

WHAT IS VISION ZERO & SS4A?



THE SAFE SYSTEM APPROACH



Vision Zero is a holistic approach to road safety to achieve **zero traffic fatalities and serious injuries**. This approach can be called the Safe System Approach.

Safe Streets and Roads for All (SS4A) is a federal program designed to fund regional, local, and Tribal initiatives through grants to prevent traffic fatalities and serious injuries.

GOAL:
**ZERO FATAL AND SERIOUS
INJURY CRASHES
BY 2050 IN LAKE-SUMTER
MPO REGION**



Killed & Serious Injury (KA) Quick Facts

KA is killed or serious injury.

Killed (K) refers to a fatal injury that results in death at the scene or within 30 days after the motor vehicle crash in which the injury occurs.

Serious Injury (A) is any injury other than fatal that results in one or more of the following: Severe laceration, significant loss of blood, broken or distorted extremity, crush injuries, severe skull, chest, or abdominal injury other than bruises or minor lacerations, significant burns, unconsciousness when taken from the crash scene, paralysis.

Source: Florida HSMV Uniform Traffic Crash Report Manual,
<https://www.flhsmv.gov/pdf/courts/crash/crashmanualcomplete.pdf>

4,539 Killed & Serious Injury Crashes on
Surface Streets* (2015-2024)

707 Fatal Crashes (K)

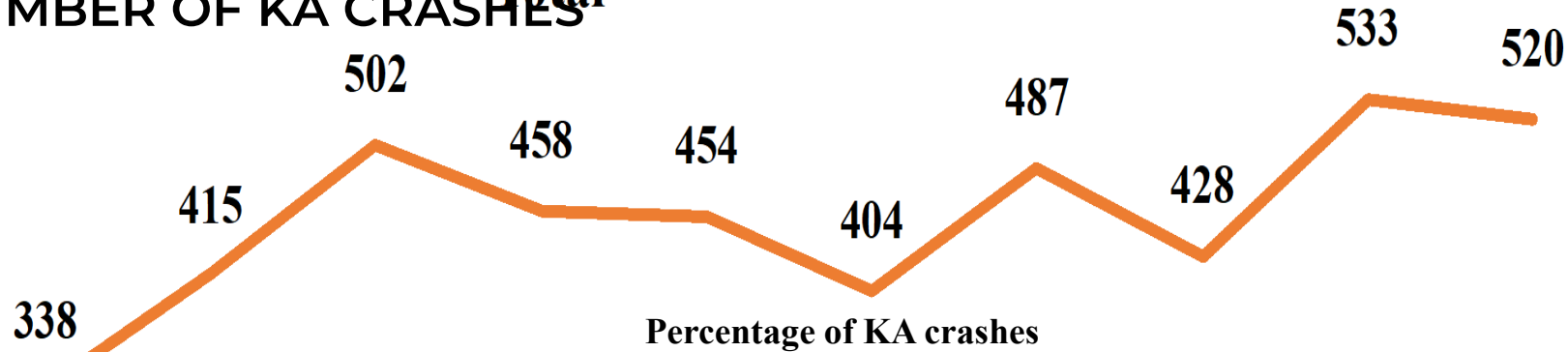
3,832 Serious Injury Crashes (A)

\$11.1 Billion Economic impact to the
Lake-Sumter region.

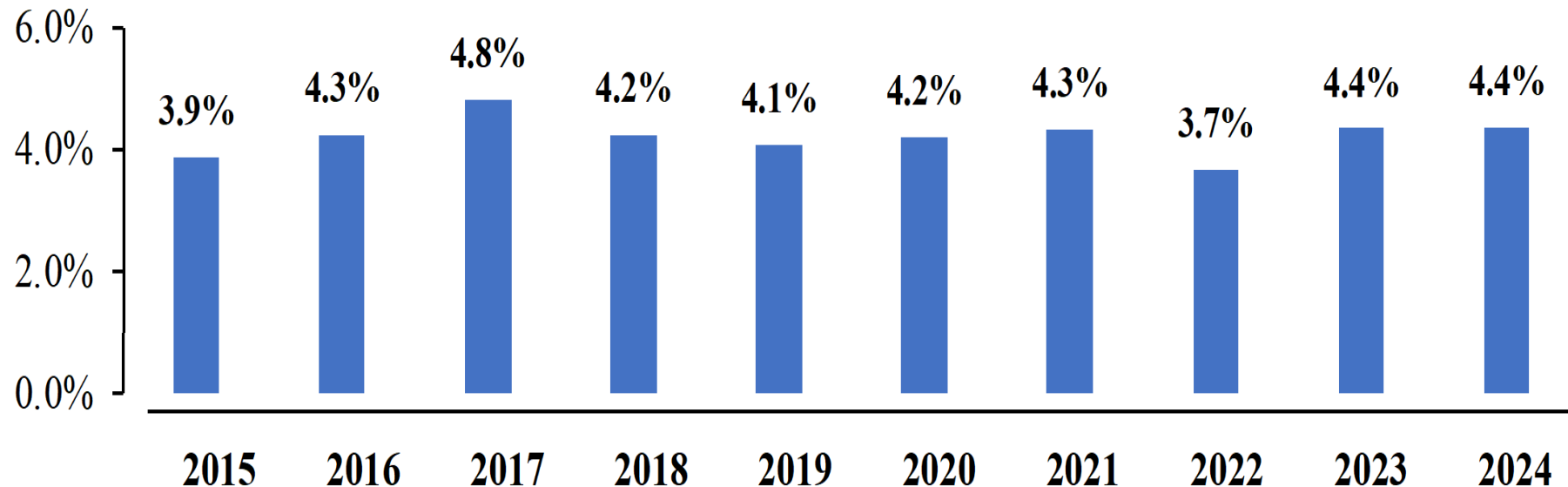
TEN-YEARS TREND FOR KA CRASHES



TOTAL NUMBER OF KA CRASHES*



KA CRASHES / ALL CRASHES



For Comparison:

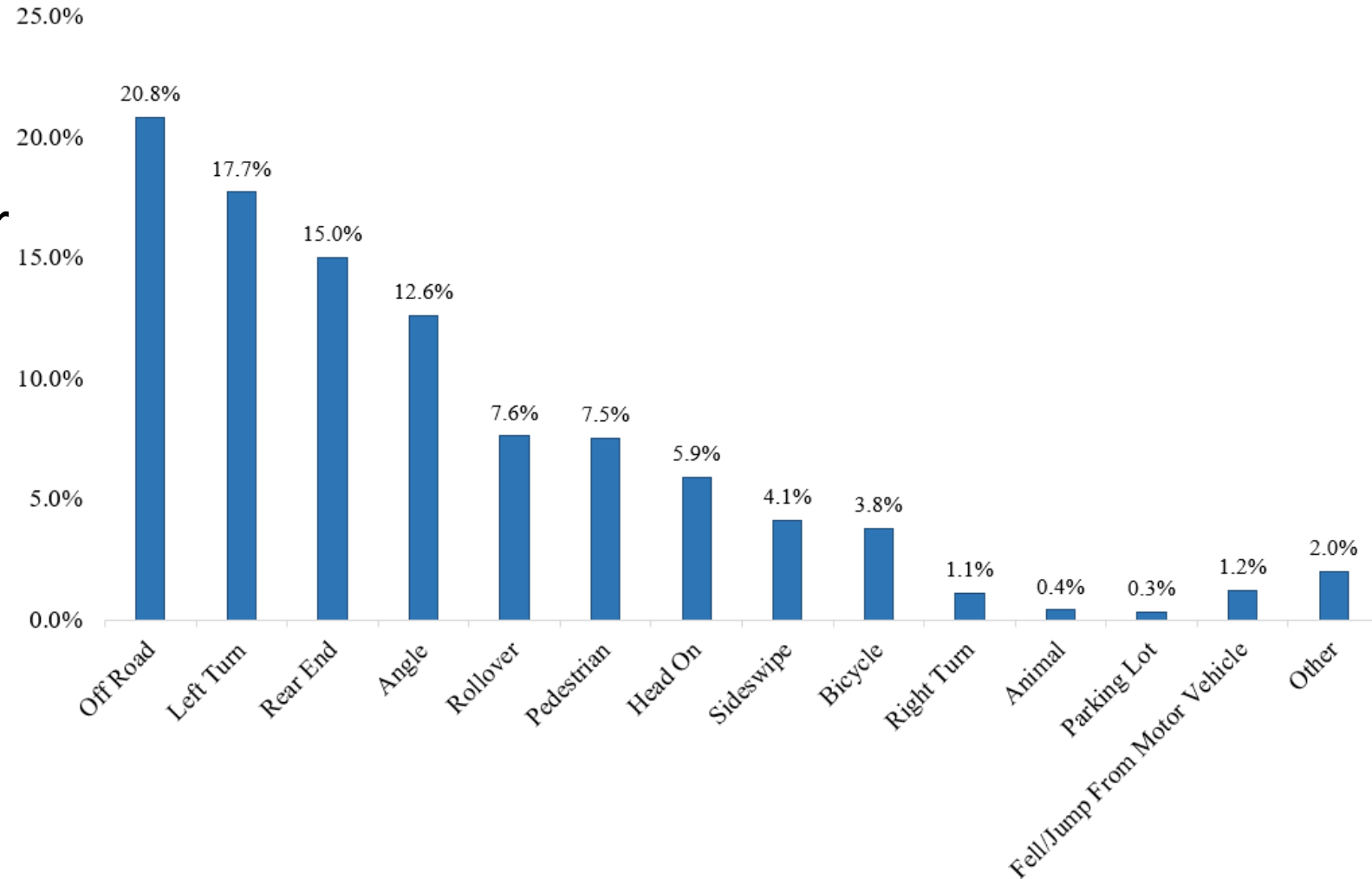
- State of Florida 10-year KA crash rate is 2.4%

KA CRASH TRENDS: 2020-2024



Major KA Crash Types:

1. **30.3%** Left Turn/Angle
2. **28.4%** Off-Road/Rollover
3. **15%** Rear-End
4. **11.3%** Pedestrian/Bike



MOST SEVERE CRASH TYPE ANALYSIS



2020-2024

Left-Turn KA Crash Analysis:

- **83.4%** at Intersections vs. Segments
- **40.2%** STOP controlled Intersections
- **54.3%** at 4-Way Intersections
- **53.8%** on 2-lane, 2-way roads
- **57.2%** in urban vs. rural
- **73.6%** during daylight
- **1-6pm** elevated severe crash hours
- **Fridays** saw highest KA crashes
- **December** had highest KA crashes

Rollover/Off-Road KA Crash Analysis:

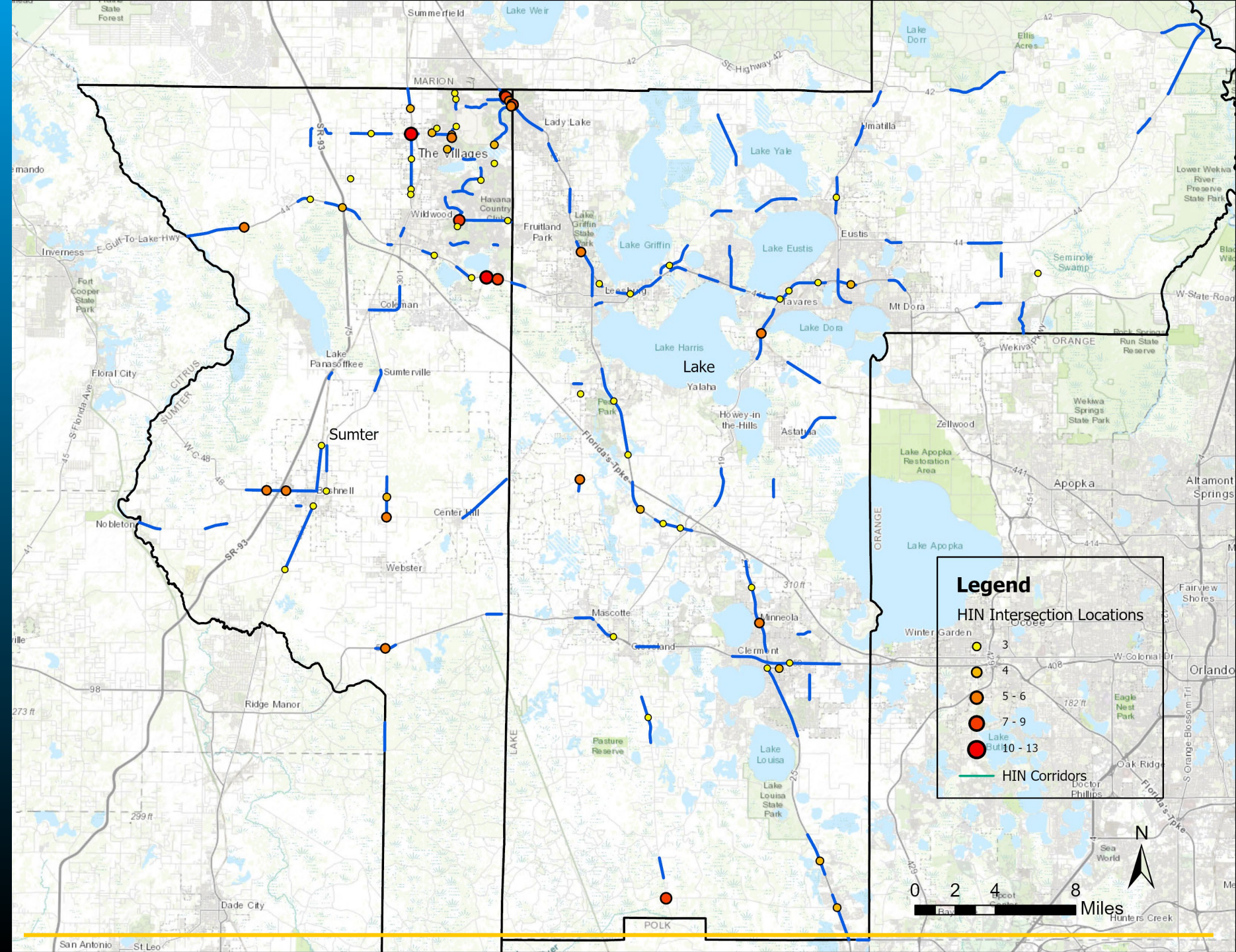
- **84.3%** on Segments vs. Intersections
- **56.2%** at Uncontrolled intersections
- **71.3%** at T-Intersections
- **75.9%** on 2-lane, 2-way roads
- **65.8%** in rural vs. urban
- **54.1%** during daylight
- **2-8pm** elevated severe crash hours
- **Weekends** saw highest KA crashes
- **April** had highest KA crashes

- 2,167 KA crashes (2015-2019) vs. 2,372 KA crashes (2020-2024) yields **9% increase**
- Crash Types: Decrease in **Rear-End** crashes (-7.7%), increase in **Left-Turn/Angle** crashes (+4.7%)
- Lighting Condition: Decrease in “lighted” crashes (-12.2%), increases in **daylight and dusk** crashes (+7.1%)
- Intersection Type: Decrease in **signalized** crashes (-6.9%), but increase in **non-signalized** crashes (+7.3%)

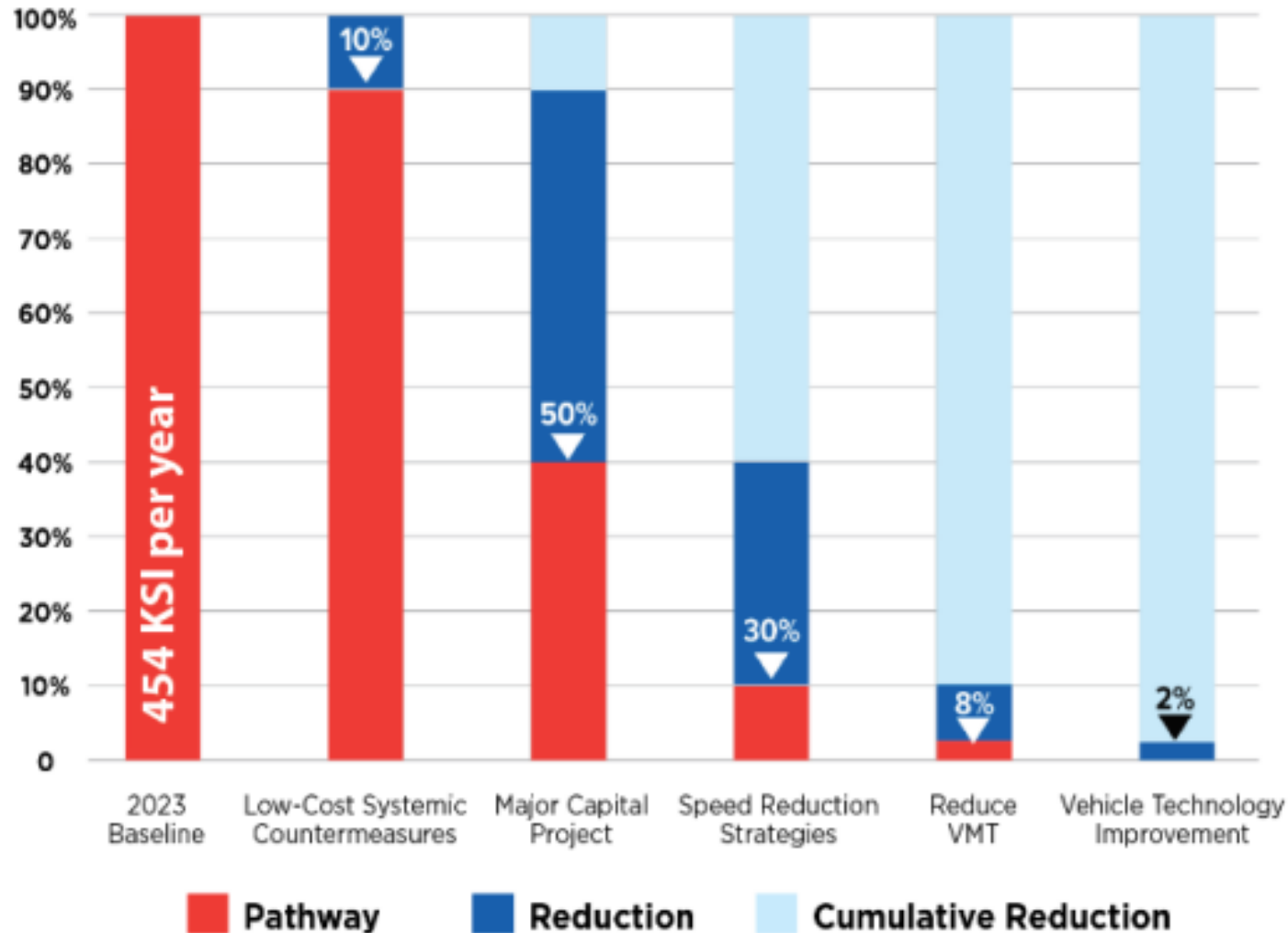
HIGH-INJURY NETWORK

- 106 corridors
- 70 intersections
- 40 segments

50% of KA Crashes occurred on 14% of network



HOW DO WE GET TO ZERO?



Over 10 years, crashes have created **\$14.5 billion** in economic burden with 77% of those costs resulting from 4% of KA crashes (\$11.1B)



SAFETY COUNTER- MEASURES FOR MPO SEVERE CRASH TYPES

1/2

Crash Type	Countermeasures
<p>Left-Turn/Angle-Unsignalized</p> <p>528 KA crashes (30.3%)</p>	<ul style="list-style-type: none"> • Double-Up Oversized Advanced Signage w/ Street Name Plaques and Flashing Beacons • Retroreflective Sheeting on Sign Post • Enhanced Edge Line Pavement Markings • Doubled-up STOP AHEAD & STOP Signs <p>10-27% Reduction</p>
<p>Left-Turn/Angle-Signalized</p> <p>189 KA crashes (26.4%)</p>	<ul style="list-style-type: none"> • Protected Left-Turn Phasing* • Red-Light Cameras • Yellow Change Interval Optimization • Signal Backplates • Roadway Lighting • Upgrade Signing/Marking & Advance Beacons <p>8-77% Reduction</p>
<p>Roadway Departure</p> <p>673 KA Crashes (28.3%)</p>	<ul style="list-style-type: none"> • Edge Line Longitudinal Rumble Strips* • Centerline Longitudinal Rumble Strips • Wide Edge Line Striping • Retroreflective Sign Posts, Enhanced Delineators, Sequential Dynamic Chevron Signs • Guardrail Systems • Safety Edge Treatment • High Friction Surface Treatment • Automated Speed Enforcement Cameras <p>13-64% Reduction</p>



SAFETY COUNTER- MEASURES FOR LSMPO SEVERE CRASH TYPES

2/2

Crash Type	Countermeasures
<p style="text-align: center;">Rear-End</p> <p style="text-align: center;">356 KA Crashes (15.0%)</p>	<ul style="list-style-type: none"> • Speed Limit Evaluation/Reduction • Traffic Calming Treatments • Speed Enforcement Devices • Variable Speed Limits • Dynamic “Queue Ahead” Warning Signs • Lane Width Reductions • High Friction Surface Treatment * • Yellow Change Interval Optimization • Extension of All-Red Clearance • Dynamic Signal Warning Flashers • Traverse Rumble Strips <p style="text-align: right; color: orange; font-weight: bold;">6-67% Reduction</p>
<p style="text-align: center;">Bicycle/Pedestrian</p> <p style="text-align: center;">268 KA Crashes (11.3%)</p>	<ul style="list-style-type: none"> • Pedestrian Hybrid Beacons (PHBs) * • Rectangular Rapid Flashing Beacons (RRFBs) • Midblock Pedestrian Signals • Sidewalks on Both Sides of Roadway • Roadway Lighting • High-Visibility Crosswalk Markings • Leading Pedestrian Interval Signal Timing • Advanced STOP Bars & Signage • Pedestrian Median Refuge Islands • Pedestrian Countdown Signal Heads • Traverse Rumble Strips • Dedicated Bike Facilities (standard, buffered, protected) <p style="text-align: right; color: orange; font-weight: bold;">14-75% Reduction</p>

- 1 Ensure locations with greatest safety need receive highest attention
- 2 Prioritize treatments with demonstrated crash reduction effectiveness
- 3 Consider implementation feasibility and relative cost
- 4 Provide a transparent and replicable scoring methodology



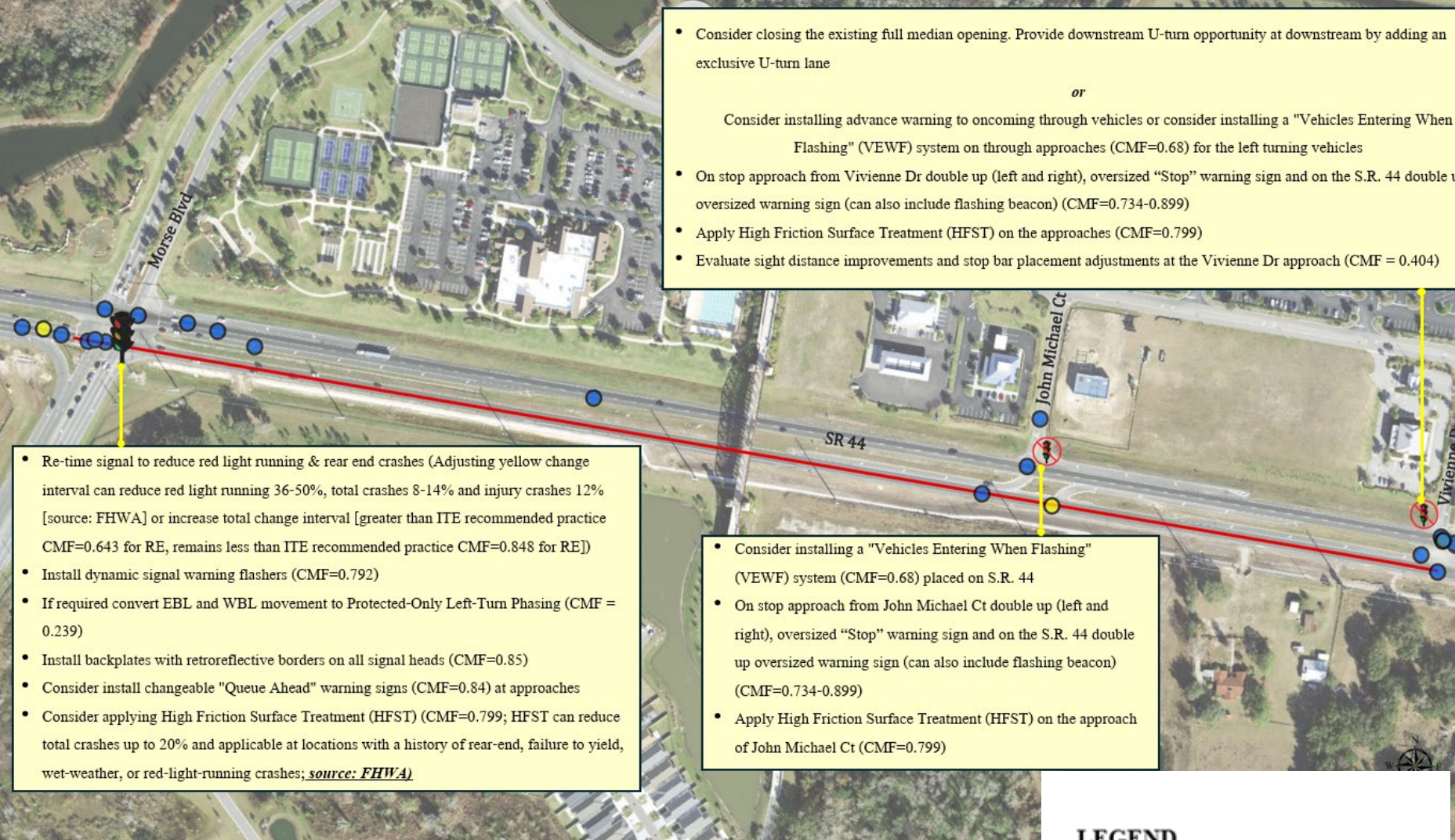
TOP 30 PRIORITY CORRIDORS

- 19 Lake County
- 11 Sumter County

Priority	County	Corridor Name	Begin Limit	End Limit	Fatal (K)	Serious Injury (A)	Major KA Cras
1	Sumter	SR 44	Morse Blvd	Vivienne Dr	3	21	Left-Turn/Angle
2	Lake	US 192	Kersey St	Outdoor RV Resorts	3	11	Rear-End
3	Sumter	US 301	NE 120	CR 466	0	15	Left-Turn/Angle
4	Sumter	CR 475	Ramp 18130016	Ramp 18130020	2	4	Left-Turn/Angle
5	Lake	Dixie Ave	Mckenzie St	S 9th St	2	3	Off-Road/Rollover
6	Sumter	US27/441	Marion Co. Line	Morse Blvd	2	44	Left-Turn/Angle
7	Lake	CR 33	Austin Merritt Rd	Charter Ln	3	4	Left-Turn/Angle
8	Sumter	SR 44	Powell Rd	Buena Vista Blvd	3	3	Rear-End
9	Lake	SR 44	Spruce Dr	Rory Ln	5	2	Left-Turn/Angle
10	Lake	Citrus Blvd	Palm St	Griffin Rd	5	18	Left-Turn/Angle
11	Lake	14th St	W Main St	Griffin Rd	4	6	Left-Turn/Angle
12	Sumter	Buena Vista Blvd	St Charles Pl	Pinellas Pl	2	15	Left-Turn/Angle
13	Lake	CR 19A	W Charlotte Ave	Old US 441	6	12	Left-Turn/Angle
14	Lake	US 441	Off Ramp 11010005 WB	Spring Harbor Blvd	2	6	Left-Turn/Angle
15	Sumter	Buena Vista Blvd	Southern Trace	Parr Dr	1	15	Left-Turn/Angle
16	Lake	North Blvd	N Lake St	CR 44	5	17	Left-Turn/Angle
17	Sumter	SR 44	CR 231	CR 44A	5	18	Left-Turn/Angle
18	Lake	SR 50	Pearl St	Villa City Rd	3	3	Left-Turn/Angle
19	Lake	US 441	Perkins St	Lee St	0	4	Left-Turn/Angle
20	Lake	CR 470	Palmetto Ave	CR 33	1	4	Left-Turn/Angle
21	Lake	US 441	Professional Dr	Tavares Ave	2	3	Left-Turn/Angle, Off-Road/Ro
22	Lake	SR 19	CR 561	Progressive Aerodyne	3	9	Left-Turn/Angle
23	Lake	SR 50	West Ave	CR 455	8	23	Left-Turn/Angle
24	Lake	US 441	Hilltop Rd	Dillard Rd	7	23	Left-Turn/Angle
25	Sumter	CR 466	CR 201	CR 106	0	8	Left-Turn/Angle
26	Lake	US 27/441	Golden Eagle Blvd	US Hwy 192	3	18	Left-Turn/Angle
27	Lake	US 27	Hawthorne Rd	Dewey Robbins Rd	10	16	Left-Turn/Angle
28	Sumter	Morse Blvd	El Camino Rd	CR 466	5	20	Left-Turn/Angle
29	Lake	US27/441	Frank Jarrell Rd	Holly Gove Blvd	4	15	Left-Turn/Angle
30	Sumter	Hillsborough Trl	Enterprise Dr	Morse Blvd	0	6	Off-Road/Rollover

LOCATION SPECIFIC COUNTER-MEASURES MAP

- Corridor Overview
- Roadway Characteristics
- Crash Statistics
- Crash Conditions
- Summary of KA Crash Reports
- Proposed Countermeasures



- Re-time signal to reduce red light running & rear end crashes (Adjusting yellow change interval can reduce red light running 36-50%, total crashes 8-14% and injury crashes 12% [source: FHWA] or increase total change interval [greater than ITE recommended practice CMF=0.643 for RE, remains less than ITE recommended practice CMF=0.848 for RE])
- Install dynamic signal warning flashers (CMF=0.792)
- If required convert EBL and WBL movement to Protected-Only Left-Turn Phasing (CMF = 0.239)
- Install backplates with retroreflective borders on all signal heads (CMF=0.85)
- Consider install changeable "Queue Ahead" warning signs (CMF=0.84) at approaches
- Consider applying High Friction Surface Treatment (HFST) (CMF=0.799; HFST can reduce total crashes up to 20% and applicable at locations with a history of rear-end, failure to yield, wet-weather, or red-light-running crashes; *source: FHWA*)

- Consider closing the existing full median opening. Provide downstream U-turn opportunity at downstream by adding an exclusive U-turn lane

or






Consider installing advance warning to oncoming through vehicles or consider installing a "Vehicles Entering When Flashing" (VEWF) system on through approaches (CMF=0.68) for the left turning vehicles

- On stop approach from Vivienne Dr double up (left and right), oversized "Stop" warning sign and on the S.R. 44 double up oversized warning sign (can also include flashing beacon) (CMF=0.734-0.899)
- Apply High Friction Surface Treatment (HFST) on the approaches (CMF=0.799)
- Evaluate sight distance improvements and stop bar placement adjustments at the Vivienne Dr approach (CMF = 0.404)

- Consider installing a "Vehicles Entering When Flashing" (VEWF) system (CMF=0.68) placed on S.R. 44
- On stop approach from John Michael Ct double up (left and right), oversized "Stop" warning sign and on the S.R. 44 double up oversized warning sign (can also include flashing beacon) (CMF=0.734-0.899)
- Apply High Friction Surface Treatment (HFST) on the approach of John Michael Ct (CMF=0.799)

#1: S.R. 44, Morse Blvd to Vivienne Dr

LEGEND

-  **Signalized Intersection**
-  **Unsignalized Intersection**
-  **Motor Veh Crash locations**
-  **Motorcycle Crash locations**
-  **HIN Corridor**



SAFETY POLICIES

- **10 proposed policies to include:**
 - **Annual evaluation**
 - **Studies to prioritize KA crashes**
 - **Lighting Standards**
 - **Use of target speeds**

Policy Action	Term	Agency Lead	Partner Agency
Prepare annual report to track progress	Annual	LSMPO	-
Meet annually with LSMPO Board to review progress and performance towards goal of meeting zero by 2050.	Annual	LSMPO	-
Meet with Lake and Sumter County to discuss safety projects and enforcement opportunities	Annual	LSMPO	Lake County/ Sumter County
Prioritize fatal and serious injury crashes in all traffic studies, planning documents, and safety assessments prepared for LSMPO	Short-Term	LSMPO	-
Integrate High-Injury Network assessment into the next LRTP development and update the list of highest priority corridors.	Mid-Term	LSMPO	-
Integrate lighting upgrades to meet latest FDOT criteria on all projects.	Short-Term	LSMPO	FDOT/Counties/ Municipalities
Develop a policy to promote and encourage lighting improvements for pedestrians to create safe nighttime connectivity between crosswalks and transit stops.	Mid-Term	LSMPO	Counties/ Municipalities
Support local municipalities to explore the feasibility of 20 mph speed limits for residential districts to align with Florida Statutes.	Mid-Term	LSMPO	Municipalities
Utilize FDOT context classification and speed management practices within the Florida Design Manual to support target speeds within project planning and design phase to integrate target speeds into design phase.	Short-Term	LSMPO	Counties/ Municipalities
Explore opportunities to collaborate on emerging technologies with public and private partners.	Mid-Term	LSMPO	FDOT/Counties/ Municipalities

PUBLIC OUTREACH



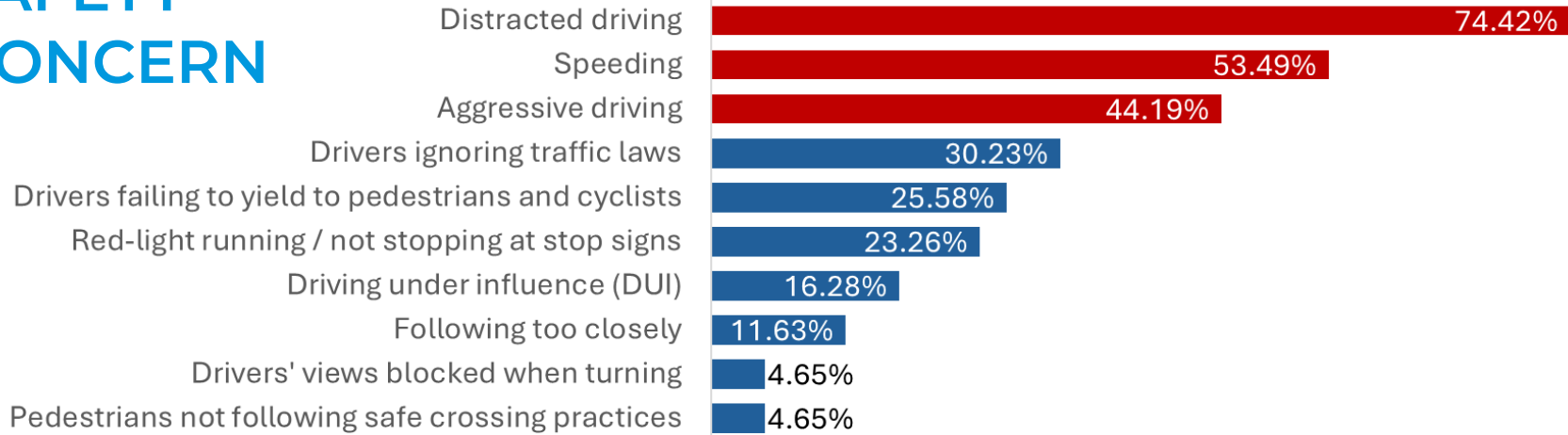
- 1** Public Safety Survey
 - October 2, 2025 to December 10, 2025
 - 43 respondents & 183 comments
 - [Survey – UCF Smart & Safe Transportation Lab](#)
- 2** LSMPO VZ Safety Action Plan Presentation–
Nov. 21, 2025
- 3** LSMPO TAC/CAC Presentation – **Feb. 11, 2026**
- 4** LSMPO Board Presentation- **April 8, 2026**

WHAT DID WE HEAR?

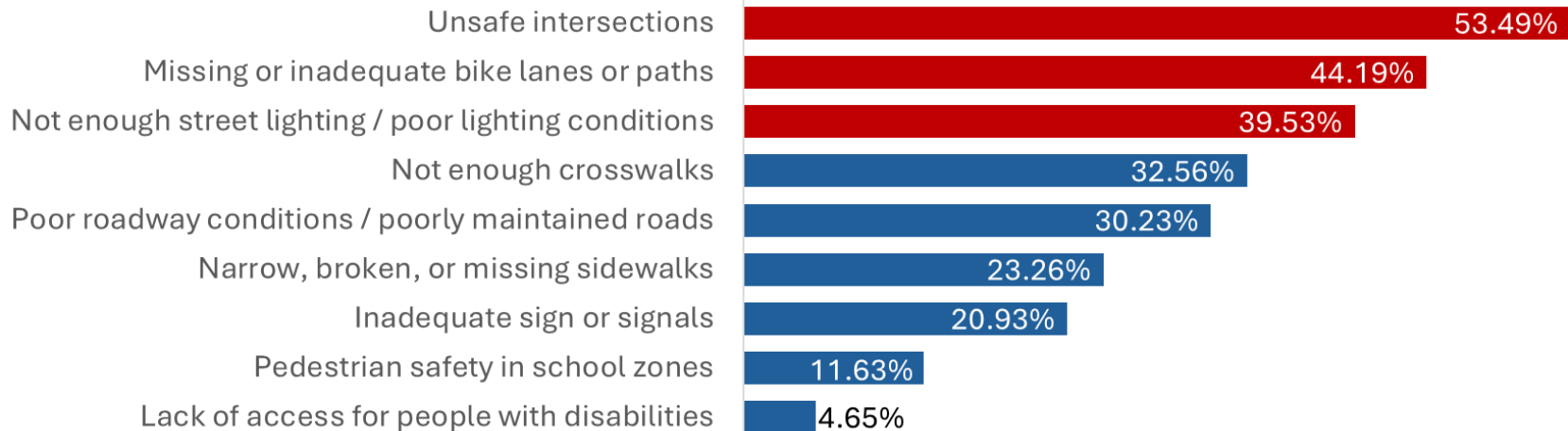


SAFETY CONCERNS

Unsafe Road User Behaviors



Infrastructure Safety Concerns



SAFETY STRATEGIES

- Expanded Sidewalks
- Roadway Design Enhancements
- Pedestrian Crossing Enhancements
- Protected Bike Facilities
- Safety Education
- Enforcement Initiatives

REPORTING PROGRESS

1

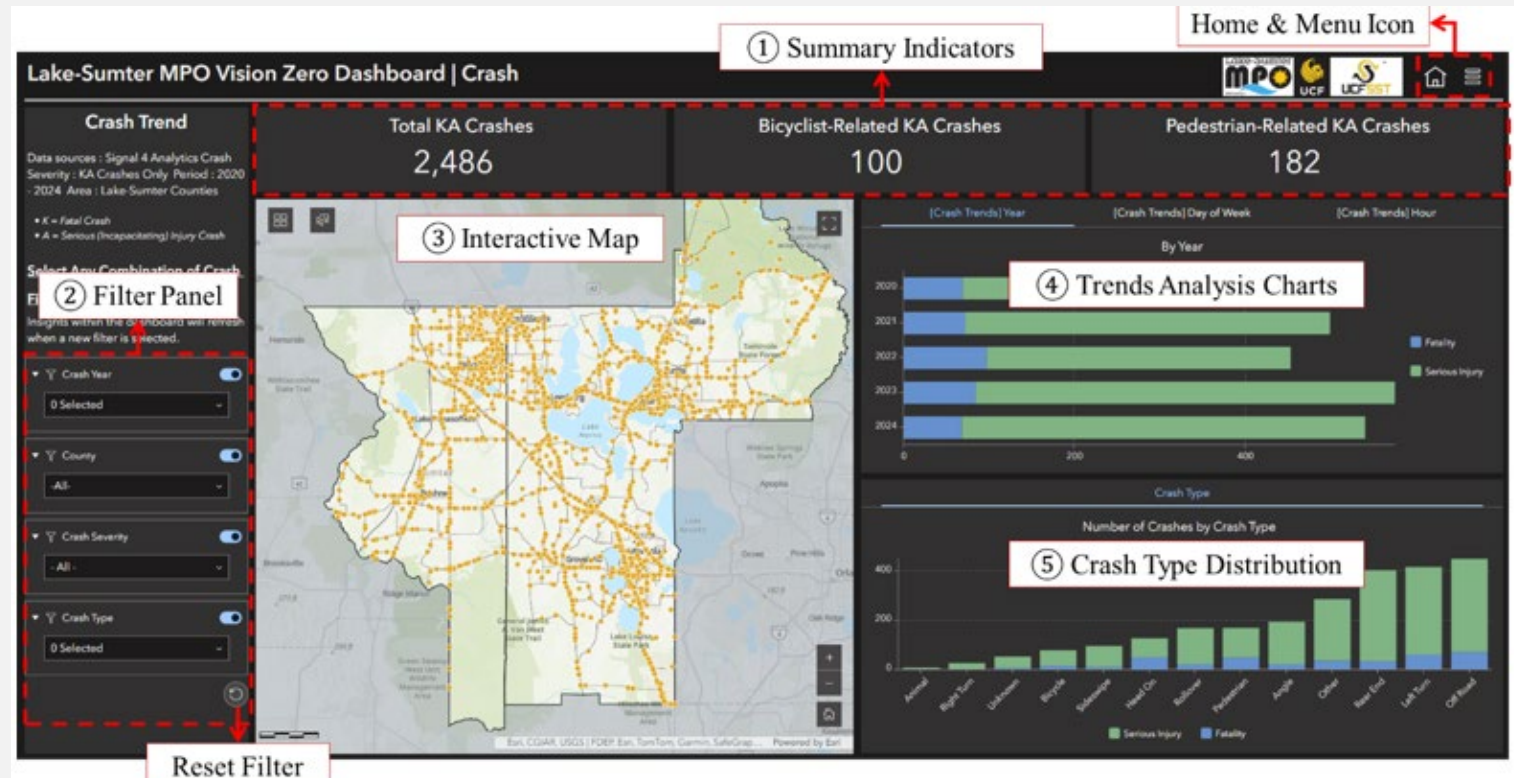
LSMPO Safety Action Plan Annual Report

- Tracks crash trends over time

2

LSMPO Vision Zero Dashboard

- Interactive crash analysis dashboard
- HIN countermeasure summaries for Top 30 corridors



NEXT STEPS

- 1 Review document/provide any comments or feedback
- 2 Resolution to adopt Final Plan- June 2026
- 3 UCF/LSMPO Grant close-out documents
- 4 First annual report to FHWA- Summer 2027



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**THANK
YOU**