



NCTCOG Road Safety Audit, Safe Routes to School, and Demonstration Activity





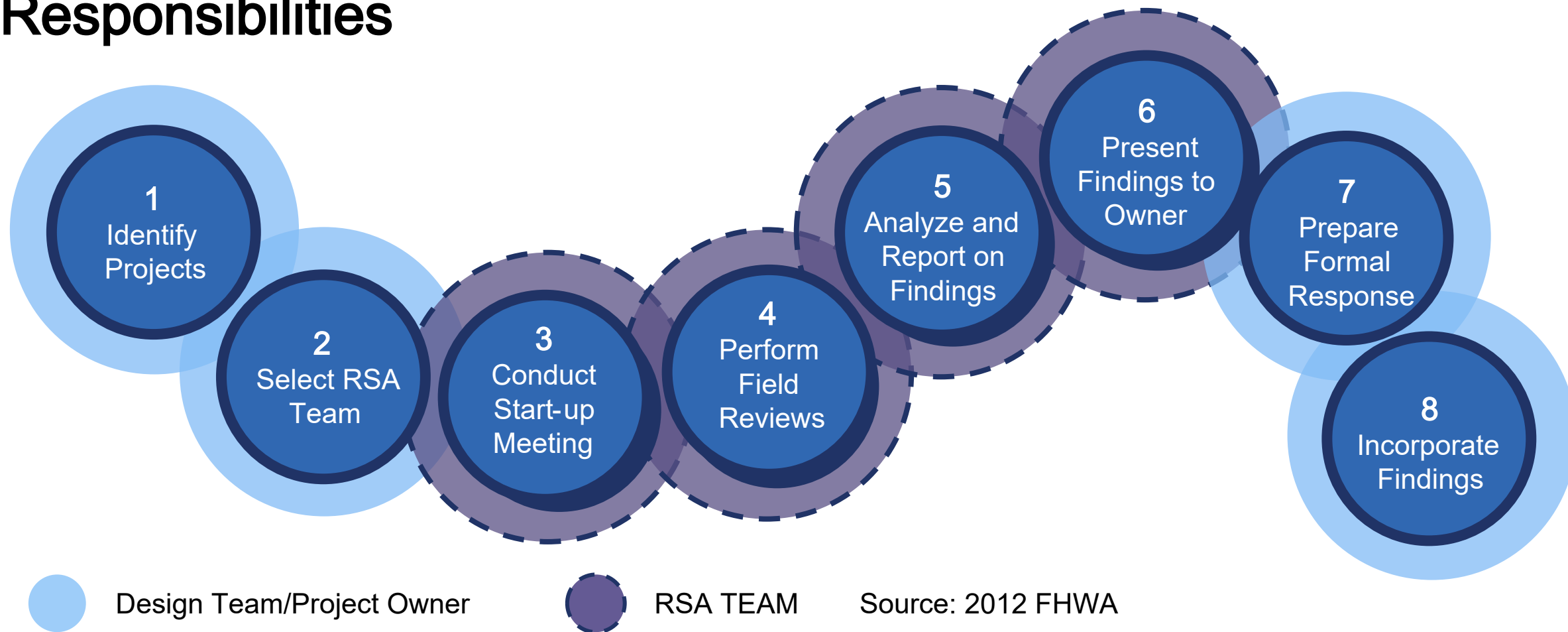
- Project Overview
- Roadway Safety Audits (RSA)
- Safe Routes to School (SRTS)
- Demonstration Activity
- Questions

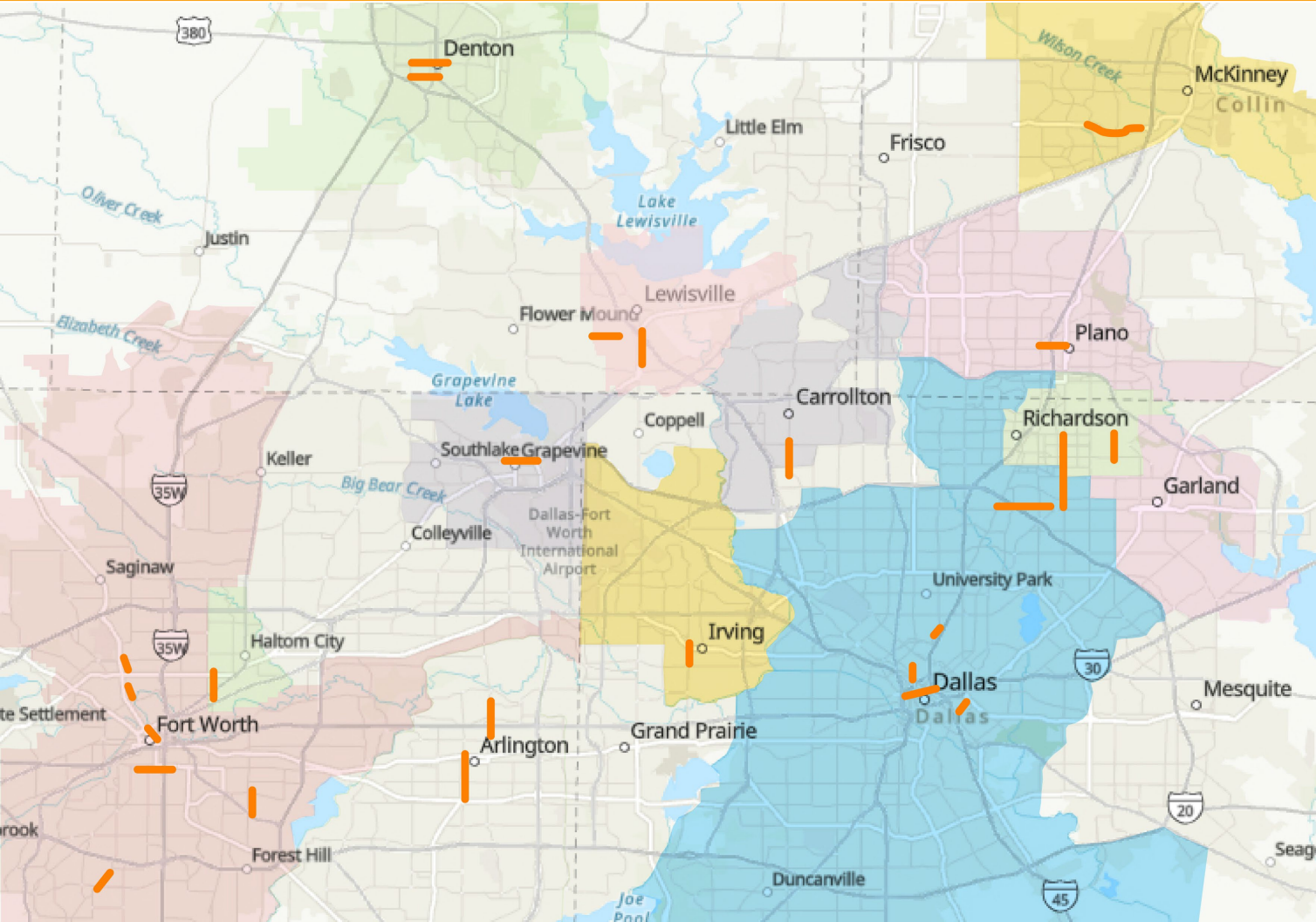


- SS4A funding awarded in 2023 to support safety planning
- RSAs were conducted to evaluate conditions and identify improvements along high-injury corridors
- SRTS plans were completed to provide recommendations for schools near high-injury corridors
- Demonstration activities were implemented to evaluate speed reduction strategies



Responsibilities





Map of the Corridors

- **26** corridors
- **36** total miles



Municipalities/Agencies:

- NCTCOG
- City of Arlington
- City of Dallas
- City of Fort Worth
- City of Grapevine
- City of Carrollton
- City of Farmers Branch
- City of Garland
- City of Richardson
- City of Plano
- City of McKinney
- City of Denton
- City of Haltom City
- City of Irving
- TxDOT – Dallas District
- TxDOT – Fort Worth District



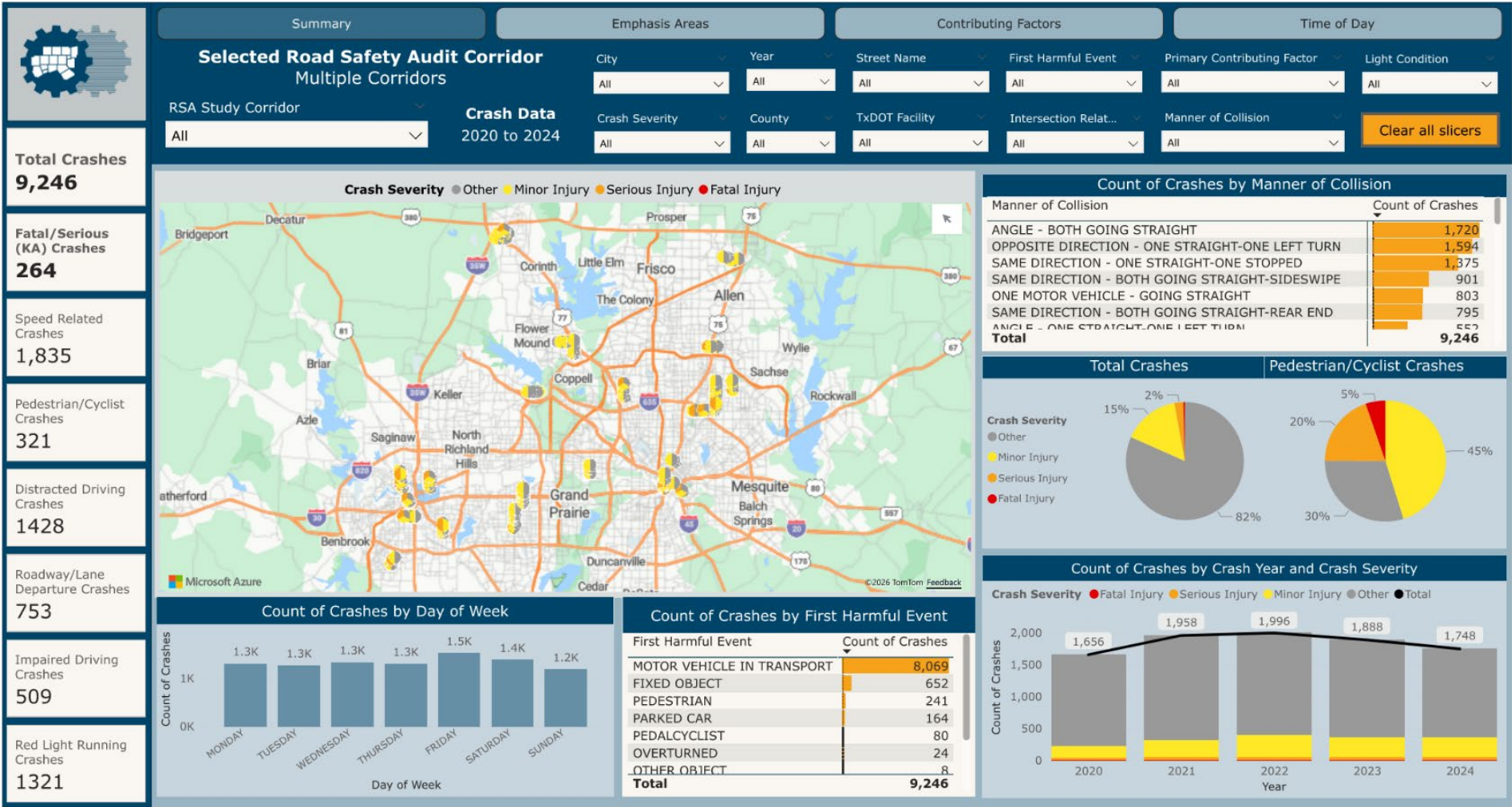
Transit Agencies:

- DART
- Trinity Metro



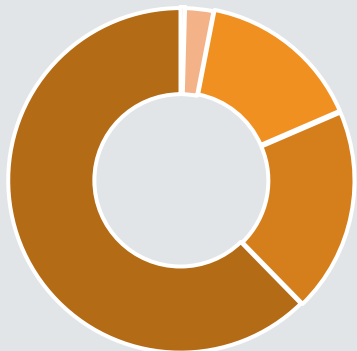
Consultant Team:

- Kimley-Horn
- Othon Inc.
- Transcend Engineers & Planners
- GramNTX





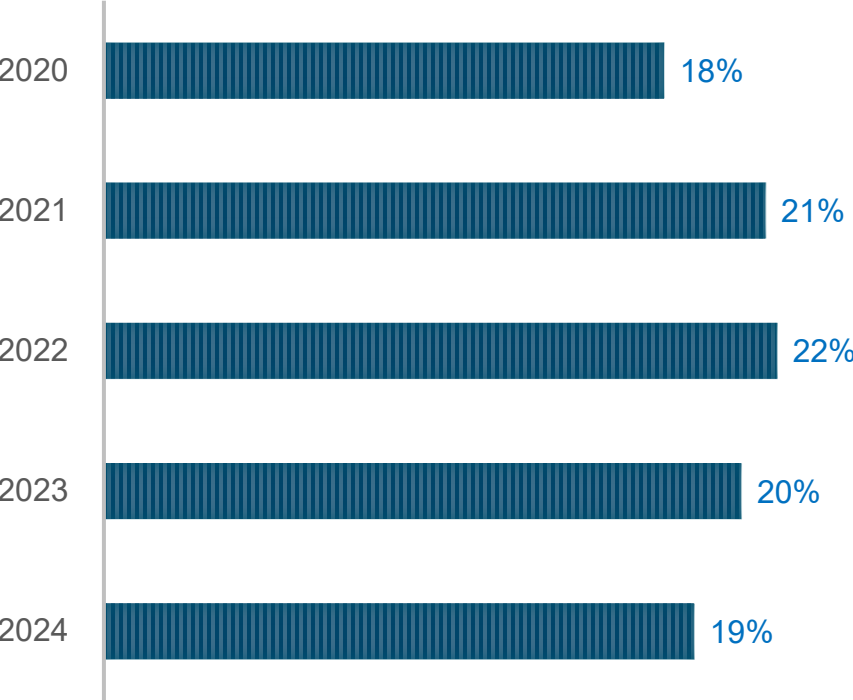
CRASH SEVERITY



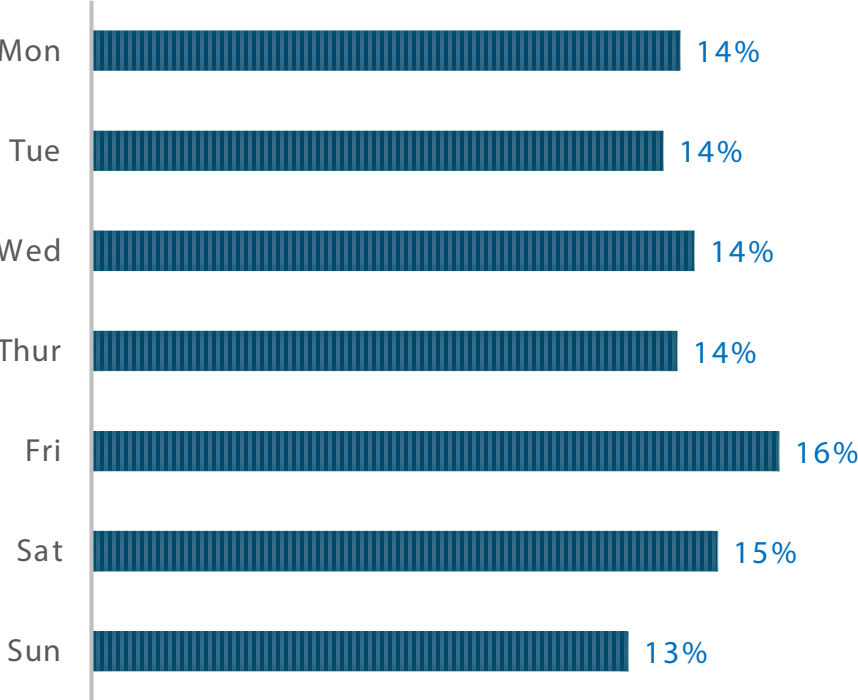
- Fatal Injury (0.4%)
- Serious Injury (3%)
- Minor Injury (15%)
- Possible Injury (19%)
- Not Injured (62%)

9,264
Total Crashes

CRASH YEAR



DAY OF WEEK





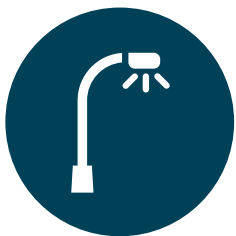
Other Crash Facts



242 Pedestrian crashes



80 Cyclist crashes



35.7% Crashes occurred
during nighttime/dawn/dusk

CONTRIBUTING FACTORS

- Failed to Control Speed – 1,379 (15.0%)
- Failed to Yield Right of Way– Turning Left – 1,171 (12.7%)
- Disregard Stop and Go Signal – 1,094 (11.8%)
- Driver Inattention – 1,024 (11.1%)
- Change Lane When Unsafe – 700 (7.6%)



Elm Street, Dallas, TX



SH 121 Business, Lewisville, TX



Josey Lane, Carrollton, TX



ROADWAY SAFETY AUDITS

Countermeasure Exhibits

Recommendations Exhibit | Limits: Houston St. Viaduct to McKinney Ave.

Refresh Striping Road Reconfiguration Retroreflective Backplates



Recommendations for Houston St. from Houston St. Viaduct to McKinney Ave. in Dallas, TX



ID	Study Corridor	Context	Location	Timeline	Simplified Recommendation	Detailed Observation/Recommendation	Countermeasure On Page
B.6	Houston St	Intersection	Wood St	Long	Drainage Issues	Observation: The pavement on the northwest corner has created a ponding issue in front of the pedestrian curb ramp Recommendation: Fix panel of crosswalk and roadway pavement to allow for positive drainage	Sheet 1 of 3
BC.1	Houston St	Segment	Northeast Corner of Wood St/Houston St	Long	Close Driveway	Observation: Driveway on southside of hotel is not used and is in close proximity to the intersection Recommendation: Work with property owner to potentially close driveway to prevent any confusion at intersection	Sheet 2 of 3
BC.2	Houston St	Segment	East side of Houston St	Long	Replace Sidewalk	Observation: Approximately 100' of sidewalk is cracked in several spots Recommendation: Replace approximately 100' sidewalk	Sheet 2 of 3
C.1	Houston St	Intersection	Jackson St	Short	Replace Right Turn Only Sign	Observation: "RIGHT TURN ONLY" sign on southeast corner of intersection is rotated away from eastbound approach and is damaged Recommendation: Replace and place "RIGHT TURN ONLY" sign to face traffic exiting the parking on the west side of the intersection	Sheet 2 of 3
C.2	Houston St	Intersection	Jackson St	Short	Westbound Turn Lane Improvements	Observation: The westbound movement appears to have a right-turn lane from Jackson onto northbound Houston Street. The lane use sign on the mast arm does not match the lane geometry Recommendation: Add turn lane arrows on the westbound right lane. Remove the existing lane use sign on the mast arm and replace with updated lane use sign that matches the approach geometry	Sheet 2 of 3
C.3	Houston St	Intersection	Jackson St	Long	Pedestrian Curb Ramps	Observation: Pedestrian curb ramps, on the southeast and northwest corners, are not directional Recommendation: Reconstruct the southeast and northwest corners with directional curb ramps	Sheet 2 of 3
C.4	Houston St	Intersection	Jackson St	Long	Remove Bollards	Observation: There are bollards in front of the Federal Building. The bollards closest to the intersection do not provide adequate space for pedestrians Recommendation: Consider removal of 2-3 bollards at the intersection, with coordination with property owner, to allow adequate space for pedestrians	Sheet 2 of 3
C.5	Houston St	Intersection	Jackson St	Long	Signal Rebuild	Observation: Traffic signals are post mounted with outdated equipment and missing push buttons. Recommendation: Full signal rebuild with considerations of the following equipment: - New poles and mast arms - New signal heads with retroreflective backplates - APS push buttons for all crossings - Pedestrian countdown heads - Luminaires on the corners (assuming no conflict with overhead utilities)	Sheet 2 of 3



Countermeasure Identified	Description	Benefit
Pavement Markings	Refresh or restripe lane lines, turn arrows, stop bars, high-visibility crosswalks, and median nose treatments	Low-cost Increased safety Visibility benefits
Pedestrian Facilities & Pedestrian Crossing Studies	Upgrade curb ramps and accessibility features, evaluate for RRFBs, PHBs, and refuge islands based on crossing behavior	Correcting deficiencies Addressing noncompliance
Street Lighting Improvements	Upgrading to LED lighting, repairing inoperable luminaires, adding intersection lighting, and conducting photometric studies	Improved nighttime visibility for all road users
Traffic Signal Visibility & Equipment Upgrades	Outdated traffic signal infrastructure. Upgrades may include, retroreflective backplates, audible pedestrian signal (APS), leading pedestrian interval (LPI), near-side signal heads, and/or new cabinet/controller.	Visibility Pedestrian accommodations Operational flexibility
Access Management	Median extensions, driveway consolidation or closures, and right -in/right -out conversions	Reduce conflicts



- **Local Funds**

- Capital Improvement Program (CIP) Budget
- City Maintenance and Operation Budget
- City Bond

- **Regional/State**

- County Major Capital Improvement Programs
- TxDOT/NCTCOG Transportation Alternatives (TA) Grant
- NCTCOG Regional Traffic Signal Program
- Highway Safety Improvement Program (HSIP)

- **Federal**

- Better Utilizing Investments to Leverage Development (BUILD)
- Transportation Infrastructure Finance and Innovation Act (TIFIA)
- Safe Streets and Roads for All (SS4A)



Data Collection

- Pulling available information
- Inventorying existing conditions (desktop review)
- School characteristics



Virtual Kick-off Meetings

- Study Area Limits
- Study Area Scope
- Opportunities and Constraints
- Known Travel Patterns
- Schedule
- Deliverables



Field Audits

- ¼ mile of school campus
- Drop-off and Pick-up observations
- Walk audit for existing infrastructure



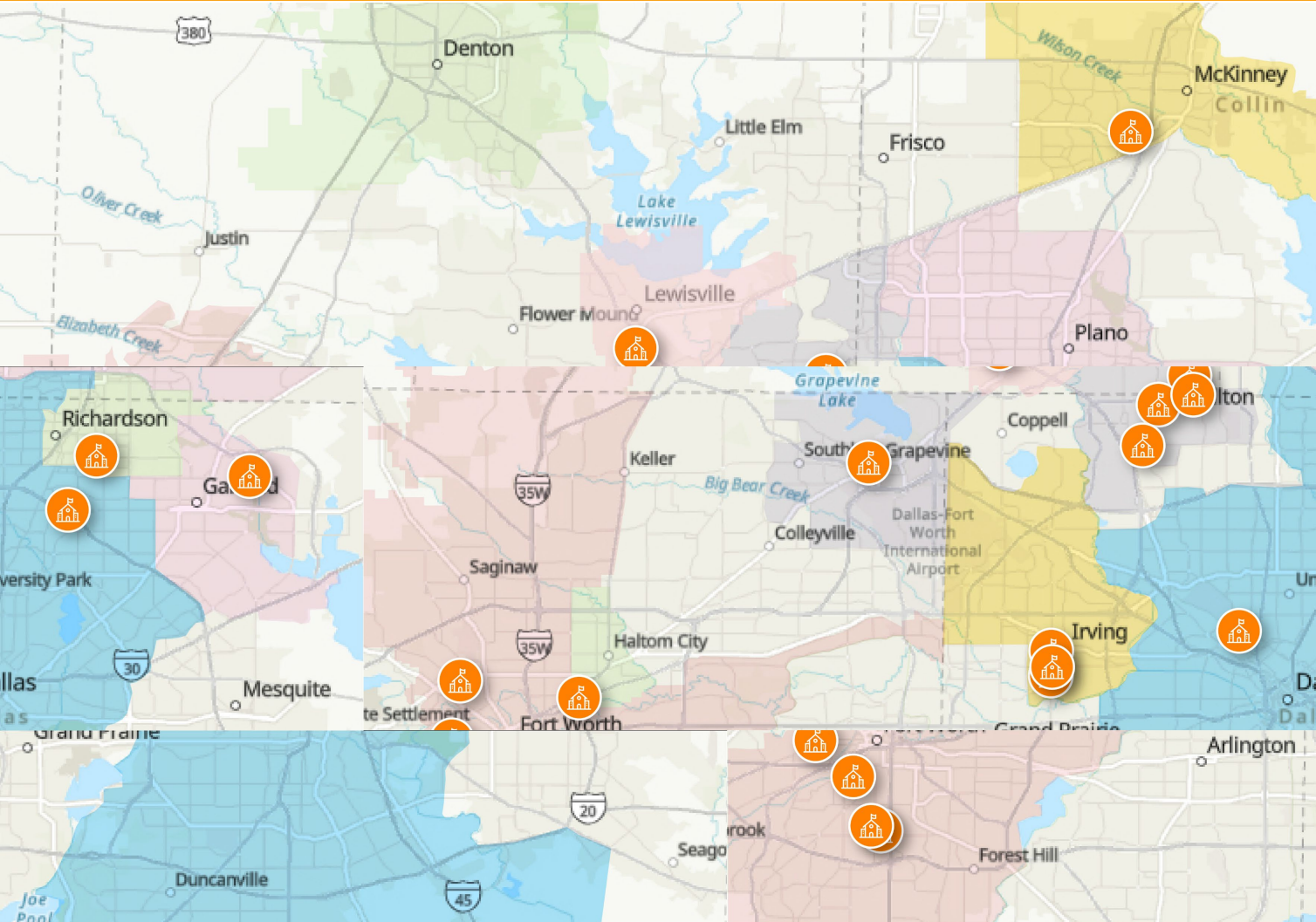
Assessment and Recs

- Recs focused on engineering
- High-level recs for other E's of SRTS
- OPCCs



Report

- Report of observations and recs
- NCTCOG and City review



Map of the Schools

- **20** school plans
- **10** cities



Municipalities/Agencies:

- NCTCOG
- City of Dallas
- City of Fort Worth
- City of Grapevine
- City of Carrollton
- City of Garland
- City of Richardson
- City of McKinney
- City of Haltom City
- City of Irving
- City of Lewisville

School Districts/Charter:



- Fort Worth ISD
- Dallas ISD
- Irving ISD
- Richardson ISD
- McKinney ISD
- Carrollton-Farmers Branch ISD
- Lewisville ISD
- Grapevine-Colleyville ISD
- Uplift Preparatory
- Trinity Basin Preparatory
- Harmony Science Academy

Consultant Team:



- Kimley-Horn
- Lee Engineering
- Fehr and Peers
- Othon Inc.
- Transcend Engineers & Planners



Countermeasure Identified	Description
School Zone Speed Limit Flashing Beacons	Installing yellow flashing beacons at school zone signs to improve driver awareness of active speed limits.
Pedestrian Facilities & Pedestrian Crossing Studies	Upgrading diagonal ramps to directional curb ramps, adding detectable warnings, and evaluating RRFBs, PHBs, and refuge islands based on crossing behavior.
Street Lighting Improvements	Upgrading to LED lighting, repairing inoperable luminaires, adding lighting near the school, and conducting photometric studies to improve nighttime visibility.
Requesting/Implementing Additional Crossing Guards	Implementing additional crossing guards at key locations near the school can help provide a safer, better supervised crossing for students traveling to and from school.
Encouragement Programs	Hosting more special events, clubs, contests, and ongoing activities that encourage more walking, bicycling, or carpooling through fun activities and incentives to generate excitement and participation.



Demonstration Corridors:

- Temporary pilots deployed on two corridors to test speed reduction strategies



Equipment Evaluation:

- Compared two speed feedback trailer types (with flashing lights vs. display only)



Speed Data Collection:

- Speeds measured before, during, and after outreach activities

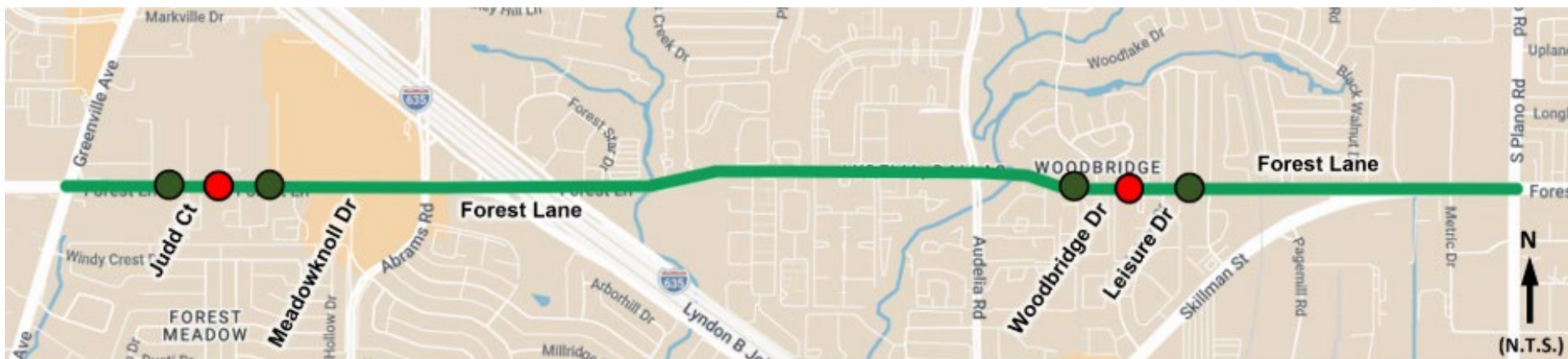


Education and Outreach:

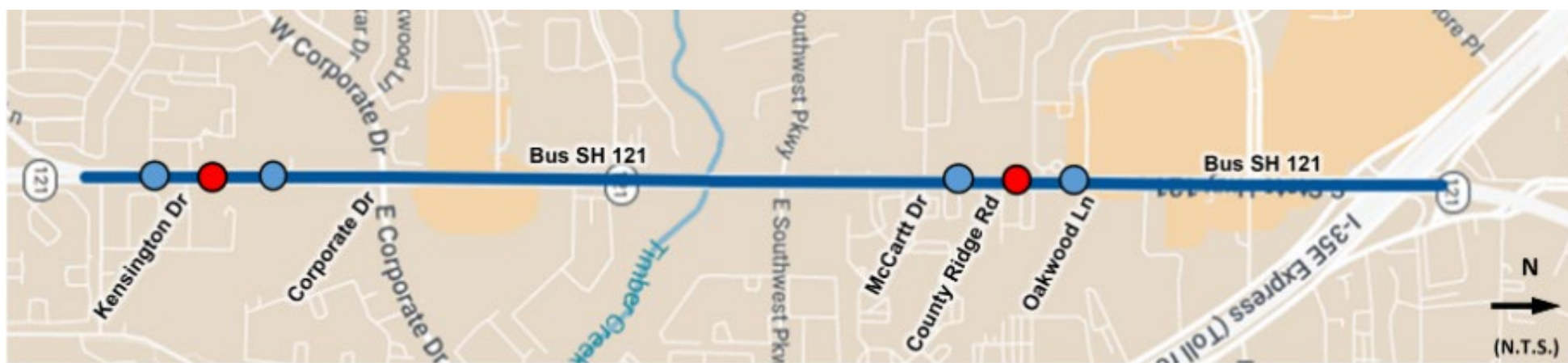
- Targeted safety messaging and community engagement implemented



Forest Lane (Greenville Avenue to Plano Road), Dallas, TX



SH 121 Business (Forestbrook Drive to I-35E), Lewisville, TX



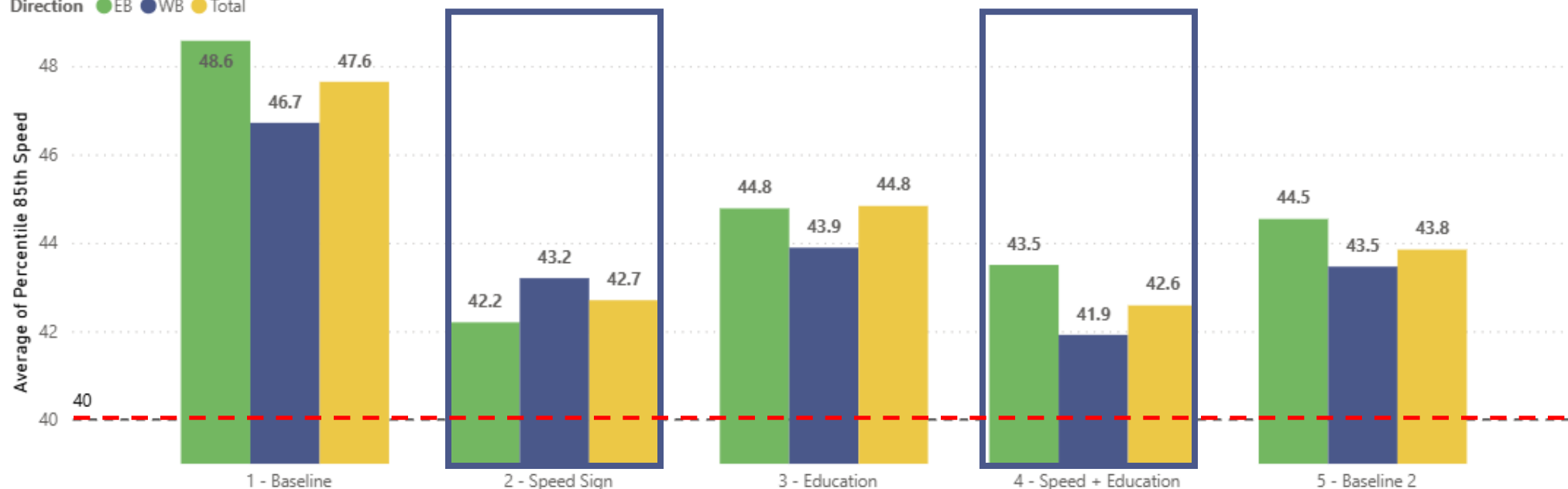


Week	Focus	Speed Collection Activities
Weeks 1 –2 (December 1–15, 2025)	Collect baseline speed counts at the four locations (2 per corridor)	Bi-directional 24 -hour speed counts for 14 -days
Week 3 (January 19–25, 2026)	Speed feedback trailers deployed (8 total), along with passive speed counts	Bi-directional 24 -hour speed counts for 7 days
Weeks 4 –6 (January 26–February 15, 2026)	Educational outreach and collecting passive speed counts	Bi-directional 24 -hour speed counts for 21 days
Week 7 (February 16–22, 2026)	Speed feedback trailers deployed (8 total), along with passive speed counts	Bi-directional 24 -hour speed counts for 7 days
Weeks 8 –9 (February 23–March 8, 2026)	Collect 14 -days of speed counts to see "Did it work?"	Bi-directional 24 -hour speed counts for 14 -days



Forest Lane (Near Judd Court), Dallas, TX

Direction ● EB ● WB ● Total



**Baseline 85th
Speed (EB) 48.6 MPH**



**Baseline 85th
Speed (WB) 46.7 MPH**



**EB Speed Feedback Trailer
(with flashing lights)
85th Speed 42.2 MPH**



**WB Speed Feedback Trailer
(without flashing lights)
85th Speed 43.2 MPH**



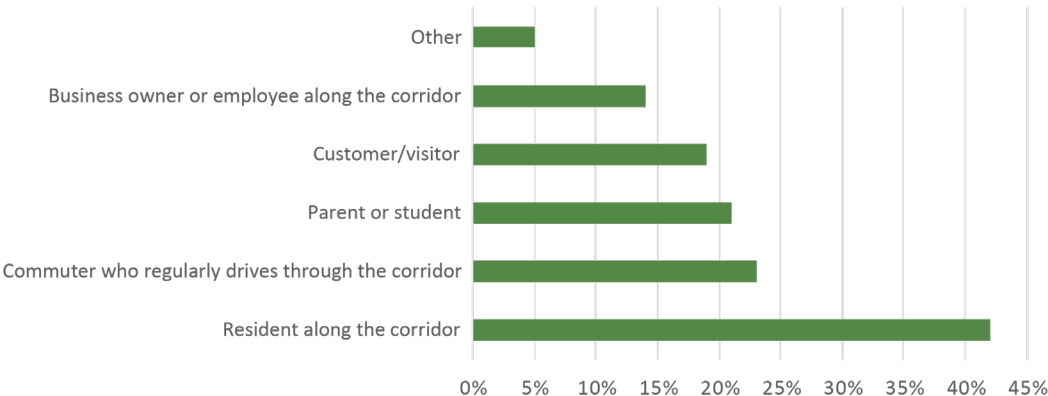
**EB Speed Feedback Trailer
(with flashing lights)
85th Speed 43.5 MPH**



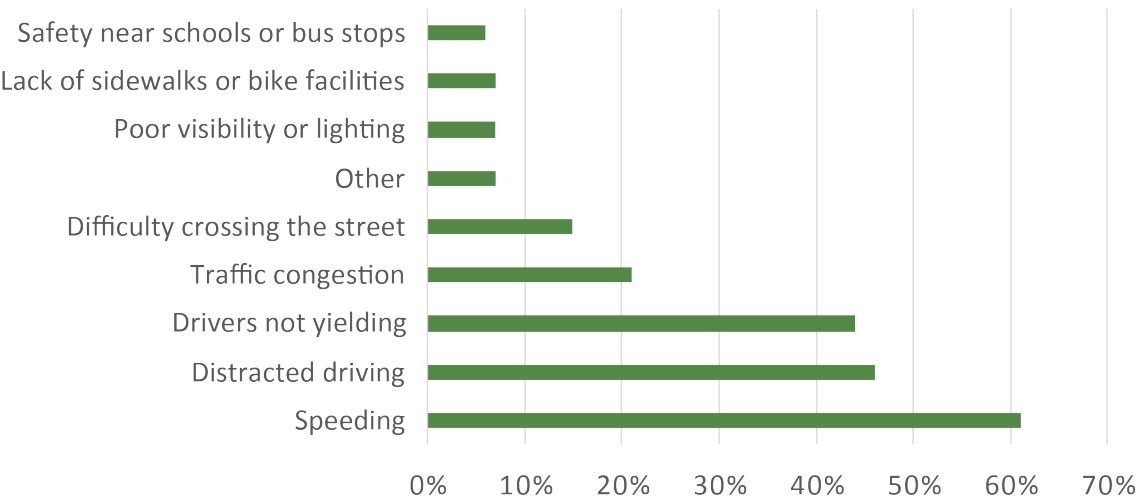
**WB Speed Feedback Trailer
(without flashing lights)
85th Speed 41.9 MPH**



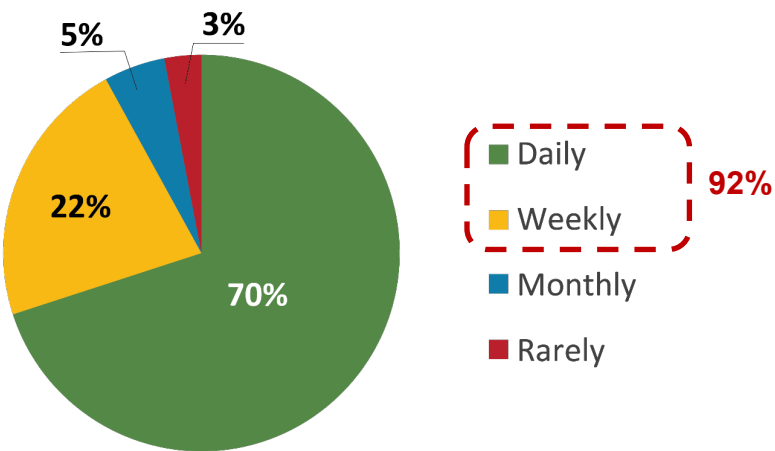
Which Best Describes you?



What Safety Issues On This Corridor Concern You The Most?



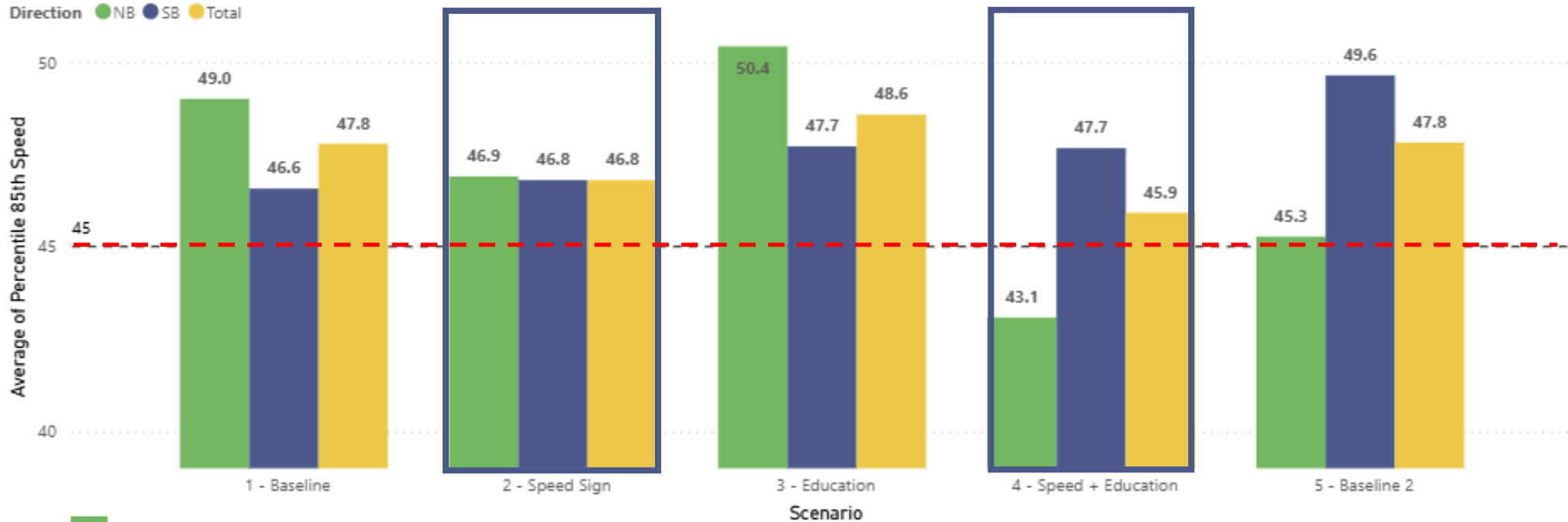
How Often Do You Travel Along This Corridor?





SH 121 Business (Near McCartt Drive), Lewisville, TX

Direction ● NB ● SB ● Total



**Baseline 85th
Speed (NB) 49.0 MPH**



**Baseline 85th
Speed (SB) 46.6 MPH**



**NB Speed Feedback Trailer
(with flashing lights)
85th Speed 46.9 MPH**



**SB Speed Feedback Trailer
(without flashing lights)
85th Speed 46.8 MPH**



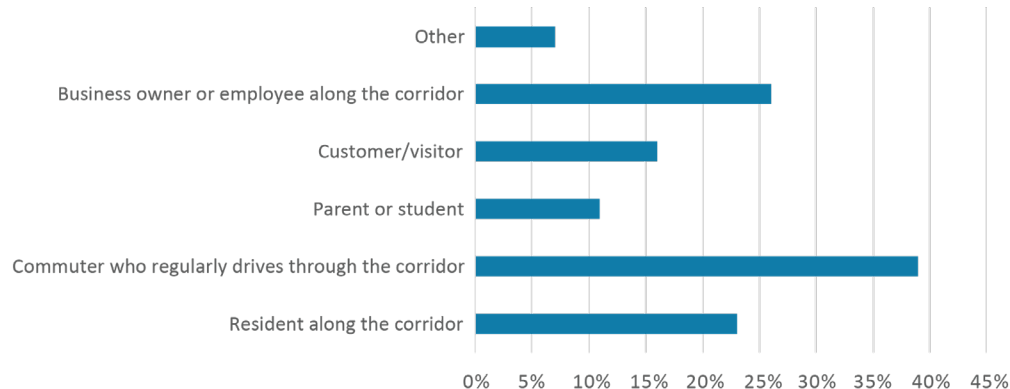
**NB Speed Feedback Trailer
(with flashing lights)
85th Speed 43.1 MPH**



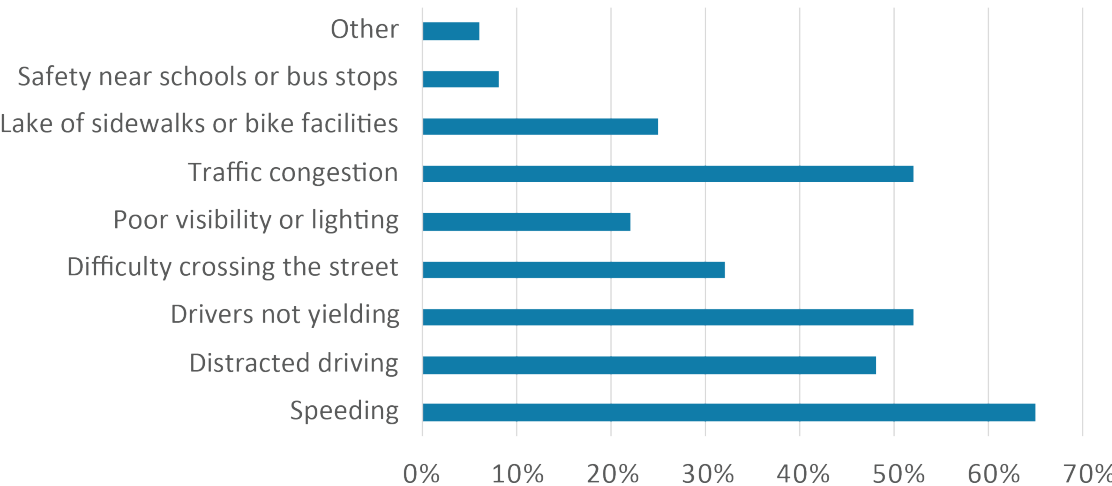
**SB Speed Feedback Trailer
(without flashing lights)
85th Speed 47.7 MPH**



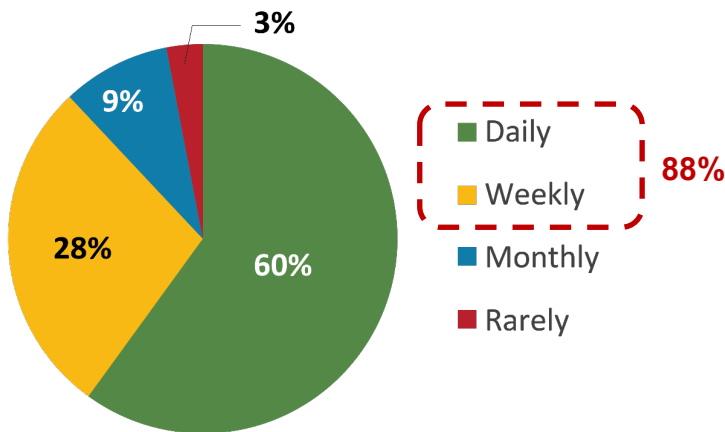
Which Best Describes you?



What Safety Issues On This Corridor Concern You The Most?



How Often Do You Travel Along This Corridor?





Lesson 1: Speed Feedback Trailers Are Effective Awareness Tools

Lesson Learned: The speed analysis also demonstrated that the speed feedback trailer with the red and blue flashing lights was more effective in reducing the 85th percentile speeds compared to the speed feedback trailer without flashing lights.

Recommendations: Continue integrating speed feedback signs or trailers into both demonstration and long-term safety strategies.



Lesson 2: Effectiveness of Outreach and Traffic Calming Measures

Lesson Learned: Traffic counts were collected continuously alongside speed feedback trailers and educational outreach, individually and combined, due to the short demonstration period.

Recommendations: Separate activities over several weeks or months to compare effectiveness in reducing speeds.



Lesson 3: External Factors Can Impact Implementation Timing

Lesson Learned: Unanticipated events, including severe winter weather and vendor scheduling delays, affected the deployment timeline and timing of speed feedback signs, adding variability to the demonstration schedule.

Recommendations: Build flexibility into project schedules and coordinate closely with vendors to support timely equipment deployment and removal, with contingency planning to account for weather and operational delays.



Roadway Safety Audits

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Demonstration Activity

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Safe Routes to School

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Thank You

