

Harnessing GIS: Engagement and Policy Tools



Billy Fields

Assistant Professor Political Science

Texas State University

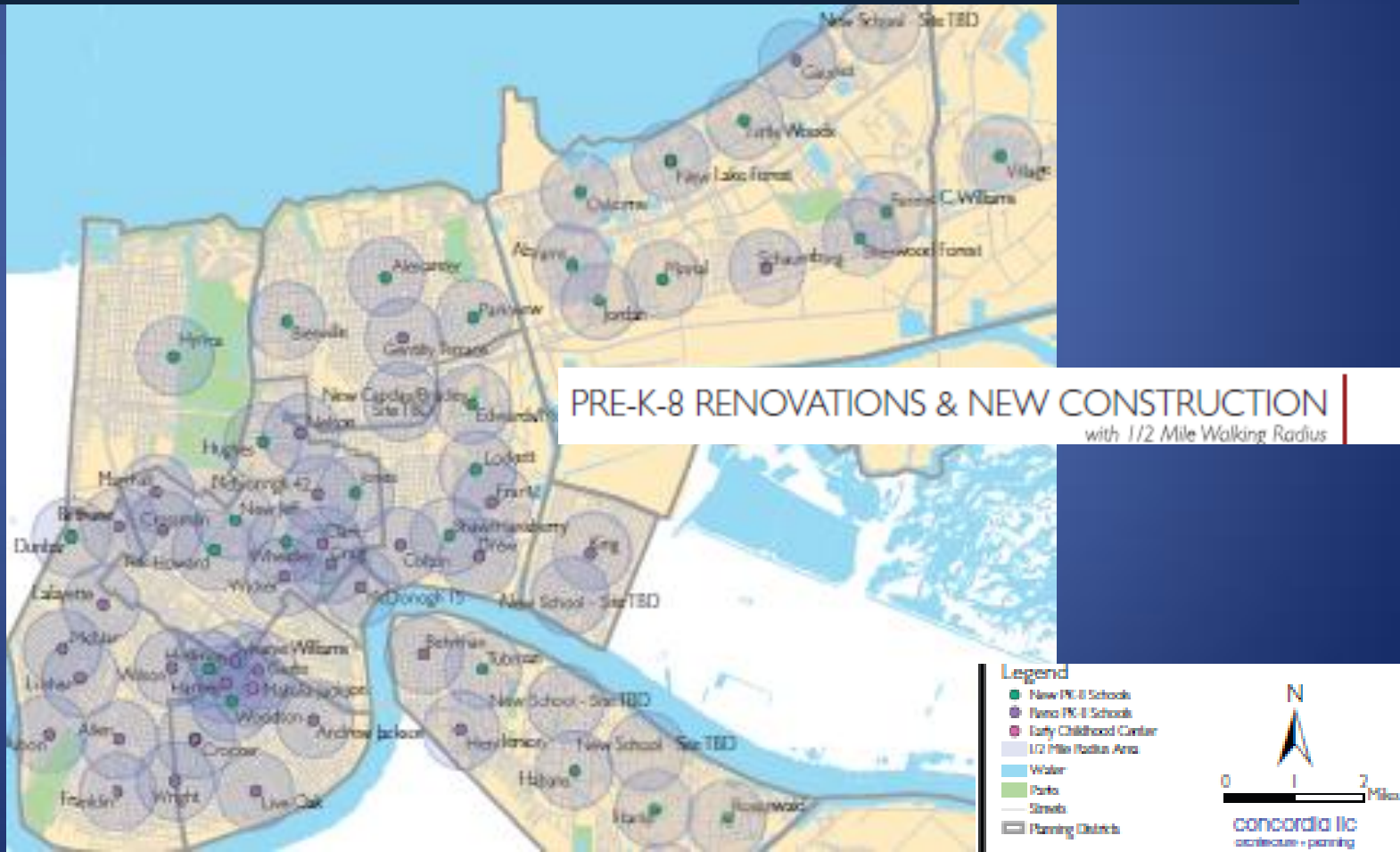
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Overview

- Linking GIS and advocacy concepts
- Example 1: Technical crash data evaluation
- Example 2: BikeEasy Audit Tool (BAT)



Linking GIS and Advocacy

- Understanding transportation and GIS data acts as a barrier for policy engagement
- Need tools to provide accepted data to enter policy process
- Increasing number of tools that make data collection easier

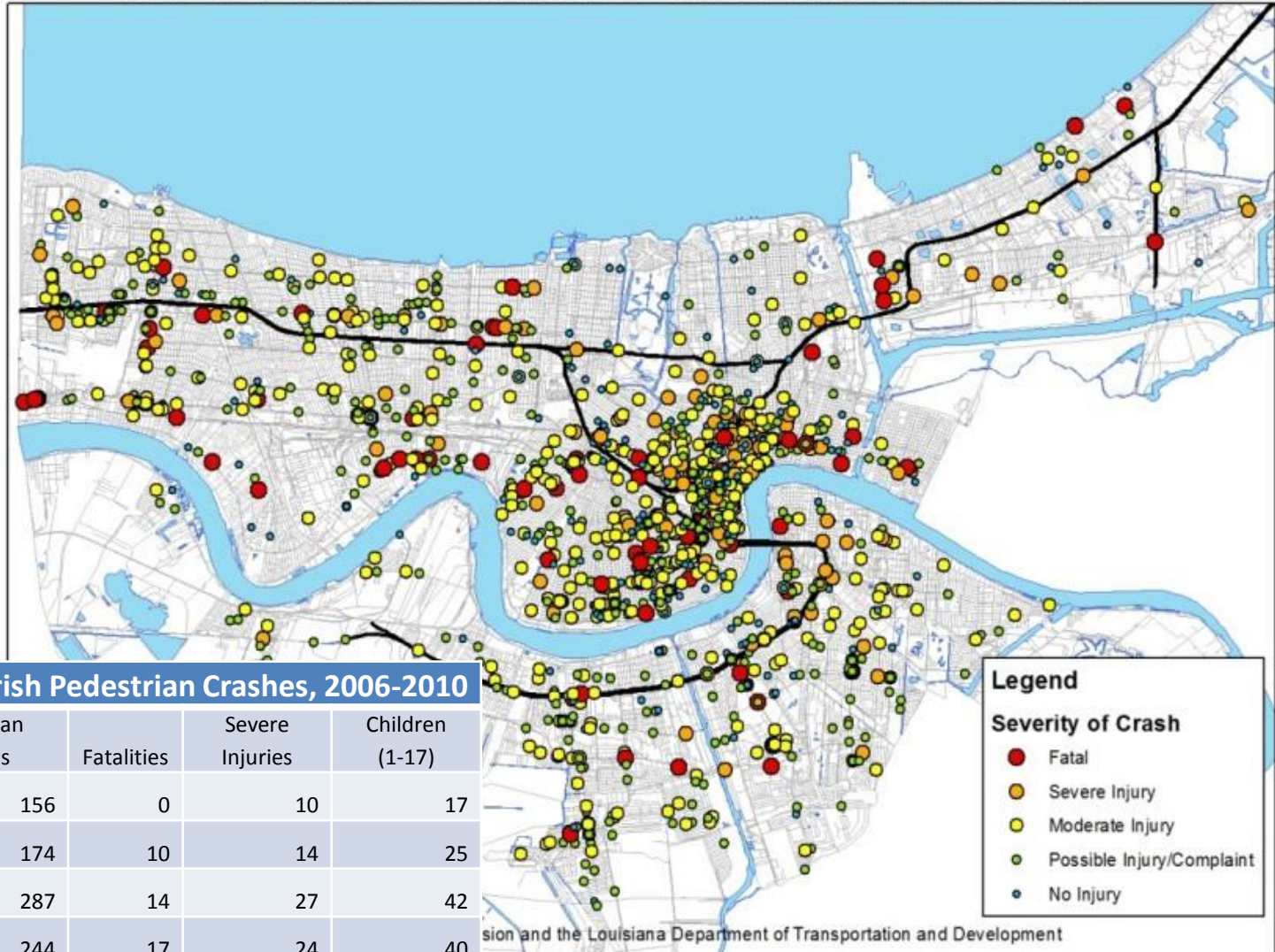
Make It So!

Empowering Communities to make a Difference

Thank you for your interest in **MakeltSo!** This app is designed to empower everyday community members to document where the local infrastructure breaks down for cyclists, pedestrians, and transit users. The motivation behind this tool is to help communities gather data and put pressure on local city staff and elected officials to spend as much time, energy, and money making as comprehensive transportation networks for biking, walking, and transit as has been created for vehicles over the last 70 years.

Making Sense of GIS Data: Mapping Crashes

Pedestrian Crashes by Severity, Orleans and Jefferson Parish, 2006-2010



Orleans Parish Pedestrian Crashes, 2006-2010

	Pedestrian Crashes	Fatalities	Severe Injuries	Children (1-17)
2006	156	0	10	17
2007	174	10	14	25
2008	287	14	27	42
2009	244	17	24	40
2010	290	1	25	49
TOTAL	1151	42	100	173

Legend

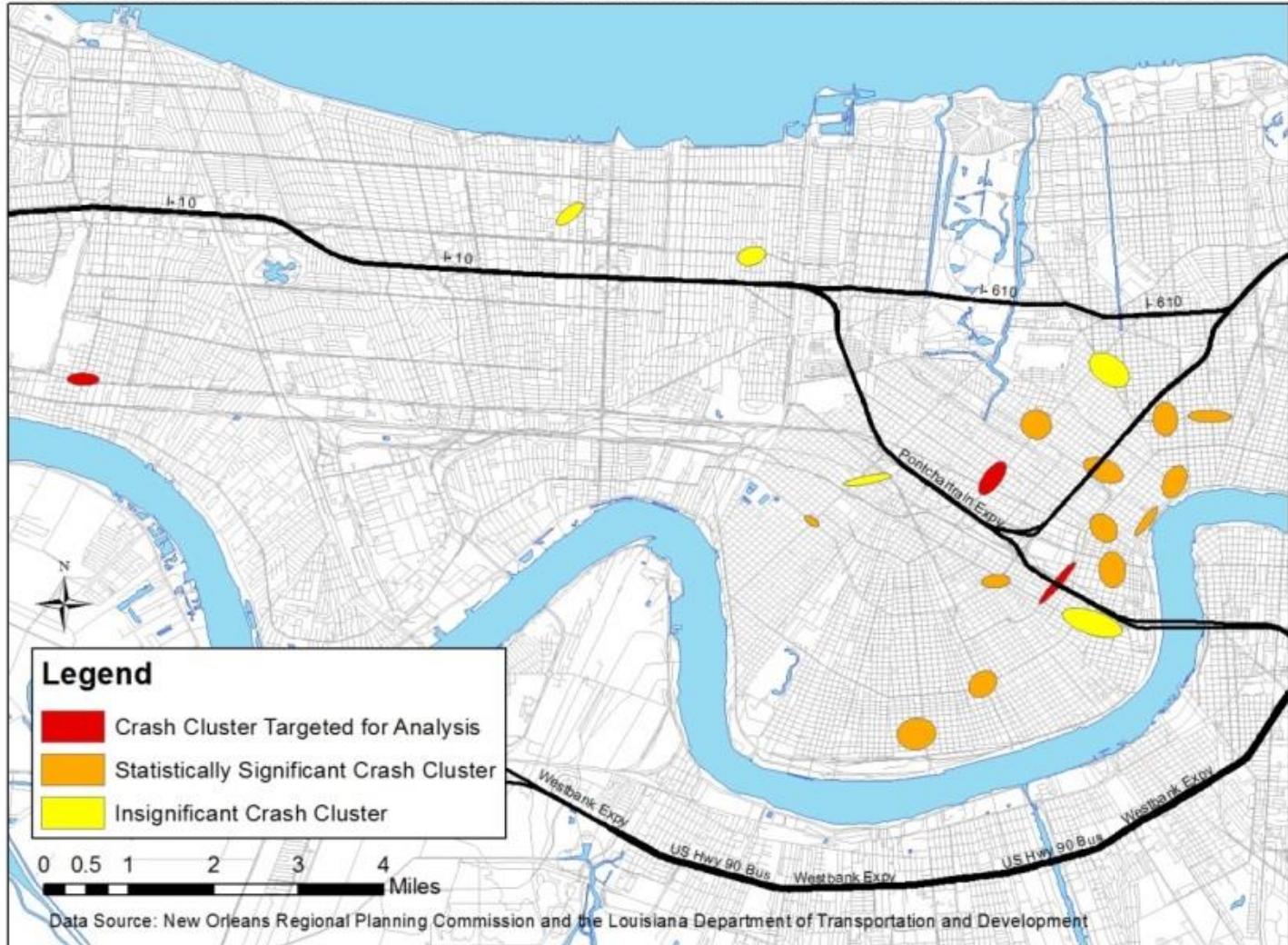
Severity of Crash

- Fatal
- Severe Injury
- Moderate Injury
- Possible Injury/Complaint
- No Injury

Division and the Louisiana Department of Transportation and Development

Making Sense of GIS Data: Hot Spot Analysis

STAC Pedestrian Crash Clusters, Orleans and Jefferson Parish East Bank Core, 2006-2010



Making Sense of GIS Data: Audit

Figure 37: Audit Findings—Tulane and S Broad (1)



Narrow pedestrian access zone on South Broad Street at Canal St impedes accessibility

Figure 39: Audit Findings—Tulane and S Broad (3)



Severe trip hazards on South Broad Street at Tulane Avenue

Figure 41: Audit Findings—Tulane and S Broad (5)



Sidewalks are missing or damaged on Tulane Avenue at S Dorgenois St

Figure 38: Audit Findings—Tulane and S Broad (2)



Pedestrian wait times exceed 60 seconds to cross S South Broad Street at Gravier St

Figure 40: Audit Findings—Tulane and S Broad (4)



Crosswalks are faded and missing; curb and median lack ADA ramps at Tulane Avenue and South Broad Street

Figure 42: Audit Findings—Tulane and S Broad (6)



Cars frequently obstruct sidewalks on South Broad Street

Making Sense of GIS Data: Audit

Pedestrian Crashes and Pedestrian Infrastructure Audit Scores, Tulane-Broad Hot Spot



Making Sense of GIS Data: Counts

Pedestrian and Bicycle Count Summary, Tulane Avenue				
	Pedestrians		Bicycles	
	Tulane Avenue	New Orleans Average (Observed)	Tulane Avenue	New Orleans Average (Observed)
Total Observed	468	317	71	114
Estimated Daily Traffic (EDT)	1,731	928	263	392
Gender				
Female	36.8%	40.6%	16.9%	28.7%
Male	63.3%	59.4%	83.1%	71.3%
Race				
White	29.7%	58.4%	50.7%	69.7%
Black	65.7%	36.1%	47.9%	25.7%
Other	4.7%	5.5%	1.4%	4.6%
Age Group				
Adult	96.4%	95.4%	98.6%	98.1%
Youth	3.6%	4.6%	1.4%	1.9%
Travel Orientation				
Street (Pedestrians)	4.9%	4.8%		
Street--Right Way (Bicycles)			43.7%	81.0%
Street--Wrong Way (Bicycles)			5.6%	7.0%
Sidewalk	94.9%	91.3%	50.7%	11.8%
Neutral Ground	0.2%	3.9%	0%	0.2%
Helmet Use (Bicycles)			8.5%	23.0%
Observation Dates: 3/26/13; 3/28/13				

Taking GIS to the Streets: Bicycle Audit

The Atlantic
CITIES
PLACE MATTERS

See how we create chemistry.

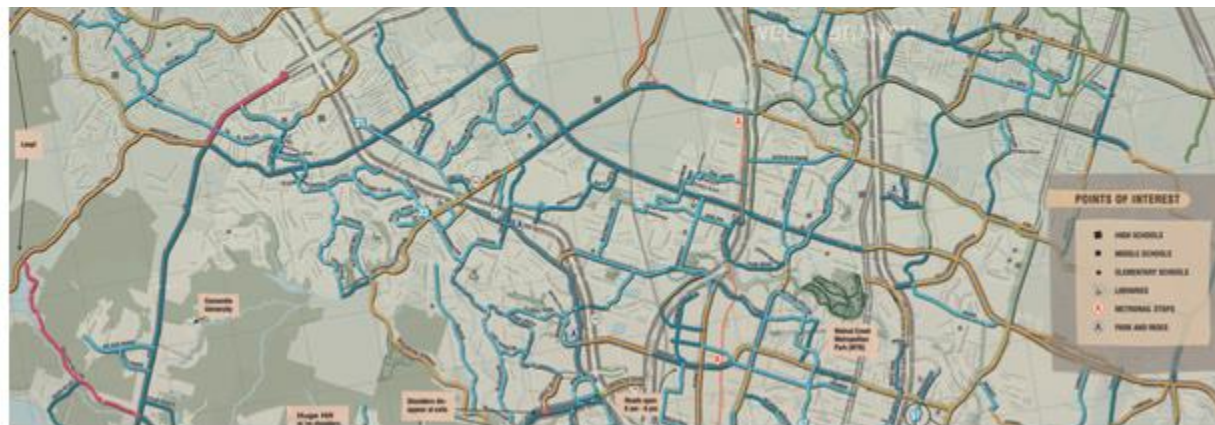
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MAPS

Bike Maps That Give Riders the Info They Actually Need

SARAH GOODYEAR FEB 15, 2013 25 COMMENTS

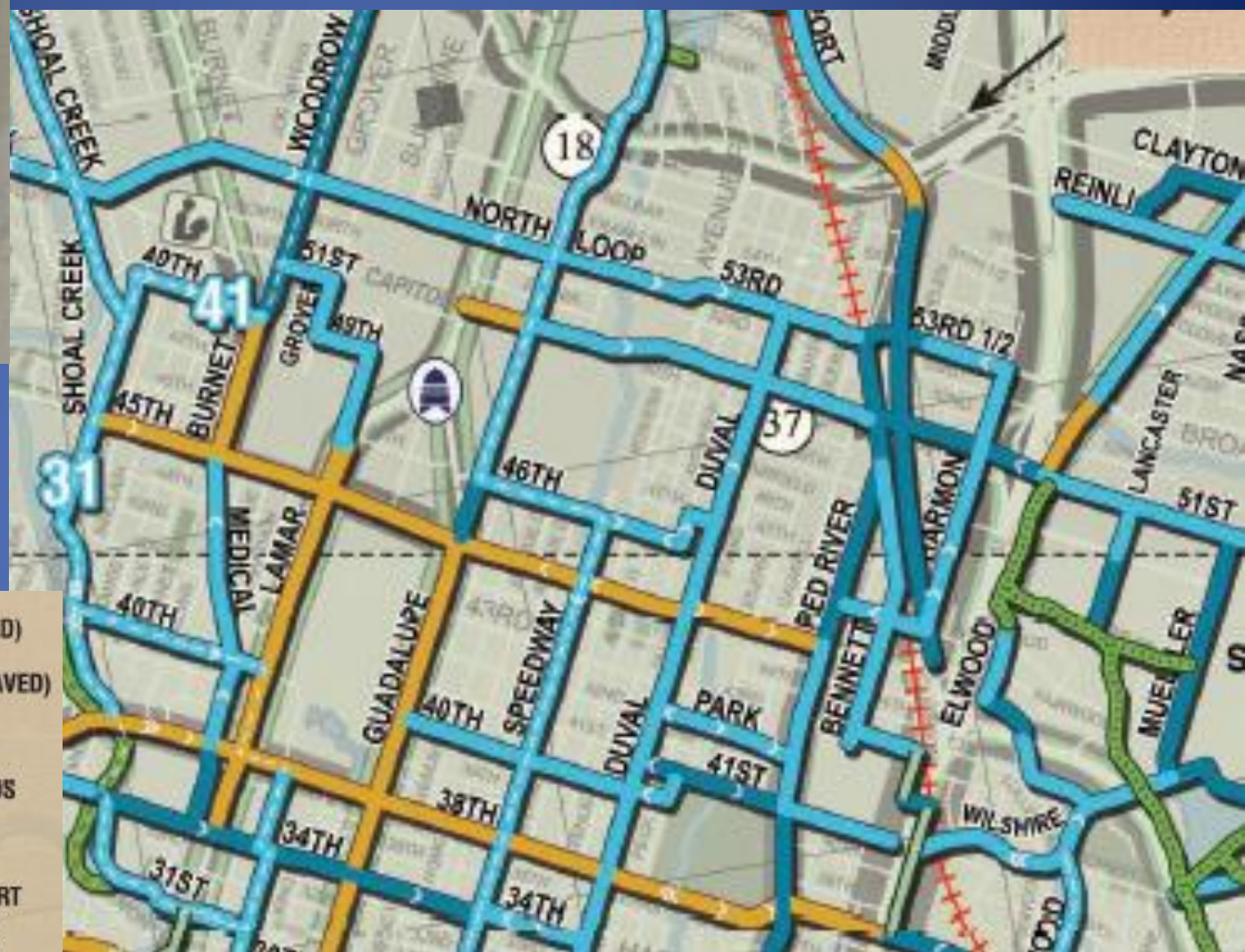
The city of Austin is doing its best to remove the mystery by using a mapping system that gives riders a quick, color-coded visual overview of its bike network, all keyed to the real-world experience a person can expect when cycling on any given street. According to Nathan Wilkes, a project designer and network planner at the Austin public works department who specializes in bike infrastructure, the map is heavily influenced by the thinking of Roger Geller, the bicycle coordinator for the city of Portland Oregon, who developed [an influential taxonomy](#) of transportation cyclist types in his city.



AUSTIN TEXAS BICYCLE MAP

LEGEND

- SEPARATED PATHS (PAVED)
- SEPARATED PATHS (UNPAVED)
- HIGH-COMFORT ROADS
- MEDIUM-COMFORT ROADS
- LOW-COMFORT ROADS
- EXTREMELY LOW COMFORT
- RESTRICTED SIDEWALKS
(see reverse map)
- HELPFUL SIDEWALKS
- MINOR TRAILS
(may require walking)



Problem: Need a tool that measures bicyclists' street comfort that is easy to use and disseminate to public and non-profit organizations



New Tool: Bike Easy Audit Tool (BAT)

Result: National best practice tool that helps clearly “map” conditions and prioritize investments to close gaps in system

Austin "High Comfort" Example: North Loop at Lamar



Bike Easy Audit (BAT)

Location: North Loop at Lamar

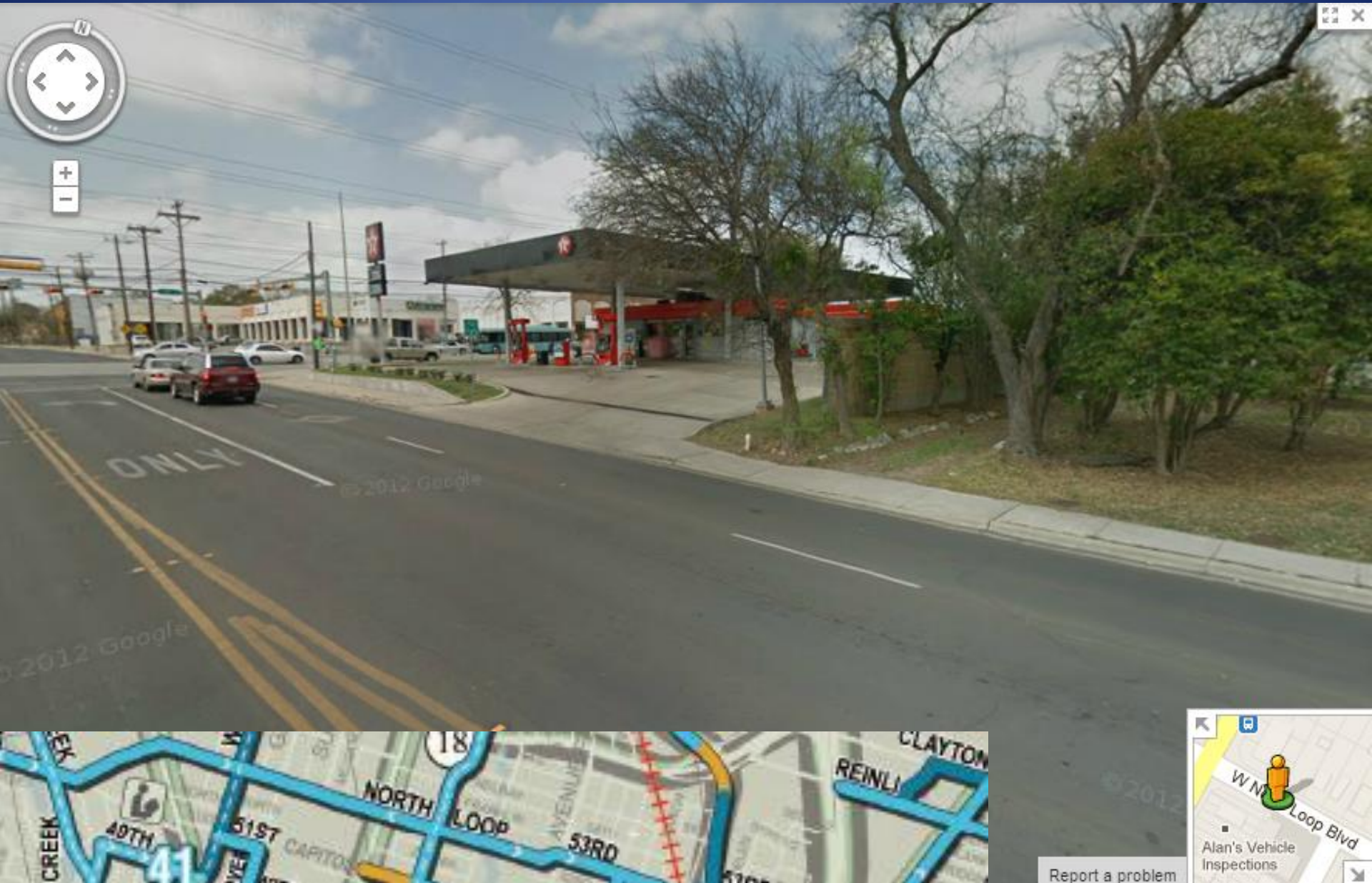
Overall Feel of Place		
Do or would you feel safe riding your bicycle here?	Circle: Yes/No	Describe: Traffic speeds up for intersection and there is no bike facility. This is a more intense road section.

Question	Bike Facility Availability		Score
1	Is there a bike facility?	If yes, add 5. If no, score 0	0
	Bike Facility Quality		Score
2	Are there obstructions/debris?	If yes, subtract 1	0
3	Is facility continuous for entire block (excluding intersection)?	If no, subtract 1	-1
4	Does the facility provide a dedicated, separated space for bicyclists?	If no, subtract 1	-1
5	Speed	If posted speed is above 30 mph, subtract 1	0
6	Road Intensity	If ADT is above 20,000, subtract 1	0
	Total Score	Add all rows together for final score	-2

Bicycle Facility Type (circle)							
Bike lane	Buffered bike lane	Contra flow bike lane	Green lane	Cycletrack	Bicycle boulevard	Sharrow	None

A Little Bit About You				
Please circle the statement that best describes you	I feel comfortable riding my bike on any street in any condition	I feel comfortable riding on a designated bicycle facility	I feel comfortable riding only on quiet streets or on trails/paths	I do not feel comfortable or interested in bicycle riding

Low-Stress Comfort Score: 0





Questions?

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