



Protected Bike Lane Feasibility Study Update

May 17, 2023

Conducted in Partnership With



Presentation

1. Review Schedule, Scope of Work, and Approach
2. Status & Draft Results
3. Public Input
4. Next Steps





Protected Bike Lane (PBL) Feasibility Study

Project
Background

Protected Bike Lane (PBL) Feasibility Study

Project Goal: Building from previous plans, mobility objectives, and public input -
Increase the number of protected bike lanes

Project Outcome

- Protected bike lane design guidelines
 - *Quicker to build & lower cost*
- Feasibility of converting existing and planned bike lanes to protected bike lanes (arterials & collectors)
- Develop a prioritized list of roadway locations for implementation.





Protected Bike Lane (PBL) Feasibility Study

Scope of Work

Scope of Work



Task 1: Community
Engagement



Task 2: Protected Bike
Lane Design Guidelines



Task 3: Data Collection
& Analysis



Task 4: Protected Bike Lane
Feasibility Analysis



Task 5: Study Report &
Implementation



Project Schedule – 9 Months

2023
9 Months

Winter

Spring

Summer

Protected Bike Lane Design
Guidelines

Protected Bike Lane Feasibility Analysis

Data Collection & Analysis

Project Webpage & Use of City Communications Outlets



Transportation
Commission



In Person & Online
April 1st Family Bike Ride

Study Report &
Implementation



Stakeholder & Community Engagement





Community Engagement

Community Engagement



Inform & Educate – *Continuous*

- Project website
- Chandler newsletters & social media
- E-mails (existing lists)

Input & Engage – *Spring*

- Meet people where they are at
- Online survey
- Feedback on
 - *Draft Analysis Results*
 - *Prioritization Approach*



CHANDLER arizona

EXPLORE RESIDENTS BUSINESS GOVERNMENT

Current Roadway Projects and Major Street Closures

- Alma School Road - Phase I: Pecos Road to Germann Road

The Alma School Road Design Concept Report was finalized in July 2019. Three phases of improvements to Alma School Road are planned, as identified in the 10 Year Plan for City Capital Improvements.

Phase One improvements on Alma School Road are from Pecos Road to Germann Road. The process to select a design firm has begun, with design scheduled for Fiscal Year 2019-2020 and construction scheduled for Fiscal Year 2020-2021.

Phase Two improvements on Alma School Road are from Germann to Queen Creek roads. Design is scheduled for Fiscal Years 2023-2024 and 2024-2025 and construction is scheduled for Fiscal Year 2025/26.

Phase Three improvements on Alma School Road are from Chandler Boulevard to Pecos Road. Design is scheduled for Fiscal Years 2024-2025 and 2025-2026, and construction is scheduled for Fiscal Year 2026-2027.

For more information, visit the [Alma School Road project](#) or call the project hotline at 480-898-4060.

- Arizona Avenue Alternatives Analysis

Information specifically about the Arizona Avenue Alternatives Analysis Study can be found online by visiting [Valley Metro](#), or calling Victoria Bray at 602-490-8284.



April 1, 2023

7:30 a.m.

📍 Chandler Park & Ride
Hamilton Street & Germann
Road
Chandler, AZ 85286

💰 FREE





Engagement Opportunities

- Chandler Transportation Commission January 18, 2023
- Family Bike Ride Registration Feb. – March 2023
- Family Bike Ride In-Person Engagement April 1, 2023
- Survey Online April – May 1, 2023
- Chandler Transportation Commission May 17, 2023



5th Annual Chandler Family Bike Ride

[Home](#) | [Explore](#) | [Special Events](#) | [15th Annual Chandler Family Bike Ride](#)

8:30 a.m. | Kick Off

Enjoy vendors and activities that will include equipment safety checks and bike rodeo.

8:30 a.m. | Guided 7.8 Mile Ride

Shortly at 8:30 a.m. the **guided 7.8 mile bike ride** will begin. The ride starts at the Chandler Park & Ride then travels the Paseo Canal to Tibshraeny Park and back. Upon return, participants can enjoy a free Kona Ice to celebrate.

Virtual Ride

If you're not able to attend the community event or would rather ride in the comfort of your own neighborhood or park, we are also offering a virtual bike event March 27 - April 2. Grab your family and friends and ride anytime during the weeklong event. For those who have pre-registered by March 15, 2023, t-shirts can be picked up at the Downtown Library during operational hours starting on Monday, March 27, 2023.

Registration

Participants are asked to register online for both the community and virtual events.


Registration Closed




CHANDLER
Family Bike Ride

April 1, 2023

8:30 a.m.

 Chandler Park & Ride
Hamilton Street & Germann
Road
Chandler, AZ 85286

 FREE

Contact Us

 480-782-3440



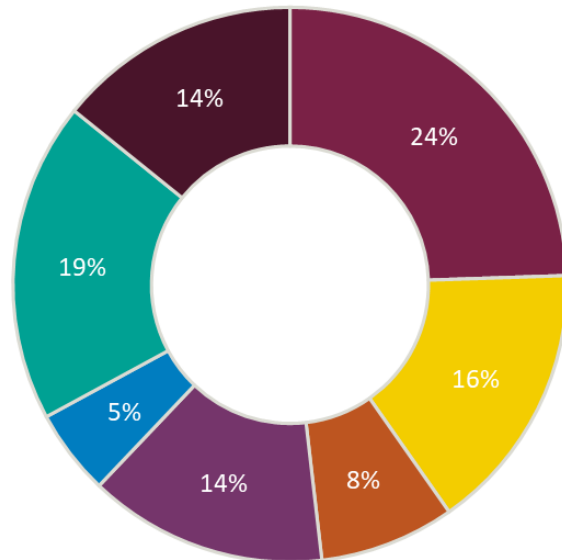
Family Bike Ride Registration

Family Bike Ride Registration

Online Registration, provided an opportunity to ask questions!

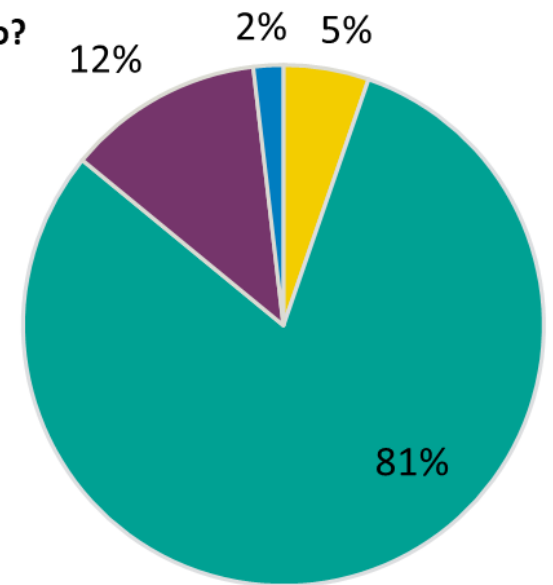
How often do you bicycle in the City of Chandler?

- A few times a month
- A few times a week
- Almost Daily
- Monthly
- Never
- Rarely
- Weekly



What Kinds of Bicycling Do You Do?

- Mountain Biking
- Recreation
- Transportation
- Other



Agreement On Feeling Safe And Comfortable Biking On Different Types Of Roads

In general, I feel safe and comfortable riding a bicycle on: Shared use paths/ the canals

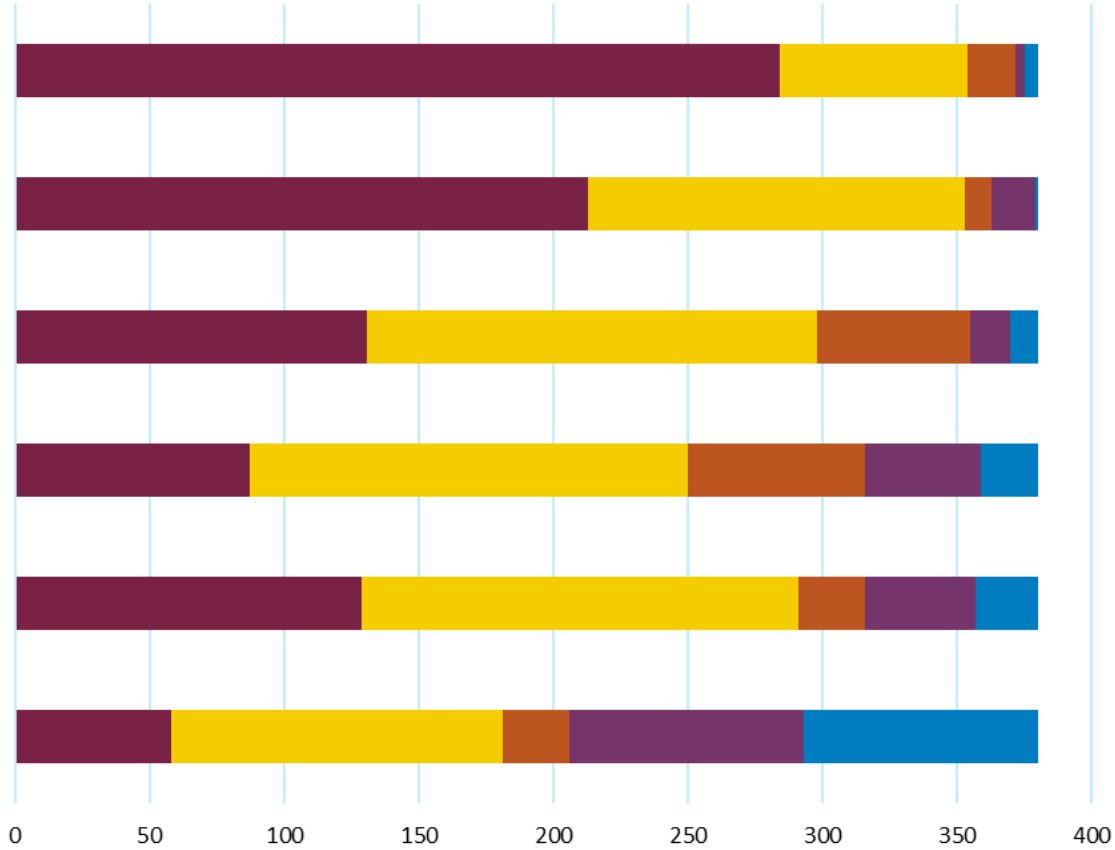
In general, I feel safe and comfortable riding a bicycle on: Neighborhood streets

In general, I feel safe and comfortable riding a bicycle on: Collector roads - on sidewalks

In general, I feel safe and comfortable riding a bicycle on: Collector roads (like Ryan Rd. or Brooks Farm Rd.)- in bike lanes

In general, I feel safe and comfortable riding a bicycle on: Major arterials on sidewalks

In general, I feel safe and comfortable riding a bicycle on: Major arterials (like Chandler Blvd.) in bike lanes



■ Strongly Agree
 ■ Somewhat Agree
 ■ Don't Know
 ■ Somewhat Disagree
 ■ Strongly Disagree



Family Bike Ride In-Person Engagement

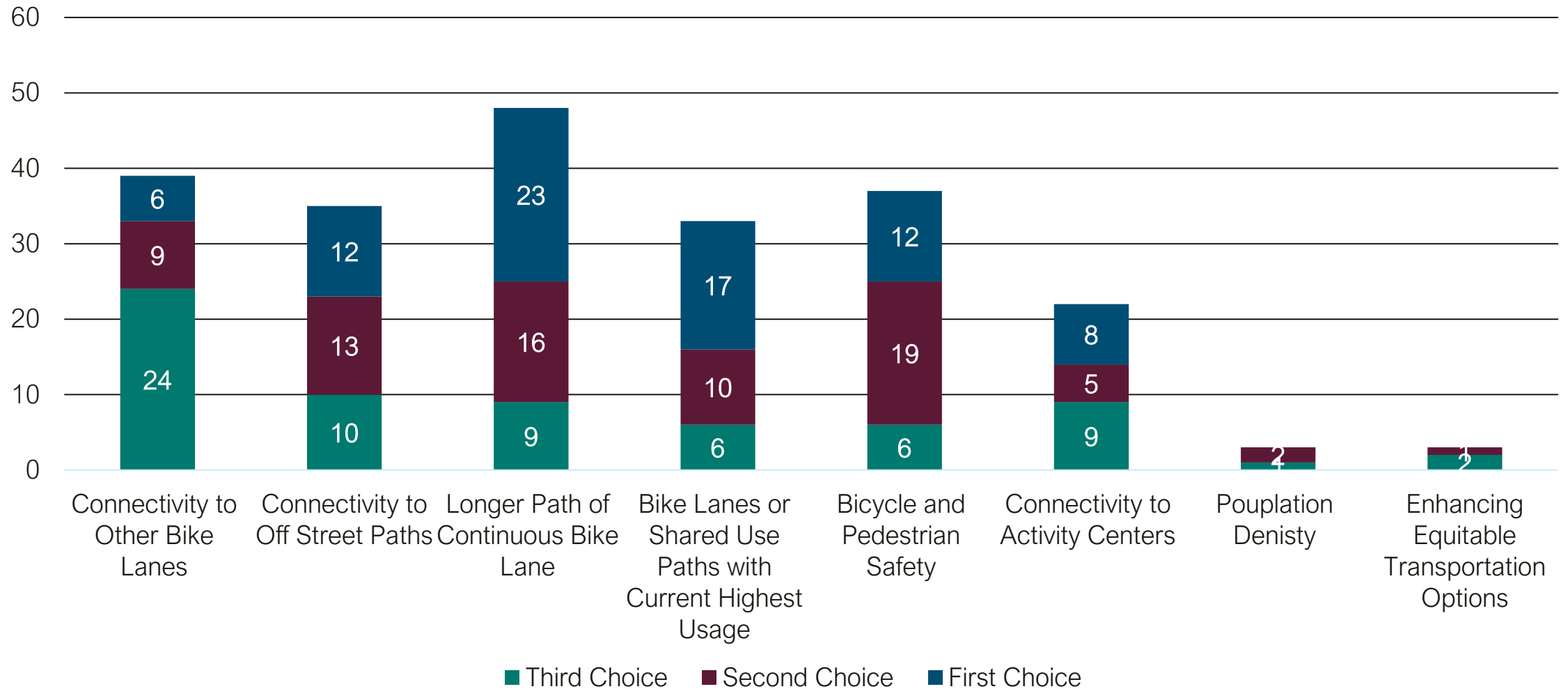


Family Bike Ride In-Person Engagement

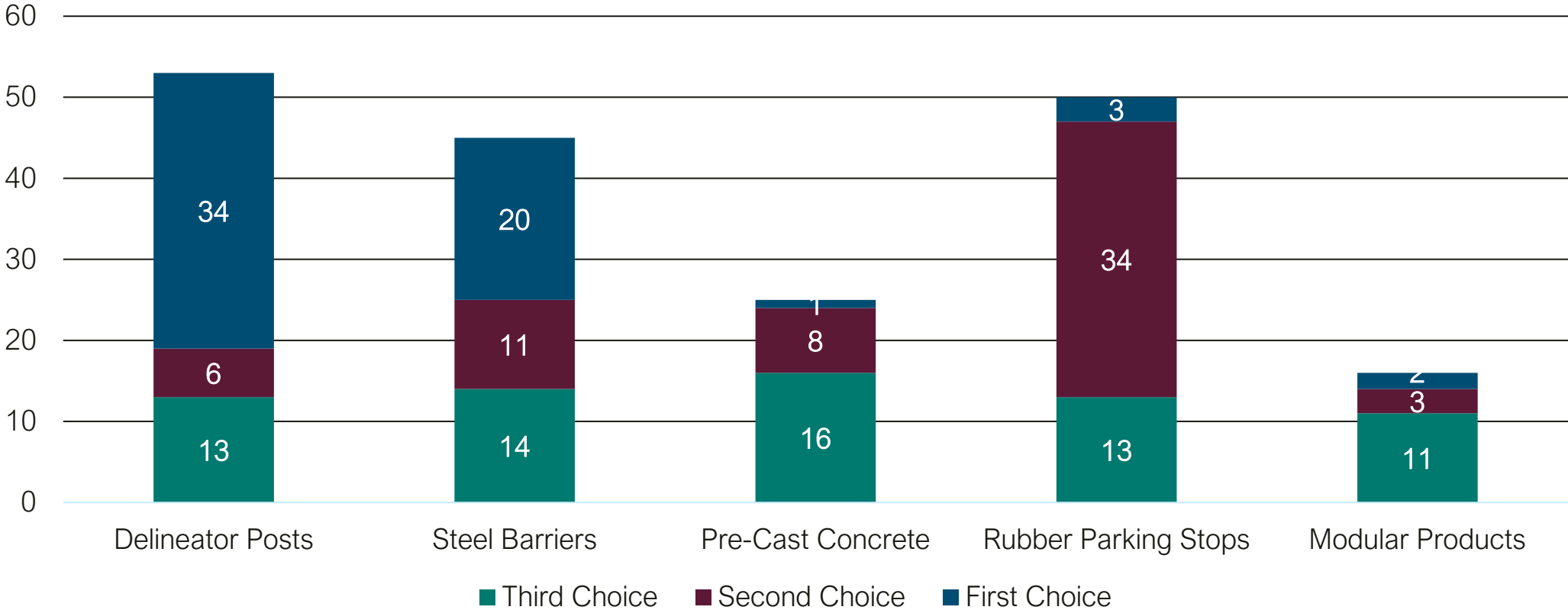
Protected Bike Lane Show and Tell & Preference Activities



Top 3 Factors You Would Consider for PBL Location Prioritization



Top 3 Preferences of the Proposed Types of Vertical Barriers



Online Survey



Chandler needs your input on protected bike lanes

[Home](#) | [News Center](#)

March 27, 2023



CHANDLER, Ariz – The City of Chandler recently **released a survey on its website** to obtain feedback on potential protected bike lanes within Chandler.

The survey asks for feedback regarding the individual's current bicycle usage as well as potential usage if protected bike lanes are built; the respondents desired locations for protected bike lanes, and opinions on the design options that might be considered.

Anyone who plans to participate in the Chandler Family Bike Ride on April 1 will be able to experience some of the design options that are being considered. Physical barriers will be placed onsite at the Chandler Park and Ride prior to the bike ride for participants to experience what a protected bike lane experience looks like.

The City's Transportation Master Plan identified four corridors for protected bike lanes, however the feedback received encourages increasing the number of protected bike lanes in other parts of the City as well.

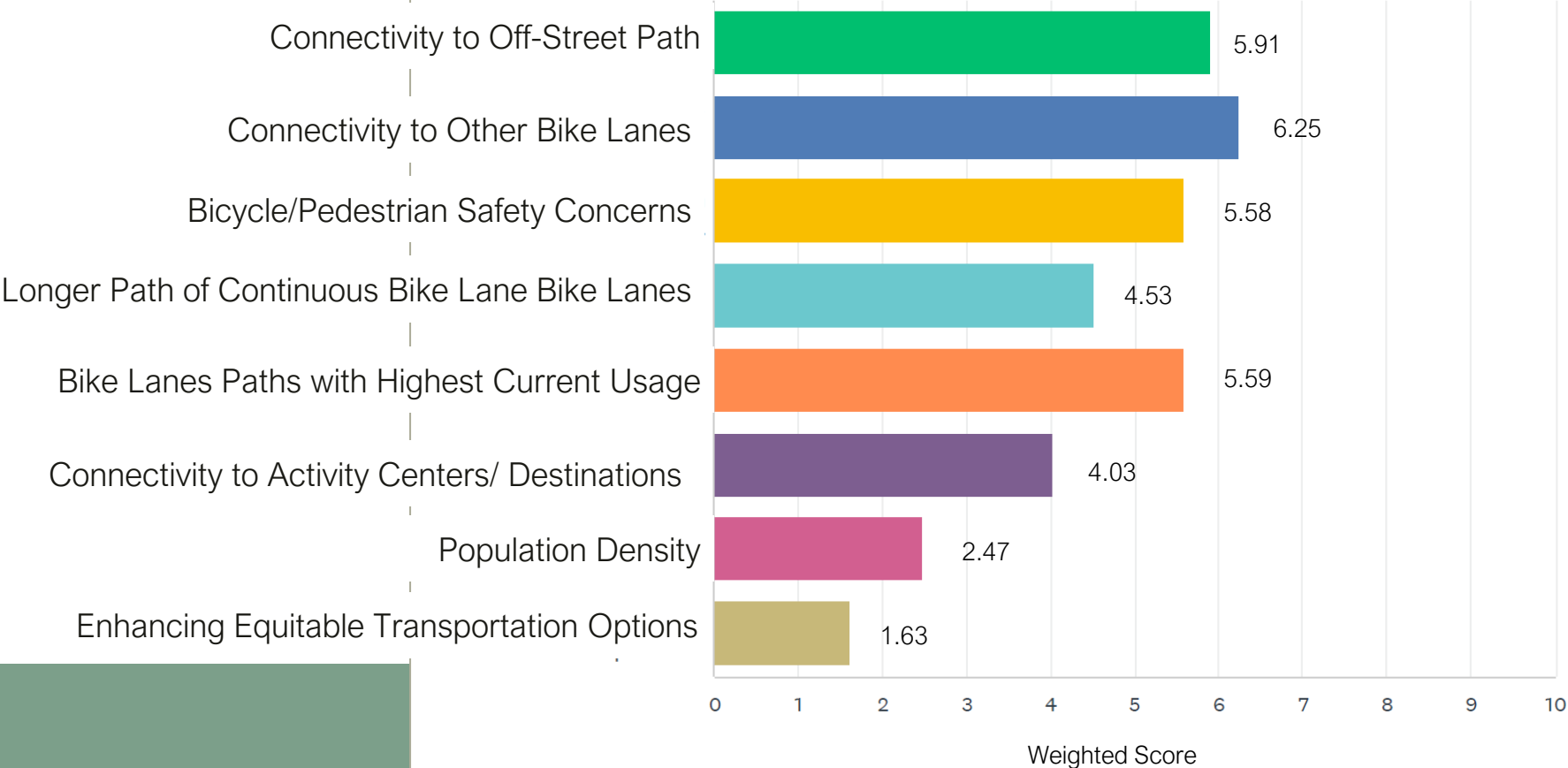
The survey will be available through April 30. It is part of a nine-month study in partnership with Maricopa Association of Governments, to evaluate the feasibility of upgrading existing bike lanes to protected bike lanes.

The feedback received from the online survey will be one factor used to determine the best location for new protected lanes to be installed.

Top 3 Factors You Would Consider for PBL Location Prioritization

Q3 Please rank order the top 3 factors you would consider for location prioritization to install protection on existing bike lanes:

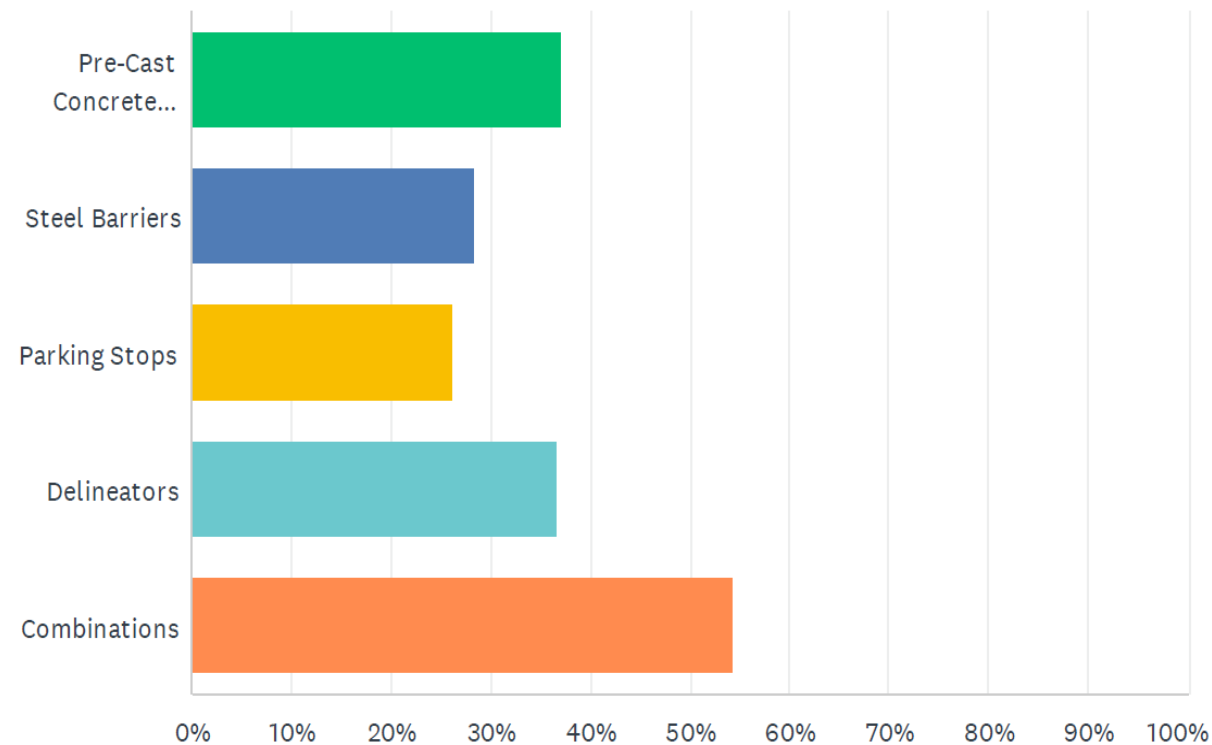
Answered: 457 Skipped: 66



Top 3 Preferences of the Proposed Types of Vertical Barriers

Q7 Please choose two of the five proposed types of vertical barriers that you would most prefer.

Answered: 441 Skipped: 82





Protected Bike Lane (PBL) Feasibility Study

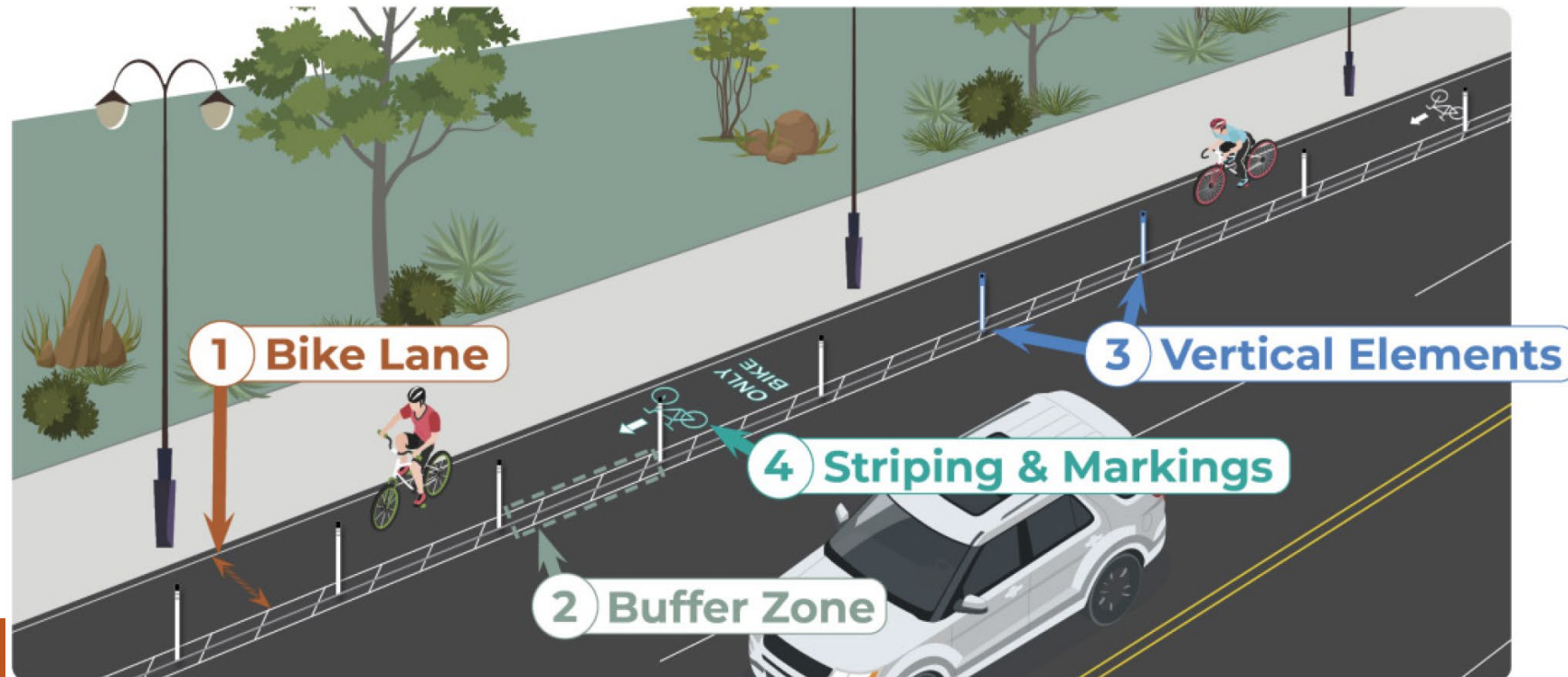
Status & Draft
Results



Task 2 – Protected Bike Lane (PBL) Design Guidelines

Development of design options for protected bike lanes. This will establish the needed width and space within a roadway to install a protected bike lane.

The Envelope





Task 2 –P B L Design Guidelines

Minimum and Maximum Widths for:

- Bike Lane
 - Acknowledge gutter pan
- Buffer
- Physical barrier options
 - High Protection
 - Lower cost options
 - Replicate
- Total facility dimensions

Protected Bike Lane Components			Protected Bike Lane Envelope	
Gutter Pan	Bike Lane Width Range	Buffer	Total Minimum Width	Total Preferred Width
1 to 1.5	4 to 5+	1.5 +	7	8
All widths are calculated in feet.				





Task 2 –P B L Design Guidelines

Vertical Barriers:

- Pre-Cast Concrete Curb/Barriers
- Parking Stops
- Delineator Posts
- Tuff Curb





Task 3 - Data Collection & Analysis

Step 1
Inventory &
Screening



Step 2
Feasibility



Step 3
Aligning with
PBL Design
Guidelines
Options

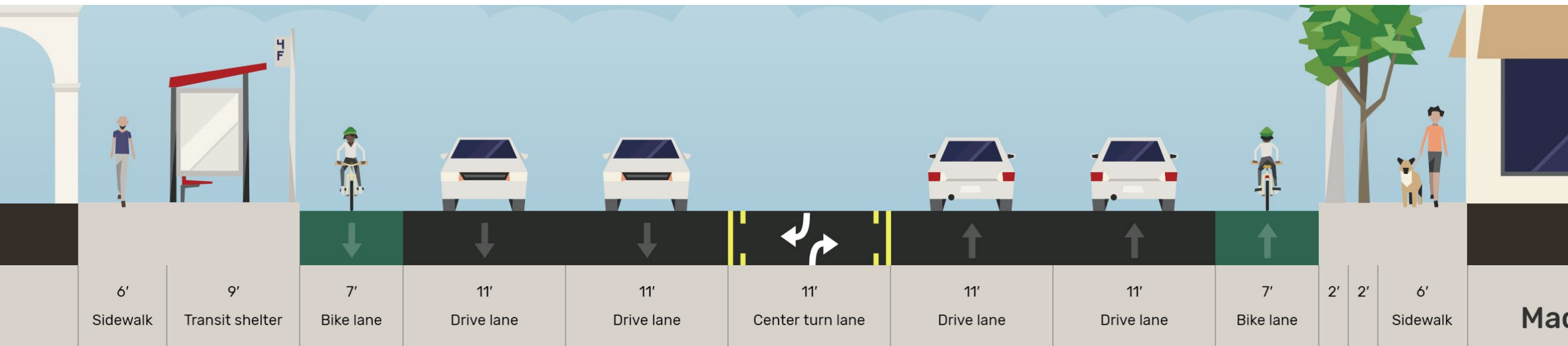




Task 3 - Data Collection & Analysis

Step 1 – Inventory & Screening:

- Arterials & Collectors with existing and planned bike lanes
- Identify curb-to-curb width, and median to curb width
- # of vehicle lanes
- Existing bike facility



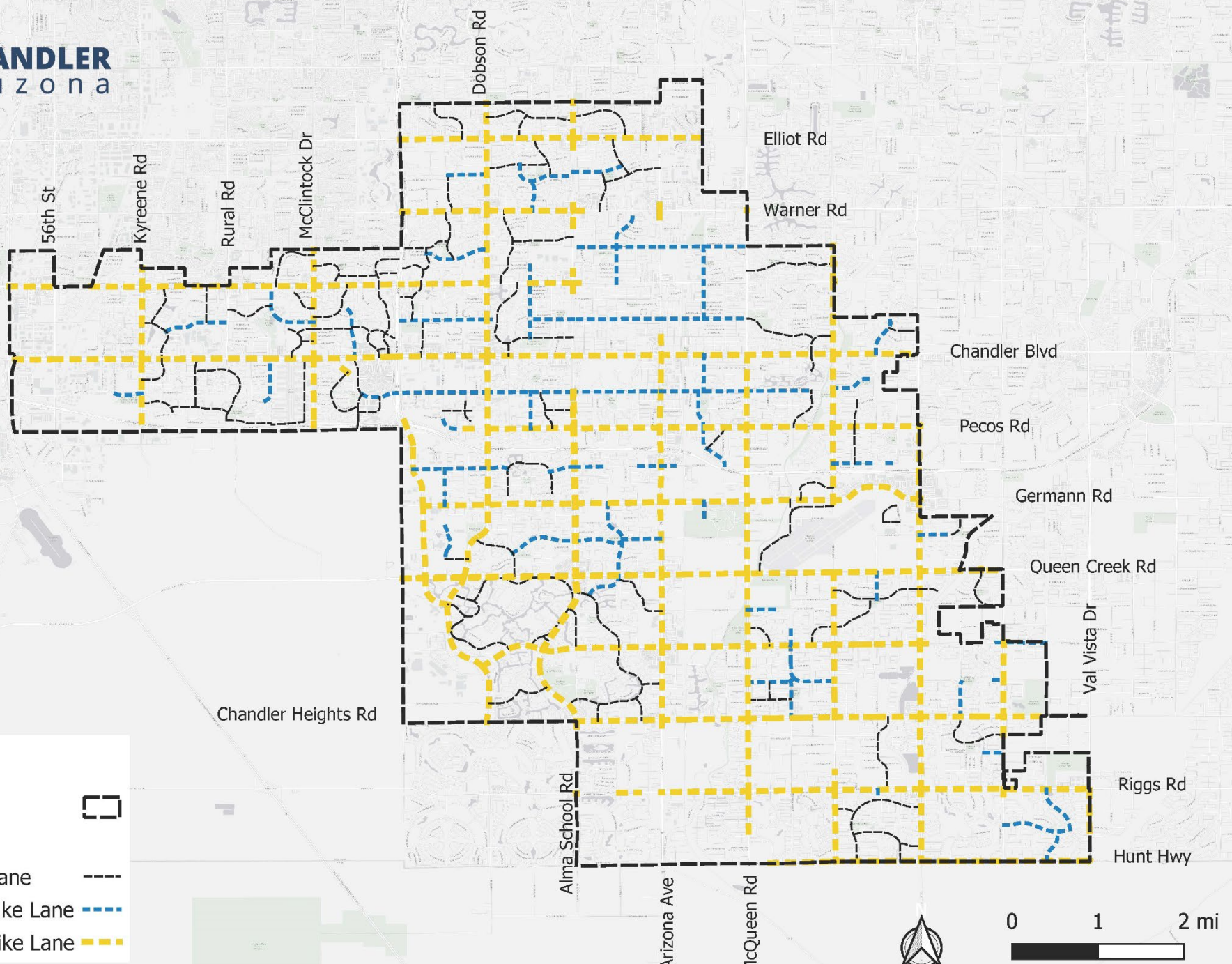
Roadways for Evaluation

Roadway Type	Total Amount of Roadways (Centerline Miles)	Total Amount of Bike Lanes (Centerline Miles)	% of Roadways with Bike Lanes
Arterials	201	153	76%
Collector	103	57	55%
Total	304	210	69%

Numbers are rounded to nearest mile.

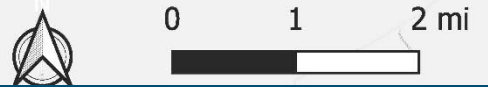


Existing bike lanes (arterials and collectors)



Legend

- City Boundary
- Bike Lanes
- Collector Bike Lane
- Minor arterial Bike Lane
- Major arterial Bike Lane

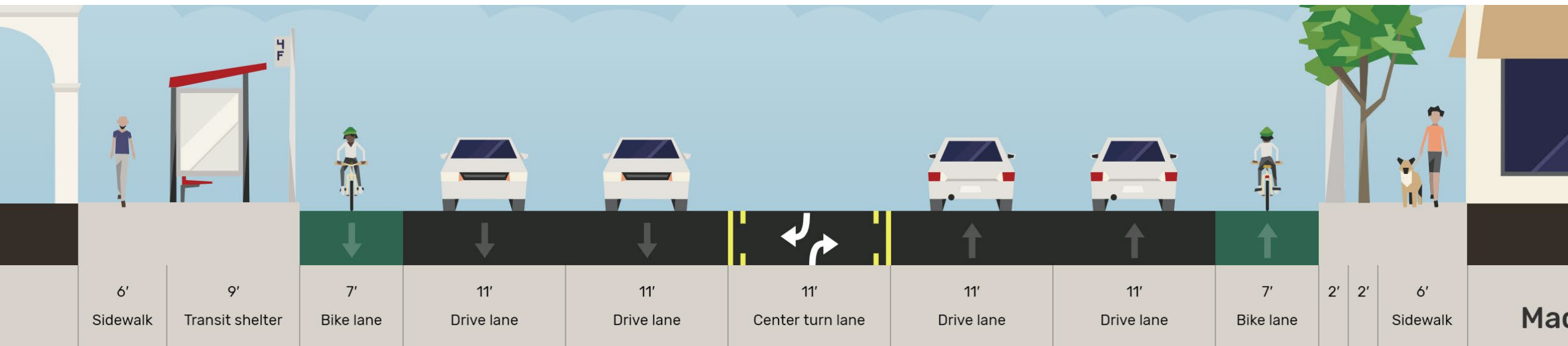




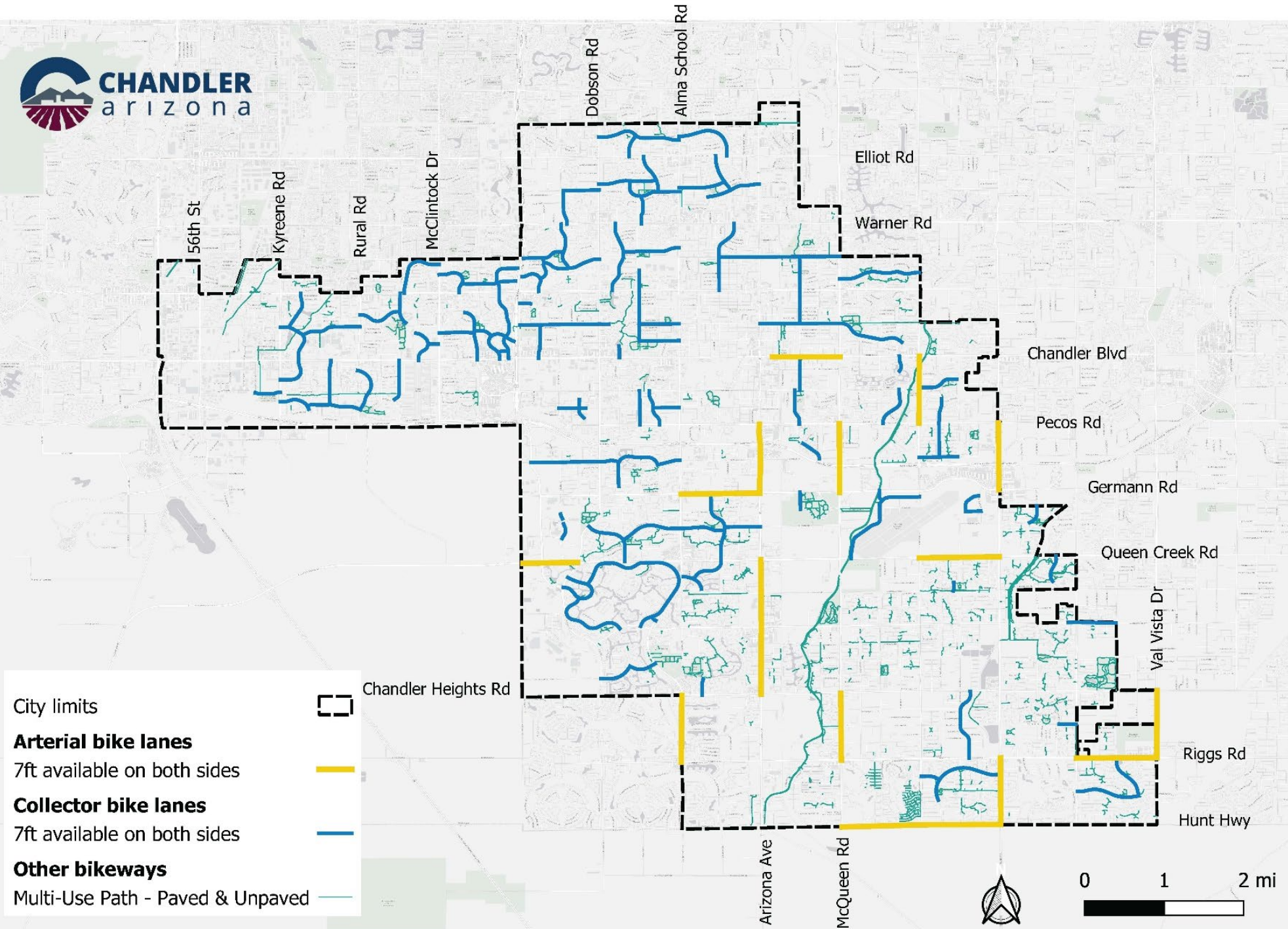
Task 3 - Data Collection & Analysis

Working Within Constraints:

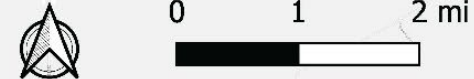
- *Do not* remove a vehicle lane
- *Do not* widening the roadway
- *No removal of concrete medians*
 - Project goals are to implement lower cost protection options



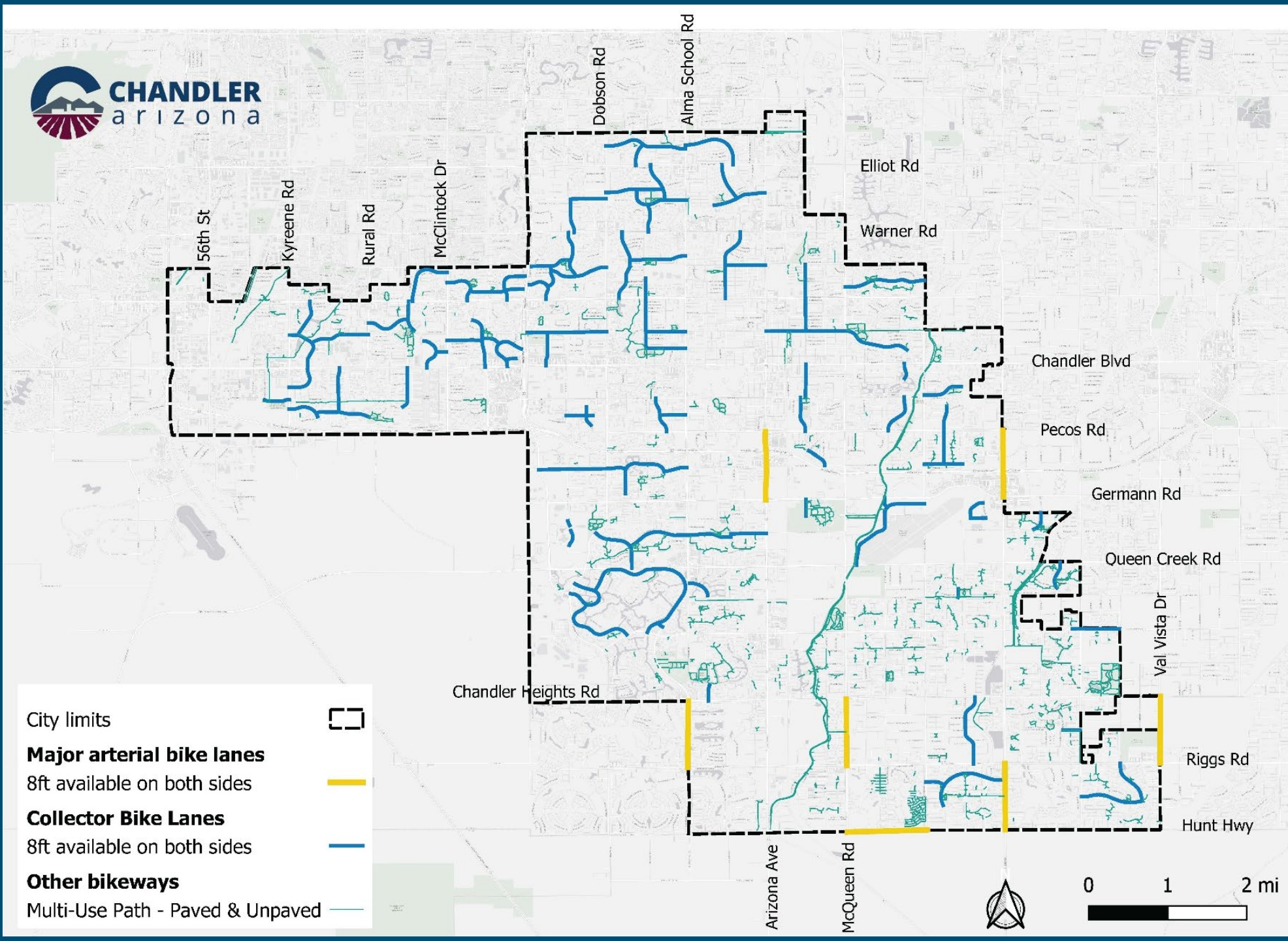
Room for a 7 Ft. Protected Bike Lane



- City limits 
- Arterial bike lanes**
7ft available on both sides 
- Collector bike lanes**
7ft available on both sides 
- Other bikeways**
Multi-Use Path - Paved & Unpaved 



Room for an 8 Ft. Protected Bike Lane



- City limits 
- Major arterial bike lanes**
8ft available on both sides 
- Collector Bike Lanes**
8ft available on both sides 
- Other bikeways**
Multi-Use Path - Paved & Unpaved 



Task 3 - Data Collection & Analysis

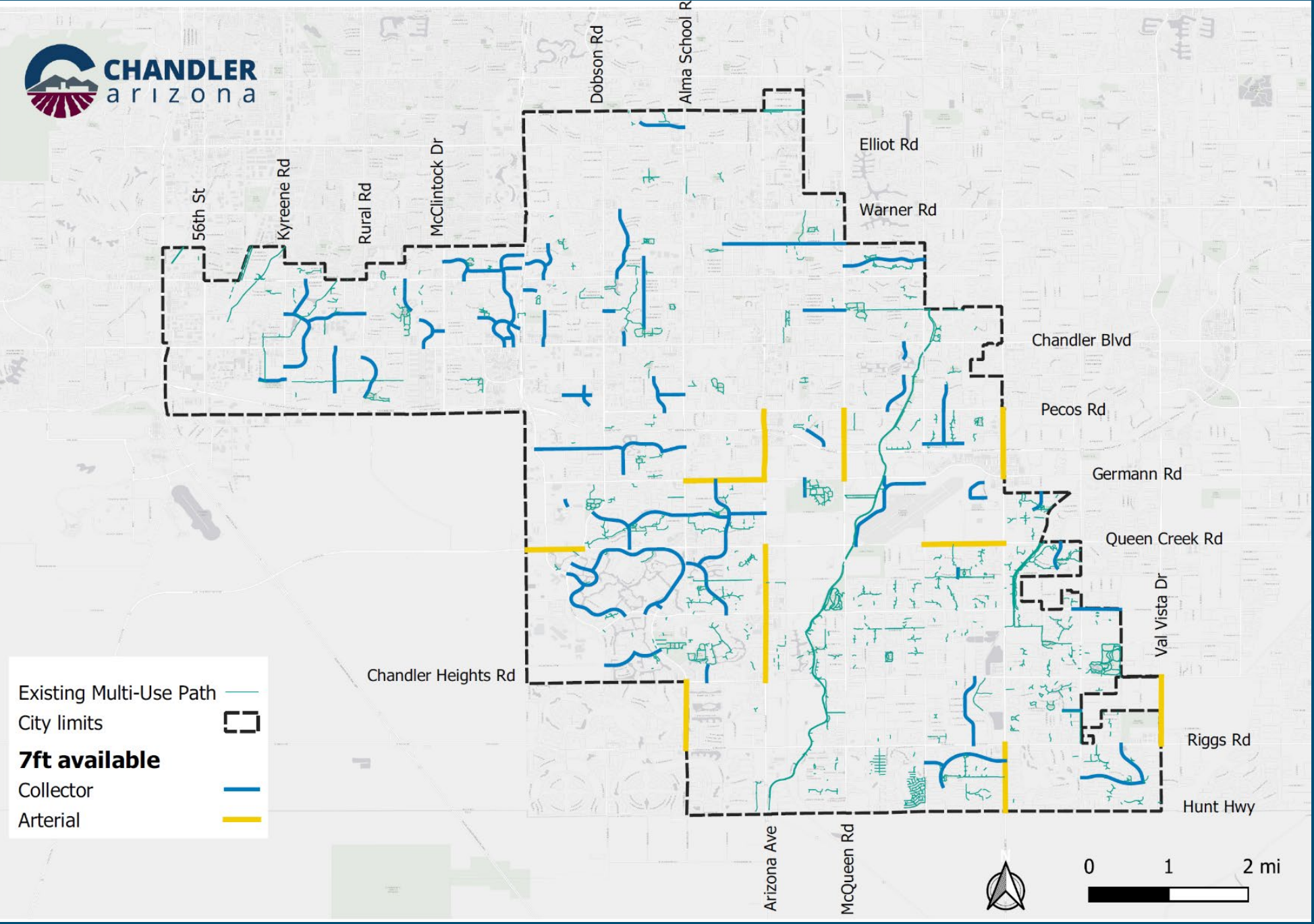
Step 2 – Feasibility:


Corridors/segments that made it through Step 1, evaluate the feasibility of the PBL:


- Front facing housing/number of residential driveways
- Existing curb and gutter
- Street lighting presence
- Number of signalized intersections
- Number of unsignalized intersections
- Number of commercial driveway
- High concentration of driveways
 - Yes = 8 or more driveways/intersections in a $\frac{1}{4}$ mile
 - No = 7 or less driveways/intersections in a $\frac{1}{4}$ mile




Roads with Room and are Feasible for a 7 ft Protected Bike Lane




Existing Multi-Use Path 

City limits 

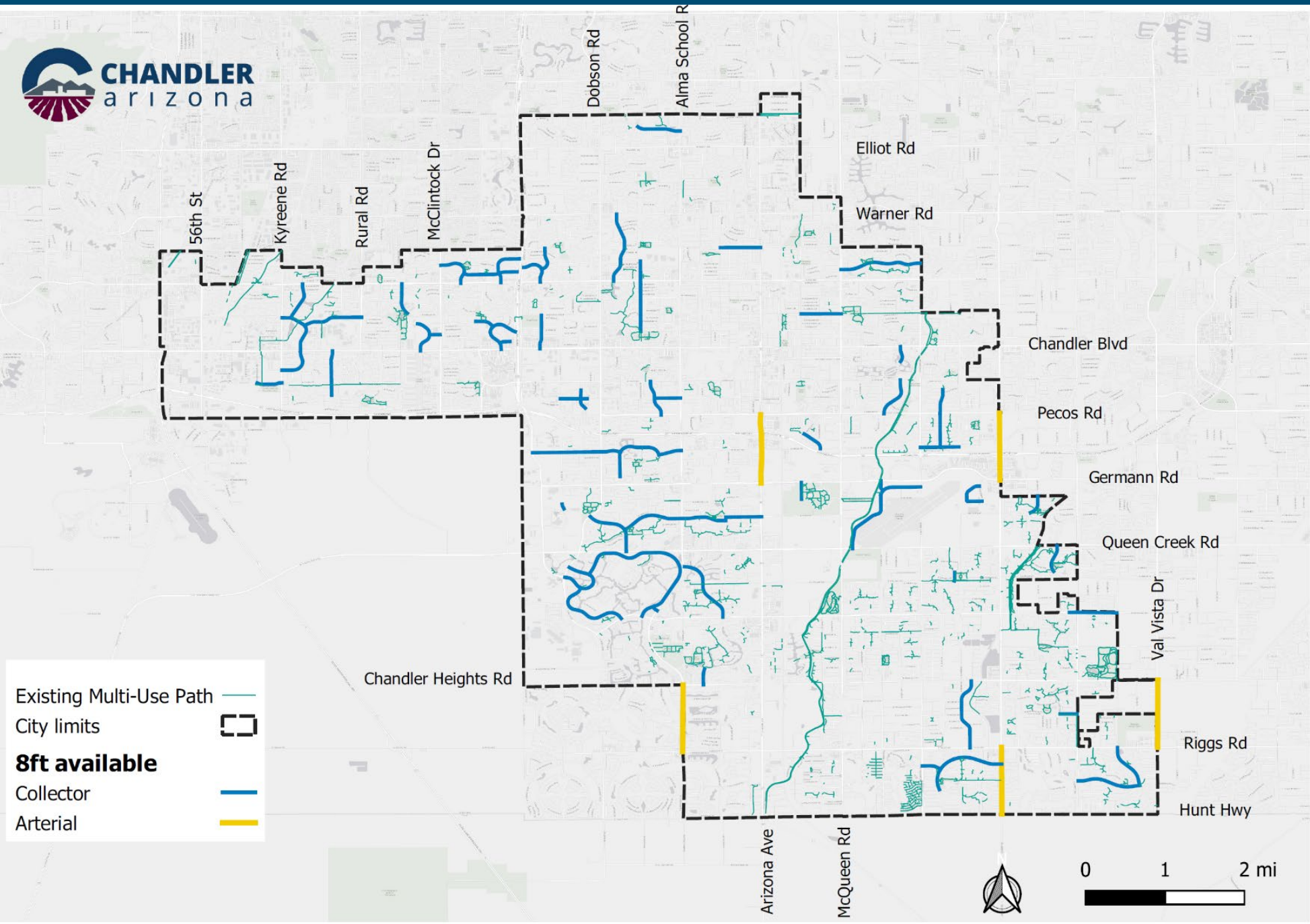
7ft available

Collector 

Arterial 



Roads with Room and are Feasible for an 8 ft Protected Bike Lane





Task 4 – Evaluation for Prioritization – *Upcoming Task*

Evaluate 53 Miles of Feasible Locations for PBLs

Prioritize corridors for PBL, *considerations:*

- Connection to schools and parks
- Connection to canals or off-street trails
- Connected and length of connected protected bike lane
- Bicycle activity (Strava)
- Bicycle crash data
- Communities of Concern

Prioritized into Tiers – groups of locations for flexibility of implementation

Planning level cost estimates





Task 5 – Regional Significance Executive Summary

Upcoming Task

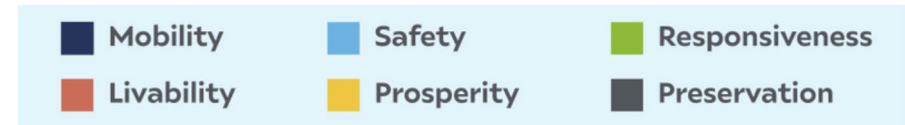
Explain the regional significance of the project and lessons learned that could be applied to the other areas of the region to help improve the pedestrian/bicycle environment.



Chandler Transportation Master Plan

Vision

Bicycle/Pedestrian Objectives



Discussion, Questions & Feedback





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