

McKinney Uses Multi-Modal Data to Guide Community Investment



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SH5 Background



INQUIRY #: 3337630.5
YEAR: 2005
= 500'



SH 5 AADT (North of Virginia Street)

Station Flag 43T4

2005	28,860
2006	25,000
2007	25,000
2008	19,700
2009	19,700
2010	21,000
2011	21,000
2012	22,000
2013	21,649
2014	23,097
2015	18,124
2016	16,804
2017	17,717
2018	16,291
2019	16,291
2020	17,594
2021	22,450
2022	21,191
2023	21,433
2024	21,647



2010 Sustainable Development Grant

Goals:

- ✓ Create a corridor master plan that will help transform and revitalize SH 5 into a thoroughfare that is more supportive of not only vehicles but also pedestrians, bicycles and transit;
- ✓ Preserve aesthetic, historic, cultural, and environmental resources along the corridor; and
- ✓ Enhance mobility and safety throughout the thoroughfare, while providing a strong economic basis for future development.

ADOPTED

June 17, 2014 (Resolution 2014-06-071)

State Highway 5 Corridor
Context Sensitive Master Plan



Context Zones

Rural Transition

Frisco Rd. to Spur 399
Powerhouse Dr. to northern City limits

Suburban

Spur 399 to existing Old Mill Rd.

Urban Transition

existing Old Mill Rd. to Standifer St.
Watt St. to Powerhouse Dr.

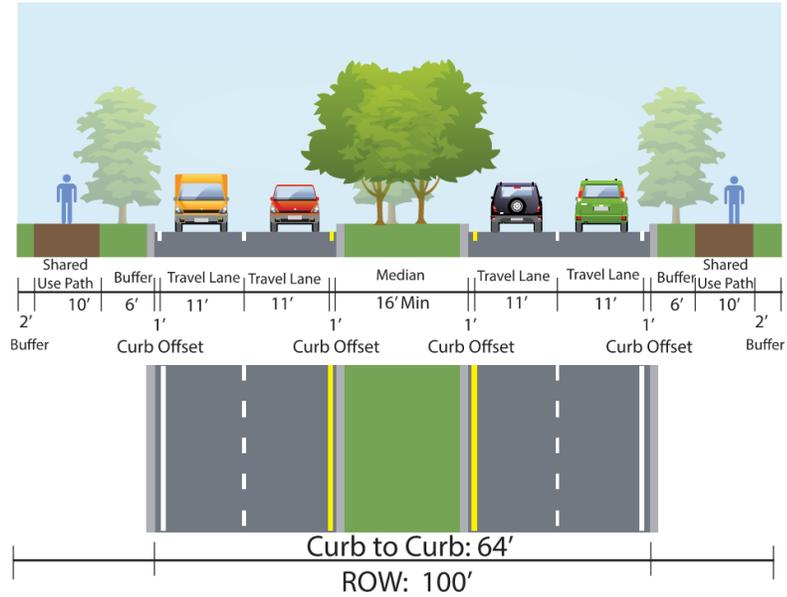
Urban

Watt St. to Standifer St.



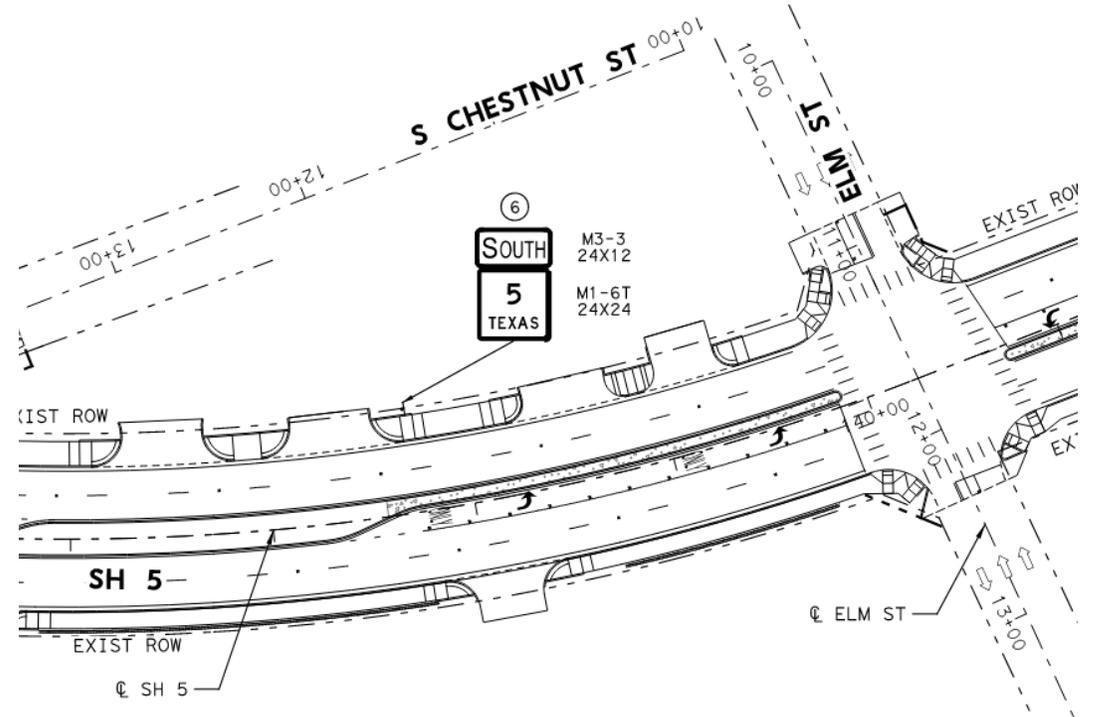
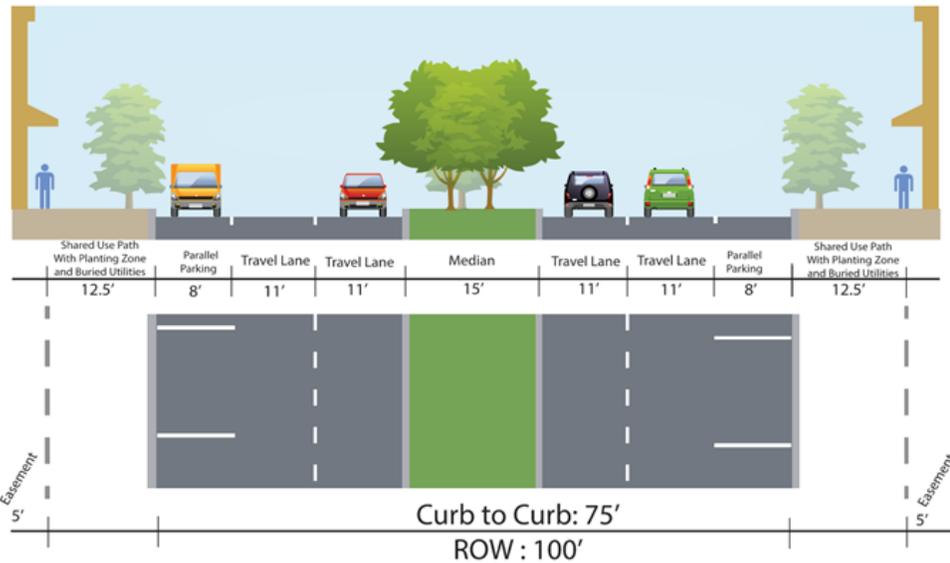
Recommended Urban Transition Cross-Section

4 Lane Divided with Shared Use Path



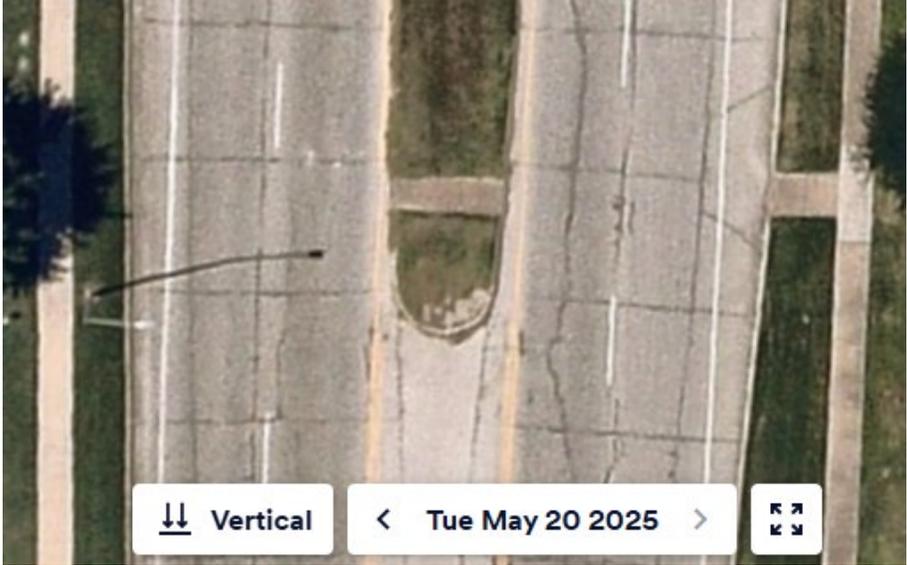
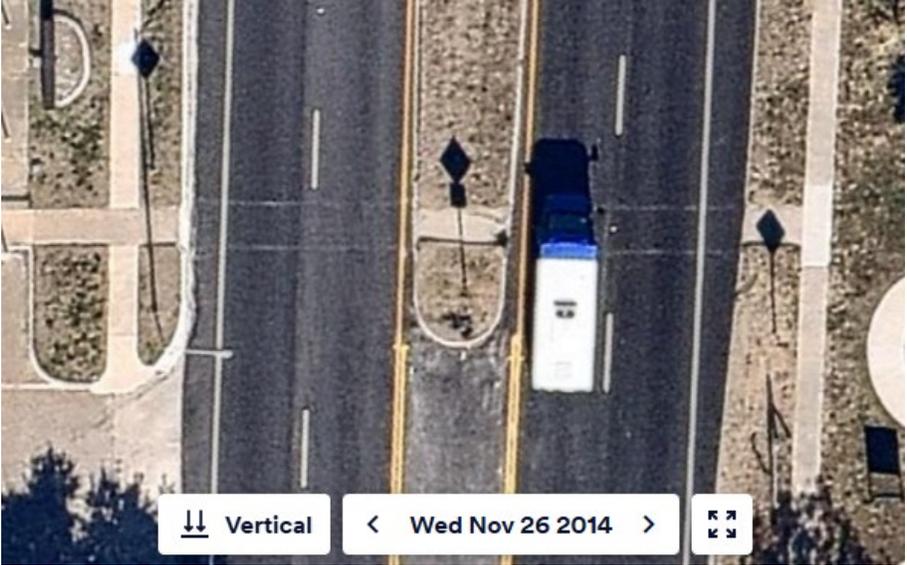
Recommended Urban Cross-Section

4 Lane Divided with Parallel Parking and Shared Use Path





Mid-block crosswalk south of Davis Street



A photograph of a wide, multi-lane asphalt road in a commercial area. The road has several lanes with white lane markings. On the left side, there are utility poles with power lines and some commercial buildings. On the right side, there are more commercial buildings, including one with a sign that says "Transmission". The sky is clear and blue. A semi-transparent dark red banner is overlaid across the middle of the image, containing the title text in white.

SH 5 – Pedestrian Crossing Analysis

Proposed Crossing Locations

Proposed Crossing Location	Average Daily Vulnerable User Traffic	Vehicle Average Daily Traffic	Vulnerable User Crashes (January 2020-June 2025)	Distance to Adjacent Existing/Proposed Controlled Pedestrian Crossing (Feet)
<i>Erwin Avenue</i>	42	17,468	0	1,350 (North) 690 (South)
<i>Midway Street</i>	29	17,546	0	690 (North) 840 (South)
<i>Davis Street</i>	39	28,274	0	420 (North) 1,140 (South)
<i>Ida Street</i>	22	20,695	0	590 (North) 620 (South)
<i>Colorado Street</i>	21	21,205	0	620 (North) 750 (South)
<i>Gerrish Street</i>	14	18,654	1 Serious Injury (Jefferson) 1 Fatal Injury	750 (North) 790 (South)
<i>North of Dorsey Street</i>	23	24,844	1 Minor Injury	610 (North) 790 (South)
<i>McMakin Street</i>	39	25,453	1 Serious Injury 1 Fatal Injury	790 (North) 1,090 (South)



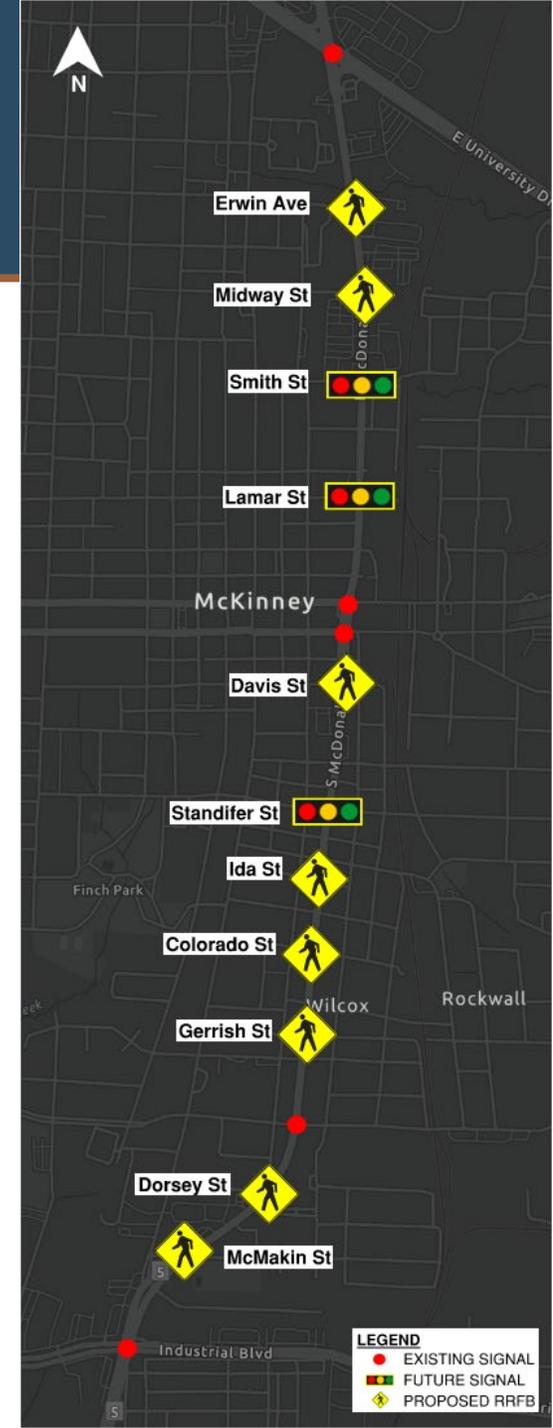
LEGEND
 ● EXISTING SIGNAL
 🚦 FUTURE SIGNAL
 ⚠️ PROPOSED RRFB

Proposed Crossing Locations



Source: <https://greenwaycollab.com>

**Recommendation: Two-Stage Crosswalk, Refuge Island,
& Overhead RRFB**



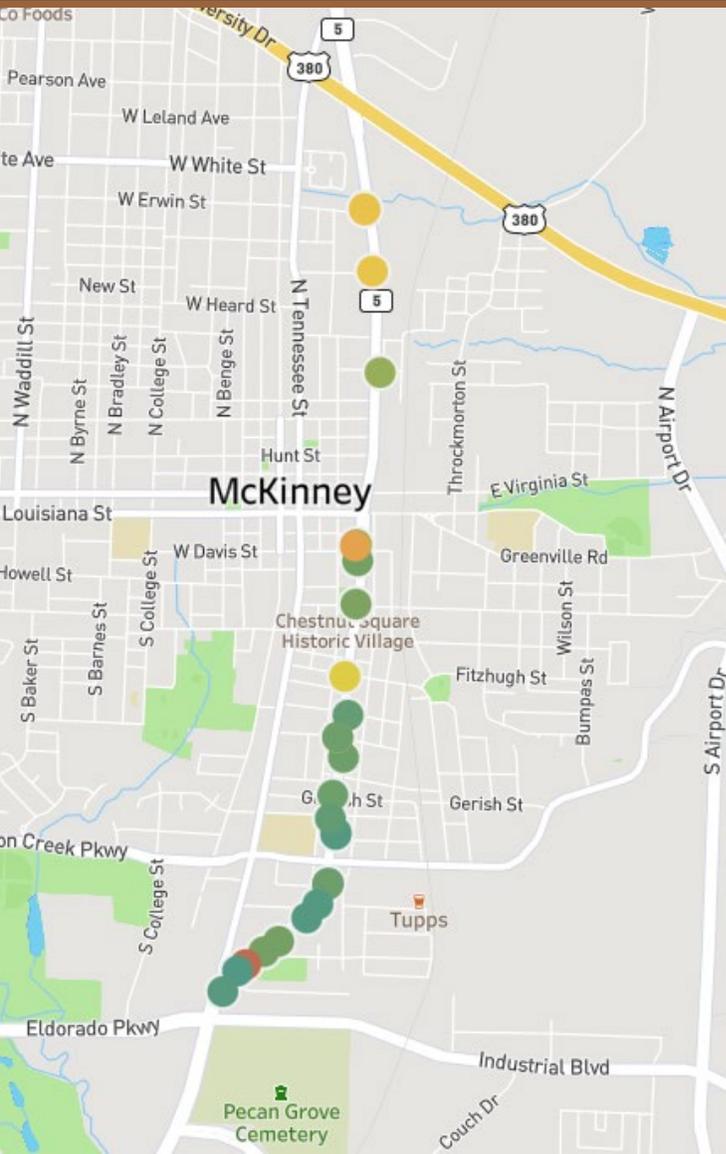


SH 5 – Data Collection & Analysis

Where and When Do People Cross?



Analysis Scope



Deployment Overview – by the numbers

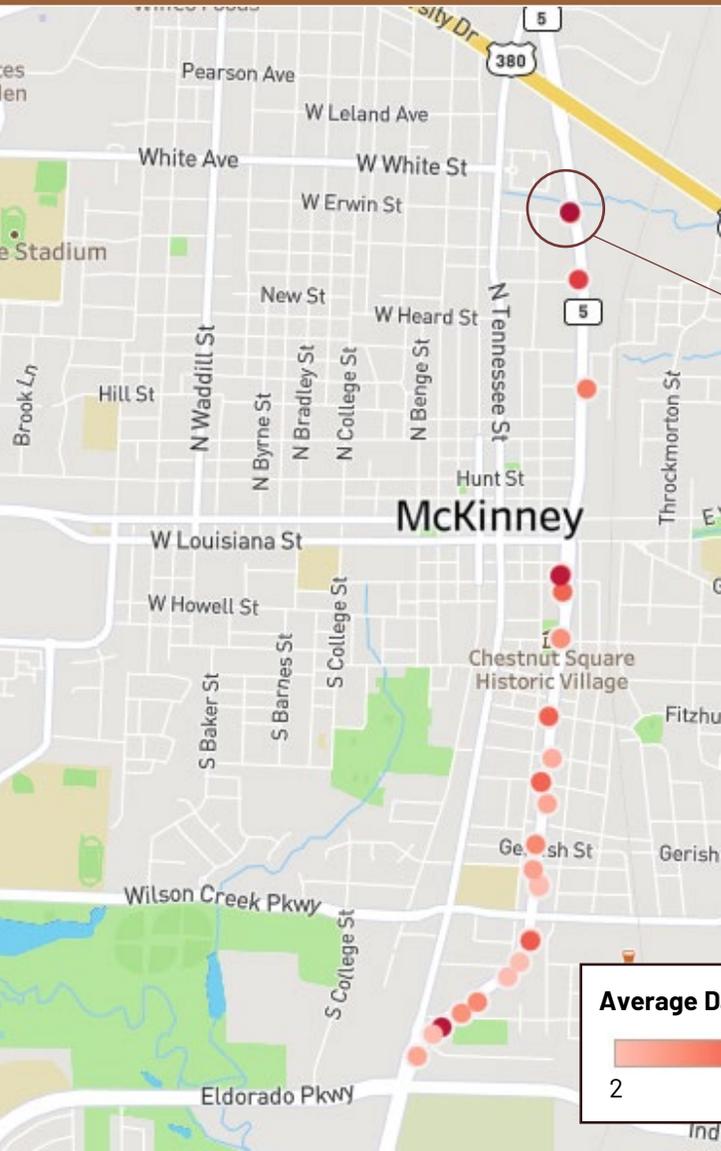
- 26 segments reviewed along SH5
- 7 days of continuous video recording
- 4,400 hours of footage captured
- 180,000 vehicles detected
- 3,000 pedestrian crossings observed



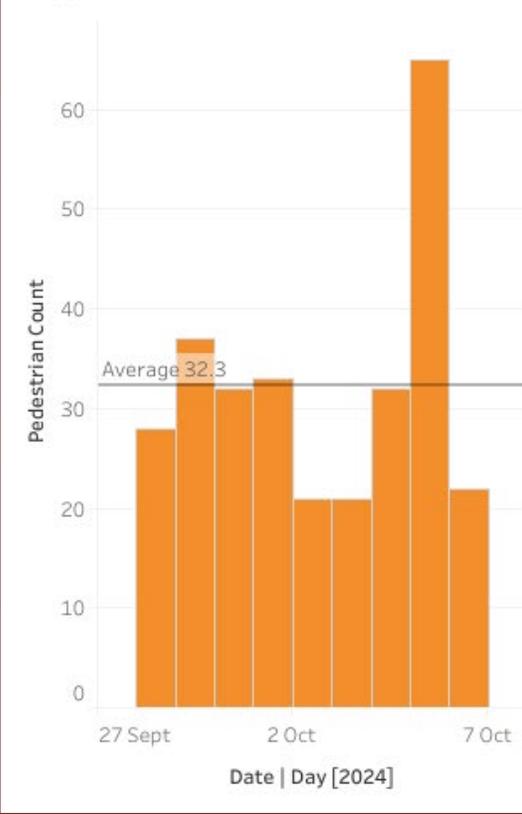
Example deployment



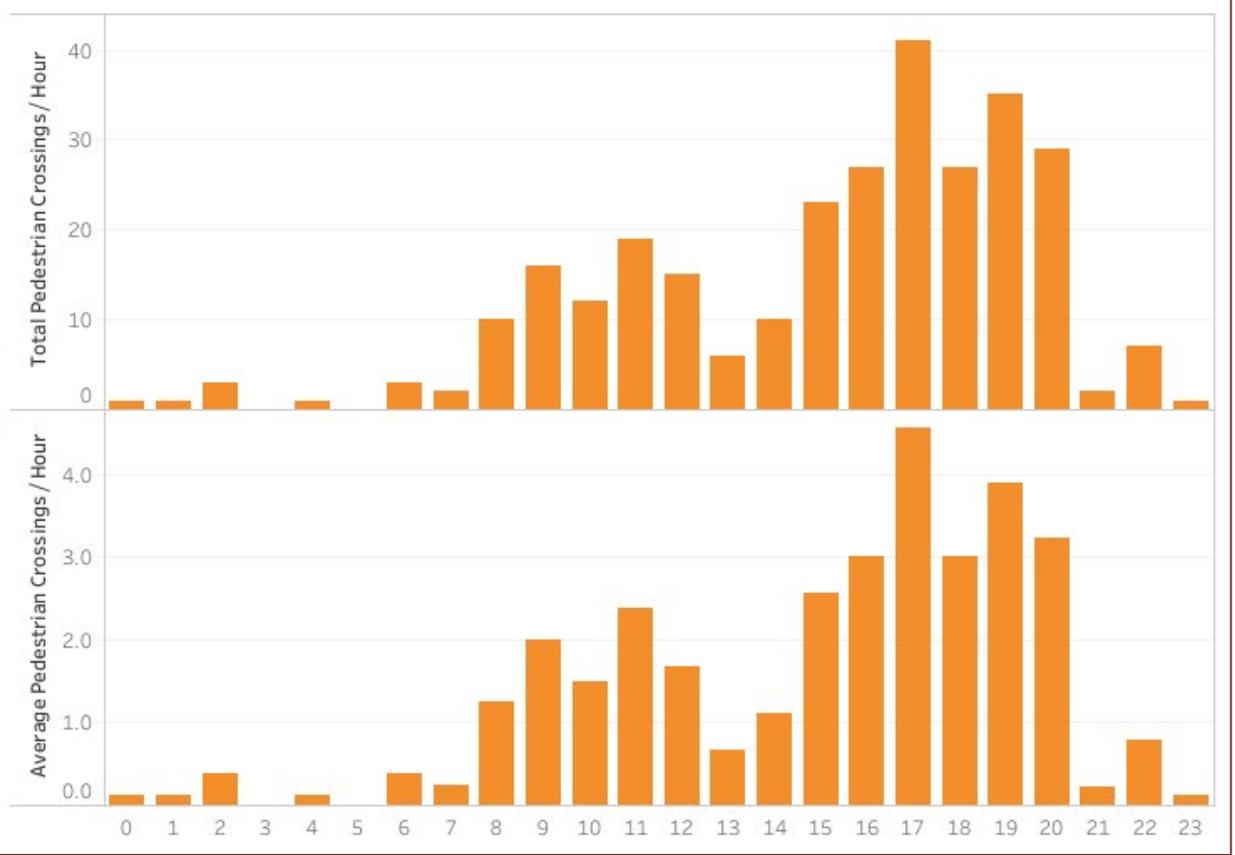
Pedestrian Crossings



Pedestrian Crossing by Day of Week

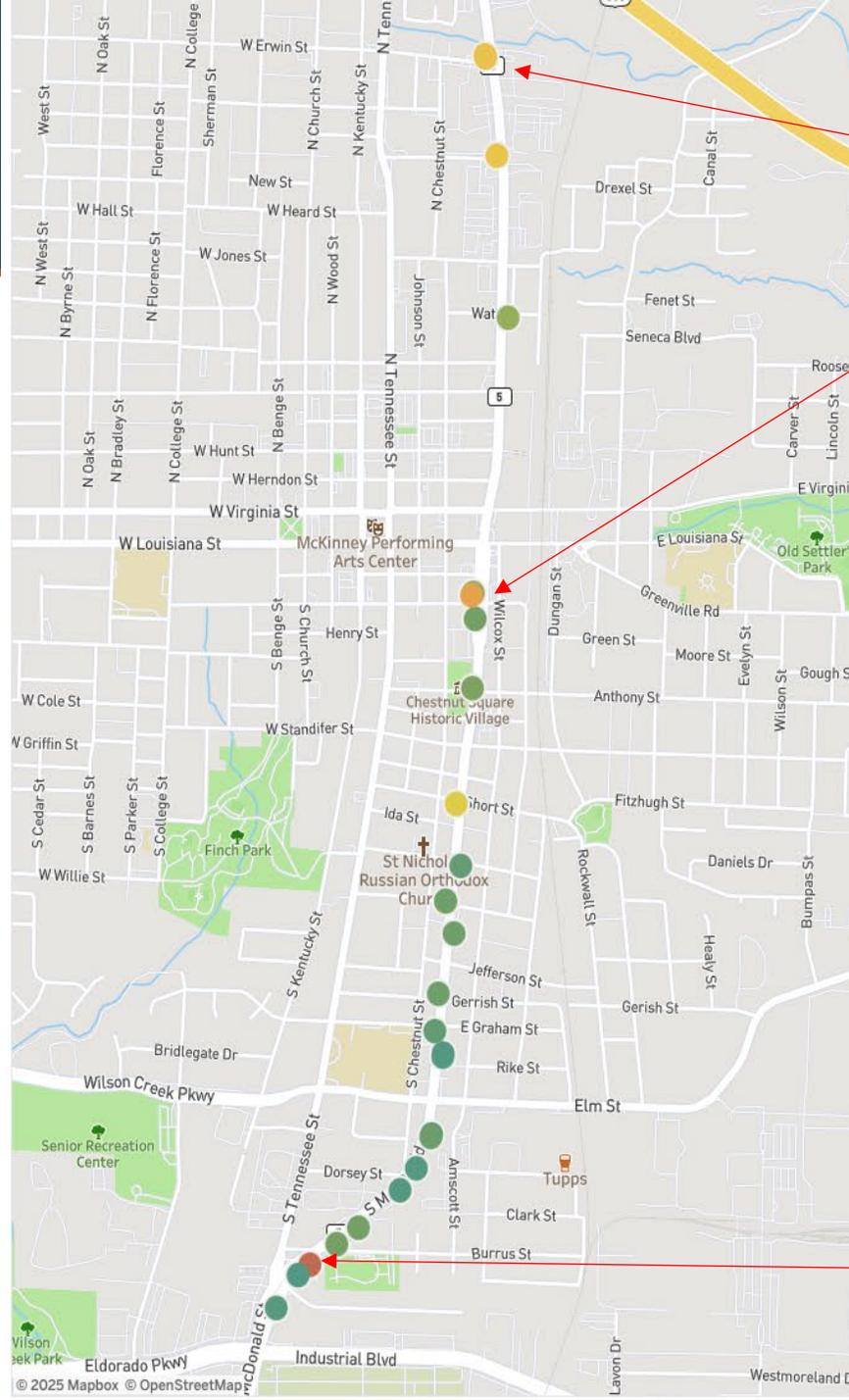


Pedestrian Crossings by Hour





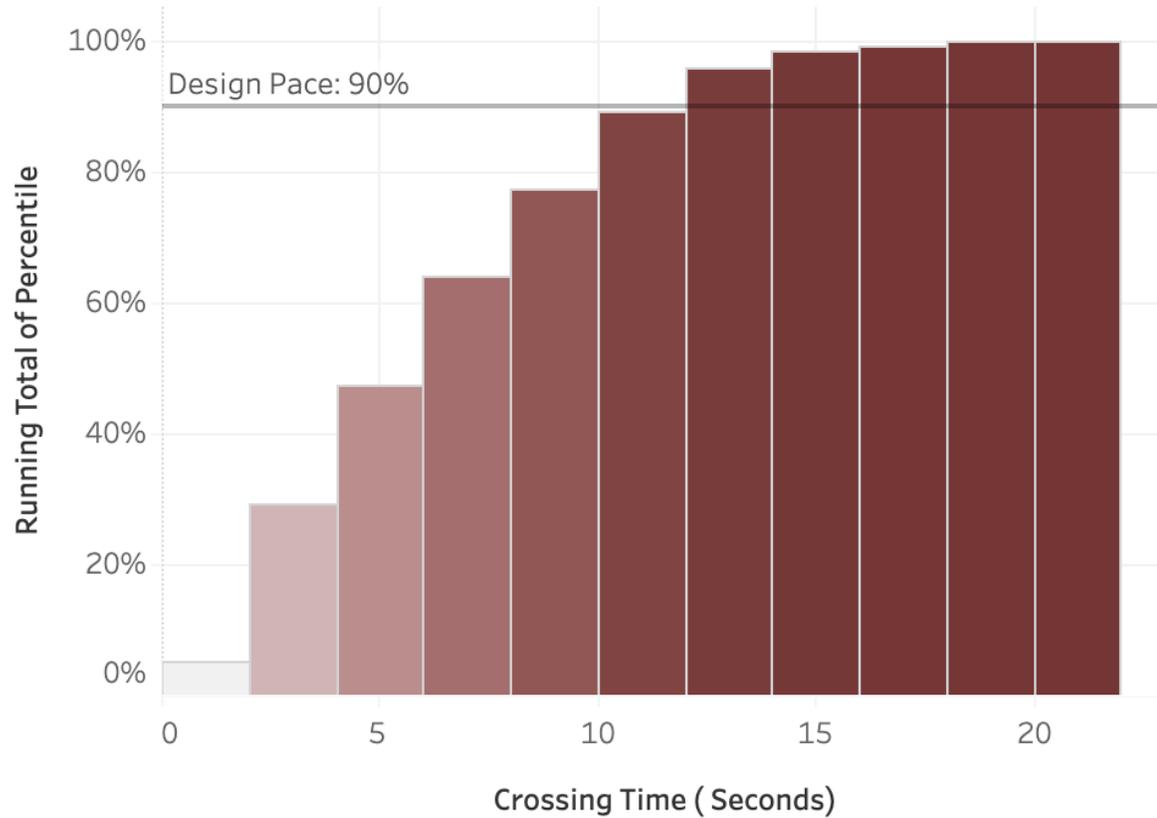




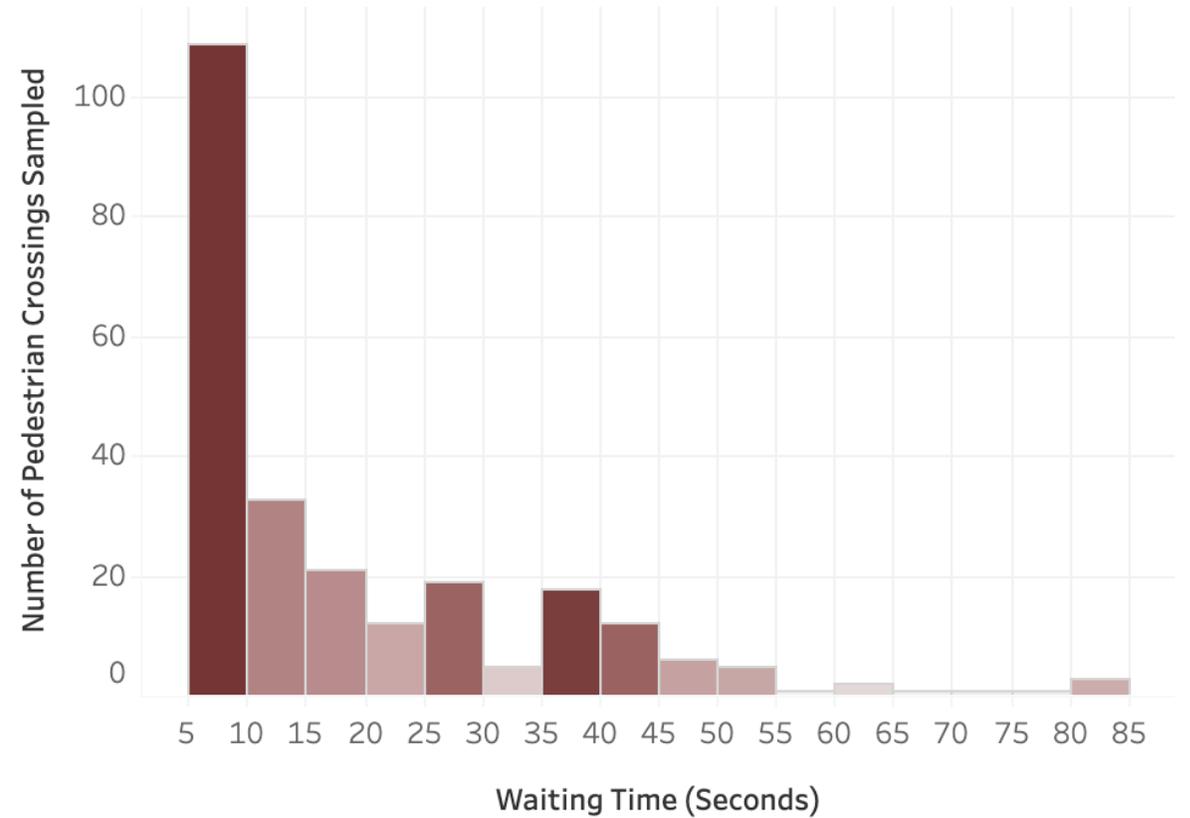
Camera Id	Harmful Speed Index	Daily Ped Crossings	Daily Vehicle Counts	Speed, 50th	Speed, 85th	Speed Variability [mph]
Location1_SH5-NorthOfErwinAve	12.2	42	9,826	26	36	10
Location2_SH5-NorthOfErwinAve	12.4	22	12,860	23	41	17
Location3_SH5-NorthOfMidwaySt	11.9	29	9,870	30	42	13
Location4_SH5-SouthOfWattSt	6.1	17	12,153	30	39	9
Location5_SH5-NorthOfDavisSt	6.0	25	13,572	27	33	6
Location5B_SH5-NorthOfDavisSt	15.4	39	15,904	25	34	9
Location6_SH5-SouthOfDavisSt	4.3	21	13,390	30	34	5
Location7_SH5-NorthOfAnthonySt	5.0	12	13,779	33	41	8
Location8_SH5-SouthOfShortSt	9.9	22	11,641	31	42	11
Location9_SH5-SouthOfChristianSt	2.5	6	12,313	20	35	15
Location10_SH5-NorthOfColoradoSt	3.6	21	11,928	17	24	7
Location11_SH5-NorthOfColoradoSt	6.9	17	15,136	36	43	7
Location12_SH5-SouthOfColoradoSt	3.7	7	13,629	26	39	13
Location13_SH5-NorthOfGraham	3.6	14	9,327	32	40	8
Location14_SH5-SouthOfGraham	2.3	9	9,621	32	39	8
Location15_SH5-NorthOfElm	0.6	2	11,803	21	30	9
Location16_SH5-NorthOfElm	0.4	3	9,345	17	26	9
Location17_SH5-SouthOfElm	3.5	23	10,869	18	25	7
Location18_SH5-SouthOfElm	1.4	7	10,532	18	27	9
Location19_SH5-NorthOfDorsey	0.7	2	10,491	29	39	10
Location20_SH5-SouthOfDorsey	0.6	3	9,922	29	36	8
Location21_SH5-NorthOfMcMakin	4.5	14	9,169	23	37	13
Location22_SH5-NorthOfMcMakin	4.6	12	10,965	23	37	13
Location23_SH5-SouthOfMcMakin	18.5	39	11,136	30	43	13
Location24_SH5-SouthOfFranklin	0.1	3	5,418	34	36	2
Location25_SH5-SouthOfFranklin	1.0	8	5,882	30	36	6

Quality of Service Metrics

Pedestrian Crossing Time Percentile



Pedestrian Waiting Time





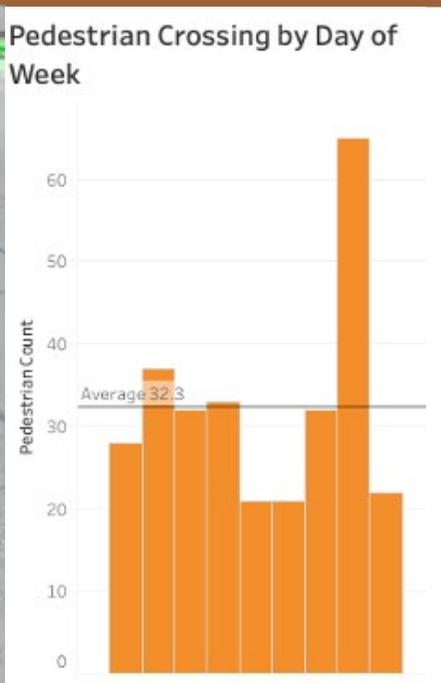
How Context Turns Concern Into Consensus



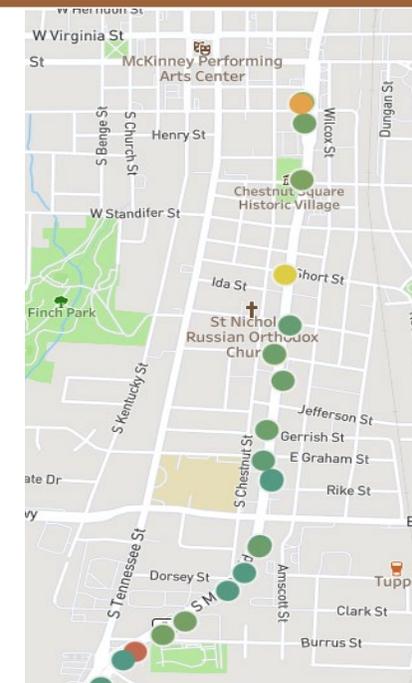
Suspected Risk



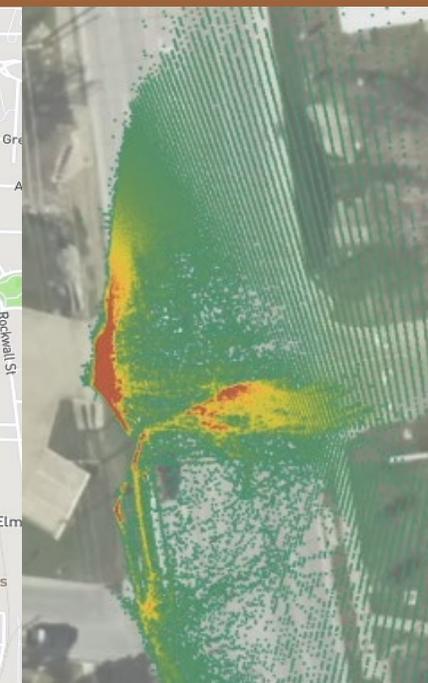
Measured Activity



Quantified Demand



Focus Areas



Behavior Patterns



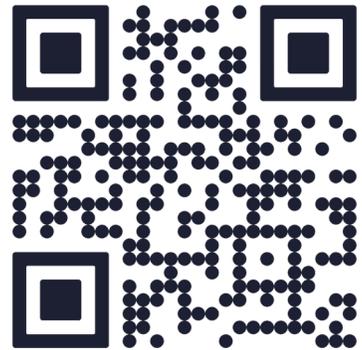
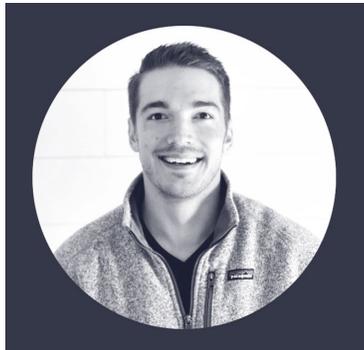
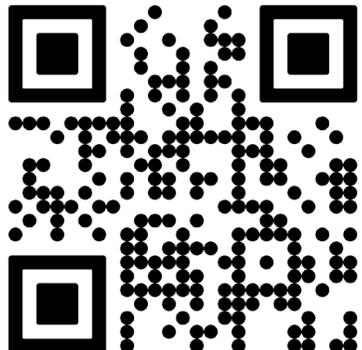
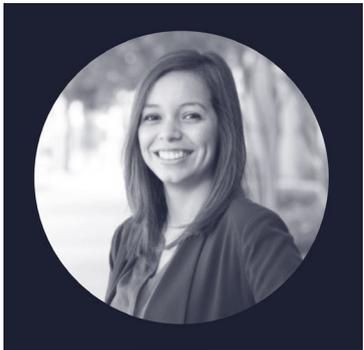
Visual Storytelling

Context isn't just data – it's what gives data meaning.



Thank you

Let's connect!



ImageSensing
systems