

Mockingbird Pedestrian Update (30%)

Thursday, September 3, 2015

Project Timeline

- 30% Presentation (September 2015)
 - Collect Data from outside Sources
 - Complete Initial Site Visit
 - Begin Pedestrian Roadway Audit data collection
 - Begin Traffic & Pedestrian Counts data collection
 - Collect Lighting Data
- 60% Presentation (October 2015)
 - Complete Pedestrian Roadway Audit
 - Complete Traffic & Pedestrian Count data collection
 - Observe SMU Football Game (9/12/2015)
 - Begin Traffic Data Analysis
- 100% Presentation (November 2015)
 - Complete Traffic Data Analysis
 - Develop Recommendations

30% Benchmarks

- Collect Data from Outside Sources
 - Ongoing
- Complete Initial Site Visit
- Begin Pedestrian Roadway Audit
- Data Collection
 - Begin Traffic & Pedestrian Counts
 - Collect Lighting Data



Initial Site Visit

Initial Site Visit Goals

- Completed
 - Wednesday, July 22, 2015
 - Monday, August 3, 2015
 - Tuesday, August 4, 2015
- Goals
 - Observe Existing Conditions
 - Complete Signal Inventory
 - Complete Sight Distance Evaluation at existing conditions



Traffic Signal Timing Review

- Pedestrian Clearance Times
 - Existing
 - Proposed Pedestrian Friendly changes
- Pedestrian Push Buttons
 - Location
 - Type
- Pedestrian Signal Heads
 - Location
 - Type

Phase Timing Plans

Plan 1 2.Controller -> 2.Phase -> 1.Phase Timing Plans -> 1. -> Enter)

Phases	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Walk Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Clear Time	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Don't Walk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Green	3	6	0	6	3	6	0	6	0	0	3	1	1	1	3	1	3	1	1	1
Min Green 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Passage	0.0	2.0	0.0	2.5	0.0	2.5	0.0	2.5	0.0	0.0	2.0	2.5	1.0	0.0	2.0	1.1	1.0	0.0	0.0	0.0
Max-1	10	40	0	40	10	30	0	40	0	0	6	25	6	0	6	25	6	0	0	0

Pedestrian Clearance Times



The time allocated for the “walk” and “don’t walk” movements. Pedestrian clearance times are calculated to allow a pedestrian to push the button and walk from the button to the edge of the opposing roadway.

Pedestrian Push Buttons

- Does it have a detector?
- Where is the detector located?
- Is it accessible?
- What type of detector does it have?
- Does it meet current standards?






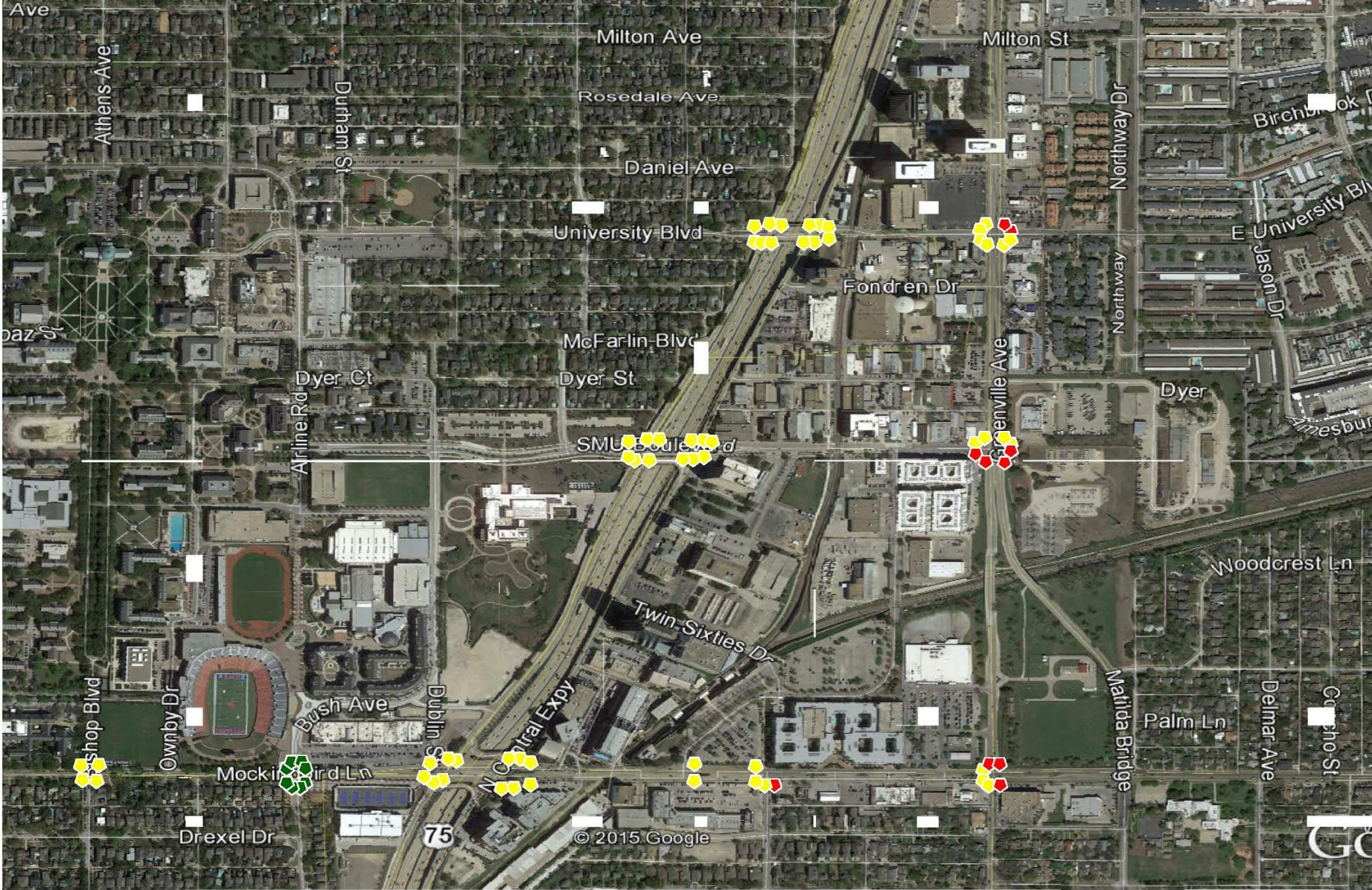
Location



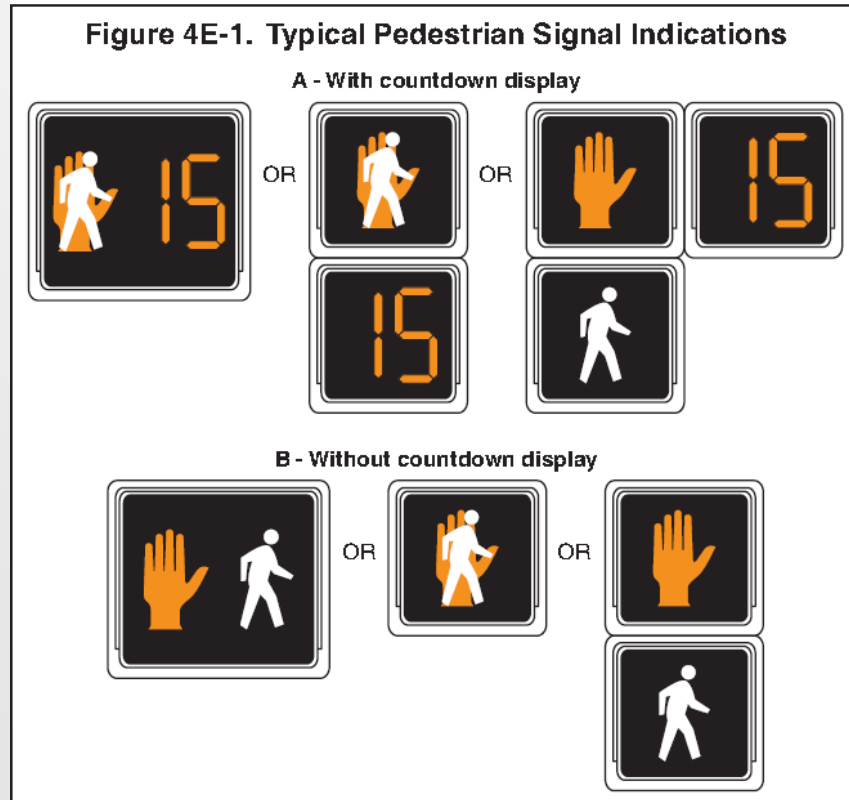
Type



Sym	Explanation	Quantity
	Push Button - Ideal (APS)	8
	Push Button - Meets 2 inch Standard	86
	Push Button - Does Not Meet 2 inch Standard	10

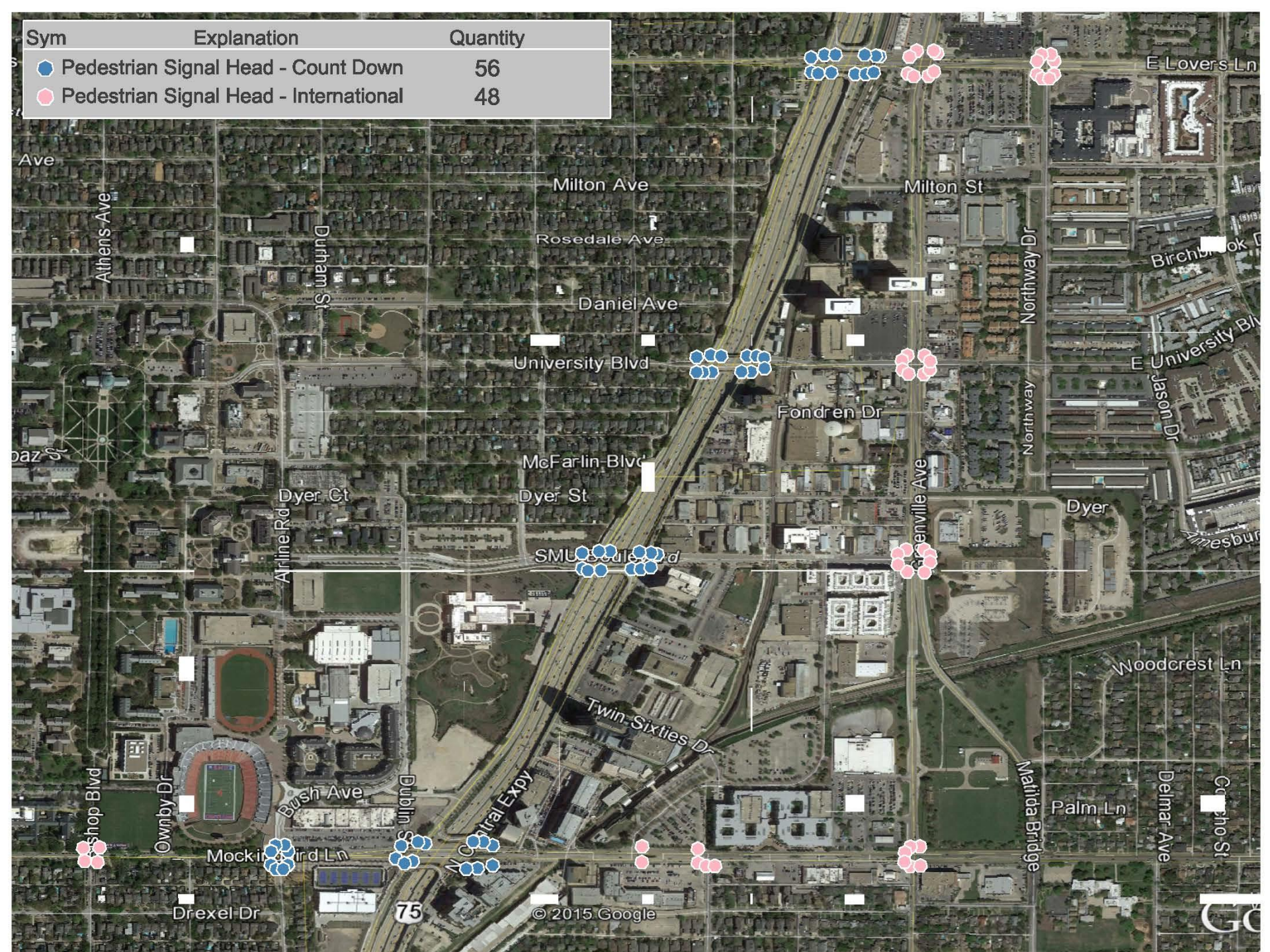


Pedestrian Signal Heads



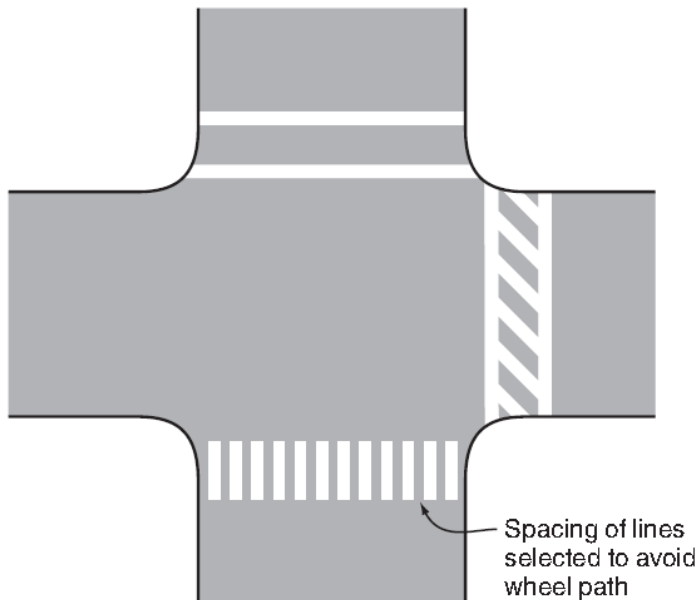
- Does it have a pedestrian signal head?
- Where is the pedestrian signal head located?
- What type of pedestrian signal head does it have?
- Does it meet current standards?

Sym	Explanation	Quantity
	Pedestrian Signal Head - Count Down	56
	Pedestrian Signal Head - International	48

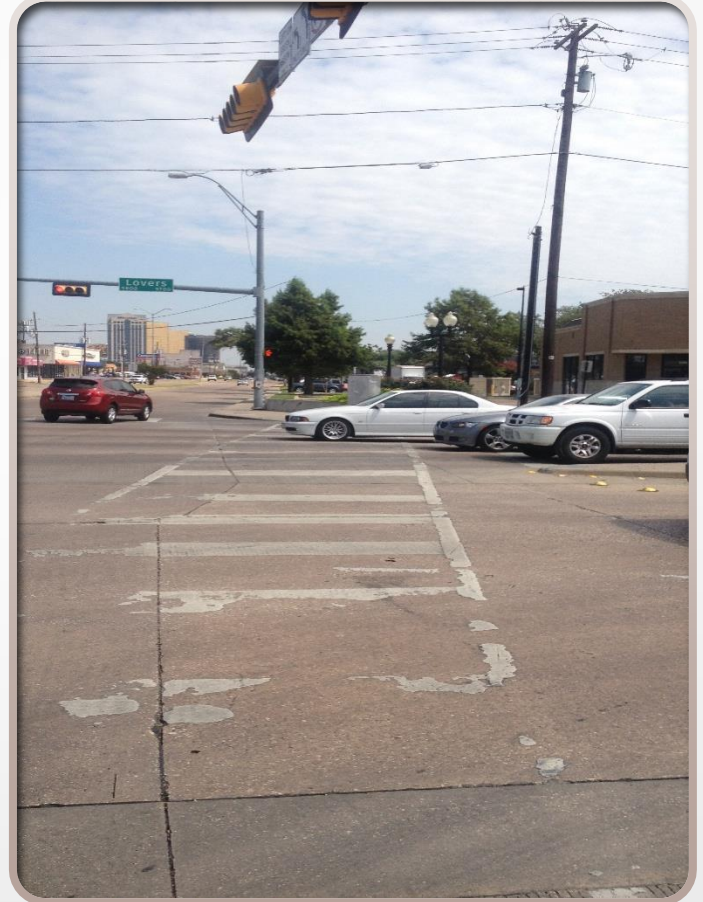
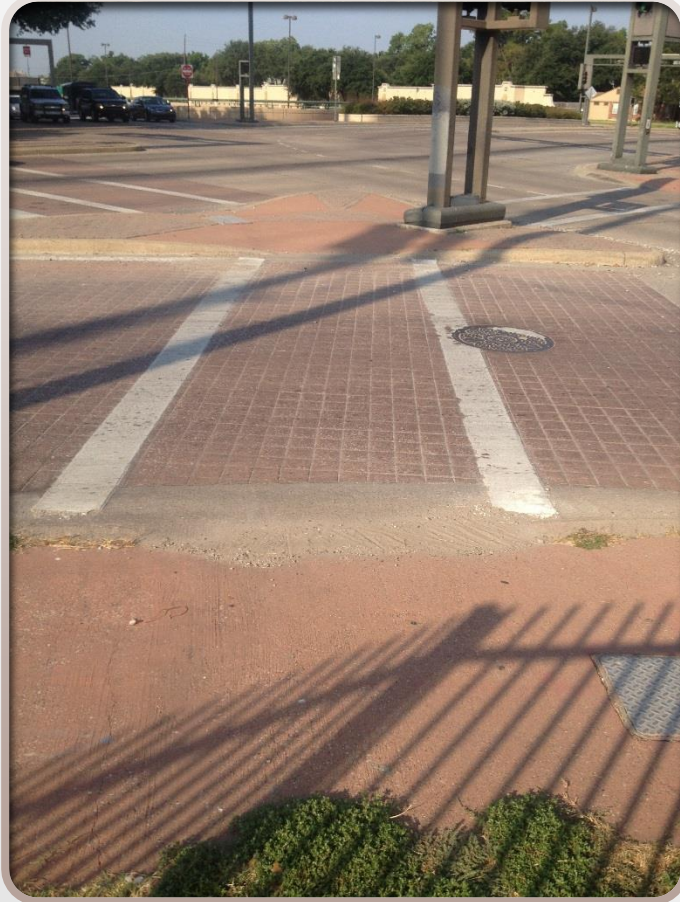


Crosswalks

Figure 3B-19. Examples of Crosswalk Markings

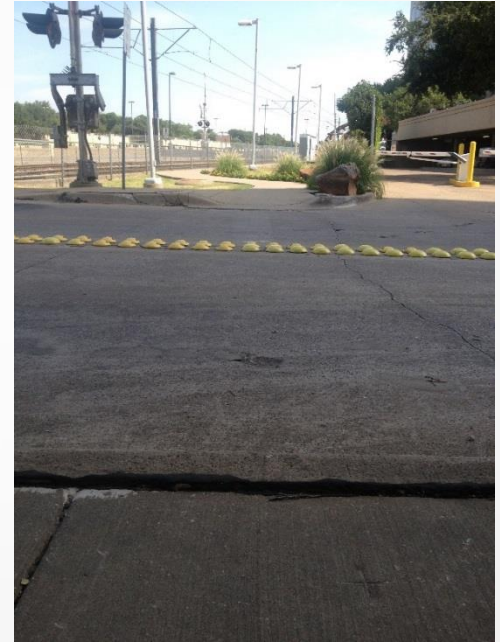


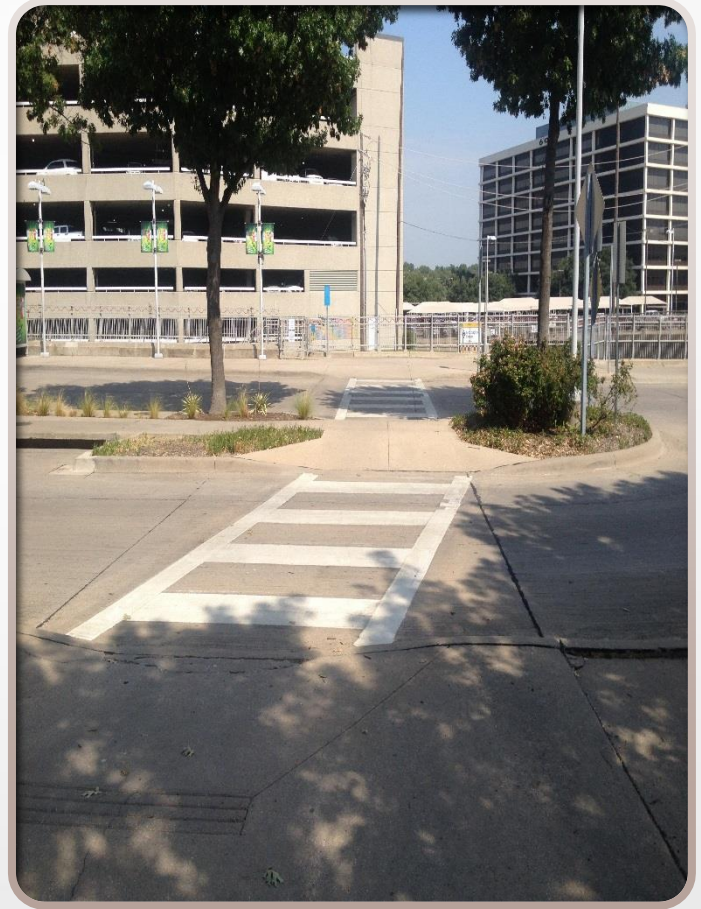
- Does every signalized intersection have crosswalks?
- Where is it located?
- What type crosswalk is it?
 - Transverse
 - Diagonal
 - Longitudinal



Curb Ramps

- Does each approach have an ADA ramp?
- Where is it located?
- Does it align with crosswalk?
- Does it have a detectable surface?
- Does it meet current standards?
 - Correct slope
 - Correct width



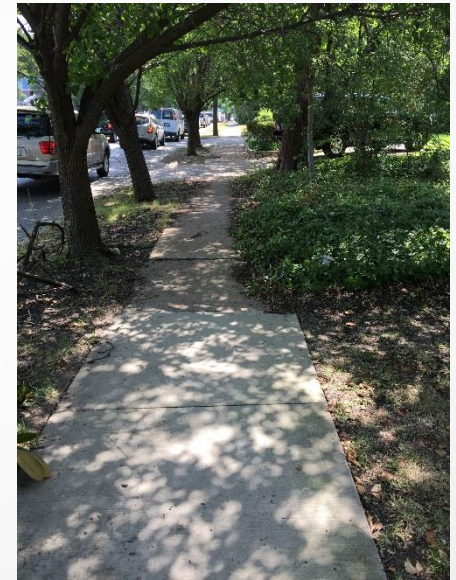


Sidewalks

- Does the sidewalk maintain a minimum of 4 feet?
- If narrow, is there a passing zone?
- Does it have a planting strip?
- Is it clear of obstructions?
- What is width?
- Is it continuous?
- What is anticipated pedestrian volume?



Sidewalks



KATY TRAIL EXTENSION

PARK CITIES

LEGEND

Katy Trail Extension

- Phase III
- Phase IV
- Phase VI

▲ Dart Rail Station

— Dart Rail

— Freeway

— Major Streets

— Streets

■ Parks

■ City Limit

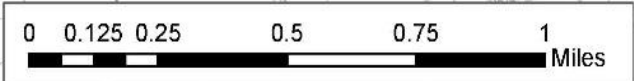
■ Major Lakes

Phase VI

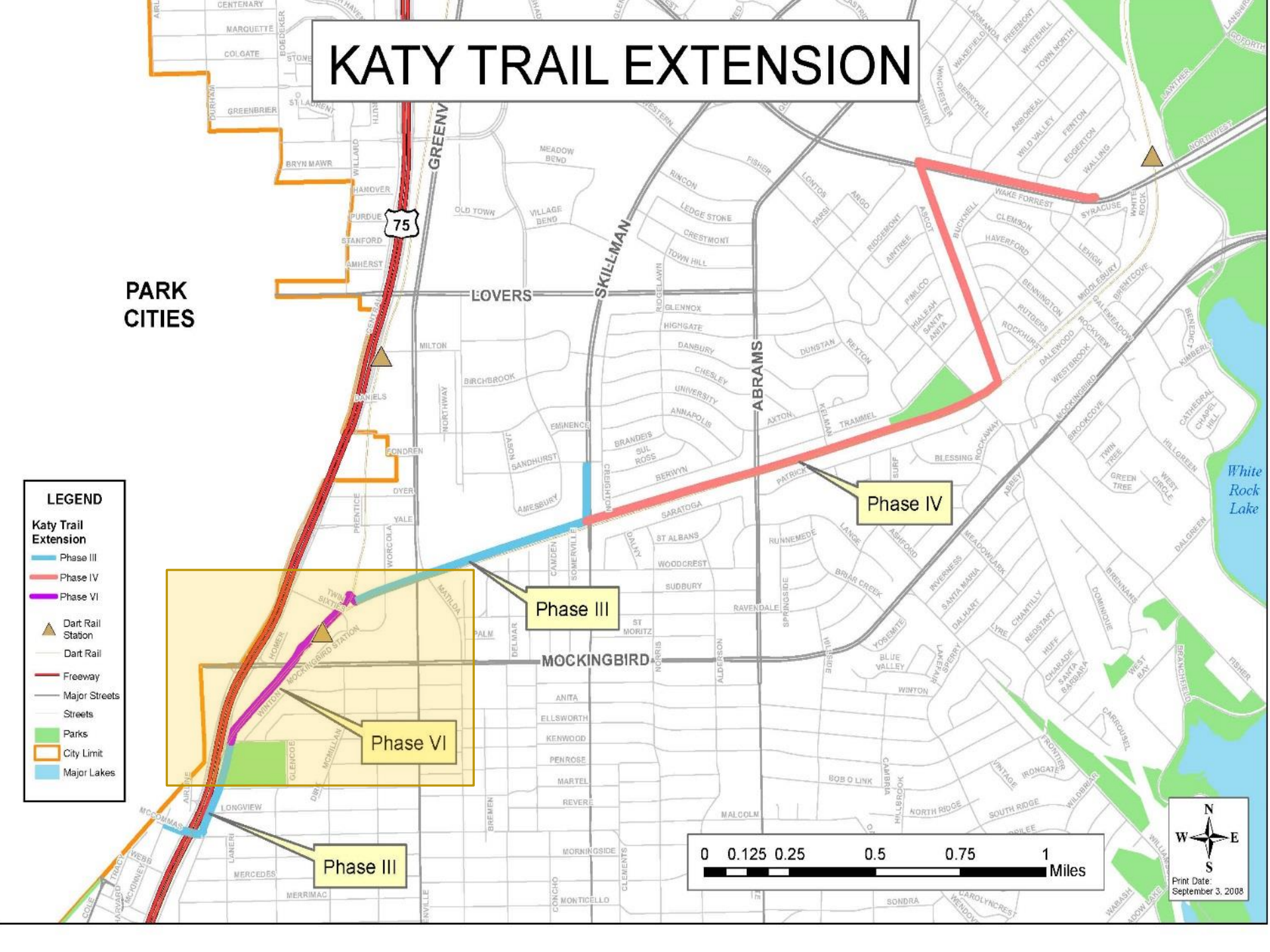
Phase III

Phase III

Phase IV



Print Date: September 3, 2008







Safety Review

US 75 Northbound Frontage Road and Mockingbird Pedestrian Crossing

Pedestrian Viewpoint

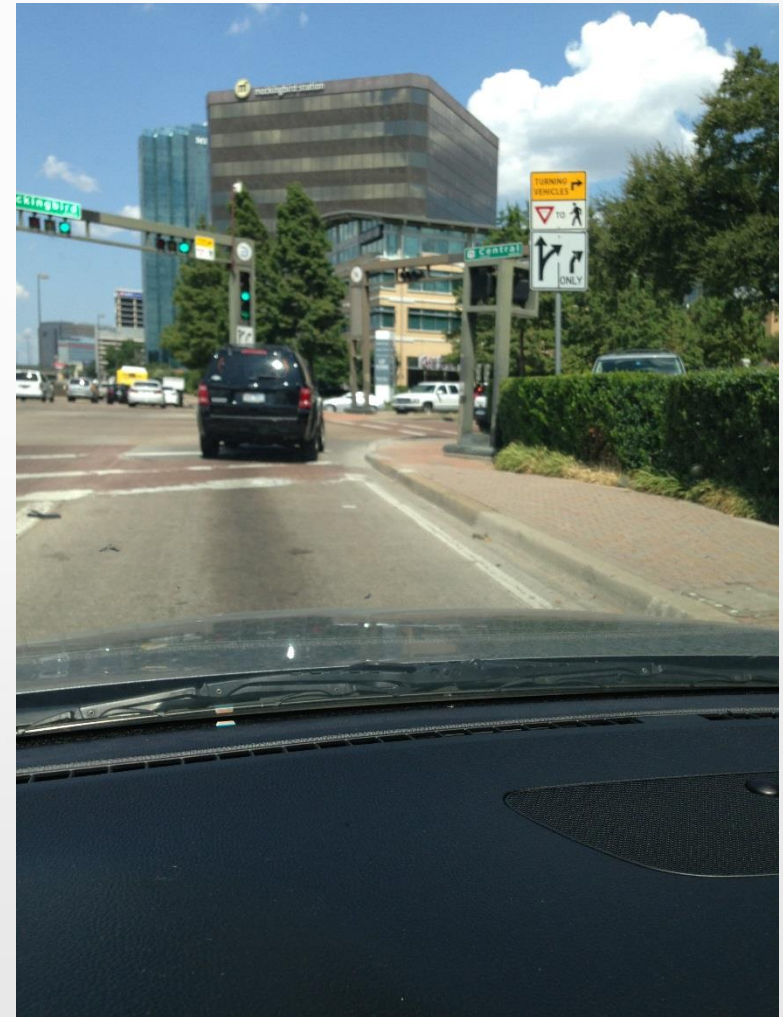


Crash History

- 10/2014

Vehicular Viewpoint

Design Speed	Sight Distance Design (ft)
15	80
20	115
25	155
30	200
35	250
40	305
45	360
50	495





Safety Review

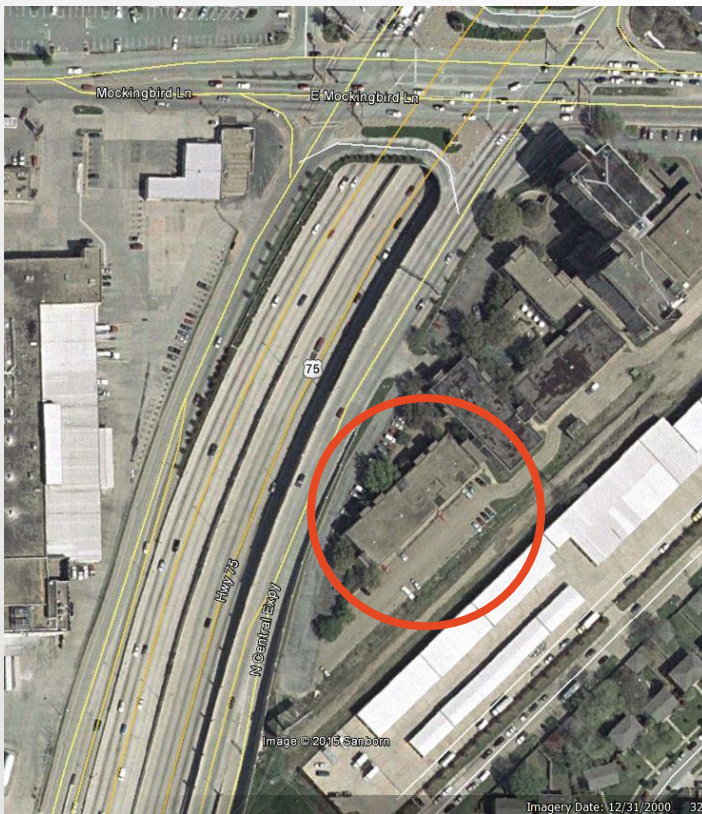
US 75 Northbound Frontage Road and Highlands Driveway

Sight Distance



Major Roadway	US 75 NBFR
Intersecting Roadway	HR driveway
Posted Speed Limit	35 mph (frontage road)
Design Vehicle	Passenger Car
Required Intersection Sight Distance	335'
Available Sight Distance	~150'

Possible Solutions



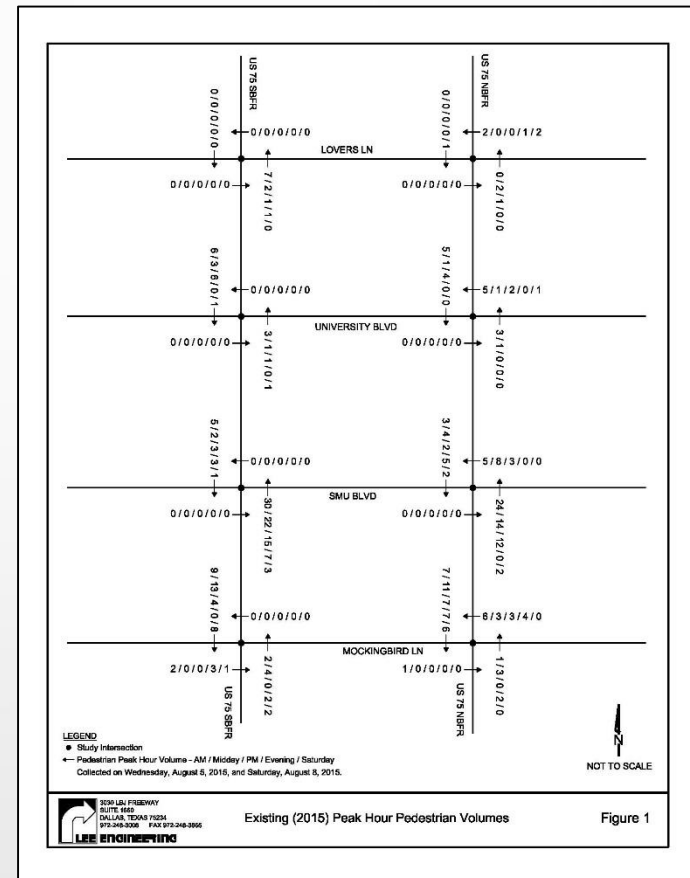
- Identified Obstacles
 - Retaining Wall
 - Speed of traffic
- Possible Solutions
 - Close driveway
 - Remove or modify retaining wall



Data Collection

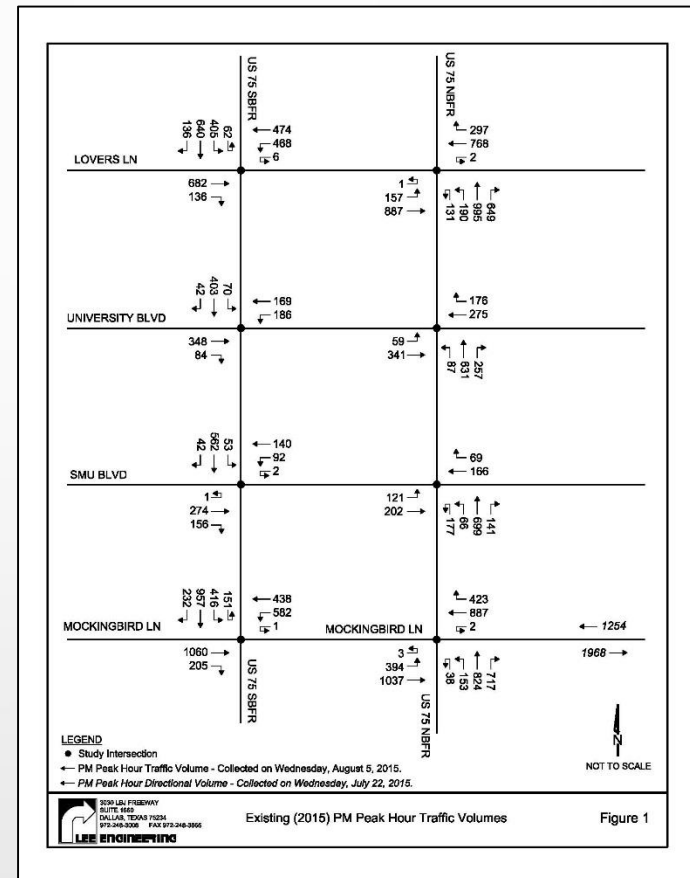
Pedestrian Data

- Previously Collected
 - Wednesday, 8/5/15
 - 7:30 – 9:30 AM
 - 11:45 AM – 1:45 PM
 - 4:45 – 6:45 PM
 - 8:30 – 10:30 PM
 - Saturday, 8/8/15
 - 12:30 – 2:30 PM
- Game Day – 9/12/2015
 - 4:00 PM – 12:00 AM

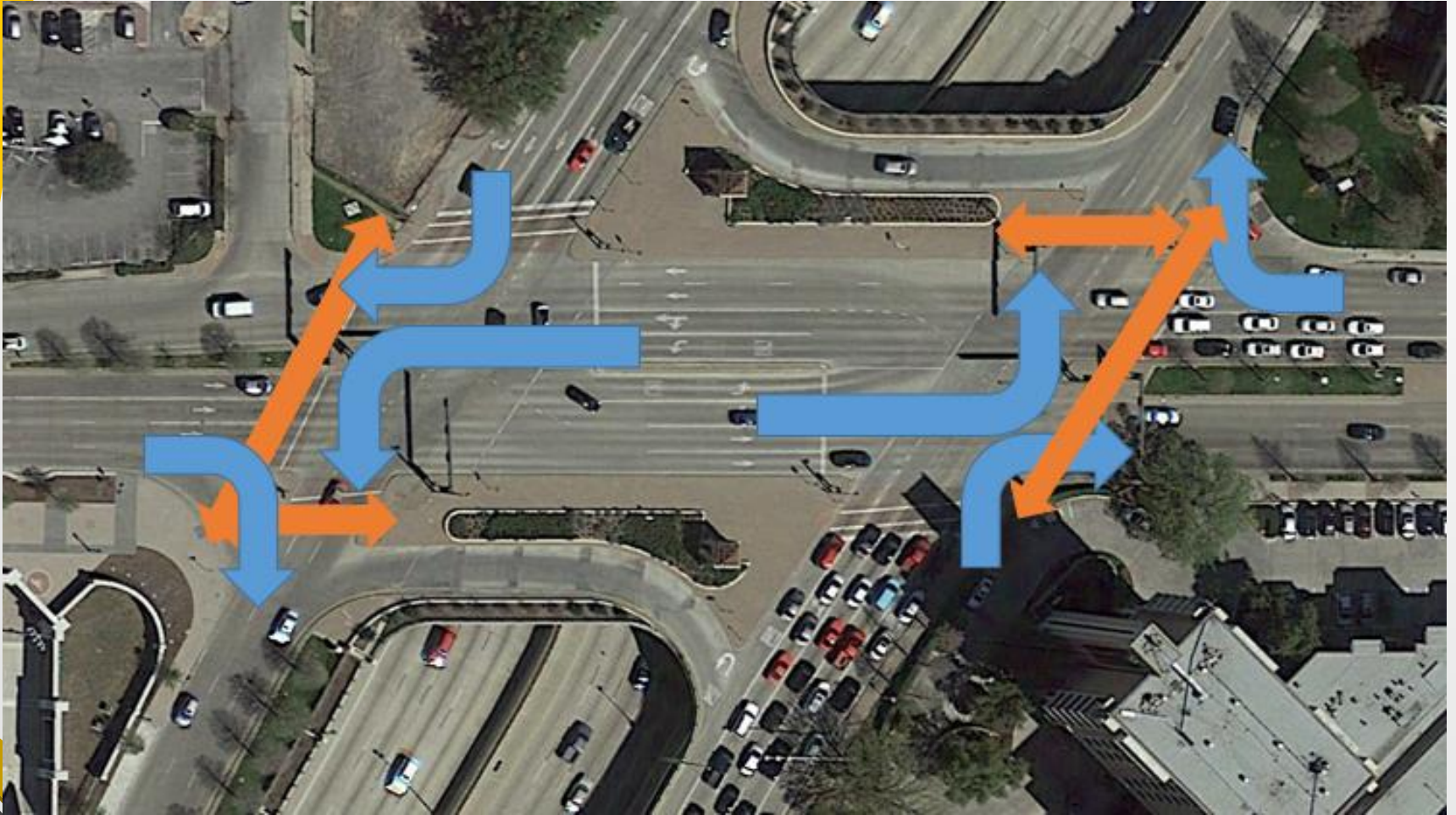


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Conflict Points

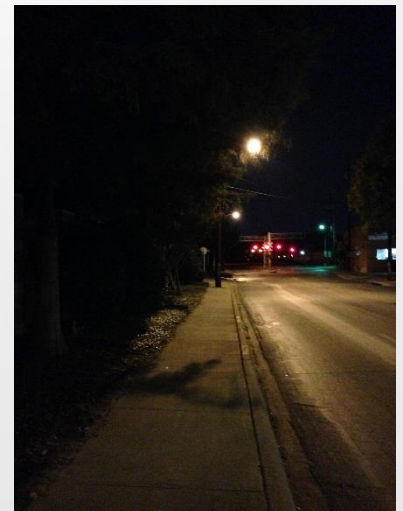
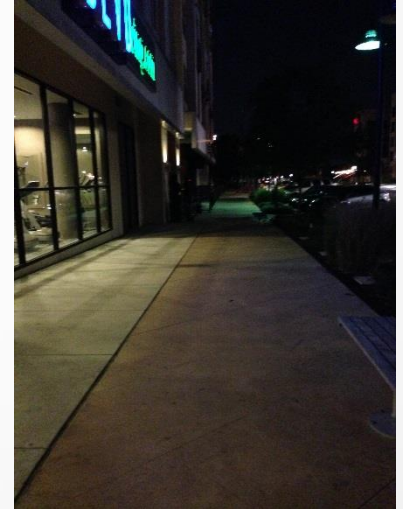
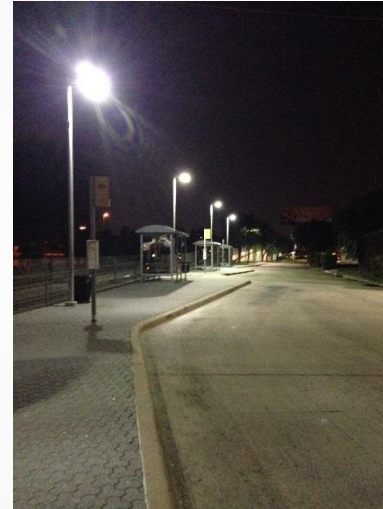




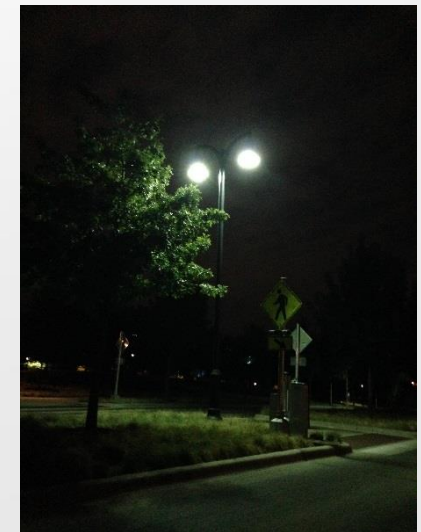
Lighting Analysis

Lighting Data

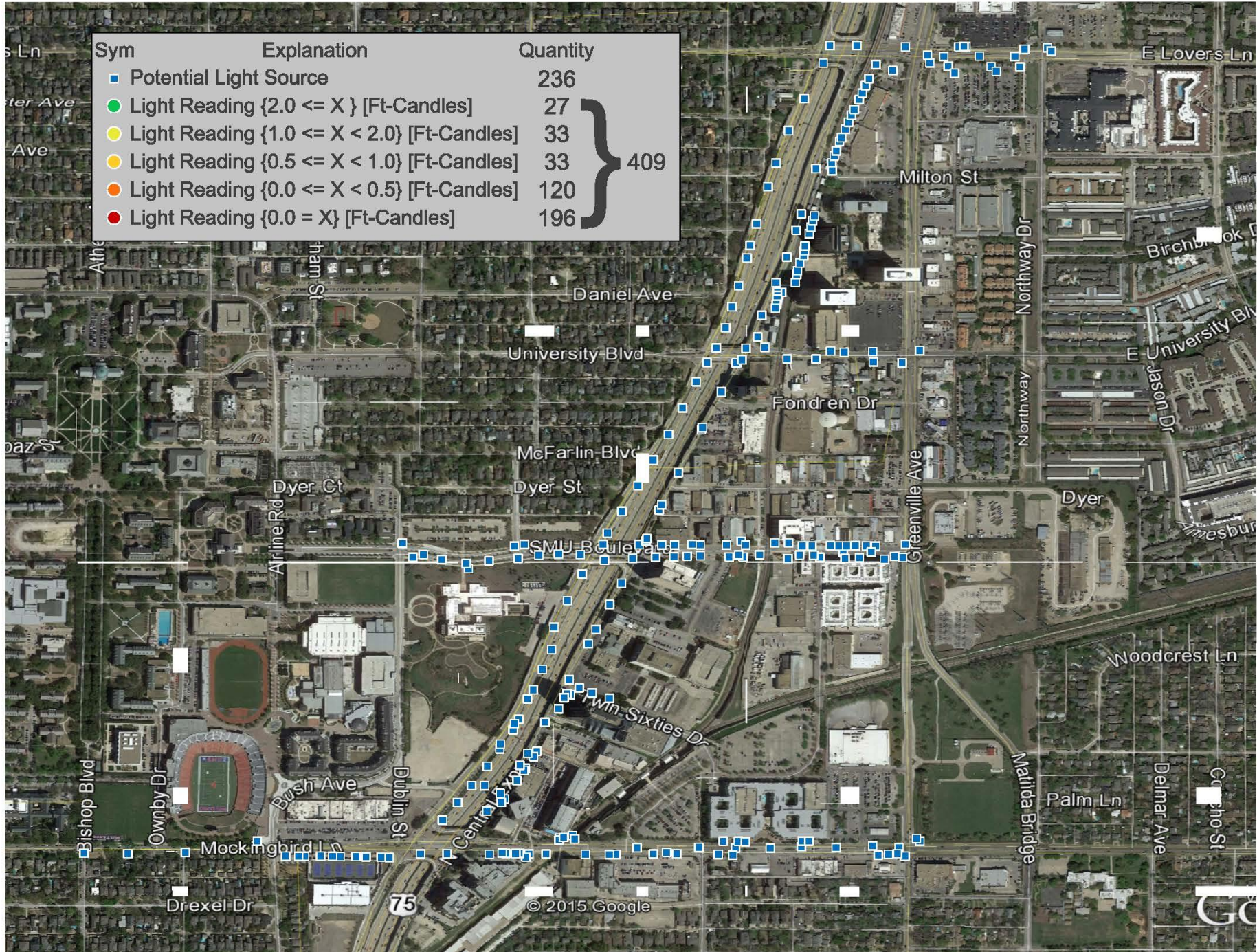
- Data Collection
 - Wednesday, August 12
 - Thursday, August 13
 - 10:00 PM – 2:00 AM

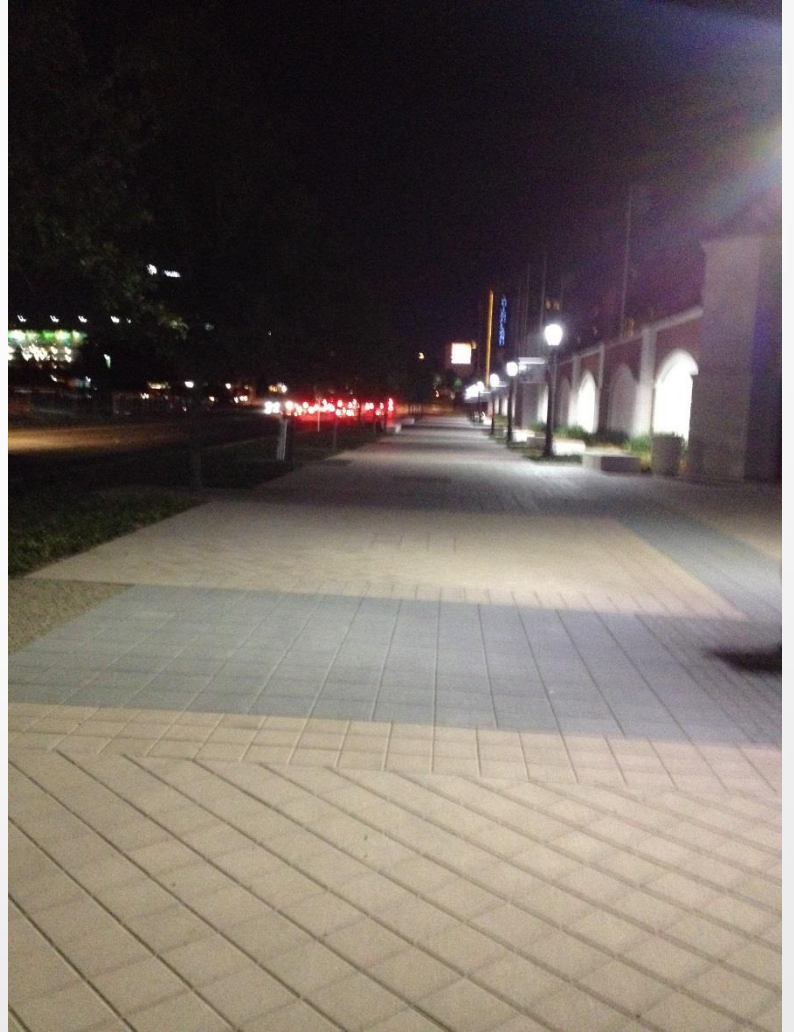


Existing Lighting Types



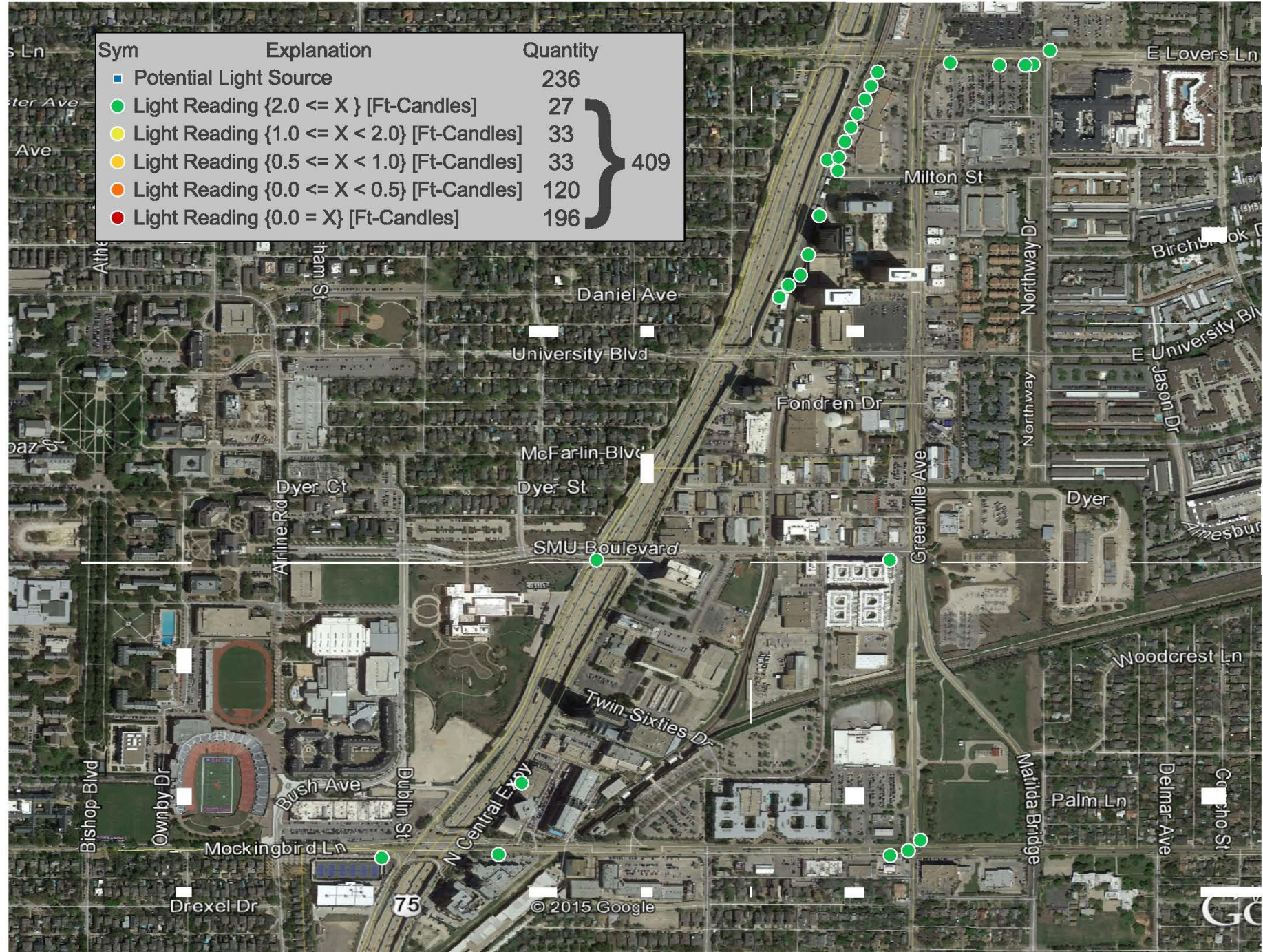
Sym	Explanation	Quantity
■	Potential Light Source	236
●	Light Reading {2.0 ≤ X } [Ft-Candles]	27
●	Light Reading {1.0 ≤ X < 2.0} [Ft-Candles]	33
●	Light Reading {0.5 ≤ X < 1.0} [Ft-Candles]	33
●	Light Reading {0.0 ≤ X < 0.5} [Ft-Candles]	120
●	Light Reading {0.0 = X} [Ft-Candles]	196
		409





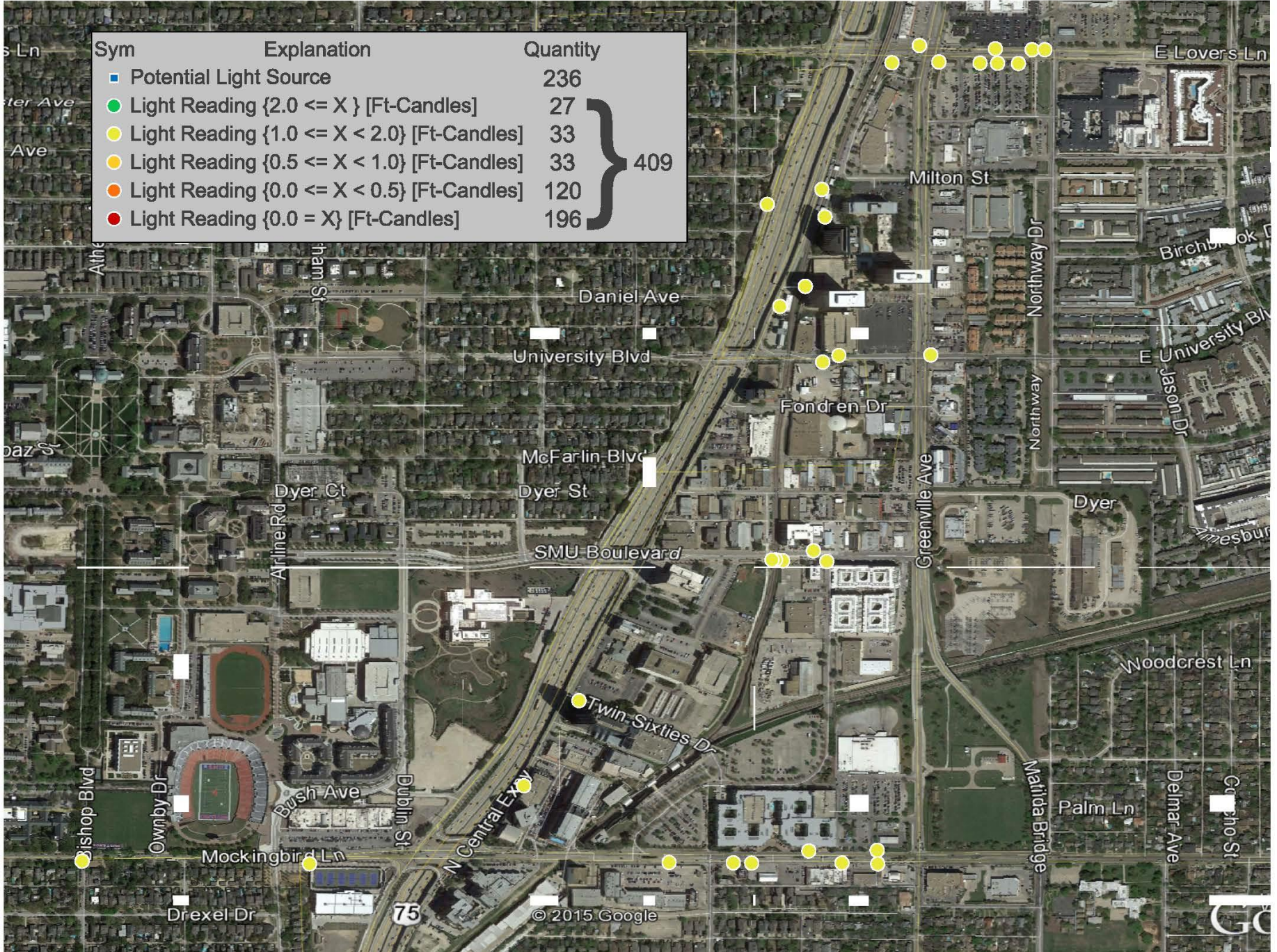
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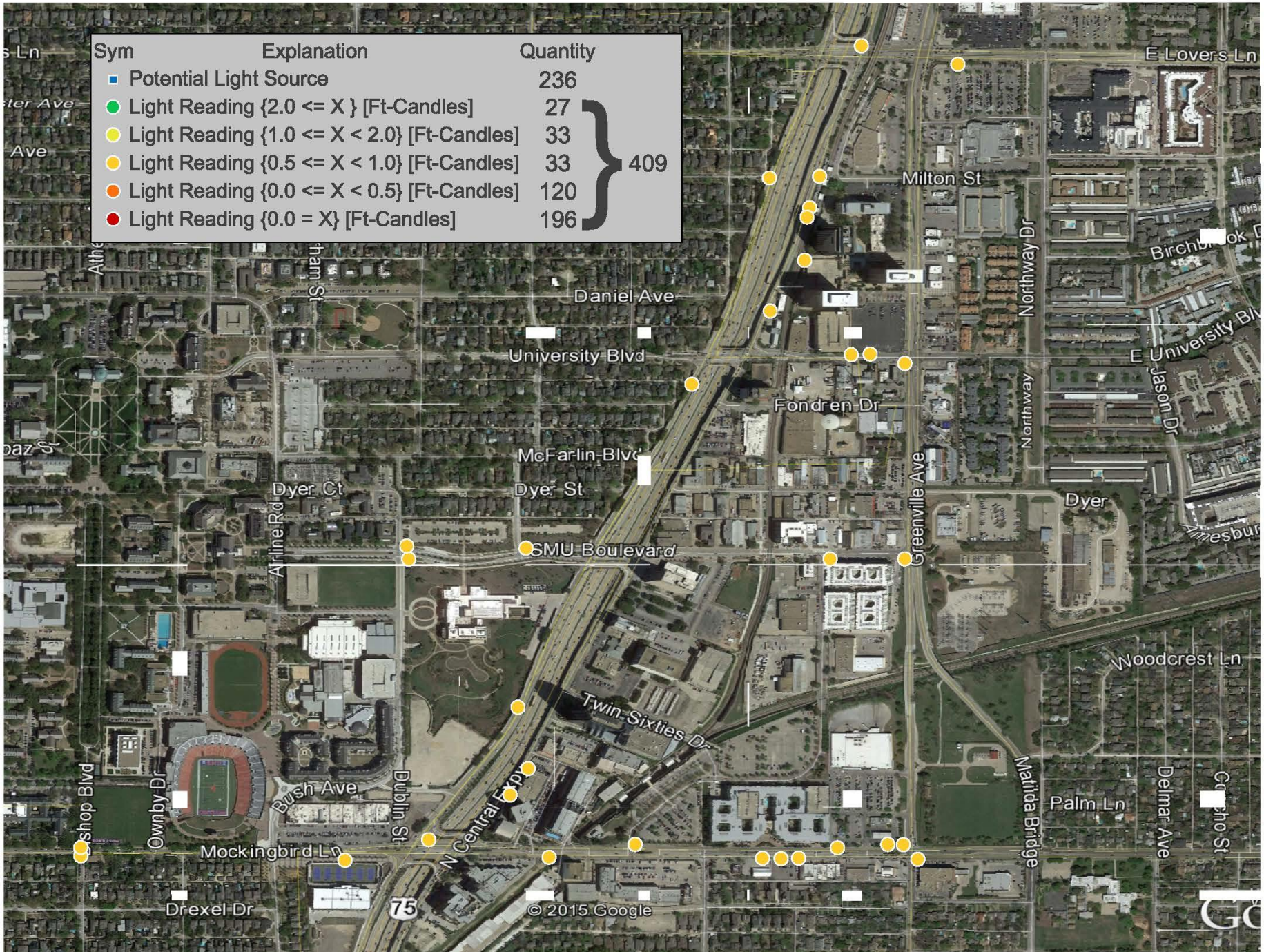
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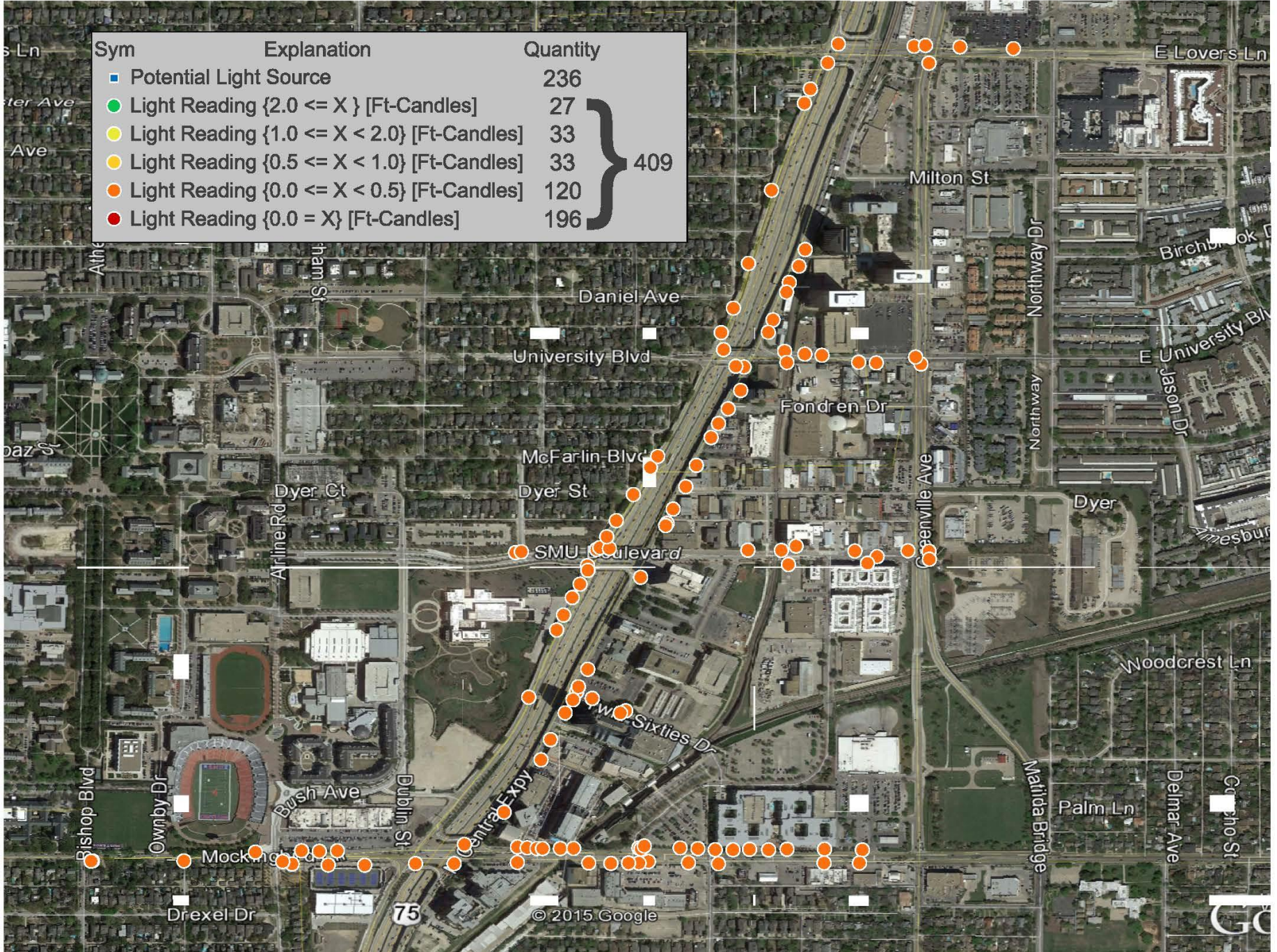
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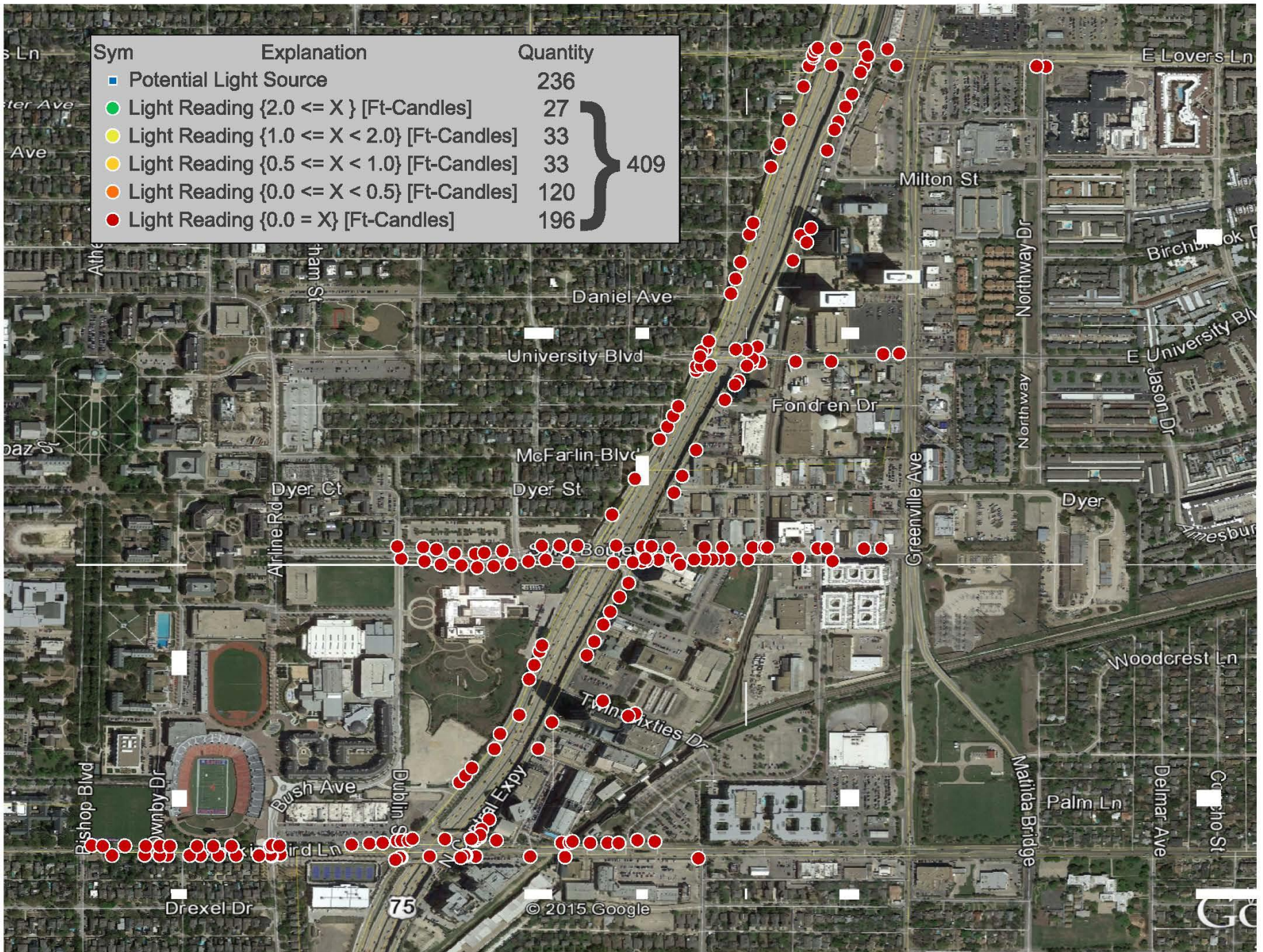
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409





Preliminary Recommendations

Signal Recommendations

- Upgrade all push buttons to 2" accessible pedestrian push buttons
- Relocate push buttons as necessary to meet MUTCD standards
- Upgrade all pedestrian signal heads to countdown heads
- Evaluate phasing opportunities and pedestrian clearance times
- Consider passive detection options



Pedestrian Walkway Recommendations

- Remove existing vegetation from sidewalks
- Repair broken sidewalks
- Upgrade directional ramps to current standards
- Enhance bicycle accommodations on streets and at intersection
- Widen sidewalks
- Consolidate driveways



Illumination Recommendations

- Replace burned out fixtures
- Set goal for lighting level
- Implement green lighting options
 - Upgrade to LED fixtures
 - Solar
 - Pedestrian sensitive detection

