



# **CAMPO Regional Safety Action Plan**

Project Example: Williamson County – April 4, 2025

#### **AGENDA**

- **Project Introduction**
- **Safety Analysis** 
  - **High Injury Network**

- 6. Project Recommendations
- 7. Systemic Project Packages
- 8. Behavioral Strategies
- **Systemic Safety Analysis**
- **Equity Analysis**

- 9. Policy Recommendations
- **10. Public Engagement**





### **1. Project Introduction**



# Regional **Safety Action** Plan (RSAP)

- CAMPO received funding from USDOT to conduct a roadway safety plan through the Safe Streets and Roads for All (SS4A) grant program.
- The plan includes a CAMPO-wide regional plan and individual chapters for each member county.
- This plan will allow CAMPO and local jurisdictions to apply for implementation funding through SS4A.











# 2. Site-Specific Safety Analysis



In the last 5 years (2019-2023), Williamson County experienced. **248 lives lost 1,254 people with** serious injuries In the last 5 years (2019-2023), Williamson County experienced... Williamson County **Historic Crash** Analysis





# Williamson County Historic Crash Analysis



The KABCO scale, developed by the FHWA, is a standardized system used by law enforcement to classify traffic crash injuries, ranging from K (fatal injury), A (serious injury), B (minor injury), C (possible injury), to O (property damage only, no injury).

Note: This bar chart does not include property damage only (O) crashes.





### Williamson County

#### Historic Crash Analysis













# 3. High Injury Network



### Williamson County

#### HIN – Intersection Methodology

1. Obtain Williamson County 2019 – 2023 crash data

#### 2. Conduct spatial analysis in GIS

- 1. Inventory and identify the roadway network
- 2. Identify intersections and capture them
- 3. Geolocate intersection information
- 4. Summarize crashes by severity type for each intersection

#### 3. Weigh crashes based on severity type:

- » Fatal (K) and suspected serious injury (A) crashes = 12 points
- Suspected minor injury (B) and possible injury crashes (C) = 1 point
- Non-injured or unknown crash types = 0 points

Intersections with high severity type crashes will have high weighted points.





### Williamson County High Injury Intersections

7% of intersections that experienced at least one crash (118 out of 1,461 intersections) account for 55% of fatal crashes and 35% of all intersection crashes.







County HIN -Non-Intersection Methodology

.≋MPO

Williamson

- **1. Split each corridor** into 0.1-mile-long segments
  - . Join crashes to the 0.1-mile segment layer using street name
  - Spatially join any remaining crashes using a search distance of up to 200 feet
  - Summarize the 0.1-mile segment layer's unique ID and crash statistics and emphasis area (Python Script)
  - Identify a cutoff for identifying High Injury Network (based on weighted crash score).
  - Merge contiguous segments within the High Injury Network and rank them using the weight crash score.

#### A sliding 0.5-mile window with a 0.1-mile increment was used

Illustration of a Sliding Window Method







# Williamson County High-Injury

Segments

8% (~171 of 1867 miles) of the all roadways that experienced at least one crash in the past 5 years accounts for 71% of fatal and serious injury crashes, and 51% of all crashes.





									5		
		Crash Trends & Weather/Pavement Condition	Lighting Condition & Hour of Day	Contributing Factor Crash Types, & First Harmful Events	s, Segmen Areas	t Emphasis	Intersect Areas	tion Emphasis	Top Cour	termeasures	Top Coun & Emphas
		Мар			Crash Types by	Severity				On-System (All)	•
	$\approx$	A FER			Crash Type	Fatal Injury	Suspected Major Injury	Suspected Min or Injury	Possible Injury	Segment Rank	•
		RY			Roadway and Lane D	2	4	14	10	Intersection R (All)	ank •
t					Same Direction		4	31	38	Crashes Reduc	ed 7,000
-	$\approx$				Single Vehicle Cra		2	2		Crashes Reduc	ed
ts ch					538 - Convert 2 Facility to 4 Divided 48.35 537 - Construct Paved Shoulders (> 30.00 136 - Insta Flashing Chr (Curve 36.05	Lana 506 - Imp Al 137 - Install Chevrons (Curve)	rove Horizontal generat Be.05	218 - Widen Bridge 58.85		Crash Type (AII) Harmful Event (AII) Object Struck (AII) Contributing F (AII) Countermeasu (AII)	actor
		© 2024 Mapbox © OpenStr Crash Severity Fatal Injury Suspected Major Injur Suspected Minor Injur Possible Injury	Crash Type Roadway and Landy Same Direction y Single Vehicle Cra	e Departure	516 - Close Crossover 34.00	505 - Improve Vort Alignment 81.50		518 - Install Continuous Turn Lane 36.50			

Targeted Projects Approach



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### 4. Systemic Safety Analysis



Systemic Safety Analysis

Methodology

1. Identified emphasis area commonalities

- 2. Identified focus crash types
  - Dark Conditions
  - Intersection Related
  - Roadway or Lane Departure
- 3. Developed crash tree diagram
- 4. Recommended systemic countermeasures





-	DARK CONDITIONS	INTERSECTION RELATED	ROADWAY OR LANE DEPARTURE	SPEED RELATED	YOUNG DRIVER	OLDER DRIVER	NO SEATBELT	IMPAIRED	DISTRACTED DRIVING	VRU
DARK CONDITIONS	-	31%	44%	27%	18%	8%	19%	24%	8%	12%
INTERSECTION RELATED	32%	-	9%	18%	23%	22%	9%	9%	11%	8%
ROADWAY OR LANE DEPARTURE	54%	11%	-	37%	16%	8%	25%	21%	10%	2%
SPEED RELATED	40%	26%	45%	-	17%	13%	19%	15%	10%	2%
YOUNG DRIVER	41%	52%	30%	27%	-	11%	15%	11%	10%	5%
OLDER DRIVER	21%	56%	17%	23%	12%	-	9%	4%	13%	9%
NO SEATBELT	54%	24%	56%	36%	18%	9%	-	25%	14%	2%
IMPAIRED	72%	26%	53%	32%	14%	5%	27%	-	4%	12%
DISTRACTED DRIVING	31%	41%	31%	26%	17%	19%	19%	5%	-	7%
VRU	50%	33%	5%	5%	9%	15%	3%	16%	8%	-

#### NOTE:

THE "OVERLAPS" CAN BE DESCRIBED IN TWO DIFFERENT WAYS FOR EACH PAIR OF INVOLVED FACTORS.

HERE ARE TWO EXAMPLES TO DESCRIBE HOW IT WORKS:

OF ALL CRASHES OCCURRING IN DARK CONDITIONS, 44% OF THOSE CRASH EVENTS INVOLVED A ROADWAY OR LANE DEPARTURE.

OF ALL ROADWAY OR LANE DEPARTURE CRASHES, 54% OCCURRED IN DARK CONDITIONS.

EACH ROW (EMPHASIS AREA) HAS TWO DATA POINTS DIFFERENTIATED IN RED TEXT. THESE DATA POINTS REPRESENT THE TOP TWO COMMON EMPHASIS AREAS ASSOCIATED WITH THAT ROW (E.G., OF THE CRASHES OCCURRING IN DARK CONDITIONS, 31% ARE INTERSECTION RELATED AND 44% ARE ROADWAY OR LANE DEPARTURE RELATED)

#### 





Roadway Crash Type	Systemic Countermeasure (HSIP Work Code)	Primary Facility Type (from crash tree diagrams)		
Intersection Related	Install Traffic Signal (107), Signal Head Backplates (108), Install Advanced Warning Signals and Signs (124), <b>Safety Lighting at</b> Intersection (305), Transverse Rumble Strips (545), Yellow Change	Urban state-owned signalized and unsignalized (Dark Conditions)		
	Intervals	Urban local unsignalized		

#### **CMPO** Safety Analysis Findings: Systemic Safety Analysis



### 5. Equity Analysis





### Equity Analysis

**Equity Need Areas** 











## 6. Site-Specific Project Recommendations



**Targeted Projects Map** 







Targeted Project Examples

Roadway Name	Limits From	Limits to	Project Description	Ownership	Safety Issues
Shell Road	Shell Spur	SH 195	Add edge line and center line rumble strips. Widen paved shoulder.	Williamson County	Roadway and Lane Departure
Crystal Falls Parkway	US 183A	Ridgmar Road	Close cross-overs where possible and align left-turns for a positive offset where possible. Add roadway lighting	Leander	Angle Crashes
US 79	Carlos G Parker Boulevard	Sloan Street	Add raised median with hooded lefts	Taylor	Angle Crashes
Williams Drive	Jim Hogg Road	Austin Avenue	Add raised median with strategically placed hooded lefts, add raised profile striping, add raised profile markers, safety treat fixed objects, add roadway lighting.	Georgetown	Angle Crashes Roadway and Lane Departure Dark Conditions
SH 195	Ronald Reagan Boulevard	IH 35	Add rumble strips and roadway lighting. Install wrong-way detection system. Replace "signal ahead" warning sign with roadside flashing beacon with "signal ahead" warning sign.	TxDOT	Roadway and Lane Departure Dark Conditions
Cypress Creek Road	Sun Chase Boulevard	Lakeline Boulevard	Add edgeline delineators, evaluate speed limit using USLIMITS2	Cedar Park	Speed Management Roadway and Lane Departure





Project Example: US 183







#### 7. Systemic Project Packages



#### Systemic Project Development

Approach

- Focus on Emphasis Areas with highest crash severity
- Identify low-cost, high-impact treatments
- Recommend proactive and systemic implementation of treatments at high-risk locations





#### Systemic Project Development

**Project Examples** 

Emphasis Area	Package Name	Countermeasures	Area Type	Location	Control	Crash Patterns and Candidate Locations Guidance
Intersections	Signalized Intersection Visibility Upgrades	Install Overhead Signs; Install Advanced Warning Signals (Intersection - Existing Warning Signs); Install Advanced Warning Signals and Signs (Intersection); Install Advanced Warning Signs (Intersection); Install Pavement Markings; Signal Head Backplates	Rural, Urban	Intersection	Stop- Controlled	Addresses crash patterns where drivers disregard the signal, fail to stop, or fail to yield (angle, turning, rear end)
Intersections	Dedicated right and left turn lanes	Channelization; Add Left Turn Lane; Lengthen Left Turn Lane; Add Right Turn Lane; Lengthen Right Turn Lane; Positive Offset Left-turn Lanes	Urban, Rural	Intersection	Stop- Controlled	Addresses rear-end crash patterns involving stopped or slowed vehicles making a turn; Recommended for corridors with posted speeds greater than 50 mph. Projects should include all intersection standard signing and pavement markings.
Roadway Lane Departure	Widen roadway or shoulders	Widen Lane(s); Widen Paved Shoulder (to 5 ft. or less); Construct Paved Shoulders (1-4 ft.); Widen Paved Shoulders (to >5 ft.); Construct Paved Shoulders (>= 5ft.); Provide Additional Paved Surface Width; Raised Edgeline Rumble Strips	Rural	Segment, Curve	N/A	Rural two-lane, two-way undivided highways with a pavement surface less than or equal to 24' in width
Other (Left Turn Crashes)	Raised medians	Install Raised Median	Urban	Segment	N/A	Raised medians should be considered for replacing two- way left-turn lanes when AADT is approximately 20,000 or more. Medians should also be located where they can also serve as refuge for pedestrian crossings.





### 8. Behavioral Strategies



Behavioral Project Development

Approach

- Identify behavioral emphasis areas from countyspecific safety analysis
- Leverage community and stakeholder engagement
- Develop targeted behavioral strategies

   Include policy implementation and legislative actions
- Track and evaluate performance metrics (crash reduction, citation data)





Emphasis Area	Туре	Title	Action	Lead Agency	
Dark Conditions	s Education Ped/Bike Conspicuity Educate the public about the n aware when traveling and bein particular when walking or biki public to wear bright colored cl flashlight, and provide reflectiv materials for handing out to the		Educate the public about the need to be self- aware when traveling and being conspicuous, in particular when walking or biking. Educate the public to wear bright colored clothing, carry a flashlight, and provide reflective tapes and materials for handing out to the public.	CAMPO, County, Municipal, non- profits, TxHSO	
Distracted	Enforcement	Distracted Driving Enforcement	Use TxHSO Law Enforcement Liaisons (LELs) to improve participation from law enforcement in conducting high-visibility enforcement to address distracted driving	Law enforcement, TxHSO	
Impaired	Program	Impaired Driving Enforcement	Encourage the use of coordinated high-visibility enforcement activities addressing high-risk driving behavior, particularly on weekends and evenings for alcohol and drugged-related crashes	Law enforcement	
Intersection	Program	Educate on Vehicle Technologies	Support and educate the public on the safety advantages of using emerging technologies such as Intelligent Transportation Systems, Vehicle-to- Infrastructure, and Connected Vehicles.	County, Municipal	
Occupant Protection	Education	Child Passenger Seat Promotion	Promote to the community to utilize child passenger seats, visit a permanent fitting station and support holding car seat checks at community events.	CAMPO, County, Municipal, hospitals, non-profits	
Older Drivers	Program	CarFit Program for Older Drivers	Support programs and social media messaging to educate drivers as they age about the CarFit program	CAMPO, Tx Health and Human Services, TxHSO	

#### Behavioral Project Development

**Projects Examples** 





### 9. Policy Recommendations



#### TEXAS TOGETHER on the Road to Zero





# Policy Recommendations

PolicyRecommendationsAlignment withUSDOT Safe System<br/>ApproachTexas Road to Zero<br/>Emphasis Areas





Recommendation	Description	Emphasis Area	Category	Lead	Primary Lead
Safe System Element	: Safer Road Users				
ENFORCEMENT PROGRAM	Use data analytics to identify high-risk areas and times for targeted enforcement associated with seatbelt use. Ensure strategies align with state-wide enforcement campaigns for consistency.	Occupant Protection	Enhanced Enforcement	Task Force	Enforcement
Safe System Element	: Safer Speeds				
SPEED LIMIT POLICY	Develop a speed limit policy and procedures process based on current research and methodologies that include contextual factors and align with TxDOT's Speed Zone Manual.	Speed Related	Local Policies	Task Force	City and County Staff
Safe System Element	: Safer Vehicles				
PUBLIC TRANSPORTATION SAFETY POLICY	Develop a safety protocol for public transit systems that include regular vehicle inspections, driver training programs, and emergency preparedness plans. Align with state and federal transit safety regulations and collaborate with transit agencies to implement best practices.	All	Transit Vehicles	Task Force	Transit Organizations
Safe System Element	: Safety Leadership and Culture				
VISION ZERO COMMITMENT	Commit to a "Zero" Goal. Elected officials and department leaders adopt public commitment for zero traffic fatalities and serious injury's goal within a specific timeframe.	All	Leadership	Task Force	City and County Officials

## **10. Public Engagement**



#### Share Your Input on Regional Transportation and Safety Needs!



The Capital Area Metropolitan Planning Organization (CAMPO) invites the public to learn about and participate in the development of the **2050 Regional Transportation Plan** and the **Regional Safety Action Plan**. Online materials, comment opportunities, and a calendar of in-person outreach events for both plans are available at **campotexas.org/get-involved**.

#### **REGIONAL SAFETY ACTION PLAN**

The Regional Safety Action Plan aims to reduce fatal and serious-injury crashes while improving transportation systems for all users, including pedestrians, cyclists, public transportation users, and drivers, with an emphasis on investment in vulnerable communities. This effort will address the broader regional safety needs including county-specific plans for Bastrop, Burnet, Caldwell, Hays, and Williamson counties, and will provide access to additional funding resources. A separate safety action plan for Travis County is being developed.

#### >>> GET INVOLVED

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Learn more and share your input, visit: campotexas.org/get-involved For questions or to request printed materials, please contact the project team: 512-651-3964

#### 2050 REGIONAL TRANSPORTATION PLAN

The 2050 Regional Transportation Plan is a multimodal long-range transportation plan for Bastrop, Burnet, Caldwell, Hays, Travis, and Williamson counties. This plan considers factors such as regional growth and anticipated funding to develop a regional network for the next several decades to include roads, transit, biking, walking, and using technology to travel more efficiently.

> Scan now to visit the Get Involved webpage





**>>>>** 

# Thank you!



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