

CITY OF SAN ANTONIO
PUBLIC WORKS
DEPARTMENT

ZERO

SAN ANTONIO

Drive safe. Bike safe. Walk safe.



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Executive Summary

This report is an update to the original Severe Pedestrian Injury Areas Report that was published in November 2017. The original report has supported Vision Zero by identifying areas of concern for pedestrians and where to prioritize resources.

The City of San Antonio's Public Works Department staff analyzed crash data from 2014 through 2018 to identify new Severe Pedestrian Injury Areas (SPIAs). SPIAs are locations where two or more crashes resulting in a severe pedestrian injury (fatal or suspected serious injury) have occurred in close proximity, defined in this report as no more than one-half mile apart on the same street.

The analysis of the pedestrian crash data resulted in identifying 90 SPIAs in San Antonio consisting of about 53 roadway miles. These areas represent about 1% of San Antonio roadways but account for about forty-two (42%) of all fatal and suspected serious pedestrian crashes over the five-year period.



With one percent (1%) of roadways accounting for approximately forty-two percent (42%) of all severe pedestrian crashes in San Antonio from 2014 through 2018, the SPIA analysis demonstrates that almost half of all severe pedestrian injury crashes are not happening randomly throughout San Antonio, but rather are occurring in concentrated areas. Twenty-three percent (23%) of the SPIAs identified in this report are located within more than one council district.

More than half, or fifty-six percent (56%), of the severe pedestrian injuries on the SPIAs occurred over a six hour period from 6:00 p.m. to 12:00 a.m. The time of day with the greatest number of severe pedestrian injuries was the 8 p.m. hour.

The number of severe pedestrian injuries gradually increases from Wednesday through Friday and decreases from Friday through Monday. Monday and Sunday recorded the lowest number of severe pedestrian injuries while Friday recorded the highest. Sunday recorded the highest number of pedestrians killed.

Sixty-one percent (61%) of the severe pedestrian injuries were recorded during the fall and winter months, September through February.

Of all severe pedestrian injuries within a 12-month period, thirty-four percent (34%) occurred from October through December.

This analysis is the first step in identifying locations where Vision Zero efforts to reduce severe pedestrian injuries in San Antonio may have the greatest impact. Further analysis of the crashes within the SPIAs is necessary to understand the reasons crashes are occurring in greater concentration in these areas and what interventions may be necessary to achieve Vision Zero.

90 SPIAs in SAN ANTONIO CONSIST OF ABOUT 53 ROADWAY MILES

These areas represent about 1% of SAN ANTONIO ROADWAYS

but account for 42% OF ALL

FATAL AND SUSPECTED

SERIOUS PEDESTRIAN CRASHES

OVER THE FIVE-YEAR PERIOD

23% of the SPIAs in this report are located within MORE THAN ONE COUNCIL DISTRICT

More than half, or 56%, of severe pedestrian injuries on the SPIAs occurred over a

6 HOUR PERIOD FROM **6 PM-12AM**

61% of the severe pedestrian injuries were recorded during the fall and winter months,

SEPTEMBER - FEBRUARY

SEPT. OCT. NOV. DEC. JAN. FEB.

34% occurred from OCTOBER - DECEMBER



Introduction

Between 2014 and 2018, 847 severe pedestrian injury crashes occurred on San Antonio roadways. One may think that these crashes would appear to be random, however, upon initial analysis, this is not the case. The City of San Antonio Public Works Department, as part of Vision Zero, initiated this study to identify locations with high concentrations of severe pedestrian injuries.

This document is one of the first steps towards achieving Vision Zero by identifying locations where pedestrians may be more likely to be injured or killed on San Antonio roadways. With these locations identified, Public Works staff is able to identify possible reasons why severe pedestrian injury crashes are occurring on these roadways and what can be done to eliminate the risks that are causing the high number of severe pedestrian injuries.

Steps for Indentifying Pedestrian Injuries



Background

In September 2015, the City of San Antonio adopted Vision Zero to eliminate all roadway fatalities and serious injuries in response to the 54 people that were killed while walking in San Antonio in 2014.

Vision Zero is a safety approach that originated in Sweden in 1997. The guiding principle of Vision Zero is that no loss of life on our roadways is acceptable. Since the adoption of Vision Zero in Sweden, other European nations such as Switzerland, Germany, France and Spain have also adopted the safety initiative and, like Sweden, their fatality rates have significantly decreased. Seeing the success of Vision Zero in Europe, several cities in the United States have also adopted Vision Zero

goals. Even the US Department of Transportation (USDOT) launched a Road to Zero initiative in 2016 with a goal of eliminating traffic fatalities over the next 30 years.

The City of San Antonio's Public Works Department, along with its partner agencies, is committed to enhancing safety in San Antonio. To achieve Vision Zero, the City of San Antonio has adopted a combined approach using the five essential elements (5 E's) of a safe transportation system: Education, Encouragement, Engineering, Enforcement and Evaluation.



Education: communicate the importance of safety for all on our roadways, whether a person is driving, bicycling or walking.



Encouragement: encourage all to practice safety and follow all traffic laws.



Engineering: construct improvements to enhance safety and accessibility along roadways, crosswalks, walkways, and bikeways.



Enforcement: enforce traffic safety and continue to support safety initiatives such as Click It or Ticket, Buzzed Driving is Drunk Driving, and Distracted Driving.



<u>Evaluation:</u> evaluate traffic safety efforts and implement improvements as needed.

This report falls under the category of **Evaluation**. In 2017, the original SPIA report was published using crash data from 2011-2015. Since then, 11 projects funded from Vision Zero have been completed and 10 are currently in planning stages. The SPIAs identified with 2011-2015 crash data have been used as guiding locations for pedestrian improvements during federal funding allocation and bond scoping processes. Vision Zero projects that have been completed within the original SPIA locations include:

- Commerce at Matyear
- Commerce at General McMullen
- Culebra at 26th
- Wurzbach at Fern Glen
- San Pedro at Southbridge





Methodology & Definitions

Crash data from 2014 to 2018 was used for this analysis. Data was acquired from Crash Records Information System (CRIS), managed by the Texas Department of Transportation (TxDOT). The University of Texas at San Antonio (UTSA), The City of San Antonio Police Department (SAPD), and Information Technology Services Department (ITSD) assisted with providing the data for analysis.

The data collection process for this report began in April 2019 when the most complete set of full year data was that of 2018. This report is maintaining the original methodology from the SPIA report published in 2017.

Severe Pedestrian Injury Areas (SPIAs) are where two or more severe pedestrian injuries have occurred in close proximity such that the spacing between any two severe injuries is no more than one-half mile. The data revealed that SPIAs only exist on arterial roadways. Controlled access highways (expressways) and frontage roads were excluded from this analysis.

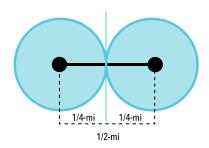


Figure 1: Illustration for how the maximum half mile distance between two severe pedestrian injury crashes was determined using a quarter mile radius buffer.

- A severe pedestrian injury is defined as either a suspected serious or fatal injury that occurred to a person walking as a result of being hit by a motor vehicle.
- A fatality or fatal injury is any injury sustained in a motor vehicle crash that results in death within thirty days of the motor vehicle crash.
- A suspected serious injury is any injury, other than a fatal injury, which prevents the injured person from continuing to perform everyday activities that they were capable of performing before the injury occurred.

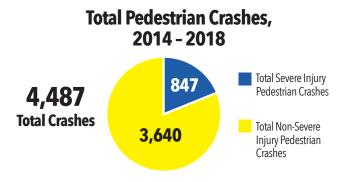


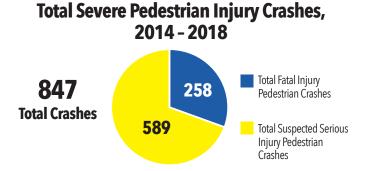


Findings

Public Works staff analyzed density of severe pedestrian injury crashes and identified 90 Severe Pedestrian Injury Areas consisting of approximately 53 total roadway miles. These SPIAs represent only about one percent (1%) of San Antonio's roadway miles but account for approximately forty-two percent (42%) of all suspected serious and fatal pedestrian crashes.

From 2014 to 2018, San Antonio recorded 4,487 motor vehicle to pedestrian crashes citywide. Eight hundred and forty-seven (847) of these 4,487 crashes (approximately 19%) resulted in at least one serious pedestrian injury leaving the remaining 3,640 crashes without a severe pedestrian injury. Of these 847 severe pedestrian injury crashes, 258 (approximately 30%) consisted of a pedestrian fatality and 589 (approximately 70%) involved a suspected serious pedestrian injury.





Three hundred and fifty-nine (359) of the 847 severe pedestrian injury crashes occurred on the SPIAs. Of these 359 crashes, 11 of them resulted in more than one severe pedestrian injury, totaling the number of severe pedestrian injuries on the SPIAs to 373. Of these 373 severe pedestrian injuries, 114 resulted in a pedestrian fatality and 259 resulted in a pedestrian suffering a suspected serious injury. Approximately forty-four percent (44%) of the 373 severely injured pedestrians within the SPIAs were killed.

Total SPIA Pedestrian Crashes, 2014 - 2018 Severe Pedestrian Crashes Non-Severe Pedestrian Crashes

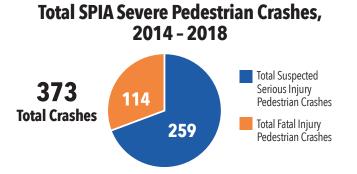
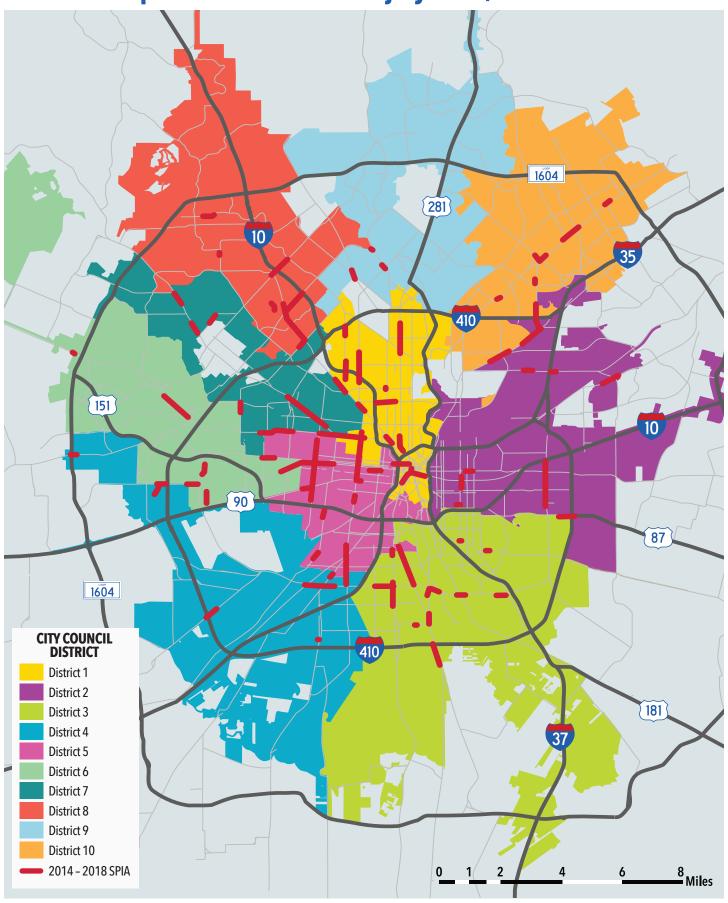


Table 1: Statistics within SPIAs Severe Pedestrian Injury Areas, 2014 - 2018

Length (miles)	53.37
Non-Severe Pedestrian Crashes	563
Severe Pedestrian Crashes	359
Total Pedestrian Crashes	922
Pedestrians with Suspected Serious Injuries	259
Pedestrians Killed	114

There are many ways that the SPIAs may be prioritized or ranked. For example, one may choose to prioritize the longest area, the area with the most injuries, or the highest rate of injury per mile. It is not the goal of this document to say which area should be prioritized but rather the goal is to identify where these areas exist and where further study is needed. The 90 SPIAs locations and number of pedestrian crashes and crash severity are listed in alphabetic order on page 8. The number and severity of injuries is shown in the council district specific tables located in the appendix.

Map 1: Severe Pedestrian Injury Areas, 2014 - 2018



Map 2: Severe Pedestrian Injury Areas Heat Map, 2014 - 2018

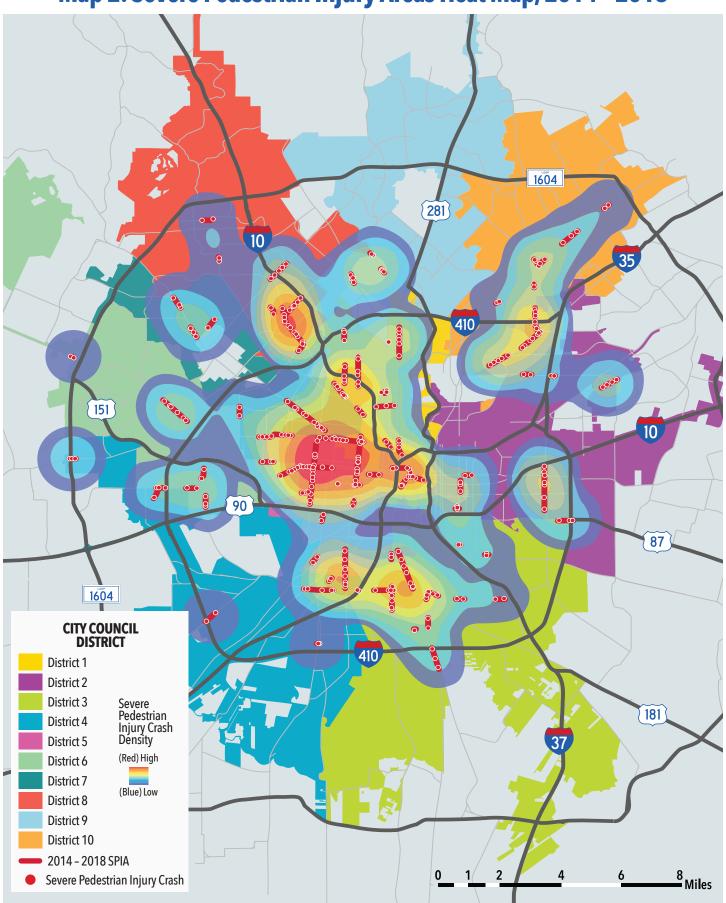




Table 2: Severe Pedestrian Injury Areas (2014 - 2018), Pedestrian Crashes

Street	From	То	Length (miles)	Pedestrian Crashes	Severe Pedestrian Injury Crashes	City Council District(s)
Ashley	Leah	Lucinda	0.01	2	2	3
Austin Hwy (Loop 368)	Holbrook	Walzem	0.98	11	7	2
Austin Hwy (Loop 368)	Rainbow	Eisenhauer	0.82	16	8	2/10
Babcock	Sunset Haven	Spring Time	0.10	2	2	8
Bandera (Spur 421)	Sunshine	Westminster	1.95	27	11	7
Bandera (TX 16)	Braun	Knights Peak	0.49	3	3	7
Bandera (TX 16)	Mainland	Ebert	0.46	3	3	7
Blanco	Edison	Fresno	0.07	6	2	1
Blanco	Oblate	Jackson-Keller	0.01	4	2	1
Blanco (FM 2696)	Parliament	West	0.23	9	5	9
Blanco (FM 2696)	Wurzbach	Vista	0.06	1	1	9
Buena Vista	Trinity	Colorado	0.43	2	2	5
Callaghan	Ingram	Farragut	0.36	6	2	6/7
Callaghan	Greensboro	Fredericksburg	0.37	7	2	7/8
Castroville	Madrid	Juanita	0.22	4	3	5
Castroville	Barclay	21st	0.01	4	2	5
Cinnamon Creek	Gettysburg	Hamilton Wolfe	0.30	2	2	8
Commerce	Main	Bowie	0.66	37	7	1
Commerce	Acme	39th	0.49	5	3	5/6/7
Commerce	St. Louis	23rd	1.35	31	7	5/6
Culebra Culebra	Grissom Gate	Van Ness	1.26	16	9	5/7
Culebra (FM 471)	Laven Westwood	Vanley	1.31 0.04	16 5	2	6
Culebra (Spur 421)*	General McMullen	Loop 1604 Navidad	1.86	34	13	1/5/7
Cupples	Menefee	Kirk Place	0.25	3	2	5
Dollarhide	Pennystone	Southcross	0.06	3	2	3
Eckhert	Robin	Abe Lincolm	0.41	3	2	7
Enrique Barrera	Prosperity	San Ignacio	0.91	12	5	5/6
Fair	New Braunfels	Stanfield	0.07	3	2	3
Flores	Tommins	Military	1.80	40	9	3/5
Flores	Dolorosa/Market	El Paso/Arsenal	0.43	7	3	1
Fredericksburg	De Chantle	Babcock	0.72	21	8	1/5
Fredericksburg	Mary Louise	Zarzamora	0.28	7	2	1/7
Fredericksburg	Sandoval	Laurel	0.30	2	1	1
Fredericksburg (Spur 345)	Bluemel	Winnetka	1.88	33	14	7/8
Fresno	Capitol	Michigan	0.02	3	2	1



Street	From	То	Length (miles)	Pedestrian Crashes	Severe Pedestrian Injury Crashes	City Council District(s)
General McMullen	Blueridge	Aldama	2.52	33	12	5
Guadalupe	Murry	Chupaderas	0.29	15	3	5
Hildebrand	Jerry	Breeden	0.74	4	3	1
Horal	Marbach	Flint Valley	0.48	9	2	4/6
Houston	Gevers	Walters	0.27	3	2	2
Huebner	Research	Vance Jackson	0.92	14	4	8
Lockhill-Selma	Wedgewood	Military	80.0	2	2	9
Marbach	Rawhide	Military	0.34	3	2	6
Marbach	Cable Ranch	Loop 410	0.38	12	2	4/6
Martin	Frio	Soledad	0.61	17	4	1/5
Military	Brownleaf	Shady Grove	0.41	3	2	6
Military (FM 1535)	Braesview	Wedgewood	0.21	2	2	9
Military (Loop 13)	Commercial	Boswell	0.77	7	4	3
Military (Loop 13)	Hilton	IH 35	0.02	2	2	4
Military (Loop 13)	Bynum	Yarrow	1.16	12	5	4
Military (Loop 13)	Roosevelt	Mission	0.50	11	3	3
Military (Loop 13)	Presa	Old Corpus Christi	0.29	5	2	3
Military (Loop 13)	City Base Landing	Goliad	0.33	10	2	3
Nacogdoches	Salado	Titan	0.15	3	2	10
Nacogdoches (FM 2252)	Toepperwein	Fox Knoll	0.25	3	2	10
Nacogdoches (FM 2252)	La Posita	Cattleman	0.82	9	3	10
Nacogdoches/ Perrin Beitel (FM 2252)	Avenida Prima	Village Square	0.46	8	3	10
New Braunfels	Porter	Denver	0.10	9	3	2
Old Pearsall (FM 2536)	Loop 410	Old Sky Harbor	0.49	3	1	4
Perrin Beitel (FM 2252)*	Swans Landing	Austin Hwy	1.06	15	7	2/10
Perrin Beitel (FM 2252)	Acom Hill	Schertz	0.17	3	2	10
Pinn	Westlawn	Westfield	0.45	3	3	6
Pleasanton	Kendalia	Amber	1.04	18	6	3
Pleasanton	Hart	Brighton	0.20	2	2	3/5
Polaris	Center	Dakota	0.48	3	3	2
Potranco (FM 1957)	Loop 1604	Rousseau	0.19	4	2	4
Quintana	Dacus	Dunton	0.31	4	2	5
Rigsby (US 87)	Spokane	Bermuda	0.62	5	3	2/3
Rittiman	Industry Park	Goldfield	0.21	4	2	2
Rittiman	Grantham	Cape Cod	0.27	3	2	2

Street	From	То	Length (miles)	Pedestrian Crashes	Severe Pedestrian Injury Crashes	City Council District(s)
Roosevelt (Spur 536)	Military	Harding	0.19	2	2	3
Roosevelt (Spur 536)	99th	Ashley	0.48	3	2	3
Roosevelt (US 281)	Loop 410	Sava	0.93	4	3	3
San Pedro	Rampart	Nova Mae	1.26	19	7	1
San Pedro	Myrtle	Euclid	0.65	20	4	1
Seguin (FM 78)	Lakeview	Railway	0.68	9	5	2
Somerset	Pyron	Lovett/Wagner	0.14	3	2	4/5
St. Marys	Travis	Commerce	0.21	15	4	1
Thousand Oaks	Scarsdale/Bulverde	Perrin Beitel/ Nacogdoches	0.38	17	3	10
UTSA	Roadrunner	Edward Ximenes	0.44	3	2	8
Vance Jackson	Freiling	Gardina	0.73	14	4	1
Vance Jackson	Look 410	Trudell	0.39	7	2	1
Villaret	Palo Alto	Poteet Jourdanton	0.03	2	2	4
West	Gilbert	Hermosa	1.24	17	5	1
Wurzbach	Sid Katz	IH 10	1.18	24	8	8
WW White (Loop 13)	Hunnicutt	Creekmoor	1.91	27	10	2
Zarzamora	Saltillo	Ceralvo	0.30	4	3	5
Zarzamora	Culberson	Military	1.62	21	11	4/5
Zarzamora	Cincinnati	Guadalupe	2.03	58	16	1/5

^{*}Denotes SPIA with Public Works and TxDOT ownership

Severe Pedestrian Injury Areas by City Council District

Twenty-three percent (23%) of SPIAs are located along roadways that cross city council district boundaries. Areas spanning more than one council district consist of 19.28 miles or approximately thirty-six percent (36%) of the total SPIA miles.

Excluding SPIAs that span more than one council district, Council District 1 had the greatest length of SPIAs with 6.72 miles. Council District 1 also contained the most total pedestrian crashes with 155, in which 46 of these crashes resulting in a severe injury.

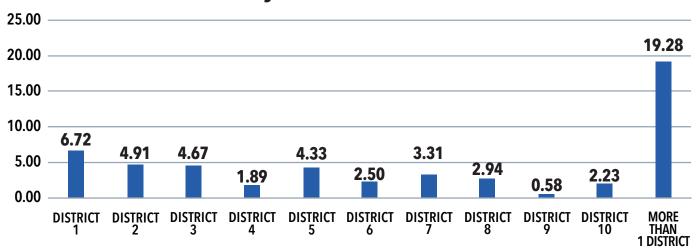
Council District 1 also had the greatest number of pedestrians killed within the SPIAs located in their district at 13 people. The next highest number of pedestrians killed, 11 people, were reported in both Council District 2 and Council District 3.

Council District 9 has the shortest length of SPIAs (.58 miles) representing 1% of the total SPIA miles, and the smallest number of severe pedestrian injuries (seven) representing 3% of the total severe pedestrian injuries. However, four out of these seven (or 57%) injuries were fatal.





SPIA Miles by Council District, 2014 - 2018



SPIA Severe Pedestrian Injuries by City Council District, 2014 - 2018

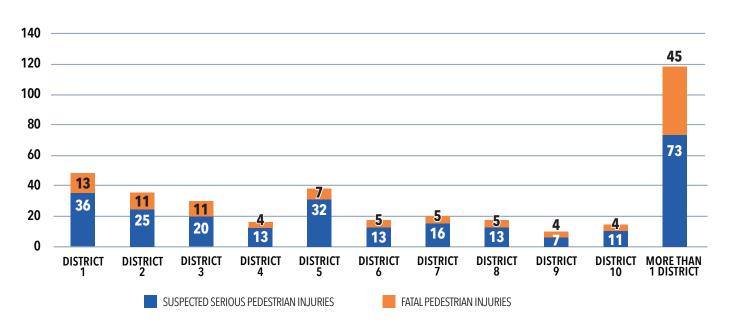






Table 3: Severe Pedestrian Injury Areas by City Council District (2014 - 2018)

City Council District	Length (miles)	Pedestrian Crashes	Severe Pedestrian Crashes	Suspected Serious Pedestrian Injuries	Pedestrians Killed	Severe Pedestrian Injuries
District 1	6.72	155	46	36	13	48
District 1	13%	17%	13%	14%	12%	13%
District 2	4.91	68	34	25	11	36
District 2	9 %	7%	9 %	10%	10%	10%
District 3	4.67	68	30	20	11	31
District 5	9 %	7%	8%	8%	10%	8%
District 4	1.89	37	16	13	4	17
District 4	4%	4%	4%	5%	4%	5%
District 5	4.33	98	39	32	7	39
District 3	8%	11%	11%	12%	6 %	11%
District 6	2.50	31	16	13	5	18
District	5%	3%	4%	5%	4%	5%
District 7	3.31	44	21	16	5	21
District /	6%	5%	6%	6%	4%	6%
District 8	2.94	45	18	13	5	18
District	6 %	5%	5%	5%	4%	5%
District 9	0.58	14	10	7	4	10
District 7	1%	2%	3%	3%	3%	3%
District 10	2.23	43	15	11	4	15
District 10	4%	5%	4%	4%	4%	4%
More than 1 District	19.28	319	114	73	45	118
More than 1 District	36%	35%	32 %	28%	40%	32 %
Total	53.37	922	359	259	114	379
IOLAI	100%	100%	100%	100%	100%	100%





Detailed Analysis

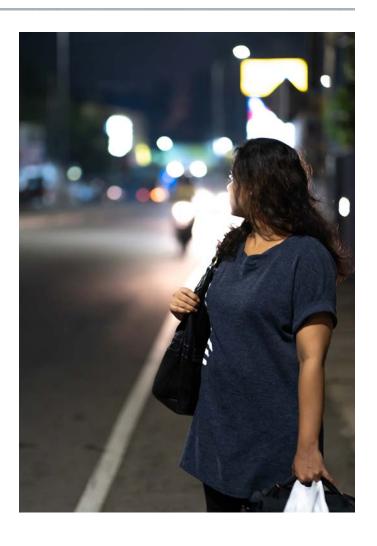
Time of Day

Time of day data was reviewed to determine when severe crashes occurred. Six hours of the day, from 6 p.m. to midnight, account for almost half (209 of 373, or approximately 56%) of the severe pedestrian injuries within the Severe Pedestrian Injury Areas (SPIAs). Of these evening severe pedestrian injuries, 75 (approximately 36%) were fatal and 134 (approximately 64%) were a suspected serious injury.

The time of the day when the most severe pedestrian injuries occurred was the 8 p.m. hour with 49 total severe injuries. It should be noted that there was a 76% increase in the total number of severe injuries from the 5 p.m. hour to the 6 p.m. hour (17 to 30).

After the 8 p.m. hour, the second hour of the day reporting the most severe pedestrian injuries is the 9 p.m. hour followed by the 10 p.m. hour. The 9 p.m. hour reported 43 total severe pedestrian injuries and the 10 p.m. hour reported 32 total severe pedestrian injuries.

The 3 a.m. hour, 4 a.m. hour, 5 a.m. hour, and 6 a.m. hour were the only 4 hours in which fatalities outnumbered or equaled suspected serious injuries.



Severe Pedestrian Injuries by Time of Day in SPIAs 2014 - 2018

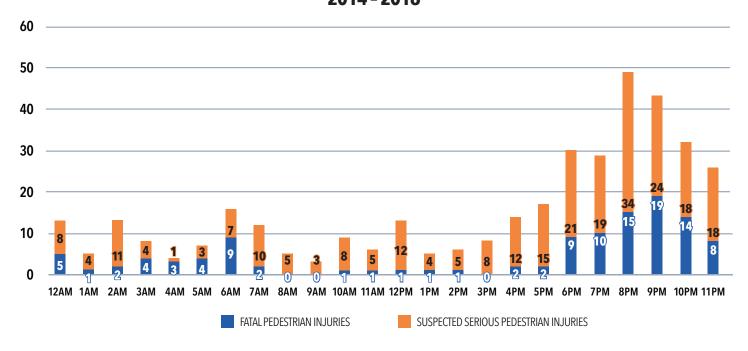


Table 4: Injuries by Time of Day in SPIAs, 2014 - 2018

Time	Fatal Pedestrian Injuries	Suspected Serious Pedestrian Injuries	Total Severe Pedestrian Injuries	% Of Total Severe Pedestrian Injuries
12:00-12:59 am	5	8	13	4%
1:00-1:59 am	1	4	5	1%
2:00-2:59 am	2	11	13	4%
3:00-3:59 am	4	4	8	2%
4:00-4:59 am	3	1	4	1%
5:00-5:59 am	4	3	7	2%
6:00-6:59 am	9	7	16	4%
7:00-7:59 am	2	10	12	3%
8:00-8:59 am	0	5	5	1%
9:00-9:59 am	0	3	3	1%
10:00-10:59 am	1	8	9	2%
11:00-11:59 am	1	5	6	2%
12:00-12:59 pm	1	12	13	4%
1:00-1:59 pm	1	4	5	1%
2:00-2:59 pm	1	5	6	2%
3:00-3:59 pm	0	8	8	2%
4:00-4:59 pm	2	12	14	4%
5:00-5:59 pm	2	15	17	5%
6:00-6:59 pm	9	21	30	8%
7:00-7:59 pm	10	19	29	8%
8:00-8:59 pm	15	34	49	13%
9:00-9:59 pm	19	24	43	12%
10:00-10:59 pm	14	18	32	9%
11:00-11:59 pm	8	18	26	7%





Detailed Analysis

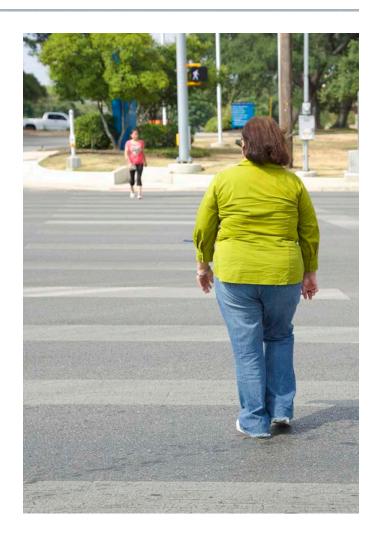
Day of the Week

Day of the week data was reviewed to determine when severe crashes occurred. Pedestrian fatalities by day of the week within the Severe Pedestrian Injury Areas (SPIAs) range from 10 to 25 total pedestrian fatalities over the five-year period.

Severe pedestrian injuries over the five-year period provide a bit more fluctuation. Friday accounted for the most severe pedestrian injuries with 70 representing 19% of the total severe injuries in these areas. However, Sunday had the highest number of pedestrians killed, at 25 people.

Friday and Saturday consisted of 124 severe pedestrian injuries and accounted for 33% of the total.

Monday and Sunday recorded the fewest severe injuries with 48 each representing 13% of the total severe injuries within the SPIAs.



Severe Pedestrian Injuries by Day of the Week in SPIAs 2014 - 2018

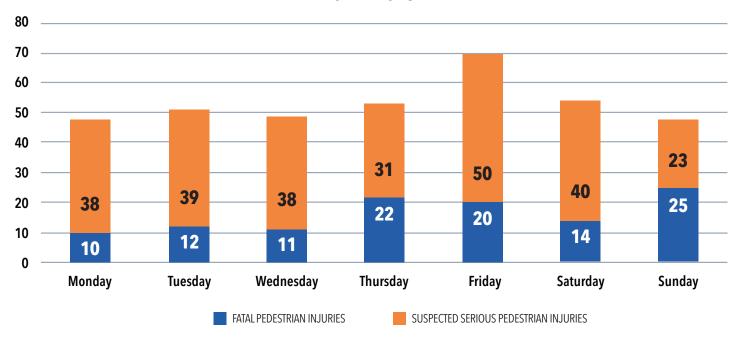
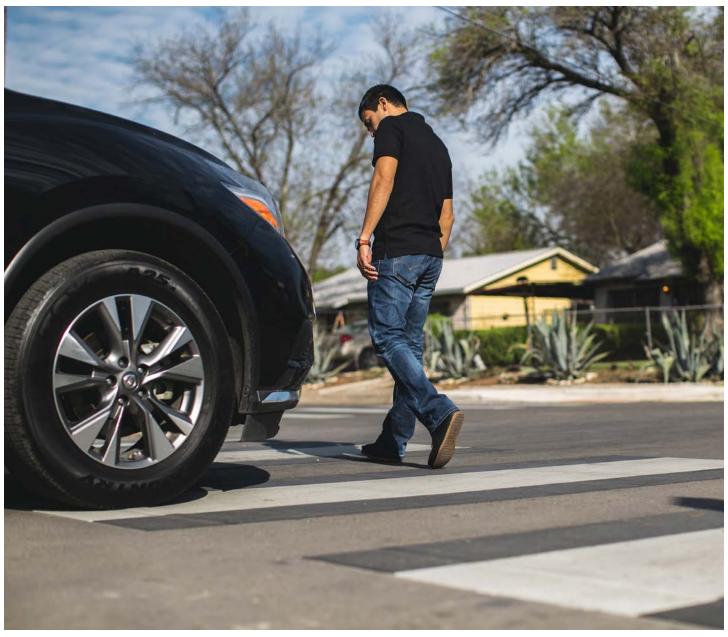


Table 5: Severe Pedestrian Injuries by Day of Week in SPIAs, 2014 - 2018

Day of Week	Fatal Pedestrian Injuries	Suspected Serious Pedestrian Injuries	Total Severe Pedestrian Injuries	% Of Total Severe Pedestrian Injuries
Monday	10	38	47	13%
Tuesday	12	39	50	13%
Wednesday	11	38	49	13%
Thursday	22	31	53	14%
Friday	20	50	70	19%
Saturday	14	40	54	15%
Sunday	25	23	48	13%



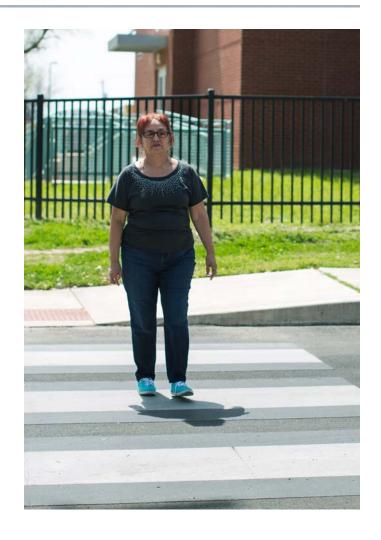


Detailed Analysis

Month of the Year

Monthly data was reviewed to determine when severe crashes occurred. The fall and winter months of September through February recorded 226 severe pedestrian injuries (approximately 61%), compared to 147 (approximately 39%) from the spring and summer months, March through August. August to November exhibited a particularly high frequency of severe pedestrian injuries.

Although these four months only represent a third of the calendar year, they represent forty-eight percent (48%) of the severe injuries. September had the highest number of total severe injuries (47 out of 373 severe injuries, or 13%). September recorded the most pedestrian fatalities with 16. The lowest month of the year was April with 13 total severe pedestrian injuries.



Severe Pedestrian Injuries by Month in SPIAs 2014 - 2018

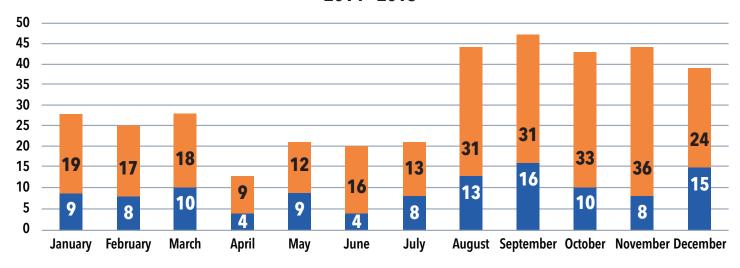
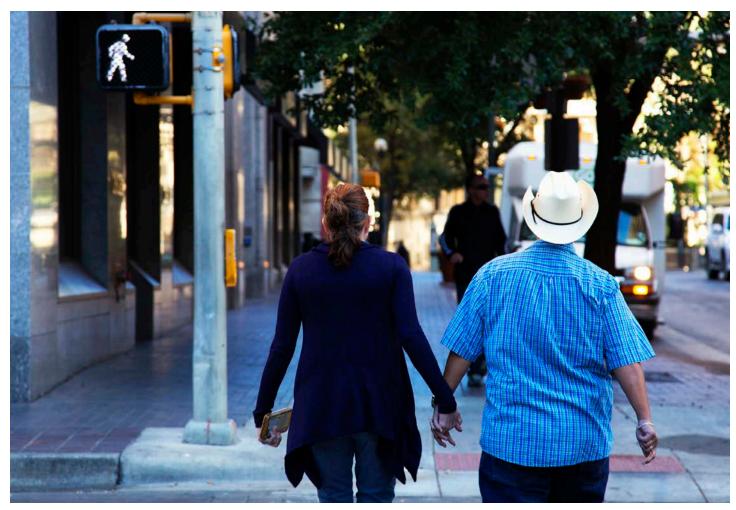




Table 6: Severe Pedestrian Injuries by Month in SPIAs, 2014 - 2018

Month	Fatal Pedestrian Injuries	Suspected Serious Pedestrian Injuries	Total Severe Pedestrian Injuries	% Of Total Severe Pedestrian Injuries
January	9	19	28	8%
February	8	17	25	7%
March	10	18	28	8%
April	4	9	13	4%
May	9	12	21	6%
June	4	16	20	5%
July	8	13	21	6%
August	13	31	44	12%
September	16	31	45	13%
October	10	33	43	12%
November	8	36	44	12%
December	15	24	39	10%





Conclusion

This report assessed pedestrian crashes for the five year period from 2014 to 2018. The findings show that almost half of all severe pedestrian injury crashes are happening in concentrated areas referred in this report as Severe Pedestrian Injury Areas (SPIAs). By narrowing in on these areas, staff was able to conduct more detailed analysis to look for trends in time of day, day of month, and month of year when severe pedestrian injury crashes tend to occur.

The analysis of the crash data resulted in identifying 90 SPIAs in San Antonio consisting of approximately 53 roadway miles. These areas represent about 1% of San Antonio roadways but account for 42% of all fatal and suspected serious pedestrian injury crashes from 2014 through 2018.





This analysis is the first step in identifying where Vision Zero may have the greatest impact in eliminating pedestrian deaths and serious injuries in San Antonio. This report establishes when and where there are concentrations of pedestrian severe injury crashes. To determine why these crashes are happening, the next step is more detailed analysis of the crashes within the SPIAs which could help determine what interventions may be necessary to achieve Vision Zero.

This five-year report establishes a solid five-year basis of analysis to identify trends in the location, causes, and possible prevention of severe pedestrian injuries on our roadways. The SPIAs will be updated every three years with an accompanying report. The next updated SPIAs will be identified using crash data from 2017-2021.





Appendix

Severe Pedestrian Injury Areas (2014–2018), Severe Pedestrian Inju	ıries,
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Table 7: Severe Pedestrian Injury Areas (2014 - 2018) Severe Pedestrian Injuries, Alphabetical by Street

	cvere i cue			Pilanon			
Street	From	То	Length (miles)	Fatal Pedestrian Injuries	Suspected Serious Pedestrian Injuries	Total Severe Pedestrian Injuries	City Council District(s)
Ashley	Leah	Lucinda	0.01	2	2	3	3
Austin Hwy (Loop 368)	Holbrook	Walzem	0.98	11	7	2	2
Austin Hwy (Loop 368)	Rainbow	Eisenhauer	0.82	16	8	2/10	2/10
Babcock	Sunset Haven	Spring Time	0.10	2	2	8	8
Bandera (Spur 421)	Sunshine	Westminster	1.95	27	11	7	7
Bandera (TX 16)	Braun	Knights Peak	0.49	3	3	7	7
Bandera (TX 16)	Mainland	Ebert	0.46	3	3	7	7
Blanco	Edison	Fresno	0.07	6	2	1	1
Blanco	Oblate	Jackson-Keller	0.01	4	2	1	1
Blanco (FM 2696)	Parliament	West	0.23	9	5	9	9
Blanco (FM 2696)	Wurzbach	Vista	0.06	1	1	9	9
Buena Vista	Trinity	Colorado	0.43	2	2	5	5
Callaghan	Ingram	Farragut	0.36	6	2	6/7	6/7
Callaghan	Greensboro	Fredericksburg	0.37	7	2	7/8	7/8
Castroville	Madrid	Juanita	0.22	4	3	5	5
Castroville	Barclay	21st	0.01	4	2	5	5
Cinnamon Creek	Gettysburg	Hamilton Wolfe	0.30	2	2	8	8
Commerce	Main	Bowie	0.66	37	7	1	1
Commerce	Acme	39th	0.49	5	3	5/6/7	5/6/7
Commerce	St. Louis	23rd	1.35	31	7	5/6	5/6
Culebra	Grissom Gate	Van Ness	1.26	16	6	6	6
Culebra	Laven	Vanley	1.31	16	9	5/7	5/7
Culebra (FM 471)	Westwood	Loop 1604	0.04	5	2	6	6
Culebra (Spur 421)*	General McMullen	Navidad	1.86	34	13	1/5/7	1/5/7
Cupples	Menefee	Kirk Place	0.25	3	2	5	5
Dollarhide	Pennystone	Southcross	0.06	3	2	3	3
Eckhert	Robin	Abe Lincolm	0.41	3	2	7	7
Enrique Barrera	Prosperity	San Ignacio	0.91	12	5	5/6	5/6
Fair	New Braunfels	Stanfield	0.07	3	2	3	3
Flores	Tommins	Military	1.80	40	9	3/5	3/5
Flores	Dolorosa/Market	El Paso/Arsenal	0.43	7	3	1	1
Fredericksburg	De Chantle	Babcock	0.72	21	8	1/5	1/5
Fredericksburg	Mary Louise	Zarzamora	0.28	0	2	2	1/7
Fredericksburg	Sandoval	Laurel	0.30	0	2	2	1
Fredericksburg (Spur 345)	Bluemel	Winnetka	1.88	4	10	14	7/8



Street	From	То	Length (miles)	Fatal Pedestrian Injuries	Suspected Serious Pedestrian Injuries	Total Severe Pedestrian Injuries	City Council District(s)
Fresno	Capitol	Michigan	0.02	1	1	2	1
General McMullen	Blueridge	Aldama	2.52	0	12	12	5
Guadalupe	Murry	Chupaderas	0.29	2	1	3	5
Hildebrand	Jerry	Breeden	0.74	1	2	3	1
Horal	Marbach	Flint Valley	0.48	0	2	2	4/6
Houston	Gevers	Walters	0.27	0	2	2	2
Huebner	Research	Vance Jackson	0.92	1	3	4	8
Lockhill-Selma	Wedgewood	Military	0.08	0	2	2	9
Marbach	Rawhide	Military	0.34	0	3	3	6
Marbach	Cable Ranch	Loop 410	0.38	0	2	2	4/6
Martin	Frio	Soledad	0.61	1	3	4	1/5
Military	Brownleaf	Shady Grove	0.41	1	1	2	6
Military (FM 1535)	Braesview	Wedgewood	0.21	1	1	2	9
Military (Loop 13)	Commercial	Boswell	0.77	1	3	4	3
Military (Loop 13)	Hilton	IH 35	0.02	0	2	2	4
Military (Loop 13)	Bynum	Yarrow	1.16	0	5	5	4
Military (Loop 13)	Roosevelt	Mission	0.50	1	2	3	3
Military (Loop 13)	Presa	Old Corpus Christi	0.29	2	0	2	3
Military (Loop 13)	City Base Landing	Goliad	0.33	1	1	2	3
Nacogdoches	Salado	Titan	0.15	1	1	2	10
Nacogdoches (FM 2252)	Toepperwein	Fox Knoll	0.25	1	1	2	10
Nacogdoches (FM 2252)	La Posita	Cattleman	0.82	0	3	3	10
Nacogdoches/Perrin Beitel (FM 2252)	Avenida Prima	Village Square	0.46	2	1	3	10
New Braunfels	Porter	Denver	0.10	1	2	3	2
Old Pearsall (FM 2536)	Loop 410	Old Sky Harbor	0.49	1	2	3	4
Perrin Beitel (FM 2252)*	Swans Landing	Austin Hwy	1.06	4	3	7	2/10
Perrin Beitel (FM 2252)	Acorn Hill	Schertz	0.17	0	2	2	10
Pinn	Westlawn	Westfield	0.45	0	4	4	6
Pleasanton	Kendalia	Amber	1.04	1	5	6	3
Pleasanton	Hart	Brighton	0.20	1	3	4	3/5
Polaris	Center	Dakota	0.48	0	3	3	2
Potranco (FM 1957)	Loop 1604	Rousseau	0.19	0	2	2	4
Quintana	Dacus	Dunton	0.31	0	2	2	5
Rigsby (US 87)	Spokane	Bermuda	0.62	0	3	3	2/3
Rittiman	Industry Park	Goldfield	0.21	1	1	2	2
Rittiman	Grantham	Cape Cod	0.27	0	2	2	2
Roosevelt (Spur 536)	Military	Harding	0.19	1	1	2	3
Roosevelt (Spur 536)	99th	Ashley	0.48	0	3	3	3
Roosevelt (US 281)	Loop 410	Sava	0.93	3	0	3	3
San Pedro	Rampart	Nova Mae	1.26	5	2	7	1
San Pedro	Myrtle	Euclid	0.65	2	3	5	1
Seguin (FM 78)	Lakeview	Railway	0.68	4	1	5	2



Street	From	То	Length (miles)	Fatal Pedestrian Injuries	Suspected Serious Pedestrian Injuries	Total Severe Pedestrian Injuries	City Council District(s)
Somerset	Pyron	Lovett/Wagner	0.14	1	2	3	4/5
St. Marys	Travis	Commerce	0.21	0	4	4	1
Thousand Oaks	Scarsdale/Bulverde	Perrin Beitel/ Nacogdoches	0.38	0	3	3	10
UTSA	Roadrunner	Edward Ximenes	0.44	0	2	2	8
Vance Jackson	Freiling	Gardina	0.73	0	4	4	1
Vance Jackson	Look 410	Trudell	0.39	0	3	3	1
Villaret	Palo Alto	Poteet Jourdanton	0.03	2	0	2	4
West	Gilbert	Hermosa	1.24	0	5	5	1
Wurzbach	Sid Katz	IH 10	1.18	3	5	8	8
WW White (Loop 13)	Hunnicutt	Creekmoor	1.91	1	10	11	2
Zarzamora	Saltillo	Ceralvo	0.30	1	2	3	5
Zarzamora	Culberson	Military	1.62	3	9	12	4/5
Zarzamora	Cincinnati	Guadalupe	2.03	7	9	16	1/5

^{*}Denotes SPIA with Public Works and TxDOT ownership



Map 3: Council District 1 Severe Pedestrian Injury Areas, 2014 - 2018

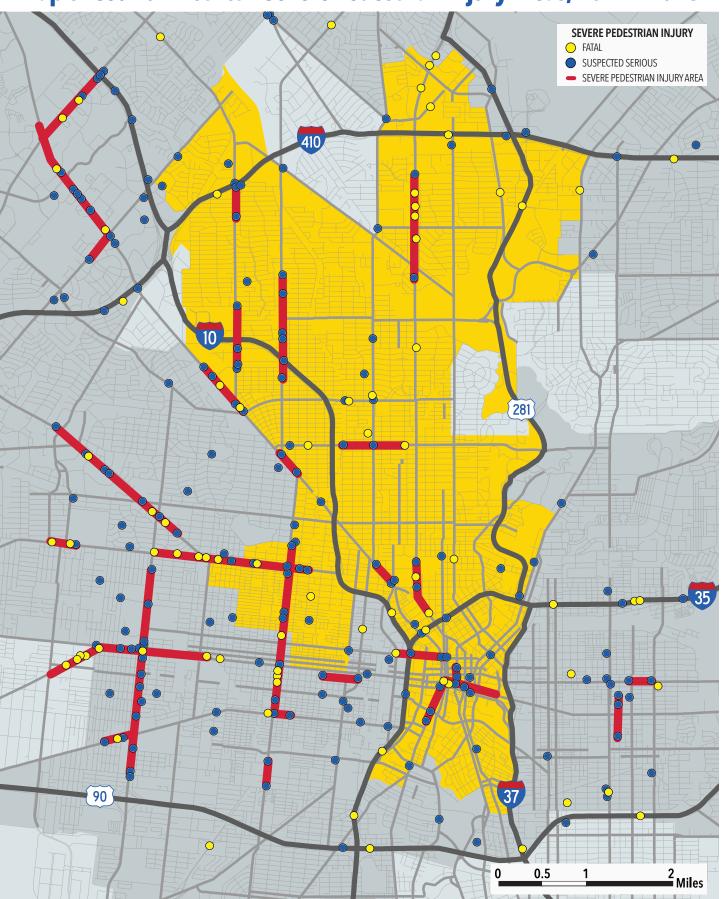




Table 8: Council District 1 Severe Pedestrian Injury Areas, 2014 - 2018

Street	From	То	Length (miles)	Fatal Pedestrian Injuries	Suspected Serious Pedestrian Injuries	Total Severe Pedestrian Injuries	City Council District(s)
Blanco	Edison	Fresno	0.07	1	1	2	1
Blanco	Oblate	Jackson-Keller	0.01	0	2	2	1
Commerce	Main	Bowie	0.66	3	4	7	1
Culebra (Spur 421)*	General McMullen	Navidad	1.86	7	6	13	1/5/7
Flores	Dolorosa/Market	El Paso/Arsenal	0.43	0	3	3	1
Fredericksburg	Sandoval	Laurel	0.30	0	2	2	1
Fredericksburg	De Chantle	Babcock	0.72	3	5	8	1/5
Fredericksburg	Mary Louise	Zarzamora	0.28	0	2	2	1/7
Fresno	Capitol	Michigan	0.02	1	1	2	1
Hildebrand	Jerry	Breeden	0.74	1	2	3	1
Martin	Frio	Soledad	0.61	1	3	4	1/5
San Pedro	Rampart	Nova Mae	1.26	5	2	7	1
San Pedro	Myrtle	Euclid	0.65	2	3	5	1
St. Marys	Travis	Commerce	0.21	0	4	4	1
Vance Jackson	Freiling	Gardina	0.73	0	4	4	1
Vance Jackson	Look 410	Trudell	0.39	0	3	3	1
West	Gilbert	Hermosa	1.24	0	5	5	1
Zarzamora	Cincinnati	Guadalupe	2.03	7	9	16	1/5

^{*}Denotes SPIA with Public Works and TxDOT ownership

Map 4: Council District 2 Severe Pedestrian Injury Areas, 2014 - 2018

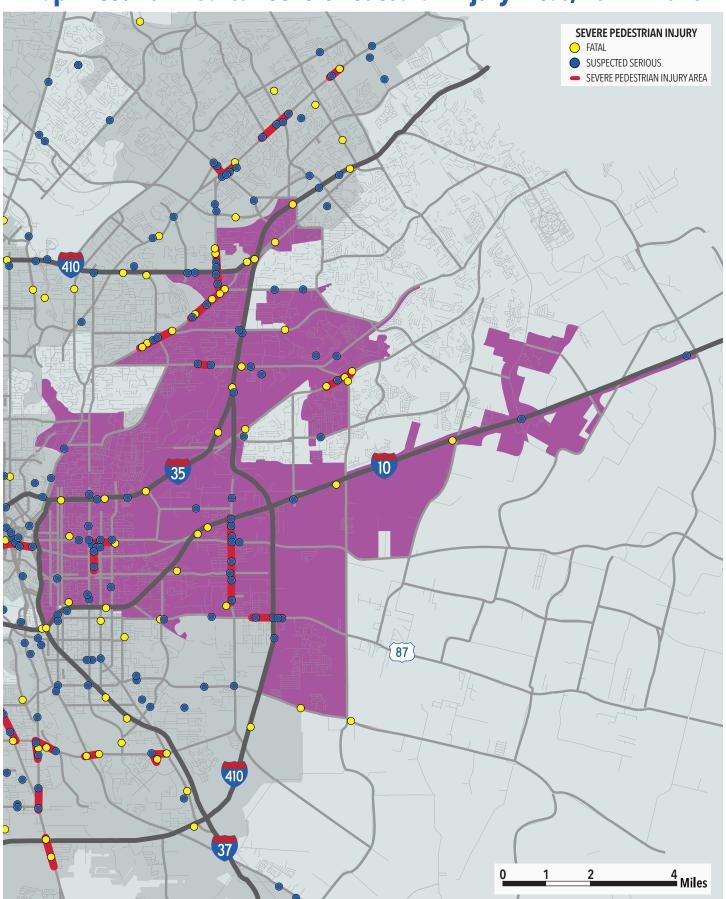




Table 9: Council District 2 Severe Pedestrian Injury Areas, 2014 - 2018

Street	From	То	Length (miles)	Fatal Pedestrian Injuries	Suspected Serious Pedestrian Injuries	Total Severe Pedestrian Injuries	City Council District(s)
Austin Hwy (Loop 368)	Holbrook	Walzem	0.98	5	2	7	2
Austin Hwy (Loop 368)	Rainbow	Eisenhauer	0.82	4	4	8	2/10
Houston	Gevers	Walters	0.27	0	2	2	2
New Braunfels	Porter	Denver	0.10	1	2	3	2
Perrin Beitel (FM 2252)*	Swans Landing	Austin Hwy	1.06	4	3	7	2/10
Polaris	Center	Dakota	0.48	0	3	3	2
Rigsby (US 87)	Spokane	Bermuda	0.62	0	3	3	2/3
Rittiman	Industry Park	Goldfield	0.21	1	1	2	2
Rittiman	Grantham	Cape Cod	0.27	0	2	2	2
Seguin (FM 78)	Lakeview	Railway	0.68	4	1	5	2
WW White (Loop 13)	Hunnicutt	Creekmoor	1.91	1	10	11	2

^{*}Denotes SPIA with Public Works and TxDOT ownership

Map 5: Council District 3 Severe Pedestrian Injury Areas, 2014 - 2018

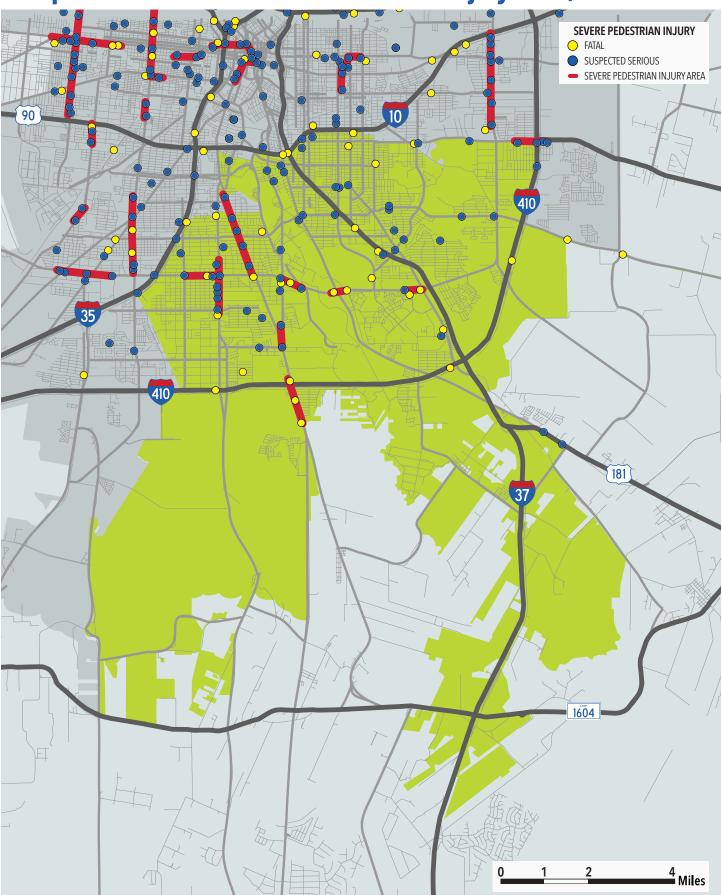




Table 10: Council District 3 Severe Pedestrian Injury Areas, 2014 - 2018

Street	From	То	Length (miles)	Fatal Pedestrian Injuries	Suspected Serious Pedestrian Injuries	Total Severe Pedestrian Injuries	City Council District(s)	
Ashley	Leah	Lucinda	0.01	1	1	2	3	
Dollarhide	Pennystone	Southcross	0.06	0	2	2	3	
Fair	New Braunfels	Stanfield	0.07	0	2	2	3	
Flores	Tommins	Military	1.80	2	7	9	3/5	
Military (Loop 13)	Commercial	Boswell	0.77	1	3	4	3	
Military (Loop 13)	Roosevelt	Mission	0.50	1	2	3	3	
Military (Loop 13)	Presa	Old Corpus Christi	0.29	2	0	2	3	
Military (Loop 13)	City Base Landing	Goliad	0.33	1	1	2	3	
Pleasanton	Kendalia	Amber	1.04	1	5	6	3	
Pleasanton	Hart	Brighton	0.20	1	3	4	3/5	
Rigsby (US 87)	Spokane	Bermuda	0.62	0	3	3	2/3	
Roosevelt (Spur 536)	Military	Harding	0.19	1	1	2	3	
Roosevelt (Spur 536)	99th	Ashley	0.48	0	3	3	3	
Roosevelt (US 281)	Loop 410	Sava	0.93	3	0	3	3	

^{*}Denotes SPIA with Public Works and TxDOT ownership

Map 6: Council District 4 Severe Pedestrian Injury Areas, 2014 - 2018

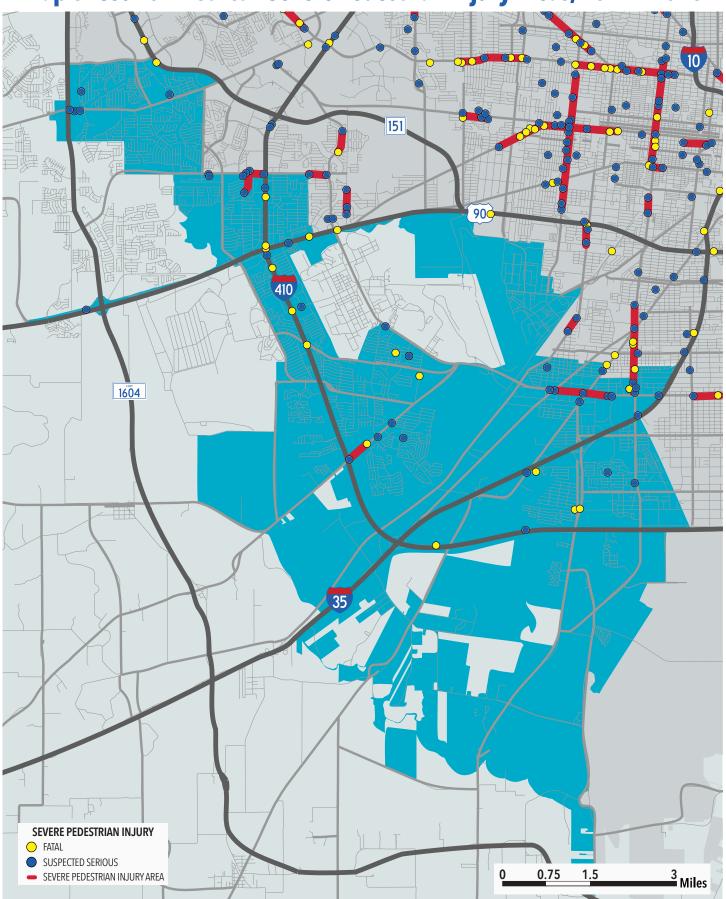




Table 11: Council District 4 Severe Pedestrian Injury Areas, 2014 - 2018

Street	From	То	Length (miles)	Fatal Pedestrian Injuries	Suspected Serious Pedestrian Injuries	Total Severe Pedestrian Injuries	City Council District(s)
Horal	Marbach	Flint Valley	0.48	0	2	2	4/6
Marbach	Cable Ranch	Loop 410	0.38	0	2	2	4/6
Military (Loop 13)	Hilton	IH 35	0.02	0	2	2	4
Military (Loop 13)	Bynum	Yarrow	1.16	0	5	5	4
Old Pearsall (FM 2536)	Loop 410	Old Sky Harbor	0.49	1	2	3	4
Potranco (FM 1957)	Loop 1604	Rousseau	0.19	0	2	2	4
Somerset	Pyron	Lovett/Wagner	0.14	1	2	3	4/5
Villaret	Palo Alto	Poteet Jourdanton	0.03	2	0	2	4
Zarzamora	Culberson	Military	1.62	3	9	12	4/5

^{*}Denotes SPIA with Public Works and TxDOT ownership

Map 7: Council District 5 Severe Pedestrian Injury Areas, 2014 - 2018

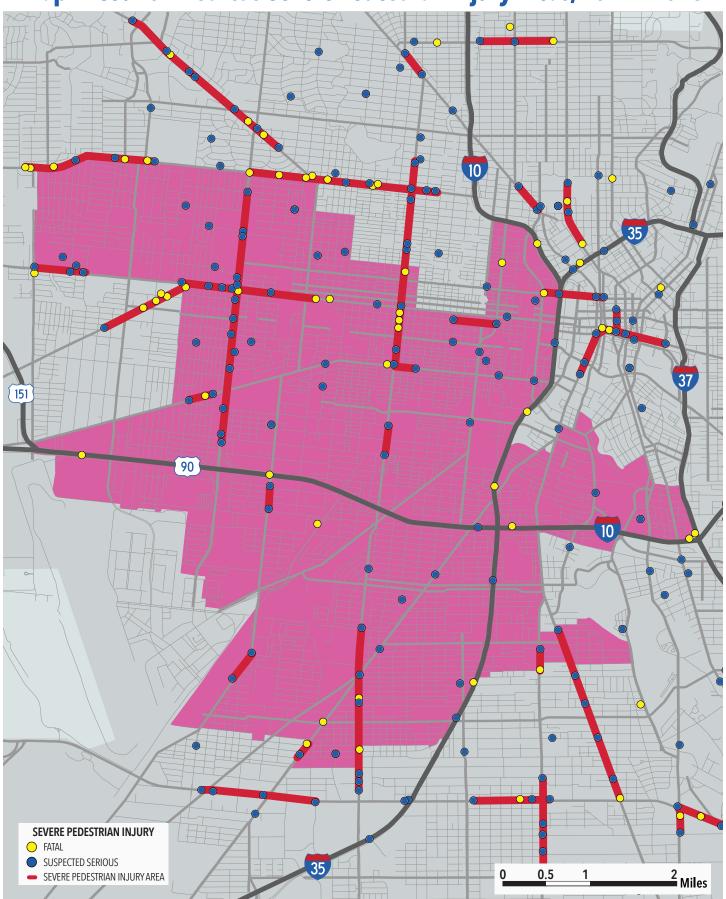




Table 12: Council District 5 Severe Pedestrian Injury Areas, 2014 - 2018

Street	From	То	Length (miles)	Fatal Pedestrian Injuries	Suspected Serious Pedestrian Injuries	Total Severe Pedestrian Injuries	City Council District(s)
Buena Vista	Trinity	Colorado	0.43	0	2	2	5
Castroville	Madrid	Juanita	0.22	1	2	3	5
Castroville	Barclay	21st	0.01	1	1	2	5
Commerce	St. Louis	23rd	1.35	2	5	7	5/6
Commerce	Acme	39th	0.49	0	3	3	5/6/7
Culebra	Laven	Vanley	1.31	5	4	9	5/7
Culebra (Spur 421)*	General McMullen	Navidad	1.86	7	6	13	1/5/7
Cupples	Menefee	Kirk Place	0.25	0	2	2	5
Enrique Barrera	Prosperity	San Ignacio	0.91	4	1	5	5/6
Flores	Tommins	Military	1.80	2	7	9	3/5
Fredericksburg	De Chantle	Babcock	0.72	3	5	8	1/5
General McMullen	Blueridge	Aldama	2.52	0	12	12	5
Guadalupe	Murry	Chupaderas	0.29	2	1	3	5
Martin	Frio	Soledad	0.61	1	3	4	1/5
Pleasanton	Hart	Brighton	0.20	1	3	4	3/5
Quintana	Dacus	Dunton	0.31	0	2	2	5
Somerset	Pyron	Lovett/Wagner	0.14	1	2	3	4/5
Zarzamora	Saltillo	Ceralvo	0.30	1	2	3	5
Zarzamora	Cincinnati	Guadalupe	2.03	7	9	16	1/5
Zarzamora	Culberson	Military	1.62	3	9	12	4/5

^{*}Denotes SPIA with Public Works and TxDOT ownership

Map 8: Council District 6 Severe Pedestrian Injury Areas, 2014 - 2018

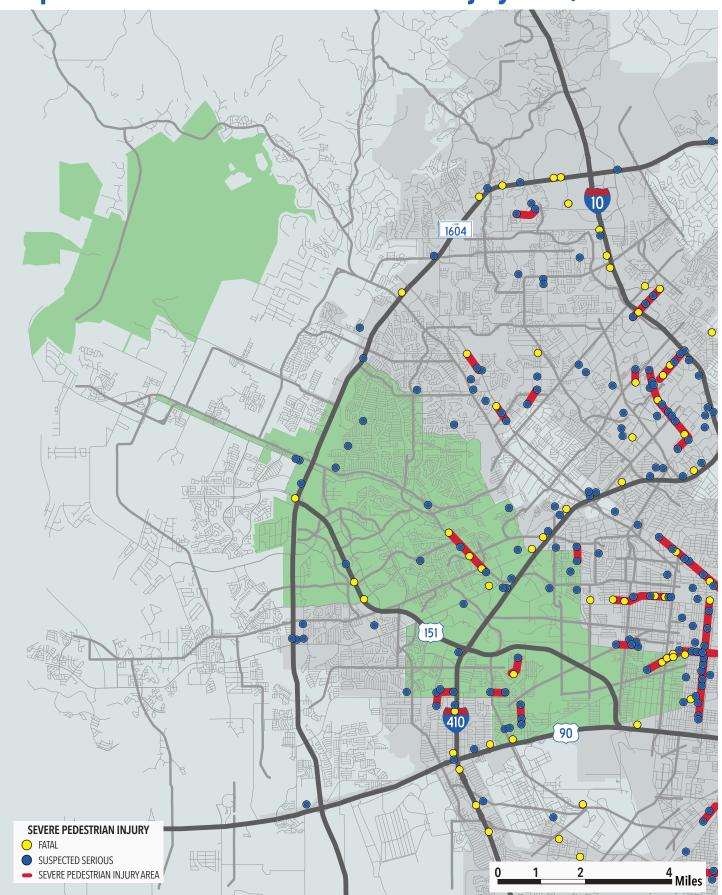




Table 13: Council District 6 Severe Pedestrian Injury Areas, 2014 - 2018

Street	From	То	Length (miles)	Fatal Pedestrian Injuries	Suspected Serious Pedestrian Injuries	Total Severe Pedestrian Injuries	City Council District(s)
Callaghan	Ingram	Farragut	0.36	0	2	2	6/7
Commerce	St. Louis	23rd	1.35	2	5	7	5/6
Commerce	Acme	39th	0.49	0	3	3	5/6/7
Culebra	Grissom Gate	Van Ness	1.26	3	3	6	6
Culebra (FM 471)	Westwood	Loop 1604	0.04	0	2	2	6
Enrique Barrera	Prosperity	San Ignacio	0.91	4	1	5	5/6
Horal	Marbach	Flint Valley	0.48	0	2	2	4/6
Marbach	Rawhide	Military	0.34	0	3	3	6
Marbach	Cable Ranch	Loop 410	0.38	0	2	2	4/6
Military	Brownleaf	Shady Grove	0.41	1	1	2	6
Pinn	Westlawn	Westfield	0.45	0	4	4	6

^{*}Denotes SPIA with Public Works and TxDOT ownership

Map 9: Council District 7 Severe Pedestrian Injury Areas, 2014 - 2018

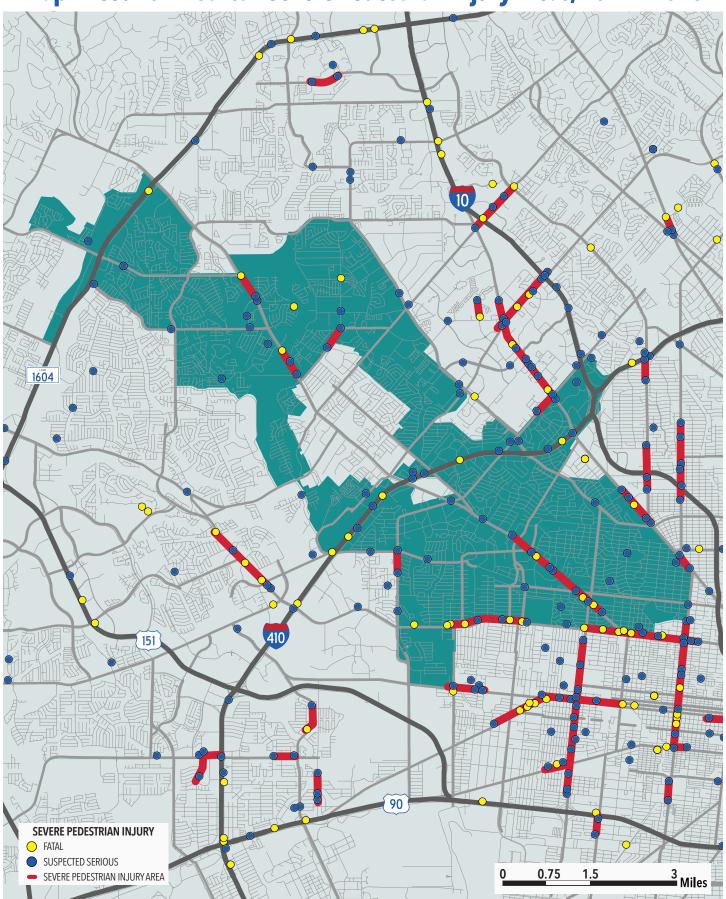




Table 14: Council District 7 Severe Pedestrian Injury Areas, 2014 - 2018

Street	From	То	Length (miles)	Fatal Pedestrian Injuries	Suspected Serious Pedestrian Injuries	Total Severe Pedestrian Injuries	City Council District(s)
Bandera (Spur 421)	Sunshine	Westminster	1.95	3	8	11	7
Bandera (TX 16)	Braun	Knights Peak	0.49	1	2	3	7
Bandera (TX 16)	Mainland	Ebert	0.46	1	2	3	7
Callaghan	Ingram	Farragut	0.36	0	2	2	6/7
Callaghan	Greensboro	Fredericksburg	0.37	0	2	2	7/8
Commerce	Acme	39th	0.49	0	3	3	5/6/7
Culebra	Laven	Vanley	1.31	5	4	9	5/7
Culebra (Spur 421)*	General McMullen	Navidad	1.86	7	6	13	1/5/7
Eckhert	Robin	Abe Lincolm	0.41	0	2	2	7
Fredericksburg	Mary Louise	Zarzamora	0.28	0	2	2	1/7
Fredericksburg (Spur 345)	Bluemel	Winnetka	1.88	4	10	14	7/8

^{*}Denotes SPIA with Public Works and TxDOT ownership

Map 10: Council District 8 Severe Pedestrian Injury Areas, 2014 - 2018

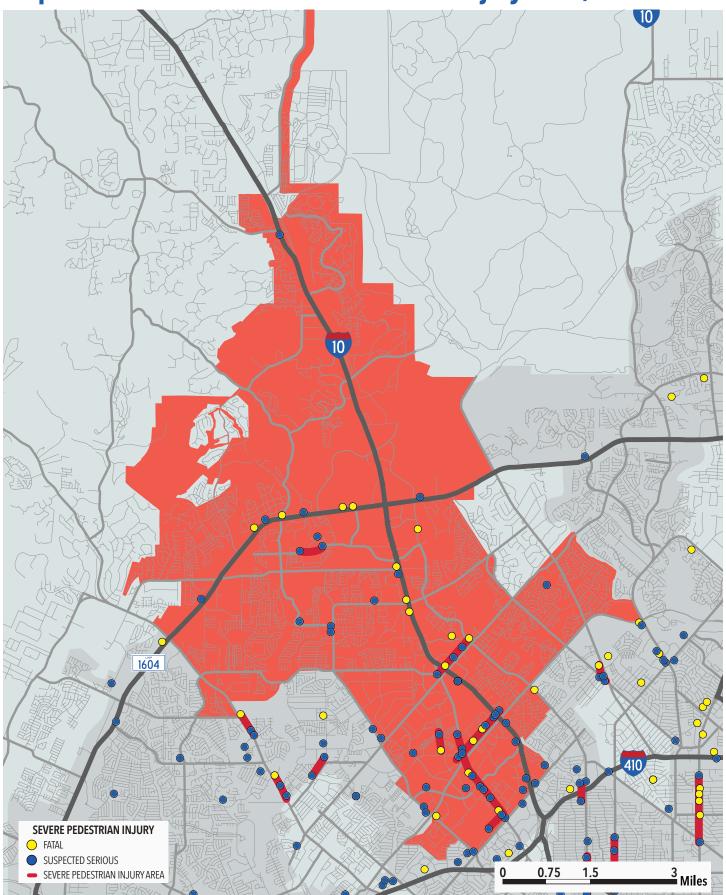




Table 15: Council District 8 Severe Pedestrian Injury Areas, 2014 - 2018

Street	From	То	Length (miles)	Fatal Pedestrian Injuries	Suspected Serious Pedestrian Injuries	Total Severe Pedestrian Injuries	City Council District(s)
Babcock	Sunset Haven	Spring Time	0.10	0	2	2	8
Callaghan	Greensboro	Fredericksburg	0.37	0	2	2	7/8
Cinnamon Creek	Gettysburg	Hamilton Wolfe	0.30	1	1	2	8
Fredericksburg (Spur 345)	Bluemel	Winnetka	1.88	4	10	14	7/8
Huebner	Research	Vance Jackson	0.92	1	3	4	8
UTSA	Roadrunner	Edward Ximenes	0.44	0	2	2	8
Wurzbach	Sid Katz	IH 10	1.18	3	5	8	8

^{*}Denotes SPIA with Public Works and TxDOT ownership

Map 11: Council District 9 Severe Pedestrian Injury Areas, 2014 - 2018

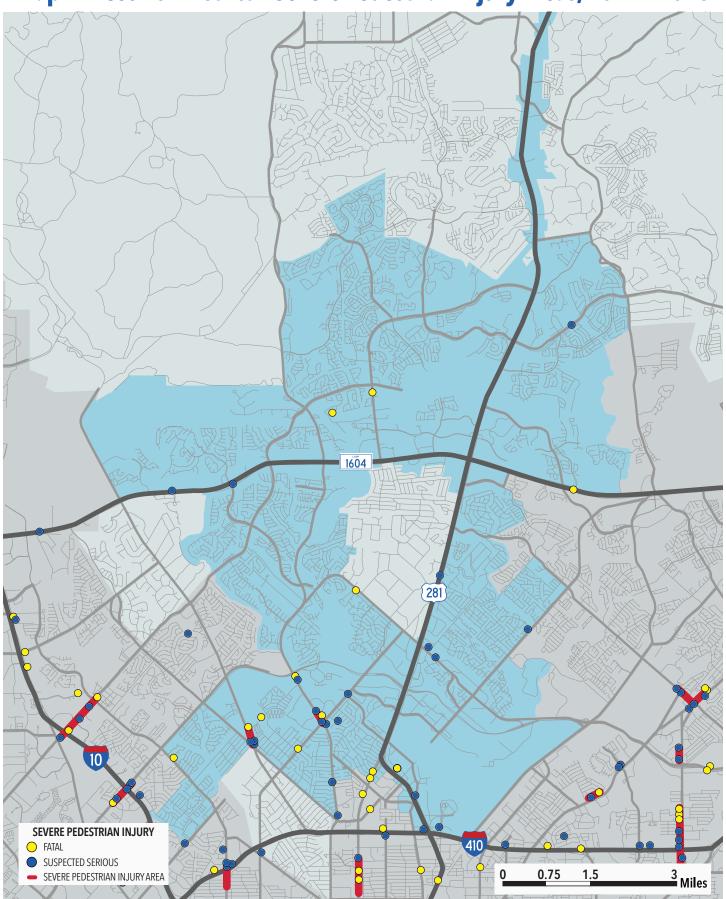




Table 16: Council District 9 Severe Pedestrian Injury Areas, 2014 - 2018

Street	From	То	Length (miles)	Fatal Pedestrian Injuries	Suspected Serious Pedestrian Injuries	Total Severe Pedestrian Injuries	City Council District(s)
Blanco (FM 2696)	Parliament	West	0.23	2	3	5	9
Blanco (FM 2696)	Wurzbach	Vista	0.06	1	1	2	9
Lockhill-Selma	Wedgewood	Military	0.08	0	2	2	9
Military (FM 1535)	Braesview	Wedgewood	0.21	1	1	2	9

^{*}Denotes SPIA with Public Works and TxDOT ownership

Map 12: Council District 10 Severe Pedestrian Injury Areas, 2014 - 2018

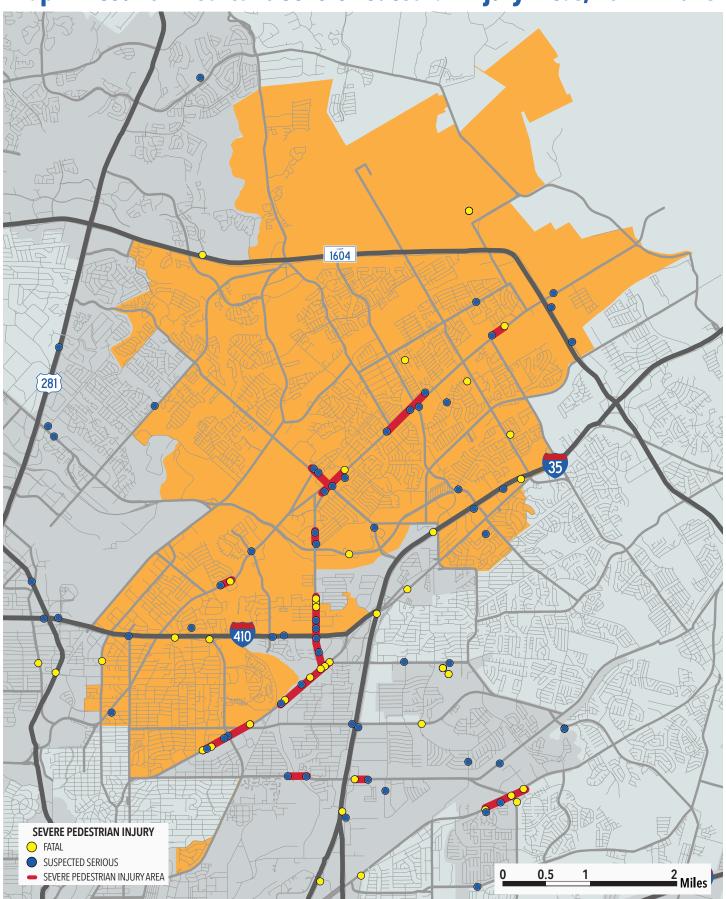




Table 17: Council District 10 Severe Pedestrian Injury Areas, 2014 - 2018

Street	From	То	Length (miles)	Fatal Pedestrian Injuries	Suspected Serious Pedestrian Injuries	Total Severe Pedestrian Injuries	City Council District(s)
Austin Hwy (Loop 368)	Rainbow	Eisenhauer	0.82	4	4	8	2/10
Nacogdoches	Salado	Titan	0.15	1	1	2	10
Nacogdoches (FM 2252)	Toepperwein	Fox Knoll	0.25	1	1	2	10
Nacogdoches (FM 2252)	La Posita	Cattleman	0.82	0	3	3	10
Nacogdoches /Perrin Beitel (FM 2252)	Avenida Prima	Village Square	0.46	2	1	3	10
Perrin Beitel (FM 2252)	Acorn Hill	Schertz	0.17	0	2	2	10
Perrin Beitel (FM 2252)*	Swans Landing	Austin Hwy	1.06	4	3	7	2/10
Thousand Oaks	Scarsdale/Bulverde	Perrin Beitel /Nacogdoches	0.38	0	3	3	10

^{*}Denotes SPIA with Public Works and TxDOT ownership

