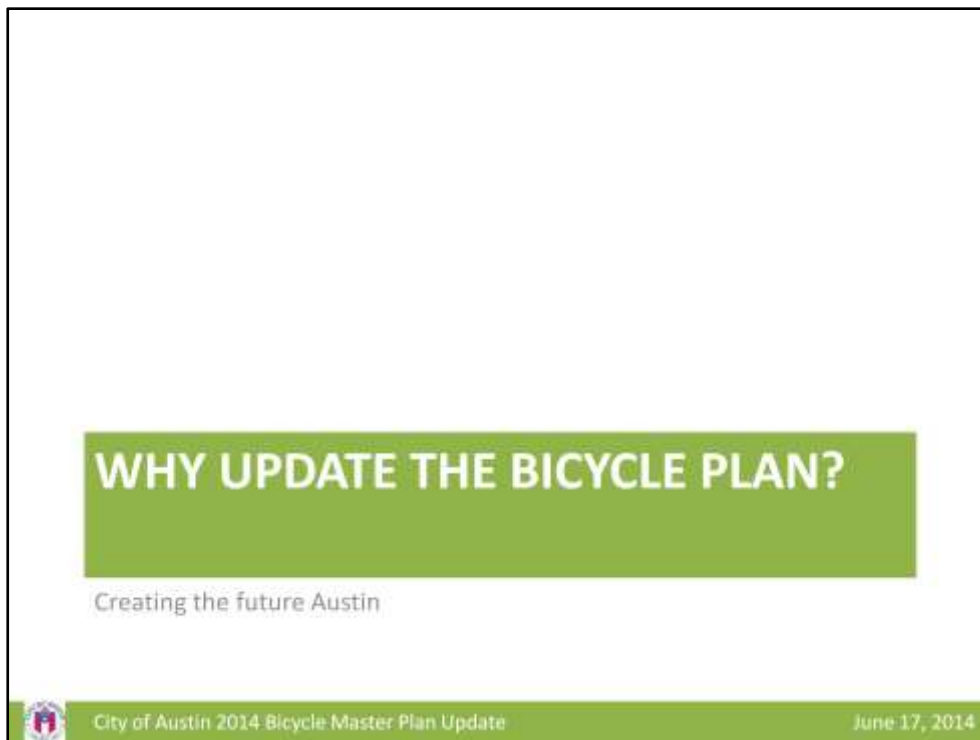


- The following is an overview of the content that is proposed to be included in the 2014 Bicycle Plan Update



- A brief explanation of why this update is important



- The Bike plan builds on existing plans with latest influences from Imagine Austin, the NACTO bikeway design guide, Austin's participation in the Green Lane Project, and Austin's Think Bike event

# Bicycling and Active Transportation Support Imagine Austin Plan



Priority Program #1: Invest in Compact	Priority Program #2: Sustainable Water
Priority Program #8: Align Code	Priority Program #4: Green Infrastructure
Priority Program #3: Workforce Development	Priority Program #6: Household Affordability
Priority Program #5: Creative Economy	Priority Program #7: Healthy Austin

 City of Austin 2014 Bicycle Master Plan Update

June 17, 2014

- Integrating Imagine Austin plan into 2014 Bicycle Plan
- Bicycling is integral in all 8 priority programs



**IMAGINEAUSTON**  
COMPREHENSIVE PLAN  
Update 1, Update 2, Update 3

**A Shift in Focus:**

~~"To Create and Promote the best environment for the friendly co-existence of bicycle riders and other transportation users in Austin"~~

▼

**"To maximize the contribution of bicycling to Austin's quality of life"**






June 17, 2014


- Update the vision for the bicycle plan
- This is a very important change in focus and is the foundation for our approach to the conversation for the 2014 update



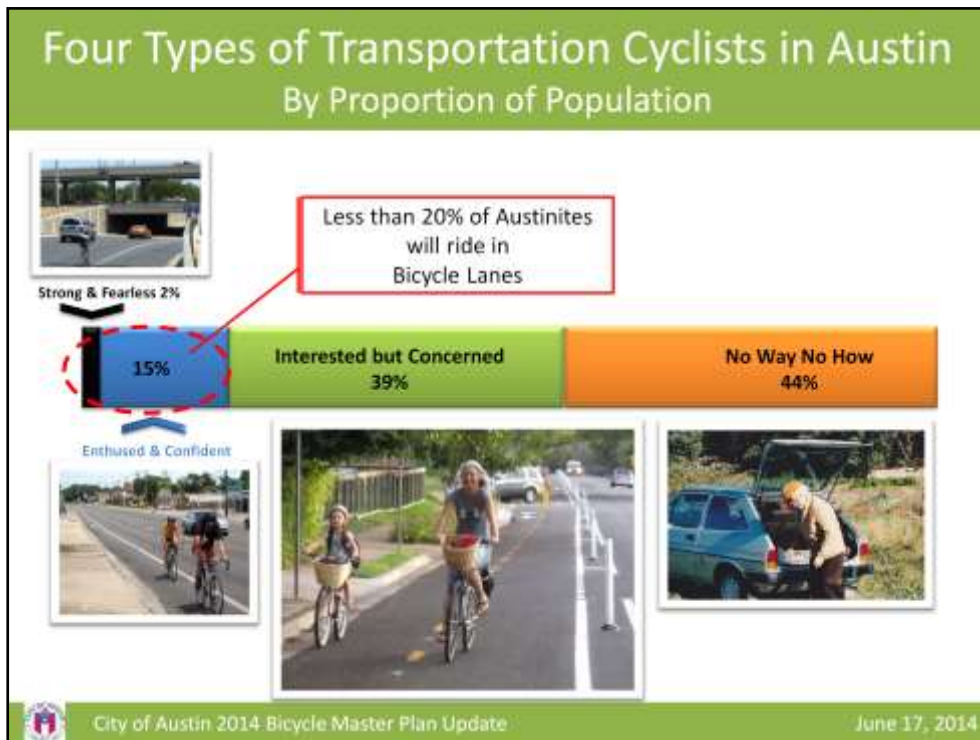
- An overview of our approach and fundamental elements that make the 2014 Bicycle Plan a significant change to the the 2009 plan

## The Bicycle Plan is a 5 E's Approach

Engineering	Education	Encouragement	Enforcement	Evaluation
				
<ul style="list-style-type: none"> <li>• Updates for all ages and abilities network</li> <li>• Includes cycle tracks recommendations</li> </ul>	<ul style="list-style-type: none"> <li>• 45,000 children educated annually on bicycle safety.</li> <li>• 300 + taught in Defensive Cycling annually.</li> </ul>	<ul style="list-style-type: none"> <li>• 1,500 bike light sets distributed in 2013.</li> <li>• Policies to encourage developers to build showers, locker rooms, and secure bicycle parking.</li> </ul>	<ul style="list-style-type: none"> <li>• Almost 700 citations given to cyclists annually by APD (since 2007)</li> <li>• Vulnerable Road User Campaign</li> </ul>	<ul style="list-style-type: none"> <li>• 2% of Austinites use a bicycle to get to work; compared to a 1% national average (2011 US Census).</li> <li>• 6% in Central City</li> </ul>

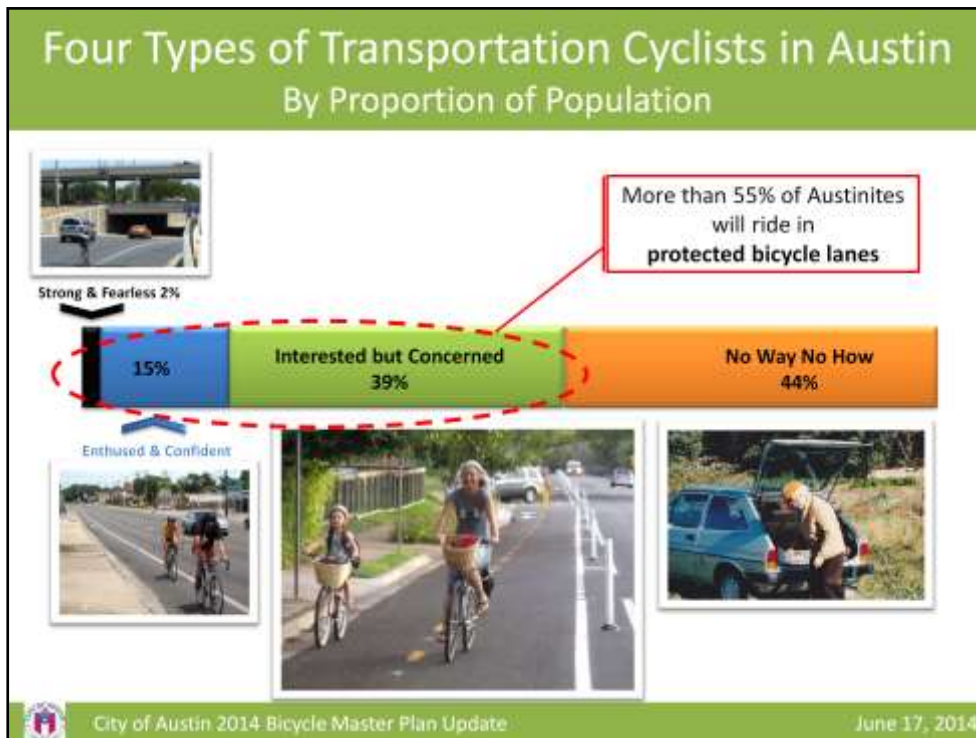

City of Austin 2014 Bicycle Master Plan Update
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- The bicycle plan is a 5 E's plan.
- The most significant update from the 2009 Plan, and the content of this presentation, will be in the Engineering / Infrastructure recommendations and approach, the other sections will get minor updates



- Existing bicycle lanes based infrastructure attracts less than 20% of Austin's population





- A network of protected bicycle lanes will attract 55+% of the population. If we want a significant increase in bicycling and the benefits it brings to the City and its citizens, we will have to pursue protected networks.



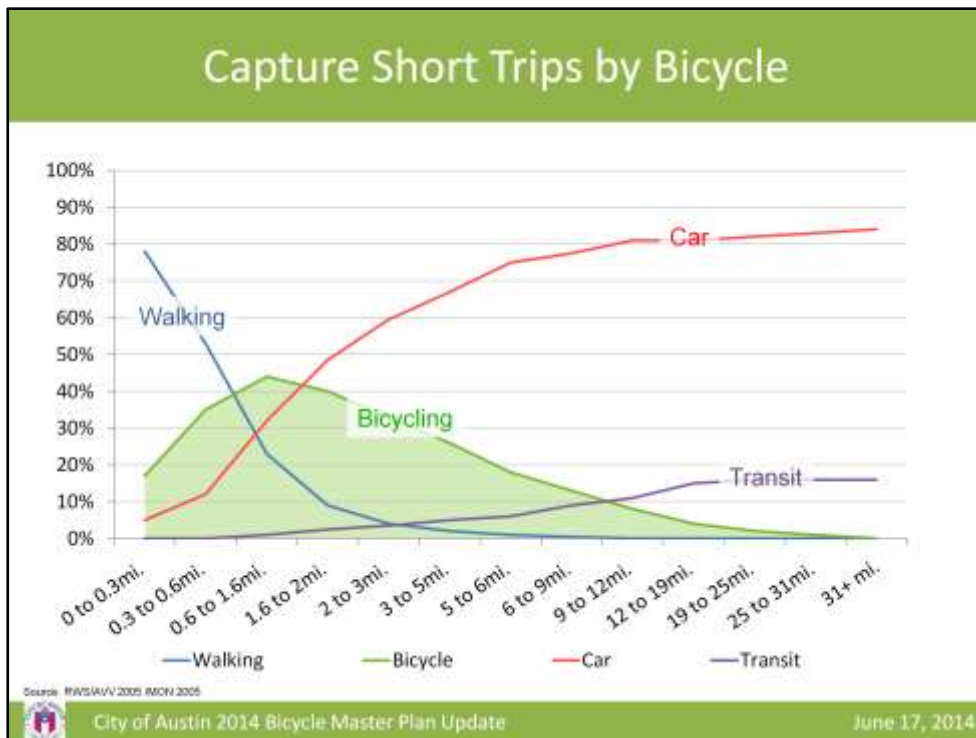
- Guadalupe next to Campus



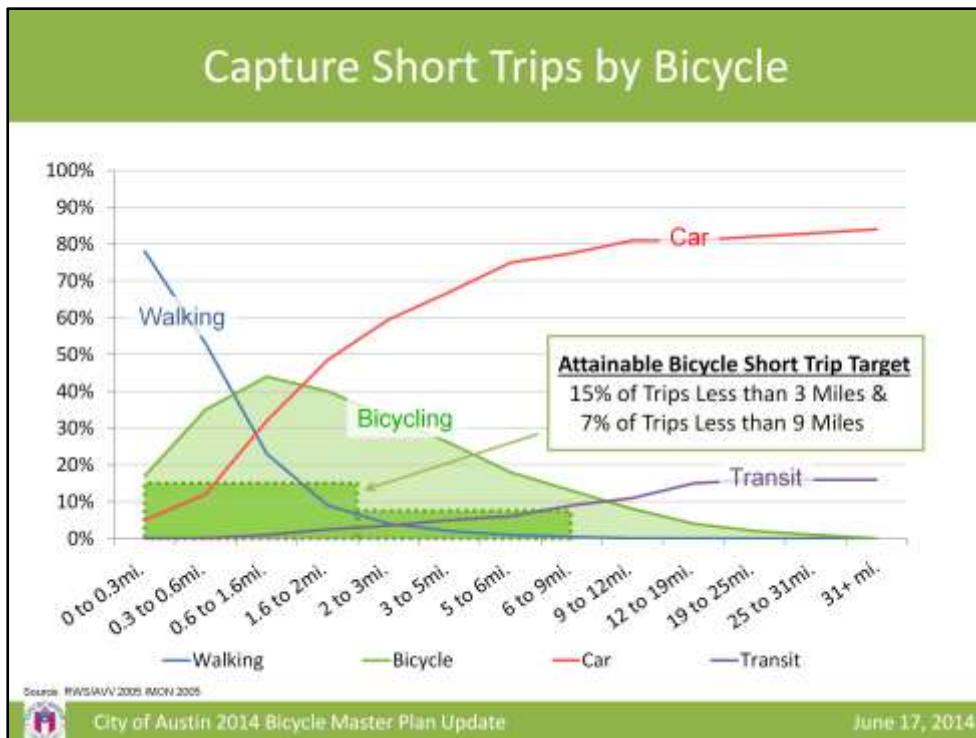
- Bluebonnet Lane Cycle Track in south Austin adjacent to Zilker Elementary



- Barton Springs Road



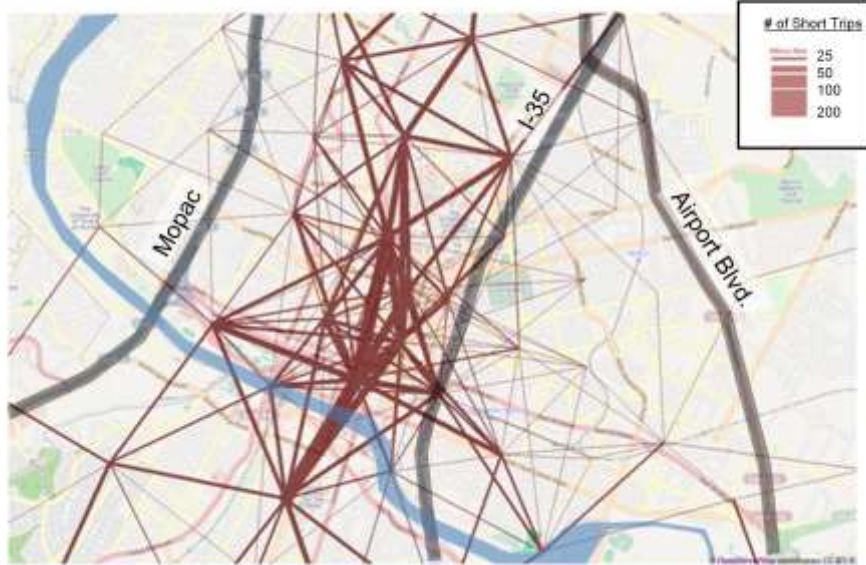
- Each mode is more and less useful at different trip lengths. For short distances walking and bicycling are best, for longer distances cars and transit are better
- Given a safe bicycle network, trips in the 1-3 mile range can be the mode with the largest mode share.
- Targeting infrastructure investments to capture short trips is critical



- The green shaded boxes show the Bicycle Plan updates trip capture targets. The plan will capture the impact of achieving these targets.



## Spider Diagram of Short Car-Trips (0-3 mile)

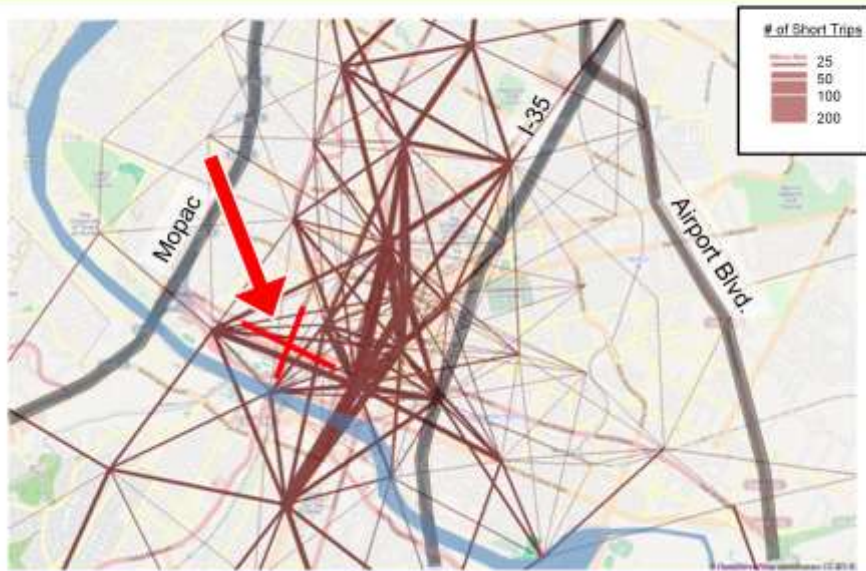


City of Austin 2014 Bicycle Master Plan Update

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- You can see most of the short trips occur in the central city.
- They occur in every direction but you can see a north-south patterns as you would expect in our city.

## Intersection of 5<sup>th</sup>/6<sup>th</sup> and Lamar

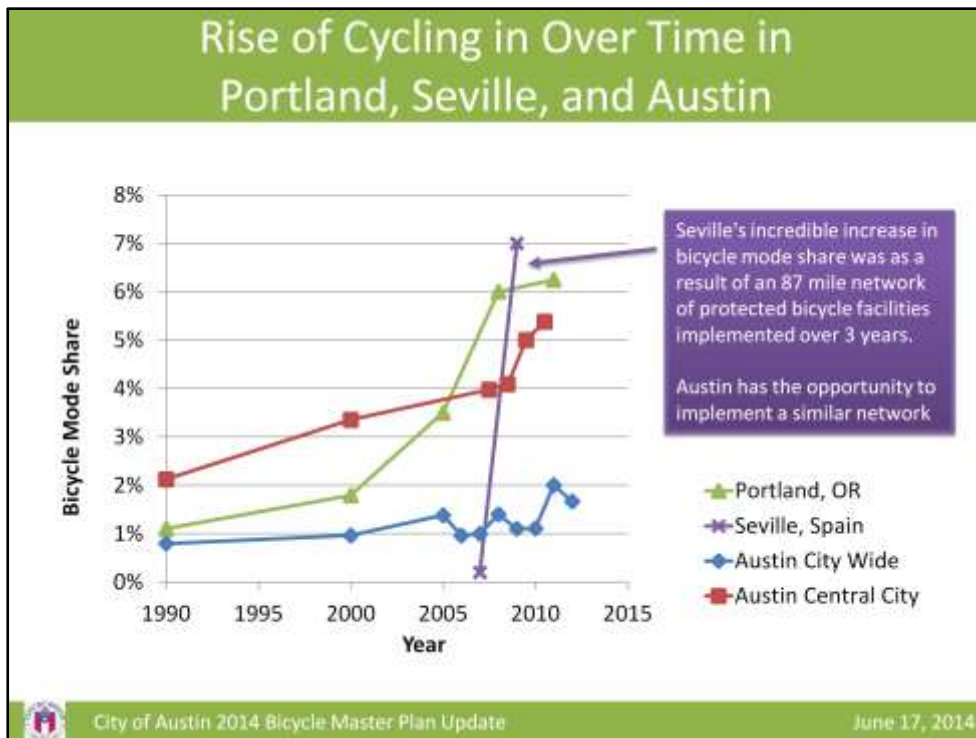


City of Austin 2014 Bicycle Master Plan Update

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- This notoriously congested intersection has 50% of short trips going through it, a portion of which are perfect candidates to be converted to bicycle trips.





- Seville was able to achieve a higher bicycle mode share than Portland, OR in only 3 years due to the implementation of an 87 mile Dutch inspired protected facility network for \$43 million.



- An overview of the detailed recommendations of the 2014 Plan Update

## Toolbox: Cycle Tracks



- Visual guide of the principal tools used in the plan

## Toolbox: Quiet Streets

Quiet Streets are traffic calmed corridors that provide a comfortable environment for all ages and abilities.

Provide the opportunity for green streets elements such as tree plantings, rain gardens, and reductions in impervious cover.

Motor vehicle speed and volumes are managed to achieve safety and comfort for all ages or abilities.



Route guidance is provided through pavement markings and signage.

### Target Speed and Volume:

- 25 mph or less (20 mph preferred)
- 1,500 vehicles per day preferred; up to 3,000 vehicles per day in limited areas.

### Target Locations:

- Residential streets where traffic calming is desired.
- Commercial corridors where heavy motor vehicle traffic is less desired.



- Visual guide of the principal tools used in the plan

## Toolbox: Intersection Treatments

**INTERSECTION TREATMENTS** help users comfortably cross major streets on key routes.

Intersection Treatments Include:

- Crossing signs and markings
- Median refuge islands and curb extensions.
- Crossing devices including actuated warning beacons and signals.



Crossing times should account for all ages.

Actuated warning beacons and signals make the toughest crossings safe and comfortable



Median refuges make tricky crossings a simple two step process

Widths accommodate trailers and cargo bikes



City of Austin 2014 Bicycle Master Plan Update

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- Visual guide of the principal tools used in the plan

# Creating a Network:



- Austin's approach will involve all of these facility types to form one all ages and abilities network
- Our street network does not support reliance on only one of these facility types

## Creating a Network:



### ***The 8 to 80 Test:***



*An **8 year old** traveling with an **80 year old** should be able to traverse the city **comfortable and safely.***



- The plan proposes to hold our network to the 8 to 80 test

# Recommended Bicycle Facility

## Speed and Volume Criteria

		Average Annual Daily Traffic (vehicle per day)		
		Less than 3,000	3,000-9,999	10,000+
85th Percentile	< or =30	Shared *	Bike Lane	Buffered
Speed (MPH)	31-40	Bike Lane	Buffered	Protected
Measured or	41-50	Buffered	Protected	Protected
Projected	> 50	Protected	Protected	Protected

\* Local streets that are important for the all ages and abilities network with less than 3,000 vpd and 30 MPH should be treated as necessary to meet the performance guidelines for Quiet Streets.

## Special Consideration Will be Given To

- On-street parking pressures
- Delivery activity
- Network context



City of Austin 2014 Bicycle Master Plan Update

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- One of the biggest changes from the 2009 Bicycle Plan was to use the speed and volume criteria shown above instead of basing the recommendations from a 20 year old 1992 FHWA report on recommended bicycle facilities.
- The criteria above acknowledges, per current research and best practice, that on higher speed and volume roadways that protected bicycle facilities are necessary to attract the largest portion of the population that is **interested** in riding a bicycle for transportation but **concerned** about safety due to motor vehicle traffic.




# Bicycle Network Priorities


## Long-Term Recommendations

- Based on Speed and Volume Criteria
- Decades Long Build-out

## Recommended Short-Term Network

- Highest Return on Investment
- Target Short Trips

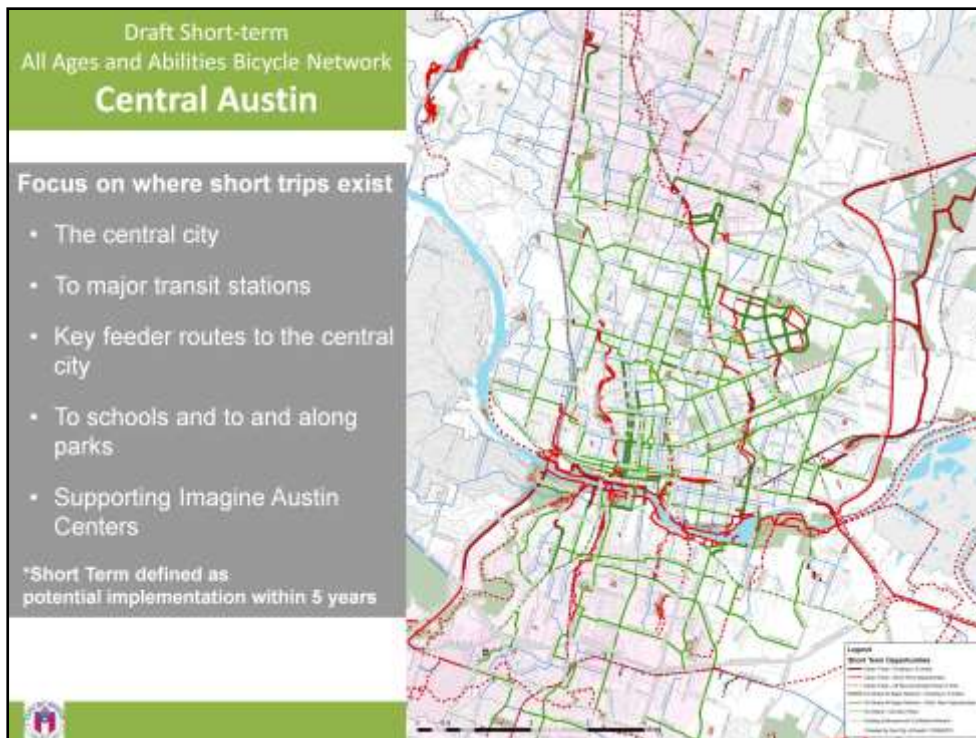




City of Austin 2014 Bicycle Master Plan Update

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- In addition to long term recommendations based on speed and volumes of motor vehicle traffic, a feasible short term all ages and abilities network is recommended



- This is a view of the short term network in the central city composed of on-street facilities and Urban Trails

## Bicycle Lane Network Barriers

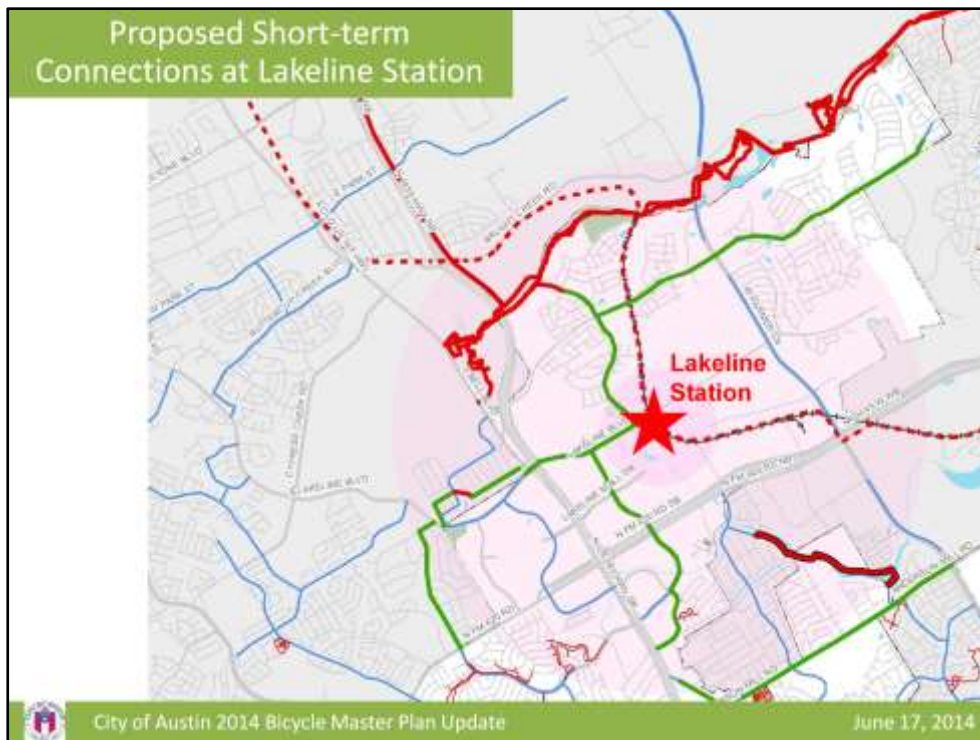
- Updated top 100 barriers
- Removal of barriers prioritized in plan



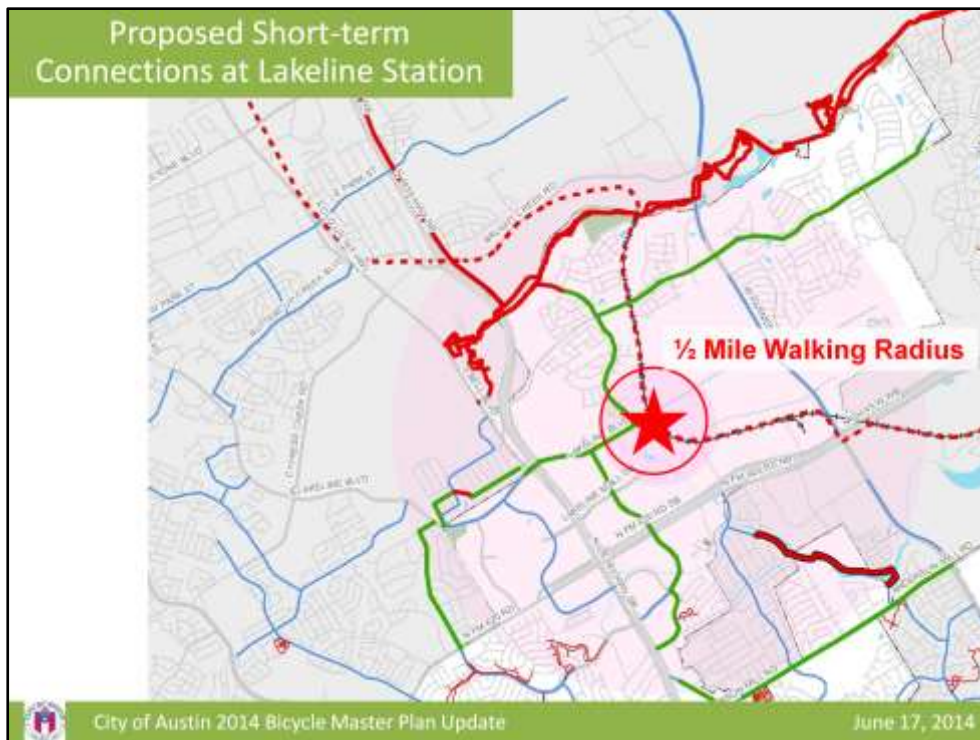
City of Austin 2014 Bicycle Master Plan Update

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- Removing barriers even with the installation of bicycle lanes will continue to be a central element of the plan
- Past barrier along Barton Spring Road shown
- Barrier Resolved with animation

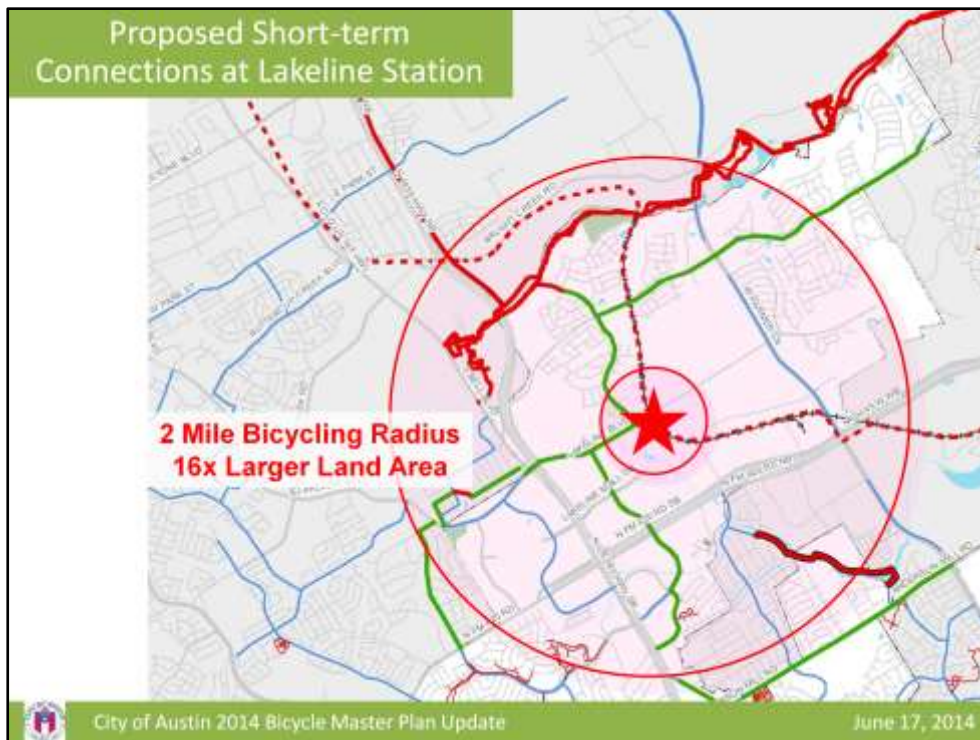


- An example showing the proposed network around the Cap Metro Lakeline station

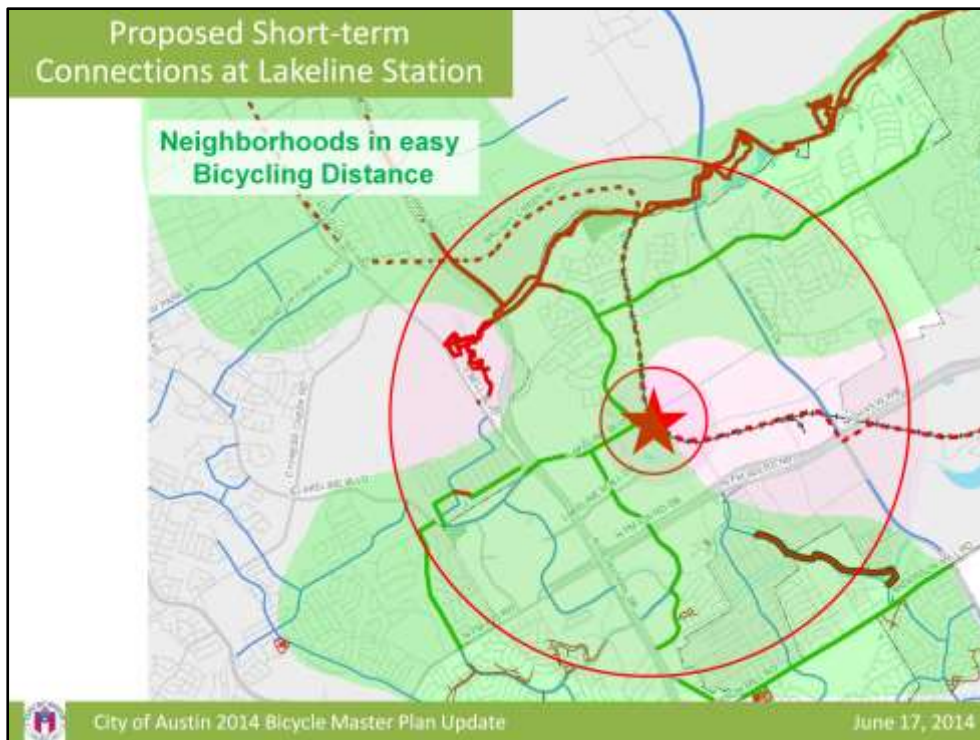


- A 1/2 mile radius around the stations does not reach many destinations





- A 2 mile bicycle radius has a far greater reach to surrounding destinations



- The shaded areas show the destinations that would have safe bicycle access to the Lakeline station by a reasonable bicycle trip length. This presents an incredible opportunity to increase transit use, support transit oriented development, increase active transportation, and reduce drive alone trips.

## High Capacity Bicycle Parking at Transit Stations



City of Austin 2014 Bicycle Master Plan Update

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- Bicycles should not take limited space on transit vehicles.
- Best practice is high capacity, secure bicycle storage at major transit stations.
- If protected bicycle networks better connect transit stations expanded bicycle parking will be necessary



## Integrating Transit with Bike Share



City of Austin 2014 Bicycle Master Plan Update

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- Bicycle Share systems have significant potential to increase a transit rider's level of service and access to last mile (or two) destinations.
- Plan update will support Bicycle Share network expansion



- Protected bicycle infrastructure will be prioritized to support *projectconnect's* transit vision.
- Safe bicycle access to stations will significant expand the transit system catchment and increase ridership

Implementation and Cost Considerations		 Urban Trails	 On-Street Facilities
		The ultimate protected environment	Providing safe access to local destinations
Cost		\$1.5 - \$2 million per mile*	\$50k - \$500k per mile*
		*For comparison: 6-lane freeway approximately \$51 million per mile 4-lane arterial roadway approximately \$22 million per mile (Source: CAMPO 2035 Plan)	
Timeline		3-8 years per project	6 months - 2 years per project



- On-street facilities are much less expensive and can be implement much faster than urban trails.

## Benefits of Short Term Network Significant Mobility Improvements

**Our *DRAFT* Analysis Shows**  
**Of the 160k passenger vehicle trips that**  
**enter the "Ring of Congestion" Daily**

**36% are less than 3 miles**

**If only 15% of these trips 0-3 miles**  
**and 7% of trips 3-9 miles**  
**are converted to bicycle trips**

**There would be a total reduction of**  
**7% all motor vehicle trips**  
**to the Ring of Congestion**

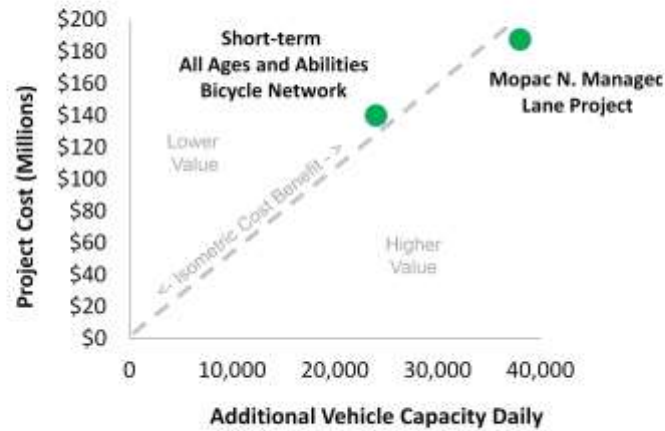


City of Austin 2014 Bicycle Master Plan Update

June 17, 2014

- Meeting our trip capture targets will the proposed short term all ages and abilities network will result in significant mobility improvements

## Cost Benefit to Regional Mobility



- The cost benefit of the short-term all ages and abilities bicycle network is on par with other regional mobility investments.
- The benefits of the All Ages and Abilities Bicycle Network are not limited to mobility benefits. Other benefits include health, quality of life, economic development and workforce development, and household affordability.

## Implementation with Development



- It is important to ensure that corridors are shaped at time of development to provide safe bicycle facilities.
- This opportunity will not come again for many decades or more.

## Boards, Commissions, and Council Status

Date	Meeting	Bike Plan Approval?
7-Apr	Pedestrian Advisory Council	Approved
8-Apr	Urban Transportation Commission	Approved
16-Apr	Environmental Board	Approved
19-May	Parks: Land, Facilities, and Programs Committee	Approved
27-May	Parks Board 6-8pm Boards and Commissions Room	Approved
2-Jun	Comprehensive Planning & Transportation Committee (CPTC) 2-4pm Boards and Commissions Room	Briefed
17-Jun	Bicycle Advisory Council	
24-Jun	Planning Commission	
26-Jun	City Council (conduct public hearing)	



- Schedule and status of boards and commission meetings.



## CITY OF AUSTIN 2014 BIKE PLAN UPDATE

For more information: <http://austintexas.gov/yourpath>

For comments contact: Nathan Wilkes, [nathan.wilkes@austintexas.gov](mailto:nathan.wilkes@austintexas.gov)

City of Austin Bicycle Program



City of Austin 2014 Bicycle Master Plan Update

June 17, 2014

- And thus concludes an overview of the content that is proposed to be included in the 2014 Bicycle Plan Update