2026 Houston TexITE Spring Meeting

Achieving Zero: Transforming Municipal Agencies with Vision Zero Innovation

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consor

Boulder County

GLENWOOD SPRINGS COLORADO

MIAMI-DADE COUNTY VISION ZERO

Agenda

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- Background & History

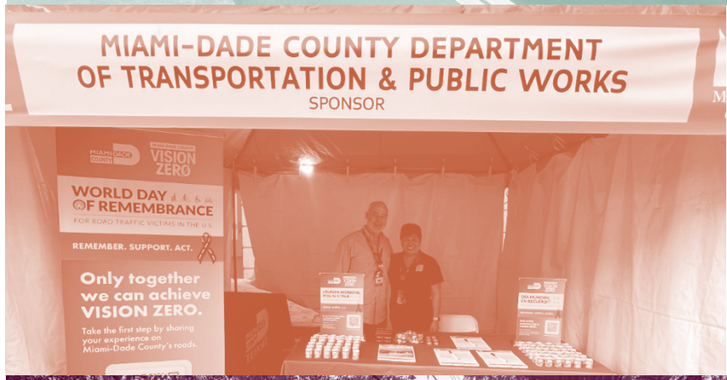
02 Vision Zero Municipalities

- Overview of Vision Zero Agencies

03 Vision Zero Action Plan

- High-Injury Network vs. High-Risk Network
- Strategy, Action Development & Dashboard

04 Successes



01

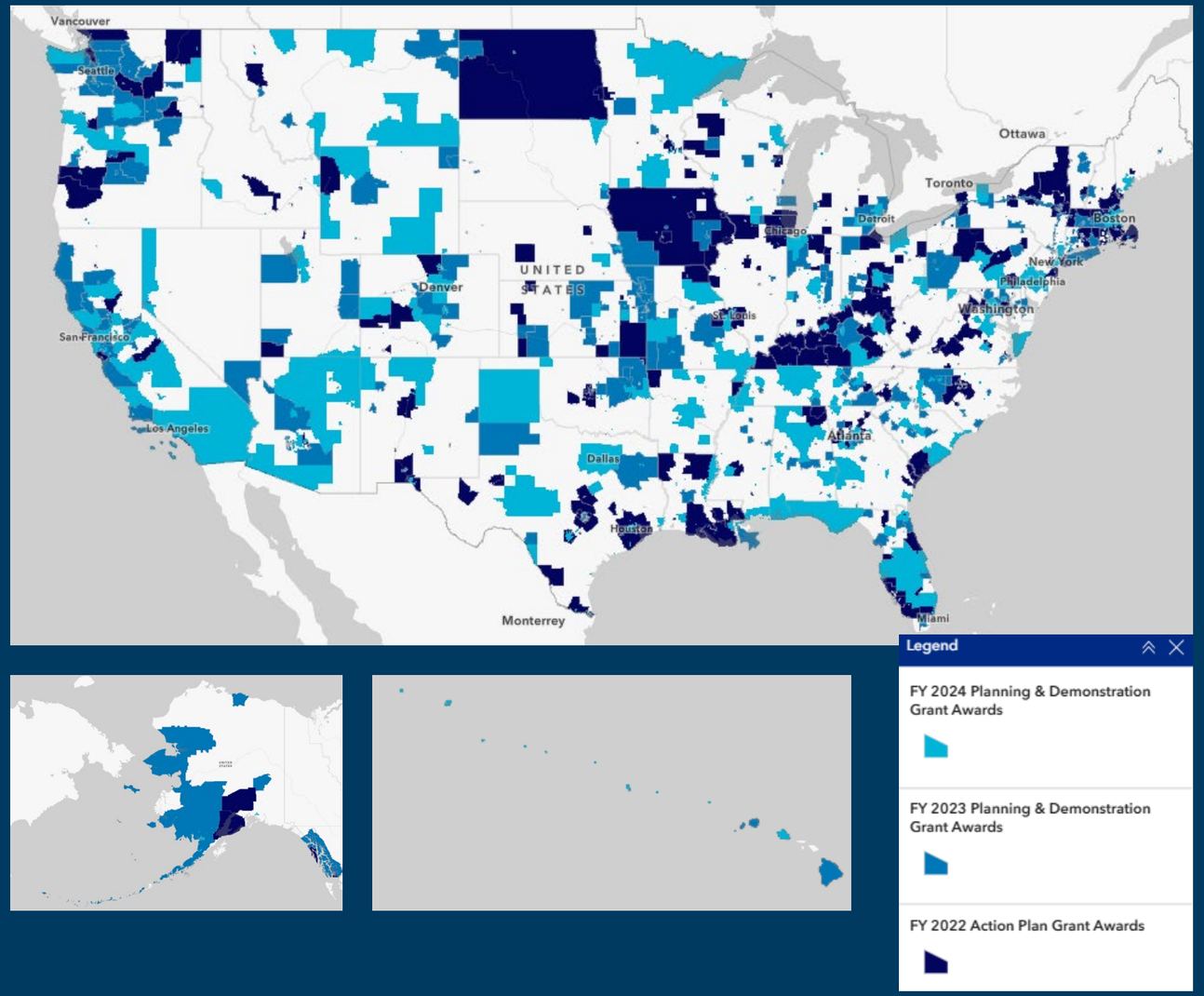
Vision Zero & Safe System Approach

What is Vision Zero?

Vision Zero is a transportation strategy to eliminate all traffic fatalities and serious injuries for people using all modes of transportation.

Vision Zero recognizes that humans make mistakes and therefore the transportation system should be designed to minimize the consequences of human error.

Safe Streets and Roads for All (SS4A) CSAP Grant Awardees



Safe System Approach

TRADITIONAL APPROACH		VISION ZERO
Traffic deaths are **INEVITABLE**		Traffic deaths are **PREVENTABLE**
PERFECT human behaviour	VS	Integrate **HUMAN FAILING** in approach
Prevent **COLLISIONS**		Prevent **FATAL AND SEVERE CRASHES**
INDIVIDUAL responsibility		**SYSTEMS** approach
Saving lives is **EXPENSIVE**		Saving lives is **NOT EXPENSIVE**

02

Vision Zero Municipalities

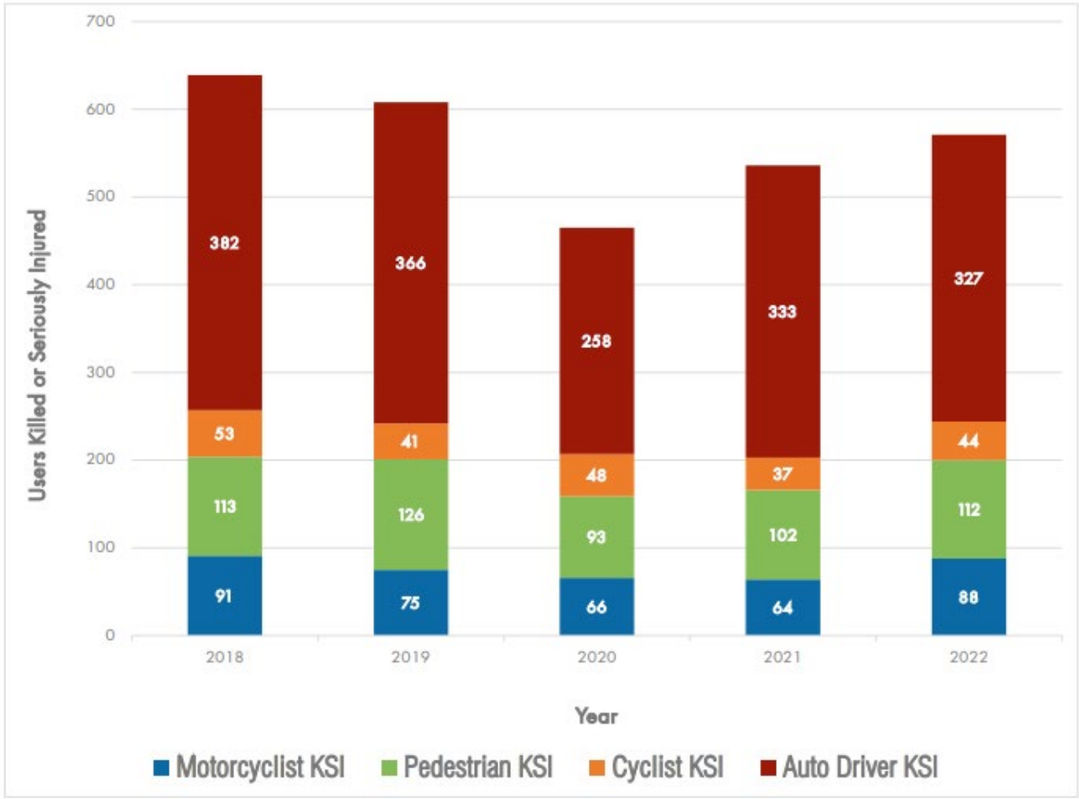
Colorado Agencies

City/County Name	Population	Square Miles	Crash Data Time Period	Number of Total Crashes	Number of KSI Crashes	KSIs as a Percentage of All Crashes
Boulder County	43,345	660	2013 to 2022	10,642	496	4.7%
Glenwood Springs	10,250	5	2019 to 2023	1,452	16	1.1%

Miami-Dade County Overview

- Seventh most populous county in the U.S.
- Nearly 70% of County residents identify as Hispanic or Latino
- 20% of the population is under 18 years of age

607 KSI crashes involving these users on local/county roads (24% of all crashes)



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Vision Zero Action Plan (VZAP)

Vision Zero Action Plan

1. Identify the Crash Picture
2. Identify the HINs and HRNs
3. Identify countermeasures and address the trends
4. Develop VZAP

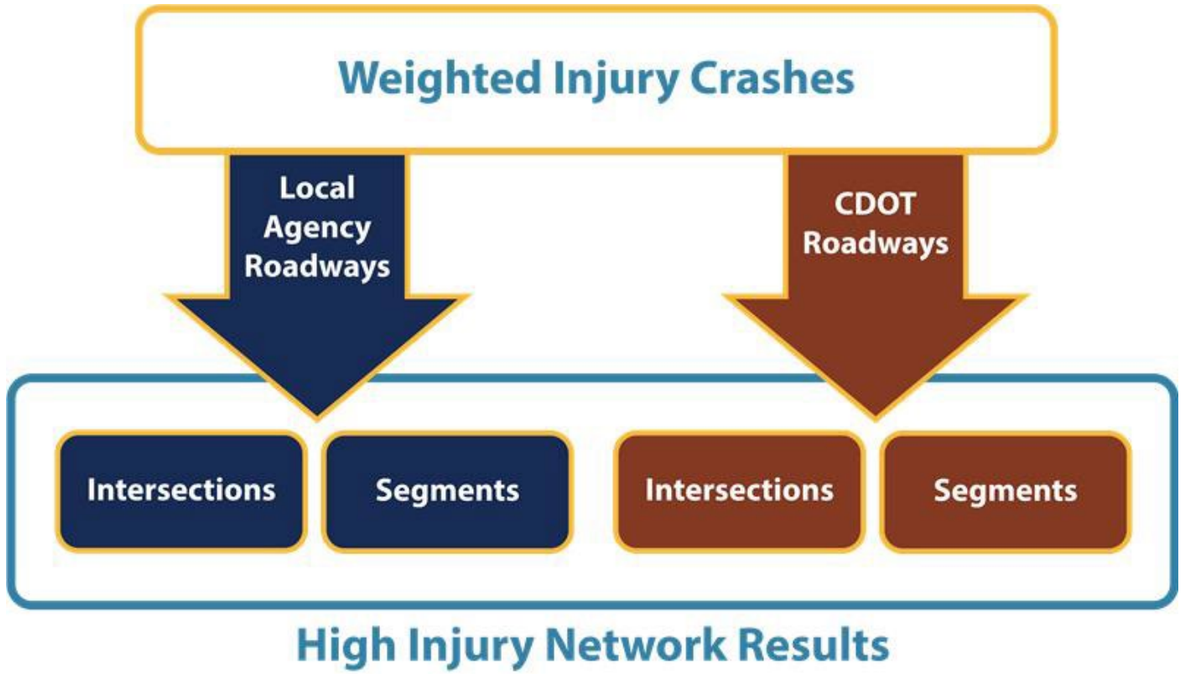
High Injury Network vs. High-Risk Network

High-Injury Network (HIN)	High-Risk Network (HRN)
Reactive	Proactive
Historical Data	Roadway Characteristics
Past Crash Patterns	Future Crash Potential
Prioritize Locations for Near-term Implementation	Identifies Emerging Needs

Colorado High-Injury Network Development

Boulder County

- Segments vs Intersections
- Minor Injuries & Crash Weighting
- Threshold Development
  - AVG+1STD + tweaking
  - Splitting out state highways



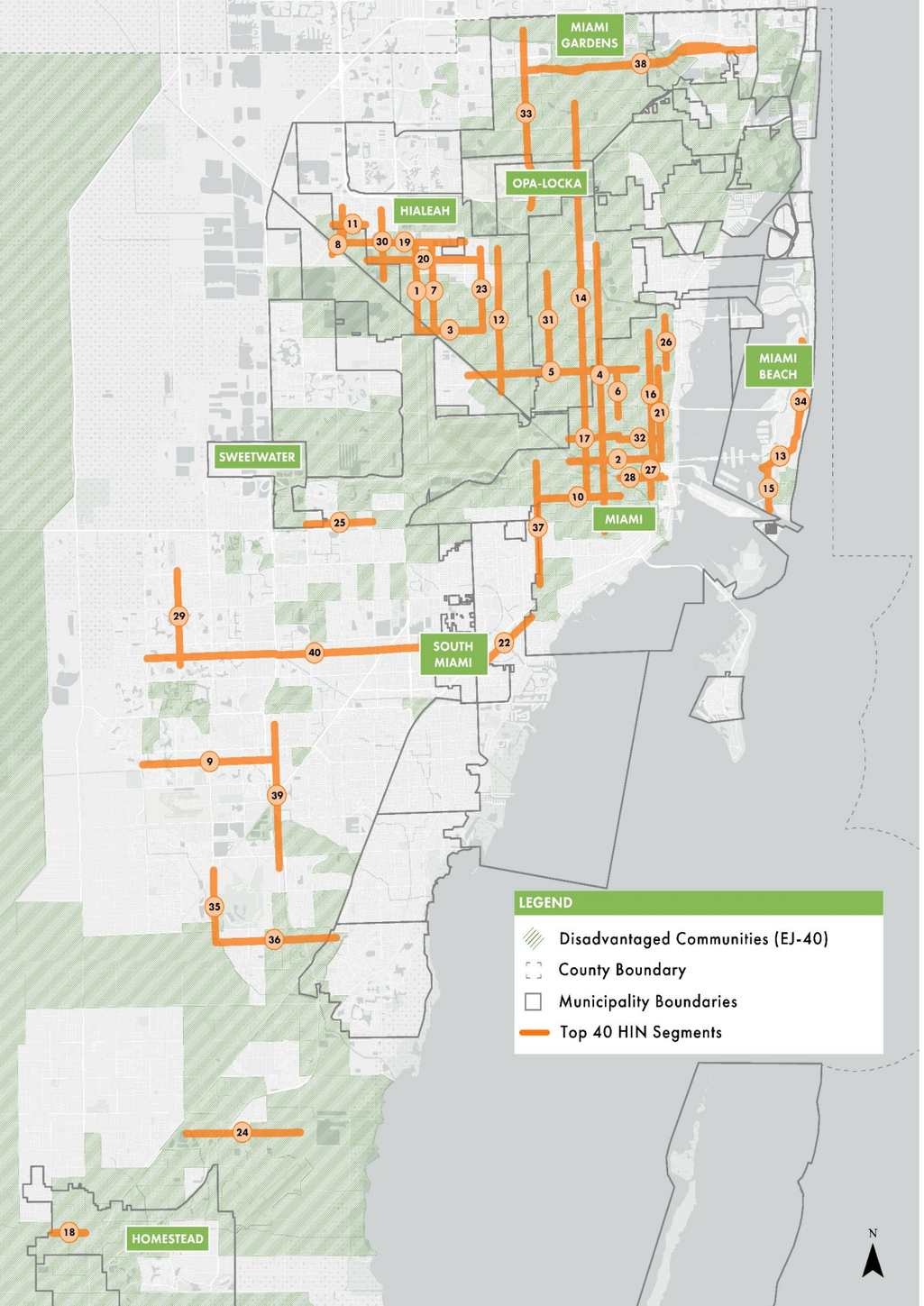
Colorado High-Injury Network Development

Glenwood Springs

- Separated out by local roadway & CDOT facility crashes:
  - Far fewer crashes on city roadways (tailoring thresholds)
  - Crash trends/characteristics different
  - Ownership and maintenance
  - Applicability of recommended actions

Crash Type	City Roadways	CDOT Roadways
All Crashes	452 crashes (32%)	971 crashes (68%)
KSI Crashes	5 crashes (33%)	10 crashes (67%)

Table 1. Summary of Crashes by Roadway Ownership



Miami-Dade County High-Injury Network (HIN)

HIN Development Methodology

- Excludes FDOT roads
- Prioritizes vulnerable road users

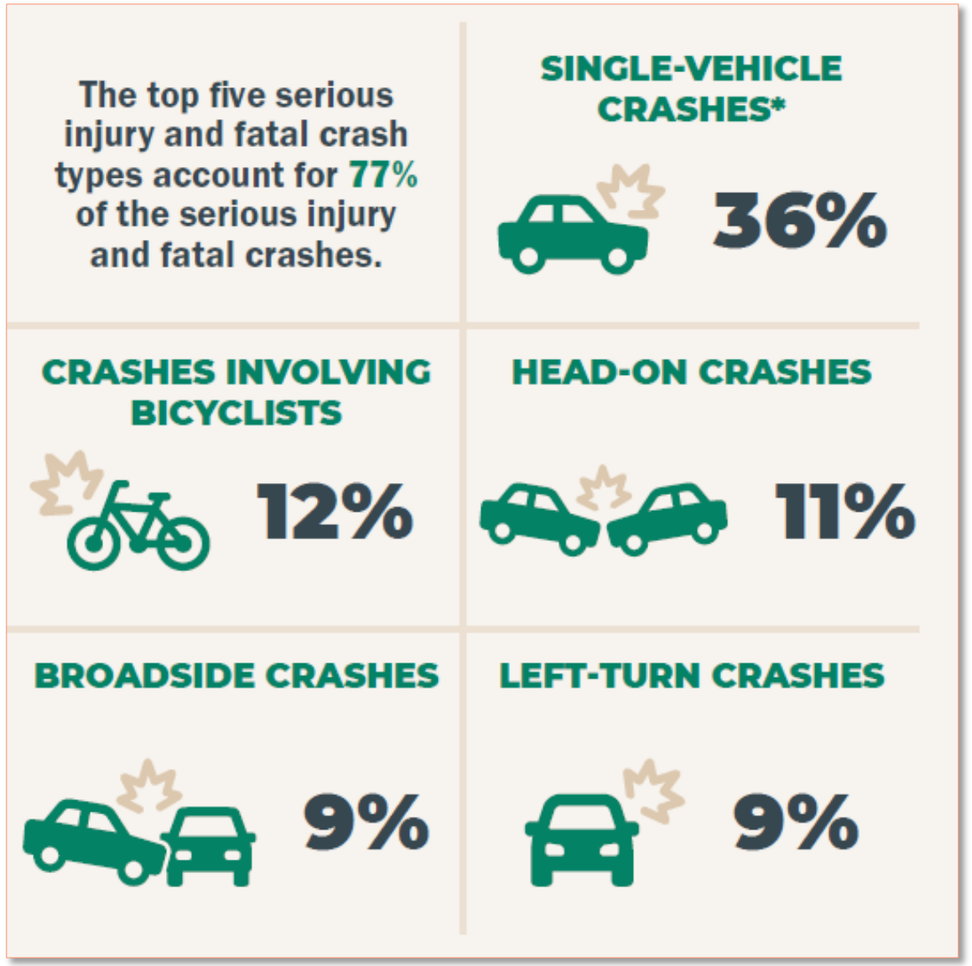
2018-2022 Fatal & Serious Injury Crashes

- 7,314 crashes on all roads
- 2,505 (34%) on all County/Municipal roads
- 40 corridors account for approximately 31% of the 2,505 crashes on 1.5% of the total County/Municipal centerline miles
- 62% of overall HIN segment mileage is within an equity area

Colorado High-Risk Network Development

Boulder County

- Lack of contextual roadway data
- Focused on top crash types for systemic analysis & county-wide countermeasures



Colorado High-Risk Network Development

Glenwood Springs

- Shifted budget to develop new contextual layers
- Based on existing crash data
- Informed by community feedback/areas of concern

Variable	HRN Threshold	Type
Intersection Control	Traffic Signal/Roundabout	Roadway Characteristic
Crossing Type	Marked	Roadway Characteristic
Trail Crossing (At-Grade)	Marked/Unmarked/Partially Marked	Roadway Characteristic
Activity Generators (in .10 mile)	Adjacent to Parks	Non-Roadway Characteristic
Activity Generators (in .10 mile)	Adjacent to Transit Stops (including RFTA/Ride Glenwood stops, and Amtrak Station)	Non-Roadway Characteristic
Land Use/Zoning	Mixed Use/Residential	Non-Roadway Characteristic

Table 7: High Risk Intersection Factor Thresholds

Variable	HRN Threshold	Type
Functional Class	Principal & Minor Arterial/Commercial Collector/State Highway	Roadway Characteristic
Number of Lanes	3 or More	Roadway Characteristic
Posted Speed Limit	30 mph or Greater	Roadway Characteristic
Activity Generators (in .10 mile)	Adjacent to Parks	Non-Roadway Characteristic
Activity Generators (in .10 mile)	Adjacent to Transit Stops	Non-Roadway Characteristic
Land Use/Zoning	Commercial/Mixed Use/Resort	Non-Roadway Characteristic

Table 8: High Risk Segment Factor Thresholds

Strategy & Action Development

SAFER ROADS

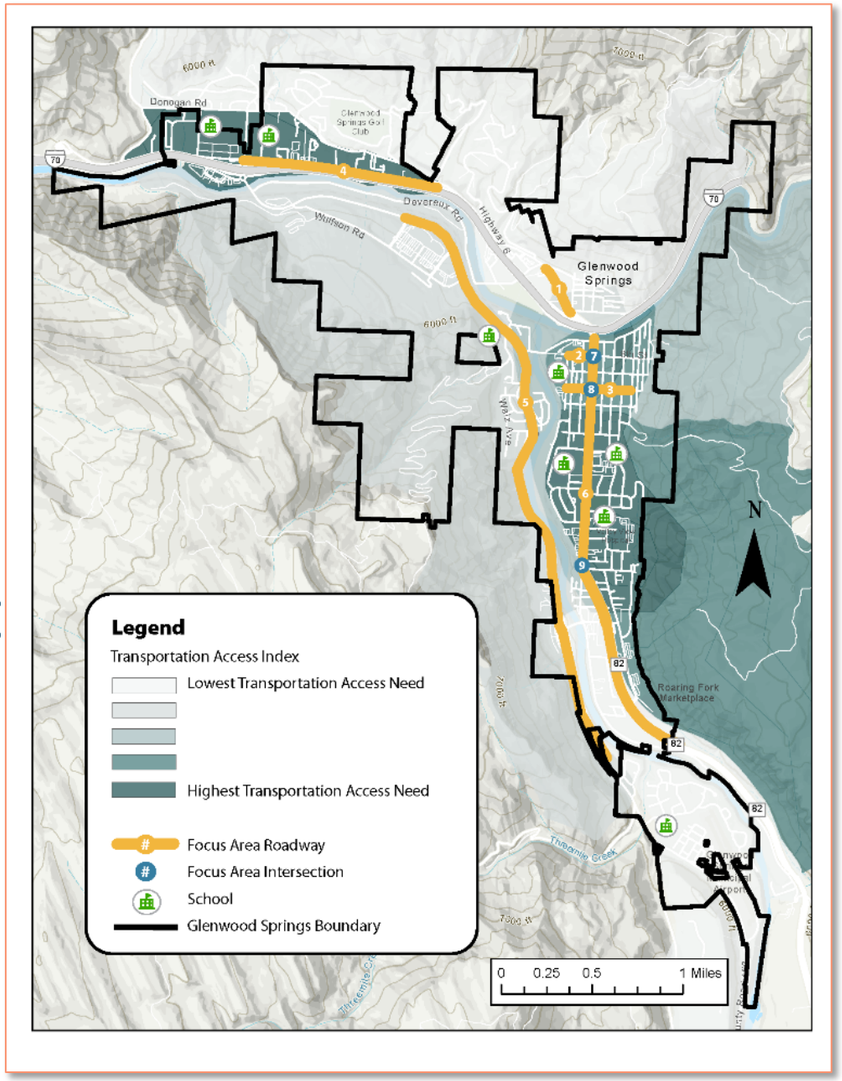
Strategy 4: Develop roadway guidelines based on safety best practices.

Action	Next Steps to Achieve Action	Lead | *Partner(s)*	Timeframe	Cost Estimate
SR4-a. Develop signal operation guidelines addressing left-turn operations, Leading Pedestrian/ Bike Intervals, No Right Turn on Reds at signalized intersections. ***Underway***	• Identify if will be developed in-house or through a consultant. • Develop scope. • Obtain funding (if needed).	Public Works – Engineering	**Short-Term**	**$ – $$**
SR4-b. Develop pedestrian crossing treatment installation guidelines to guide where to install marked crossings and pedestrian signals.	• Identify if will be developed in-house or through a consultant. • Develop scope. • Obtain funding (if needed).	Public Works – Engineering *CP&P – Transportation Planning*	**Mid-Term**	**$ – $$**
SR4-c. Develop bicycle facility signing and striping guidelines that can be incorporated into the county's Multimodal Transportation Standards (MMTS).	• Work with County Engineer to identify scope and integration into the MMTS.	Public Works – Engineering *CP&P – Transportation Planning*	**Short-Term**	**$ – $$**

Strategy & Action Development

Glenwood Springs

- Emergency services and maintenance staff engagement
  - ➢ Realism check
  - ➢ Consider ongoing maintenance costs
  - ➢ Building public trust/buy-in
- Implementable actions & concrete next steps
- HIN/HRN/Feedback Focus Areas
- Template for tracking KPIs

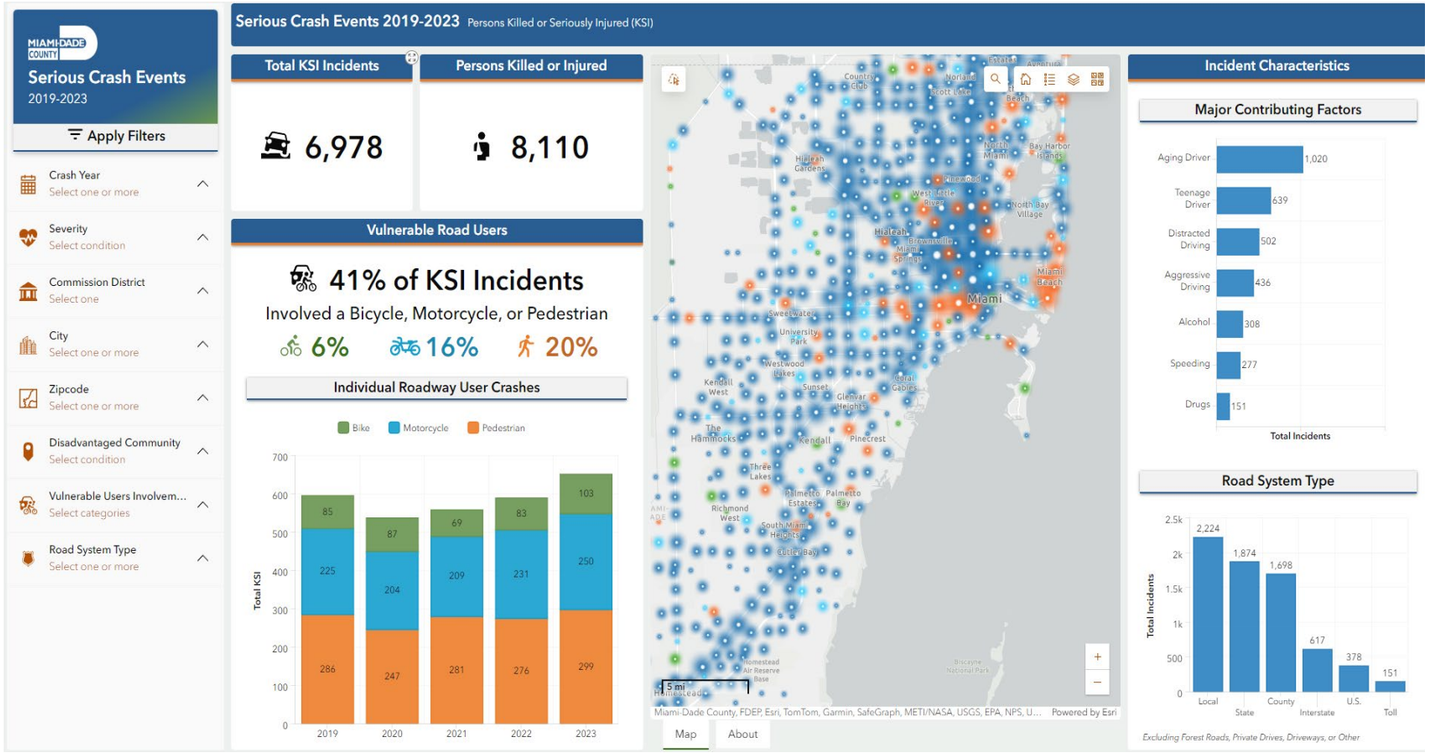


Strategy & Action Development

- Data-driven approach to develop HIN
- Focused on Safe Systems Approach
- Conducted over 100 public outreach events
- Prioritized vulnerable road users
- Created a clear implementation framework

Miami-Dade County Vision Zero Data Dashboard

- ESRI GIS map-based tool
- Focused on a detailed crash data metrics breakdown
- Tracks Vision Zero benchmarks & metrics



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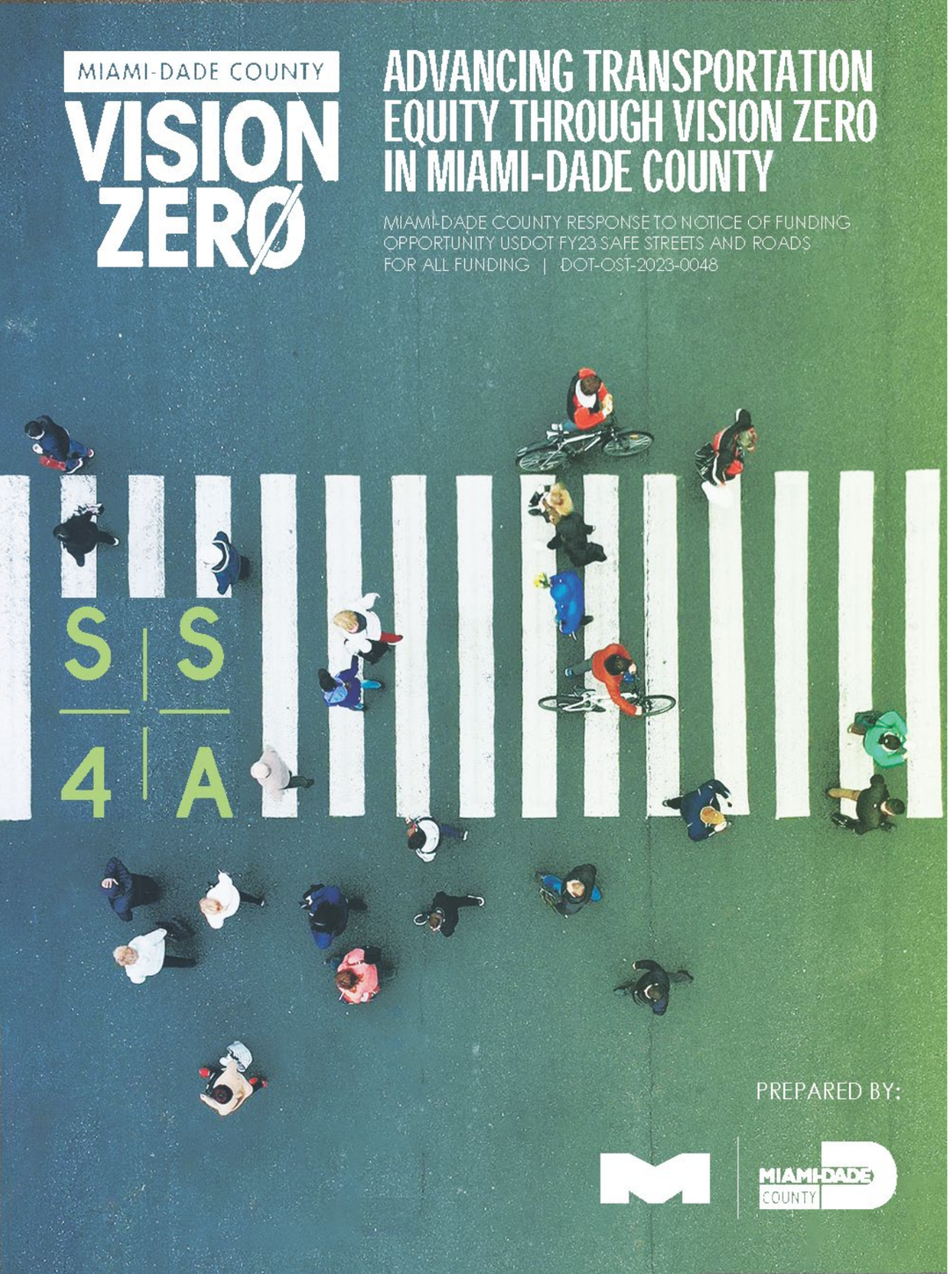
Successes



SS4A Implementation Grant

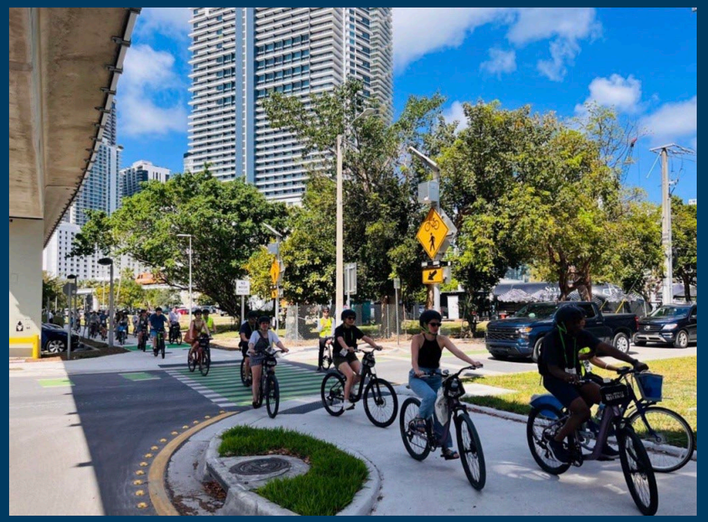
- $16.2 Million awarded
- DTPW submitted with the Miami-Dade TPO, City of Hialeah, and City of Miami Beach

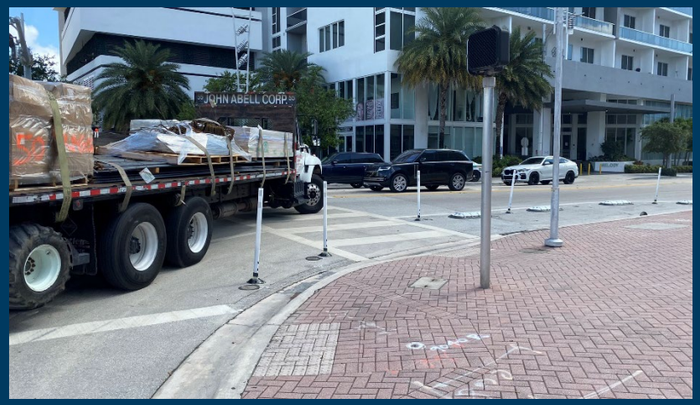
Funding Scope

- 24 Implementation Projects
- 6 Supplemental Planning Projects
- 9 Demonstration Projects

NACTO Showcase: May 2024

- ~20 quick build projects installed





Questions?

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