

Skillman Street Corridor Study

Live Oak Street to Abrams Road

Public Meeting Presentation
September 10, 2024

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Presentation Outline

- Study Location & Objectives
- Existing Conditions
- Potential Improvements
- Recommendations
- Implementation of Improvements
- Next Steps



Study Locations & Objectives

- ✓ Evaluate Existing Conditions and Speeding Issues
- ✓ Evaluate Crash Reports
- ✓ Traffic Operations Analysis
- ✓ Pedestrian and Bike Accommodations
- ✓ Develop Mitigations for Safety Challenges
- ✓ Recommendations for Operational Improvements



Purpose and Prior Public Engagement

Purpose of Skillman St. Study:

To determine strategies and improvements to enhance safety and mobility for all users of the corridor and address stakeholder concerns.

A Public Engagement Survey was hosted in **May 2024** for the following concurrent studies:

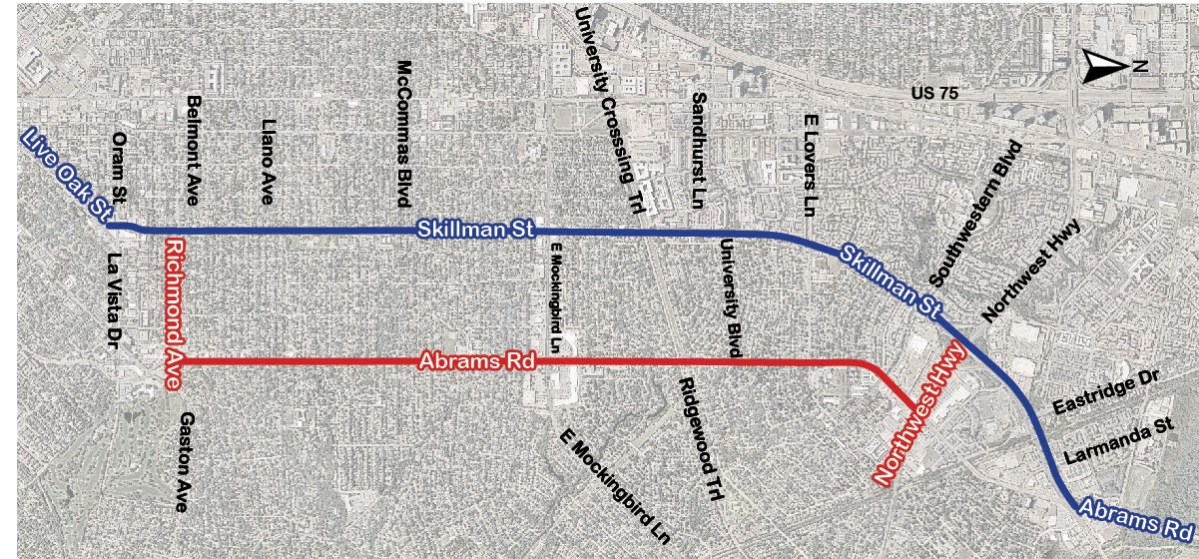
- **Skillman St** (Live Oak St to Abrams Rd)
- **Abrams Rd** (Richmond Ave to Northwest Hwy)

Public Survey Feedback



- ✓ Positive feedback on **existing number of lanes** and connectivity
- ✓ Strong desire for **sidewalk improvements, bike lanes/shared use paths, crosswalks, and traffic calming**

Map of Project Limits for Abrams Road and Skillman Street Corridor Studies



Community Engagement Survey

- A survey for the Abrams and Skillman corridor studies was open to the public from May 3 to May 30, 2024.
- 210 respondents answered the question “What improvements would you like to see to Abrams Road within the study limits?”
 - The six improvements identified in the greatest number of responses include:
 - Improve/add sidewalks – 78 responses
 - Implement traffic calming measures – 55 responses
 - Improve/add crosswalks – 49 responses
 - Add traffic signals – 47 responses
 - Add bike lanes / a shared-use path – 45 responses
 - Add center turn lane or more left-turn lanes – 40 responses
- A more detailed version of the survey results is on the project webpage.





Skillman
4200 4100

Mockingbird

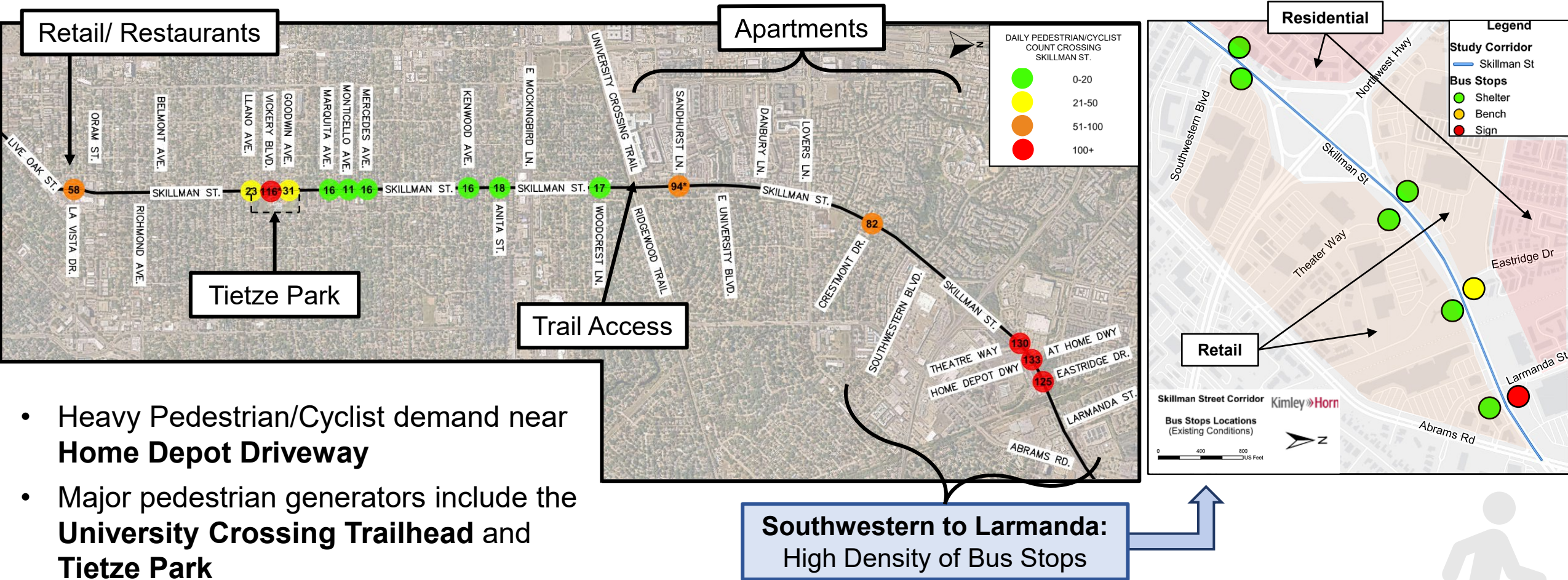
24 HR.
EMERGENCY
ROOM

LAKEMOOD EMERGENCY ROOM

Existing Conditions



Pedestrian/Cyclist Crossing Volumes

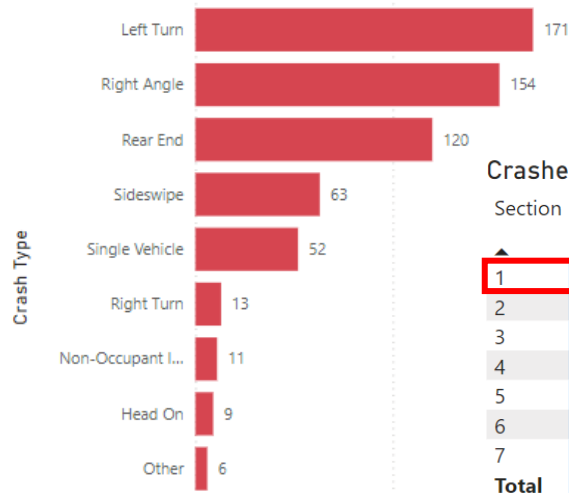


- Heavy Pedestrian/Cyclist demand near **Home Depot Driveway**
- Major pedestrian generators include the **University Crossing Trailhead** and **Tietze Park**



Crash Types by Section

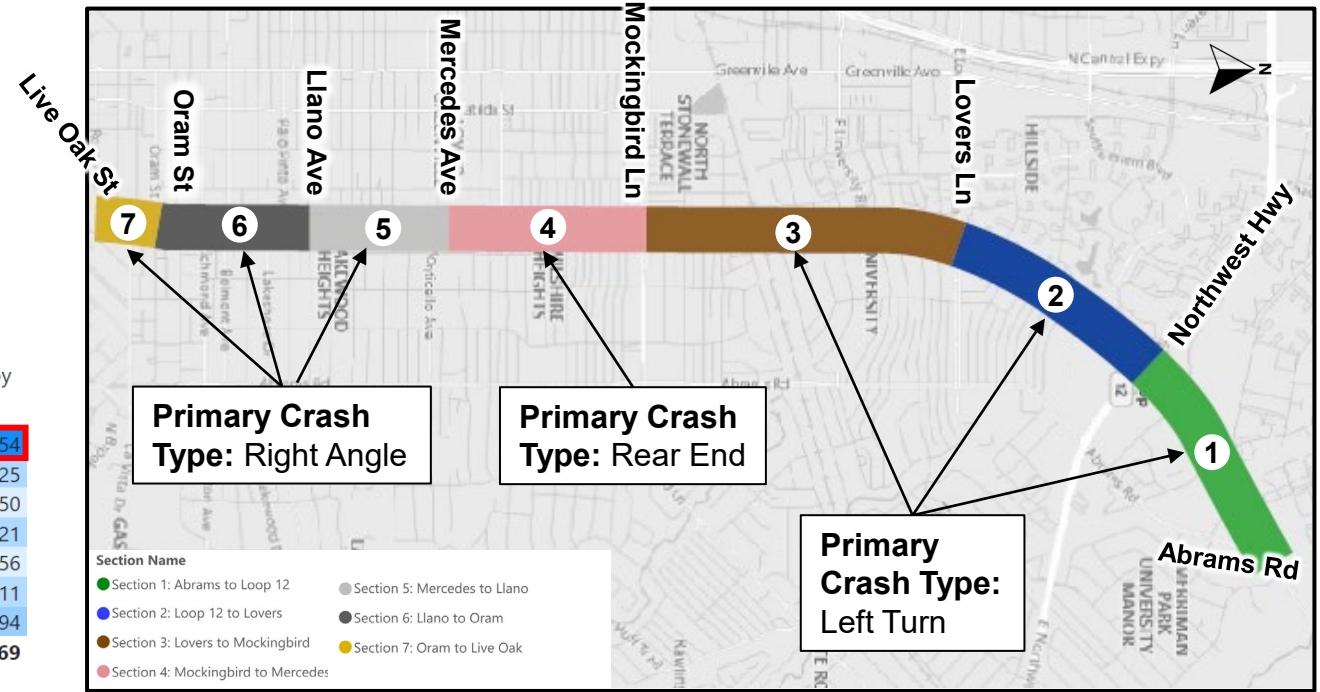
Count of Crash ID by Crash Type



604 Total Crashes from Jan 2018 to June 2023

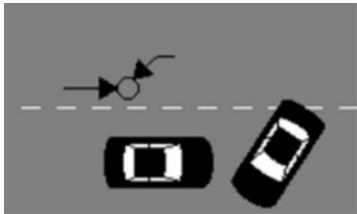
Crashes per Lane Mile by Section

Section	Count of Crashes	Sum of Lane Miles	Sum of Crashes divided by Sum of Lane Miles
1	232	4.4160	52.54
2	120	4.4040	27.25
3	78	4.0000	19.50
4	64	2.3520	27.21
5	32	1.6360	19.56
6	59	2.2600	26.11
7	19	0.6140	30.94
Total	604	19.6820	30.69

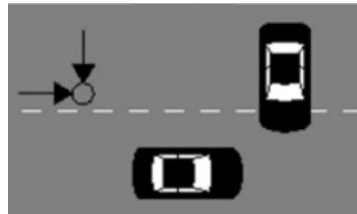


Top 5 Crash Types (Full Corridor):

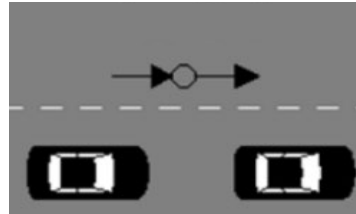
1. Left Turn – 28%



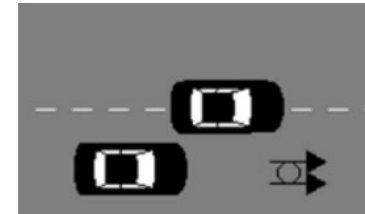
2. Right Angle – 25%



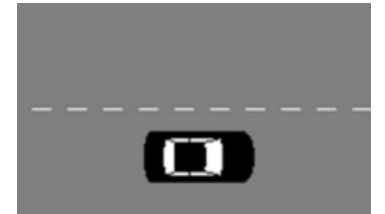
3. Rear End – 20%



4. Sideswipe – 10%



5. Single Vehicle – 9%



Crash Factors by Section

Key Crash Factors

- Failed to Yield ROW (Turning Left) – **31%**
- Failed to Control Speed – **17%**
- Disregard of Signal/ Signage/ Striping – **16%**
- Failed to Maintain Travel Lane – **9%**

Primary Crash Factors by Section

Primary Crash Factor (groups)	1	2	3	4	5	6	7	Total
Vehicle Failed to Yield Right Of Way	66	40	27	22	14	12	7	188
Failed to Control Speed or Stop	42	18	11	15	3	10	1	100
Disregard of Signal/Signage/Striping	38	18	15	4		19	3	97
Other	30	16	8	4	5	6	5	74
Not Driving Within Travel Lane	18	11	9	6	2	5	2	53
Unsafe Turning	9	3	2	6	2	2		24
Speeding	9	6		1		1		17
Followed Too Closely	7	1	2	2	1		1	14
Distracted Driving	3	2	3	1	1	3		13
None	4	3	1		3			11
Pedestrian Failed To Yield Right Of Way To Vehicle	4			1				5
Unsafe Passing	1	1		1	1			4
Alcohol	1			1		1		3
Fatigued Or Asleep		1						1
Total	232	120	78	64	32	59	19	604

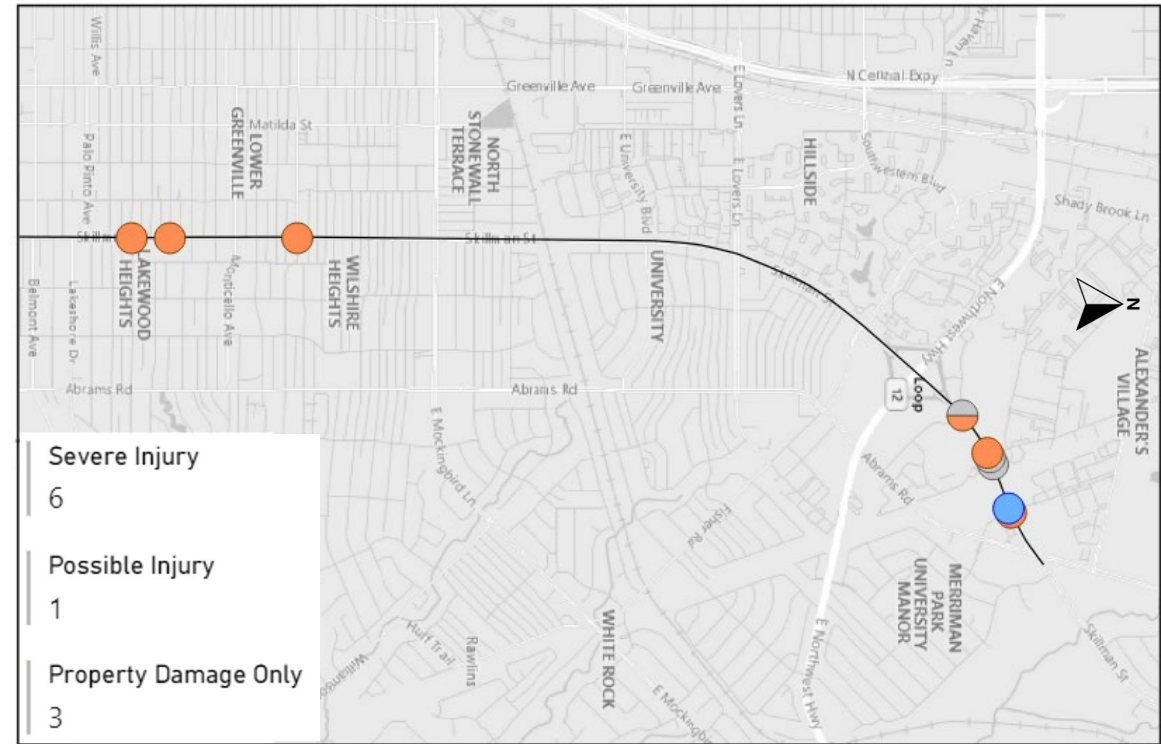
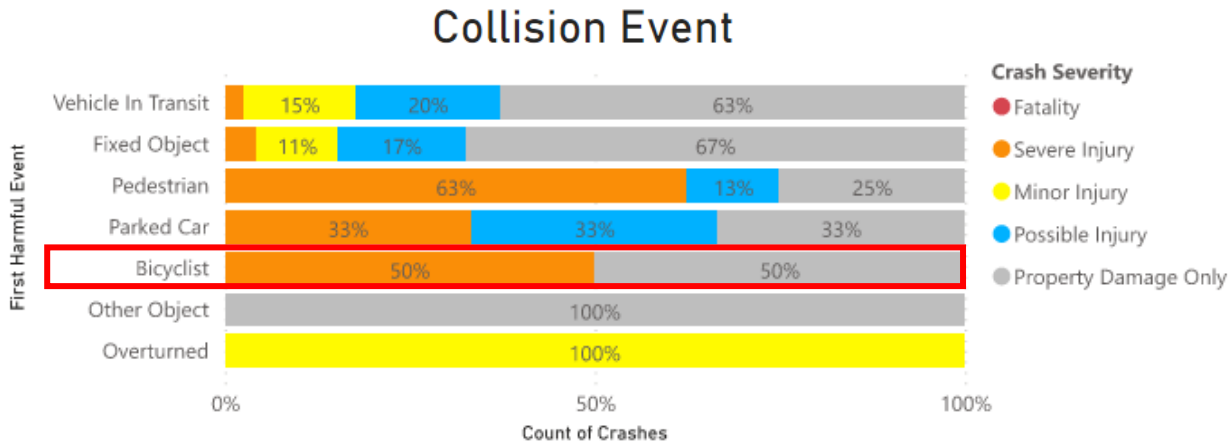


- Most **speeding crashes** (15 out of 17) occurred on the **north end** of the corridor (Sections 1 and 2)
- **Running red lights** at signals is a key factor at intersections with signals.



Pedestrian/Cyclist Crashes

- **70%** of the ped/cyclist crashes occurred **north of Northwest Highway** (section 1)
- When a pedestrian or cyclist is involved, the crash severity drastically increases.
 - Disproportionate percentage of severe injury
- **10 Pedestrian/Cyclist Crashes** occurred along the corridor from Jan 2018 to June 2023

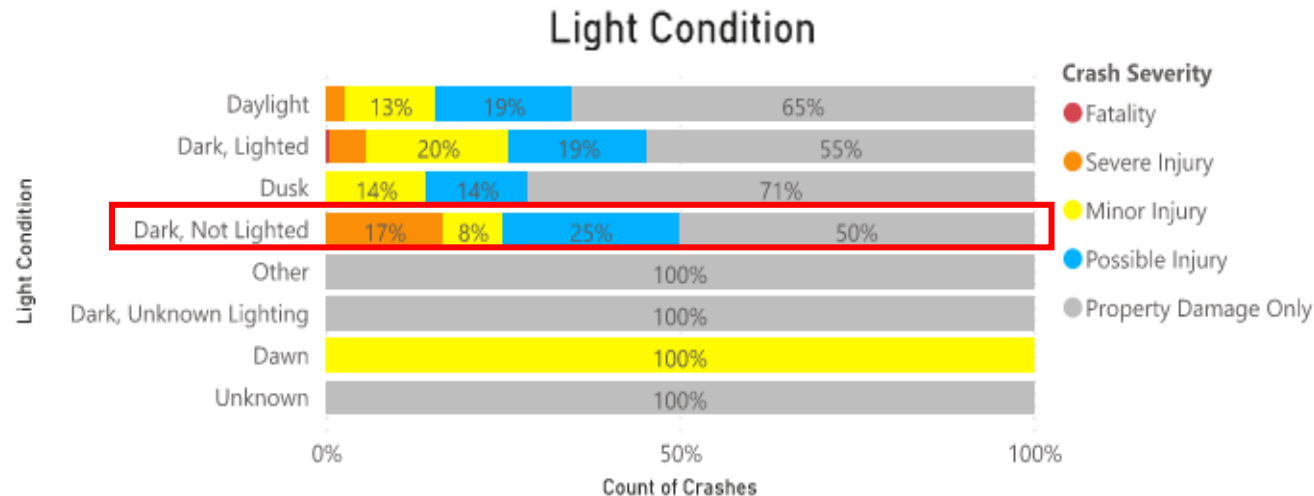


Crash Severity ● Severe Injury ● Possible Injury ● Property Damage Only



Lighting Conditions and Time Of Day

- **11 out of 12 dark, not lighted** crashes occurred at or **north of Mockingbird Ln.**
- The afternoon hours see greater number of crashes (compared to morning hours) with Friday being the day of the week with the most crashes.

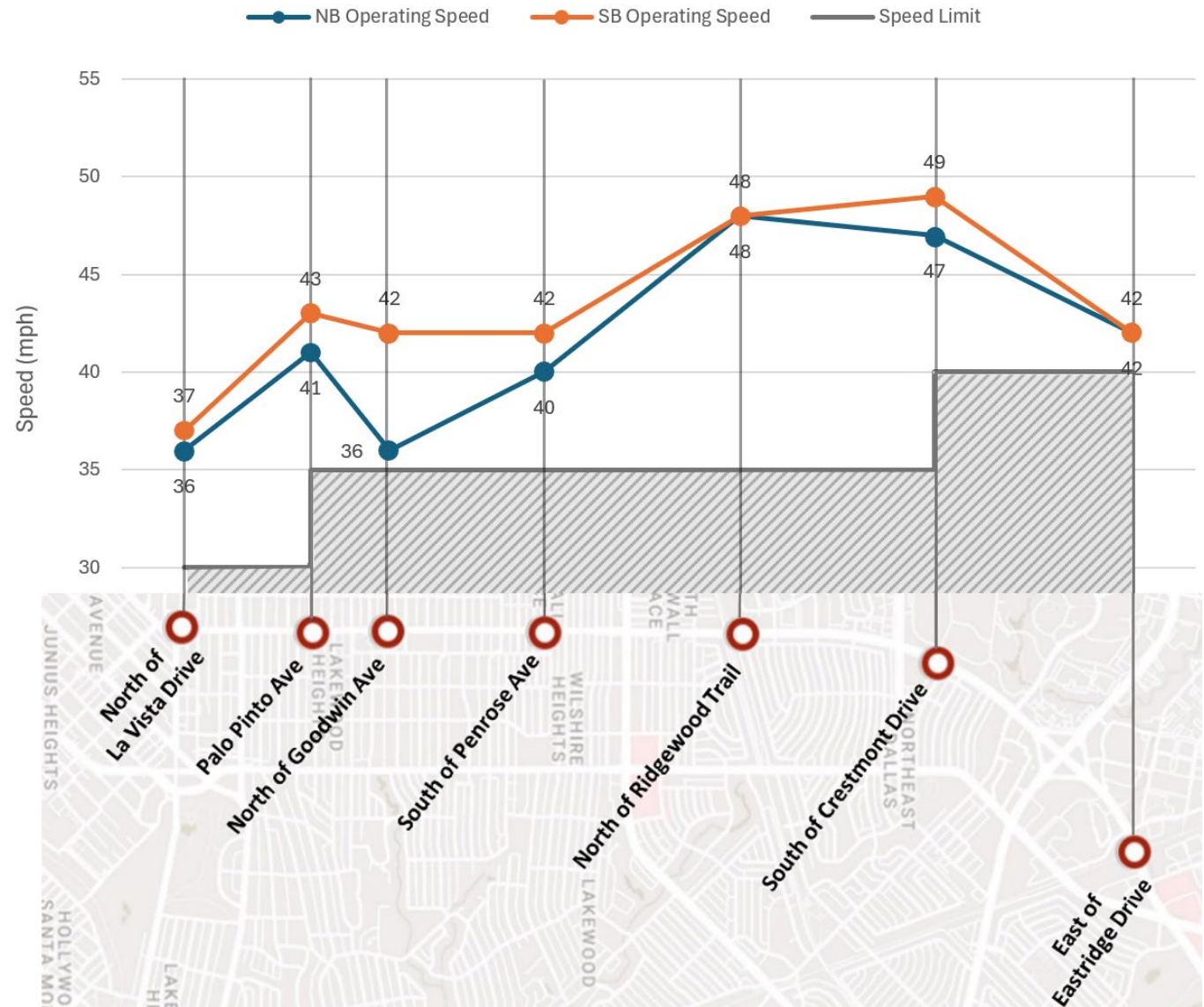
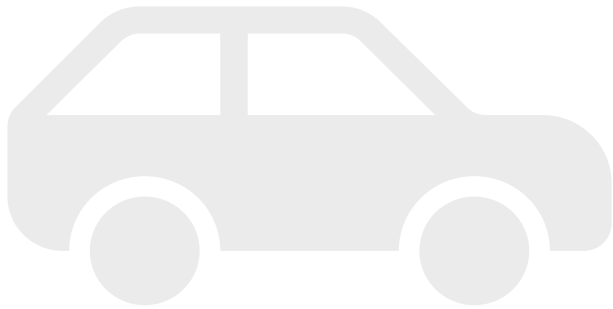


Time (bins)	MON DAY	TUES DAY	WEDN ESDAY	THURS DAY	FRI DAY	SATUR DAY	SUN DAY	Total
12:00 AM			1		2		1	4
1:00 AM	1			2		1	3	7
2:00 AM			2			3	2	7
3:00 AM				2		1	1	4
5:00 AM	3			2	1		2	8
6:00 AM		1	4	1			1	7
7:00 AM	5	3	6	5	2		1	22
8:00 AM	8	10	8	3	4		1	34
9:00 AM	4	3	7	3	5	2	2	26
10:00 AM	1	2	2	2	2	3	2	14
11:00 AM	6	3	4	7	7	6	5	38
12:00 PM	5	5	1	4	5	7	1	28
1:00 PM	3	2	4	2	6	2	1	20
2:00 PM	9	1	12	4	9	7	6	48
3:00 PM	7	6	6	6	10	6	2	43
4:00 PM	13	8	8	7	9	4	1	50
5:00 PM	11	9	6	10	18	11	3	68
6:00 PM	7	8	9	4	12	5	5	50
7:00 PM	4	7	5	6	7	8	3	40
8:00 PM	2	1	8	4	8	5	7	35
9:00 PM	5	1	4	2	6	2	4	24
10:00 PM	3	3	3		1	3	2	15
11:00 PM	1	3	1	1	2	3	1	12
Total	98	76	101	77	116	79	57	604

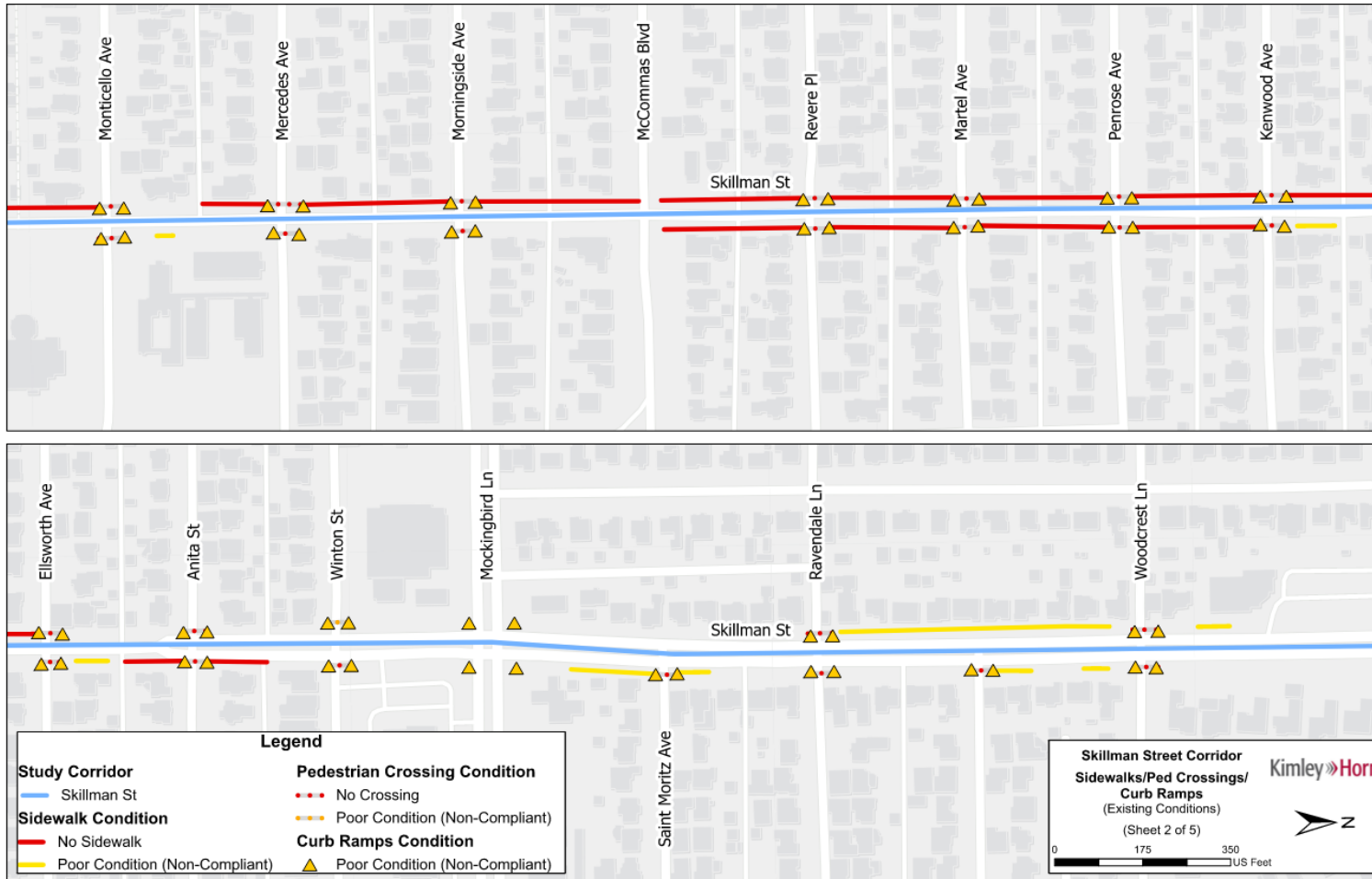


Operating Speeds

- **Speeding** was a top concern during the May 2024 public meeting.
- Operating speeds were **sustainably higher than posted speeds** between Penrose Ave. and Crestmont Dr.
- On average, vehicles are traveling **35% over the posted speed limit**.



Sidewalk Deficiencies

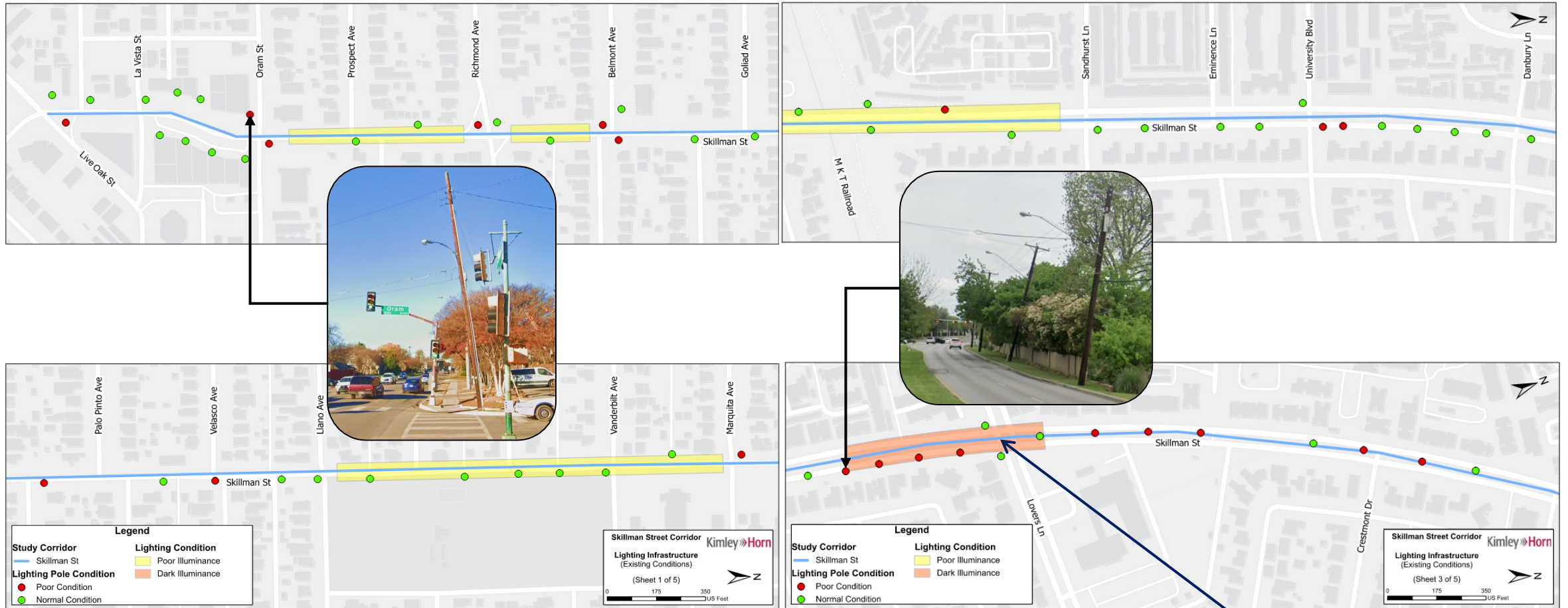


Note: Inventory collected as of October 2023

- During the field inventory, many locations were identified with missing or non-traversable sidewalk.
- Of the surveyed ramps, **over 50% were in poor condition or non-compliant.**
- Poor accessibility was a top concern during the May 2024 public meeting.

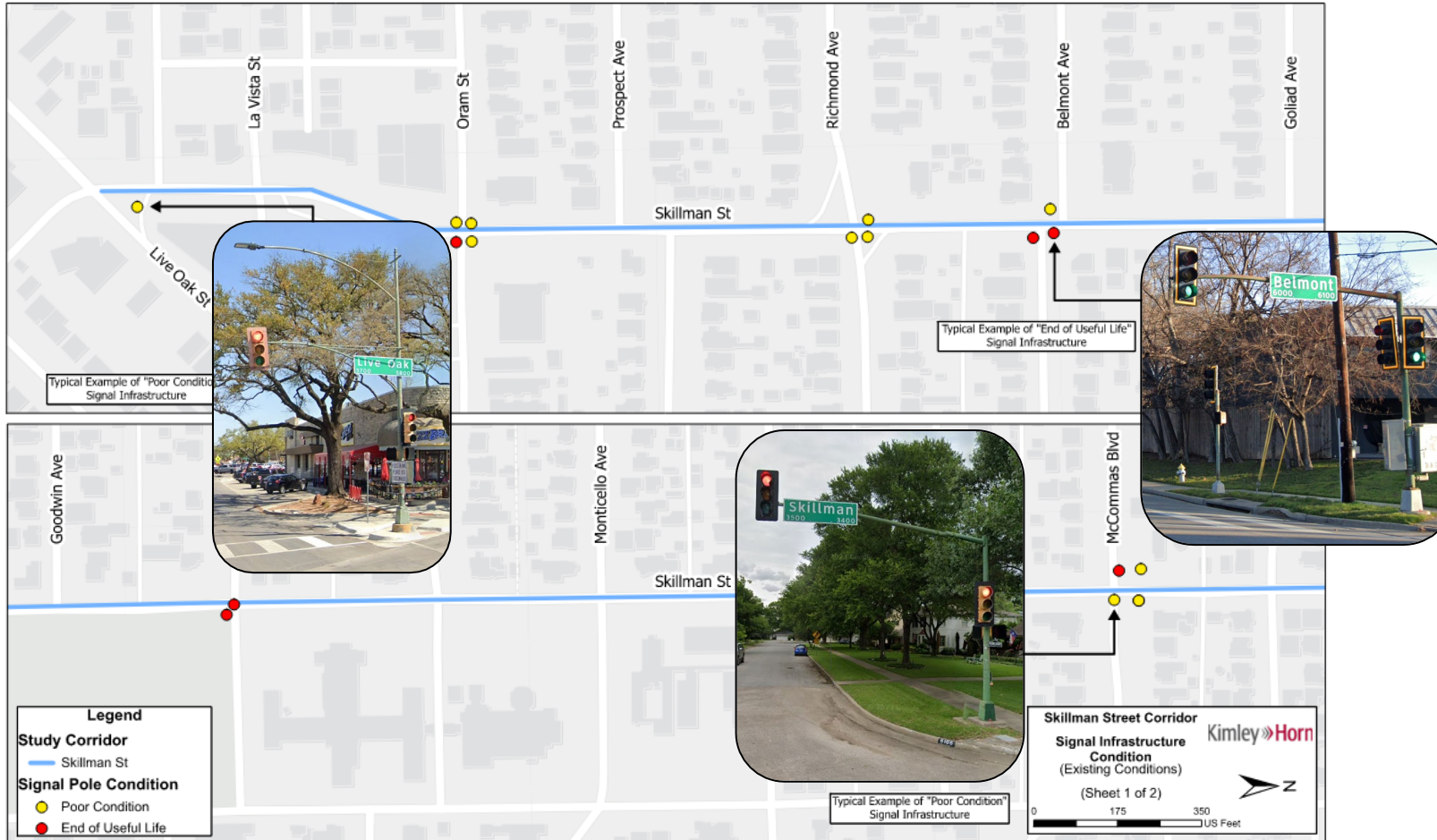


Lighting Deficiencies



No lighting near Lovers Lane

Signal Infrastructure Deficiencies



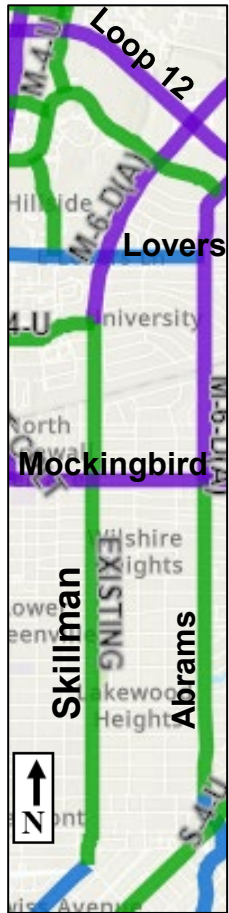
Note: Inventory collected as of October 2023

- Most of the signal infrastructure along the corridor is at **“end of useful life”** and needs to be replaced.
- Several signal poles has structural damage, due to vehicles strikes.



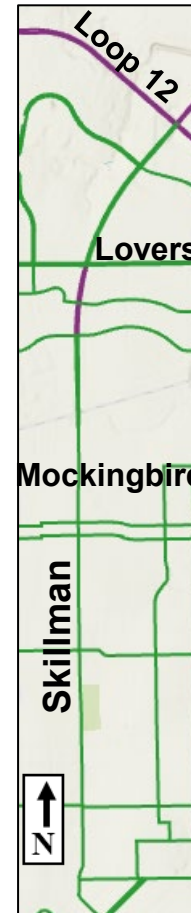
Previous Plans

City of Dallas Thoroughfare Plan



- Principal Arterial
- Minor Arterial
- Community Collector
- Residential Collector

City of Dallas Bike Plan (2011)



- Planned On-Street Bike Facility
- Planned Off-Street Bike Facility

Note: The latest version of the ongoing Bike Plan Update (Summer 2023 version) does not recommend any bike facilities on Skillman or Abrams north of Richmond.



Summary of Existing Conditions

- **Heavy pedestrian/cyclist demand** crossing Skillman St. adjacent to heavy pedestrian generating areas: Local Shops, Recreational Areas, Bus Stops, Apartments, Homes, etc.
- Significant sidewalk, crosswalk, ramp, lighting, and signal infrastructure deficiencies throughout the corridor.
- **Speeding** observed along the corridor.
- Highest density of crashes observed in the northern section of Skillman St. Most pedestrian/cyclist crashes occur here.
- **Failure to yield right of way** crashes common throughout the corridor, especially around Home Depot Driveway.





Potential Improvements



Tools to Improve Existing Corridor Issues

1. Slow Down Traffic

- Narrow traveled lanes
- Road diet (reduce number of lanes)

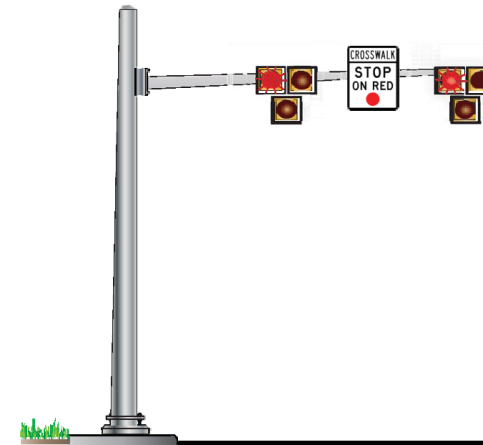
2. Improve Sidewalks, Signals, and Lighting

- Widen/repair deficient sidewalks and fill in sidewalk gaps
- Install additional lighting to illuminate street and sidewalk
- Create wide shared use paths for bike and pedestrians

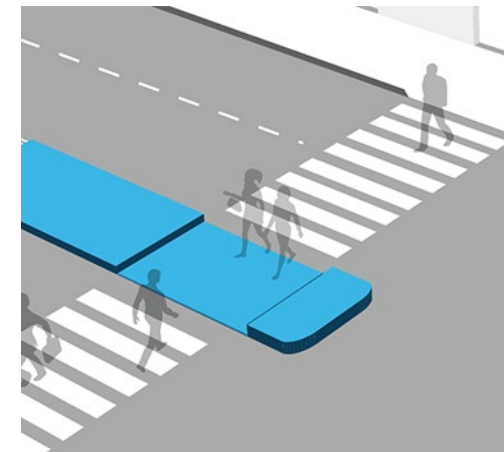
3. Provide Safe Pedestrian/Cyclist Crossings

- Install Pedestrian Hybrid Beacon (PHB)
- Install Pedestrian Refuge Islands
 - Optional Z-Crossing Configuration

Pedestrian Hybrid Beacon (PHB)



Pedestrian Refuge Island



Future Expected Growth

Historic Traffic Growth Rate

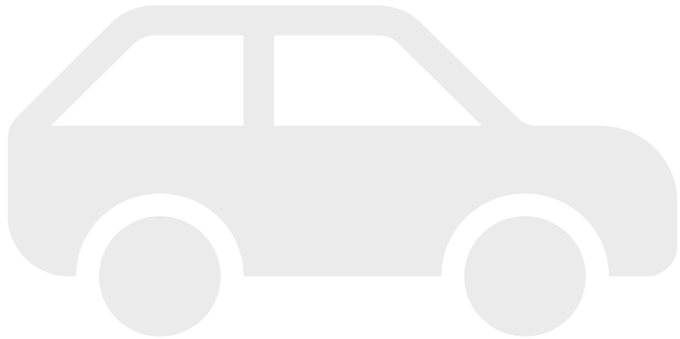
Year	57U2613 - Skillman South of Mockingbird	57U2617 - Skillman North of Mockingbird	57HP7357 - Skillman at Ridgewood Trl	57U2622 - Skillman North of Sandhurst	57U2632 - Skillman South of Lovers	57U2664 - Skillman North of Eastridge	TOTAL	Avg Annual Growth
2023	20,758	20,360	20,360	20,495	20,540	29,287	111,042	3.44%
2019	17,078	17,019	17,356	17,472	18,716	26,433	96,996	-0.81%
2014	19,455	17,559	18,196	17,820	18,423	29,047	101,045	1.72%
2009	18,840	15,900	17,530	16,830	17,160	25,380	92,800	-----
Growth	-0.98%	0.68%	-0.10%	0.38%	0.87%	0.41%	Average	1.45%
Average	0.21%						Assumed (2023 to 2030)	1.00%
							Assumed (2030 to 2045)	0.50%

Future Projected Traffic Growth Rate

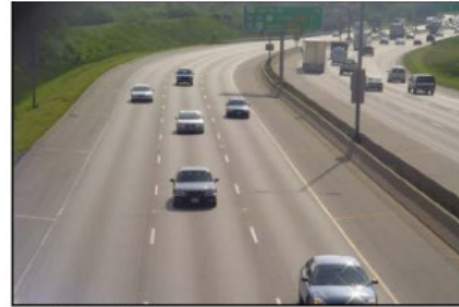


What is LOS?

Level of Service	Signalized Intersection Average Total Delay (sec/veh)
A	≤ 10
B	>10 and ≤ 20
C	>20 and ≤ 35
D	>35 and ≤ 55
E	>55 and ≤ 80
F	>80



Levels of Service (LOS)



Level of Service A



Level of Service D



Level of Service B



Level of Service E



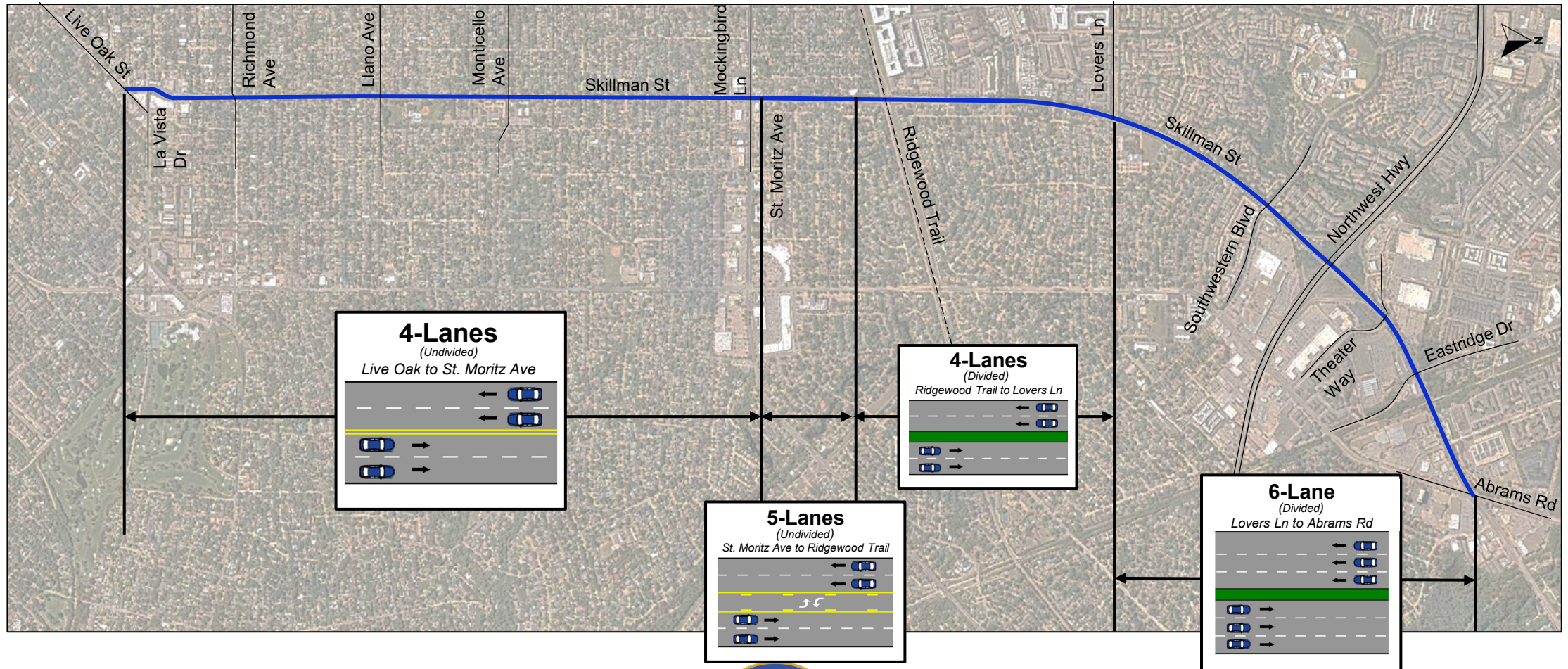
Level of Service C



Level of Service F



Existing Cross Section of Roadway

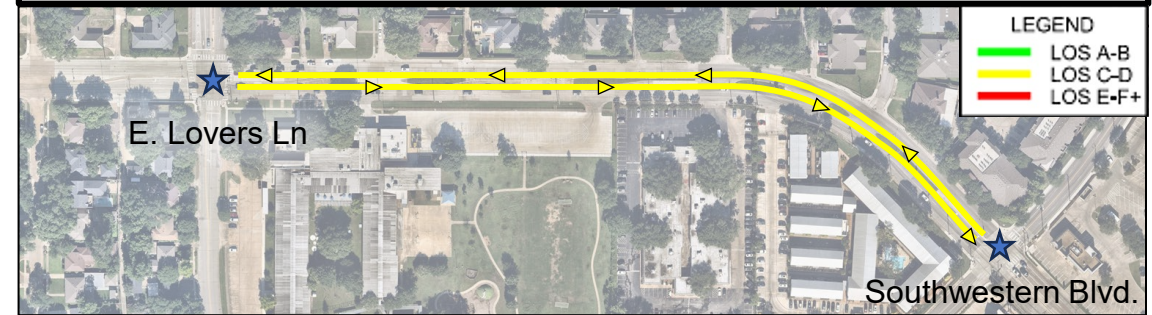


Skillman St. Peak Hour Link Analysis (2045)

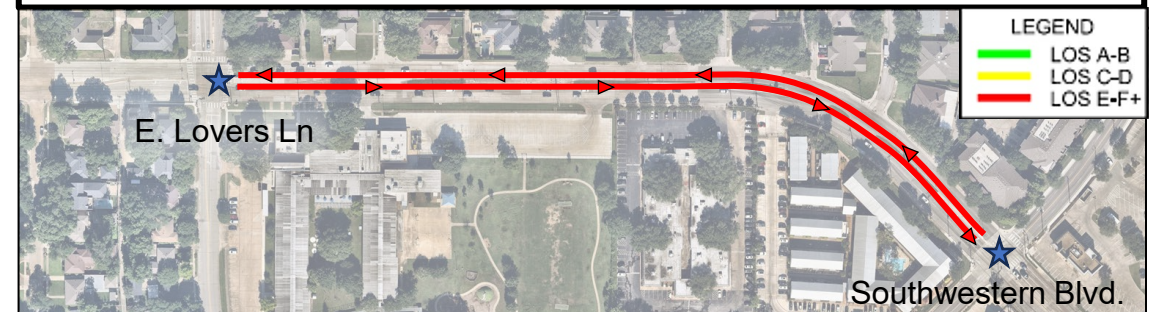
Traffic operations performs adequately (**LOS C**) when looking at 2045 projections while **maintaining the Existing Lane Configuration**.

However, if a lane reduction is implemented, LOS operates at **LOS E**. Therefore, it is recommended to maintain the existing 6 lane cross-section between Lovers Ln. and Southwestern Blvd.

6-Lane (Existing) Cross Section



4-Lane Cross Section



Skillman St. Peak Hour Link Analysis (2045)

With the **Existing Cross Section**, operations performs at **LOS E** when looking at 2045 projection.

However, if a lane reduction is implemented, LOS degrades to **LOS F**. Therefore, it is recommended to maintain the existing 4 lane cross-section between Llano Ave. to Anita St.

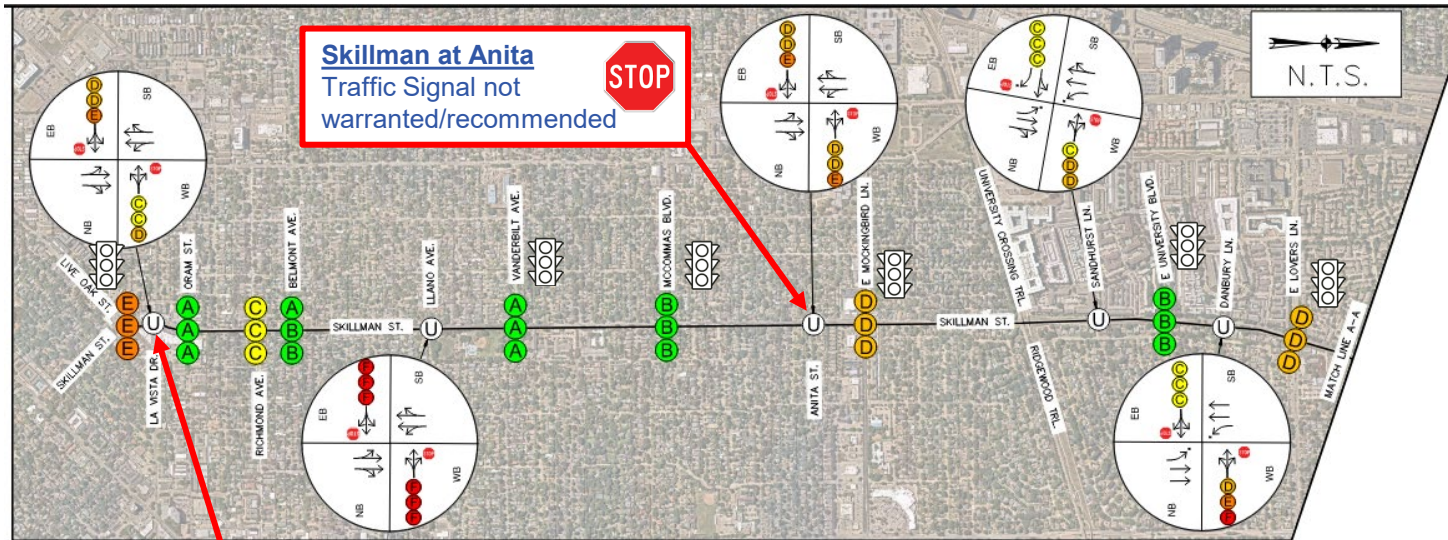
4-Lane (Existing) Cross Section



3-Lane Cross Section



Intersection LOS Evaluation/Signal Warrants – AM Peak Hour



15 out of 15 signalized intersections are projected to operate at **LOS D or better** during the **AM peak hour in 2045** with signal timing adjustments.

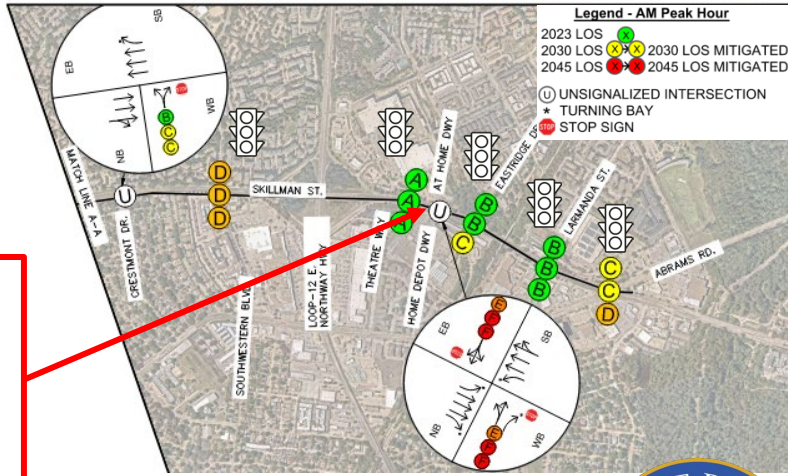
Traffic Signal Warrants

Intersection	Scenario	Warrant Met?
Skillman Street & Danbury Lane	2023 Existing	No
	2030 Background	No
	2045 Background	No
Skillman Street & Sandhurst Lane	2023 Existing	No
	2030 Background	No
	2045 Background	No
Skillman Street & Liano Ave	2023 Existing	No
	2030 Background	No
	2045 Background	No
Skillman Street & La Vista Drive	2023 Existing	Yes
	2030 Background	Yes
	2045 Background	Yes
Skillman Street & Anita Street	2023 Existing	No
	2030 Background	No
	2045 Background	No
Skillman Street & Woodcrest Lane	2023 Existing	No
	2030 Background	No
	2045 Background	No
Skillman Street & Home Depot Driveway/At Home Driveway	2023 Existing	Yes
	2030 Background	Yes
	2045 Background	Yes

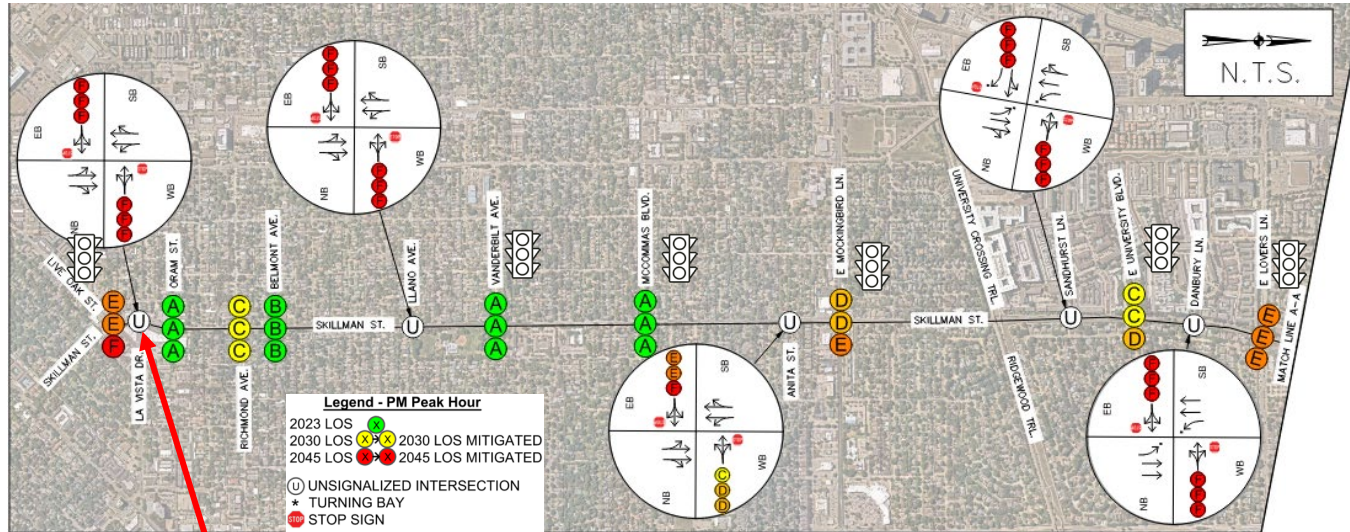
Skillman at La Vista
Failing Intersection.
Traffic Signal recommended.
Improves from **LOS from E to C**

Skillman at Home Depot Drive
Although a traffic Signal was warranted, it is **not recommended** due to proximity to adjacent signals.

Recommend modifying driveway access at this intersection



Intersection LOS Evaluation/Signal Warrants - PM Peak Hour



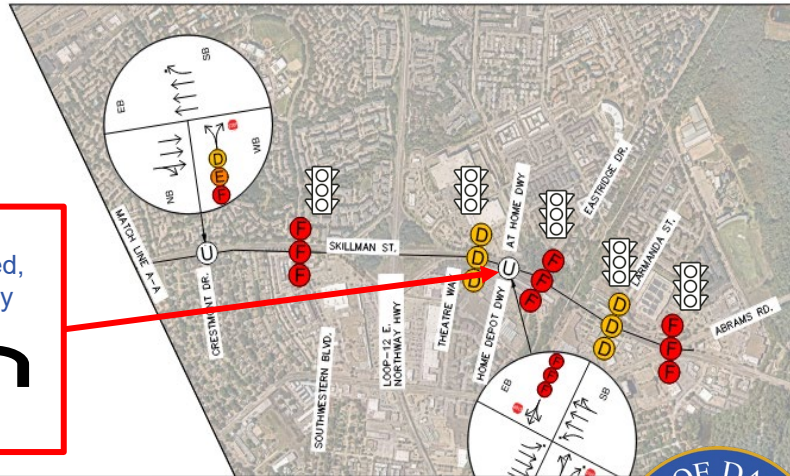
14 out of 15 signalized intersections are projected to operate at **LOS D or better** during the **PM peak hour in 2045** with the signal timing adjustments.

Traffic Signal Warrants

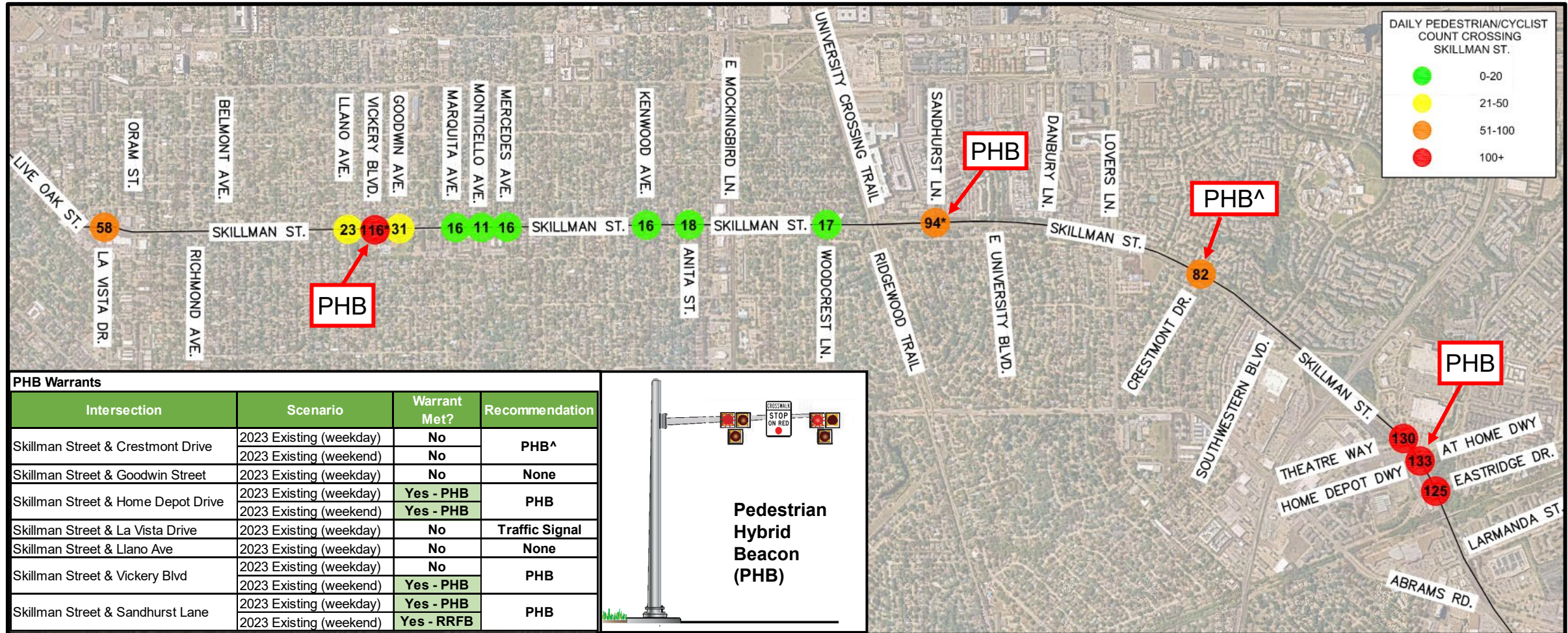
Intersection	Scenario	Warrant Met?
Skillman Street & Danbury Lane	2023 Existing	No
	2030 Background	No
	2045 Background	No
Skillman Street & Sandhurst Lane	2023 Existing	No
	2030 Background	No
	2045 Background	No
Skillman Street & Llano Ave	2023 Existing	No
	2030 Background	No
	2045 Background	No
Skillman Street & La Vista Drive	2023 Existing	Yes
	2030 Background	Yes
	2045 Background	Yes
Skillman Street & Anita Street	2023 Existing	No
	2030 Background	No
	2045 Background	No
Skillman Street & Woodcrest Lane	2023 Existing	No
	2030 Background	No
	2045 Background	No
Skillman Street & Home Depot Driveway/At Home Driveway	2023 Existing	Yes
	2030 Background	Yes
	2045 Background	Yes

Skillman at La Vista
Failing Intersection.
Traffic Signal recommended.
Improves **LOS from F to C**

Skillman at Home Depot Drive
Although a traffic Signal was warranted, it is not recommended due to proximity with adjacent signals.
Recommend modifying driveway access at this intersection



Pedestrian/Bike Volumes and PHBs/RRFBs



*Weekend Pedestrian Volume Displayed

[^]PHB Recommended to Accommodate Pedestrian Demand



Summary of Traffic Analysis

- It is recommended to **maintain the existing cross-section** of the roadway
- Historical data provided an annual growth rate of 0.21%. → Traffic Analysis assumed annual growth rates of **1%** through 2030 and **0.5%** through 2045
- **14 out of 15** signalized intersections will operate at **LOS D or better in 2045 during the peak hours**
- PHBs are recommended at Vickery Blvd, Sandhurst Ln, Home Depot Driveway, and Crestmont Dr
 - A **PHB is recommended** at Crestmont Drive due to high pedestrian demand and potential sight distance constraints with the existing curvature of the roadway.





Recommendations



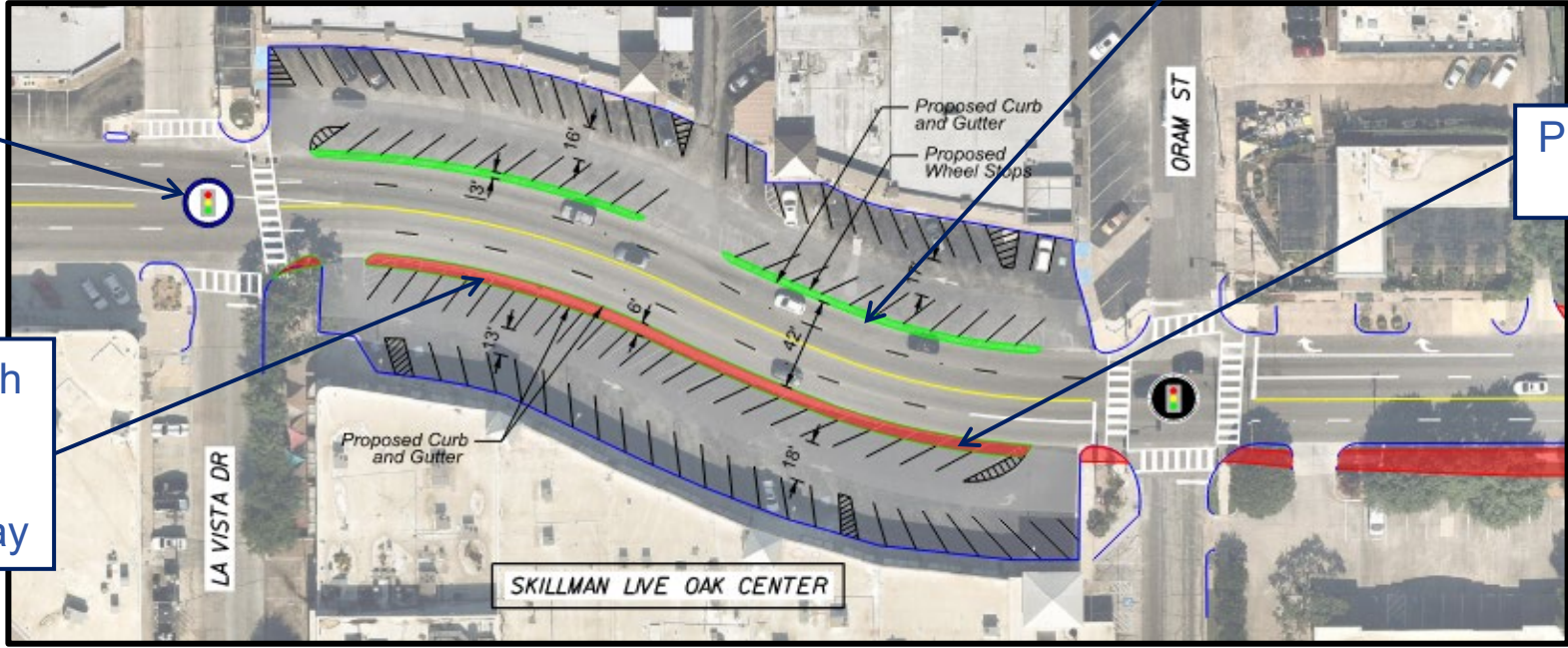
Between La Vista and Oram

Proposed New Signal

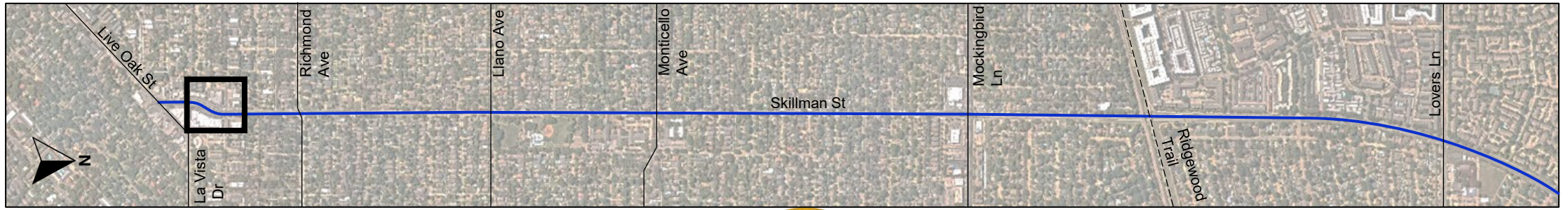
Proposed Curb and Wheel Stops

Proposed Raised Sidewalk

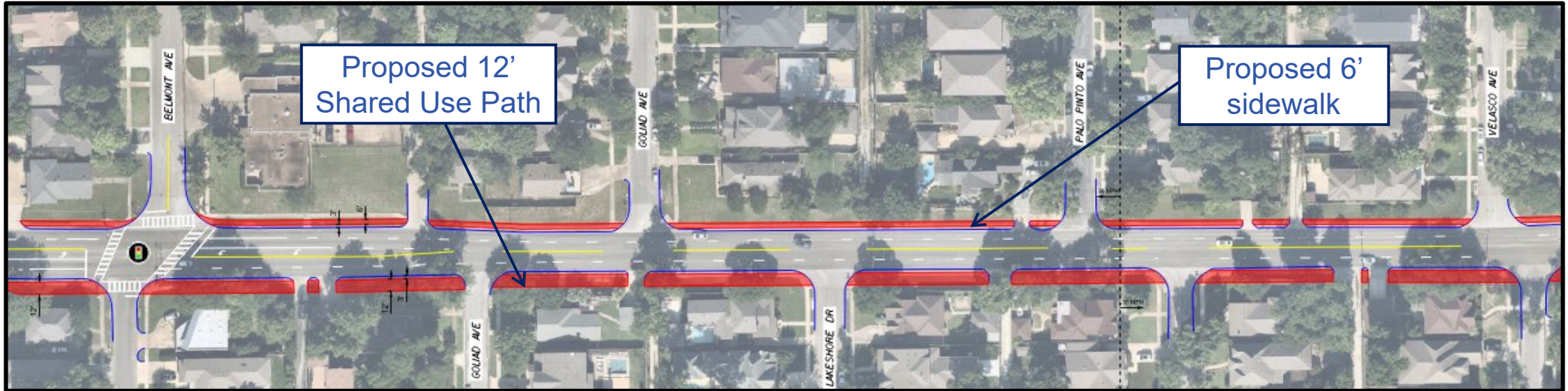
Existing Challenges with drainage and lack of separation between parking and traveled way



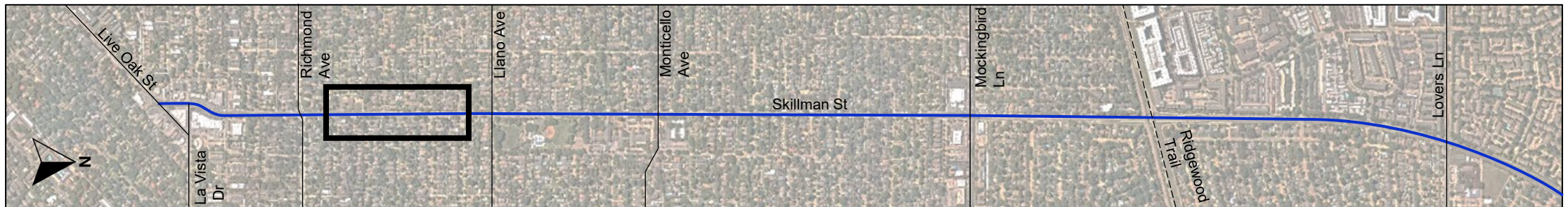
Location Along the Corridor



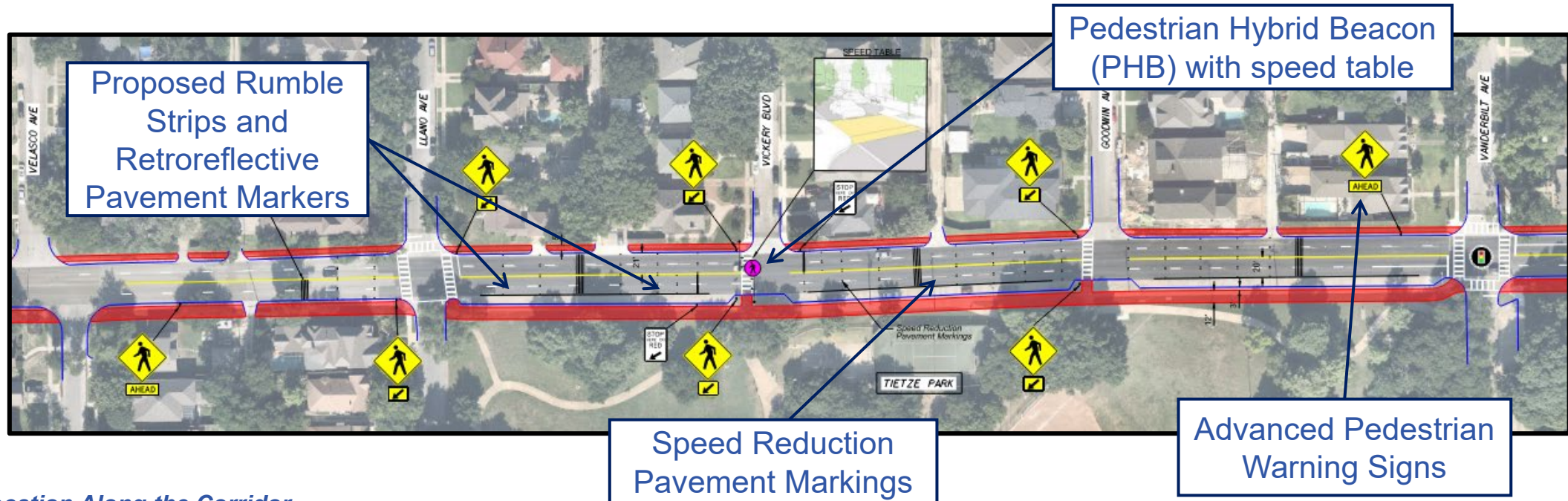
Between Belmont and Velasco



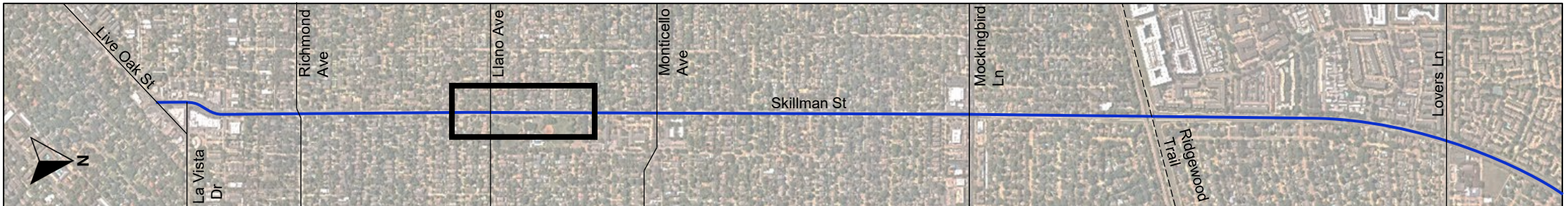
Location Along the Corridor



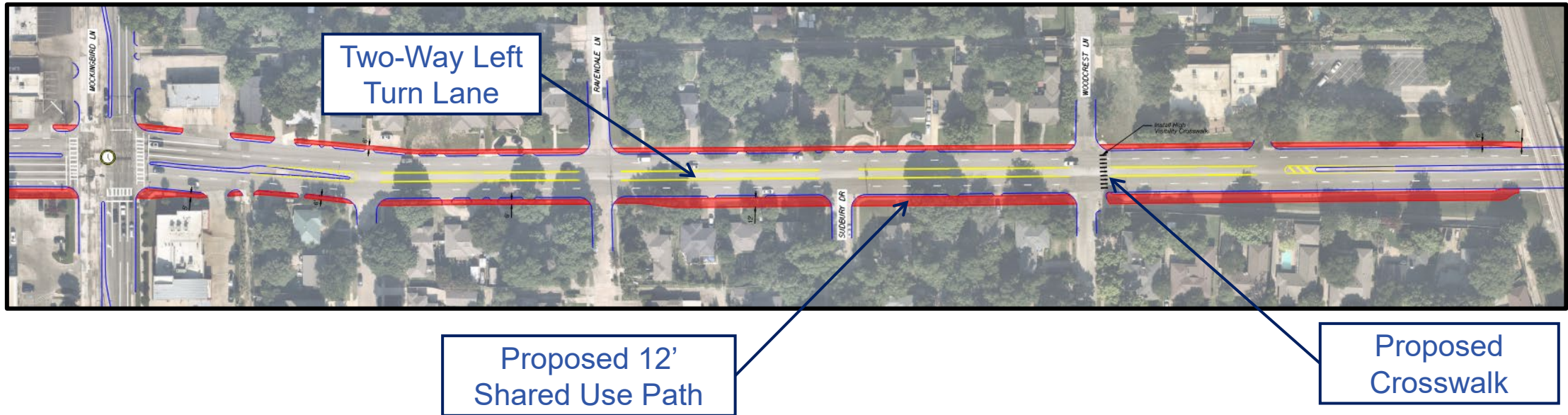
Between Velasco and Vanderbilt



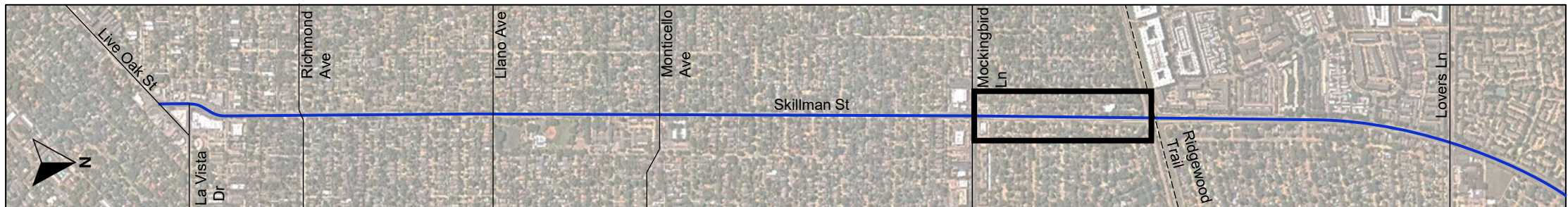
Location Along the Corridor



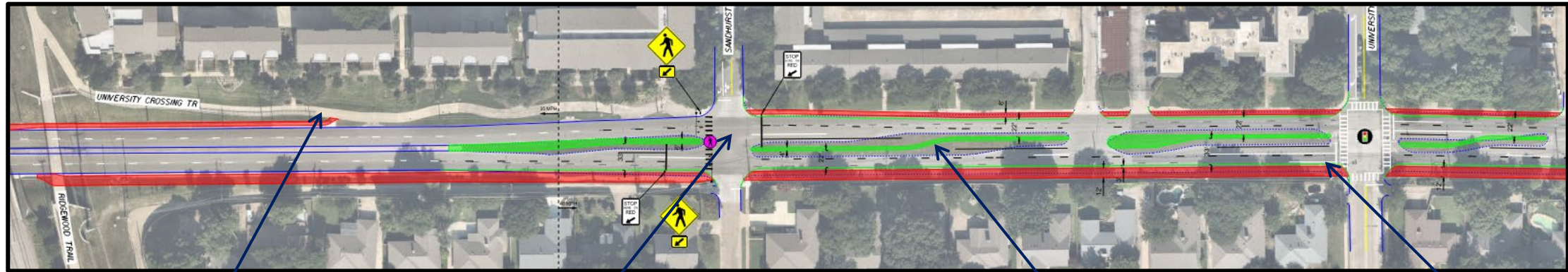
Between Mockingbird and Ridgewood Trail



Location Along the Corridor



Between Ridgewood Trail and University



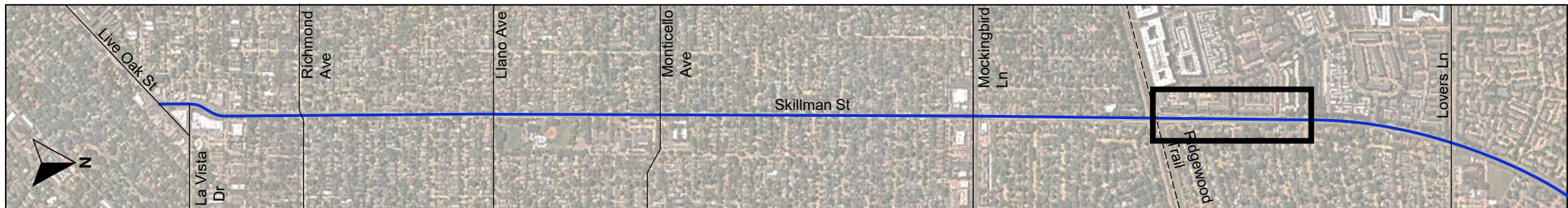
Existing University Crossing Trailhead

Pedestrian Hybrid Beacon (PHB)

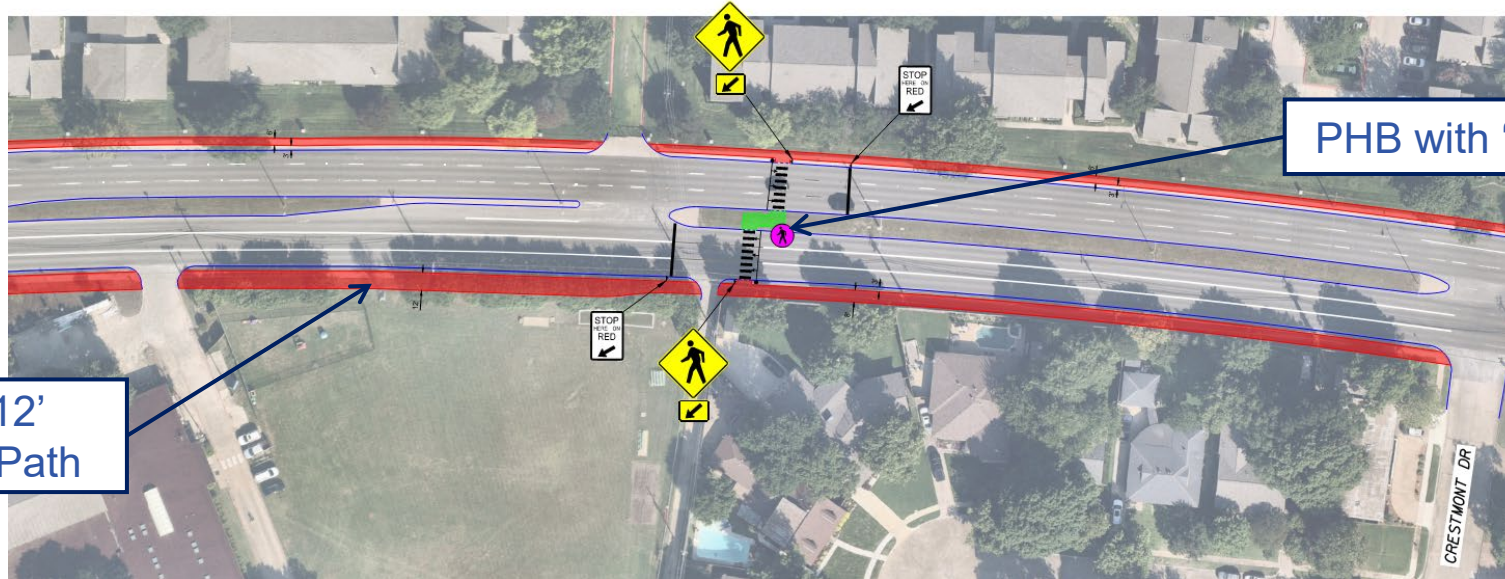
Proposed Median Width Reduction

Curb Realignment for SUP Accommodation

Location Along the Corridor



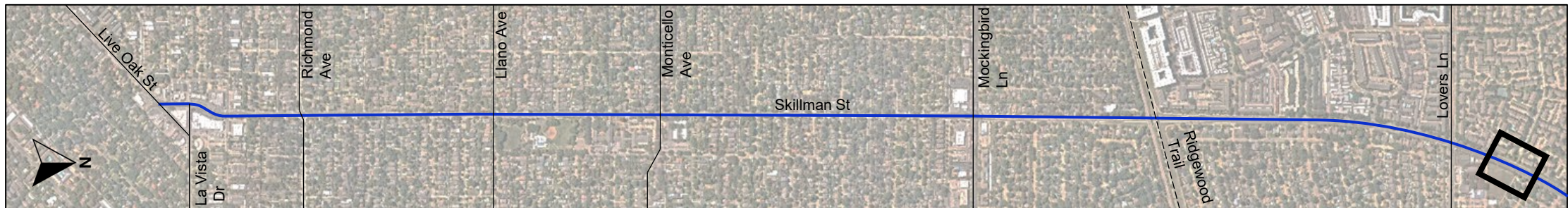
Between Lovers and Crestmont



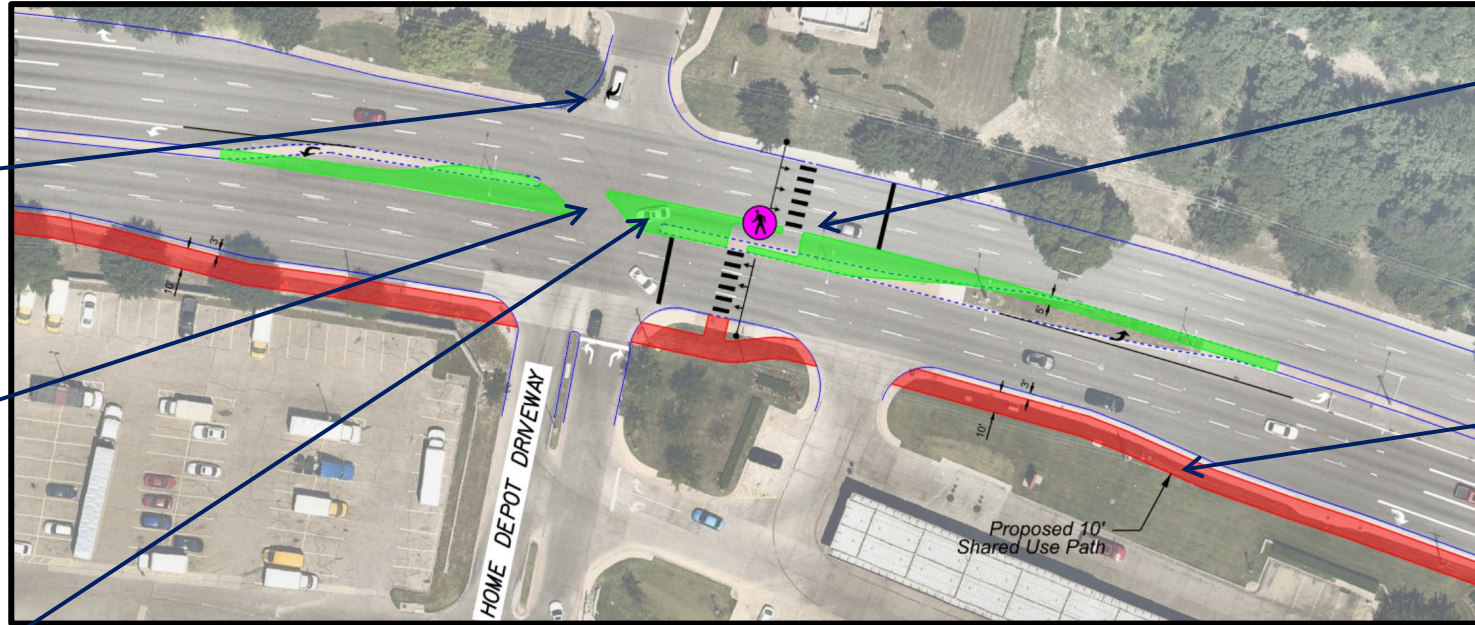
Proposed 12'
Shared Use Path

PHB with "Z Crossing"

Location Along the Corridor



Between Theater and Eastridge



PHB with "Z Crossing"

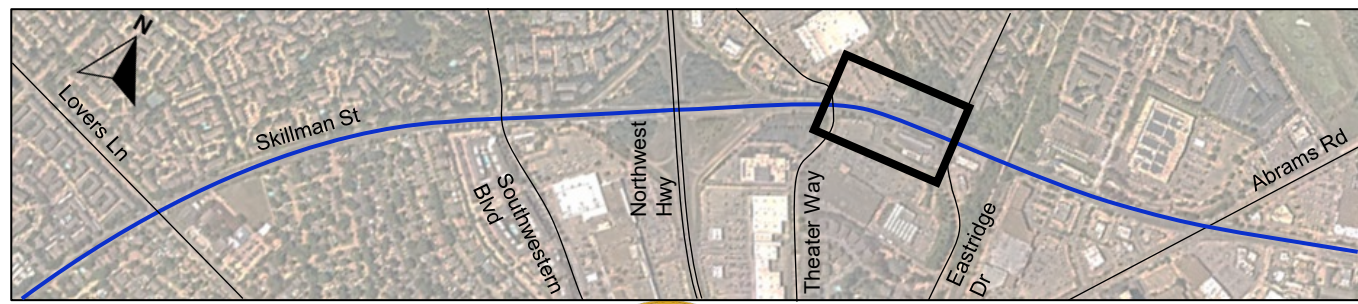
Right-In
Right-Out

Provide Left Turn
Access for exiting
Home Depot Driveway

Restrict Access to
Improve Safety

Proposed 10'
Shared Use Path

Location Along the Corridor



Recommendations- Remove and Replace Existing Signals

Remove and Replace existing Traffic Signals at the following intersections:

- Oram Street
- Belmont Avenue
- Vanderbilt Avenue
- McCommas Boulevard
- University Boulevard



New Traffic Signal/PHBs/RRFBs

Install New Traffic Signals at with:

- La Vista Drive

Install PHB/RRFB at the following intersections:

- Vickery Boulevard (PHB)
- Home Depot Driveway (PHB)
- Sandhurst Lane (RRFB)
- Mid-block between Lovers and Crestmont





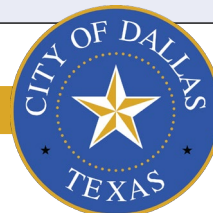
Implementation Of Improvements



Implementations of Improvements

Summary of Improvements

Short Term	Medium - Long Term
<ul style="list-style-type: none"> • Signal timing improvements at key intersections • Wheel stops or curb/gutter installation between La Vista Dr. and Oram St. along Skillman St. • High visibility crosswalk at Woodcrest Ln. • Education and Enforcement – critical to Educate driving public about high cost of traffic crashes and enforcement of traffic infractions to achieve compliance. 	<ul style="list-style-type: none"> • Installation of 12' Shared Use Path on east side of Skillman St. and 6' sidewalk on west side of Skillman St. from Oram St. to Southwestern Blvd. • Installation of 10' Shared Use Path along Skillman St. from Theater Way to Abrams Rd. • Installation of curb and gutter with a 6' sidewalk along Skillman St. from La Vista Dr. to Oram St. (Requires relocation of striped parking stalls) • Signal infrastructure improvements at key intersections (with end-of-life signal equipment) • Proposed PHB signal at Vickery Blvd. and Skillman St. near Tietze Park • Median narrowing from Ridgewood Trail To Lovers Ln. • Median Improvements with proposed PHB signal at Home Depot Driveway



Concluding Thoughts

- Skillman St. has a history of **high crash rates** with **speeding** being a big concern
- There are **many pedestrian generators** along the corridor with high pedestrian crossings
- PHBs will improve pedestrian safety
- All recommended improvements can be made with **nominal impact to LOS**
- Shared Use Pathways help to accommodate bikes/peds in a safe manner
- **13 out of 14 signalized intersections** are projected to operate at **LOS D or better** during the AM peak hour in 2045 with signal timing adjustments.



Q&A and Comments

Comments will be accepted through **September 30th**. Fill out one of the comment forms.

Project Webpage:

<http://bit.ly/abramsk>



Scan here to visit the project website!

Skillman Street Transportation Safety Study

A graphic with a blue background on the left and a teal background on the right. The teal section contains a QR code and the text 'Skillman Street Transportation Safety Study'. The blue section contains the text 'Scan here to visit the project website!'.

