

#### 2022-2027 Proposed Transportation Improvement Program

Shane E. Schneider, P.E. Director of Transportation | County Engineer Division of Transportation

Public Works, Planning and Transportation Committee June 8, 2022

## • Expansion Projects

- Modernization Projects
- Non-motorized Projects

Statutory Requirements

• Fund Sources

Agenda

Schedule

- Fund Distribution
- Program Categories and Priorities
- Preservation Projects



**IMPROVING** infrastructure







#### • June 8, 2022 Proposed Program Presentation

• June 29, 2022 Committee Adoption for Consideration

#### • July 12, 2022 County Board Adoption for Consideration

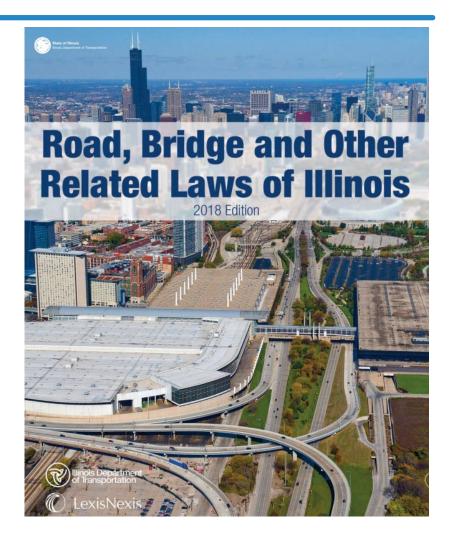
#### **Purpose** Statutory Requirements



#### Illinois Road and Bridge Laws (605ILCS 5/5-301)

State law directs the County Engineer to prepare the 5-Year Transportation Improvement Program (TIP) annually by July 1, and file with the Illinois Department of Transportation (IDOT)

 The 5-Year TIP is the scheduling component of the 20-Year Long Range Plan (Lake County's 2040 Transportation Plan)



### **Fiscal Constraint**



Lake County's Five-Year Transportation Improvement Program is fiscally constrained based on the expected revenue over the planning horizon.

#### Fund Sources County

**5 Local Revenue Streams Support Transportation Project Funding:** 



- County Bridge Tax (CB)
- Matching Tax (MT)

• RTA ¼% Sales Tax (ST)

 County Option Motor Fuel Tax (CMFT)

Motor Fuel Tax (MFT)

A diverse mix of funding streams helps ensure sustainability and predictability of transportation funding that is essential for long-term capital programming.





#### **Fund Sources** Federal, State, Local Partners

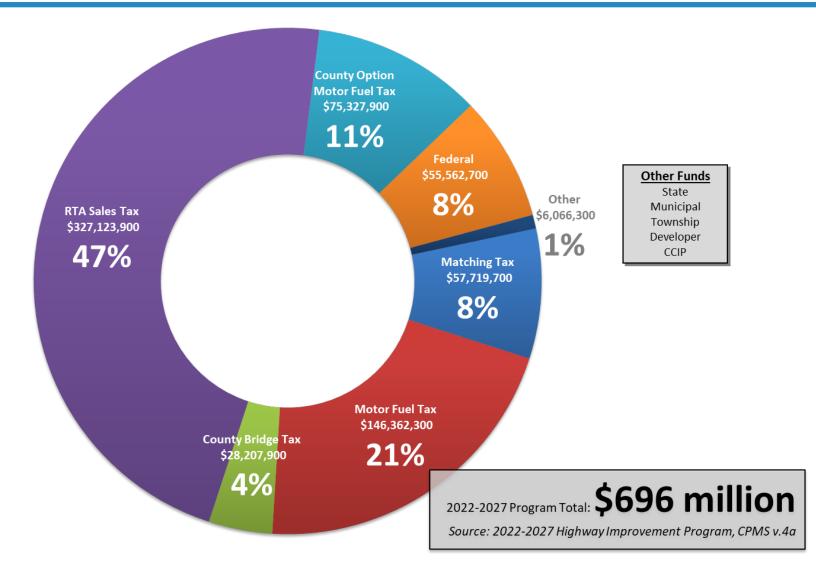


#### Partial List of Commonly Pursued Outside Fund Sources

- **CMAQ** Congestion Mitigation and Air Quality
- **DCEO** Illinois Department of Commerce & Économic Opportunity
- **HBP** Highway Bridge Program
- HSIP Highway Safety Improvement Program
- ICC Illinois Commerce Commission Railroad Grade Crossing Protection
- **IILA/BIL** Infrastructure Investment & Jobs Act/Bipartisan Infrastructure Law
- **ITEP** Illinois Transportation Enhancement Program
- LA Local Agency Partnerships and Reimbursements
- **RAISE** Rebuilding American Infrastructure with Sustainability and Equity
- **RBI** Rebuild Illinois Bonds
- **STP** Surface Transportation Block Grant
- **TAP** Transportation Alternatives Program
- **5310** Mobility of Seniors and Individuals with Disabilities (Paratransit)
- More...

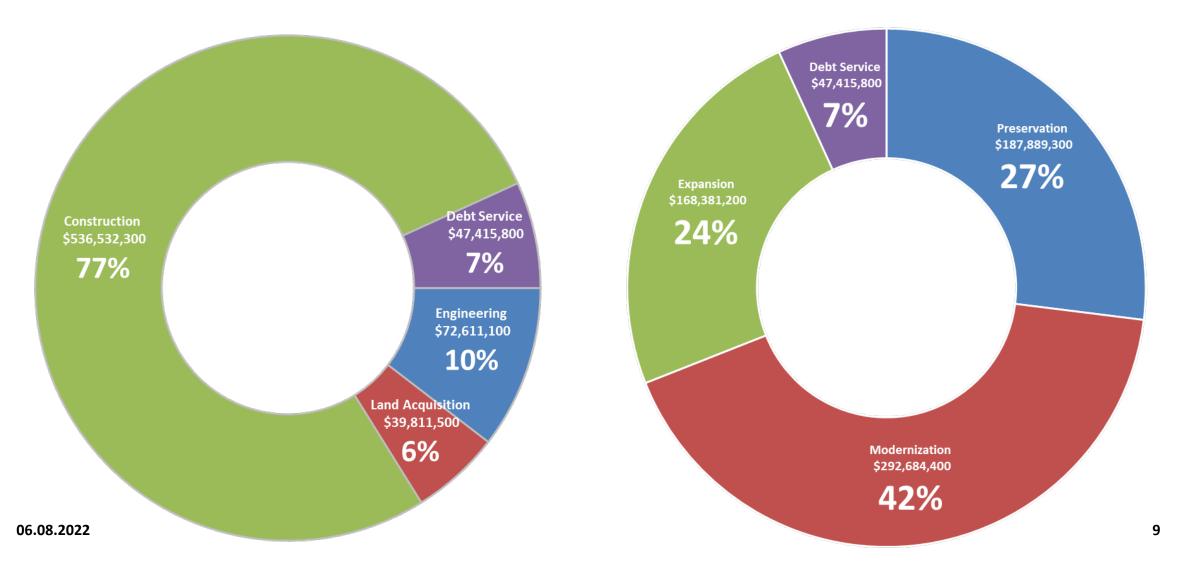
#### **Fund Sources** 2022-2027 Program Totals





#### Fund Distribution 2022-2027 Program Totals





#### New Program Revenue County Option Motor Fuel Tax

#### **Total Program Revenue**

#### **Programmed Expenses**

Arlington Heights Rd Reconstruction (Lake Cook to IL83) Cedar Lake Rd Realignment (Hart to Nippersink) Darrell Rd at Roberts Rd Intersection Fairfield Rd Corridor Modernization (IL134 to IL60) Lake-Cook Rd Bike Path (Skokie Valley Bike Path to Chicago Botanical Gardens) Lewis Ave Modernization (IL120 to IL137) Peterson Rd and Monaville Rd at CNRR Grade Separation Feasibility Study Stearns School Rd Bridge Replacement at Mill Creek

Collections began July 1, 2021 (4 cents per gallon)

\$75 million

\$17,000,000

\$24,000,000

\$ 3,000,000

\$ 6,000,000

\$ 5,000,000

\$20,000,000

\$ 1,500,000

500,000



Numbers rounded

### **Program Priorities**



1. Preservation	2. Modernization	3. Expansion
<ul> <li>Keep roads, bridges, drainage systems, and other assets in good condition</li> </ul>	<ul> <li>Reduce delays and increase safety</li> <li>Non-motorized accommodation</li> <li>Use technology</li> </ul>	<ul> <li>Accommodate regional traffic and economic development</li> <li>Countywide Paratransit</li> </ul>

### **Priority One: Preservation**



**Project selection tools:** 

- Asset inventories
- Condition assessments
- Life cycle/benefit cost analysis
- Unit cost information
- Industry standards
- Innovative techniques

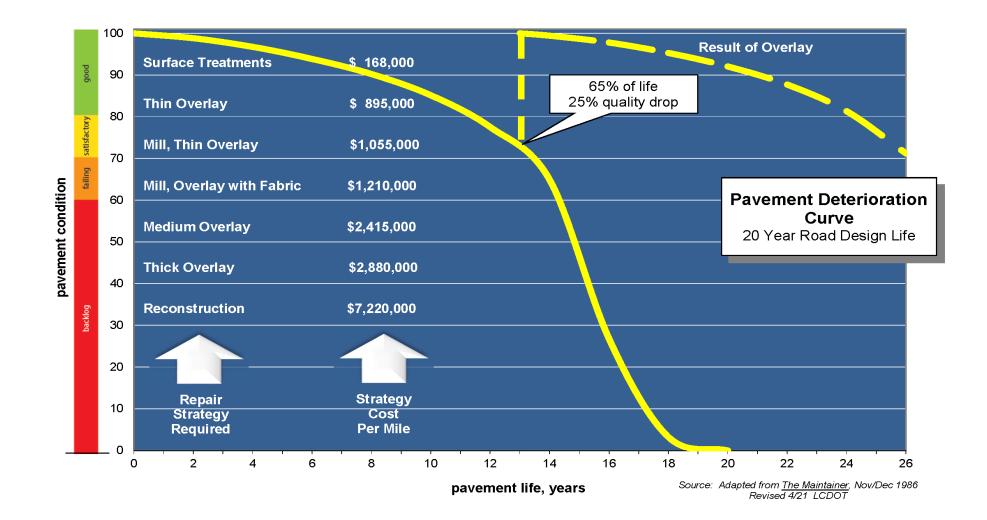
**Typical projects include:** 

- Resurfacing and other pavement treatments
- Annual maintenance work



#### Life Cycle Analysis Investments at the right time



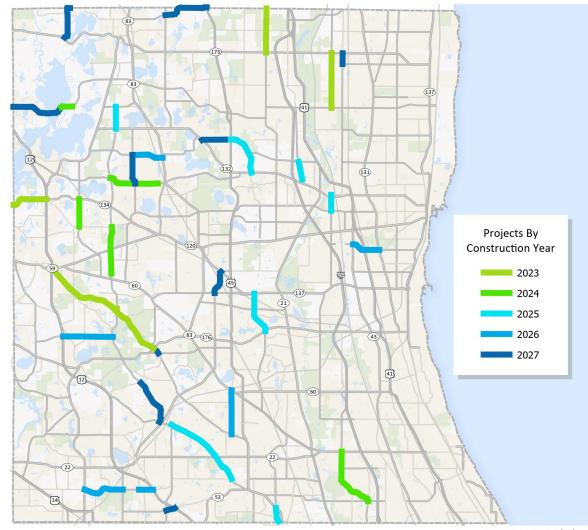


## **Resurfacing Projects**



Pavement Management Program Recommended

- 2023: 12.4 miles
- 2024: 9.4 miles
- 2025: 11.0 miles
- 2026: 9.5 miles
- 2027: 13.1 miles



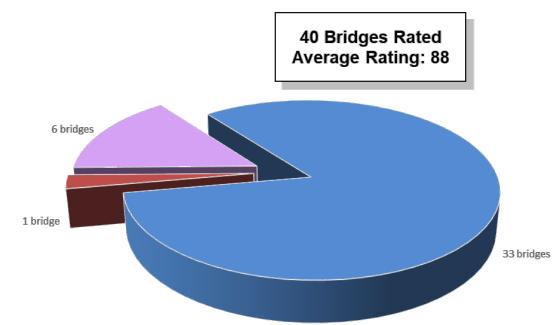
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## Lake County's Bridges



- Highway Bridges
  - Number of bridges 44
  - Average age (years) 28
  - Average deck age (years) 19
- Bike and Pedestrian Bridges
  - Number of bridges 15
  - Number of tunnels 15
- 74 Total Bridges and Tunnels

#### Sufficiency Ratings: Lake County's Bridges



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#### 06.08.2022

### **Asset Inventories**

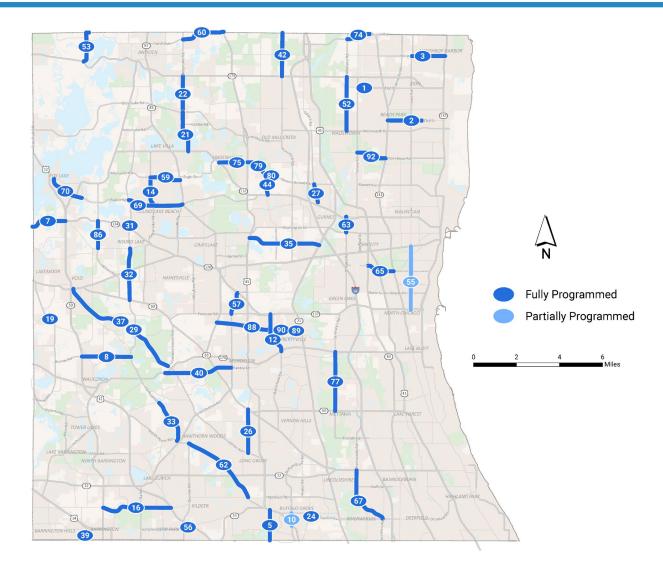
- Pavement and bike facilities
- Guardrail, bridges, rail crossings
- Signals and signs
- Drainage and stormwater facilities
- Fencing
- More...





### Preservation | 2022 - 2027





### **Preservation Projects**



		Preservation Projects		
Map ID	Route	Work Type	Program Year	CPMS PIN
1	21st St.	Culvert Replacement	2022	B-01548b
2	33rd St.	Resurfacing	2022	B-01489a
3	9th St.	Microsurfacing	2022	B-01622a
5	Arlington Heights Rd.	Reconstruction	2023	B-01182
7	Big Hollow Rd.	Resurfacing	2022	B-01492
8	Bonner Rd.	Resurfacing	2026	B-01382
10	Buffalo Grove Rd.	Reconstruction	Post-2027	B-01359
12	Butterfield Rd.	Resurfacing	2025	B-01636a
14	Cedar Lake Rd.	Resurfacing	2027	B-01395
16	Cuba Rd.	Resurfacing	2026	B-01678
19	Darrell Rd.	Culvert Replacement	2023	B-00141c
21	Deep Lake Rd.	3R Resurfacing	2022	B-00913a
22	Deep Lake Rd.	Resurfacing	2022	B-00913b
24	Deerfield Pkwy.*	Concrete Repair	2023	B-01708
26	Diamond Lake Rd.	Resurfacing	2026	B-01585
27	Dilley's Rd.	Microsurfacing	2027	B-01635
29	Fairfield & Gilmer Connector Ramp	Resurfacing	2023	B-01631b
31	Fairfield Rd.	Culvert Replacement	2023	B-01434
32	Fairfield Rd.	Resurfacing	2024	B-01634
33	Fairfield Rd.*	Resurfacing	2023	B-01706
35	Gages Lake Rd.	Resurfacing	2022	B-01537
37	Gilmer Rd.	Resurfacing	2023	B-01631a
39	Hart Rd.	Bridge Replacement	2022	B-01372b
40	Hawley St.	Resurfacing	2022	B-01490
42	Hunt Club Rd.	Resurfacing	2023	B-01539
44	Hutchins Rd.	Resurfacing	2025	B-01676
52	Kilbourne Rd.	Resurfacing and Intersection Improvement	2023	B-01576

53	Lake Ave.	Resurfacing	2027	B-01580
55	Lewis Ave.	Reconstruction	Post-2027	B-01452b
56	Long Grove Rd.	Resurfacing	2027	B-01674
57	Midlothian Rd.	Resurfacing	2027	B-01581
59	Monaville Rd.	Resurfacing	2026	B-01538
60	North Ave.	Resurfacing	2027	B-01582
62	Old McHenry Rd.	Resurfacing	2025	B-01673
63	O'Plaine Rd.	Resurfacing	2025	B-01677
65	Pulaski Dr.	Resurfacing	2026	B-01577
67	Riverwoods Rd.	Resurfacing	2024	B-01494
69	Rollins Rd.	Resurfacing	2025	B-01495
70	Rollins Rd.*	Resurfacing	2024	B-01705
74	Russell Rd.*	Resurfacing	2024	B-01704
75	Sand Lake Rd.	Resurfacing	2027	B-01681
77	St. Mary's Rd.	3R Resurfacing	2022	B-01381
79	Stearns School Rd.	Resurfacing	2025	B-01496
80	Stearns School Rd.	Bridge Construction	2022	B-01499b
86	Wilson Rd.	Resurfacing	2024	B-01641
88	Winchester Rd.	Resurfacing	2023	B-01537a
89	Winchester Rd.	Resurfacing	2023	B-01573b
90	Winchester Rd.	Culvert Replacement	2023	B-01573c
92	York House Rd.	Resurfacing	2022	B-01534

\* New to this year's Five Year Program

### What's New in Preservation?



- Roadway Resurfacing Projects:
  - Cedar Lake Rd, Monaville Rollins
  - Fairfield Rd, Milton Old McHenry
  - Lake Ave, State Line IL173
  - Long Grove Rd, Quentin US12
  - Midlothian Rd, IL137 Peterson
  - North Ave, Deep Lake US45
  - Sand Lake Rd, IL132 US45

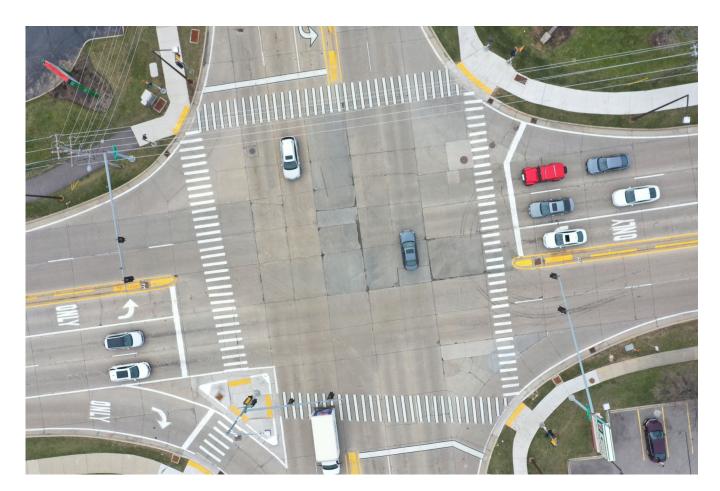
- Annual Work at Various Locations:
  - Bridge repairs
  - Crack sealing
  - Microsurfacing
  - Pavement patching
  - Pavement rejuvenator
  - Pavement markers
  - Pavement markings
  - Drainage system cleaning
  - Culvert repair or replacement
  - Retaining wall repair or replacement
  - Roadway signs
  - Curb and gutter repair or replacement
  - Rumble strips
  - Sidewalk and ADA curb ramps
  - Guardrail repair or replacement
  - Township road district projects

#### Project Highlight: Deerfield Rd at Weiland Rd Patching



- Concrete patching project
- Deteriorated joints and pavement condition

LCDOT's GIS staff are licensed drone pilots and can perform various asset management tasks.



Overhead photo source: Dot the drone

#### Project Highlight: Center and Edge Line Rumble Strips



- New systemwide safety countermeasure intended to reduce roadway departures:
  - Run-off-road crashes
  - Head-on crashes
- Recently resurfaced two-lane county highways with posted speed limits of 45 mph and over

#### "The sound of safety"

FHWA Report No. FHWA-SA-16-115



### **Priority Two: Modernization**



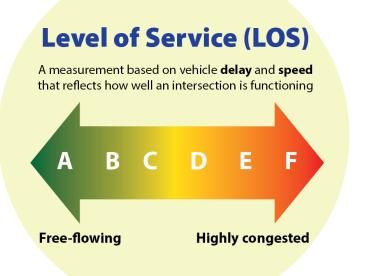
- Project selection tools:
  - Traffic and safety analysis
  - Level of Service (LOS) data
  - PASSAGE data
  - 2040 bike and pedestrian priorities
  - Non-motorized policy
  - Bike/Pedestrian gap analysis
- Typical projects include:
  - Intersection and safety improvements
  - Bike and pedestrian accommodations
  - Signal timing and interconnects



### **Level of Service Data**



#### • County involved, signalized intersections and roundabouts



LCDOT uses *Synchro* traffic analysis software to evaluate intersection operations and performance

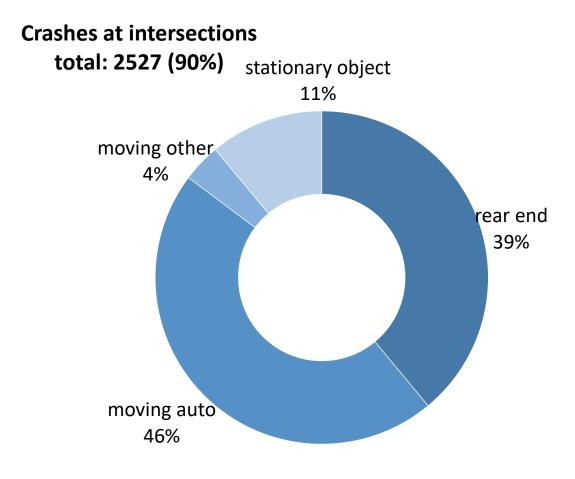
<ul> <li>Roundabouts (5 total)</li> </ul>					
	Level of Service	AM Peak Hour	PM Peak Hour		
(best)	А	2	1		
	В	3	2		
	С	0	2		
	D	0	0		
	E	0	0		
(worst)	F	0	0		

<ul> <li>Signalized intersections (313 total)</li> </ul>					
Level of Service AM Peak Hour PM Peak Hour					
(best)	А	97	64		
	В	73	73		
	С	89	79		
	D	33	59		
	E	7	22		
(worst)	F	14	16		

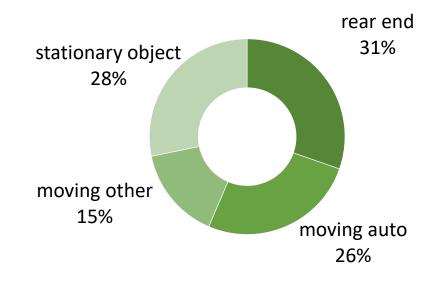
Source: LCDOT Traffic Department 3/2020

### **Crash Summary**





#### Crashes on roadway sections Total: 280 (10%)

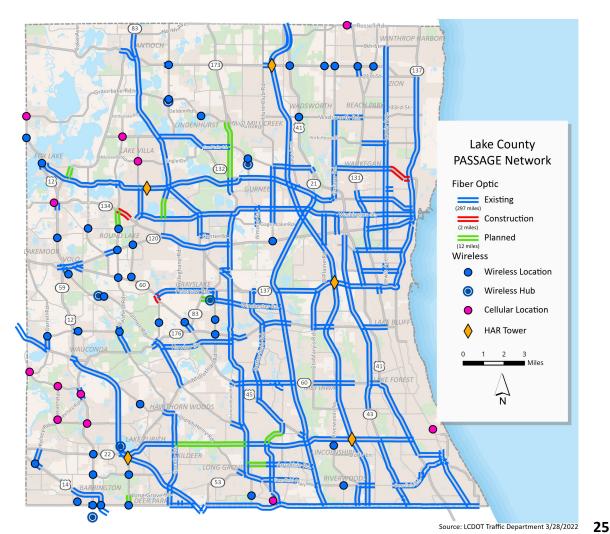


Data Source: LCDOT Traffic Department, 4/2022 IDOT 2020 crash data (most recent available)

#### Lake County's Traffic Signal and Communication Network

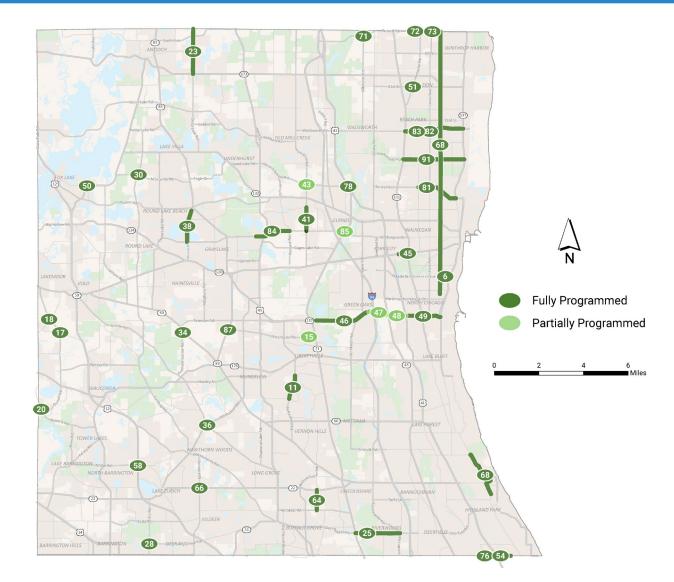


- 308 miles of fiber optic in place
- 6 miles under construction
- 12 miles planned
- 663 Traffic signals connected
- 441 PTZ Cameras
- 1 Portable PTZ (cell)
- 9 Portable changeable message board signs
- 5 Highway Advisory Radio (HAR) towers – Radio 1620AM



### Modernization 2022 - 2027 KakeCounty Division of Transportation





### **Modernization Projects**



Modernization Projects				
Map ID	Route	Work Type	Program Year	CPMS PIN
6	Audrey Nixon Blvd.	Resurfacing	2022	B-01002b
11	Butterfield Rd.*	Bike Path	2023	B-01617b
15	County Libertyville Campus*	Multiuse Maintenance Facility	Post-2027	B-01709
17	Darrell Rd.	Intersection Improvement	2023	B-00141a
18	Darrell Rd.	Intersection Improvement	2025	B-00141b
20	Darrell Rd.*	Intersection Improvement	2026	B-01703
23	Deep Lake Rd.	Intersection Improvements	2023	B-01547
25	Deerfield Rd.	Reconstruct and Widen	2024	B-01266a
28	Ela Rd.	Intersection Improvement	2022	B-01120
30	Fairfield Rd.	Roundabout	2022	B-01184a
34	Fremont Center Rd.	Intersection Improvement	2022	B-00474c
36	Gilmer Rd.	Intersection Improvement	2022	B-00728a
38	Hainesville Rd.	Reconstruct and Widen	2025	B-01482
41	Hunt Club Rd.	Intersection Improvement	2022	B-01437
43	Hunt Club Rd.*	Intersection Improvement	Post-2027	B-01707
45	IL Rte. 120	Widening	2022	B-00740
46	Patriot Path	Bike Path	2026	B-01181a
47	Patriot Path	Bike Path	Post-2027	B-01181b
48	Patriot Path	Bike Path	Post-2027	B-01181c
49	Patriot Path	Bike Path	2025	B-01181d
50	IL Rte. 59	Intersection Improvement	2022	B-00738
51	Kenosha Rd.	Intersection Improvement	2024	B-01548
54	Lake-Cook Rd.	Bike Path	2026	B-01616
58	Miller Rd.	Intersection Improvement	2022	B-01263
64	Prairie Rd.	Intersection Improvement and Reconstruction	2024	B-01500
66	Quentin Rd.	Non-Motorized Enhancements	2022	B-01572
68	Robert McClory Bike Path*	Bike Path Enhancements	2025	B-01702

	<i>i</i>			
71	Russell Rd.	Intersection Improvement	2024	B-01445a
72	Russell Rd.	Intersection Improvement	2025	B-01445b
73	Russell Rd.	Intersection Improvement	2025	B-01445b
76	Skokie Valley Bike Path**	Bike Path Bridge	2022	B-01150
78	Stearns School Rd.	Intersection Improvement	2023	B-01361
81	Sunset Ave./Golf Rd./Greenwood Ave.	ITS PASSAGE	2022	B-01033
82	Wadsworth Rd.	Intersection Improvement	2022	B-01119
83	Wadsworth Rd.	Resurface and Widen	2024	B-01402a
84	Washington St.	Non-Motorized Travel Gap Infrastructure	2024	B-01419a
85	Washington St.*	Intersection Improvement	Post-2027	B-01700
87	Winchester Rd.	Intersection Improvement	2023	B-01365
91	York House Rd.	Resurface and Widen	2027	B-01509

\* New to this year's Five Year Program \*\* LCDOT is not the Lead Agency

#### What's New in Modernization?

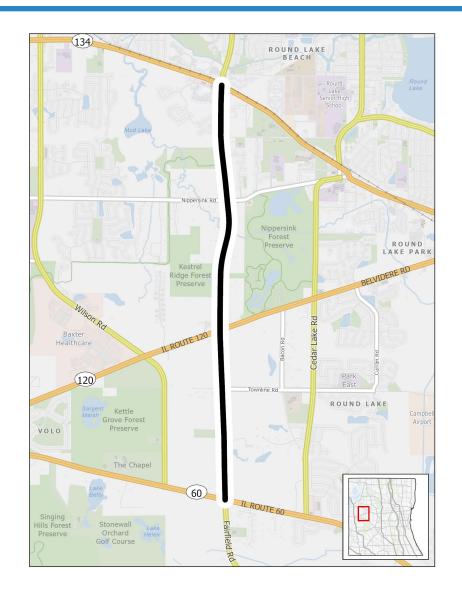


- Butterfield Bike Path: Gregg's Parkway to Golf Rd (Construction)
- CN crossings: Peterson Rd and Monaville Rd (Feasibility study)
- Washington St at IL21: Intersection Improvement (Engineering)
- New traffic signals: Sunset at Northern and Deerfield at Barclay
- Robert McClory Bike Path Improvements: paving, road crossings, landscaping
- Darrell Rd at Roberts Rd: Intersection study
- Hunt Club Rd at Stearns School Rd: Intersection study
- Hunt Club at Washington St (Construction)
- Hainesville Rd: Washington to Rollins (Construction)
- Patriot Path: segment 4 US41 to Robert McClory Path (Construction phase)
- LCDOT Multi-use Maintenance Facility: Feasibility Study and Design Engineering

### Project Highlight: Fairfield Rd Study



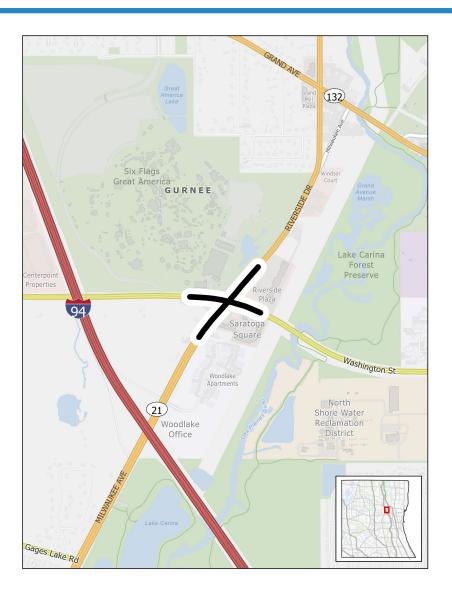
- Engineering study to modernize corridor and intersections with safety, operational, and nonmotorized improvements
- Study limits: IL134 to IL60
- Average daily traffic 12,000-16,000
- Included in 2040 Transportation
   Plan



#### Project Highlight: Washington St at IL21



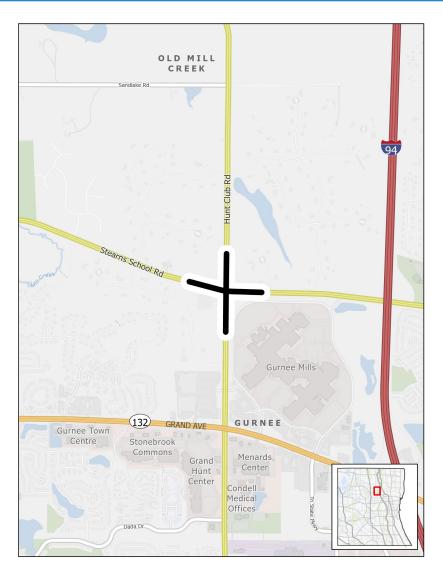
- Engineering study to enhance safety at the intersection
- 133 crashes (2016-2020): 1 fatal, 46 injury
- County/State intersection with nearly 50,000 vehicles per day
- 30,000+ vehicles per day on Washington Street



#### Project Highlight: Hunt Club Rd at Stearns School Rd



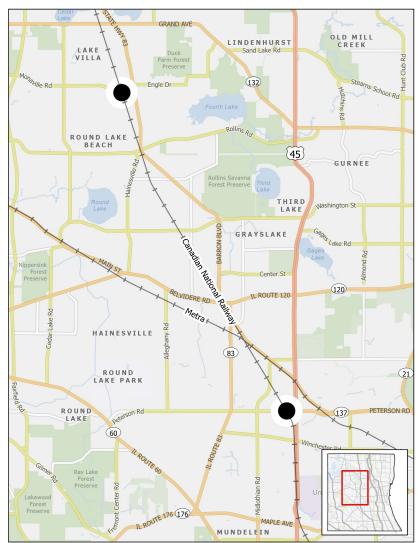
- Engineering study to consider safety improvements, including potential roundabout
- 50 crashes (2016-2020): 11 injury
- 15,000 vehicles per day on Stearns School Rd
- 20,000 vehicles per day on Hunt Club Rd
- Included in 2040 Transportation Plan



# Project Highlight: Peterson Rd & Monaville Rd at CNRR



- Feasibility Study beginning in FY2022
- Peterson Rd and Monaville Rd improvements at Canadian National Railroad (CNRR)
- Coordination with CNRR regarding long-term track improvements along North Central Line



#### Project Highlight: Multi-Use Maintenance Facility



- Feasibility study and design services
- Goals:
  - Modern design that meets current and future (50+ years) needs
  - Energy and operationally efficient
  - Consolidate existing 1950s-70s spaces: truck storage, light duty, parts, snow command, and sign shop
  - Potential storage options for outside departments/agencies
  - Potential flexible meeting spaces for 40-60 staff
  - Potential loading dock for Libertyville campus





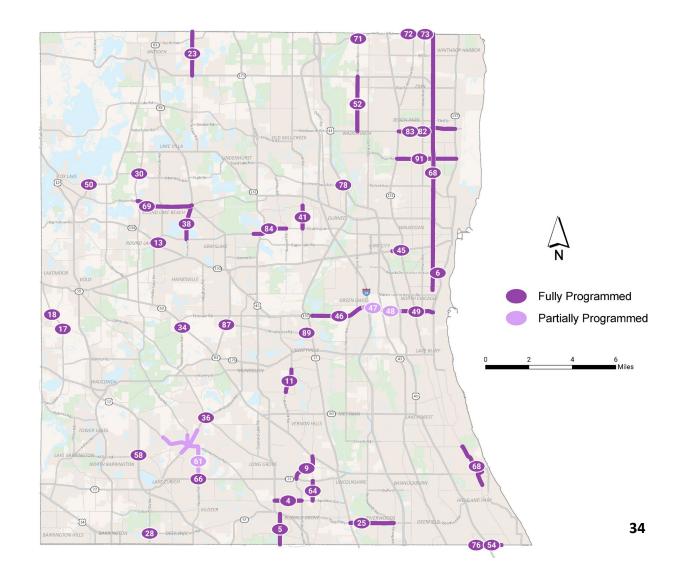






# \$72 Million Investment +10% of program funds

- 34.6 miles of paved shoulder
- 45.1 miles of bike path
- 21.7 miles of sidewalk



### **Non-motorized projects**



	Non-	Motorized Accommodations Projects		
Map ID	Route	Non-Motorized Improvement Type	Program Year	CPMS PIN
4	Aptakisic Rd.	Bike Path, Paved Shoulder, Sidewalk	2022	B-00739a
5	Arlington Heights Rd.	Bike Path, Paved Shoulder, Sidewalk	2023	B-01182
6	Audrey Nixon Blvd.	Paved Shoulder	2022	B-01002b
9	Buffalo Grove Rd.	Bike Path, Paved Shoulder, Sidewalk	2026	B-01358
11	Butterfield Rd.*	Bike Path	2023	B-01617b
13	Cedar Lake Rd.	Bike Path, Paved Shoulder, Sidewalk	2024	B-00752
17	Darrell Rd.	Bike Path, Paved Shoulder	2023	B-00141a
18	Darrell Rd.	Bike Path, Paved Shoulder	2025	B-00141b
23	Deep Lake Rd.	Bike Path, Paved Shoulder	2023	B-01547
25	Deerfield Rd.	Bike Path, Paved Shoulder, Sidewalk	2024	B-01266a
28	Ela Rd.	Bike Path, Bike Lanes	2022	B-01120
30	Fairfield Rd.	Sidewalk	2022	B-01184a
34	Fremont Center Rd.	Bike Path	2022	B-00474c
36	Gilmer Rd.	Bike Path, Paved Shoulder, Sidewalk	2022	B-00728a
38	Hainesville Rd.	Bike Path, Paved Shoulder, Sidewalk	2025	B-01482
41	Hunt Club Rd.	Bike Path, Sidewalk	2022	B-01437
45	IL Rte. 120	Sidewalk	2022	B-00740
46	Patriot Path	Bike Path	2026	B-01181a
47	Patriot Path	Bike Path	Post-2027	B-01181b
48	Patriot Path	Bike Path	Post-2027	B-01181c
49	Patriot Path	Bike Path	2025	B-01181d
50	IL Rte. 59	Bike Path, Sidewalk	2022	B-00738
52	Kilbourne Rd.	Paved Shoulder, Sidewalk	2023	B-01576

		,		
54	Lake-Cook Rd.	Bike Path	2026	B-01616
58	Miller Rd.	Sidewalk	2022	B-01263
61	Old McHenry Rd.	Bike Path, Paved Shoulder, Sidewalk	Post-2027	B-01546
64	Prairie Rd.	Bike Path, Paved Shoulder, Sidewalk	2024	B-01500
66	Quentin Rd.	Sidewalk	2022	B-01572
68	Robert McClory Bike Path*	Bike Path	2025	B-01702
69	Rollins Rd.	Sidewalk	2025	B-01495
71	Russell Rd.	Bike Path, Paved Shoulder	2024	B-01445a
72	Russell Rd.	Bike Path, Paved Shoulder	2025	B-01445b
73	Russell Rd.	Bike Path, Paved Shoulder	2025	B-01445b
76	Skokie Valley Bike Path**	Bike Path	2022	B-01150
78	Stearns School Rd.	Paved Shoulder, Sidewalk	2023	B-01361
82	Wadsworth Rd.	Bike Path, Sidewalk	2022	B-01119
83	Wadsworth Rd.	Bike Path, Paved Shoulder	2024	B-01402a
84	Washington St.	Bike Path	2024	B-01419a
87	Winchester Rd.	Paved Shoulder	2023	B-01365
89	Winchester Rd.	Bike Path	2023	B-01573b
91	York House Rd.	Paved Shoulder	2027	B-01509

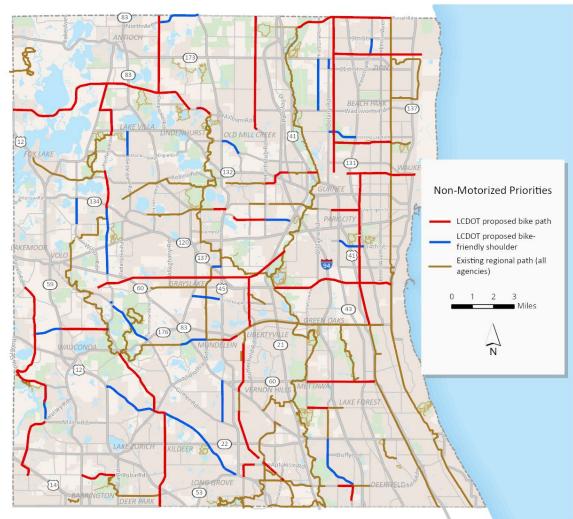
\* New to this year's Five Year Program

\*\* LCDOT is not the Lead Agency

#### **Bike and Pedestrian Priorities**



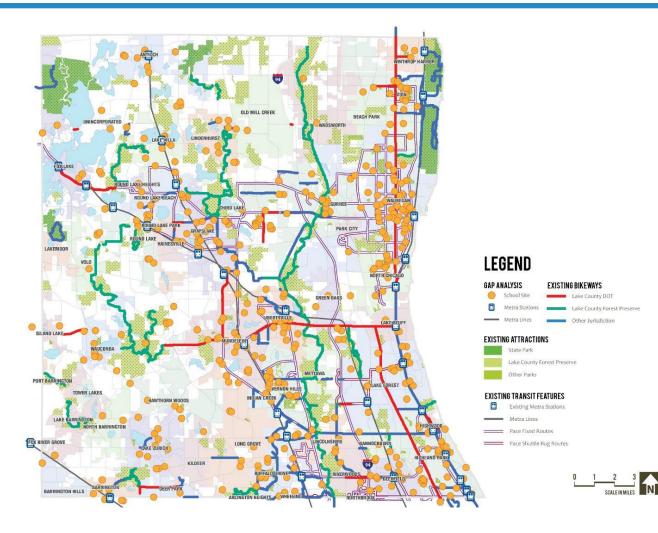
- Lake County's 2040 Nonmotorized plan identifies 310 miles of proposed bike paths
  - 107 miles under LCDOT jurisdiction
  - 43 miles under LCFPD jurisdiction
  - 160 miles under other jurisdiction, such as State, municipality, or township
- Advance as stand-alone projects or combined with adjacent roadway project work



## **Bike and Sidewalk Gap Analysis**



- 2010 study identified 58 strategic gaps, that if filled, would provide regional connectivity
- County pays 100% of cost to fill gaps with local sponsor to own and maintain
- To date, 77% have been programmed or completed



# Project Highlight: McClory Bike Path



- Pave northern 11-mile segment of gravel path
- Reconstruct portions of southern segments owned by LCDOT
- Improve multiple uncontrolled crossings at 4- & 5-lane roads
- Coordinate with local communities to enhance the corridor with trail amenities



#### Project Highlight: Wayfinding Signs

- Install Explore Lake County Wayfinding Signage
  - North Shore Path
  - Robert McClory Path
  - Skokie Valley Path

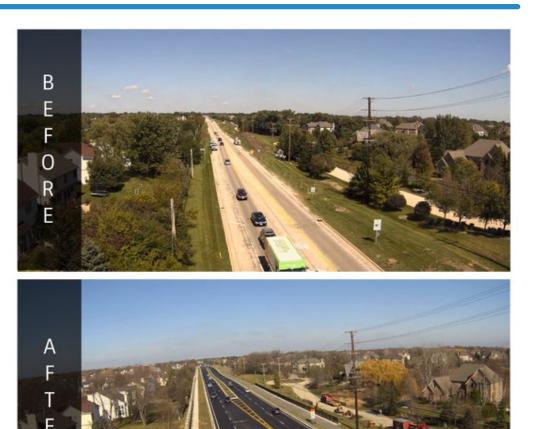




# **Priority Three: Expansion**

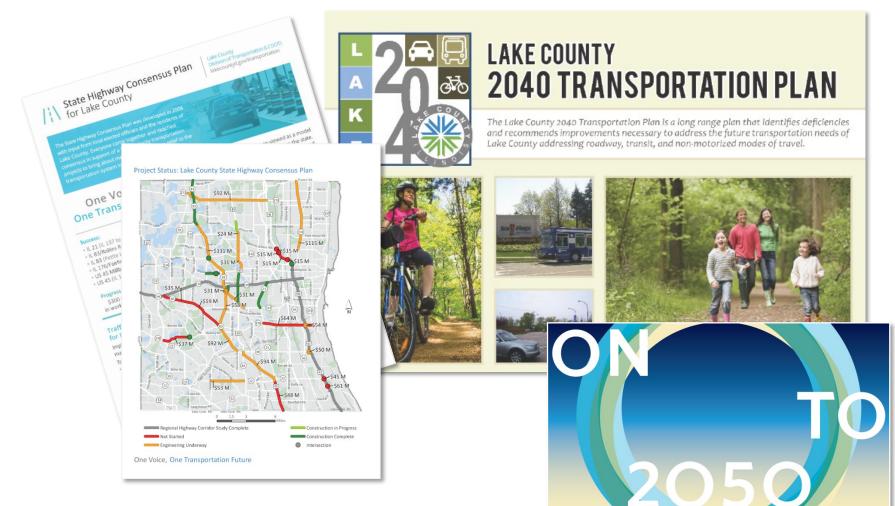


- Project selection tools:
  - Lake County 2040 Transportation Plan
  - State Highway Consensus List
  - CMAP ON TO 2050 Regional Plan
  - IDOT Multi-Year Plan
  - Traffic and Safety Data
  - Demographic Trends
  - Inclusive Growth
- Typical projects include:
  - Add lanes
  - Grade separations
  - Realigned or extended roads
  - Paratransit



# **Regional Plans**





FY 2022 - 2027
 Proposed Highway Improvement Program











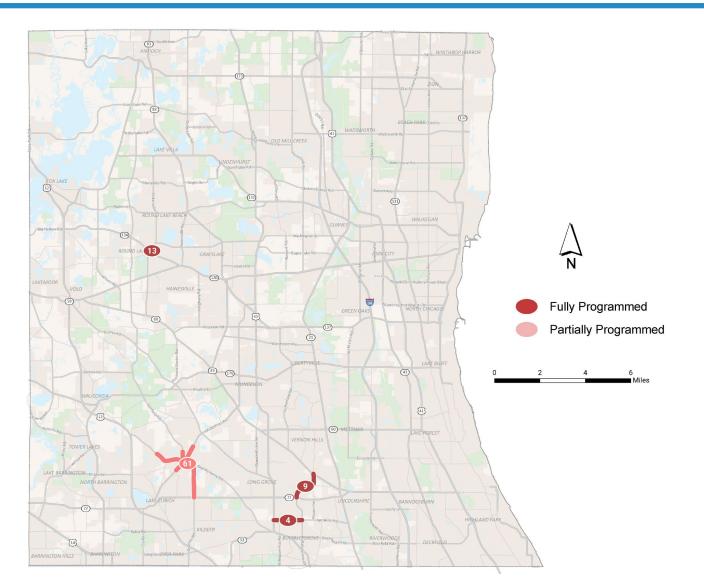




Illinois Department of Transportation

# Expansion | 2022 - 2027





# **Expansion Projects**



Expansion Projects											
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9	Buffalo Grove Rd.	Reconstruct and Widen	2026	B-01358							
13	Cedar Lake Rd.	Realignment	2024	B-00752							
61	Old McHenry Rd.	Reconstruct and Widen	Post-2027	B-01546							

# What's New in Expansion?



- Ride Lake County Borderless Paratransit (Annual Operations)
- Buffalo Grove Rd Widening, IL22 to US45 (Construction)
- Cedar Lake Road Realignment, Hart Rd to Nippersink Rd (Construction)
- Old McHenry Crossings Project (Construction)

#### Project Highlight: Paratransit

- Coordinated Countywide Borderless Service launched May 1, 2022
- Annual county funding to cover 100% of local match
- Ridership information for first month of new service:
  - 1,254 registered riders
  - 1,793 trips taken



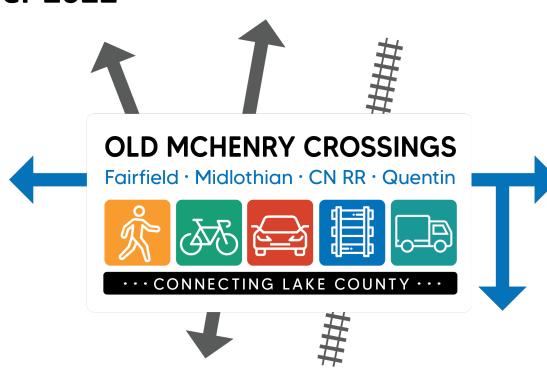
Program Sponsors:





#### Project Highlight: Old McHenry Crossings

- Phase I Engineering Underway
- Public Informational Meeting in Summer 2022





LOCATION AREA MAP



47

# **Thank You!**





- lakecountyil.gov/transportation
- facebook.com/lcdot
- twitter.com/lcdot
- Instagram.com/lakecountydot
- lakecountypassage.com
- lakecountyil.gov/RLC
- Radio 1620AM











# Questions

Shane E. Schneider, P.E. County Engineer 847.377.7400



# Background Asset Information

### **Assets: Pavement**

- Lane miles
- Centerline miles 303

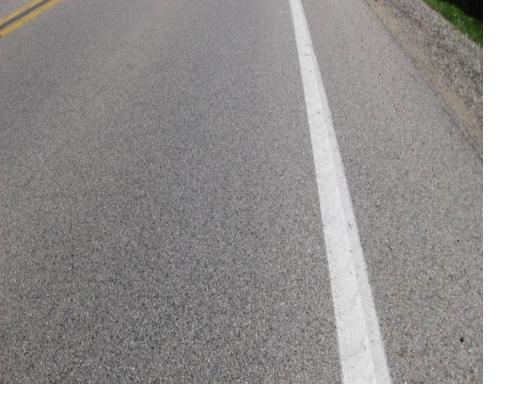
915

223

50

10

- Miles paved shoulder
- Average age of roadway (years)
- Average age of surface (years)





## **Assets: Culverts**

- A variety of culvert materials:
  - Concrete
  - Corrugated metal pipe (CMP)
  - Composite
  - PVC
- More than 650 individual culverts, totaling over 49,000 feet
- Ranging is sizes from 12-inch to 12-feet in diameter





# **Assets: Signs**

- 8,369 Regulatory
- 10,724 Guide
- 5,847 Warning/Object Marker
- 2,2641 Information
- 536 School
- 28,117 Total Signs



Signs installed/maintained by LCDOT Source: LCDOT sign inventory, April,2022



# Assets: Non-Motorized Travel KLakeCounty

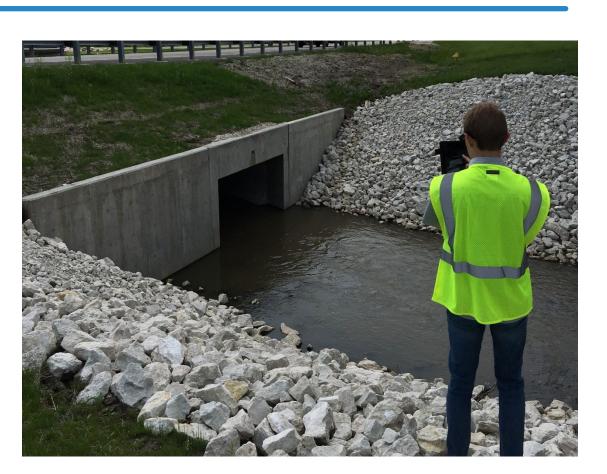
- Bike/pedestrian bridges 15
- Tunnels and underpasses 15
- Miles of bike facilities 65
- Miles of bike friendly shoulder 142



#### 54

## **Assets: Other**

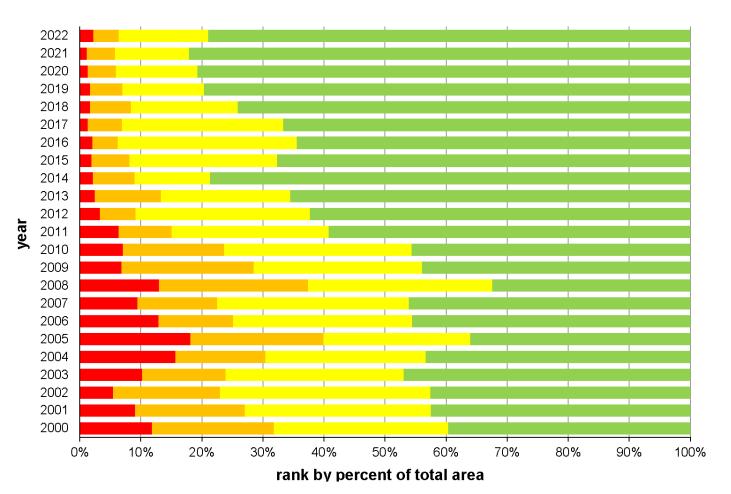
- 17,664 storm sewer structures
- 195 miles of storm sewer pipe
- 653 culverts
- 55 stormwater basins
- 51,118 feet of fencing
- 22,234 feet of retaining wall
- 21 miles of guardrail
- 35 landscape areas (99 acres)





### **ARGUS results**

- Implemented in 1986
- Area of failing pavement reduced from 55% to 1%
- For more information, watch LCDOT's 'Pavement Management Techniques' video at: Lakecountyil.new.swagit. com/videos/16338





#### **ARGUS Pavement Management System**



- For data-driven, cost-effective decisions:
  - Where repairs are needed
  - What repair strategies to use
  - When repairs will be most effective
- Using these program components:
  - County highway database
  - Automated pavement testing
  - Repair strategies with costs
  - Pavement aging predictions
  - Optimization program



Laser surface testing



# **ARGUS Summary**



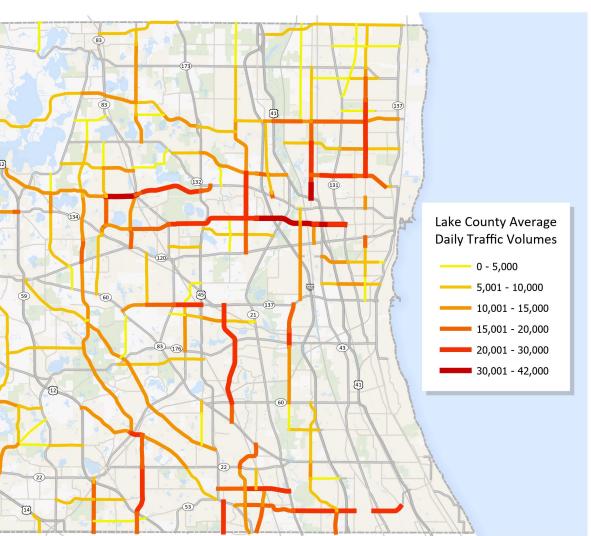
- Pavement management system *does...* 
  - Assess the present condition of the system
  - Estimate future road conditions
  - Identify and rank road projects
  - Maximize the condition of the system within the given budget
- Pavement management system *does not...* 
  - Replace professional judgment
  - Provide certain detailed project-specific information
  - Evaluate storm sewer and other roadway assets

#### Source: LCDOT Traffic Dept. 1/20/2022

#### 06.08.2022

# **Traffic Volumes**

- Traffic volumes and truck traffic are key lifecycle indicators
- More traffic and heavier vehicles impose more stress and strain on the roadway





### Historical Perspective: Crash Data



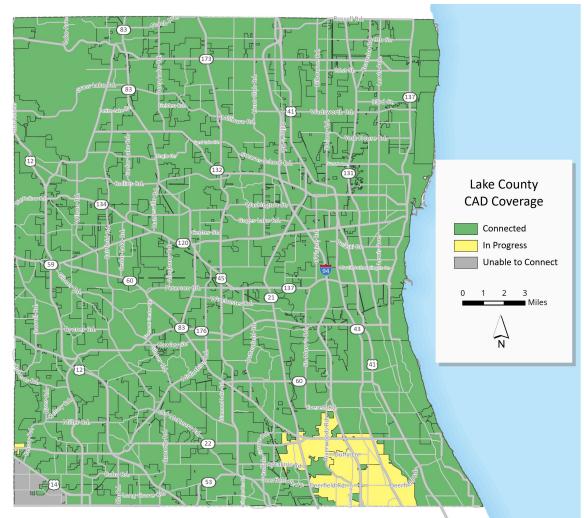
5-year averages	2006- 2010	2007- 2011	2008- 2012	2009- 2013	2010- 2014	2011- 2015	2012- 2016	2013- 2017	2014- 2018	2015- 2019	2016- 2020
Number of crashes	4236	3994	3704	3485	3530	3673	3796	3934	3991	4037	3819
Fatality	8	8	8	7	8	8	10	12	15	15	16
Crash with injury	942	931	952	974	978	1004	1046	1085	1102	1113	1054
Property damage only	3286	3147	2744	2504	2544	2662	2741	2836	2874	2909	2749

Data Source: LCDOT Traffic Department, 4/2022 IDOT 2020 crash data (most recent available)

### **Computer Aided Dispatch (CAD) Partnerships**



- 11 of 12 dispatch centers (via Central Square) connected with Lake County PASSAGE
- Two-way data sharing:
  - Video (LCDOT provides)
  - Incident data (Dispatch centers provides)
  - Combined real-time data shared with public via PASSAGE



60