

# DRAFT

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Director of Transportation/  
County Engineer

Public Works and  
Transportation Committee  
June 6, 2018

Lake County Division of Transportation  
Proposed 2018 - 2023 Highway Improvement Program

## FUNDING, PROJECTS OVERVIEW AND ENDORSEMENT REQUEST

# Presentation Schedule

PWTC 2018 Meeting Date

Presentation Topic

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April 25 • Overview and Program Priorities

June 6 • Funding and Projects / Draft Program Document

# Efficient Transportation Contributes To:



- Quality of life
- Economic vitality
- Environmental value
- Improved safety

# 2040 Transportation Plan



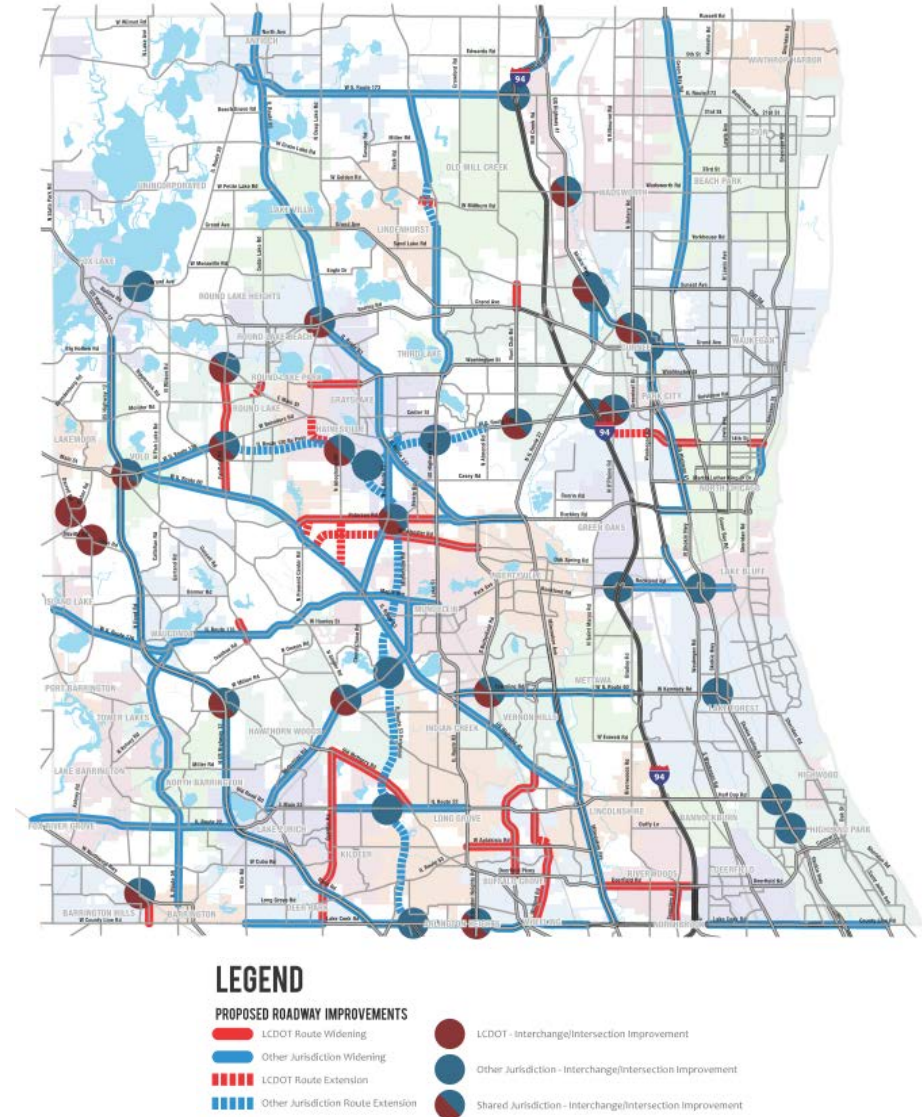
## LAKE COUNTY 2040 TRANSPORTATION PLAN

*The Lake County 2040 Transportation Plan is a long range plan that identifies deficiencies and recommends improvements necessary to address the future transportation needs of Lake County addressing roadway, transit, and non-motorized modes of travel.*



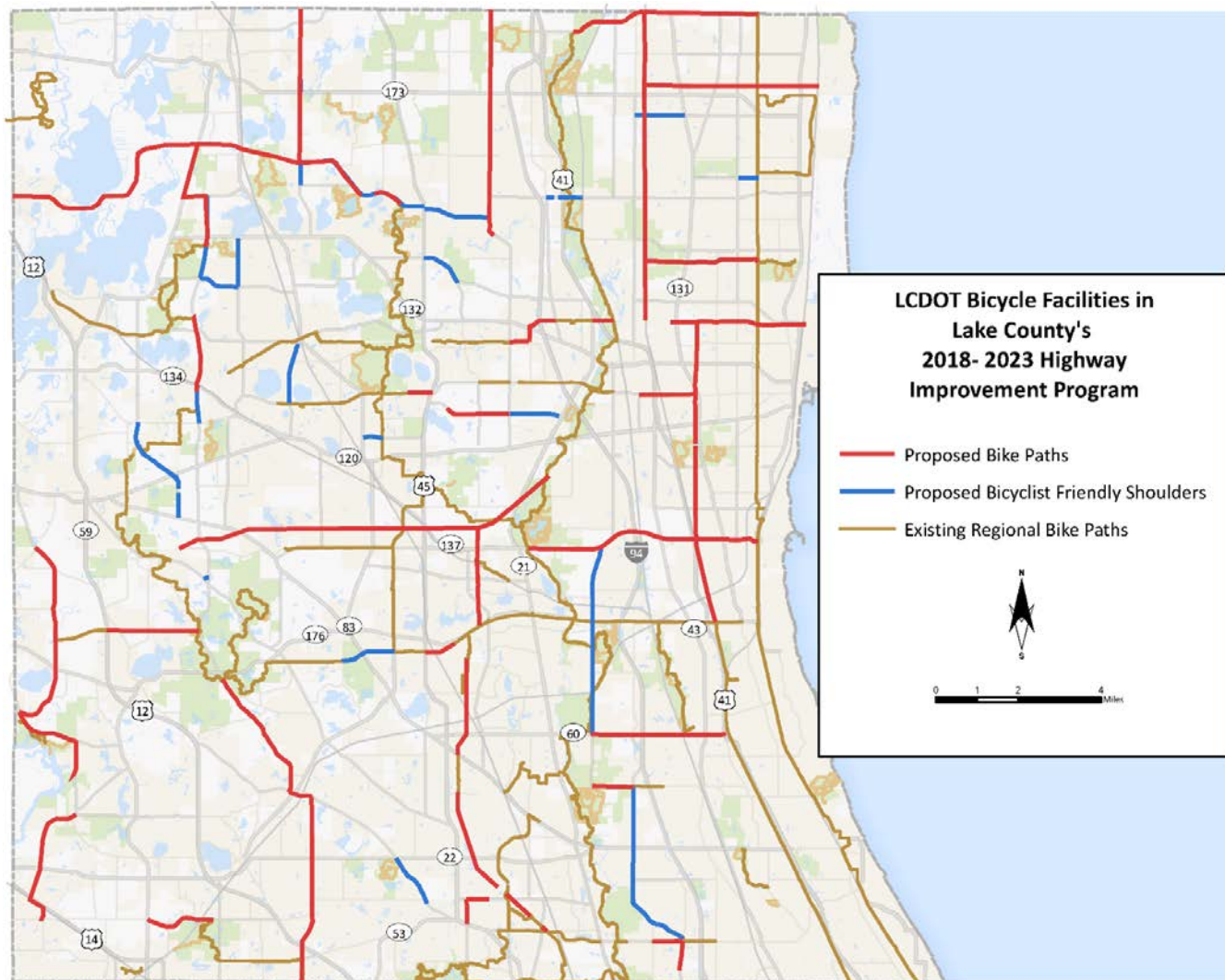
# 2040 Roadway Priorities

- Peak period trips estimated to increase by **36%** between 2010 and 2040
- **212** miles of roadway Improvements recommended
  - **7** interchange
  - **9** intersection
  - **65** corridor



\* Potential railroad grade separations are noted in the Appendix.

# 2040 Bike Paths



Source: LCDOT Information Services Group/Design Department 4/9/2018

# Improving transportation a top strategic goal for Lake County and regional partners



# Lake County Strategic Plan Goals



## GOAL: Improve Transportation

**STRATEGIC STATEMENT:** Advance the development of *State, Regional, County*, and municipal transportation systems that provide for safe, efficient, and flexible movement through an integrated network of *road, rail, public transit*, and non-motorized (*bicycle, pedestrian*) modes of travel.



- Investigate alternatives to single-occupancy vehicles
- Leverage new and emerging technologies (*PASSAGE*)
- Advance transportation solutions by collaborating with state, regional, and local agencies
- Advocate for permanent and sustainable transportation funding
- Reduce number of fatal and serious injury crashes

# Goal: Investigate alternatives to single-occupancy vehicles

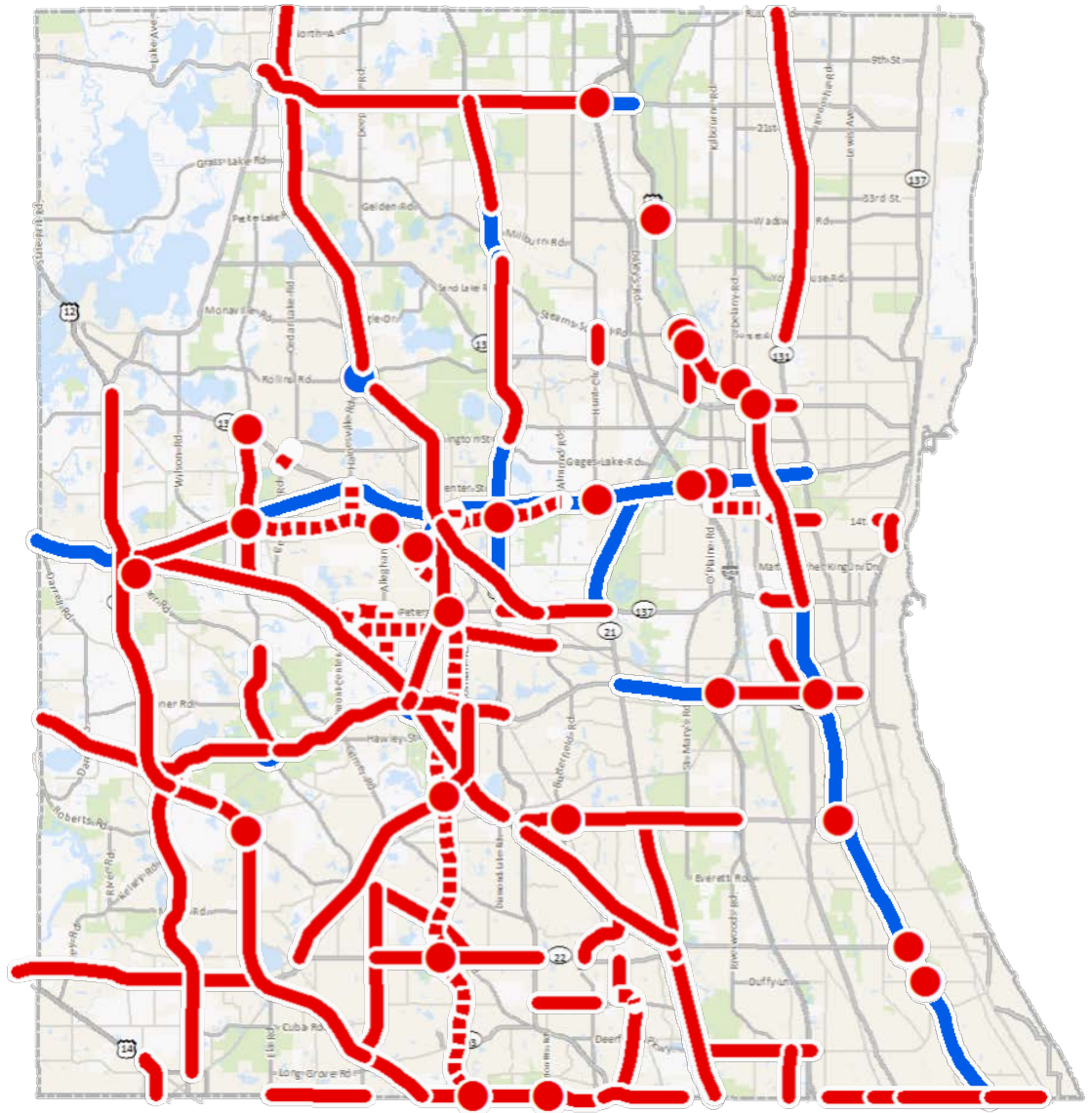


Goal:  
Leverage  
new and  
emerging  
technologies



# Goal: Advance transportation solutions by collaborating with state, regional, and local agencies

- Consensus projects
- 2040 projects
- Both LCDOT and IDOT projects



Goal:  
Advocate for  
permanent and  
sustainable  
transportation  
funding



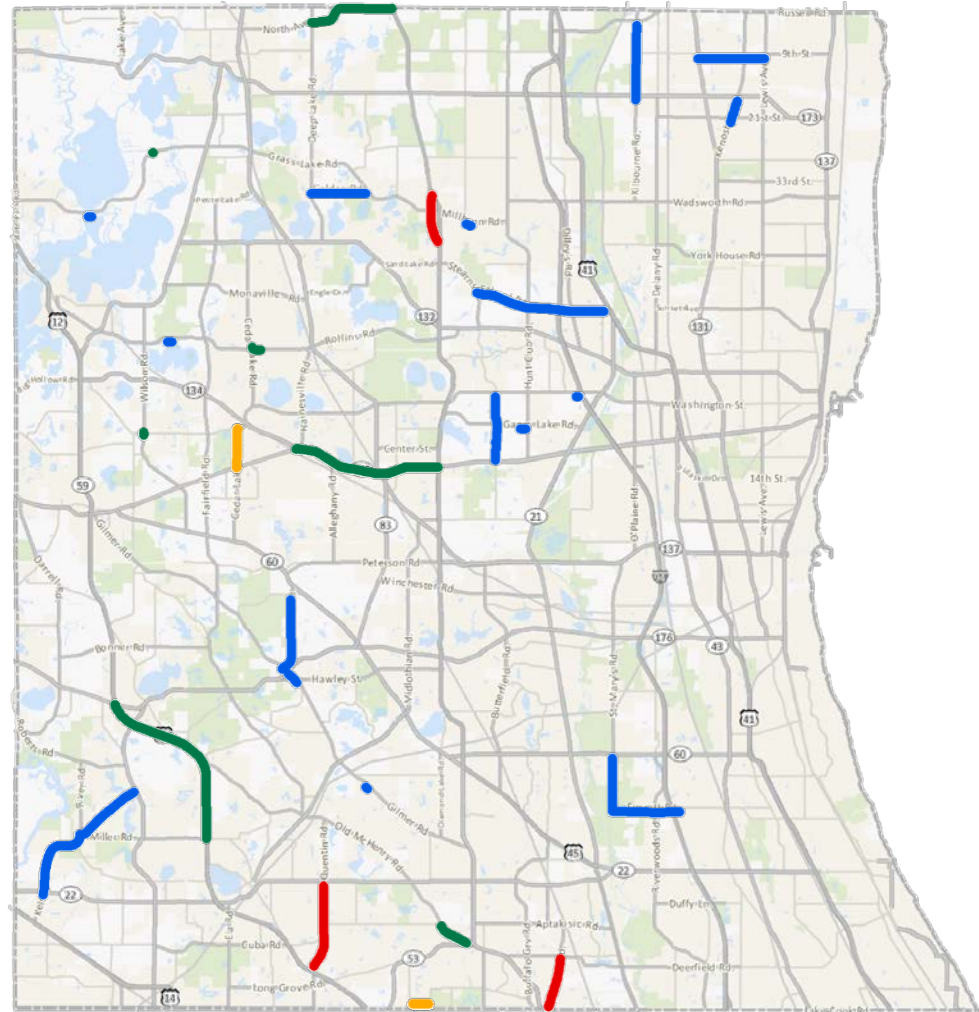
# Goal: Reduce number of fatal and serious injury crashes

Here in Lake County, we want to urge everyone to



# 2018 Construction Program \$100 Million

- Continued from 2017
- Preservation
- Modernization
- Expansion



# \$6.6M continued from 2017



## Buffalo Creek

Des Plaines River Watershed  
**new wetland mitigation bank**

## Cedar Lake Rd

from IL Route 120 to Nippersink Rd  
**widen and reconstruct**



# \$94M in new projects

**Old McHenry Rd**, reconstruction with drainage improvements at Robert Parker Coffin Rd

**Quentin Rd**, reconstruct and widen to four lanes from White Pine Ln to south of IL Route 22

**Weiland Rd**, reconstruct and widen to four lanes from Lake Cook Rd to Deerfield Pkwy

**Millburn Bypass of US Route 45**, realign and reconstruct north of Grass Lake Rd to south of Millburn Rd (*IDOT is lead agency*)

## Operational and Safety Improvements:

- Intersection improvements
- Traffic signal work
- Nonmotorized travel accommodations
- Raised reflective pavement markers
- Street light upgrades to LED
- Expand PASSAGE coverage and signal interconnects through more corridors



# \$94M in new projects

*(continued)*

## **Resurfacing Projects:**

Everett Road [3R]  
St. Mary's Road [3R]  
Kelsey Road  
9th Street  
Kilbourne Road  
Kenosha Road  
Almond road  
Gelden Road  
Fremont Center Road  
Gilmer Road  
Stearns School Road

## **Culvert, Drainage and/or Retaining Wall Projects:**


Washington St drainage channel at I-94  
Gilmer Road at Sequoia culvert and retaining wall  
Grass Lake Road at bridge retaining wall stabilization and repair  
Rollins Road near Fairfield Rd culvert replacement  
Gages Lake Road near Hunt Club Road concrete headwall  
Millburn Road near Crawford Road culvert rehabilitation



# Funding and Revenue

## 4 LCDOT Capital Program Revenue Streams:

- County Bridge Fund (CB)
- Matching Tax (MT)
- Motor Fuel Tax (MFT)
- Sales Tax (ST)\*



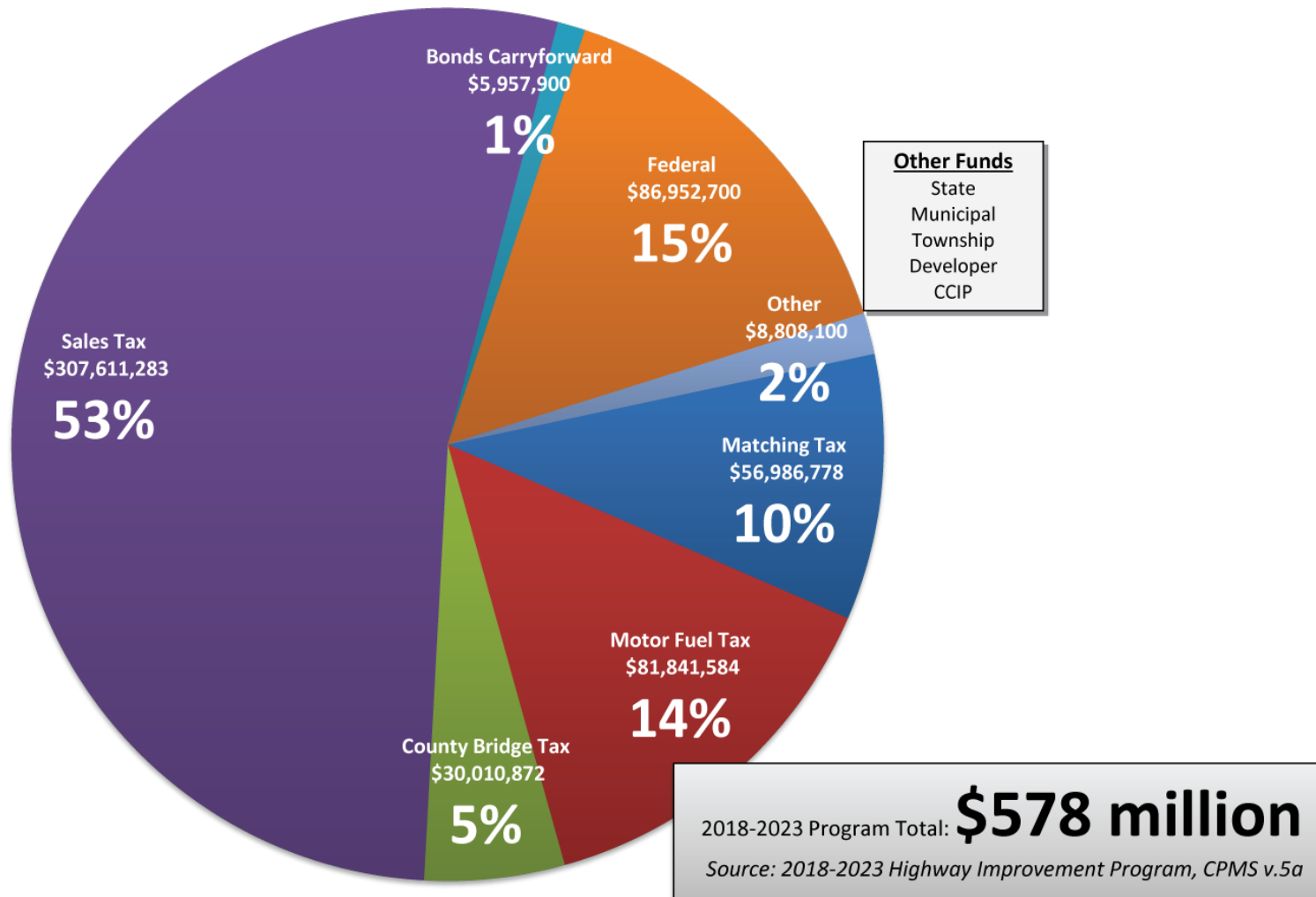
All **zero** growth except ST  
ST growth forecast 2%\*

*\*revised down from 3% per RTA, April 2018*

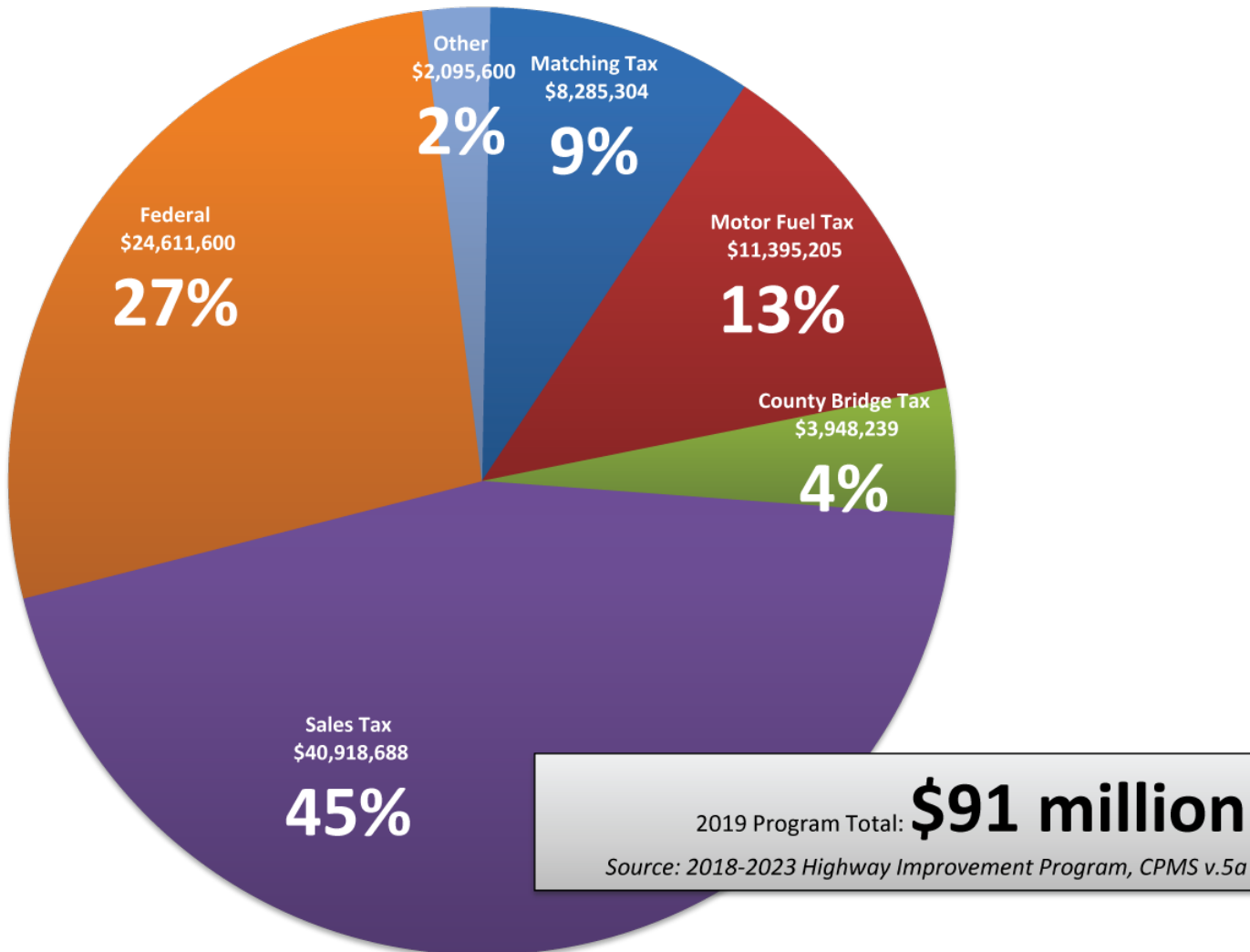
# Leverage Outside Funds for Effective Programming

- Illinois Commerce Commission (ICC) Railroad Grade Crossing Protection
- Congestion Mitigation and Air Quality (CMAQ)
- Transportation Alternatives Program (TAP)
- Surface Transportation Block Grant (STPL, STPC, STPE)
- 5310 Funds (for Ride Lake County paratransit)
- Highway Bridge Program (HBP)
- Highway Safety Improvement Program (HSIP)
- TIGER/BUILD
- State of Illinois Funds
- *more*

# Fund Sources | 2018-2023 program



# Fund Sources | 2019 program



# Balancing Program Needs

## Funds Distribution | 2018-2023 by program category



Source: LCDOT Information Services | CPMS v.5a

# Balancing Program Needs

## Funds Distribution | 2019

by program category



Source: LCDOT Information Services | CPMS v.5a

# 2018-2023 Program

- 2018-2023 project maps and lists
- Detail of Preservation, Modernization and Expansion categories
- Becomes our capital budget submittal for CFY 2019

# Priority One: Preservation

Preservation projects:  
approximately

25%

of program

Typically resurfacing, reconstruction, patching and  
drainage improvements, maintenance activities

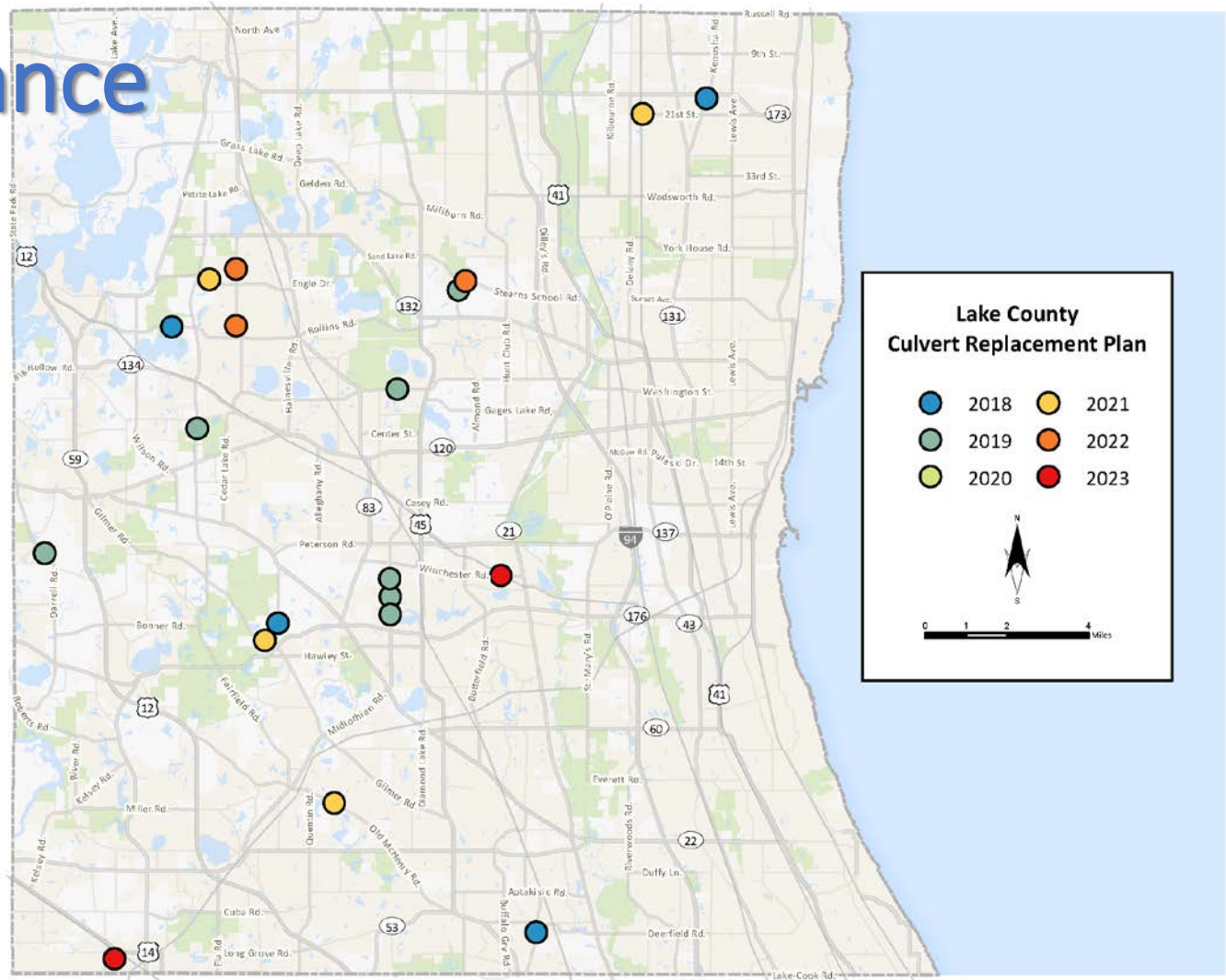
**\$144 million**  
**173 projects**

# What's new in this 5-year program?

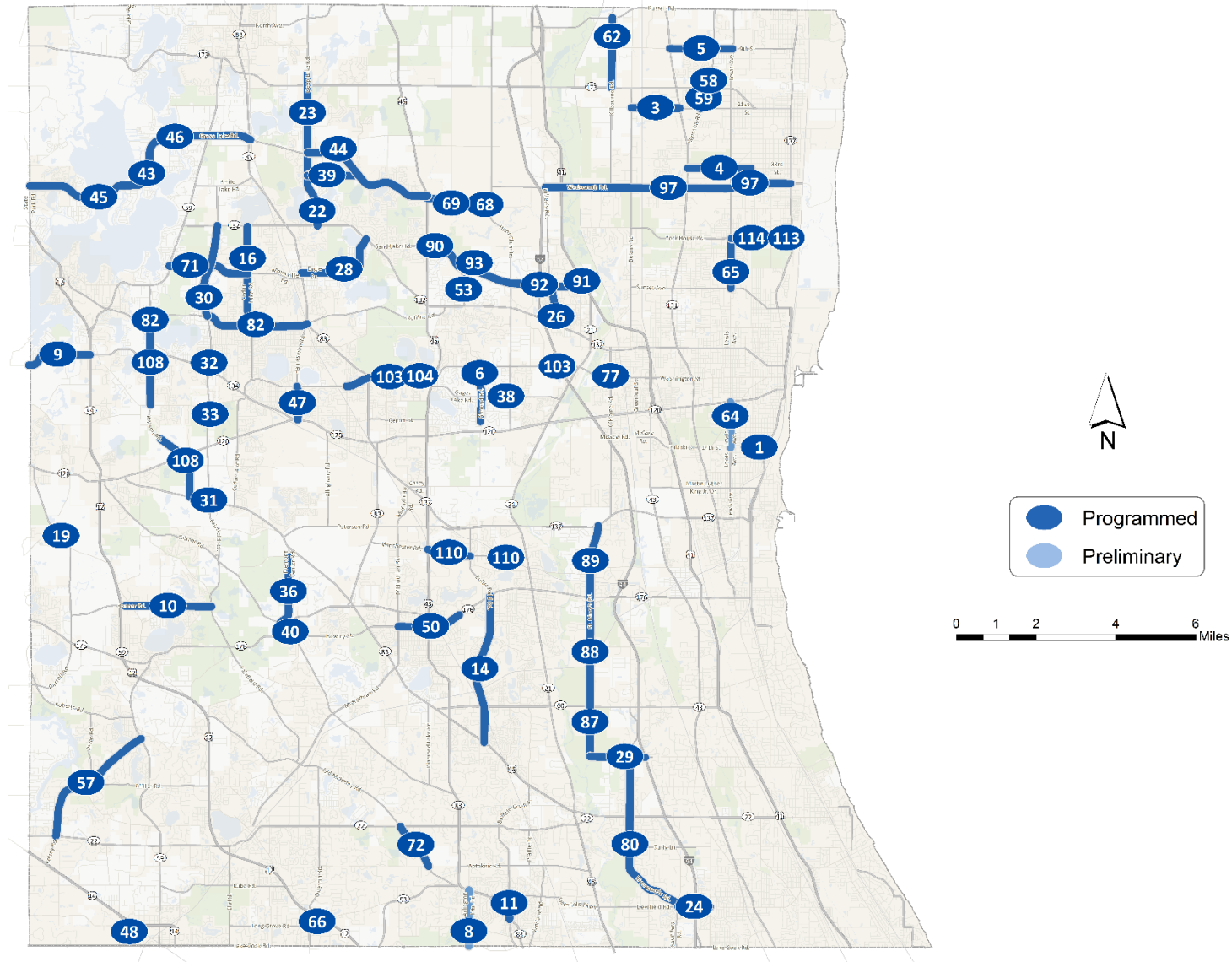
- **Preservation Projects:**
  - Culvert replacements
  - Pavement rejuvenator
  - Upgrade PASSAGE equipment
  - Bridge inspection
  - Storm sewer/drainage work
  - Annual maintenance items—  
patching, crack sealing, trees &  
landscaping, guardrail, retaining  
walls



# Culvert Maintenance Program



# Preservation | 2018 – 2023 Program



# Preservation Projects

Preservation Projects				
Map ID	Route	Work Type	Program Year	CPMS PIN
1	14th St.	Resurfacing	2023	B-01002b
3	21st St.	Resurfacing	2022	B-01488
4	33rd St.	Resurfacing	2022	B-01489
5	9th St.	Resurfacing	2018	B-01163b
6	Almond Rd.	Resurfacing	2018	B-01389
8	Arlington Heights Rd.	Reconstruction	2024	B-01182
9	Big Hollow Rd.	Resurfacing	2022	B-01492
10	Bonner Rd.	Resurfacing	2021	B-01382
11	Buffalo Grove Rd.	Reconstruction	2022	B-01359
14	Butterfield Rd.	Resurfacing	2019	B-01393
16	Cedar Lake Rd	Resurfacing	2021	B-01395
19	Darrell Rd.	Culvert Replacement	2020	B-00141c
22	Deep Lake Rd.	3R Resurfacing	2021	B-00913
23	Deep Lake Rd.	Resurfacing	2021	B-01396
24	Deerfield Rd.	Resurfacing	2020	B-01397
26	Dilley's Rd.	Microsurfacing	2021	B-01485
28	Engle Dr.	Resurfacing	2020	B-01354
29	Everett Rd.	3R Resurfacing	2018	B-01237
30	Fairfield Rd.	Resurfacing	2020	B-01394
31	Fairfield Rd.	Retaining Wall Maintenance	2022	B-01425
32	Fairfield Rd.	Culvert Replacement	2022	B-01434
33	Fairfield Rd.	Culvert Replacement	2019	B-01446
36	Fremont Center Rd.	3R Resurfacing	2018	B-01235a

# Preservation Projects (cont'd)

Preservation Projects				
Map ID	Route	Work Type	Program Year	CPMS PIN
38	Gages Lake Rd.	Culvert Replacement	2018	B-01435
39	Gelden Rd.	Resurfacing	2018	B-01170
40	Gilmer Rd.	Resurfacing	2018	B-01235b
43	Grass Lake Rd.	Microsurfacing	2021	B-01391
44	Grass Lake Rd.	Resurfacing	2019	B-01399c
45	Grass Lake Rd.	Bridge Retaining Wall Maintenance	2018	B-01312
46	Grass Lake Rd.	Drainage Improvements	2018	B-01438b
47	Hainesville Rd.	Resurfacing	2020	B-01480
48	Hart Rd.	Resurfacing	2023	B-01480
50	Hawley St.	Culvert Replacement	2022	B-01372b
53	Hutchins Rd.	Resurfacing	2019	B-01490
57	Kelsey Rd.	Culvert Replacement	2018	B-01372
58	Kenosha Rd.	Resurfacing	2018	B-01306
59	Kenosha Rd.	Resurfacing	2018	B-01163c
61	Kilbourne Rd.	Culvert Replacement	2018	B-01163d
62	Kilbourne Rd.	Resurfacing	2019	B-01163a
64	Lewis Ave.	Reconstruction	2024	B-01452b
65	Lewis Ave.	Bridge Repairs	2023	B-01476
66	Long Grove Rd.	Microsurfacing	2023	B-01493
67	Milburn Rd.	Resurfacing	2019	B-01483
68	Milburn Rd.	Resurfacing	2019	B-01399a

# Preservation Projects (cont'd)

Preservation Projects				
Map ID	Route	Work Type	Program Year	CPMS PIN
69	Milburn Rd.	Culvert Repair	2019	B-01399d
71	Monaville Rd.	Bridge Deck Profiling	2021	B-01399b
72	Old McHenry Rd.	Microsurfacing	2022	B-01391a
77	O'Plaine Rd.	Resurfacing	2018	B-01484
80	Riverwoods Rd.	Drainage Improvements	2023	B-01453
81	Rollins Rd.	Microsurfacing	2019	B-01494
82	Rollins Rd.	Resurfacing	2018	B-01323
87	St. Mary's Rd.	Drainage Improvements	2018	B-01323
88	St. Mary's Rd.	3R Resurfacing	2020	B-01237b
89	St. Mary's Rd.	3R Resurfacing	2020	B-01381
90	Stearns School Rd.	Microsurfacing	2023	B-01482
91	Stearns School Rd.	Resurfacing	2018	B-01496
92	Stearns School Rd.	Resurfacing	2021	B-01392
93	Stearns School Rd.	Bridge Deck Replacement	2022	B-01102
96	Wadsworth Rd.	Culvert Replacement	2023	B-01499
97	Wadsworth Rd.	3R Resurfacing	2018	B-01402a
102	Washington St.	Storm Sewer Maintenance	2021	B-01402b
103	Washington St.	Resurfacing	2018	B-01479
104	Washington St.	Drainage Improvements	2019	B-01264
107	Wilson Rd.	Culvert Replacement	2019	B-01370
108	Wilson Rd.	Resurfacing	2022	B-01481
109	Winchester Rd.	Resurfacing	2021	B-01491
110	Winchester Rd.	Resurfacing	2023	B-01486
112	York House Rd.	Culvert Replacement	2021	B-01501
113	York House Rd.	Resurfacing	2018	B-01487
114	York House Rd.	Drainage Improvements	2018	B-01106

# Priority Two: Modernization

Modernization projects:  
approximately

30%

of program

Typically intersection and safety improvements,  
bike and pedestrian accommodations

**\$176 million**  
**88 projects**

# Modernization saves time, fuel, money and the environment

Corridors Studied: 4

Delays Reduced: 478 hours per day

Fuel Saved: 318 gallons per day

Annual Benefit: \$3,141,414

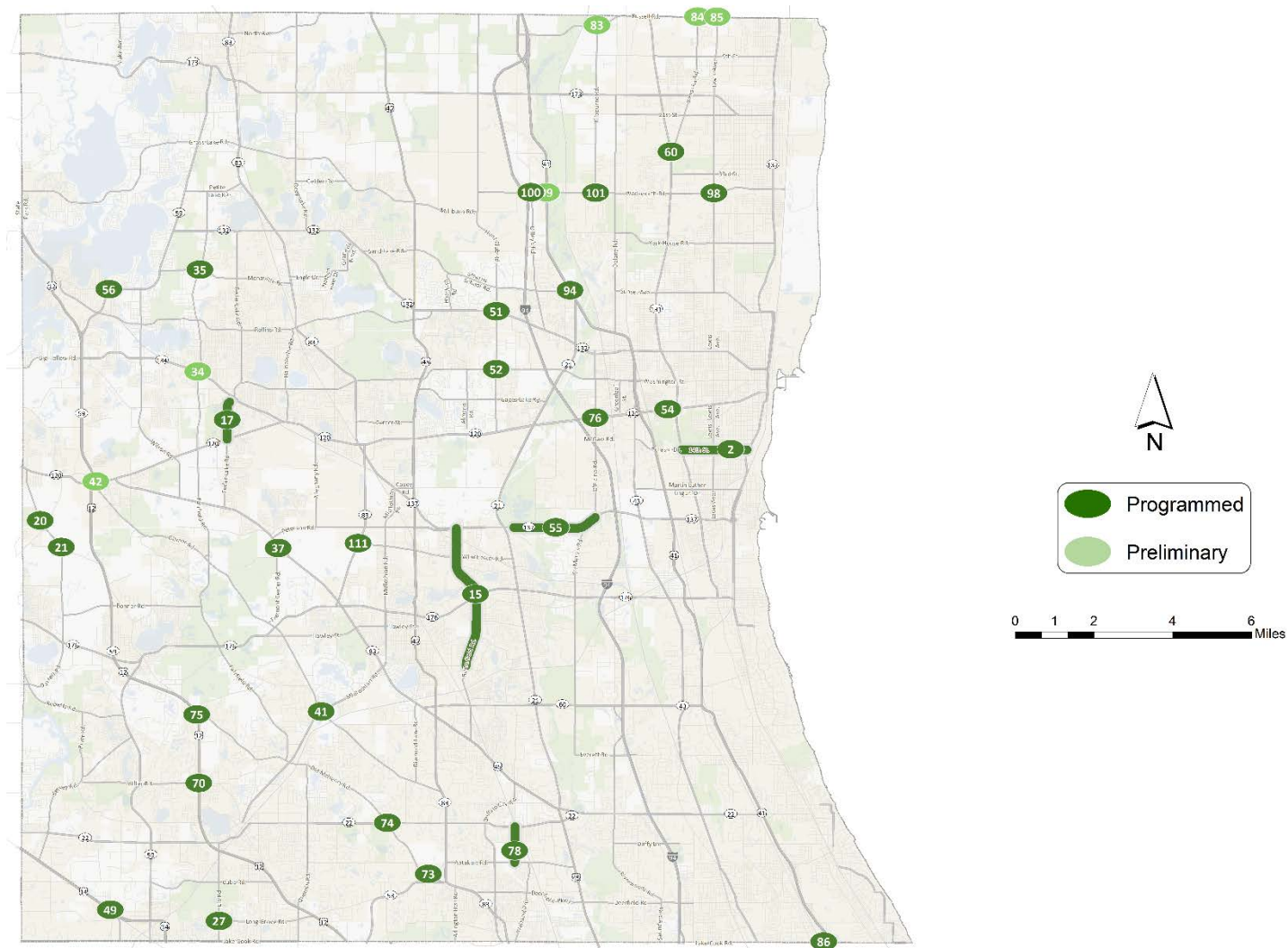
CO<sub>2</sub> Emissions Avoided: 566 metric tons per year

# What's new in this 5-year program?

- Hunt Club Rd at Washington St (Phase I study)
- Prairie Rd, Aptakisic to IL 22
- Russell Rd at Kilbourne, Kenosha and Lewis (Phase I study)
- Lewis Ave corridor study (IL 137 to Sunset Ave)
- SOV reduction planning study
- Construction management software
- Traffic software systems maintenance and upgrades
- Signal equipment and coordination
- Heated red LED signal project



# Modernization | 2018-2023 Program



# Modernization Projects

Modernization Projects				
Map ID	Road Name	Work Type	Program Year	CPMS PIN
2	14th St.	Reconstruction and Signal Interconnect	2019	B-01002a
15	Butterfield Rd.	Adaptive Traffic Signal Control	2019	B-01319
17	Cedar Lake Rd	Widen and Reconstruct	2017	B-00177
20	Darrell Rd.	Intersection Improvement	2023	B-00141b
21	Darrell Rd.	Realign	2021	B-00141a
27	Ela Rd.	Reconstruction	2020	B-01120
34	Fairfield Rd.	Intersection Improvement	2024	B-00730
35	Fairfield Rd.	Intersection Improvement	2020	B-01184
37	Fremont Center Rd.	Intersection Improvement	2019	B-00474c
41	Gilmer Rd.	Intersection Improvement	2021	B-00728a
42	Gilmer Rd.	Realignment	2024	B-00845
49	Hart Rd.	Intersection Improvement	2018	B-00736
51	Hunt Club Rd.	Intersection Improvement	2019	B-01115
52	Hunt Club Rd.	Intersection Improvement	2022	B-01437
54	IL Rte. 120	Widening	2019	B-00740
55	IL Rte. 137	Bike Path (Staged Improvement)	2021	B-01181a
56	IL Rte. 59	Intersection Improvement	2021	B-00738
60	Kenosha Rd.	Intersection Improvement	2019	B-00424
70	Miller Rd.	Intersection Improvement	2019	B-01263
73	Old McHenry Rd.	Reconstruction	2018	B-01020a
74	Old McHenry Rd.	Intersection Improvement	2018	D-00351
75	Old McHenry Rd.	Intersection Improvement	2018	B-01378
76	O'Plaine Rd	Signals	2019	B-01193

# Modernization Projects (cont'd)

Modernization Projects				
Map ID	Road Name	Work Type	Program Year	CPMS PIN
78	Prairie Rd.	Intersection Improvement	2023	B-01500
83	Russell Rd	Intersection Improvement	2024	B-01445
84	Russell Rd	Intersection Improvement	2024	B-01445b
85	Russell Rd.	Intersection Improvement	2024	B-01445c
86	Skokie Valley Bikepath	Bike Path Bridge	2019	B-01150
94	Stearns School Rd.	Intersection Improvement	2021	B-01361
98	Wadsworth Rd.	Intersection Improvement	2021	B-01119
99	Wadsworth Rd.	Intersection Improvement	2024	B-00737a
100	Wadsworth Rd.	Intersection Improvement	2019	B-00737b
101	Wadsworth Rd.	Intersection Improvement	2021	B-00737c
111	Winchester Rd.	Intersection Improvement	2020	B-01365

# Priority Three: Expansion

Expansion projects:  
approximately

36%

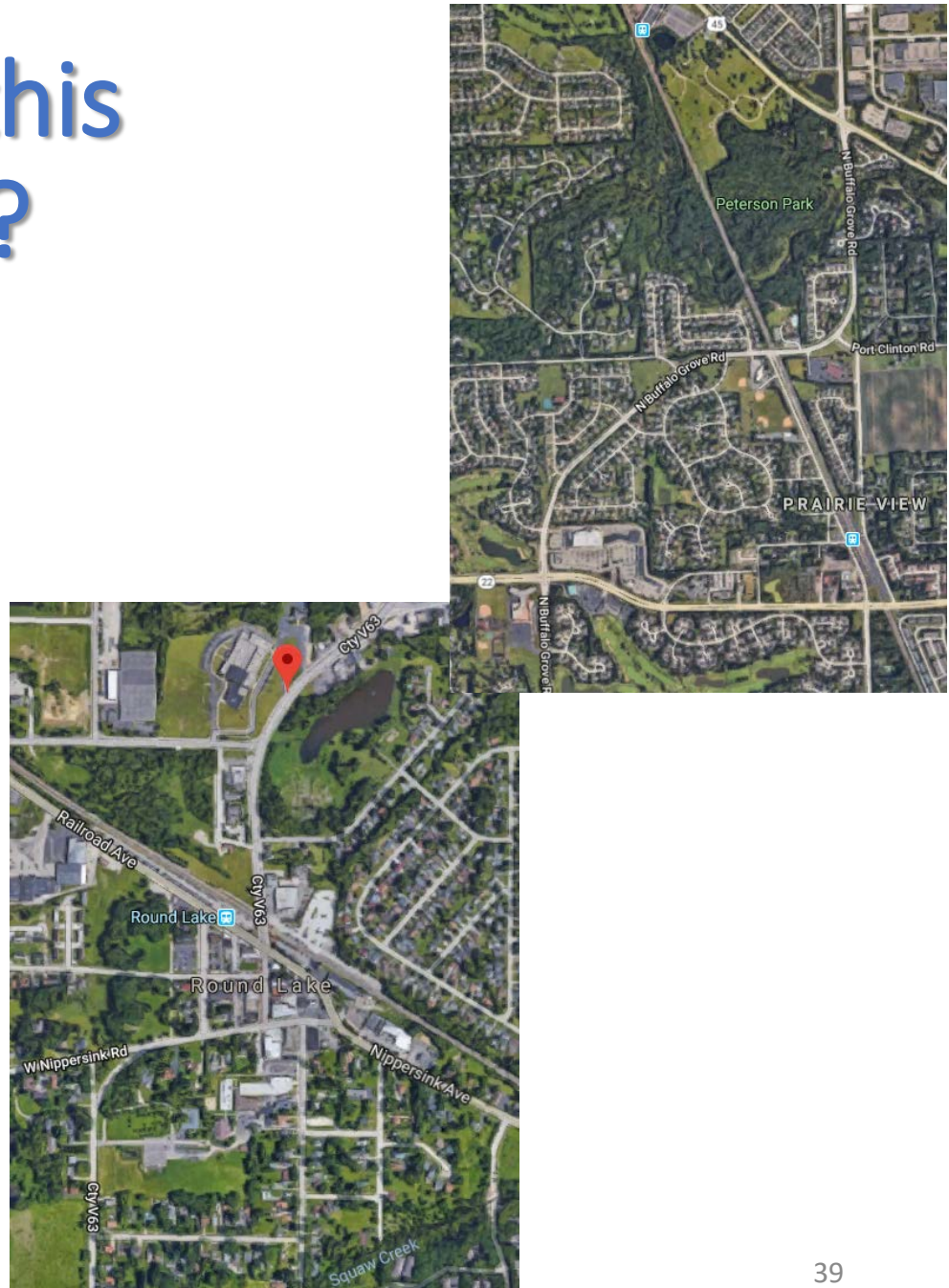
of program

Typically add lanes, grade separations, new or  
extended roads

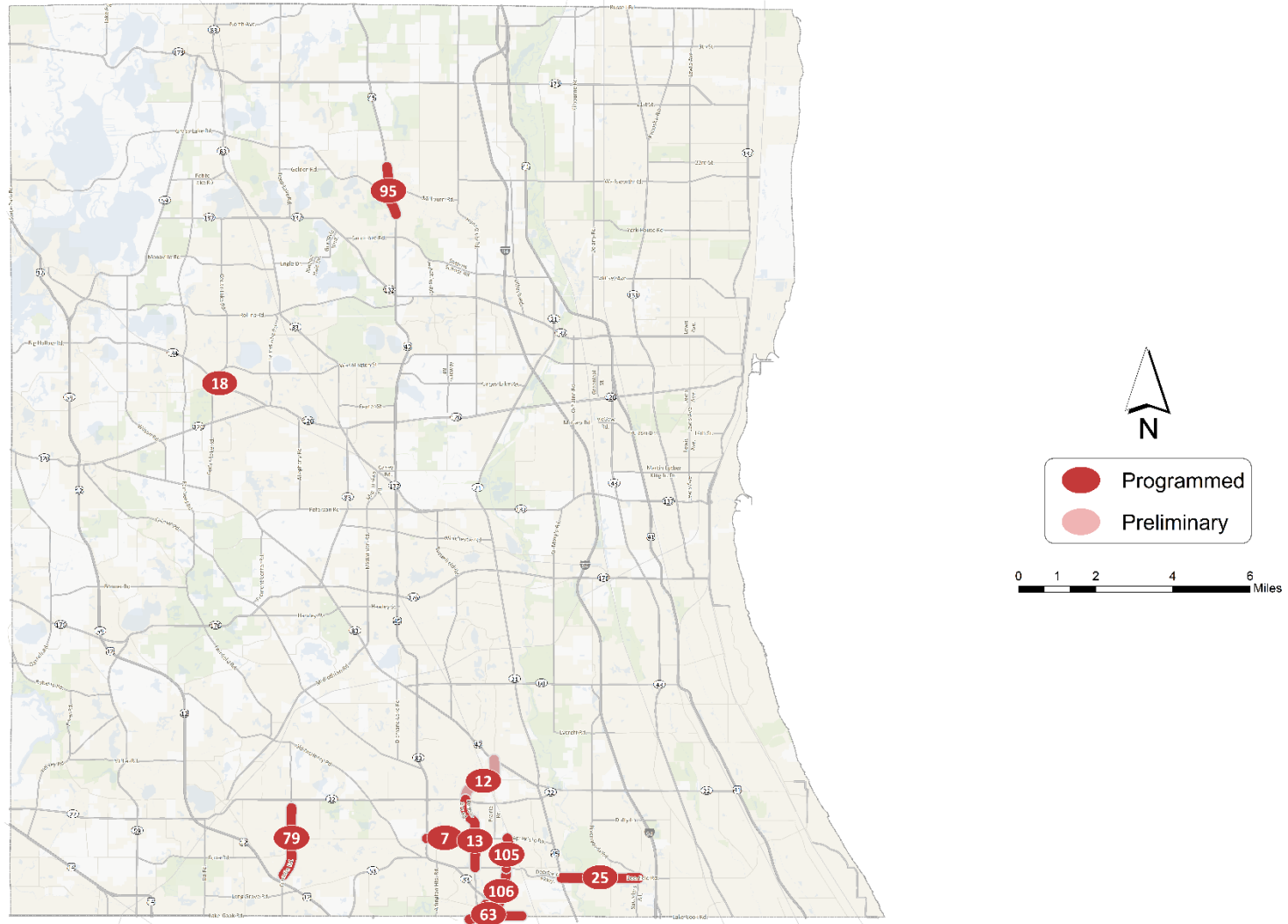
**\$209 million**  
**11 projects**

# What's new in this 5-year program?

- Buffalo Grove Road, US45 to IL22, capacity analysis
- Cedar Lake Road realignment at downtown Round Lake, Phase I study



# Expansion | 2018-2023 Program



# Expansion Projects

Expansion Projects				
Map ID	Route	Work Type	Program Year	CPMS PIN
7	Aptakisic Rd.	Widening	2022	B-00739a
12	Buffalo Grove Rd.	Reconstruct and Widen	2024	B-01358
13	Buffalo Grove Rd.	Reconstruct and Widen	2020	E-00559
18	Cedar Lake Rd	Roadway Reconstruction	2023	B-00752
25	Deerfield Rd.	Reconstruct and Widen	2021	B-01266a
63	Lake-Cook Rd.	Roadway Reconstruction	2018	B-01040
79	Quentin Rd.	Reconstruction and Widening	2018	B-00378a
95	U.S. Hwy. 45	Bypass	2018	B-00727
105	Weiland Rd.	Widening	2019	E-00259c
106	Weiland Rd.	Widening	2018	B-00259b

# New this year: digital-only publication [July 2018]



# Thank You!

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