

Vision Zero: Charlotte's Approach to Traffic Safety

FALL STRATEGY MEETING
OCTOBER 26, 2021

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Purpose

Discuss building “complete streets”

Review safety analysis tools

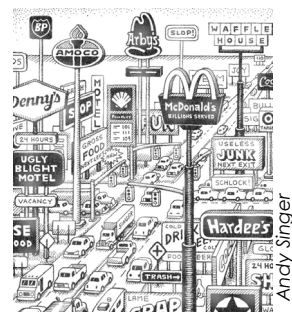
Discuss tailored solutions to address traffic safety

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Industry Leader: Building Complete Streets in Charlotte

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Charlotte's past development legacy mainly focused on travel by car (1950 – 2000s)



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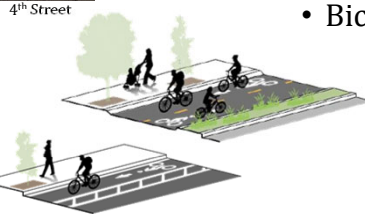
Today is about creating great places AND...



...Safer ways to travel



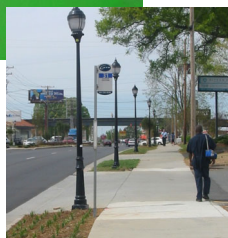
The Plaza



BUFFERED / SEPARATED BIKE LANE
(may have vertical buffer / separation;
can be one-way or two-way)

Complete Streets are Safer Streets

- Signalized intersections
- Pedestrian crossings
- Narrow vehicle travel lanes
- Bicycle facilities



Woodlawn Road



Traditional Approach

Traffic deaths are INEVITABLE
PERFECT human behavior
Prevent COLLISIONS
INDIVIDUAL responsibility
Saving lives is EXPENSIVE

VS

Vision Zero

Traffic deaths are PREVENTABLE
Integrate HUMAN FAILING in approach
Prevent FATAL AND SEVERE CRASHES
SYSTEMS approach
Saving lives is NOT EXPENSIVE

Vision Zero: Safety Analysis Tools

Focus on Leading Factors

Leading factors in fatal and serious injury crashes:

- Speeding
- Distracted driving
- Driving while impaired

2020 – Major Crash Unit investigated 81 fatalities

2021 (to date) – Major Crash Unit investigated 63 fatal crashes resulting in 70 fatalities

Focus Areas

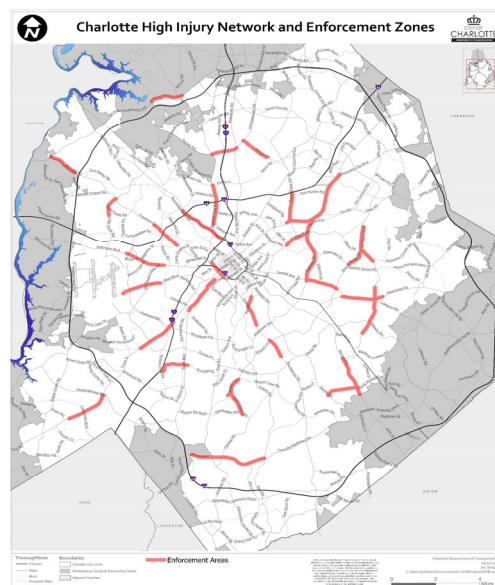
30 Corridors on High Injury Network

Transportation Unit Focus

- Seatbelt checks
- Saturation patrol
- DWI checkpoints
- Radar

Citizen requests

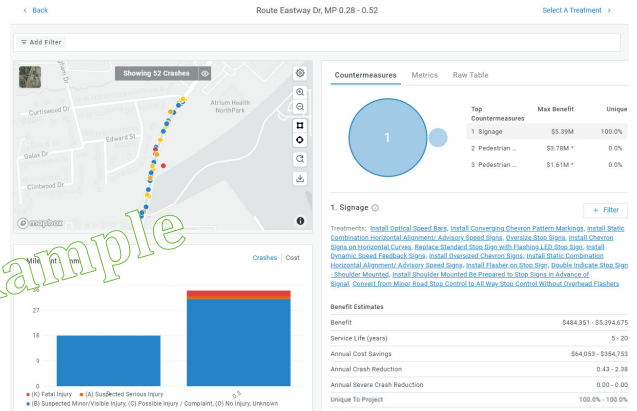
- Speeding
- Stop sign violations
- Passing stopped school bus



Charlotte's New Crash Analysis Tool

Crash Query
Collision Diagrams
Network Screening of
streets & intersections
Safety Analysis
Tailored treatments –
benefit/cost

Example



Vision Zero: Tailored Solutions for Traffic Safety

Pedestrian Hybrid Beacon

2007 - 1st in NC

How it works

- Pedestrian pushes button and vehicle stops for red signal on the “main” street
- Pedestrian crosses street with count-down signal

Installed at 34 locations citywide



North Sharon Amity Road

Leading Pedestrian Interval

Walk signal starts 3 seconds before a green light in same direction

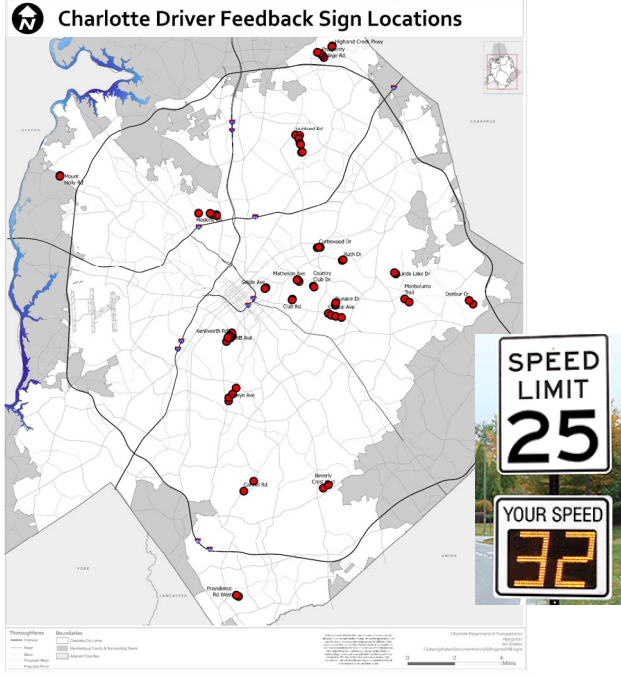
Safety enhancement - the pedestrian has a head start to enter crosswalk

Deployed at 248 locations citywide



Davidson Street at 3rd Street

Charlotte Driver Feedback Sign Locations




Criteria for Installation

1. Documented speeds more than 10 mph over speed limit **and**
2. High injury Network location
3. Citizen requested and meets at least one criteria above

Program Details

- Signs can be moved every few weeks to maximize safety benefits
- 15 signs part of rotation
- Speed data collected from signs


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Aggressive Driving & Drag Racing

Aggressive Driving and Drag Racing

- Multi-agency partnership
- 2500 traffic stops with 3500 violations
 - 2100 speeding
 - 400 reckless driving violations
 - 32 DWI charges
 - 10 spontaneous racing violations
 - 54 vehicles seized

Distinguish between drag racing versus loud noise complaints




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Low-Cost Solutions

Multi-way Stops

Warning Signs

Retroreflective backplates for signals



Regan Drive and Tom Hunter Road



W2-1



W3-1



W1-1

Communicating Together: Emergency Vehicle and Transit Signal Priority System



Technology Saves Lives - 22 Seconds saved in emergency vehicle response

1st Full Year of Priority Signal System in Operation

Original goal was 3-5 seconds

What Can Charlotte Do

Continue to build “complete streets”

Target solutions that address Charlotte’s top safety priorities

Prepare annual safety reports and before/after studies

Continually evaluate nationwide best practices

Questions?