VISION ZERO
GREENSBORO

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Overview

- Why Vision Zero?

- Data Analysis

- Emphasis Areas and Stakeholder Engagement

- Action Plan and Next Steps
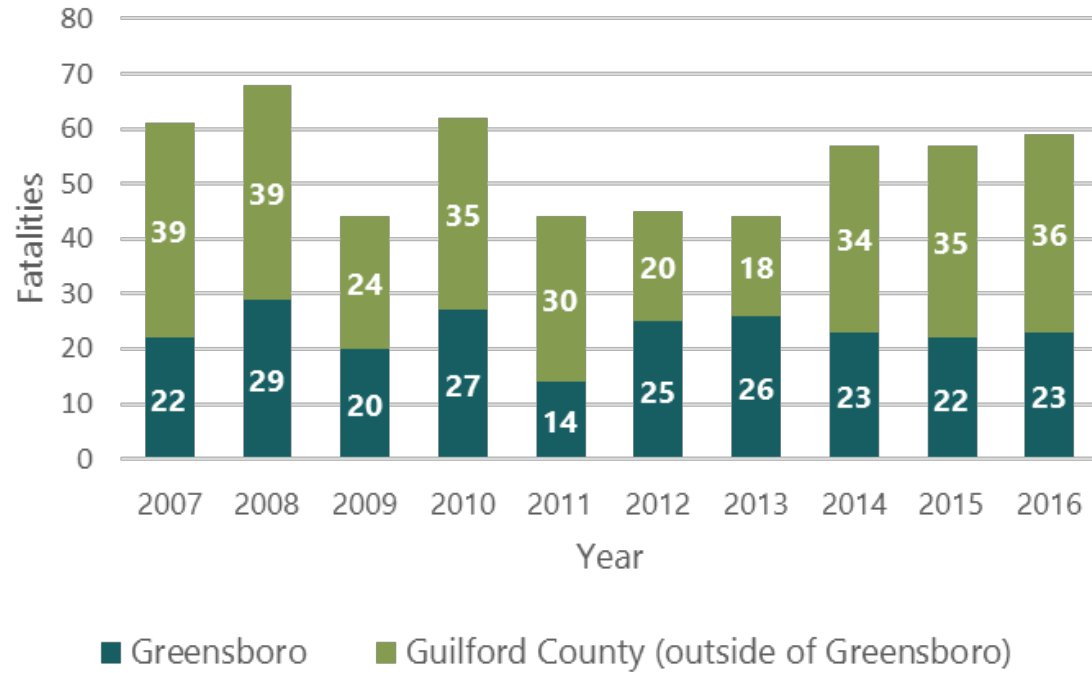
Why Vision Zero?

Vision Zero Greensboro

- Develop a multi-prong strategy that addresses all users, vehicles, infrastructure, and environment

- Create an easily identifiable program that evolves into a top priority for the entire city

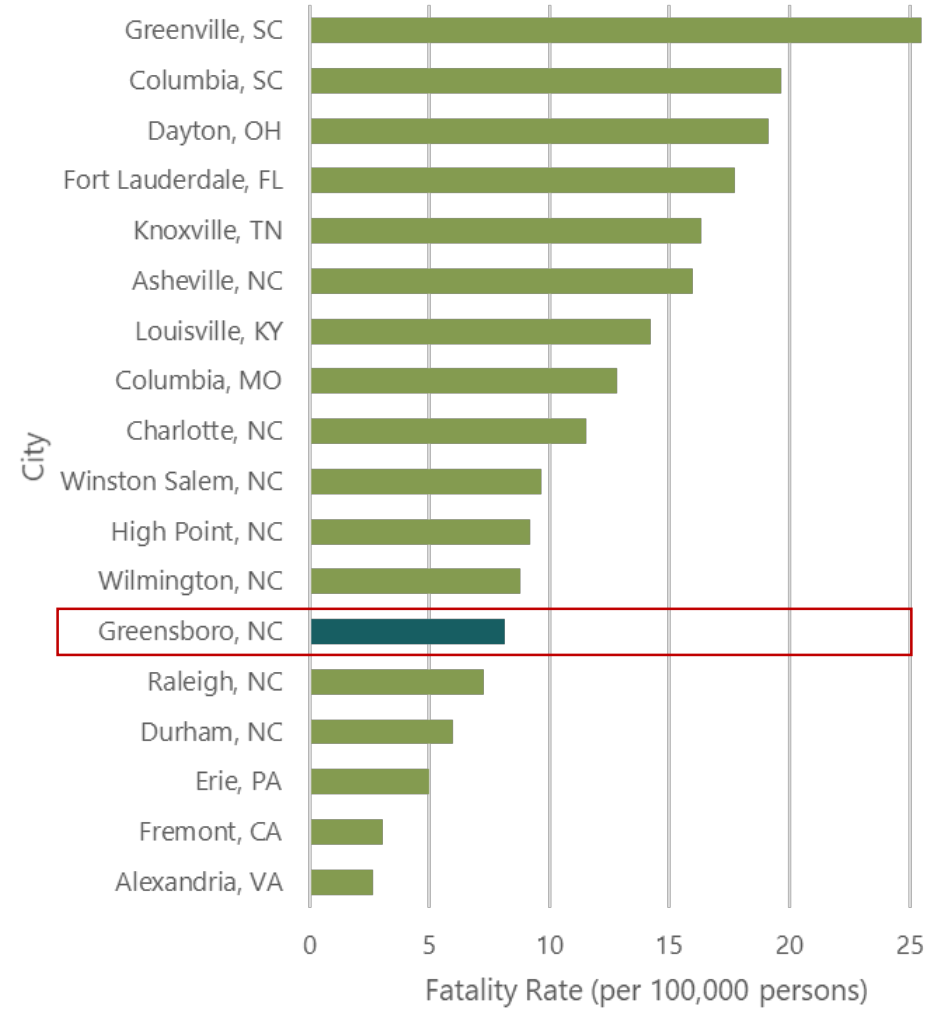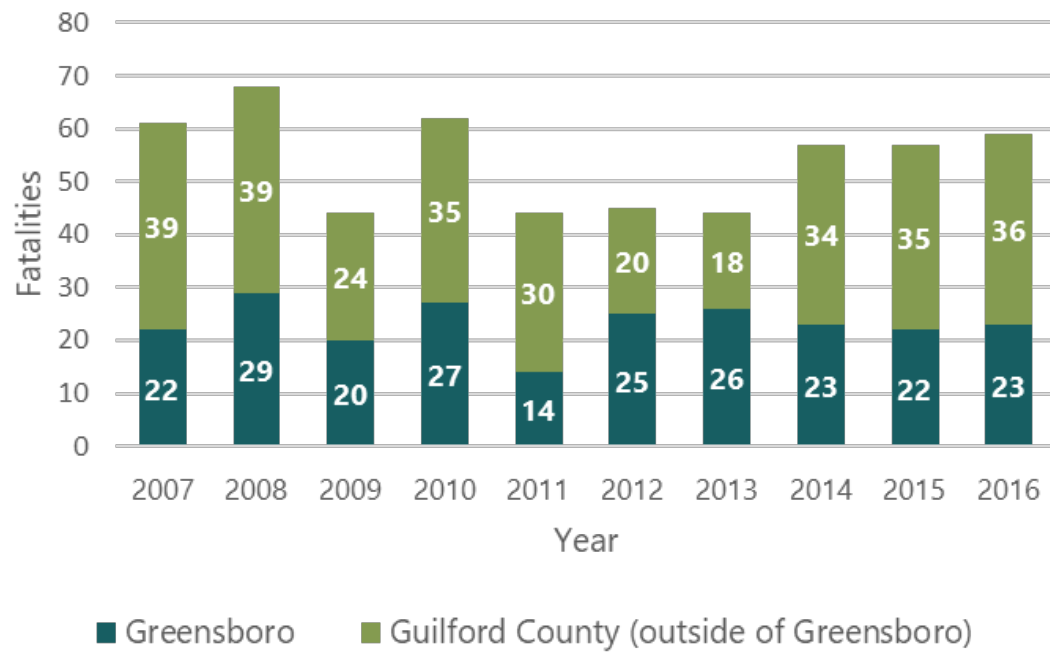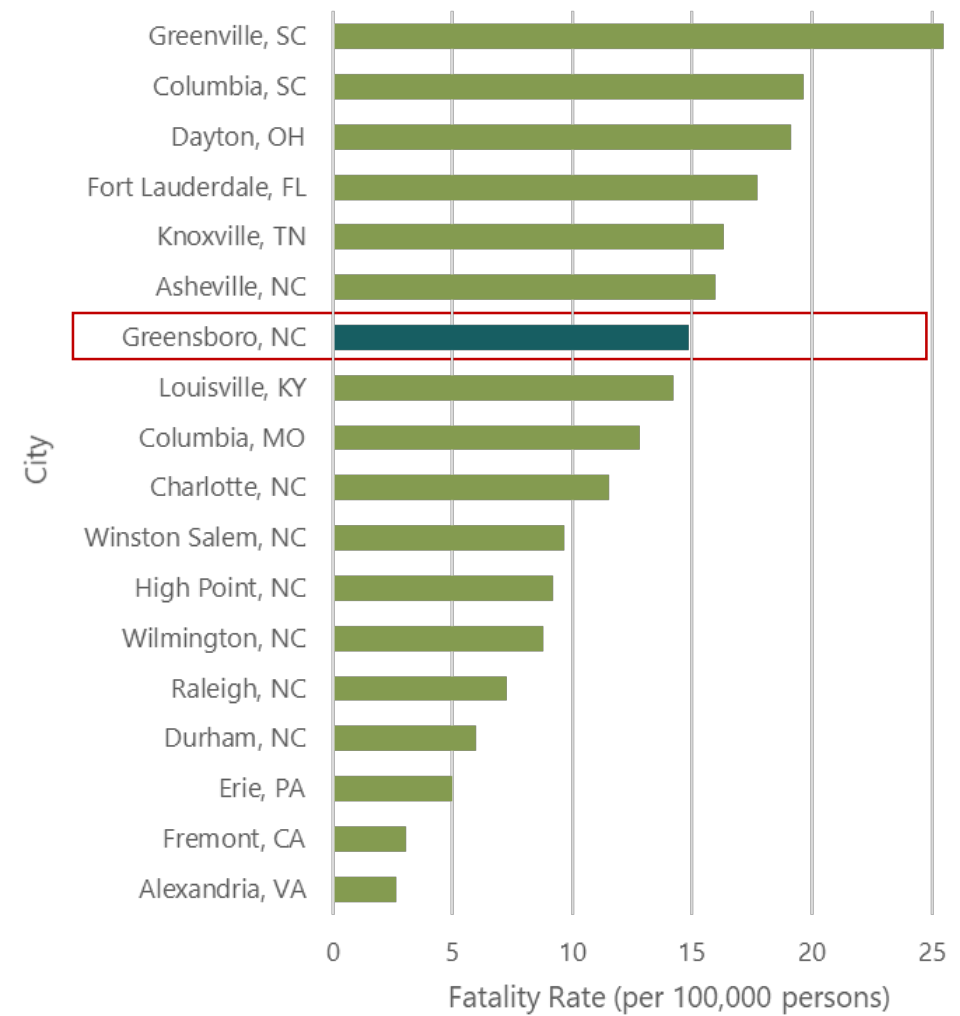- Engage an inclusive, comprehensive stakeholder base

Fatalities by Year

Year	Greensboro	Guilford County (outside of Greensboro)
2007	22	39
2008	29	39
2009	20	24
2010	27	35
2011	14	30
2012	25	20
2013	26	18
2014	23	34
2015	22	35
2016	23	36

2016 Fatality Rate by City

Greenville, SC
Columbia, SC
Dayton, OH
Fort Lauderdale, FL
Knoxville, TN
Asheville, NC
Louisville, KY
Columbia, MO
Charlotte, NC
Winston Salem, NC
High Point, NC
Wilmington, NC
Greensboro, NC
Raleigh, NC
Durham, NC
Erie, PA
Fremont, CA
Alexandria, VA

Fatality Rate (per 100,000 persons)

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Fatalities by Year

Stacked bar chart showing fatalities by year (2007–2016), split between Greensboro and Guilford County (outside of Greensboro).

Year	Greensboro	Guilford County (outside of Greensboro)
2007	22	39
2008	29	39
2009	20	24
2010	27	35
2011	14	30
2012	25	20
2013	26	18
2014	23	34
2015	22	35
2016	23	36

2017 Greensboro Fatalities

Horizontal bar chart of Fatality Rate (per 100,000 persons) by City:

- Greenville, SC
- Columbia, SC
- Dayton, OH
- Fort Lauderdale, FL
- Knoxville, TN
- Asheville, NC
- Greensboro, NC
- Louisville, KY
- Columbia, MO
- Charlotte, NC
- Winston Salem, NC
- High Point, NC
- Wilmington, NC
- Raleigh, NC
- Durham, NC
- Erie, PA
- Fremont, CA
- Alexandria, VA

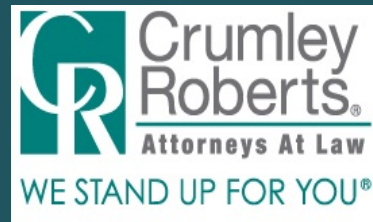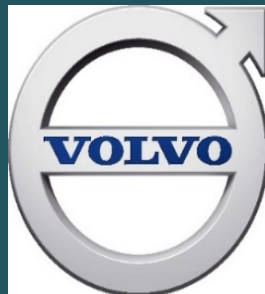VISION ZERO GREENSBORO

Committed Partners

Goal

The goal of Vision Zero Greensboro is to make transportation safety a top priority. Stakeholder collaboration and community engagement will be key to moving towards zero fatal and serious injury crashes by 2040.

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Objectives

Prevent crashes resulting in fatalities and serious injuries.

Promote a safe systems approach to transportation in Greensboro.
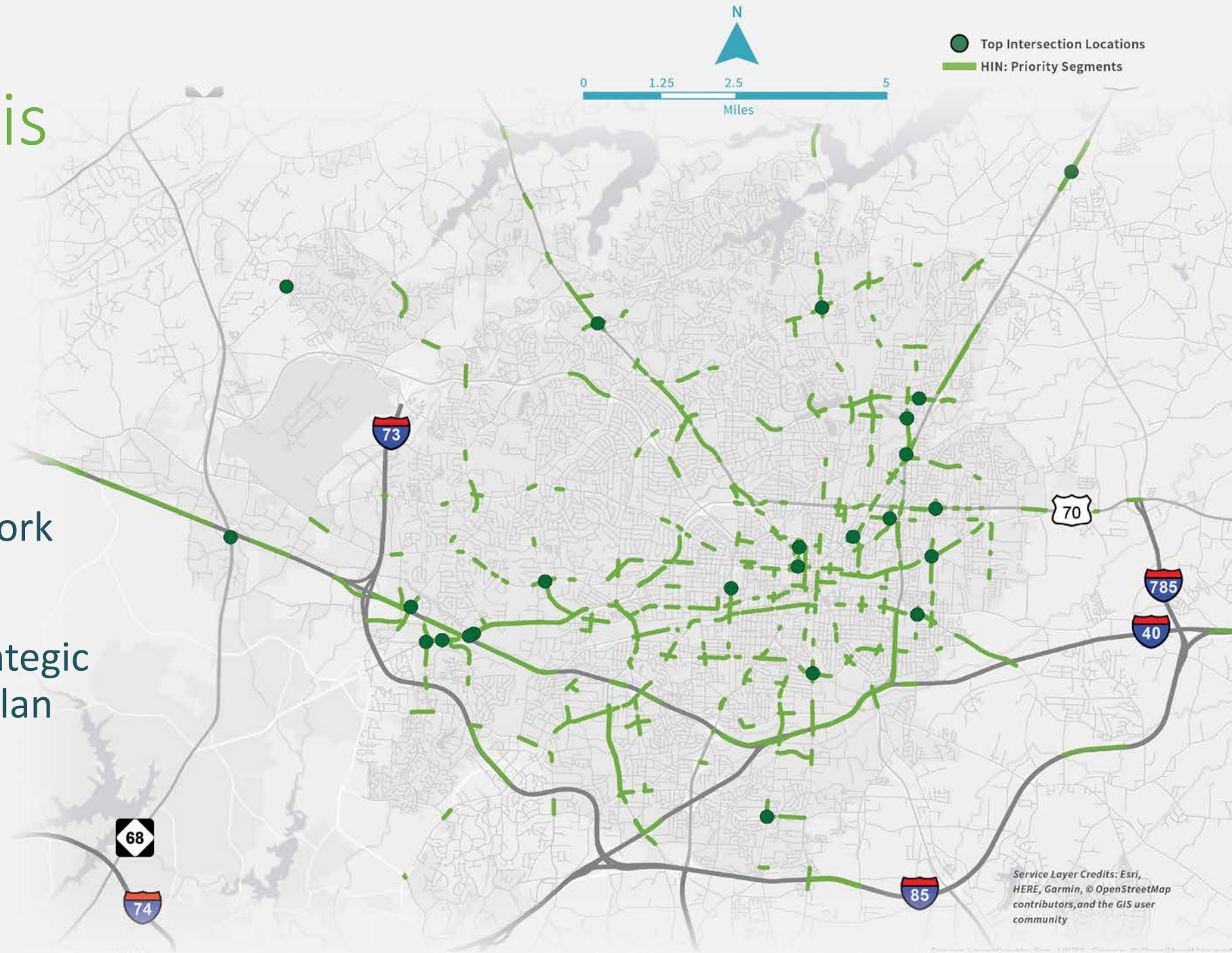
Engage partners and the public to foster a culture of safety.

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Data-Driven Process

Fatality Rate and High Injury Network

Data Analysis

- FARS (NHTSA)

- TEAAS (NCDOT)

- High Injury Network

- Overlap with Strategic Highway Safety Plan

Top Intersection Locations
HIN: Priority Segments

N

0   1.25   2.5   5
Miles

Service Layer Credits: Esri, HERE, Garmin, © OpenStreetMap contributors, and the GIS user community

Emphasis Area Relationships

SHSP Emphasis Area	Roadway Departure	Intersection-Related	Older Drivers	Young Drivers	Impaired Drivers	Impaired Pedestrian/ Bicyclist	Pedestrian	Bicyclist	Speed-Related	Motorcyclist	Occupant Restraint	% of Total Fatalities
Roadway Departure		20%	17%	30%	25%	0%	3%	0%	57%	9%	42%	49%
Intersection-Related	33%		26%	26%	17%	5%	14%	5%	36%	14%	24%	30%
Older Drivers	44%	41%		11%	7%	11%	15%	4%	19%	4%	15%	19%
Young Drivers	78%	41%	11%		11%	0%	7%	0%	56%	7%	52%	19%
Impaired Drivers	50%	21%	6%	9%		0%	15%	0%	56%	12%	32%	24%
Pedestrian	6%	17%	11%	6%	14%	28%		0%	6%	0%	0%	26%
Bicyclist	0%	67%	33%	0%	0%	0%	0%		0%	0%	0%	2%
Speed-Related	75%	29%	10%	29%	37%	0%	4%	0%		6%	35%	37%
Motorcyclist	43%	43%	7%	14%	29%	0%	0%	0%	21%		7%	10%
Occupant Restraint	81%	28%	11%	39%	31%	0%	0%	0%	50%	3%		26%

Developing the Emphasis Areas

Data Analysis and Stakeholder Input

Workshops

- Kickoff Summit – April 2018
  - Discussed areas of concern
  - Identified pressing needs for VZ

- Second Workshop – August 2018
  - Review more detailed data analysis
  - Discuss EAs

Emphasis Areas

EMPHASIS AREA 1:
Speed and
Driver Awareness

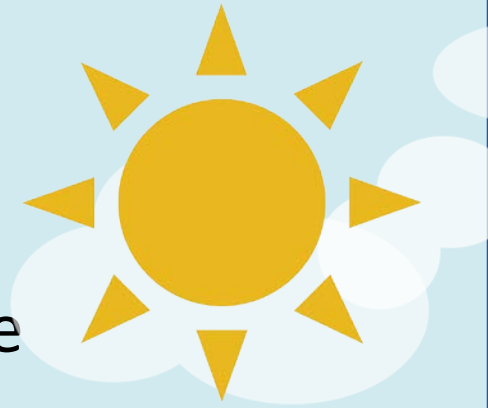**EMPHASIS AREA 2:**
Run off the Road and
Protecting All Users

EMPHASIS AREA 3:
Protecting
Vulnerable Users

EA 1: Speed and Driver Awareness

- Speeding was identified as a leading issue in the data and the kickoff summit
- 41% of fatalities in Greensboro were speed-related (2012-2016)
- Key strategies:
  - Speed monitoring
  - Traffic count

EA 2: Run off the Road and Protecting All Users

- 80% of all fatalities involving a younger driver (15-20) also involved a run-off-road crash

- 82% unbelted fatalities also involved a vehicle departing the roadway

- Key strategies:
  - Engage aging populations
  - Establish training in wellness program on safe driving practices
  - Determine feasibility of hands free
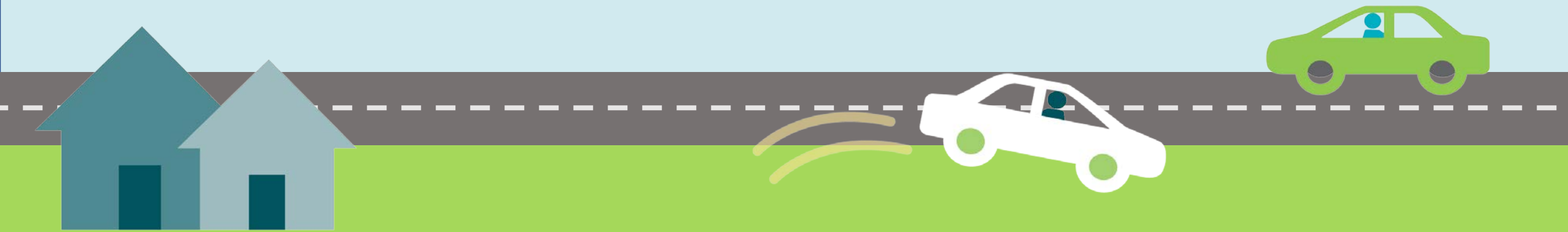
EA 3: Protecting Vulnerable Users

- 25% of pedestrian fatalities occurred at intersections
- 47% of pedestrian fatalities were adults over the age of 50
- Key strategies:
    - Coordinate outreach materials to promote safety at rail crossings
    - Engage with motorcycle community
    - Conduct data analysis on bicycle and pedestrian safety
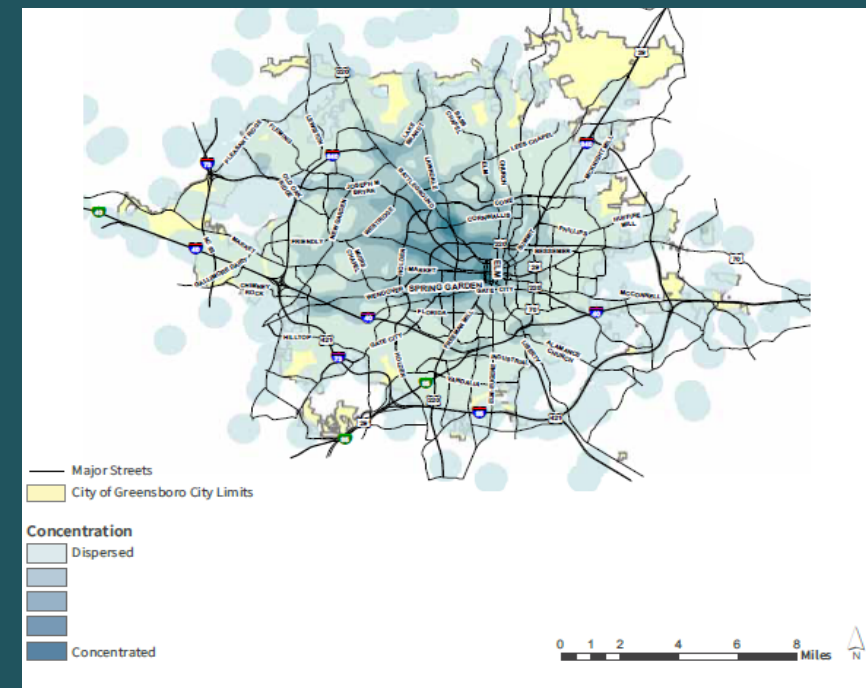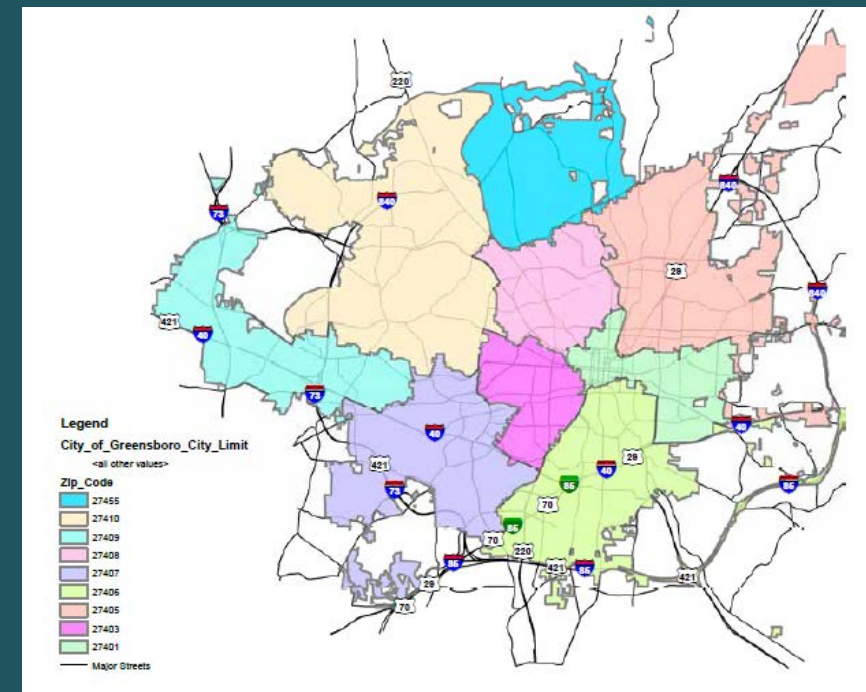   - Fund cyclist and pedestrian projects

Emphasis Area Working Groups

- 3 Working Group meetings

- Reviewed other VZ plans

- Additional data review and discussion

- Develop, refine, and prioritize EA strategies

Public Feedback

- Soft Launch Public Outreach

- Formal Public Outreach

- Received on 800 responses

- Feedback on Top Safety Concerns

# Vision Zero Greensboro Action Plan

Speed and Keeping Drivers Alert

The Speed and Keeping Drivers Alert Emphasis Area focuses on promoting a culture of safe and attentive driving. The analysis of roadway fatalities in Greensboro revealed that speeding was one of the largest contributing factors in fatal crashes; this Emphasis Area addresses speeding related crashes. This Emphasis Area also addresses keeping drivers alert, which includes preventing driving under the influence and distracted driving. The following chart displays fatalities by contributing factor using FARS 2013 - 2017 data.

There are nearly 30 Action Plan Strategies in this Emphasis Area, many of which focus on engineering and enforcement solutions, including slower design speeds in more sensitive contexts, stricter municipal regulations against distracted driving, and neighborhood traffic calming. The City will use crowd-sourced data through a partnership with WAZE to inform project identification and selection. As this partnership develops, the data derived from this near real-time, crowd-sourced platform may provide insights that traditional sources lack. These include—but may expand as the dataset develops—congestion management, speeding, and accident reporting for locations that do not typically receive consistent or priority attention.

Emphasis Area #1: Fatalities by Contributing Factor

SPEED-RELATED IMPAIRED DRIVERS DISTRACTED DRIVING
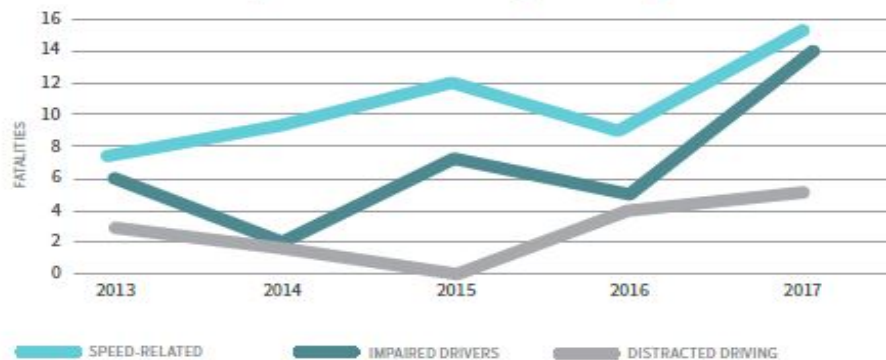
IMPAIRED DRIVER FATALITIES

2013-2017 FARS Data

76% occured between **9pm and 6am**

82% were **male**

59% occurred on **Friday, Saturday, or Sunday**

82% were **motor vehicle occupants**

50% were under **the age of 30**

56% were **speed**-related

50% were related to a vehicle **running off the road or crossing the centerline**

59% on roadways classified as local

29% occurred on an **interstate highway**

SPEED-RELATED FATALITIES

2013-2017 FARS Data

56% occured between **9pm and 6am**

60% occurred on **Friday, Saturday, or Sunday**

96% were **motor vehicle occupants**

37% involved an **impaired driver**

63% involved a driver **under the age of 40**

73% were **male**

75% were related to a vehicle **running off the road or crossing the centerline**

US 29

12% occurred on **US 29**

31% occurred on an **interstate highway**
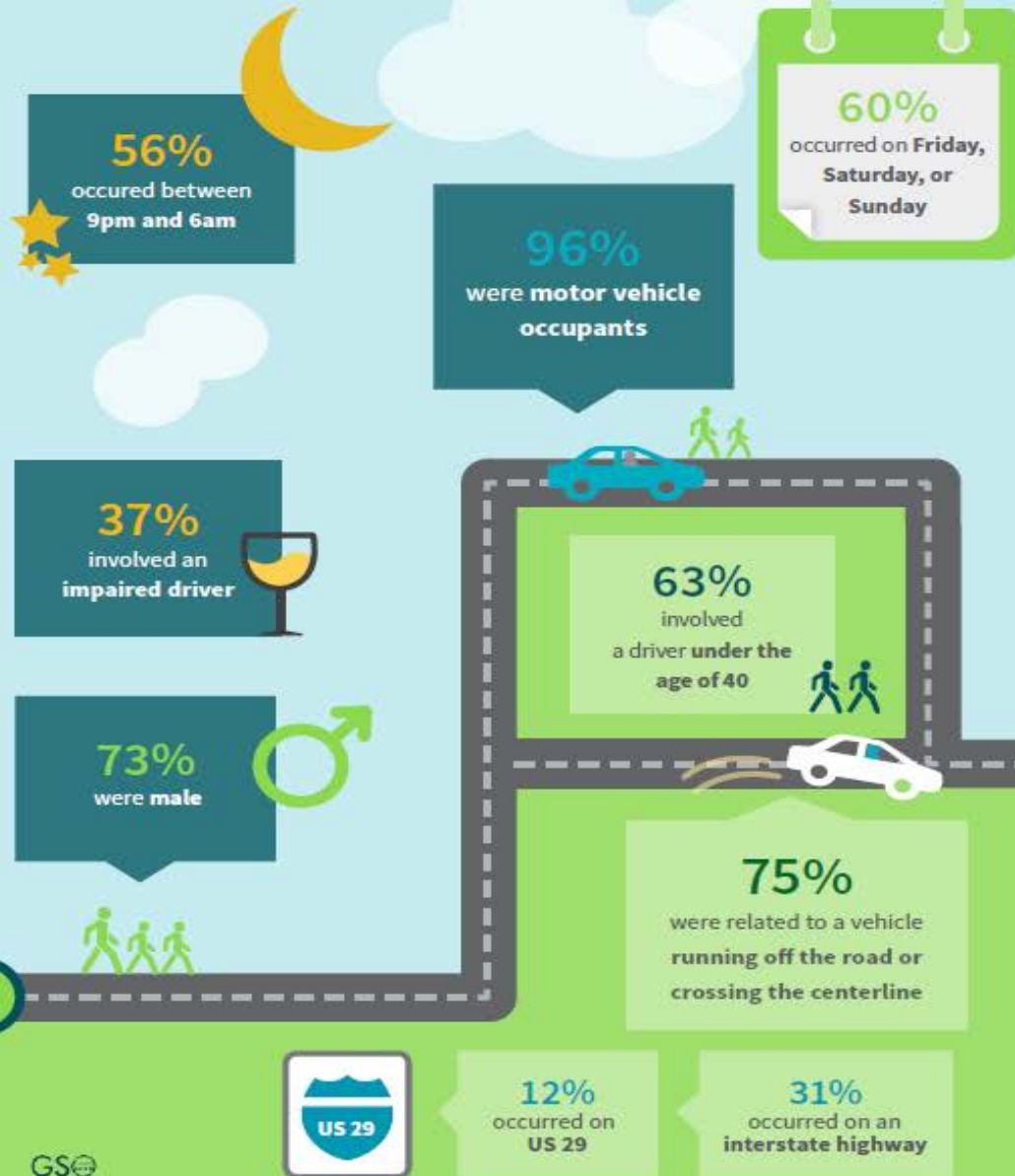
DISTRACTED DRIVER FATALITIES

2013-2017 FARS Data

8 out of 14 occurred on **Friday or Saturday**

7 out of 14 occurred between **noon and 7pm**

6 out of 13 involved distracted drivers **under the age of 26**

6 out of 14 were **speed**-related

12 out of 14 fatalities were **motor vehicle occupants**

9 out of 14 were **intersection**-related

7 out of 13 drivers were **female**

8 out of 14 occurred on **roadways classified as local**
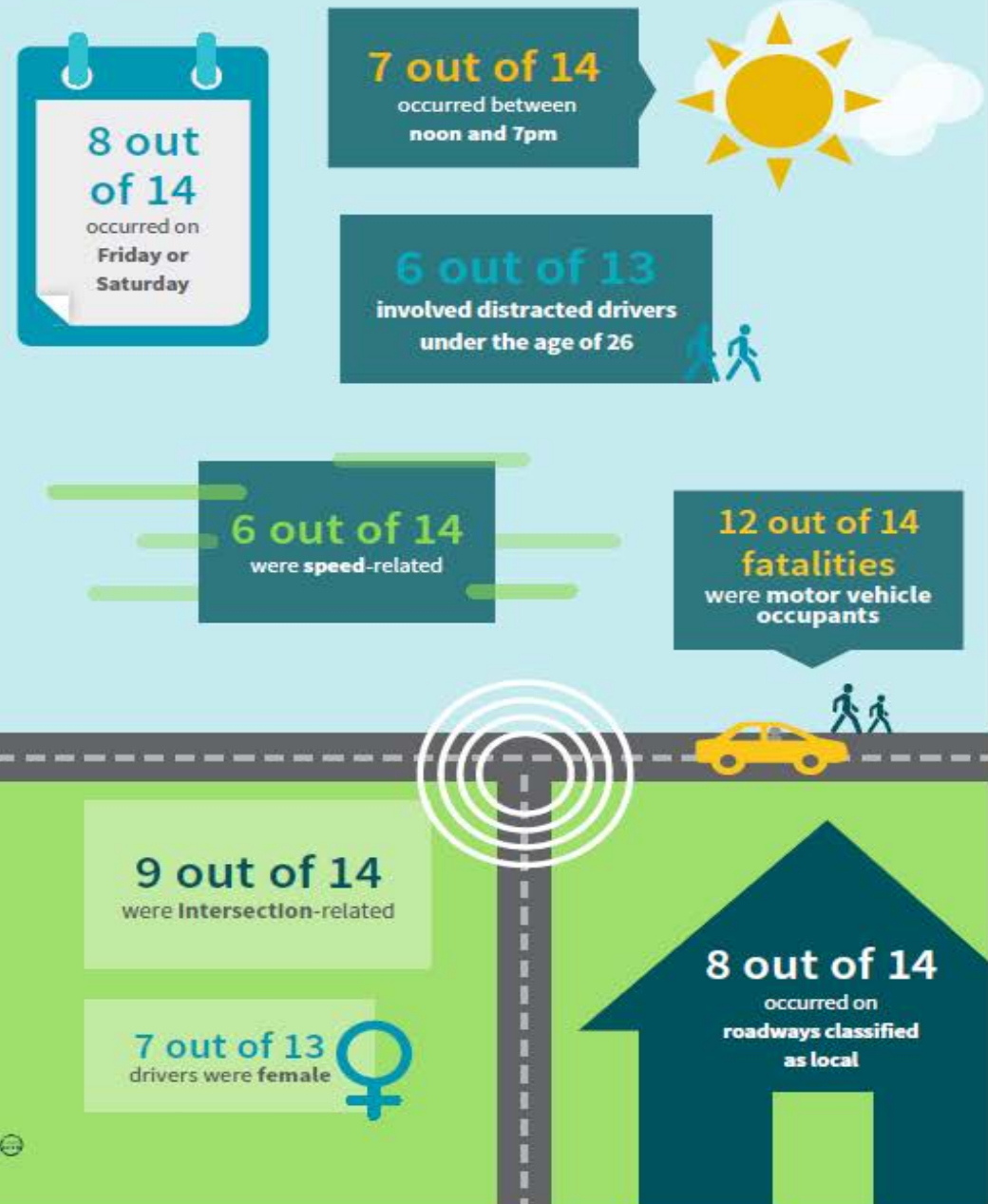
Using the Action Plan

Goals should be timebound, specific, and most importantly—actionable. The Action Plan Strategies (Appendix 1) detail the specific steps the City of Greensboro and partners will undertake to progress toward the goal of zero roadway fatalities and serious injuries. The plan is presented by E: Engineering, Education and Encouragement, Enforcement, and Emergency Services. Stakeholders and partners can easily identify the section most relevant to their work.

Each Action Plan table in the Appendix includes objectives, strategies, responsible agencies, timelines, and associated Emphasis Areas. Objectives were developed based on the needs identified by the stakeholders and represent the general steps to achieving each E's goal. Strategies are specific actions under the objective to reach the goal. Responsible Agency lists the key agency(s) who can either act as the point of contact or facilitate the strategy. The timeline varies for different strategies and are categorized as follows:

Ongoing: These strategies are either partially implemented already or could be implemented immediately (prior to published plan). In most cases, the partnerships, technology, and leadership are already in place.

3-6 months: These strategies will take a short time to begin but could possibly start immediately after the plan's adoption. Some critical elements, such as scheduled meetings, volunteers, roles/responsibilities, and partnerships may need to be established.

6-12 months: These strategies will take some time to develop but should start within the first year of the two-year Action Plan. These may be dependent on new policies, working groups, outreach, or other similar efforts to be established before they can formally begin.

1-2 years (may need involvement beyond the stakeholders): The City will progress toward the end of the first Action Plan and may not complete them within the first two-year period. These strategies may require new legislation, significant policy research and changes, or significant infrastructure and capital improvements to complete. Results of the strategy may also require the participation and cooperation of third parties outside of the City and the Metropolitan Planning Organization's (MPO) direct control.

The plan is intended to be a living document. Stakeholders will monitor and track progress on regular intervals and update the plan every two years. Action Plan Strategies are flexible and may change with time—some may be ongoing and therefore, retained over multiple iterations of the Action Plan, while some strategies may be implemented immediately and fully accomplished within the two-year time period.

Icons represent the Emphasis Areas. When the icon is highlighted in the column, the strategy addresses a specific Emphasis Area. Many strategies will address more than one Emphasis Area.

Measuring Success

Vision Zero Greensboro's goal is to move towards zero fatalities and serious injury crashes by 2040. Making progress towards this goal will require tracking progress over time, and re-adjusting strategies and targets as needed. Biannual safety targets will be set and updated to measure progress and track outcomes over time.

In setting safety targets, Vision Zero Greensboro will work cooperatively with the NCDOT and the Greensboro Urban Area MPO. These organizations set safety targets based on analysis of trends and opportunities. Targets are re-examined and adjusted each year, and the same will be true for Vision Zero Greensboro.

Specific reductions in targets will be identified for the following measures:

- » Total fatalities
- » Fatality rate
- » Total serious injuries
- » Serious injury rate
- » Total non-motorized fatalities and serious injuries

The interim goal is to reduce these measures by 50% by 2030 and reduction rates will be calculated to meet this goal. The rates will be based on 5-year crash data and the initial data will be years 2014 through 2018. The rates will be reassessed annually to include the most recent crash data. The City of Greensboro will continuously monitor data and update the Action Plan every two years. If during an interim update the data are not following this trend, stakeholders can evaluate progress within each Emphasis Area to determine where to focus efforts. The Emphasis Area performance measures to the right, are additional tracking mechanisms to monitor progress.

Speed and Keeping Drivers Alert
Number of distracted driving fatalities and serious injuries · Number of speeding-related fatalities and serious injuries · Number of impairment-related fatalities and serious injuries

Run Off the Road and Protecting All Users
Number of unrestrained fatalities and serious injuries · Number of younger driver-related fatalities and serious injuries · Number of older driver-related fatalities and serious injuries · Number of run-off-road fatalities and serious injuries

Protecting Vulnerable Users
Number of pedestrian fatalities and serious injuries · Number of bicyclist fatalities and serious injuries · Number of motorcyclist fatalities and serious injuries · Number of fatalities and serious injuries by persons struck by a train while walking along railroad tracks

Education and Encouragement

✓ **GOAL**
Increase Transportation-Related Safety Awareness & Educational Outreach

 EMPHASIS AREA 1   EMPHASIS AREA 2   EMPHASIS AREA 3

EMPHASIS AREAS	STRATEGY	RESPONSIBLE AGENCY	TIMELINE	MEASURE OF EFFECTIVENESS
OBJECTIVE 1 Build partnerships with agencies, universities, advocacy groups, and private entities to support Vision Zero Greensboro efforts.				
	Engage advocacy groups, training programs, and motorcycle groups to collect more information on the motorcycle community in Greensboro to better reach the audience and address their needs.	Bike Safe NC, GPD, Local advocacy groups	3–6 months	• Number of meetings with different groups. • Summary of meetings. • Issues identified. • Number of outreach methods identified and used.
	Partner with community groups (e.g., BIG, TAP, GTA, Collaborative Cottage Grove, multimodal transportation groups) to build a network that encourages multimodal transportation.	GDOT, Land Use Planners, BIG, GTA, GDOT Marketing and Communications, Bike share	3–6 months	• Number of partner groups. • Number of meetings with groups. • Number of programs expanded to include Vision Zero Greensboro components.
	Identify opportunities for local businesses to participate in Vision Zero Greensboro, such as sponsorships and outreach.	GSO	3–6 months	• Number of local businesses supporting VZ.

EMPHASIS AREAS	STRATEGY	RESPONSIBLE AGENCY	TIMELINE	MEASURE OF EFFECTIVENESS
OBJECTIVE 2 Develop and implement education campaigns targeted to specific age groups.				
	Provide safety education and outreach to pre-driving population and parents/caregivers (e.g., Safety Town, Let's Go NC) to encourage children and adults to practice safe transportation behaviors.	GSO, GDOT, Guilford County Emergency Services, Law Enforcement, Safe Kids Greensboro, Greensboro TV (GTN), GCSO, Guilford County Public Schools, GPD, Safety Town	6–12 months	• Number of outreach activities. • Number of 30-second spots to be played in Guilford County Schools and other public spaces. • Number of social media posts promoting programming. • Number of bicycle/traffic gardens installed. • Number of users participating in program. • Number of families and children served through permanent checking stations.
	Engage aging populations to promote resources that support aging road users and their families, (e.g., Car Fit, driver license reexamination process).	AAA, AARP, City of Greensboro, Law Enforcement, Faith-based Institutions	6–12 months	• Number of older adults reached. • Number of participants in Car Fit. • Number of driver license reexaminations.
OBJECTIVE 3 Develop and implement education campaigns promoting awareness of vulnerable users.				
	Investigate the effectiveness of existing programs that encourage road sharing between all users (e.g., Safe Routes to School, Watch for Me NC, NC BikeWalk, innovative solutions like crosswalk artwork) to identify which programs to continue and expand.	Watch for Me NC, NC Bike Walk, GDOT Marketing and Communications, Bike share, Safety Town, GCPS	3–6 months	• Number of existing resources identified. • Number of programs created. • Number of events promoting safety and education. • Number of countermeasures installed. • Number of online outreach posts.
	Coordinate outreach materials to promote safety at rail crossings for vulnerable users.	GDOT Marketing and Communications	3–6 months	• Number of outreach materials produced and distributed.

Next Steps

Next Steps

- Establish Working Groups

- Formalize an Executive Committee

- Finalize Plan

- Present to City Council May 21