

SUPPORTING POLICY GOALS

This project is supported by Council-adopted citywide plans and policies including Imagine Austin (2012), Austin Complete Streets Policy, Austin Bicycle Plan (2014), Vision Zero Action Plan (2016-18), and the Big Jump Initiative.



AUSTIN
complete
streets



FOUR TYPES OF CYCLISTS

2% Strong and Fearless

Strong and Fearless riders will bicycle regardless of roadway conditions (vehicle speeds, number of lanes, lack of a bicycle lane) that others would find uncomfortable.



15% Enthused and Confident

The Enthused and Confident group is comfortable using standard bicycle lanes and sometimes sharing space with motor vehicles.



39% Interested but Concerned

This group is interested in riding, but needs a network of low-stress facilities to feel comfortable.



44% No Way No How

People who are either uninterested or unable to ride.



2%

15%

39%

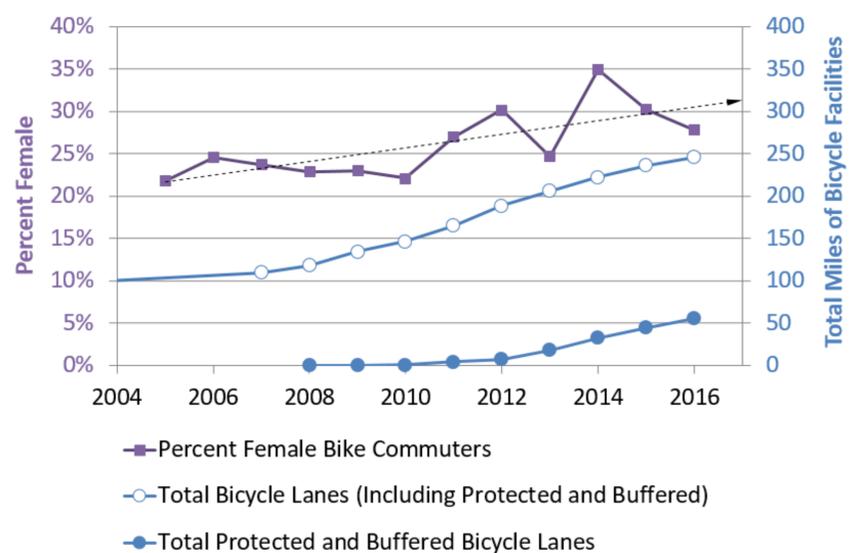
44%

17% of Austinites are willing to ride on a standard bicycle lane

56% of Austinites are willing to ride on a protected bicycle lane

Percentages by proportion of the City of Austin population
Source: City of Austin Phone Survey of Austin Cyclists, 2013

Percent Women Bicycle Commuting vs. Bicycle Facility Growth

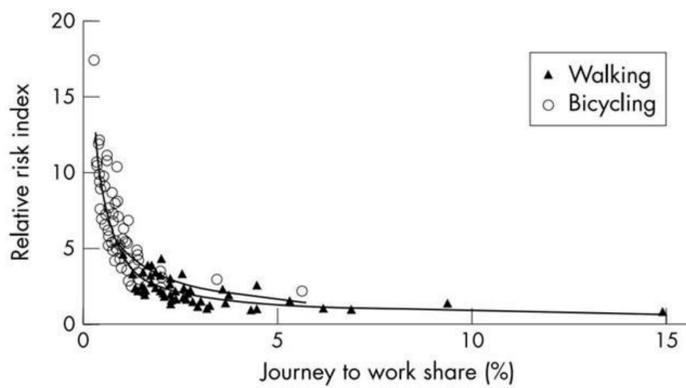


Source: American Community Survey (ACS), 2005-2016; City of Austin Bicycle Performance Metrics

SAFETY IN NUMBERS

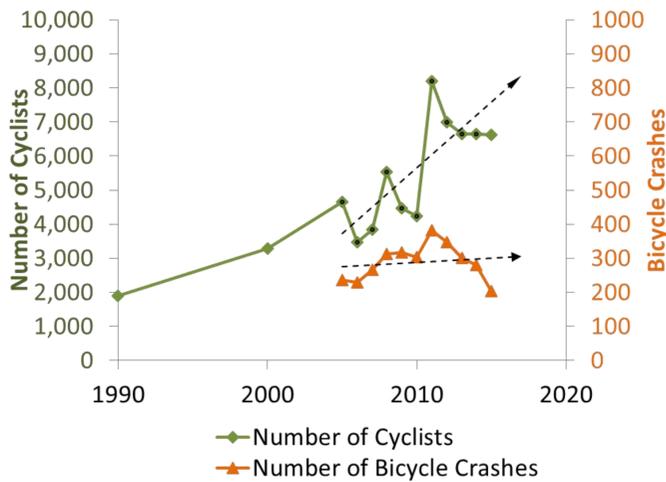
Research studies show that as more people bicycle, conditions for bicycling become safer. This is often referred to as “safety in numbers.”

WALKING AND BICYCLING IN 68 CALIFORNIA CITIES IN 2000



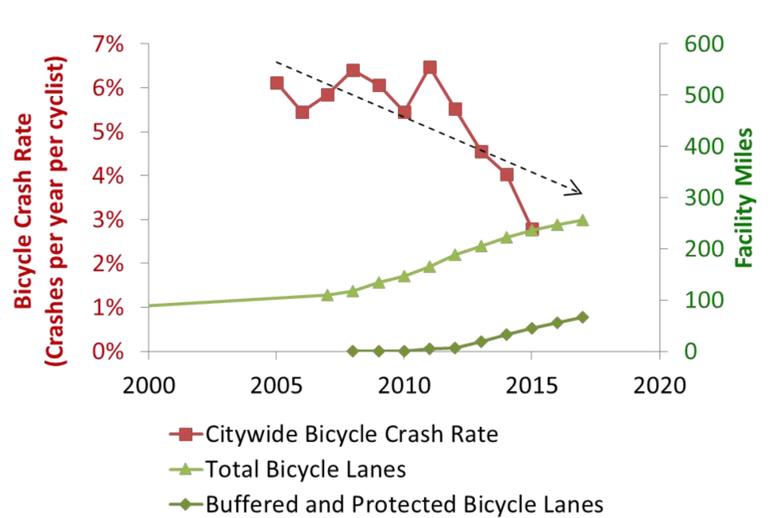
Source: Ewing, R., and E. Dumbaugh. The Built Environment and Traffic Safety: A Review of Empirical Evidence. Journal of Planning Literature, Vol. 23, No. 4, 2009, pp. 347–367. <https://doi.org/10.1177/0885412209335553>.

AUSTIN CITYWIDE NUMBER OF CYCLISTS VS NUMBER OF BICYCLE CRASHES

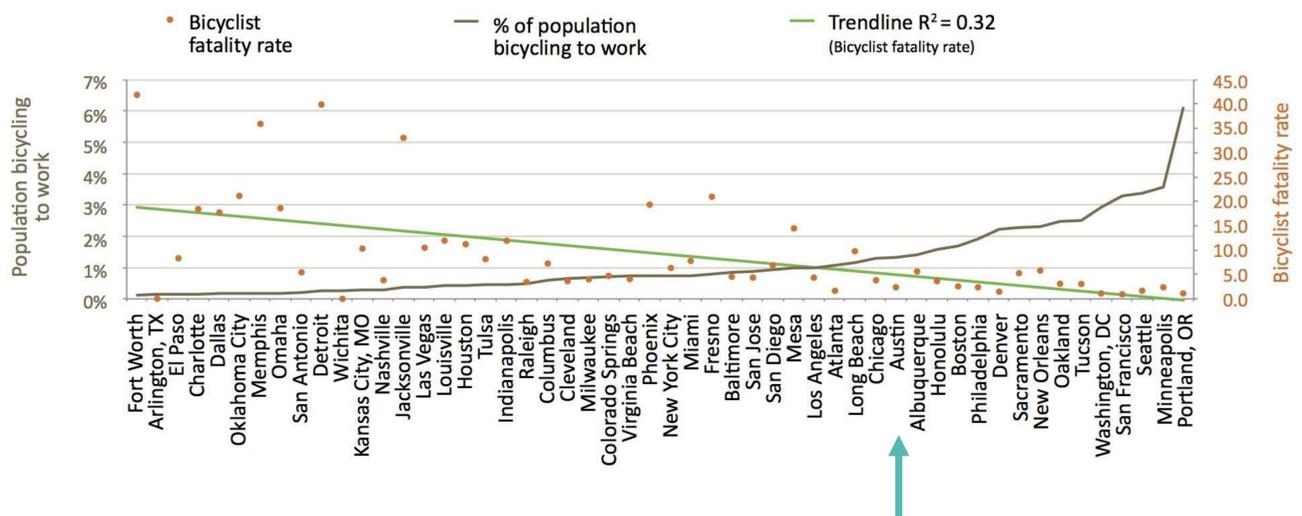


Sources: Austin Transportation Department

AUSTIN CITYWIDE BICYCLE CRASH RATE VS. FACILITY MILES



COMPARING BICYCLING TO WORK AND BICYCLIST FATALITY RATES IN LARGE CITIES



Sources: 2014 Alliance for Biking and Walking Benchmarking Report analysis of ACS 2009-2011, FARS 2009-2011

HISTORY

EVOLUTION OF MUELLER STREET DESIGN

2000-2004

Mueller streets originally planned with painted bicycle lane approach.

2006

The original section of Zach Scott Street from Airport Boulevard to Berkman Drive was built around 2006.

2011

In March 2011, the first national guidance on protected bicycle lanes was released. In November 2011, the first Mueller streets, Berkman Drive and Mueller Boulevard, were redesigned to have protected bicycle lanes.

2012

A new cross section was developed for Tilley and Zach Scott Streets with protected bicycle lanes after speeding complaints surfaced along Zach Scott Street.

2018

The first resurfacing of the original Zach Scott Street section presents an opportunity to relook at the street layout.



Existing view looking east at the intersection of Zach Scott Street and Berkman Drive

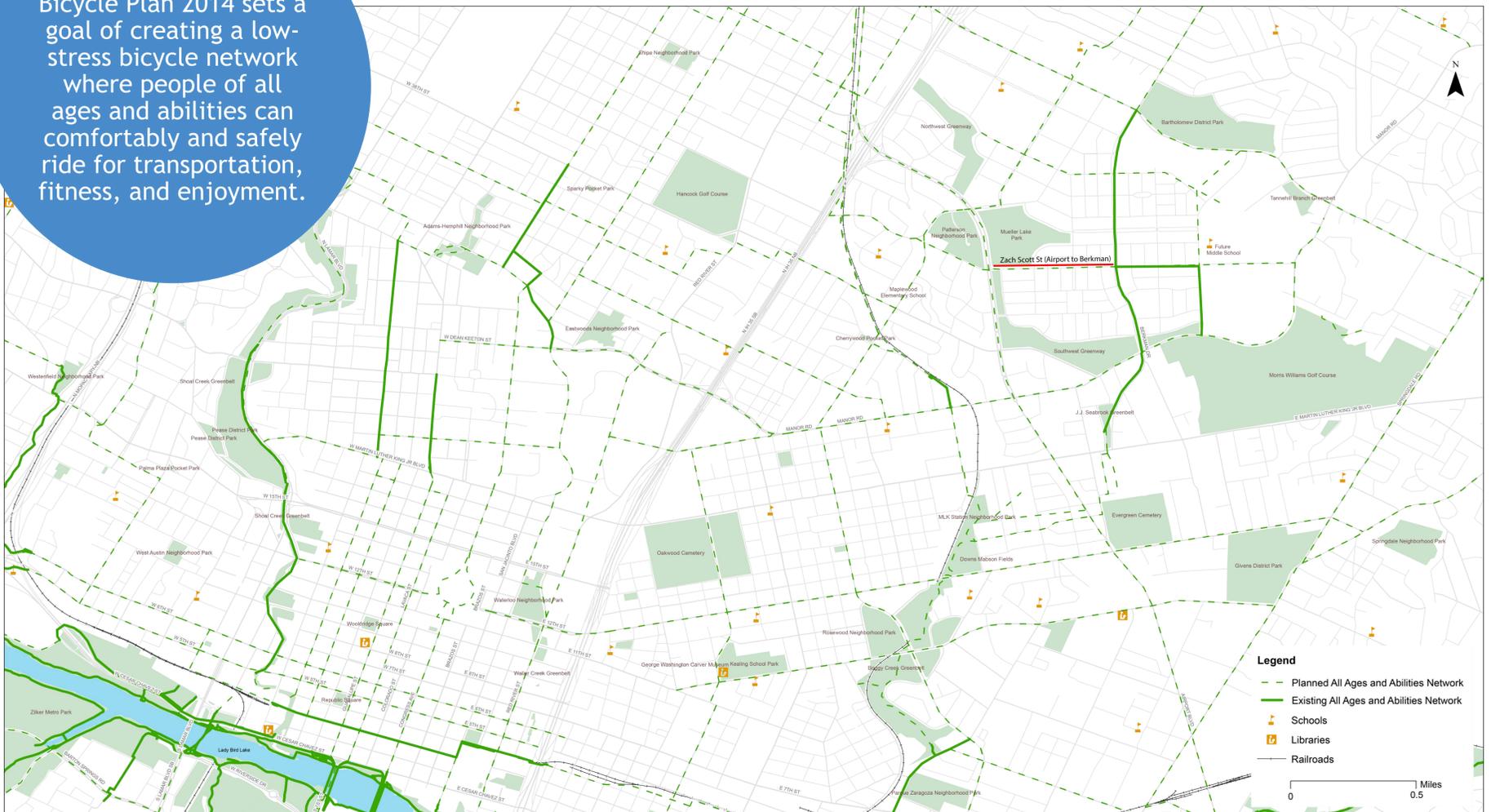


Existing two-way protected bicycle lanes on Zach Scott Street east of Berkman Drive

ALL AGES AND ABILITIES NETWORK

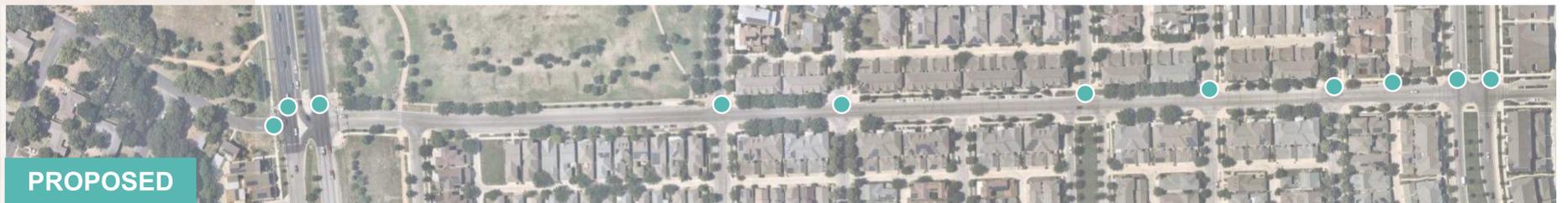


The City of Austin Bicycle Plan 2014 sets a goal of creating a low-stress bicycle network where people of all ages and abilities can comfortably and safely ride for transportation, fitness, and enjoyment.



EXISTING CONDITIONS

COMPARISON OF THE NUMBER OF CONFLICT ZONES



- Intersection or driveway conflict zones
- Door zone conflict zones

SAFETY BENEFITS OF PROPOSED DESIGN

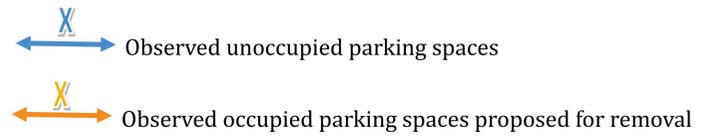
- > The standard bicycle lanes (5' wide) in the existing design have **37 conflict zones**, compared to only **11 conflict zones** in the proposed design using two-way protected bicycle lanes (~11' wide).
- > Eliminates all potential door zone conflicts



Example illustrating the door zone in a standard bicycle lane on Zach Scott Street

EXISTING CONDITIONS

PARKING ANALYSIS

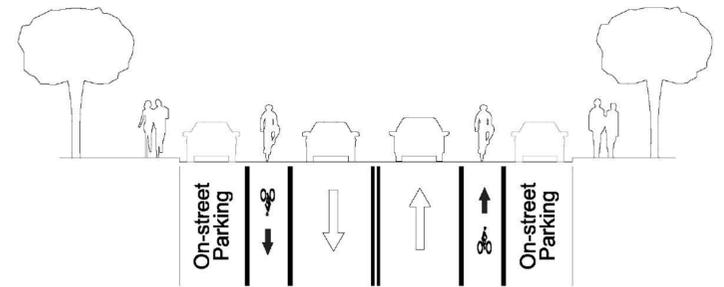


- > 610 on-street parking spaces within 1 block of the project, in addition to off-street parking
- > 61 parking spaces (10%) are proposed to be removed from the north side of Zach Scott Street
- > Peak parking demand (Sunday Market), there were 316 observed unoccupied available parking spaces within a block of the project (43% available)

PROPOSED DESIGN

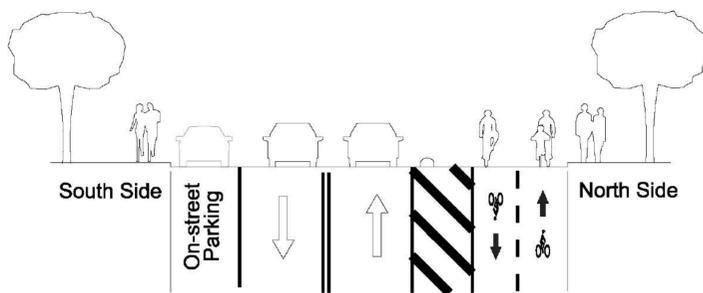
EXISTING ISSUES

- > Current bicycle lanes are substandard
 - > Do not meet current standards for width adjacent to the door zone of parked vehicles
 - > Do not accommodate all ages and abilities
- > Speeding concerns raised on Zach Scott Street by community members in 2012
- > Tricky crossings at Airport Boulevard and Berkman Drive, particularly when traveling eastbound by bicycle



Typical Existing Cross Section:

- > One-way standard bicycle lanes adjacent to on-street parking on north and south sides of Zach Scott Street



Typical Proposed Cross Section:

- . Two-way protected bicycle lanes on the north side of Zach Scott Street



Existing two-way protected bicycle lanes east of Berkman Drive

PROPOSED DESIGN

- > Upgrades bicycle facility to protected bicycle lanes
 - > Eliminates door zone conflicts
 - > Provides an all ages and abilities bikeway and connects a gap in the network
- > Travel lane widths are narrowed. In comparable projects, significant reductions in high risk speeding were observed after installations.
- > Simplified crossings at Airport Boulevard and Berkman Drive
- > Allows for parking to be maintained on one side of the street. Alternative designs using one-way protected bicycle lanes would require removing parking from both sides of the street.

BEFORE/AFTER SPEED STUDIES FOR COMPARABLE PROJECTS

Barton Hills Drive Improvement Project

46%

DECREASE IN SPEEDS OVER 35 MPH

67%

DECREASE IN SPEEDS OVER 40 MPH

Friedrich Lane/Ponciana Drive Improvement Project

41%

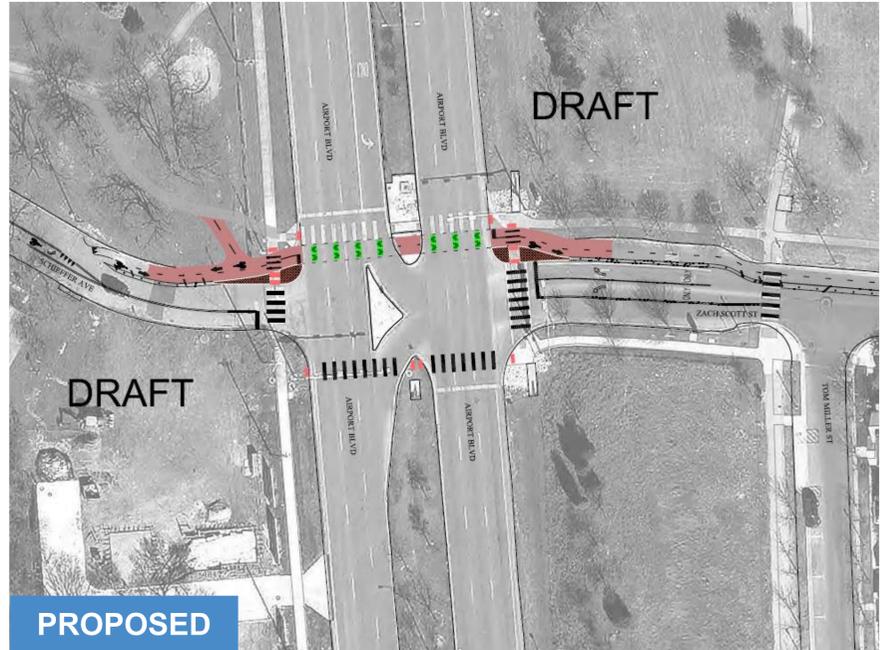
DECREASE IN SPEEDS OVER 35 MPH

3%

DECREASE IN SPEEDS OVER 40 MPH

PROPOSED DESIGN

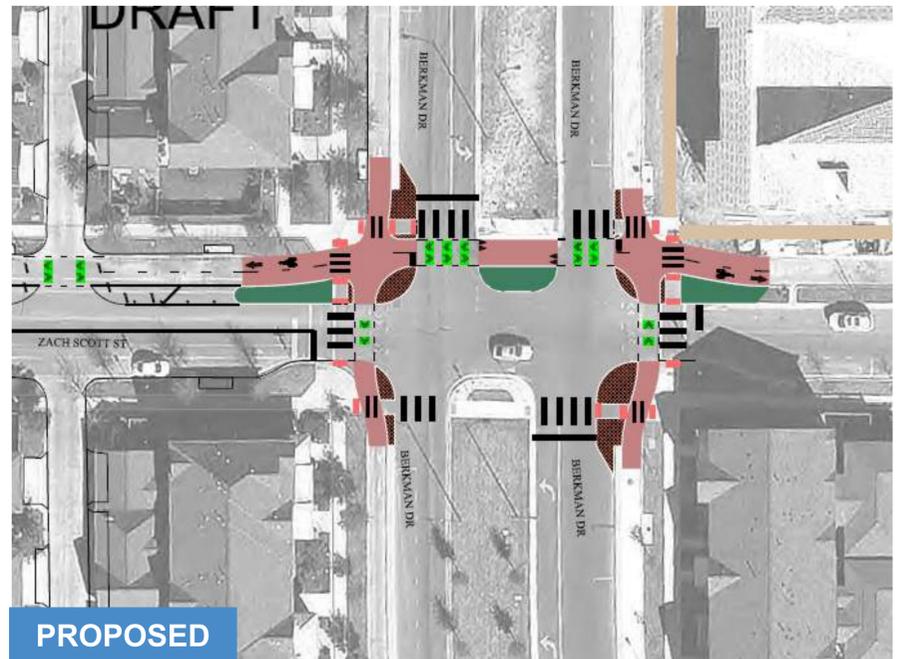
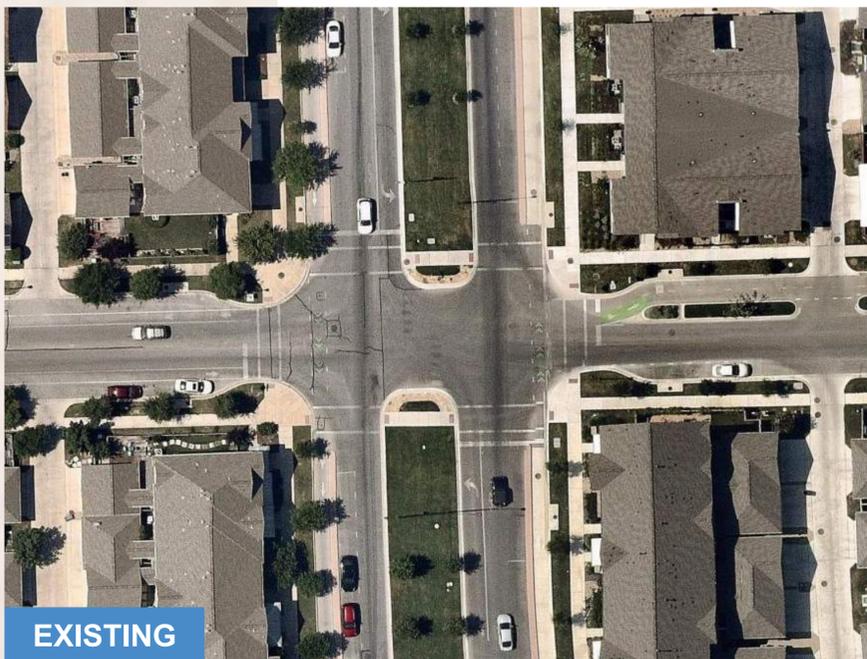
ZACH SCOTT STREET AND AIRPORT BOULEVARD



SAFETY BENEFITS OF PROPOSED DESIGN

- > Extends the two-way protected bicycle lanes from Zach Scott Street across Airport Boulevard, onto Schieffer Street, where they would terminate just east of Vineland Drive, and transition to a neighborhood street.

ZACH SCOTT STREET AND BERKMAN DRIVE



SAFETY BENEFITS OF PROPOSED DESIGN

- > Protected intersection at Zach Scott Street and Berkman Drive offers improved safety and comfort for all modes
- > Reduced crossing distances and exposure for bicycles and pedestrians
- > Curb radii designed to slow motor vehicle turns and provide better sightlines at bicycle and pedestrian crossings. This reduces the risk of right-hook conflicts for bicycles and improves yielding behavior by drivers.
- > Better integration with existing two-way protected bicycle lane on Zach Scott Street east of Berkman Drive