



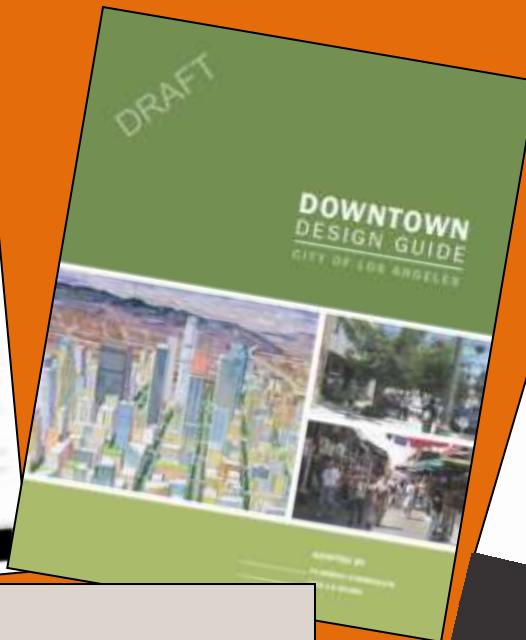
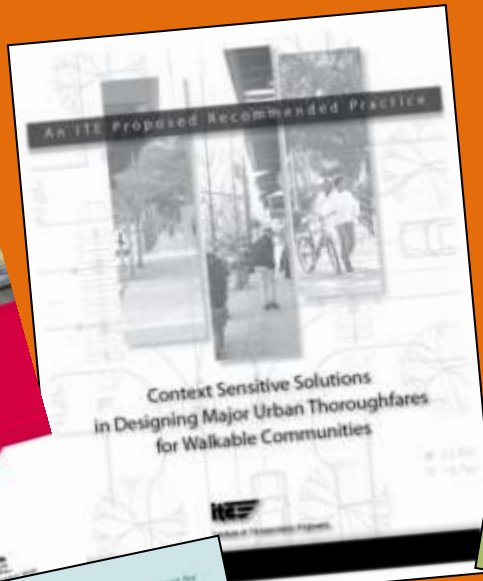
# TOWN-WIDE TRAFFIC STUDY

WORKSHOP 1: EXISTING CONDITIONS

TOWN OF HIGHLAND PARK  
12/09/13 – 12/10/13



# LEARNING FROM BEST PRACTICES IN THE WORLD



**CONGRESS FOR THE NEW URBANISM**

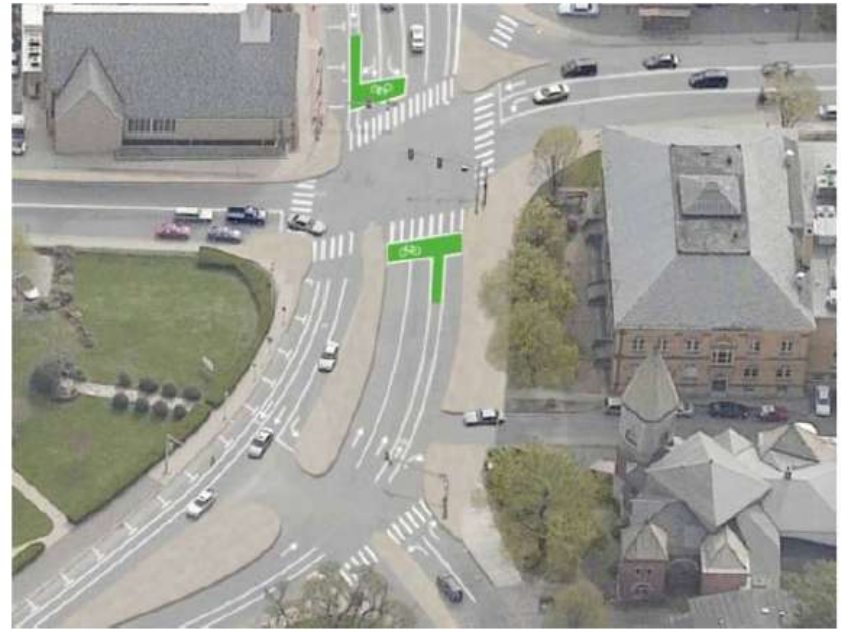


# OUR APPROACH

1. Multimodal Transportation Planning
2. Collaborative Creativity and Problem-Solving
3. Travel Demand and Operational Modeling
4. Urban Design

# MULTIMODAL TRANSPORTATION PLANNING

- Putting the user first
- Implementing complete streets standards for safe, continuous environments for all modes
- Coordinating service and infrastructure improvements



Capacity neutral bicycle and pedestrian integration in Northampton (MA)

# WHAT ARE STREETS FOR?



## Movement

- Moving people
- Moving vehicles

## Social Interaction

- A place to meet
- A place for kids to play
- A place to eat, drink, shop
- A place to protest

## Storage

- Parking

# STREETS FOR CARS



Nelson\Nygaard



# STREETS FOR PEDESTRIANS



# STREETS FOR BICYCLES



# STREETS FOR EXCHANGE



**Streets are places for kids to play...**

# STREETS FOR EXCHANGE



...to eat and drink...

# STREETS FOR EXCHANGE



Tierra Vegetables



[www.sftravel.com](http://www.sftravel.com)

...to shop and browse merchants' wares...

# STREETS FOR EXCHANGE



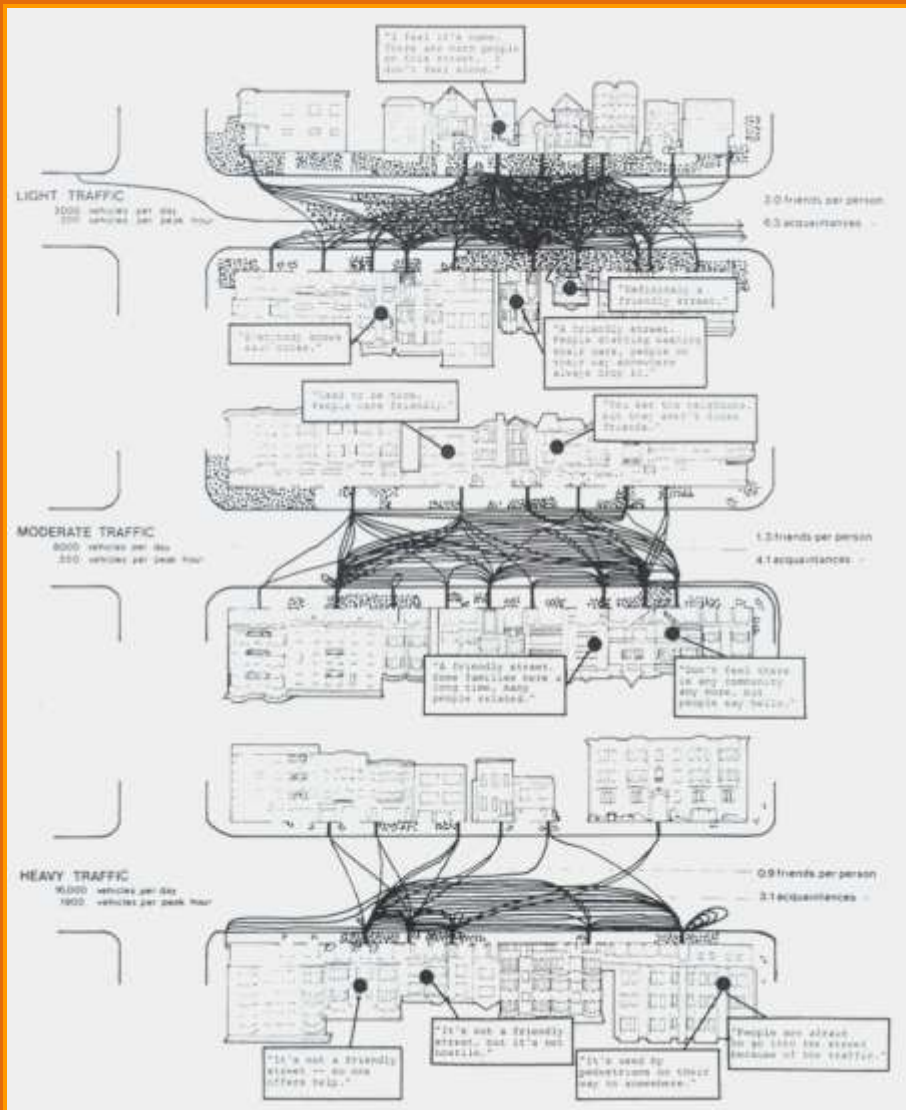
...and sell your own wares...

# STREETS FOR EXCHANGE



... and to have unexpected encounters.

# REALIZING THE IMPACTS OF CARS



Donald Appleyard (1970) studied social networks on three streets – Heavy, Medium and Light traffic

- Light traffic – residents had an average of 3.0 friends and 6.3 acquaintances on the street
- Medium traffic – 1.3 friends and 4.1 acquaintances
- Heavy traffic – 0.9 friends and 3.1 acquaintances
- Sidewalk activity, sense of community and size of perceived 'territory' all greater on Light street

# Highland Park TEXAS

*An American Community Making a Difference*

Search Highland Park...



You are here: [Home](#) > [Residents](#) > Traffic & Parking Studies



OPEN GOVERNMENT >

ONLINE SERVICES >

REPORT A CONCERN >

NOTIFY ME® >

## Traffic & Parking Studies



Residents are invited to attend one of two community workshops on the mobility study being conducted that will focus on reducing traffic and parking burdens within the Town. Please attend the meeting to contribute your thoughts, and help craft plans on the this important traffic study focused on protecting the great qualities of Highland Park.

**Monday, December 9, 2013, 4 - 7 p.m.**

**Tuesday, December 10, 2013, 8 - 10 a.m.**

Meetings will be held in the Town Council Chamber/Town Hall - 4300 MacArthur Avenue

**We Want To Hear From You!**

**Give Us Your Input  
on the Traffic Study**



# VISUAL PREFERENCE SURVEY RESULTS



... cut through neighborhood streets



... keep cars out of my neighborhood

# VISUAL PREFERENCE SURVEY RESULTS



... cut through neighborhood streets

16%



... keep cars out of my neighborhood

84%

# VISUAL PREFERENCE SURVEY RESULTS



...slower and crossable



... flowing traffic/bigger streets

# VISUAL PREFERENCE SURVEY RESULTS



...slower and crossable

**81%**



... flowing traffic/bigger streets

**19%**

# VISUAL PREFERENCE SURVEY RESULTS



**Walkable, with congestion**



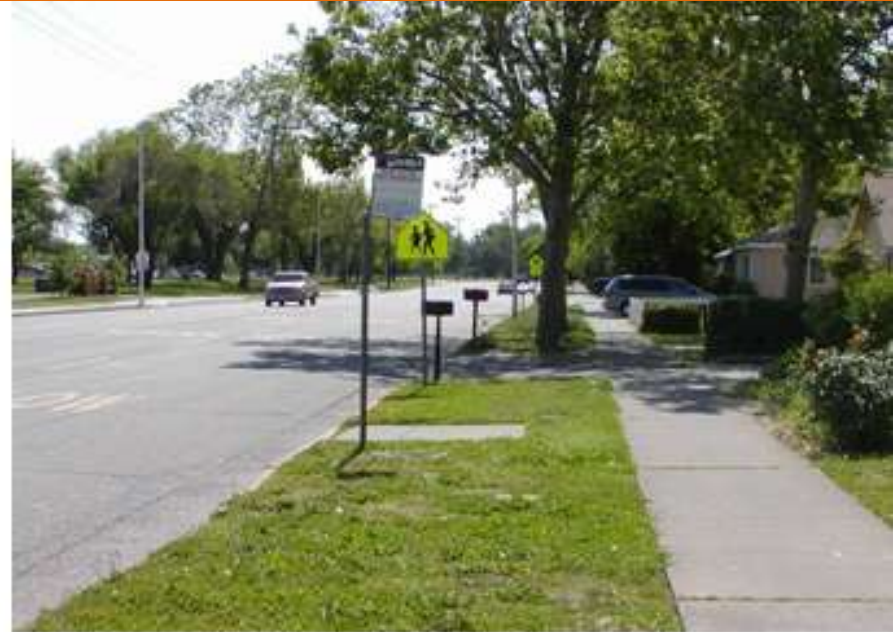
**Remove congestion, walkability declines**

# VISUAL PREFERENCE SURVEY RESULTS



Walkable, with congestion

**71%**



Remove congestion, walkability declines

**29%**

# VISUAL PREFERENCE SURVEY RESULTS



**Regional bypass**



**Neighborhood streets**

# VISUAL PREFERENCE SURVEY RESULTS



Regional bypass

50%

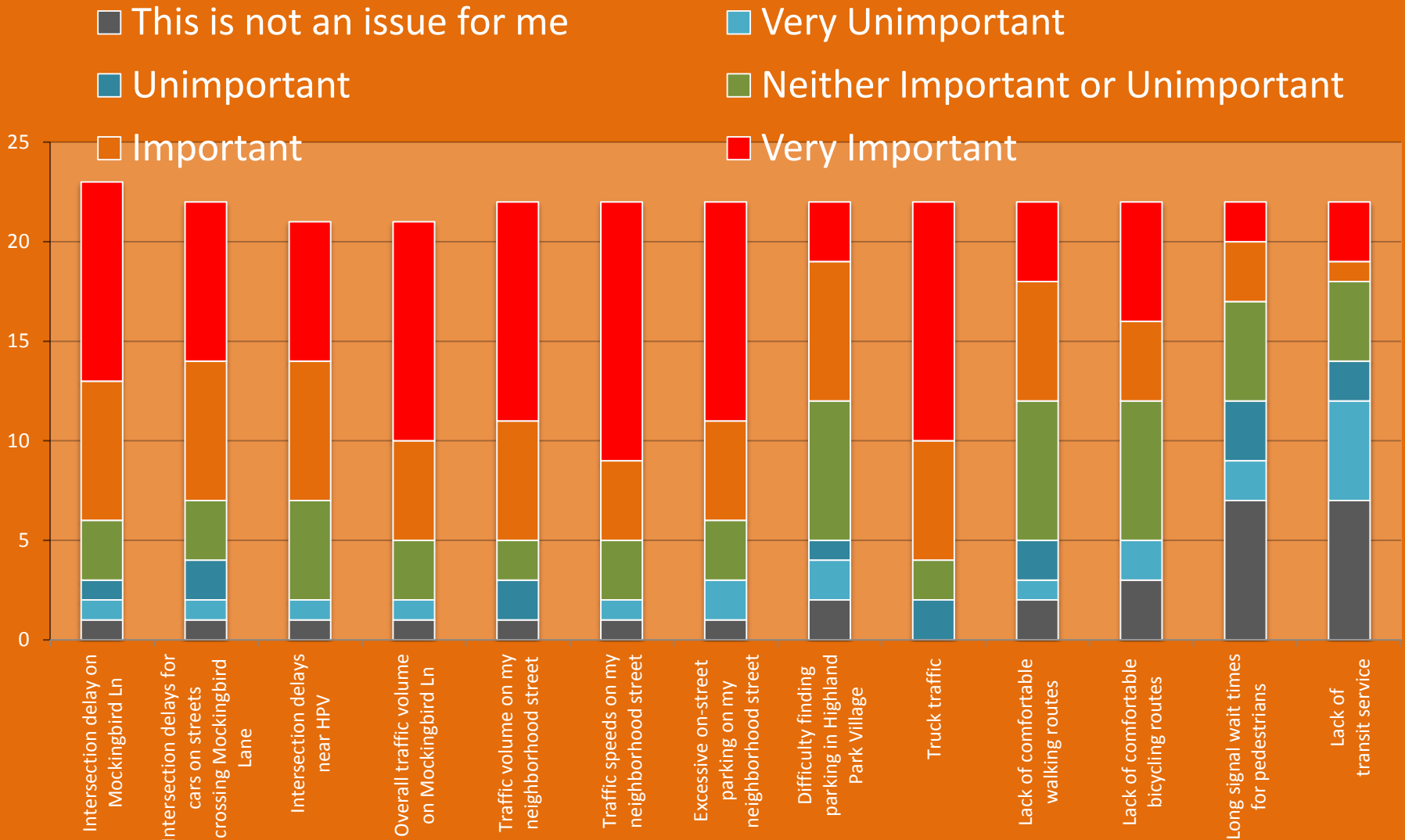


Neighborhood streets

50%

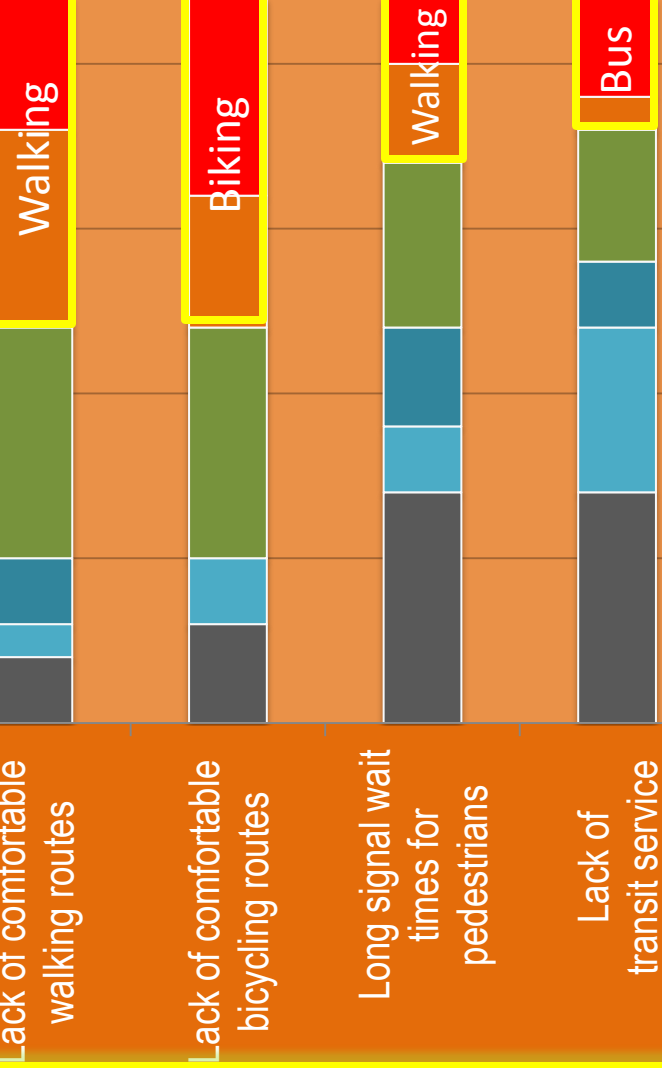
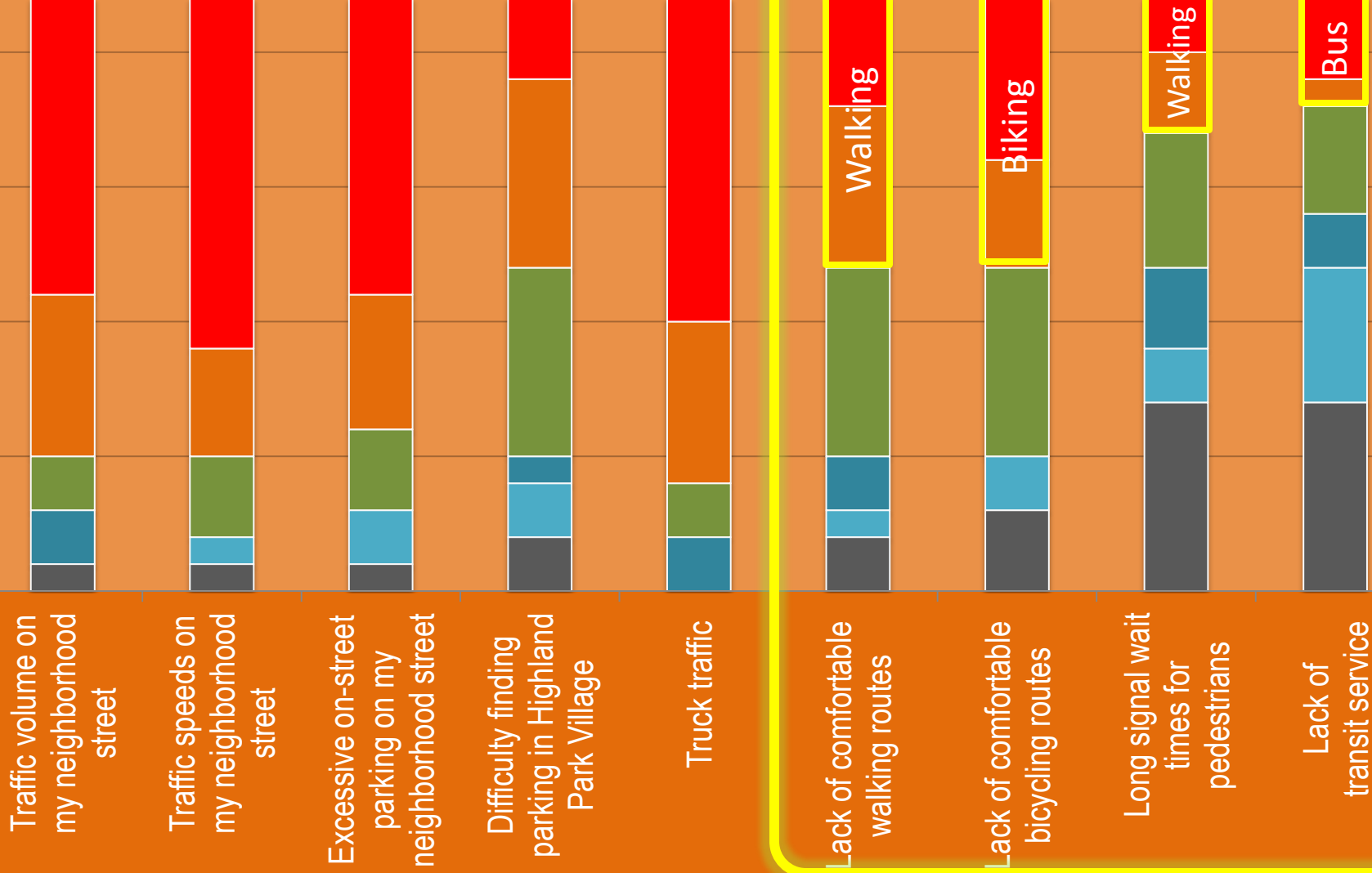


# WHAT IS IMPORTANT TO YOU?



This is not an issue for me  
 Unimportant  
 Important

Very Unimportant  
 Neither Important or Unimportant  
 Very Important



■ This is not an issue for me

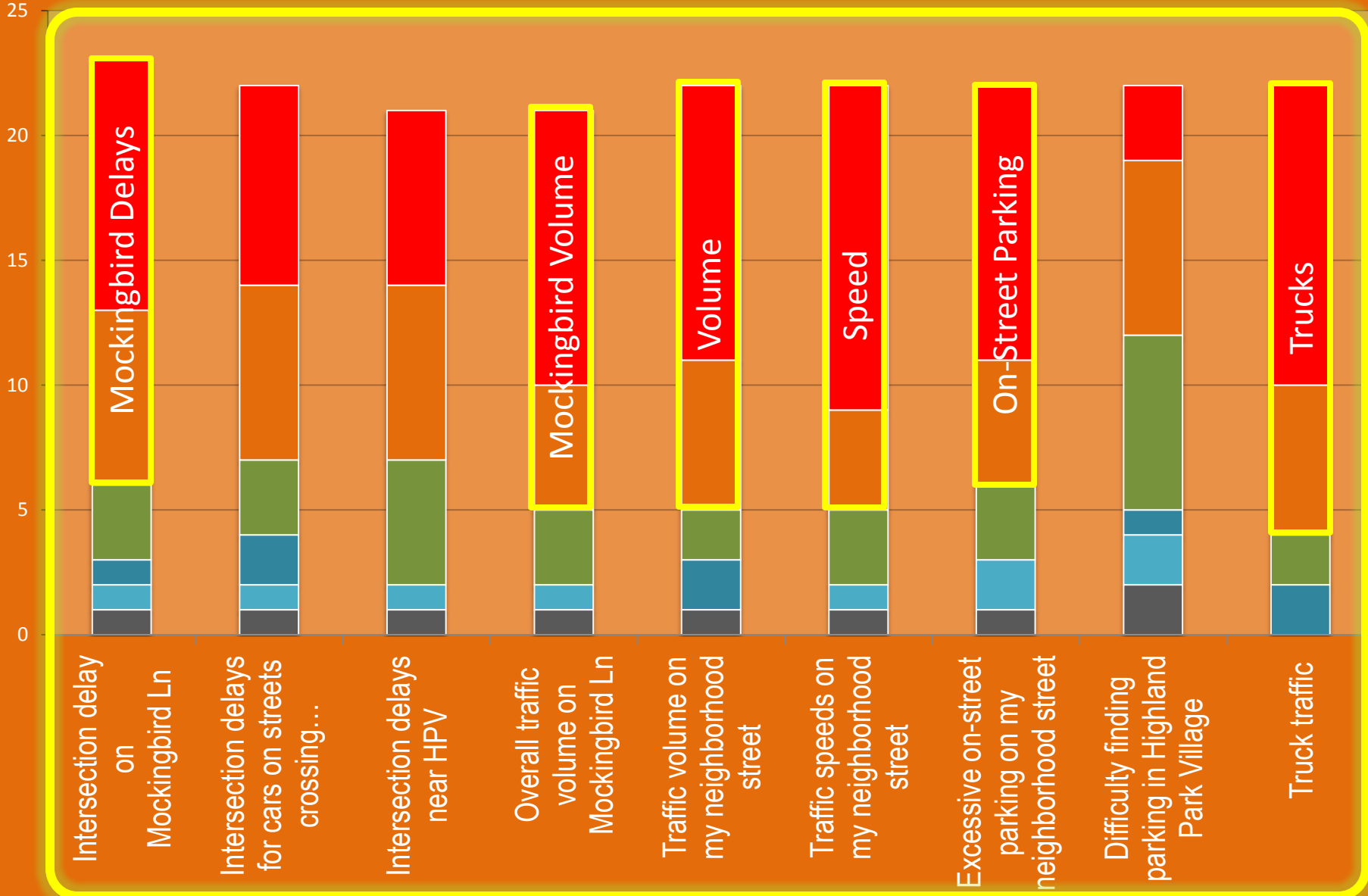
■ Unimportant

■ Important

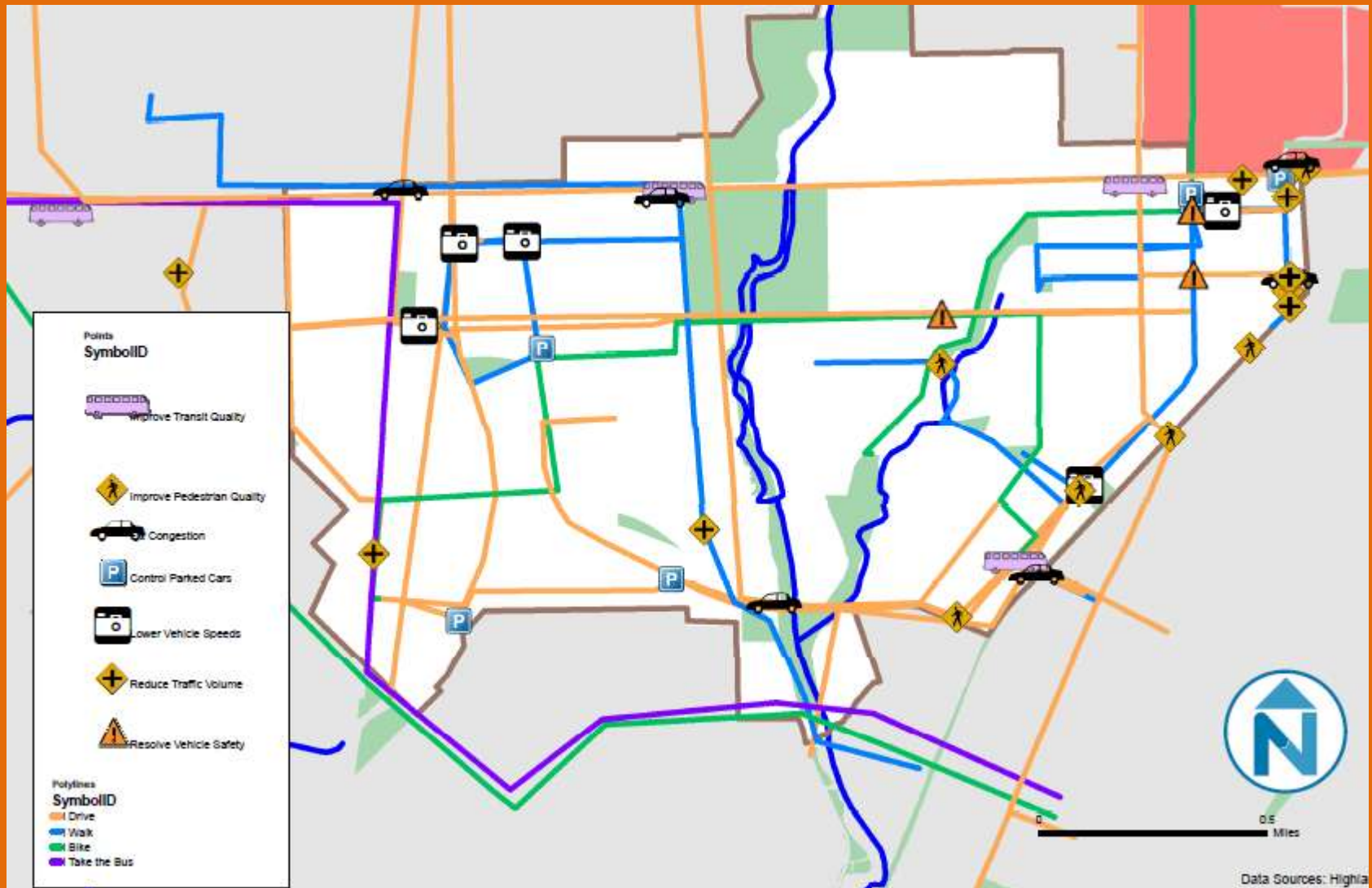
■ Very Unimportant

■ Neither Important or Unimportant

■ Very Important



# ONLINE WIKIMAPING COMMENTS



MAP # 3 (11/6/13)

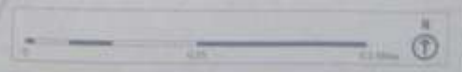
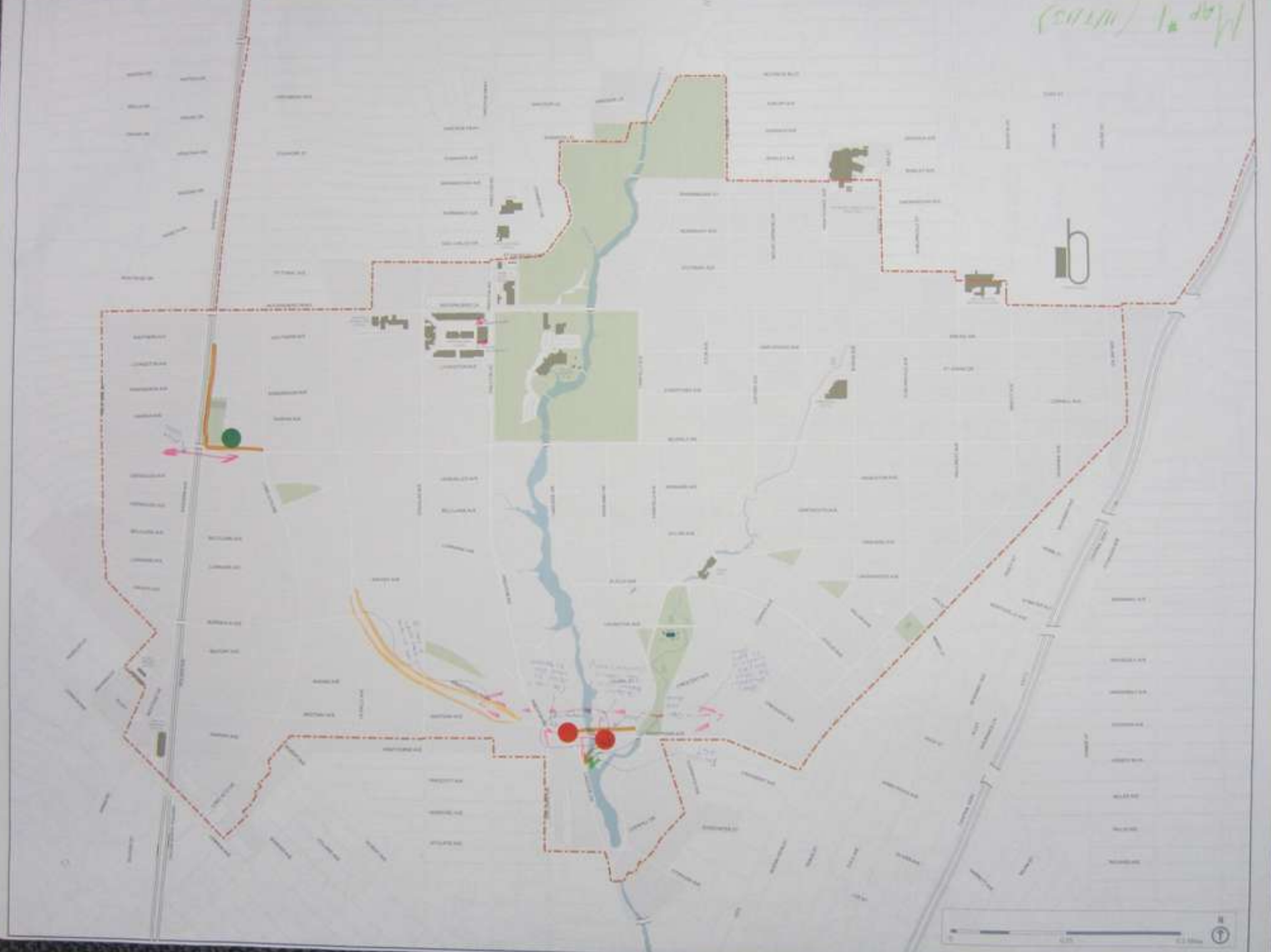




Map #2 (1/2/13)



Map #1 (MTR)

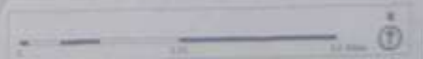


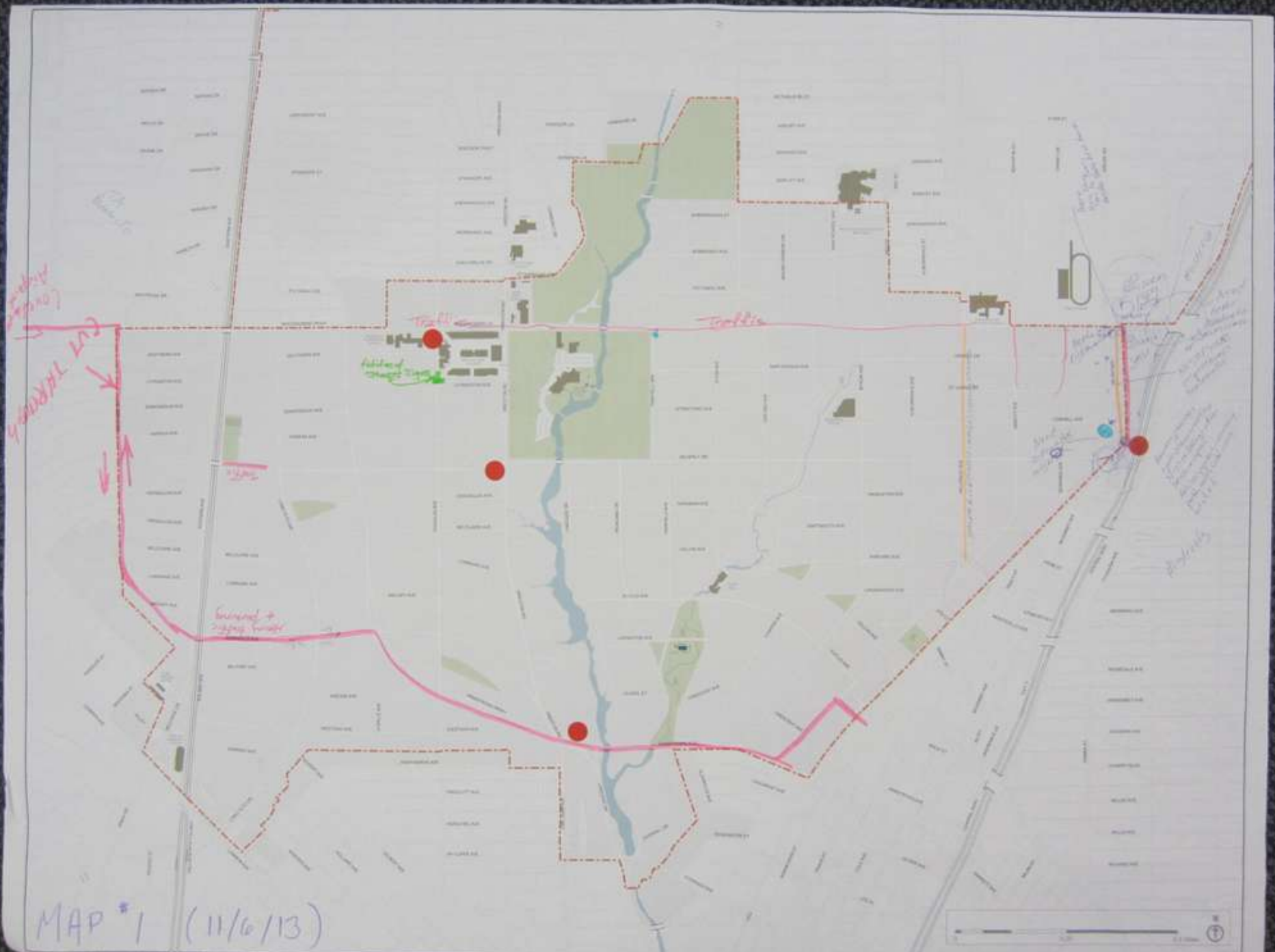
MAP #4 (11/6/13)



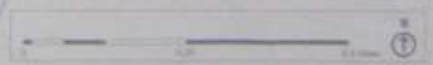


MAP #2 (11/6/13)





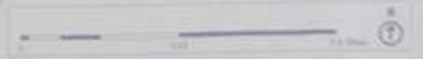
MAP \* 1 (11/6/13)



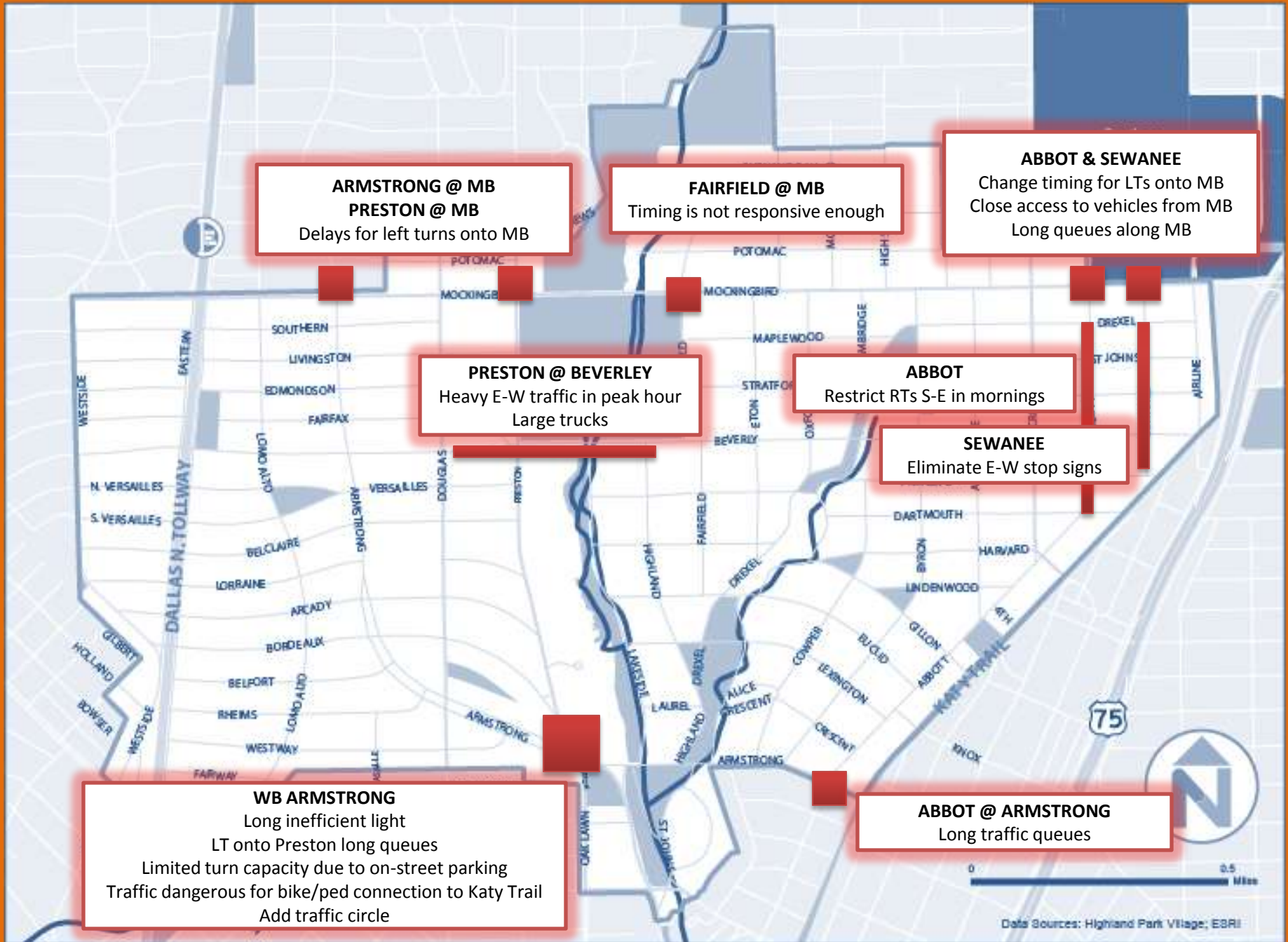
MAP #4 (11/7/13)



MAP 3 (11/7/13)



# Traffic & Intersection Issues



# ARMSTRONG & MOCKINGBIRD

**ARMSTRONG @ MB**  
**PRESTON @ MB**  
Delays for left turns onto MB

Delays turning left



# PRESTON & MOCKINGBIRD

**ARMSTRONG @ MB**  
**PRESTON @ MB**  
Delays for left turns onto MB

Delays turning left



# ABBOTT & MOCKINGBIRD

## **ABBOT & SEWANEE**

Change timing for LTs onto MB  
Close access to vehicles from MB  
Long queues along MB

## Cut-through from MB





# SEWANEE & MOCKINGBIRD

## **ABBOT & SEWANEE**

Change timing for LTs onto MB  
Close access to vehicles from MB  
Long queues along MB

- Cut-through from MB



# MOCKINGBIRD LANE

- Long queues

## **ABBOT & SEWANEE**

Change timing for LTs onto MB  
Close access to vehicles from MB  
Long queues along MB



# BEVERLY & PRESTON

## E-W Traffic Trucks

**PRESTON @ BEVERLEY**  
Heavy E-W traffic in peak hour  
Large trucks



# ARMSTRONG & PRESTON

Left-Turn Delay  
Queues  
Pedestrian Safety

**WB ARMSTRONG**  
Long inefficient light  
LT onto Preston long queues  
Limited turn capacity due to on-street parking  
Traffic dangerous for bike/ped connection to Katy Trail  
Add traffic circle

# ARMSTRONG & PRESTON

Left-Turn Delay  
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Limited turn capacity due to on-street parking  
Traffic dangerous for bike/ped connection to Katy Trail  
Add traffic circle

TEXAS  
CHG-5085

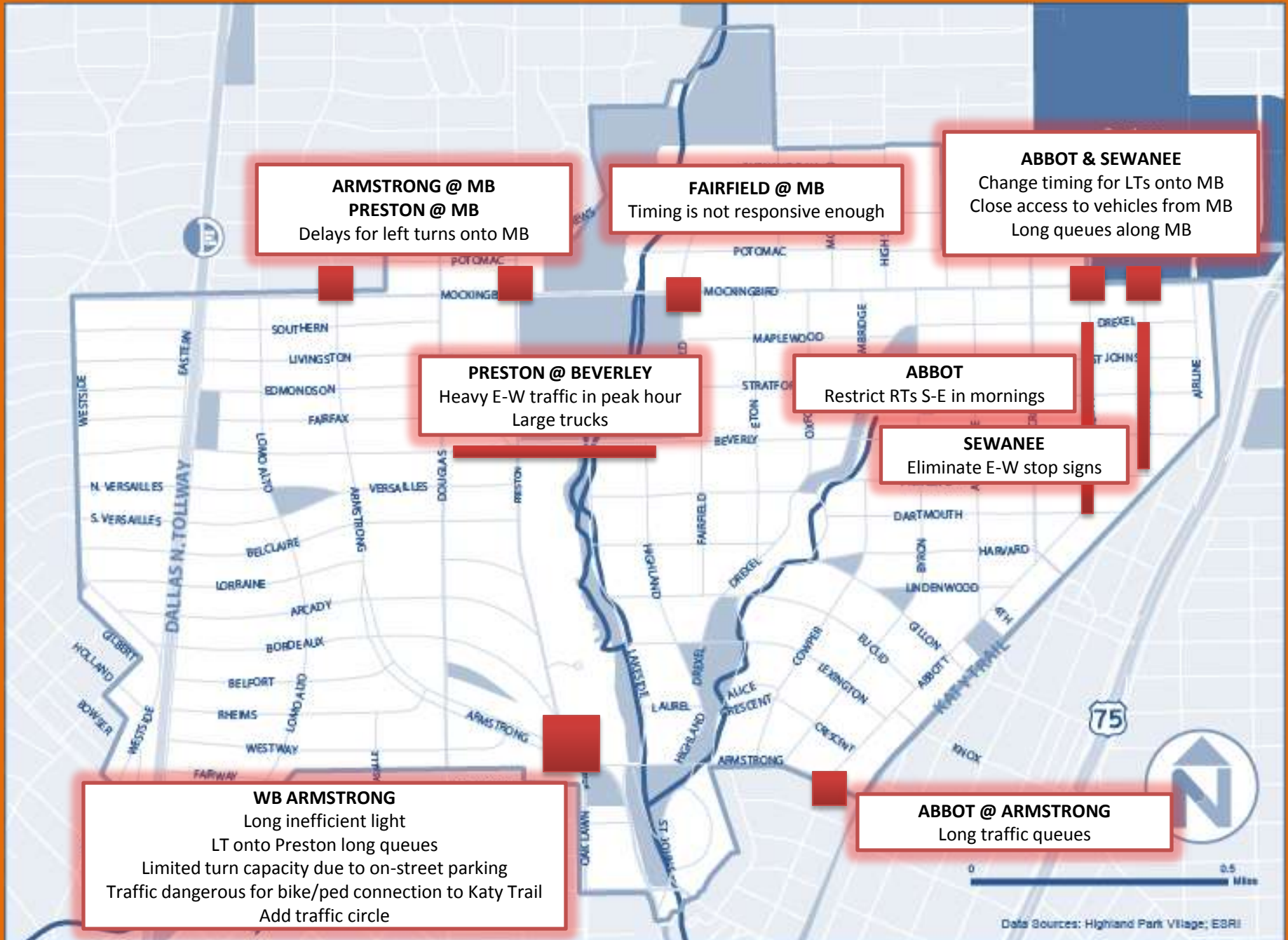


# ARMSTRONG & PRESTON

Left-Turn Delay  
Queues  
Pedestrian Safety

**WB ARMSTRONG**  
Long inefficient light  
LT onto Preston long queues  
Limited turn capacity due to on-street parking  
Traffic dangerous for bike/ped connection to Katy Trail  
Add traffic circle

# Traffic & Intersection Issues



# Safety, Bicycle & Pedestrian Issues

## GENERAL

Use radar speed limit signs  
Excessive speeds  
Lower speed limit?

**MOCKINGBIRD**  
Sidewalk too narrow

**HILLCREST & ABBOTT**  
Ped xings dangerous

**AIRLINE @ MB**  
Build ped bridge  
Improve access to  
Katy Trail

**PRESTON**  
No sidewalk

**BYRON**  
No visibility of  
pedestrians in alleys  
due to tall buildings

**HILLCREST**  
PM traffic dangerous for peds

**KATY TRAIL**  
Should be fenced off

**LOMO ALTO @ WESTWAY**  
Curve has low visibility for drivers

**LAKESIDE**  
No sidewalk



# AIRLINE & MOCKINGBIRD

Intersection safety

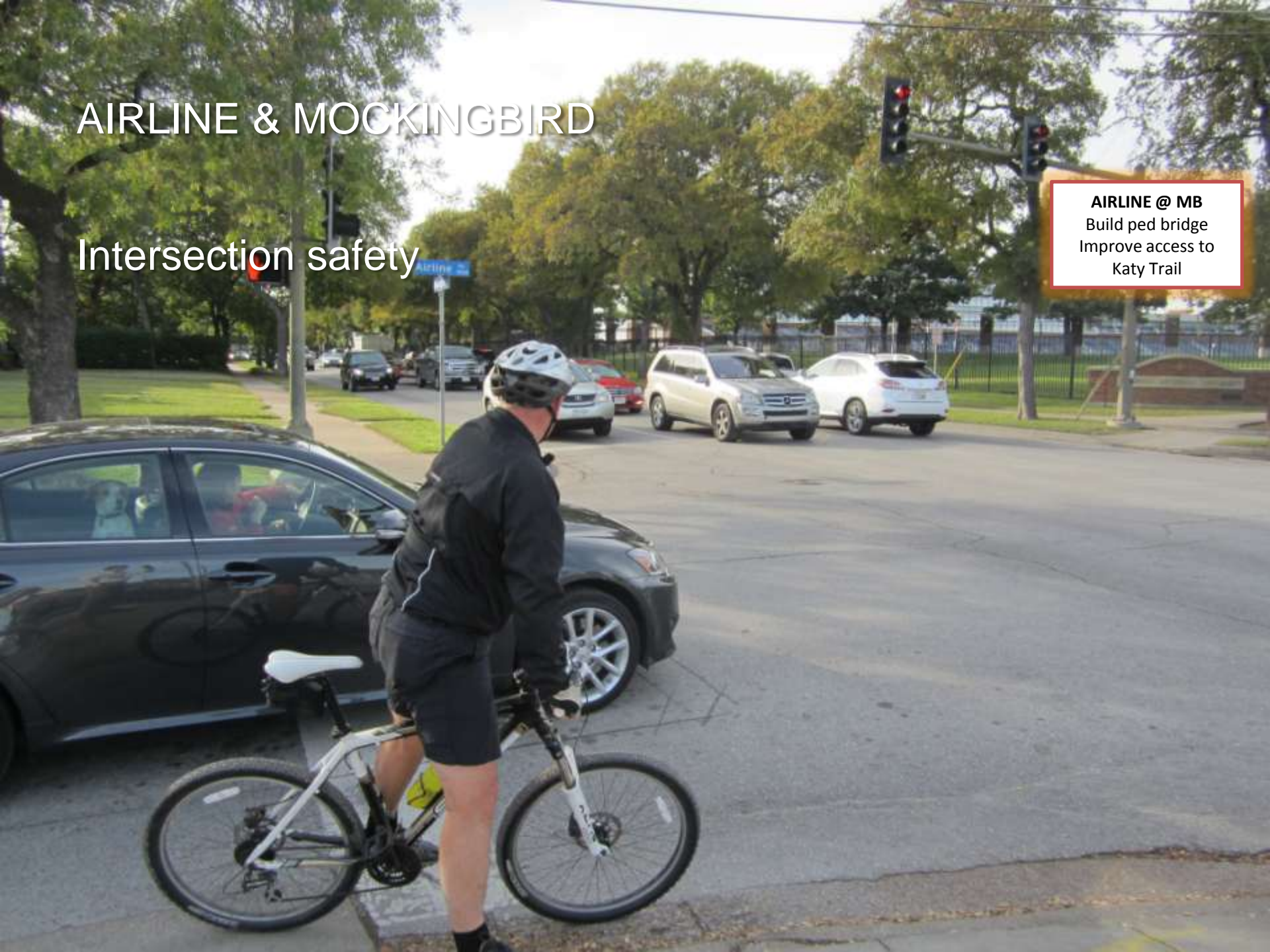
**AIRLINE @ MB**  
Build ped bridge  
Improve access to  
Katy Trail



# AIRLINE & MOCKINGBIRD

Intersection safety

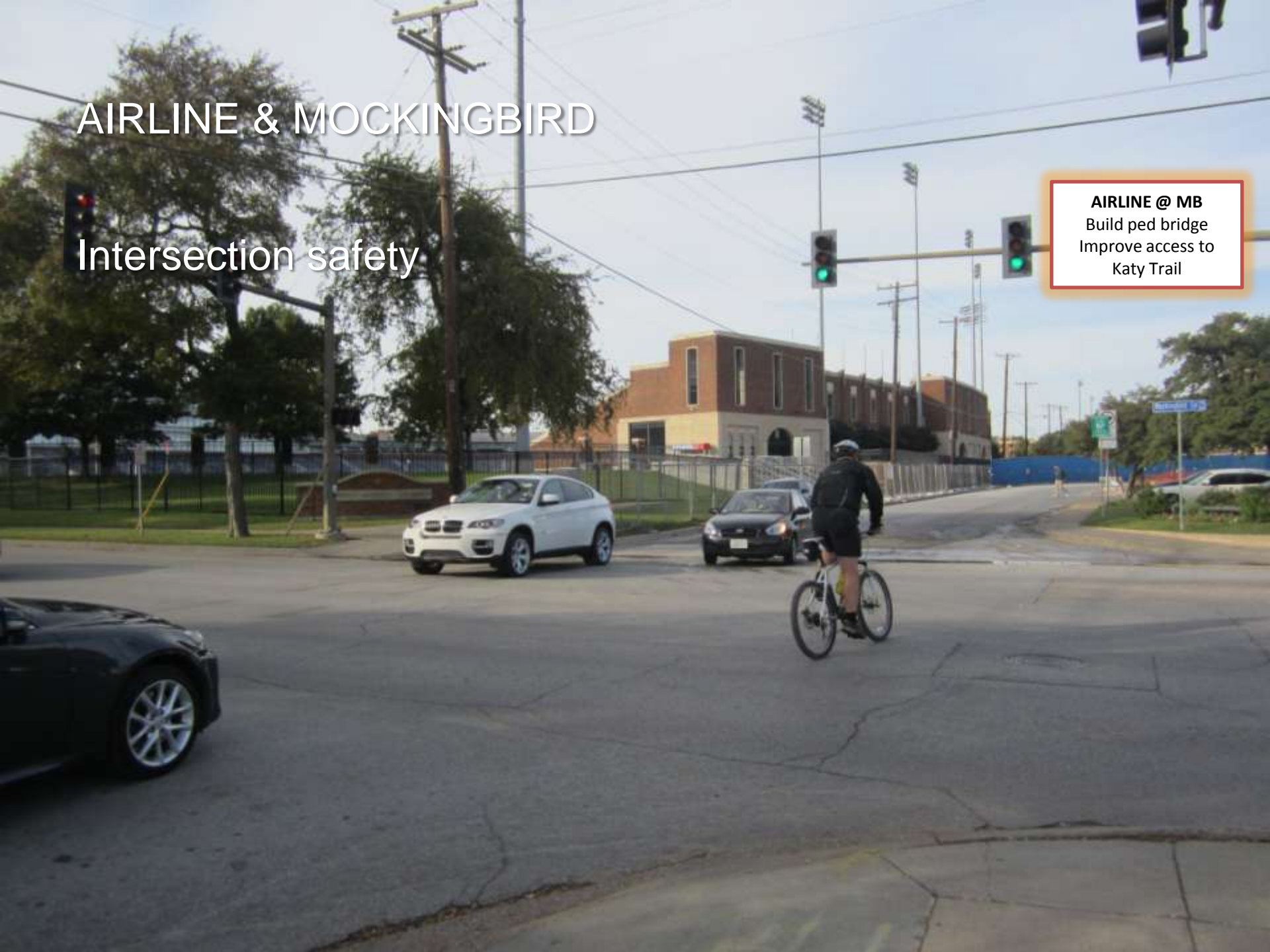
**AIRLINE @ MB**  
Build ped bridge  
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# AIRLINE & MOCKINGBIRD

Intersection safety

**AIRLINE @ MB**  
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Improve access to  
Katy Trail



# HILLCREST & MOCKINGBIRD

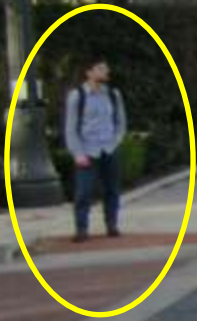
Intersection safety

**HILLCREST & ABBOTT**  
Ped xings dangerous



# HILLCREST & MOCKINGBIRD

Intersection safety



**HILLCREST & ABBOTT**  
Ped xings dangerous





# HILLCREST & MOCKINGBIRD

Intersection safety

**HILLCREST & ABBOTT**  
Ped xings dangerous



# PRESTON ROAD

## Lack of Sidewalks

**PRESTON**  
No sidewalk



# Safety, Bicycle & Pedestrian Issues

## GENERAL

Use radar speed limit signs  
Excessive speeds  
Lower speed limit?

## MOCKINGBIRD

Sidewalk too narrow

## PRESTON

No sidewalk

## BYRON

No visibility of pedestrians in alleys due to tall buildings

## HILLCREST & ABBOTT

Ped xings dangerous

## AIRLINE @ MB

Build ped bridge  
Improve access to Katy Trail

## HILLCREST

PM traffic dangerous for peds

## KATY TRAIL

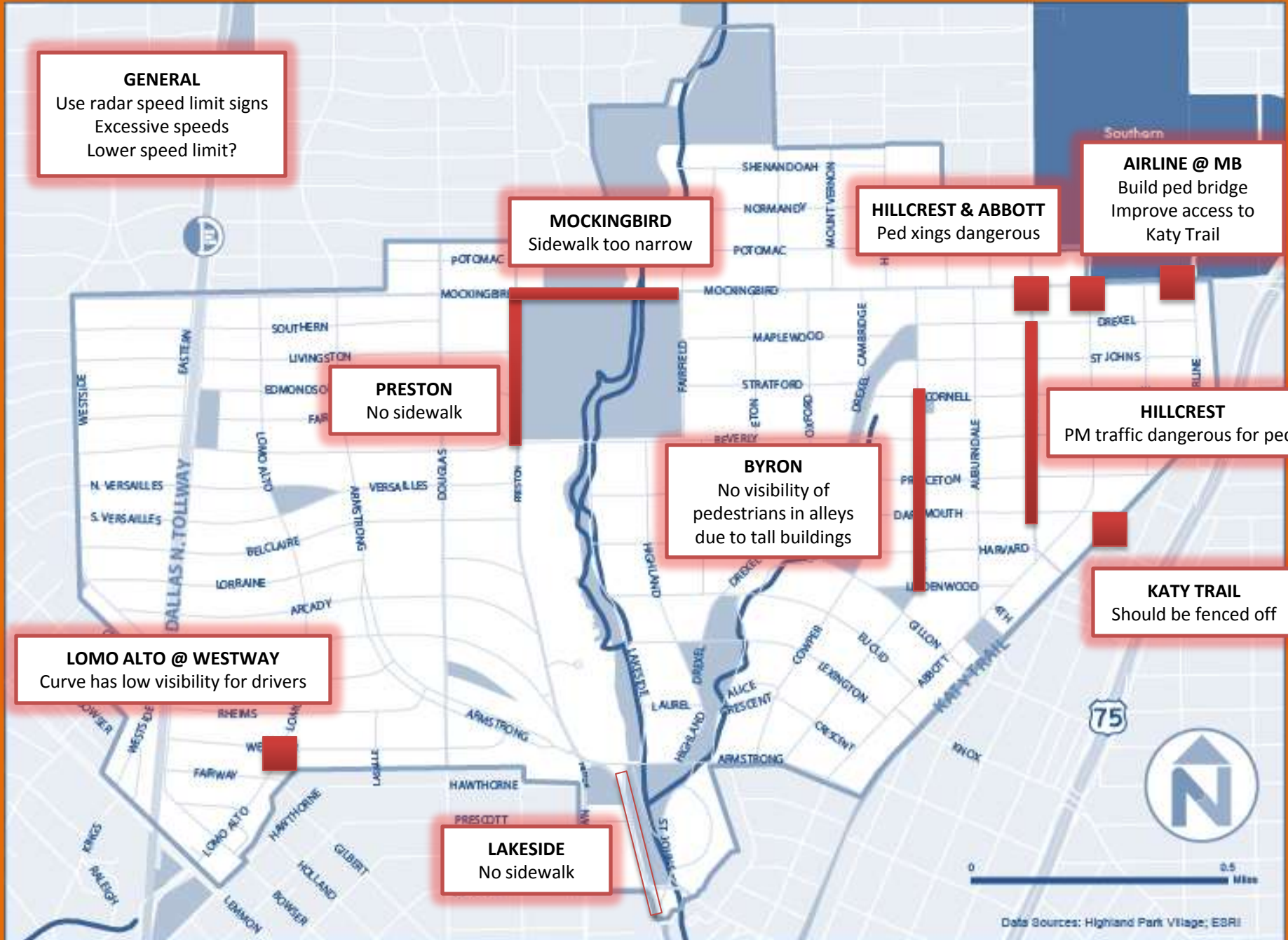
Should be fenced off

## LOMO ALTO @ WESTWAY

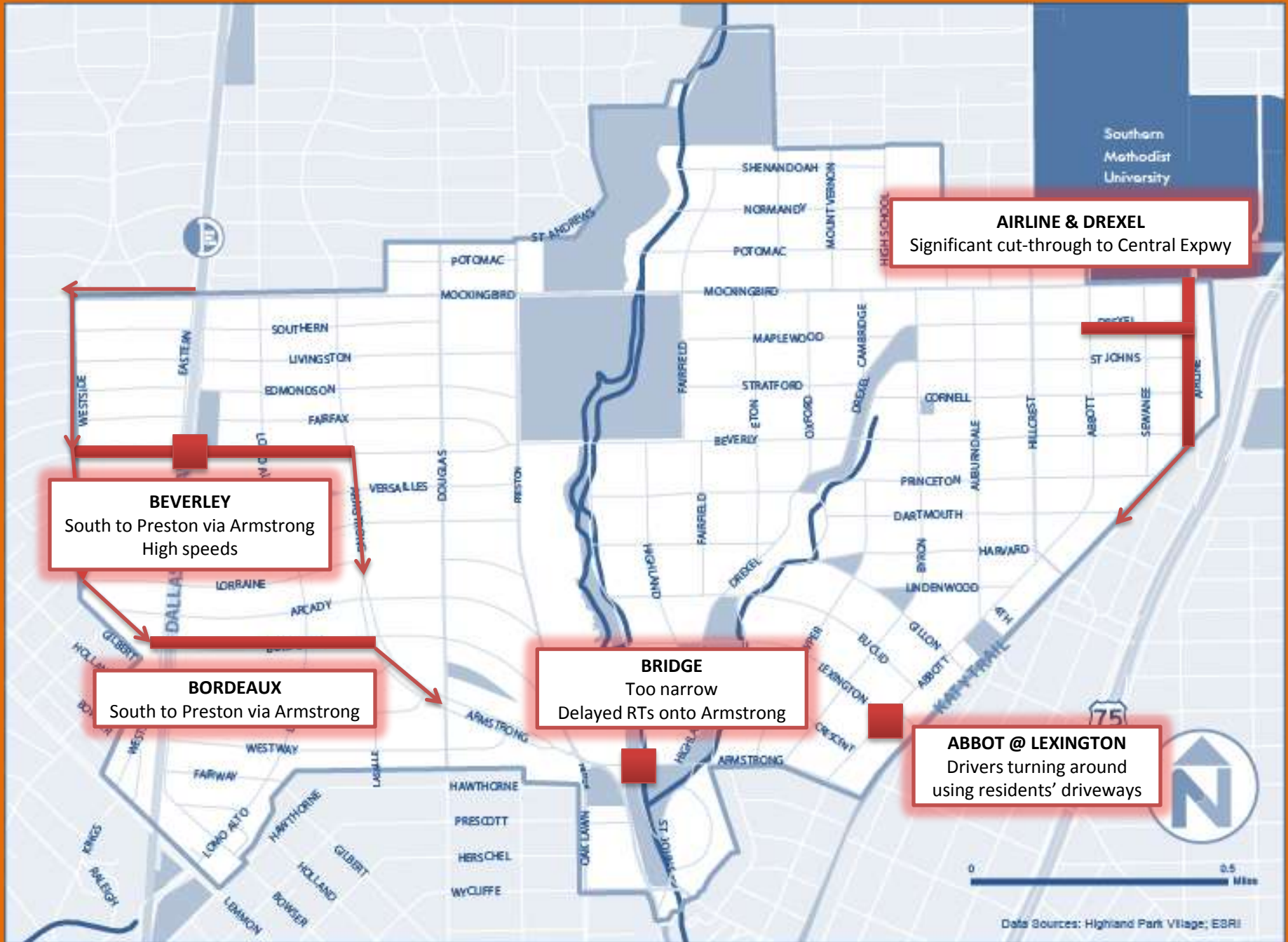
Curve has low visibility for drivers

## LAKESIDE

No sidewalk



# Traffic Movement & Cut-Through Issues

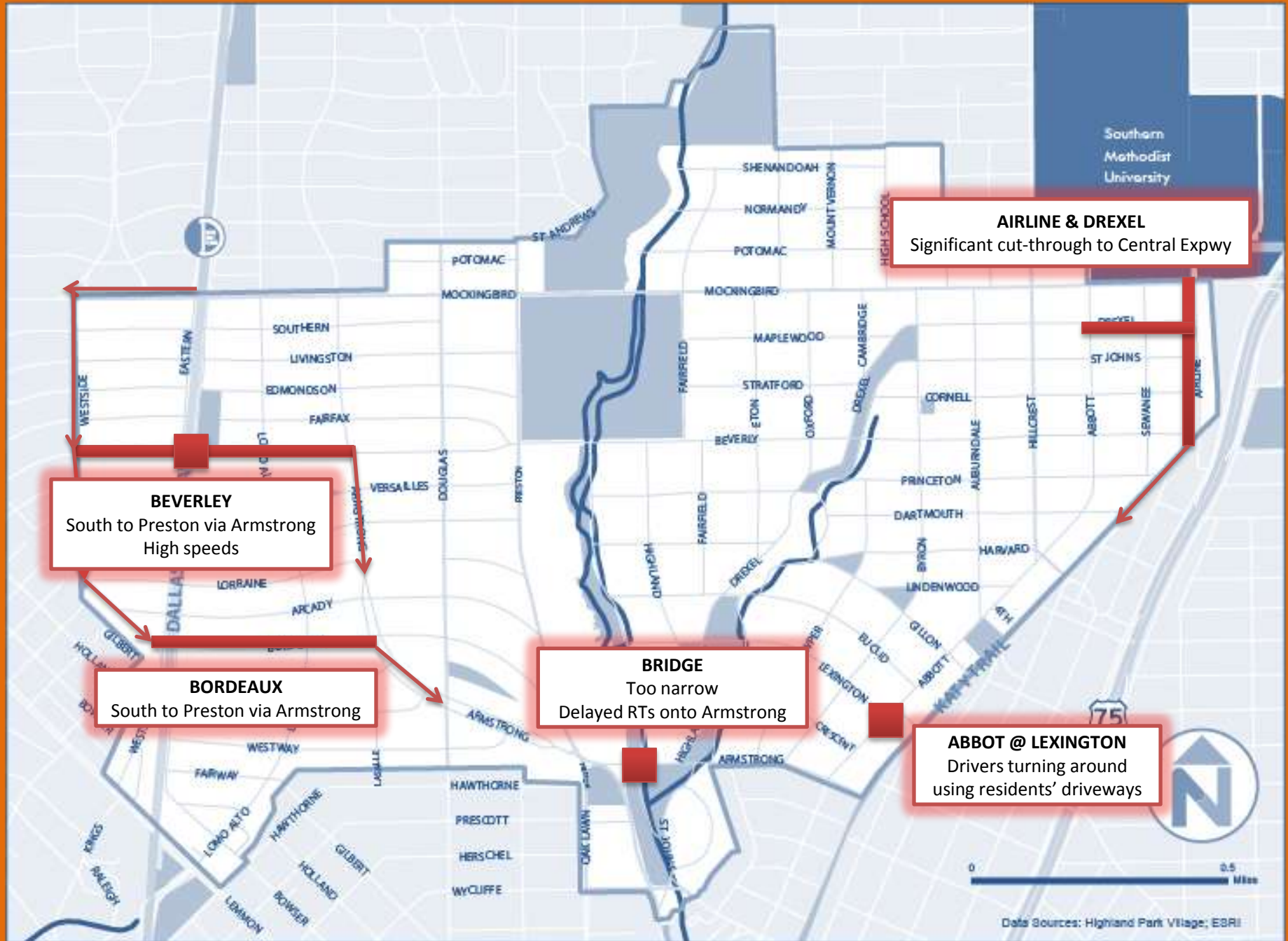


# ARMSTRONG & PRESTON

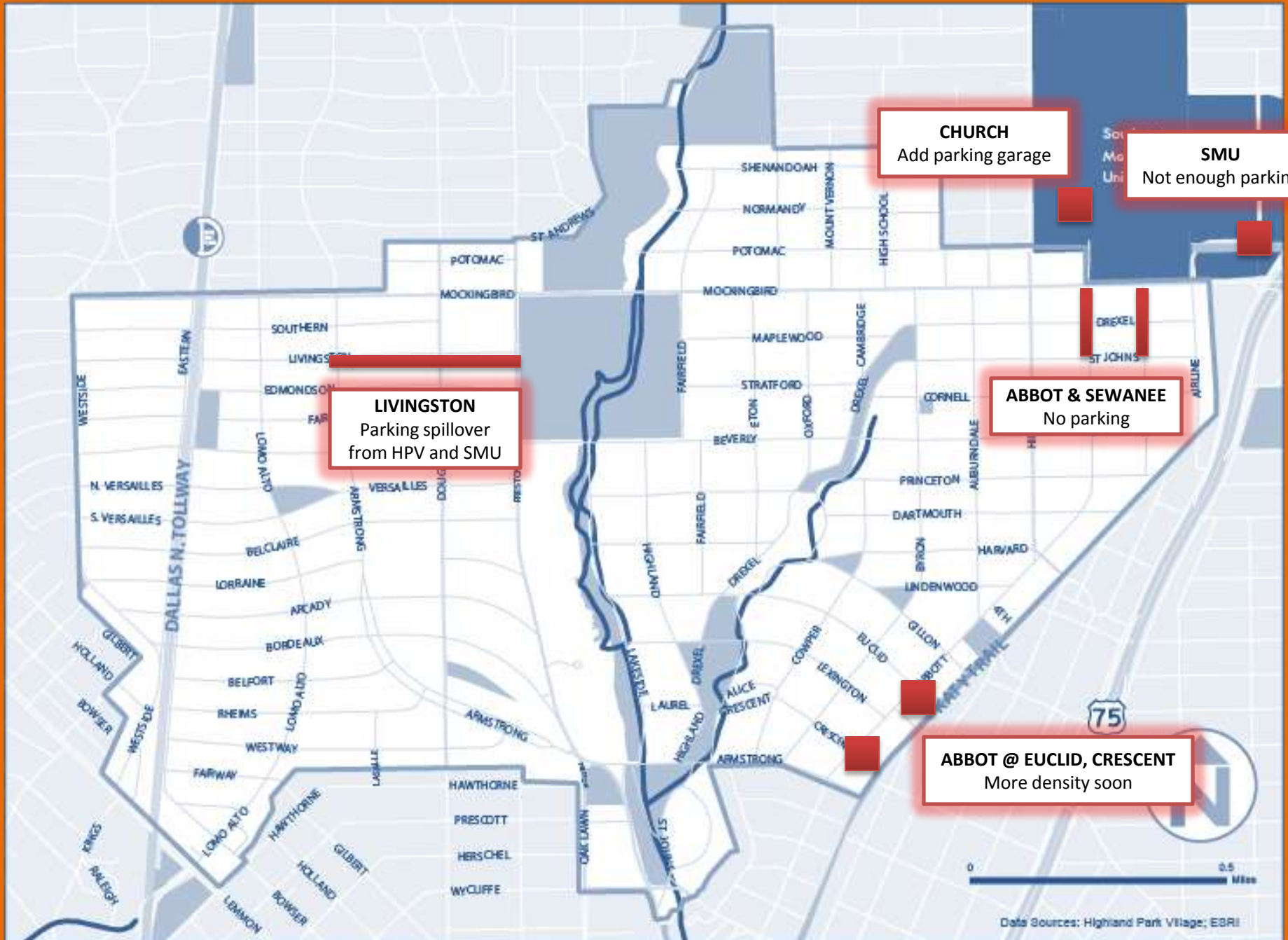
Left-Turn Delay  
Queues  
Pedestrian Safety

**BRIDGE**  
Too narrow  
Delayed RTs onto Armstrong

# Traffic Movement & Cut-Through Issues



# Parking Issues



# HIGHLAND PARK VILLAGE

## Spillover Parking

**LIVINGSTON**  
Parking spillover  
from HPV and SMU





# HIGHLAND PARK VILLAGE

## Spillover Parking

### LIVINGSTON

Parking spillover  
from HPV and SMU



2 HR 0036

# HIGHLAND PARK VILLAGE

## Spillover Parking

**LIVINGSTON**  
Parking spillover  
from HPV and SMU



# ABBOTT & SEWANEE

## Spillover Parking

**ABBOT & SEWANEE**  
No parking



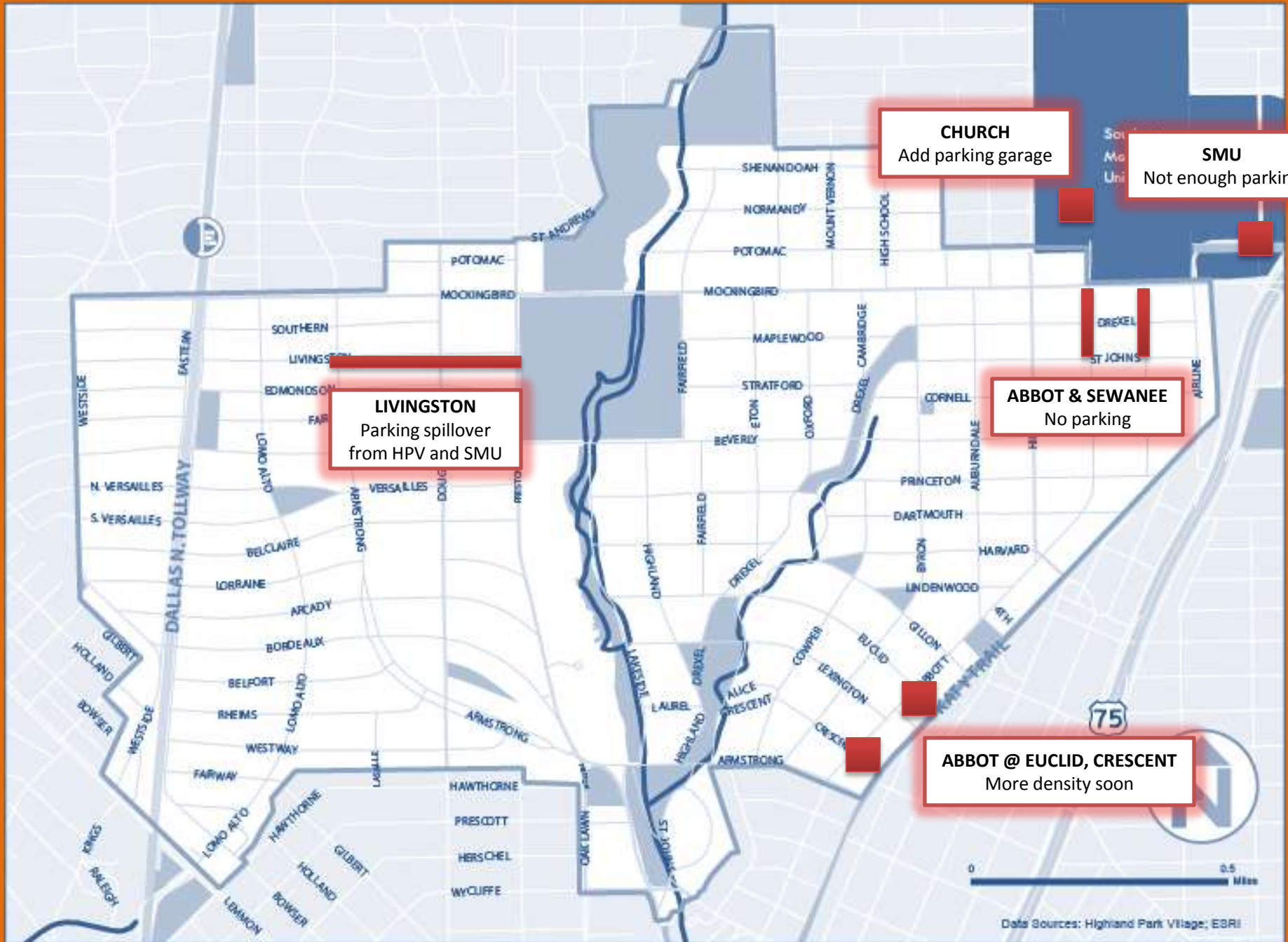
# ABBOTT & SEWANEE

## Spillover Parking

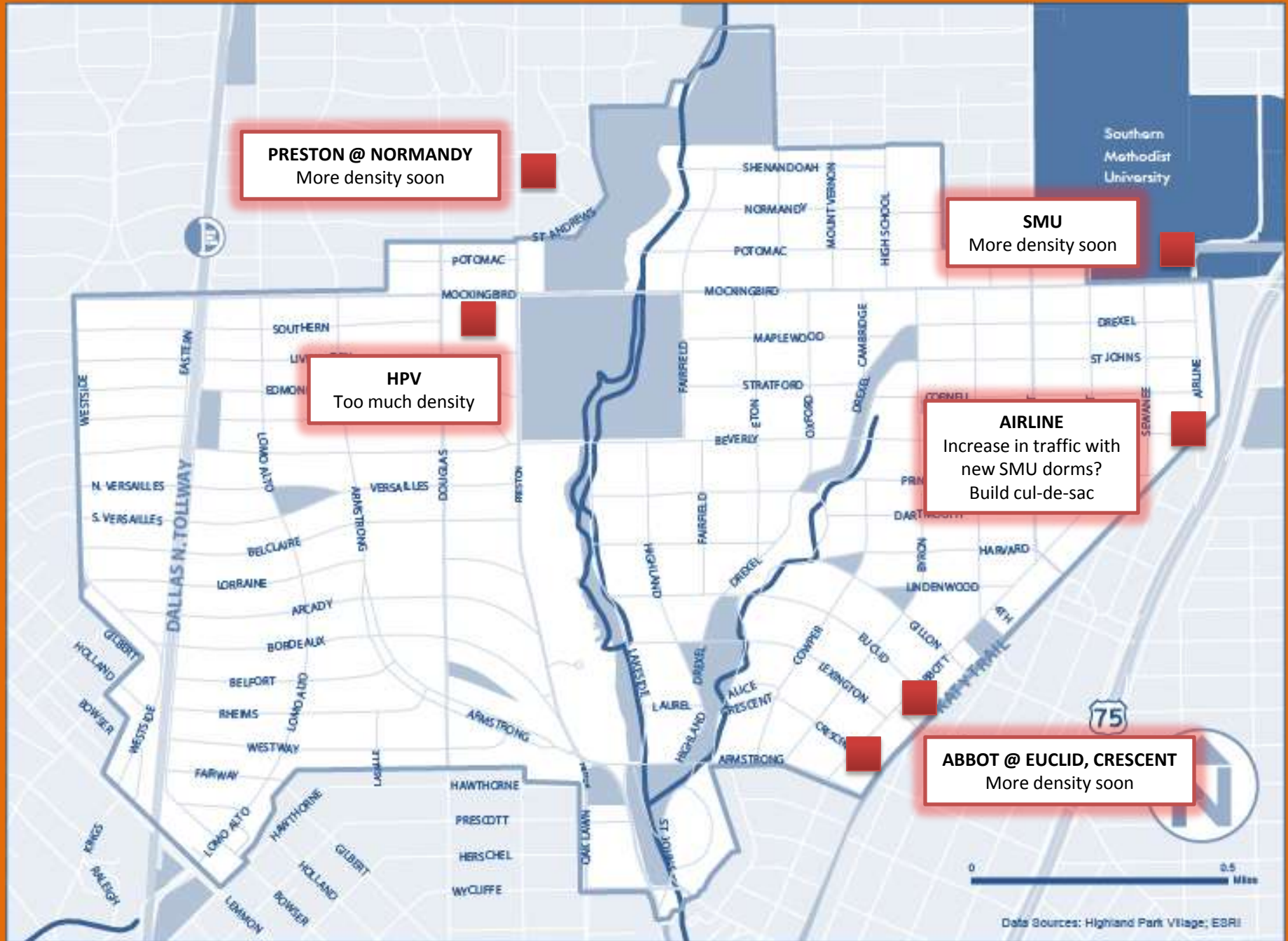
**ABBOT & SEWANEE**  
No parking



# Parking Issues



# Accessibility & Land Use Issues



# HIGHLAND PARK VILLAGE

**HPV**  
Too much density



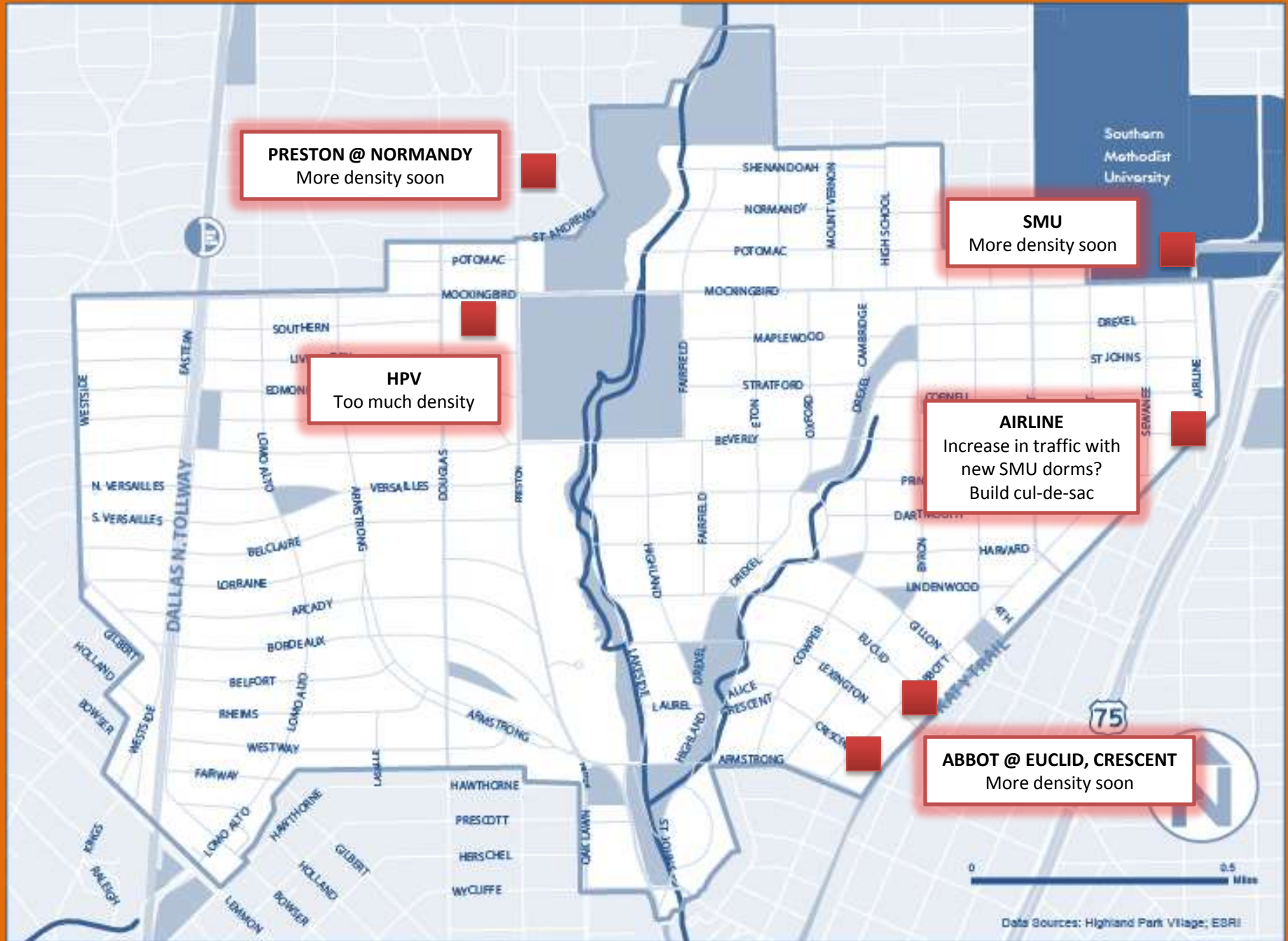
SMU

**SMU**  
More density soon





**AIRLINE**  
Increase in traffic with  
new SMU dorms?  
Build cul-de-sac

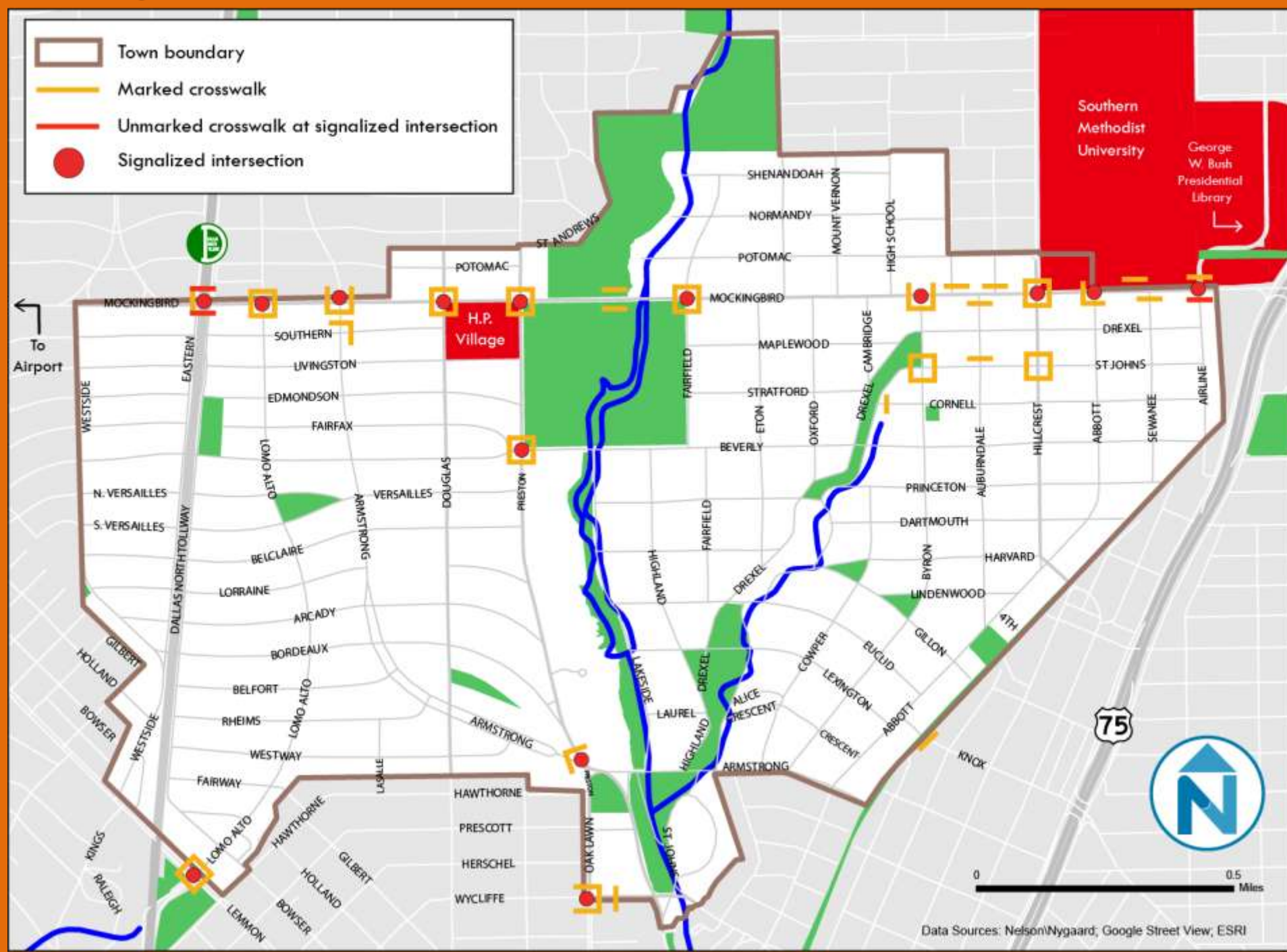


# Accessibility & Land Use Issues

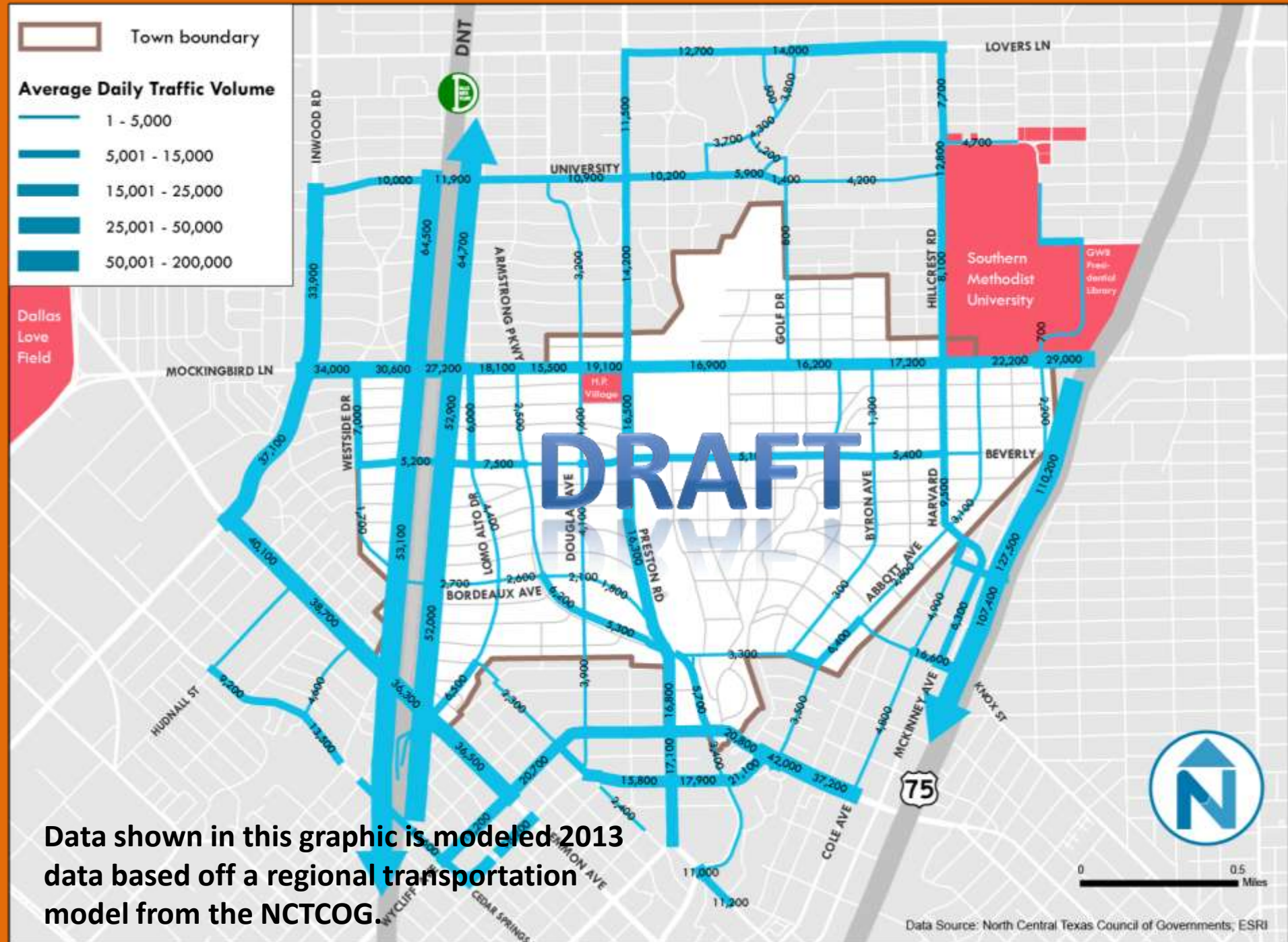


# Crosswalks in Highland Park

-  Town boundary
-  Marked crosswalk
-  Unmarked crosswalk at signalized intersection
-  Signalized intersection

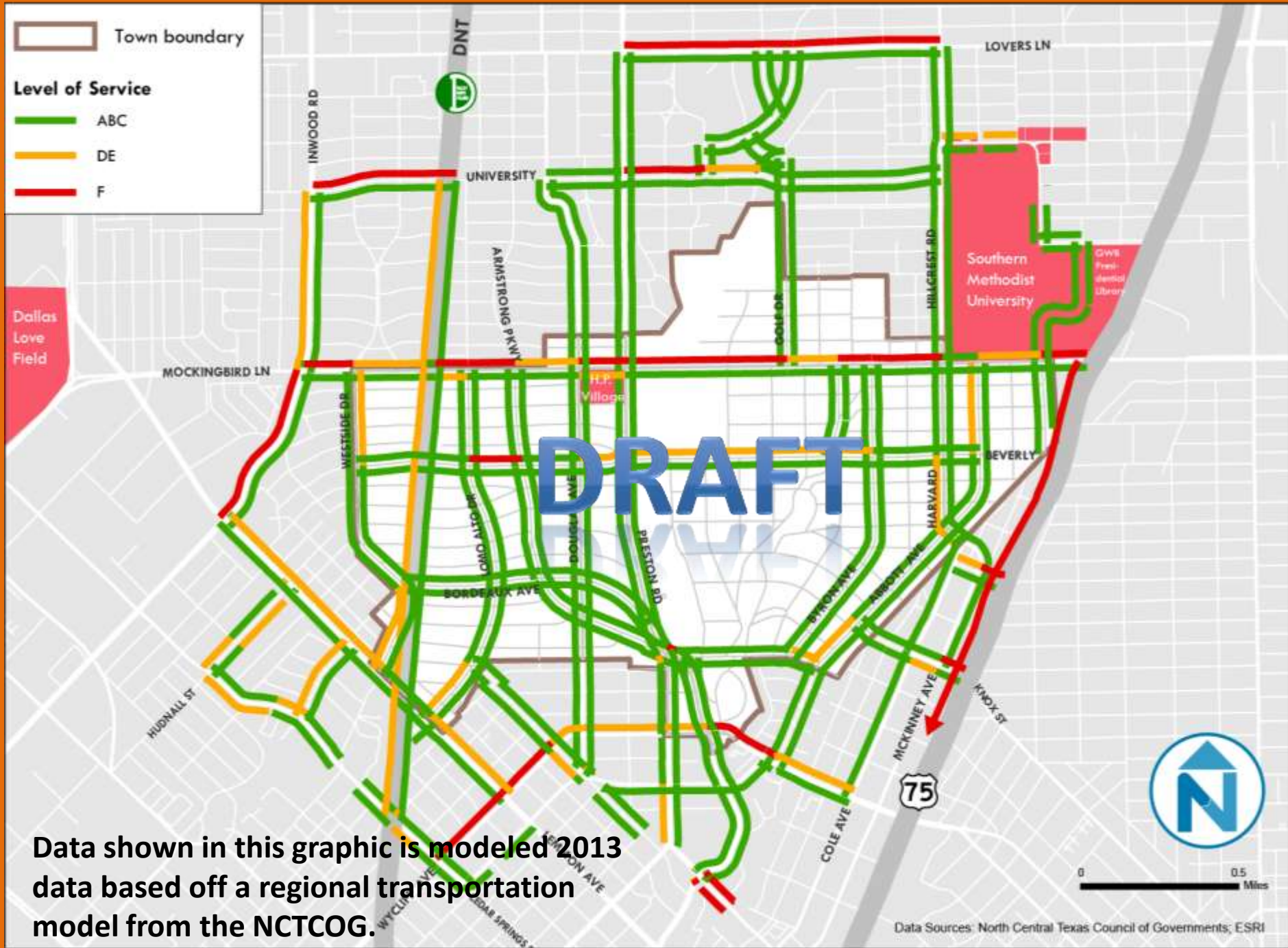



Average Daily Traffic Volumes in Highland Park and Surroundings (Bi-Directional Except Freeways)






Data shown in this graphic is modeled 2013 data based off a regional transportation model from the NCTCOG.

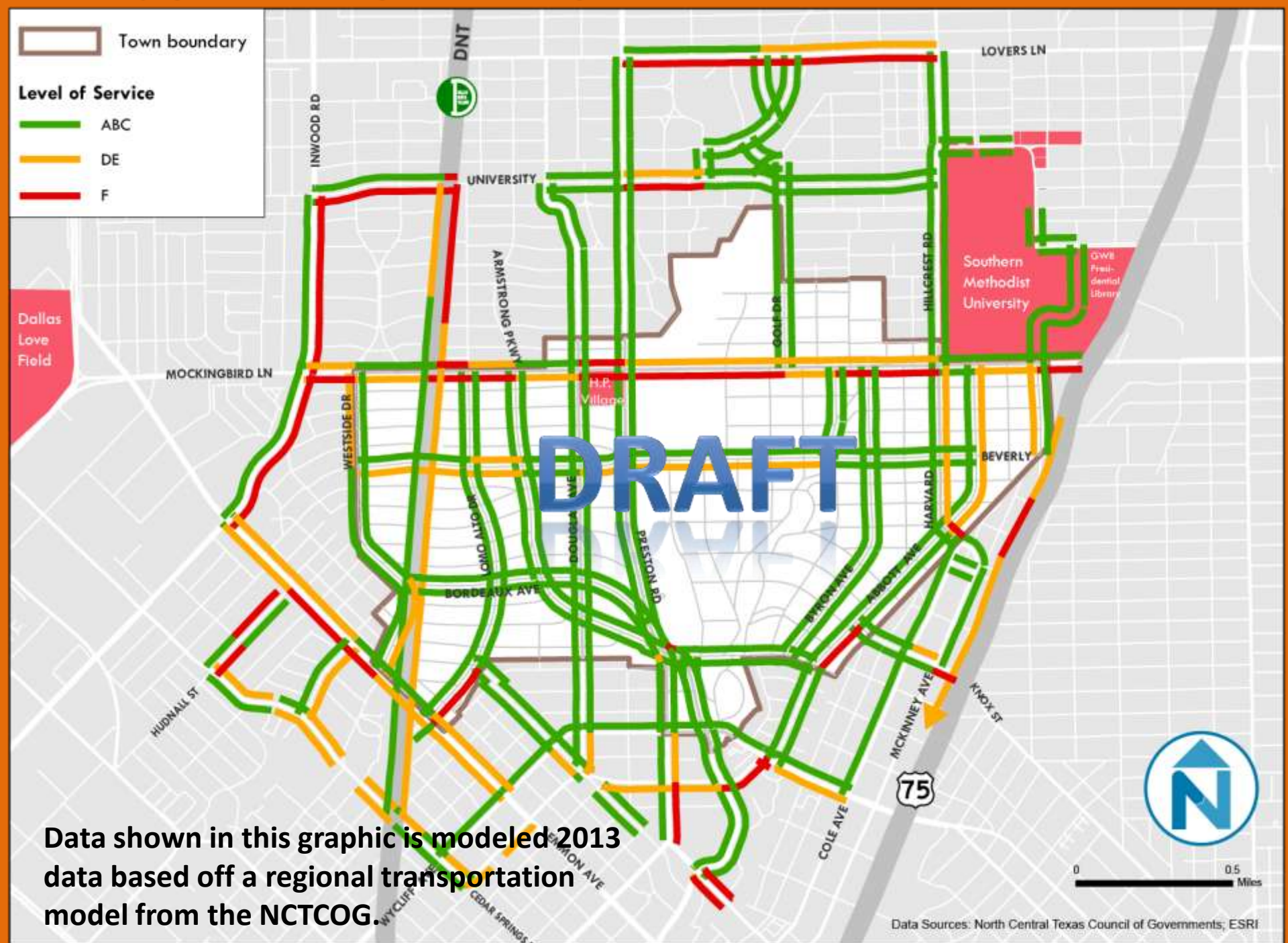
# AM Peak Roadway Segment Level of Service in Highland Park and Surroundings



 Town boundary

**Level of Service**

-  ABC
-  DE
-  F



Dallas Love Field

Southern Methodist University

DRAFT



0 0.5 Miles

Data shown in this graphic is modeled 2013 data based off a regional transportation model from the NCTCOG.

# MEASURING SUCCESS

**To a driver:**

**LOS A**

**LOS F**

**To an economist:**

**LOS F**

**LOS A**

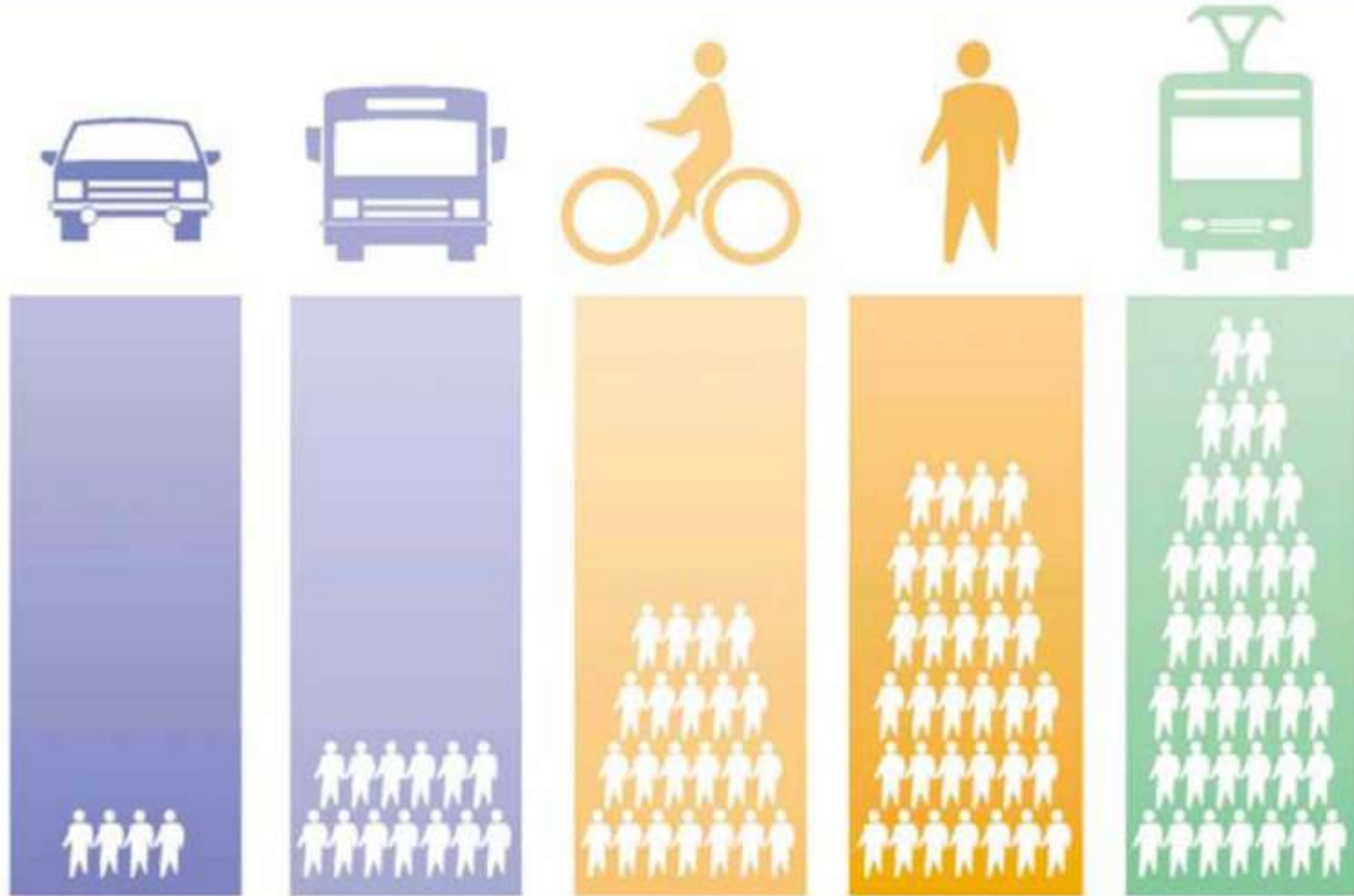


# PREVIOUS PERFORMANCE MEASURES

- System wide measures
  - Single-occupant vehicle use
  - High occupant vehicle mode split to selected employment sites
  - Transit management measures, route effectiveness
- Intersections and street segment
  - Vehicle Level of Service (LOS) A – F
  - Volume / Capacity (V/C) ratio
- Shortcomings:
  - Spot locations fail to assess overall transportation network
  - Vehicular bias reduces total transportation efficiency & effectiveness
  - Optimization for cars worsens street performance for transit
  - No mechanism for balancing competing modes



# MEASURING SUCCESS



2,000  
Private automobile

9,000  
40 foot bus

14,000  
Bicycle

19,000  
Walking

22,000  
Light rail



# WHY PLAN FOR OTHER MODES?



Cars on a street

# WHY PLAN FOR OTHER MODES?



People in Cars

# SO YOU CAN DRIVE



People on a bus

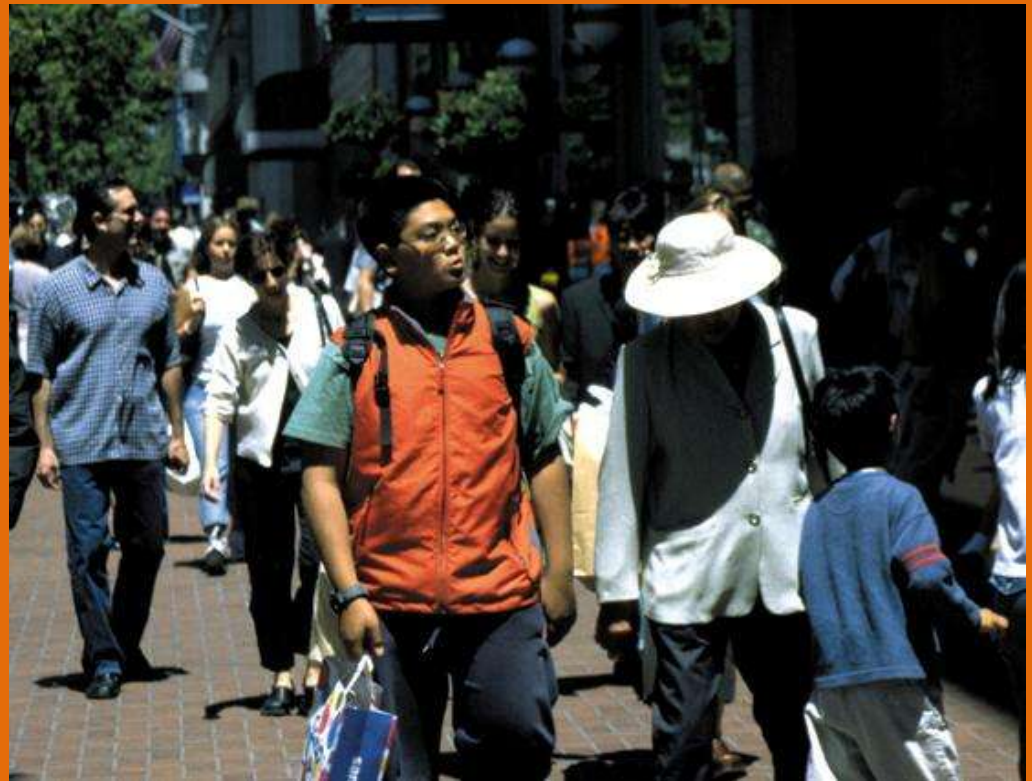
# SO YOU CAN DRIVE



People on bikes

# SOME PERFORMANCE MEASURES

- Eliminate *vehicle* delay and substitute *person* delay
- Eliminate *Level of Service* and substitute *Quality of Service* ...for all modes of travel



# OVERBUILT STREETS CAUSE SPEEDING



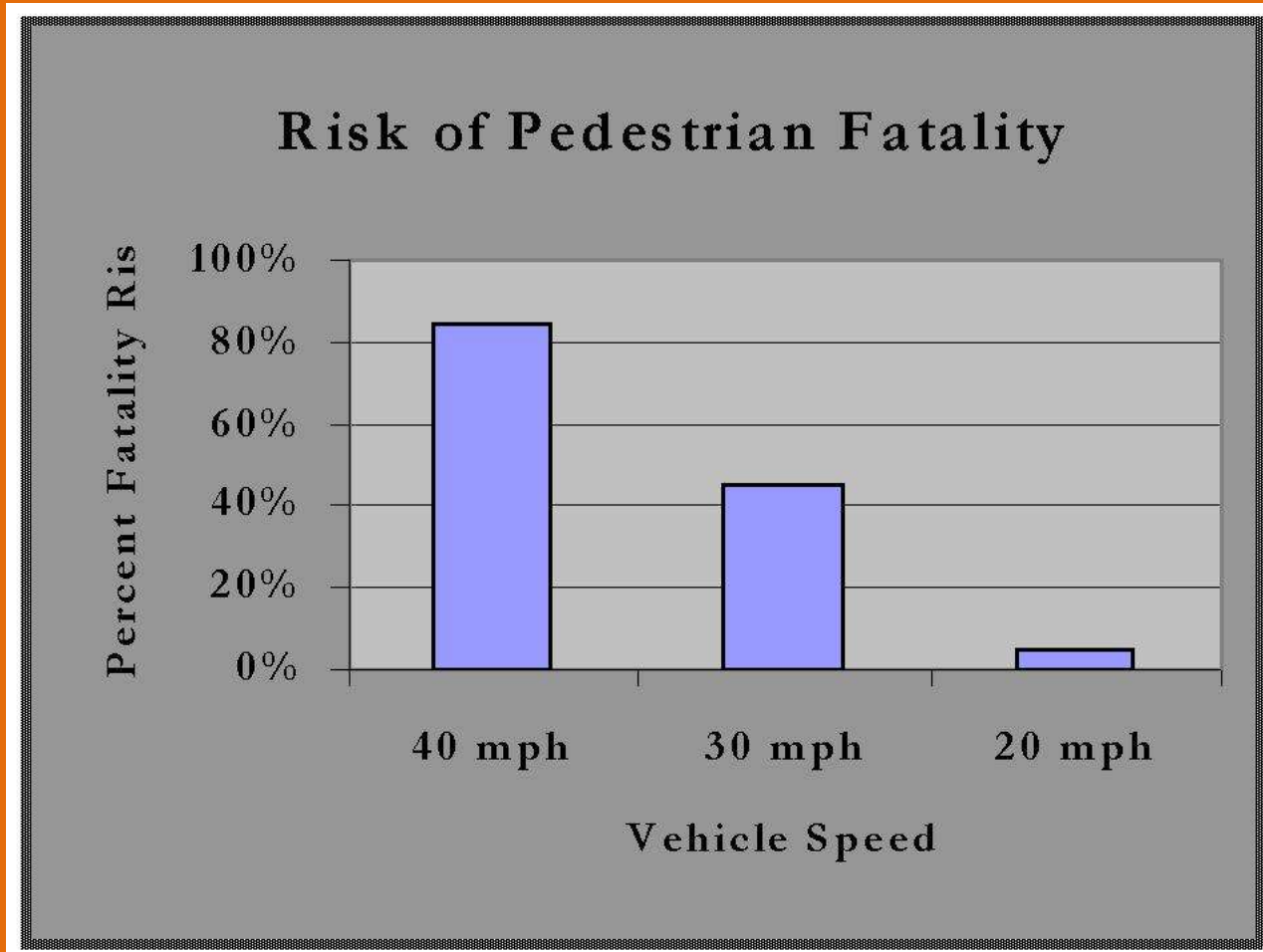






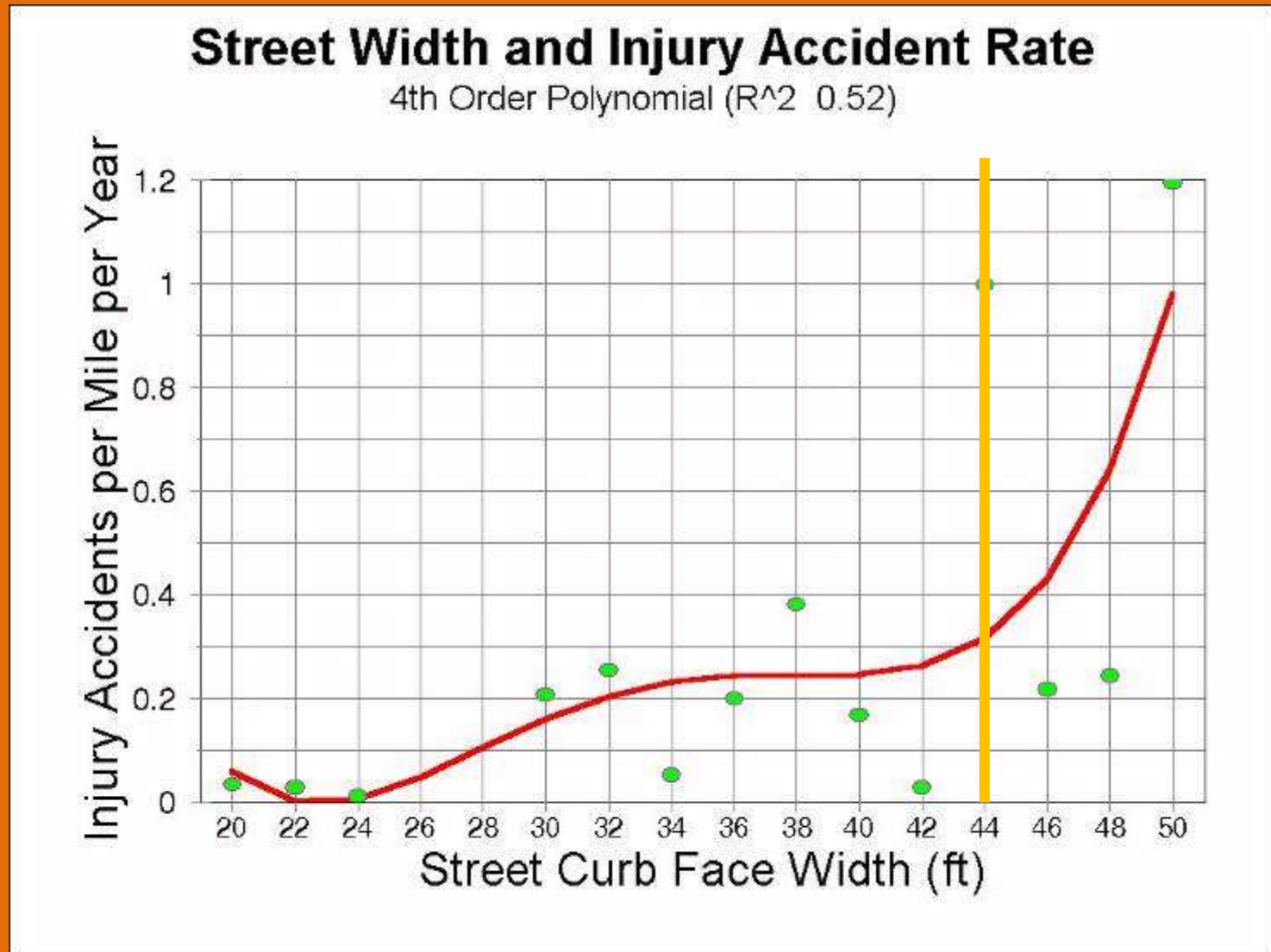


# PLANNING FOR PEDESTRIAN SAFETY: PRINCIPLES



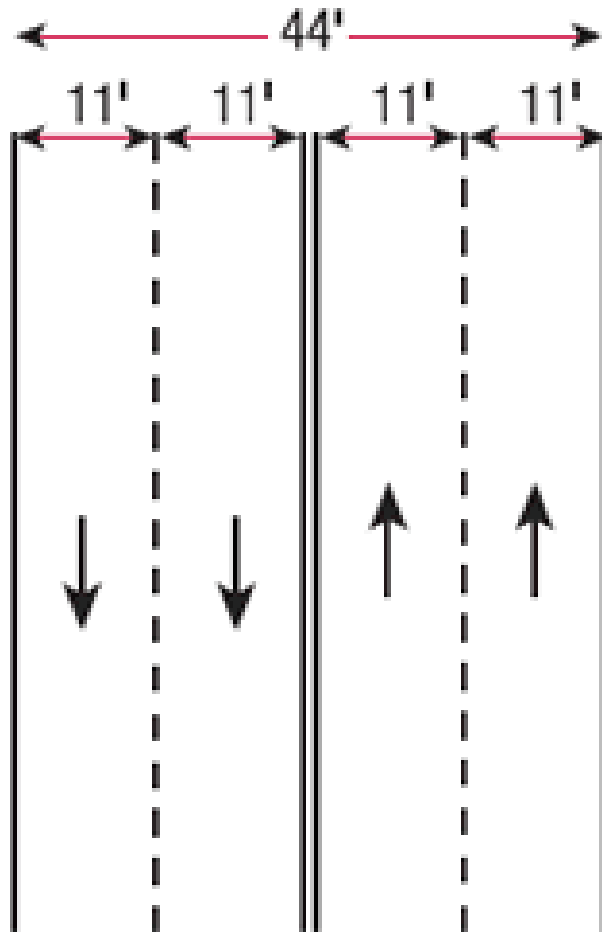
Leaf, W. and Preusser, D. *Literature Review on Vehicle Travel Speeds and Pedestrian Injuries Among Selected Racial/Ethnic Groups*, NHTSA (USA), 1999.

# WIDE STREETS ARE LESS SAFE



Street widths and injury accident rate, graphic by Peter Swift

# TAKING A ROAD DIET



Before Conversion to Road Diet

# SEATTLE CONVERSIONS (4 TO 3 LANE)

Roadway Location	Date Change	ADT Before	ADT After	Collision Reduction
Greenwood Ave N N 80th St to N 50th	Apr-95	11872	12427	24 to 10 58%
N 45th Street Wallingford Area	Dec-72	19421	20274	45 to 23 49%
8th Ave NW Ballard Area	Jan-94	10549	11858	18 to 7 61%
Martin Luther King Jr W North of I 90	Jan-94	12336	13161	15 to 6 60%
Dexter Ave N Queen Ann Area	Jun-91	13606	14949	19 to 16 59%
24th Ave NW NW 85th to NW 65th	Oct-95	9727	9754	14 to 10 28%

# ONE SQUARE MILE



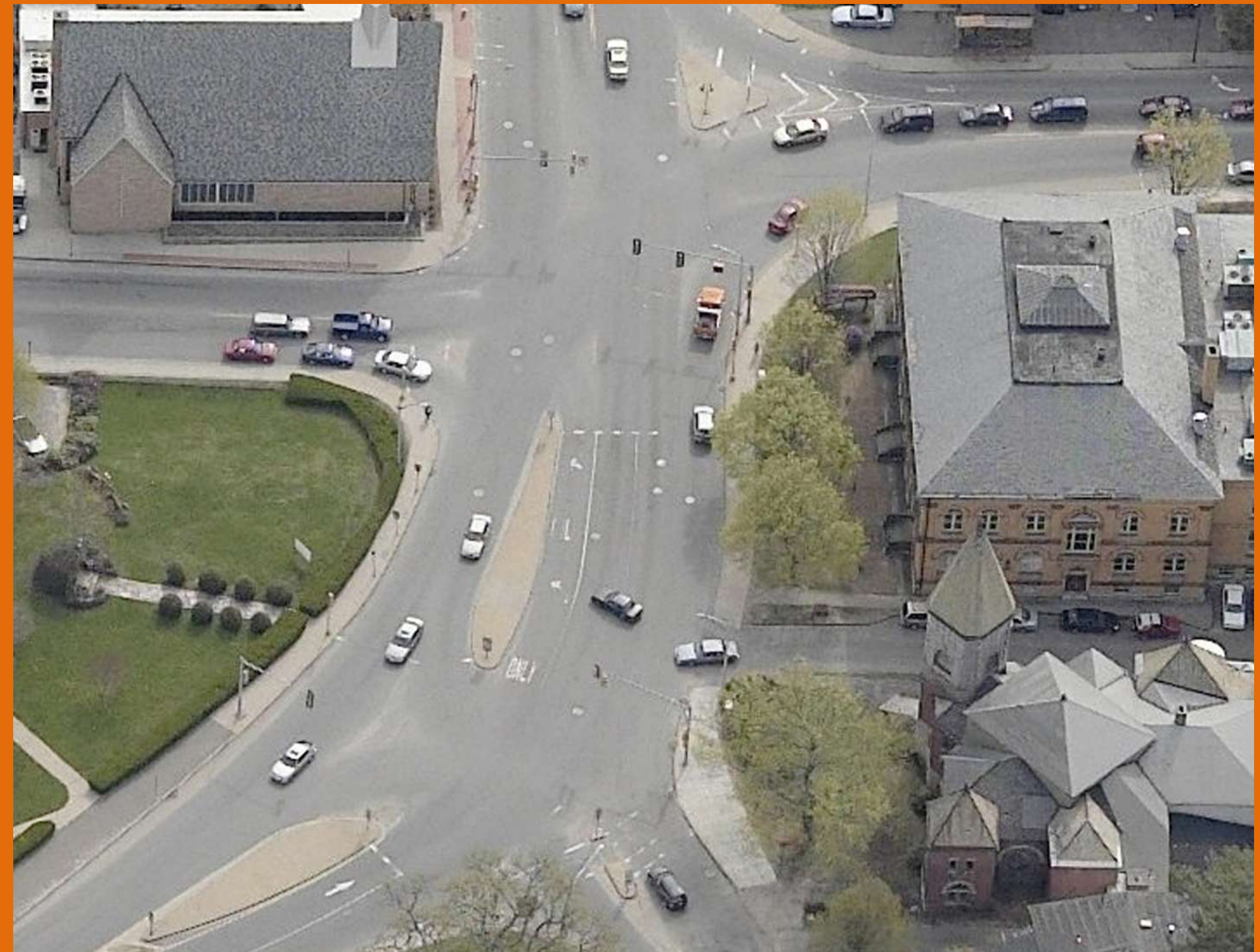
One Square Mile, Contemporary development pattern, Irvine, CA



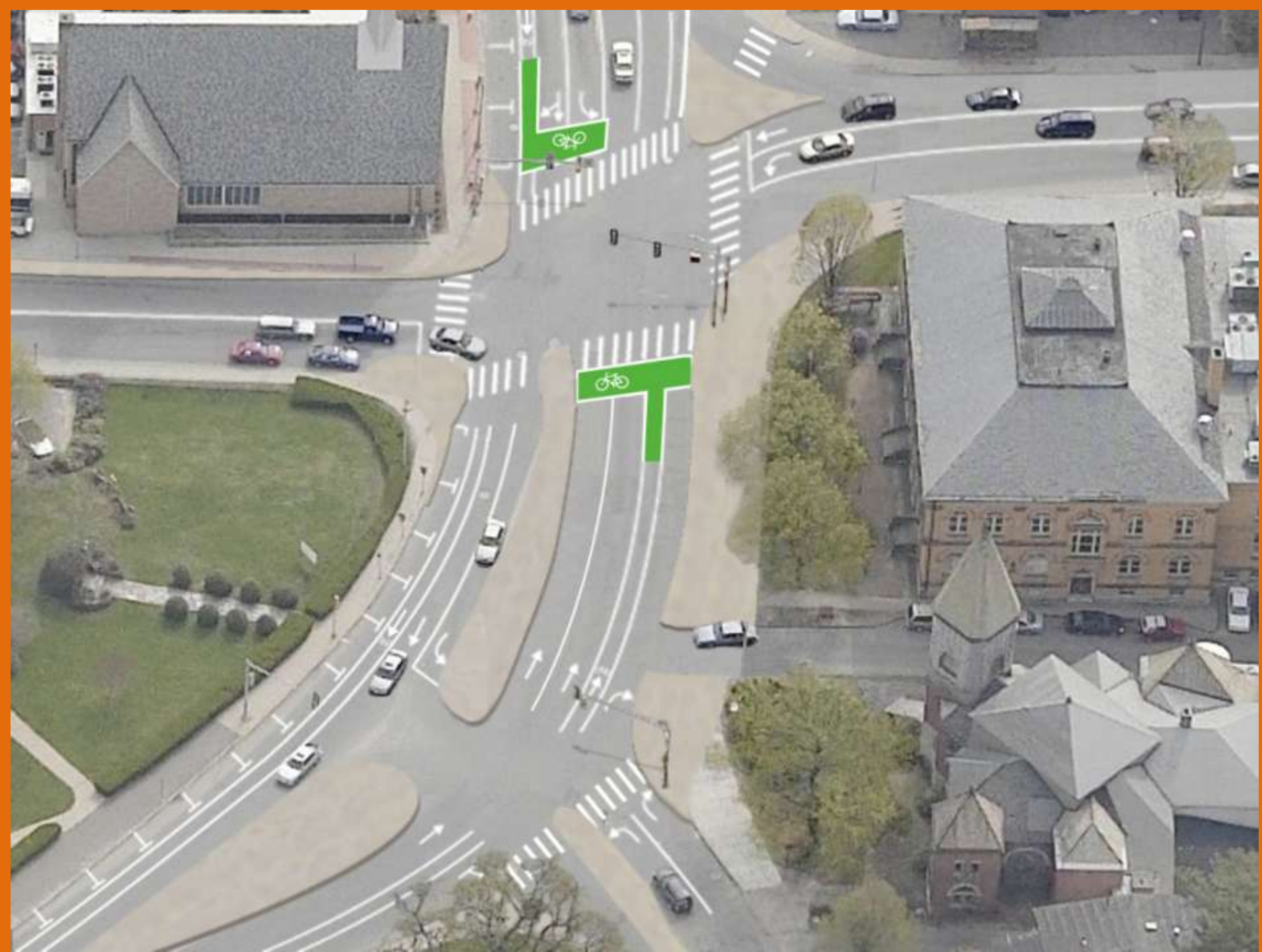
One Square Mile, Traditional development pattern, Portland OR

(Jacobs, Allan, Great Streets, MIT Press, Cambridge, MA)









# ARLINGTON VA



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Pictometry Bird's Eye © 2010 Pictometry International Corp

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**M** Rosslyn

**M** Courthouse

**M** Clarendon

**M** Virginia Square

**M** Ballston



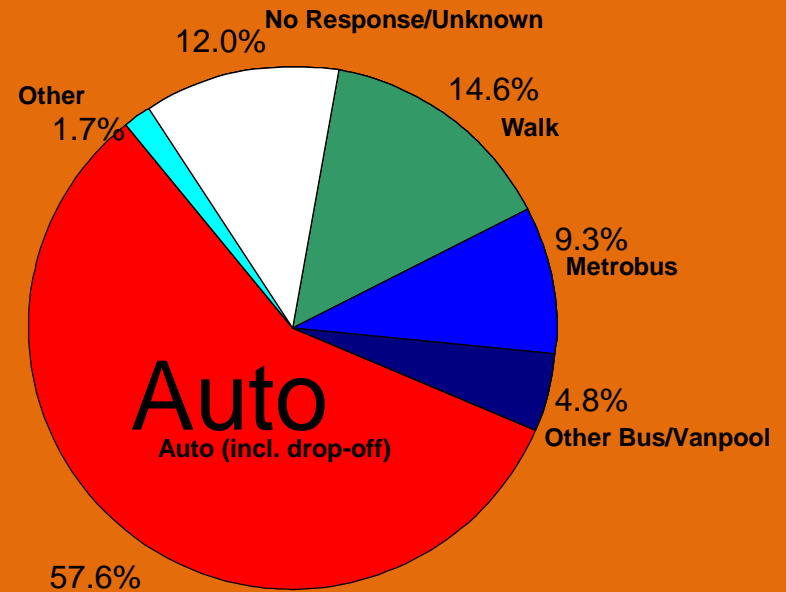
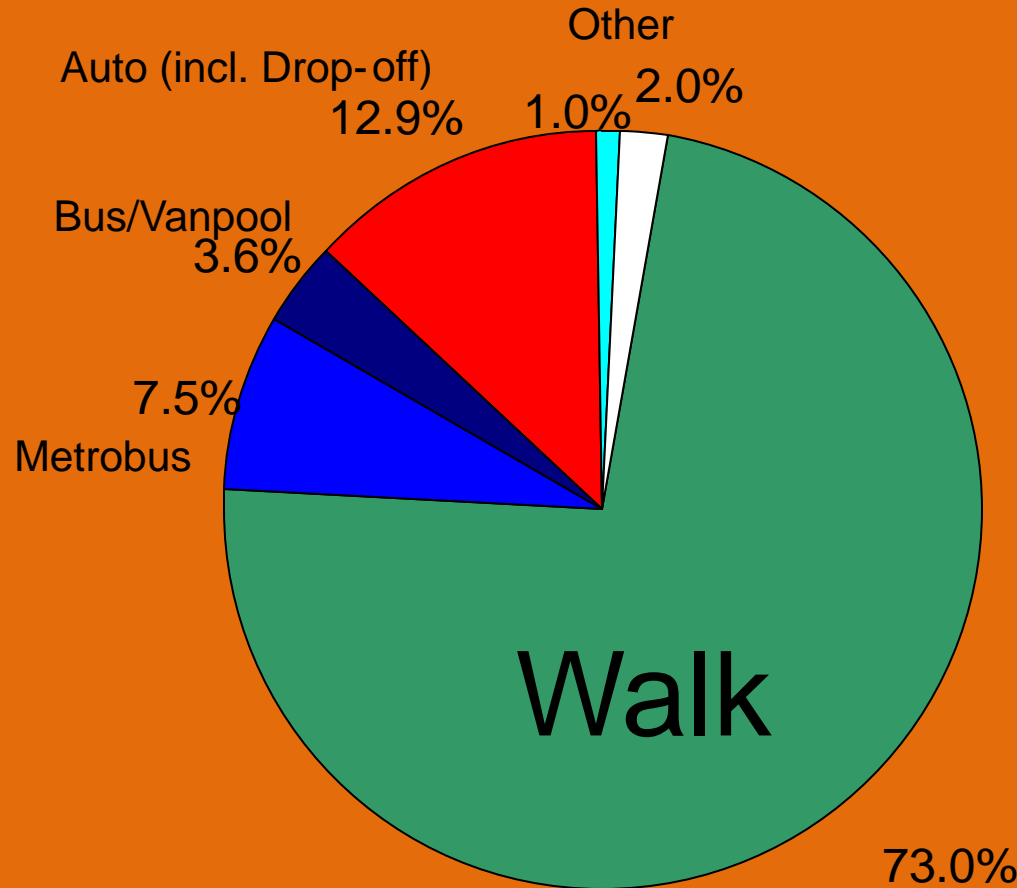
FAIRFAX DRIVE

WILSON BLVD

# ARLINGTON CORRIDOR VS. FAIRFAX COUNTY

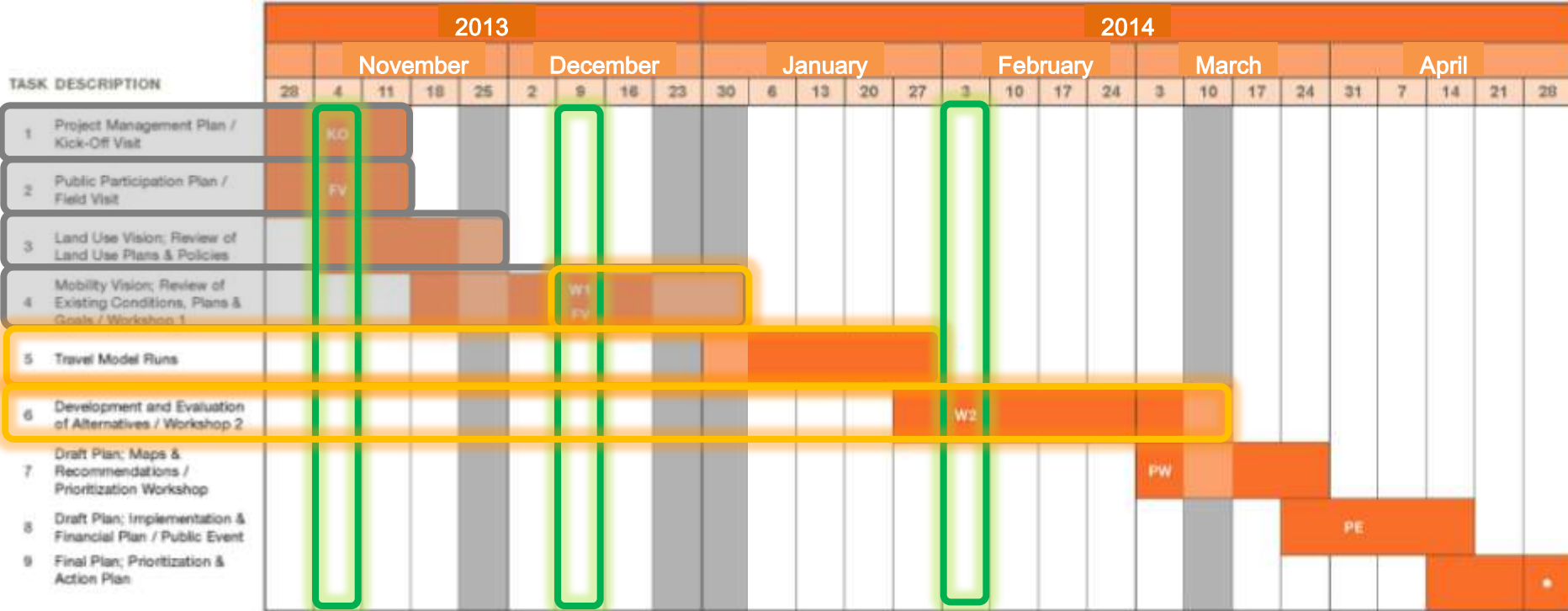
39,500 daily boardings

29,250 daily boardings



Source: WMATA May 2002 weekday Metrorail ridership and access data

# PROJECT SCHEDULE



- KO Kickoff meeting / listening sessions
- FV Field visit
- W1 Workshop 1
- W2 Workshop 2
- PW Prioritization workshop
- PE Public event
- \* Final report
- School district vacation weeks



# TOWN-WIDE TRAFFIC STUDY

WORKSHOP 1: EXISTING CONDITIONS

TOWN OF HIGHLAND PARK  
12/09/13 – 12/10/13