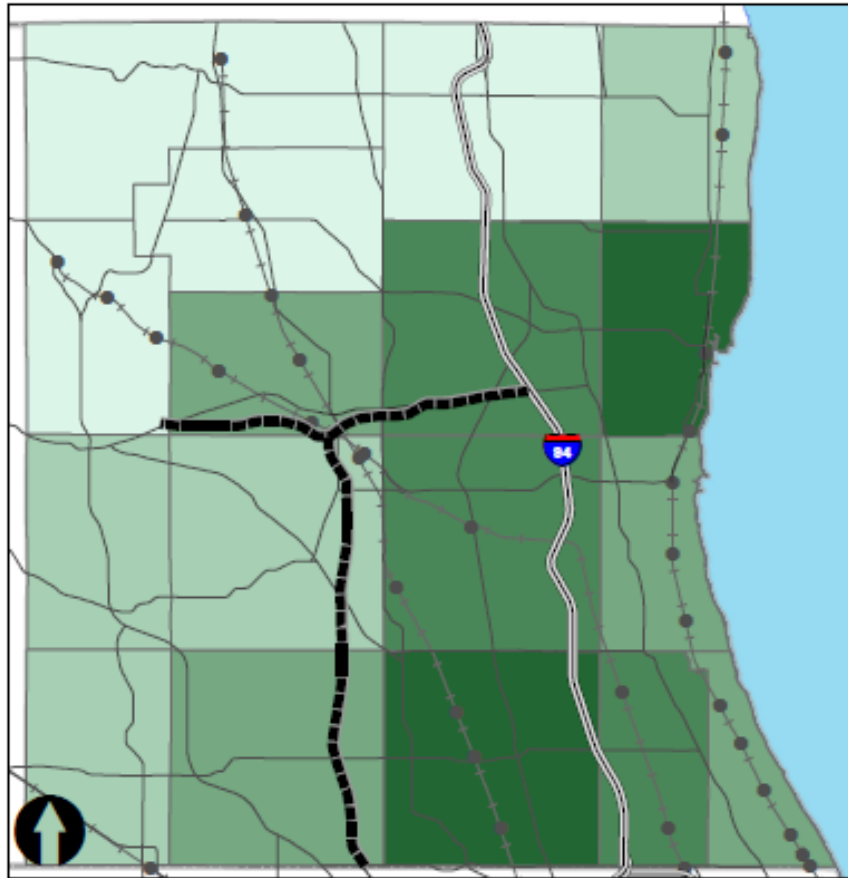
Sources: CMAP analysis of US Decennial Census data and Illinois Department of Economic Security Quarterly Workforce Indicators

The Proposed Route 53/120 Corridor shown is for illustrative purposes only and does not reflect an exact alignment.

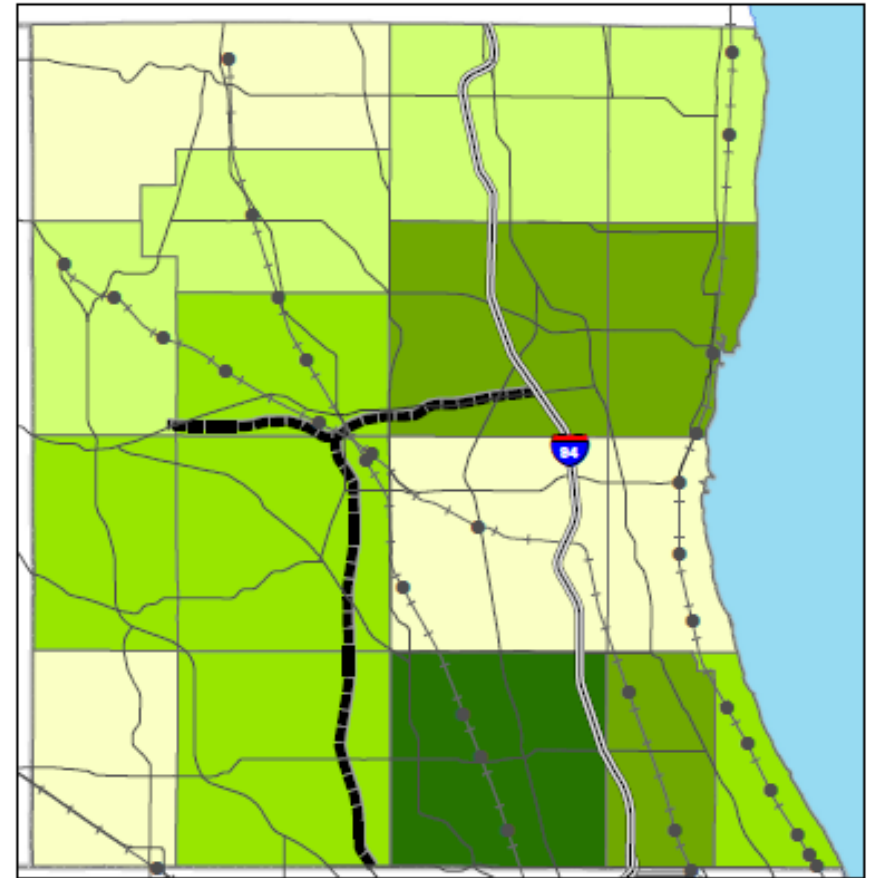


# Proposed Lake County Corridor: Lake County Employees by Township

2010 Employee Count



Employee Change, 1990 to 2010



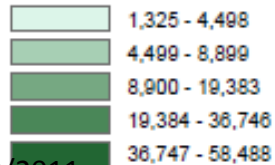
0 2 4 8 Miles

Proposed Route 53/120 Corridor

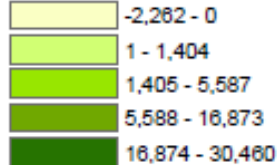
● Metra Stations

Metra Lines

2010 Township Employee Count



Employee Count Change



### Lake County Demographic and Economic Trends

	1990	2000	2010
Population	440,372	644,356	703,462
Employment	210,671	298,220	309,034
Commercial Development			
Retail SF	No Data	27,600,000	33,520,000
Office SF	No Data	30,210,000	34,680,000
Industrial SF	No Data	75,630,000	82,490,000

Sources: CMAP analysis of US Decennial Census data, CoStar commercial property data, and Illinois Department of Economic Security Quarterly Workforce Indicators

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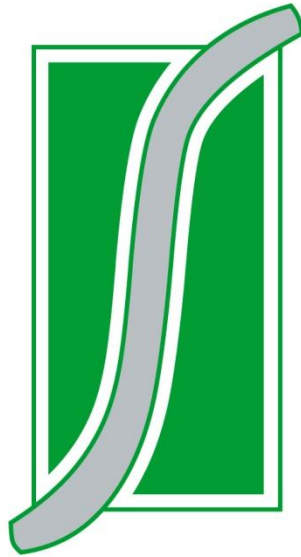


## TAKE-AWAY

- Past studies indicate a need for the Route 53 extension and improvements in the IL 120 corridor
- Improvements are being made to other area roads, but these do not eliminate the need for a 53/120 project
- Lake County is growing and will continue to grow- road provides a crucial link between people and jobs
- Location is largely defined for 53/120, but questions about roadway character and environmental considerations remain
- GO TO 2040 calls for a “modern boulevard” approach







**IL ROUTE 53/120**

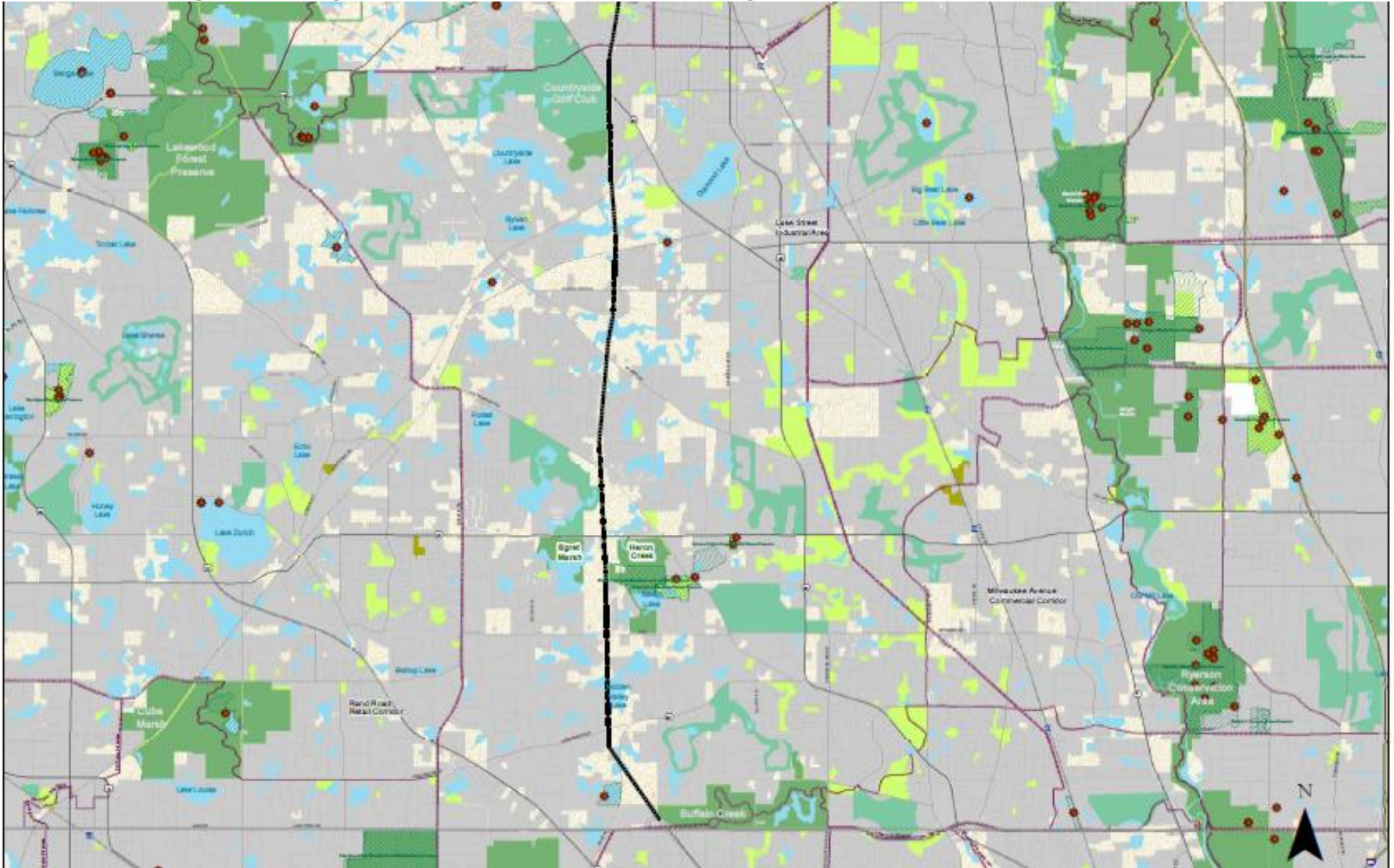
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# **Environmental Features & Constraints**



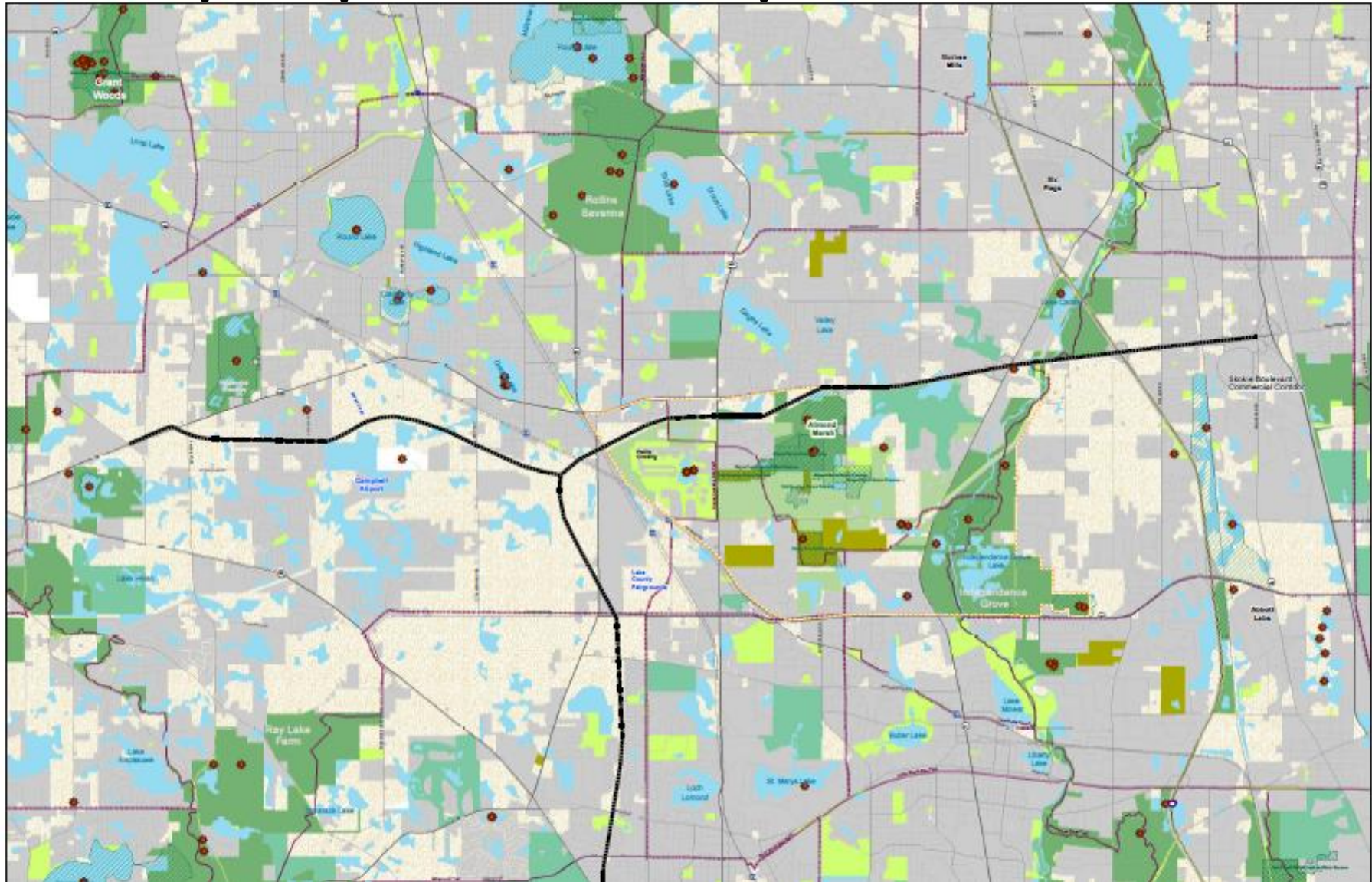
# Trails, Open Space and Development - SOUTH



<ul style="list-style-type: none"> <li>Proposed CLCC Alignment</li> <li>County Boundaries</li> <li><b>Roadway Network</b> <ul style="list-style-type: none"> <li>Interstate (PAS)</li> <li>Freeway and Expressway (Urban Only) (PAS)</li> <li>Other Principal Arterial (PAS)</li> <li>Other</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Rail Lines</li> <li>Metro Stations</li> <li>LUI2005 wetland</li> <li>Regional Trails and Greenways                     <ul style="list-style-type: none"> <li>Existing</li> <li>Planned or Proposed</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Illinois Natural Area Inventory Sites</li> <li>Illinois Nature Preserves / Land and Water Reserves</li> <li>IDNR Open Space</li> <li>County Forest Preserve</li> <li>Land Trusts, Conservation &amp; Managed Lands</li> <li>Township open space</li> <li>Golf courses</li> <li>Local parks</li> </ul>	<ul style="list-style-type: none"> <li><b>Land Use</b> <ul style="list-style-type: none"> <li>Developed</li> <li>Agricultural or "vacant"</li> <li>Liberty Prairie Reserve</li> <li>Threatened/endangered species (generalized)</li> </ul> </li> </ul>
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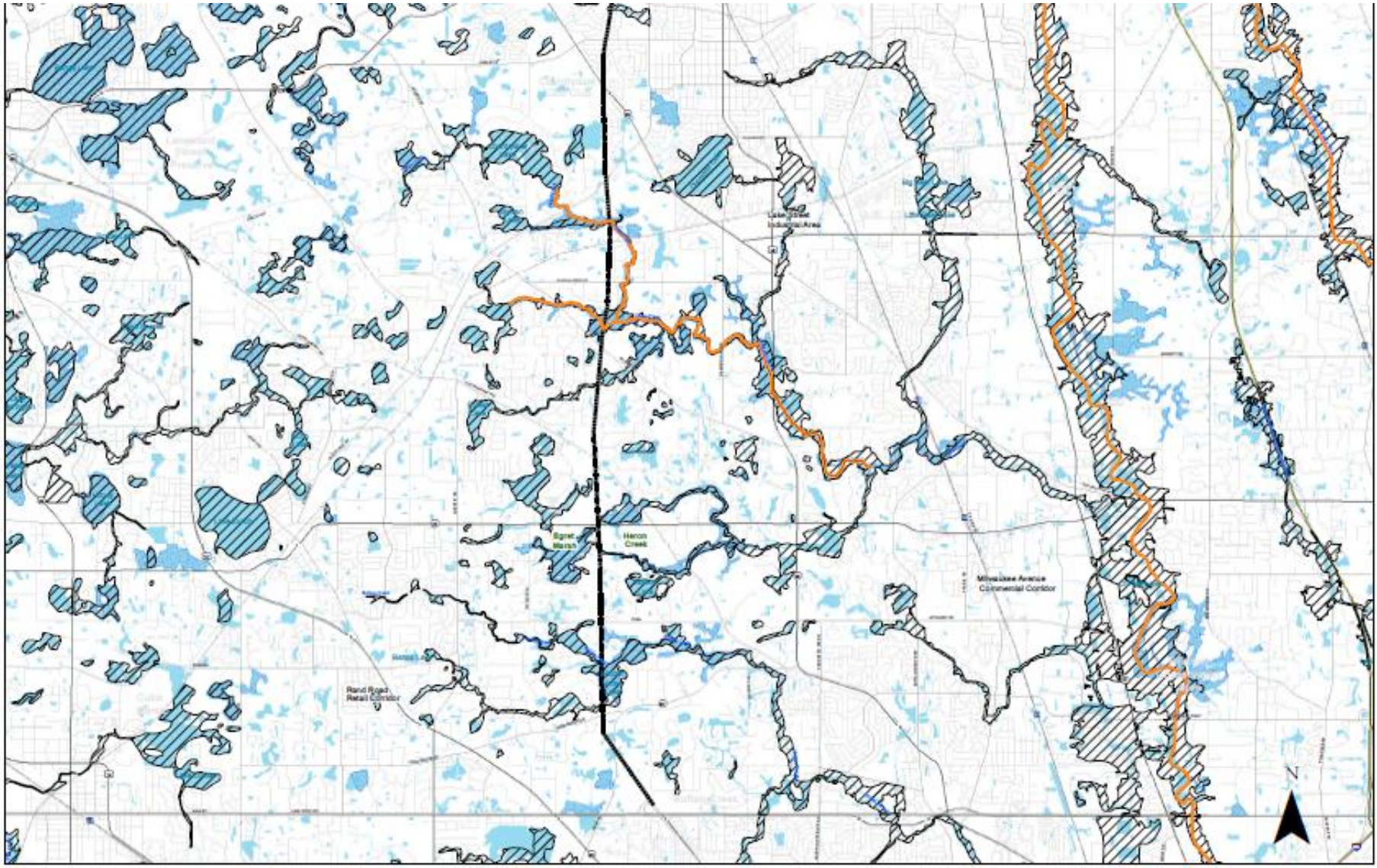
# Trails, Open Space and Development - NORTH



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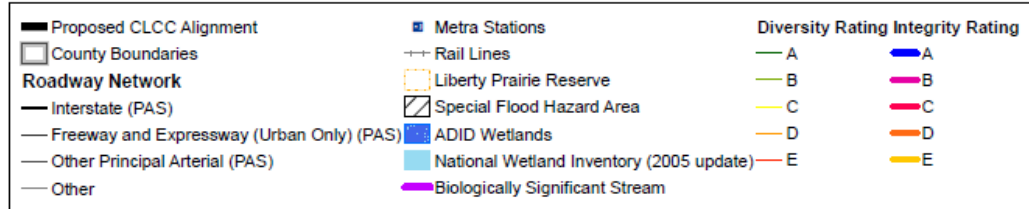
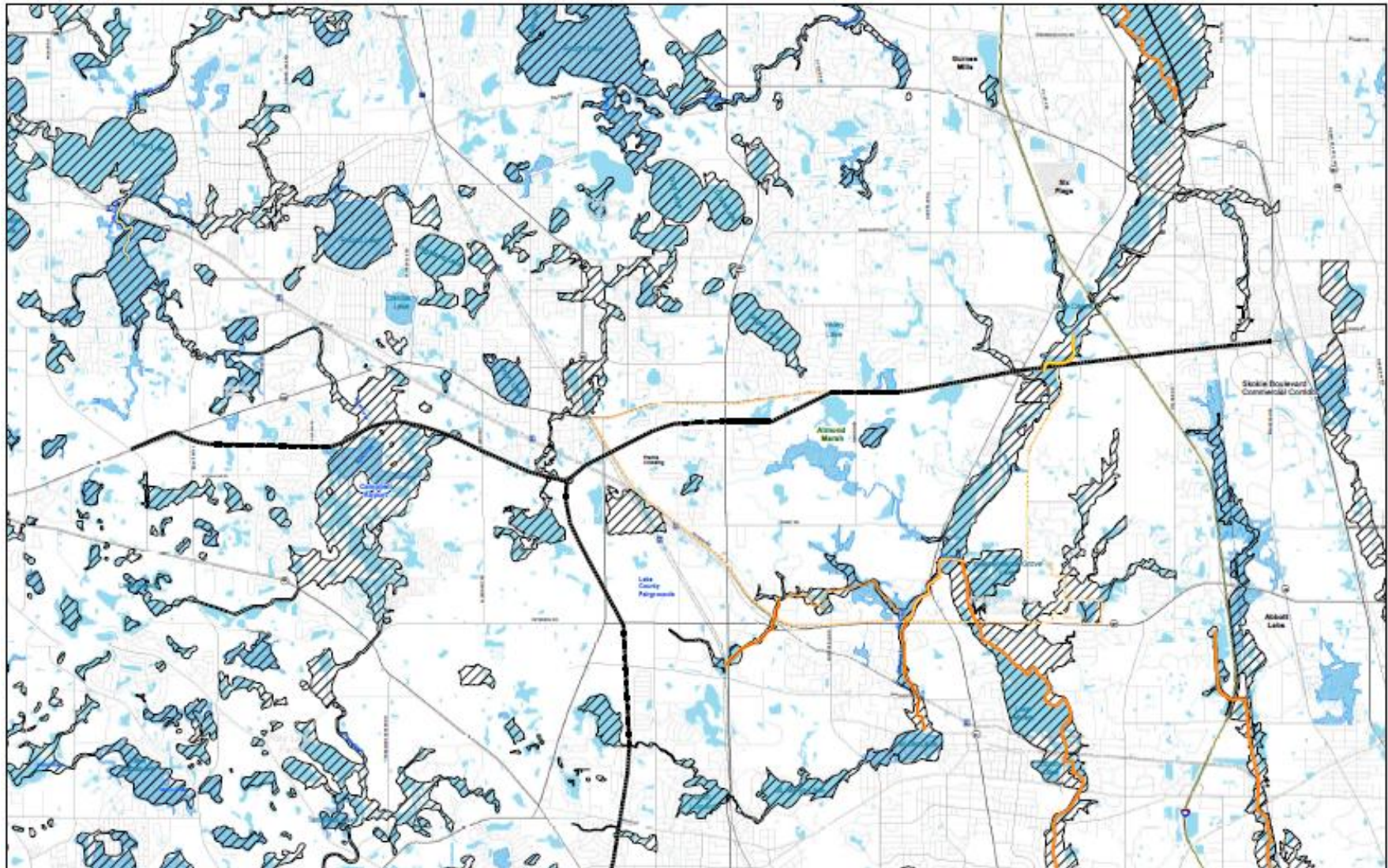


# Water - SOUTH

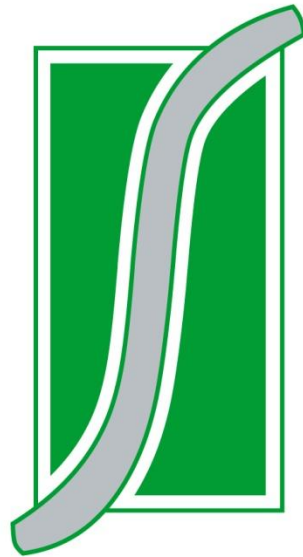




# Water - NORTH







# IL ROUTE 53/120

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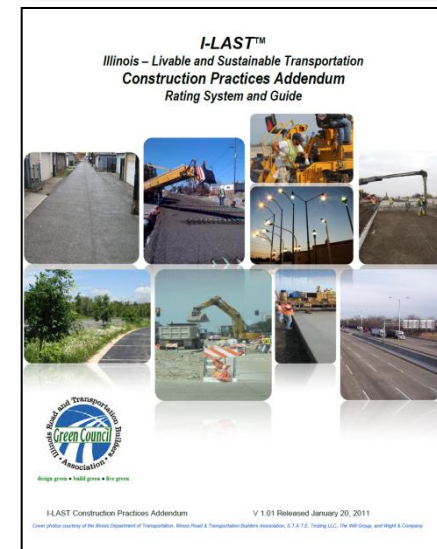
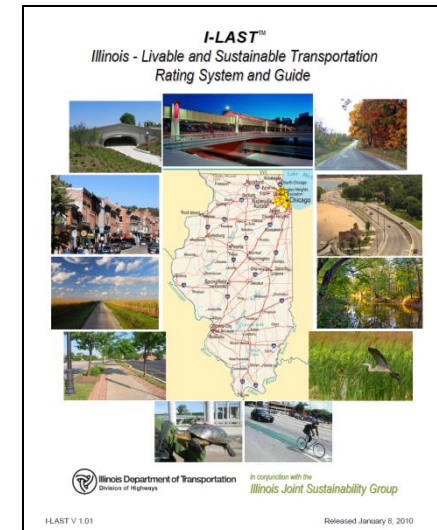
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# I-LAST Manual and Other Sample Metrics



# I-LAST MANUAL

- **Illinois – Livable and Sustainable Transportation Rating System and Guide**
  - Developed by IDOT in conjunction with the Illinois Joint Sustainability Group (engineering and construction community)
- **Purpose:**
  - Provide a comprehensive list of practices that have the potential to bring sustainable results to highway projects
  - Establish a simple and efficient method of evaluating transportation projects with respect to livability, sustainability, and effect on the natural environment
  - Record and recognize the use of sustainable practices in the transportation industry
- **Use is voluntary**





# SAMPLE

- Some points not applicable on some projects
- Projects can be evaluated based only on the practices that were applicable to the project

## I-LAST Project Environmental Sustainability Rating System Scorecard

CATEGORY		ID	DESCRIPTION	Available Points	Project Points	
Planning	P-1 Context Sensitive Solutions	P-1a	Identify Stakeholders and develop Stakeholders Involvement Plan	2		
		P-1b	Engage Stakeholders to conduct Context Audit and develop project purpose	2		
		P-1c	Involve Stakeholders to develop and evaluate alternatives	2		
		P-1d	Employ Stakeholder involvement techniques to achieve consensus for Preferred Project Alternative	2		
	P-2 Land Use/ Community Planning	P-2a	Promote reduction in vehicle trips by accommodating increased use of public transit	2		
		P-2b	Accommodate multi-modal transportation uses (e.g. transit riders, pedestrians, and bicyclists)	2		
		P-2c	Increase transportation efficiencies for moving freight through features such as dedicated rail or intermodal facilities	2		
		P-2d	Partnerships that provide environmental or technological advancements while promoting environmental stewardship	2		
		P-2e	Project is consistent with regional plans and local managed growth-based Master or Comprehensive Plans	2		
		P-2f	Project is compatible with local efforts for Transit Oriented Design	1		
Design	D-1 Alignment Selection	D-1a	Avoid impacts to high quality undeveloped lands			
			D-1a-1	Avoid all impacts	2	
			D-1a-2	Avoid significant impacts	1	
		D-1b	Provide buffer between highway and high quality wetlands/water resources			
			D-1b-1	Provide 100 foot buffer to resources	2	
			D-1b-2	Avoid resource with less than 100 foot buffer	1	
		D-1c	Avoid impacts to environmental resources, such as INAI sites and sites with threatened or endangered species			
			D-1c-1	Avoid all impacts	2	
			D-1c-2	Avoid significant impacts	1	
		D-1d	Avoid impacts to socioeconomic resources			
	D-1d-1		Avoid all impacts	2		
	D-1d-2		Avoid significant impacts	1		
	D-1e	Cross section minimizes overall construction "footprint" to eliminate R.O.W. takes	2			
D-1f	Minimize total earthwork by matching proposed vertical alignments as closely as possible to existing grades	1				
D-1g	Utilize brownfield locations	2				



# I-LAST SCORECARD CATEGORIES

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## Planning

- Context sensitive solutions
- Land use/community planning

## Design

- Alignment selection
- Context sensitive design

## Environmental

- Protect, enhance or restore wildlife and its habitat
- Trees and plant communities
- Noise abatement
- Reduce Energy Performance
- Lower emissions/reduce petroleum consumption
- Maximize trucking efficiency

## Innovation

## Water Quality

- Reduce impervious area
- Storm water treatment
- Construction practices to protect water quality

## Transportation

- Traffic operations
- Transit
- Improve bicycle & pedestrian facilities

## Lighting

- Reduced electrical consumption
- Stray light reduction

## Materials and Resource

- Materials (reduction and recycling)





# LCTIP EVALUATION CATEGORIES

## Socio-economics

- Population
- Households
- Employment
- Community and land use changes
- Residential relocations
- Business relocations
- Environmental justice

## Agricultural Impacts

- Direct acreage converted
- Farming operations
- Market value of affected crops

## Natural Resources

- ADID wetlands (# and ac)
- Non ADID wetlands (# and ac)
- Total wetlands (# and ac)
- Threatened or endangered species

## Cultural Resources

- Historic structures
- Archaeological sites

## Section 4(f) Resources – Parklands

- Forest preserves
- Local parks

## Flood Plains

## Air Quality

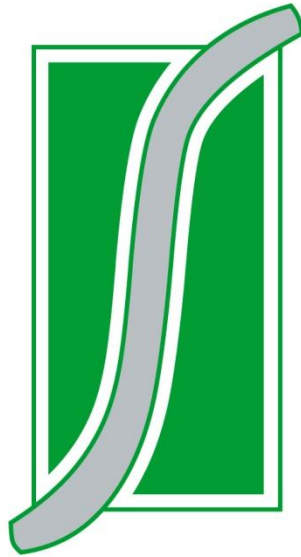
## Water Quality

## Traffic Noise

## Special Waste







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# Develop Metrics for 53/120



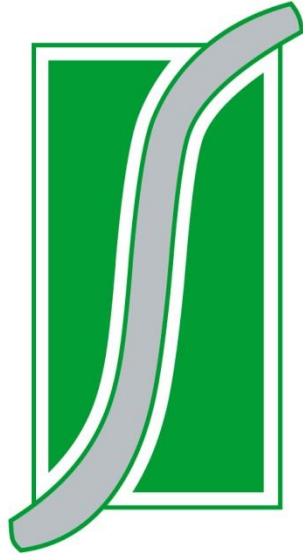


# QUESTIONS

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- ❑ How would we modify the I-LAST scorecard and/or LCTIP evaluation matrix categories to serve as useful templates?
- ❑ What metrics should be eliminated, added?
- ❑ Are any metrics more important than others (priority)?
- ❑ Regarding priority metrics: what are the floor levels that **MUST** be met? (i.e. “No more than 100 acres of wetlands can be impacted and the mitigation ratio must be 3:1”)
- ❑ What level of detail is needed to evaluate roadway alternatives?
- ❑ Are there other criteria or components we want considered? (i.e. Al Westerman’s proposal for funding for open space or conservation?)





# IL ROUTE 53/120

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# Next Steps

