



Scottsdale Road Bike Lane Project: Public Input Summary, March 2022

I. Background

The project will extend the bike lanes on Scottsdale Road that currently end at Continental Drive (Roosevelt Street), 1.25 miles south to Curry Road. The project is proposing low profile channelization devices to buffer the bike lanes from vehicle traffic. In addition to the buffered bike lanes, the project will also be adding a new traffic signal at Lilac Drive, new directional ramps at the street crossings, and new pedestrian push buttons. The existing number of traffic lanes and medians will be maintained. Also as part of this project, a temporary fence is being tested in the medians between Lilac Drive and Hancock Avenue. If this pilot is successful in addressing resident and Tempe Police Department concerns, a permanent median fence will be designed at this location as part of this project.

Funds for the project were received from a grant from the Maricopa Association of Government’s Transportation Alternatives/Congestion Mitigation and Air Quality (CMAQ) Program in the amount of \$1.25 million; an additional \$265,453 in local funds will go towards the completion of the project.

II. Outreach

- Bilingual postcards were sent to residents, property owners and businesses inviting the public to attend the meetings or to comment online. They were mailed to the area bounded by Continental Drive, Miller Road, Curry Road, College Ave. (5.5 square miles)
- Virtual public meetings were held on Thursday, February 17 and Saturday, February 19, 2022; a total of 14 people attended online; 7 on February 17 and 7 on February 19. A recording of the virtual meetings were made available online.
- The topic was posted online from February 17 through March 6, 2022 on the Tempe Forum.
- Email notification to neighborhood and homeowners’ association contacts in the project area inviting them to attend the meeting or to comment online and share with their neighborhoods.

Below is a summary of additional digital outreach tools that were used to provide information to the public regarding the meetings, project, and opportunities for input:

FACEBOOK	2/28/212- Input reminder. Reach/Impressions: 214 Engagement: 12
TWITTER	2/17/22 -Day of meeting. Reach/Impressions: 662 Engagement: 46 3/1/22 - Input reminder. Reach/Impressions: 679 Engagement: 13

NEXTDOOR

2/28/22 – public meetings. Reach/Impressions: n/a | Engagement: n/a

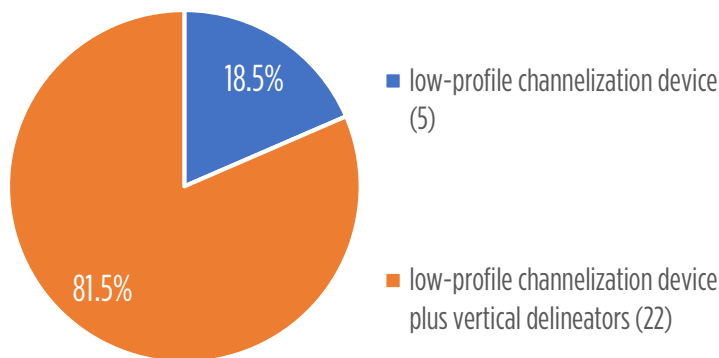
PRESS RELEASE

2/28/22 – Provide input. 2666 emails sent, 41.3% open rate, 4.2% click rate

III. Survey Results

A total of 27 unduplicated survey responses were received; some respondents did not answer all the questions.

Question 1: For the physical buffer, which do you prefer?



Question 2: Why do you prefer this option?

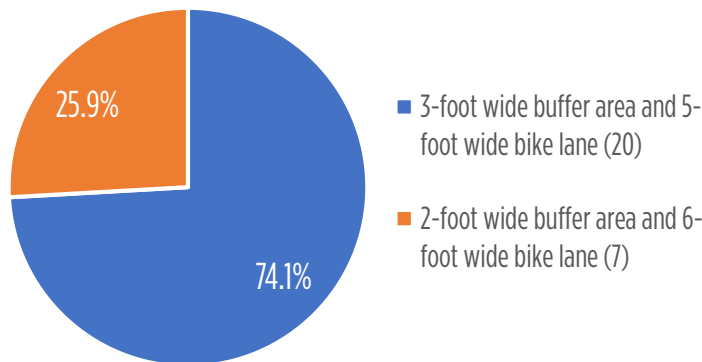
1. there is a large volume of traffic on this road, often moving quite fast. On a road like that, an unprotected bike lane is insufficient. Such a bike lane was created on university, but is used very little despite the large number of people (myself included) who would use it one could do so with out taking one's life in one's hands. Any sort of channelization would make a huge difference on university, and will be essential for this project on scottsdale road. However, since the vertical delineators are more visible, they would further enhance safety-- and the confidence of riders in safety, which would make it much more likely that the route will be utilized.
2. I'd prefer a solid hardscape barrier, but if these are the only options, vertical elements should be included for added safety in this corridor.
3. I would rather not have low profile channelization at all. A bike lane is enough.
4. I think these are only necessary on major roads like Scottsdale or where there are car lanes on both sides of the bike lane.
5. We need physical barriers given the issues with distracted drivers to Ensure we are working towards vision zero in reality.

6. At a minimum, we need high profile, reflective vertical delineators to discourage cars from getting too close to the bike lane, moving into the bike lane temporarily or stopping completely in a bike lane. People will feel safer with more visible vertical delineators separating them from cars, which will help get more people using the bike lane.
7. When I think about making changes like this to roads and bike lanes, I think, would an elderly person feel safe using the bike lane? Would a child feel safe? Would a beginner cyclist? We need to be making this infrastructure work for more than just confident cyclists.
8. Because many drivers do not pay attention to the road, especially cyclists. Anything that can be done to promote visibility of cyclists is important. Also, if only the low buffers are used, then I am sure drivers will just drive over them to use the bike lane as a turning lane. I see that all the time. I am very hesitant to ride my bike on the streets in Tempe because I do not feel safe.
9. Provides extra visibility of the bike lane
10. The vertical delineators will simply be targets for drivers as they are in other areas
11. less likely to look terrible after a couple years and people eventually crashing into them - but they still provide a physical marker/barrier for the lane.
12. More visibility and protection for cyclists. Drivers will notice the bike lanes with vertical delineators.
13. This is the safest option. Drivers are often distracted and the law is not enforced when it comes to using a phone while driving, so bicyclists need as much protection as they can.
14. As busy as this street is, every bit of protection is needed for bicyclists. Reflective material or paint would be helpful on the vertices.
15. As a daily cyclist in Tempe, vertical delineators provide a major increase in my sense of safety on the road. I feel that they're much more visible, which has the added benefit, much like the light rail has had (being more visible than the bus route it replaced), of raising awareness of alternative transportation methods in the city.
16. Tall trucks cross over minor speed bump sized barricades easily and often. The taller and stronger the bollard the better.
17. The vertical delineators' are a distraction and a waist of money and will be run over by cars and broken.
18. Vertical delineators enforce that there is a separation of space between cars and bikes. It also feels safer. If cycling is made safer, more people will cycle, including children.
19. I've seen plenty of people run over both of these dividers, but the taller ones provide more visibility for the bicycle lane and (hopefully) more safety for riders.
20. More visible to drivers because they're tall
21. I would be safer on my bike with more effective barriers like the 2nd option.
22. People's side view mirrors will hit the vertical buffers giving an audio response.
23. The visual delineators are dramatically safer for everyone. With how huge trucks are now, I fear the channel devices alone are not enough to stop a driver from hurting a biker, whereas the poles make it much more obvious both visually and physically.

24. I would actually prefer fully protected bike lanes. All new bike lanes should be fully protected from cars.

25. Because it will make the bike lane more visible to distracted drivers

Question 3: In the 8-foot area available adjacent to the vehicle lanes, which of the following would you prefer in terms of lane striping? (both options include the low-profile channelization device as a physical barrier, where feasible)

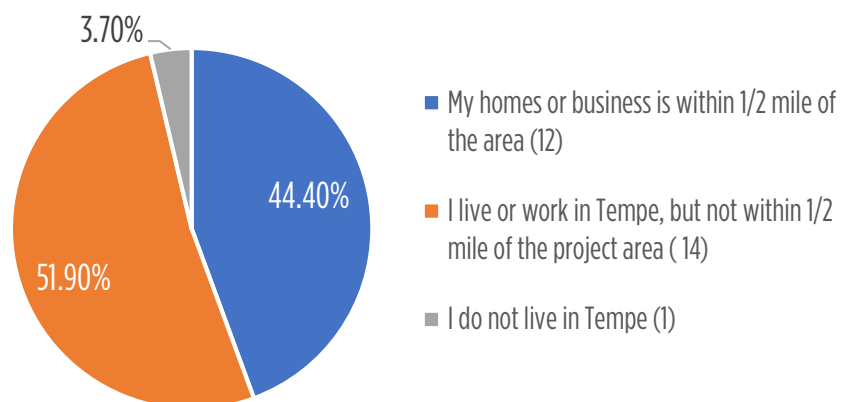


Question 4: Why do you prefer this option?

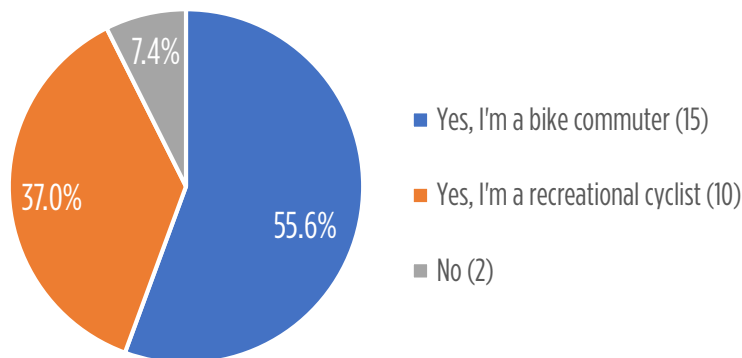
1. If the channelization devices are not present everywhere, there should be a three foot buffer. If they are present, 2 ft would suffice and would be the preferable option.
2. Traffic on this corridor is dense and aggressive, the more separation the better. Also, paint the whole lane green (or other surface treatment to differentiate it from vehicle roadway), not just the intersection ends.
3. 6 feet alone is enough for a bike lane. The buffer area is not wanted or needed.
4. If you are going for zero accidents/fatalities, 3ft is the only option. I believe this is backed up by studies.
5. Actually don't know if I have a preference, I would prefer whichever one is statistically correlated with increased biker safety.
6. If we want to get people seriously considering taking a bicycle over taking a car, they need to feel safe doing so. That means we need to have robust barrier (high profile devices and space) on the road between cars and bicyclists.
7. A wider buffer will protect cyclists more.
8. I prefer to have more space to operate my bike than to use that space on the buffer. A 2-ft buffer should be just as effective as the 3-ft buffer.
9. A larger buffer provides more space between cars on a high speed facility (Scottsdale Rd) and the bike lanes
10. cars are already supposed to give 3' buffer - and this ensures they do so without thinking (because with the channelization devices the cars likely won't be thinking on it anyway)

11. Three feet is the minimum distance vehicles need to give cyclists, this gives us one more foot of safety from distracted drivers.
12. This option makes the bike lane larger
13. Again the more protection the better!
14. While I'm not strongly against the 3-foot buffer, I think more space for the bike should be the priority when there is already adequate visual indication of the bike lane (such as with vertical delineators).
15. The bike lane often is used for trucks doing work, more space will allow bikes to pass the trucks that are "parked,"
16. A little more room to add safety.
17. More space for cyclists. Cyclists should be able to ride side by side and not worry about cars. Cycling should be social but we design narrow bike lanes.
18. More space between FAST moving traffic on Scottsdale Road and bike infrastructure is quite welcomed.
19. 3 feet is safer for cyclists
20. Whichever is safer for the cyclist. I think a wider bike lane with a 2-foot wide buffer is better if effective physical barriers are used.
21. Many cars do not respect the buffer well, so the bigger buffer is safer. However, I hope the buffer can be aligned closer to the cars so that there's enough space for bikes to pass each other.
22. The more space between bikes and cars the better. Safety encourages more bike commuters
23. Safer
24. I think both options are dangerous to users and prefer neither. I only selected an option because this poorly designed survey forced a response to enable comments to be posted at the end of the survey.

Question 5: Where do you live relative to the project area? (40 responses)



Question 6: Do you ride a bike? (select all that apply- 54 responses)



Question 7: Please share your thoughts regarding the proposed improvements. (22 responses)

1. I live about a mile from the project area. I often travel up Scottsdale Rd to Sky Song. But even though I bike most places from my home in Tempe and place of work on ASU Tempe campus, including e.g. as far as downtown Phoenix and to my daughter's school in Ahwatukee, I never bike to Sky Song or Scottsdale, despite the fact that it is not far. The route is simply too dangerous. This would change that, and I (and, I suspect, many others) would utilize it heavily.
2. The more bike lanes the better! But build them well separated - there are a lot of drivers who are oddly aggressive toward cyclists and bike facilities.
3. I am for implementing a bike lane along Scottsdale Road. The extra buffer and low profile barriers are excessive and will be an impediment to motor vehicles. Of course when you put out a survey and ask people if they would want more or less, most will say more because they don't think about the unintended consequences. The traffic light at Lilac is an example of this as well. If you want to improve the safety concerns of the residents in this neighborhood, me and my family, you need to address the problem itself. Like a disease, the proper course is to treat the disease itself, not just take medicine to mask the symptoms. The issue here needs to be addressing the root cause of the safety issues, which is the individuals themselves. The traffic light, although it sounds good on the surface, will not solve the safety problems, but it will succeed in impeding traffic more on Scottsdale Rd and redirecting through-traffic further into my neighborhood.

Perhaps we should redirect the funds for the excessive items and you should think about ways to use them to address the root causes of our safety concerns."
4. I've been a resident in the Clark Park neighborhood since 1980. My wife and I support all the great work Tempe has done to make it one of the most bike friendly cities in the country. Thank you.
5. Physical barriers are paramount to biker safety, especially on this road. Please make sure whatever decisions are made are built from proven effective barriers.
6. A major reason why this project is happening is to reduce congestion and noise/tailpipe pollution along Scottsdale Road, and if we're not going to make serious changes to give a protected bike lane a fair shake, why even bother with this project? This is a great opportunity to show how effective bicycle infrastructure can be implemented to make a positive change on the

environment for more than just motorists. I'd also add that having a dedicated bus/mass transit only lane would be a great addition to Scottsdale Road and should be considered in the future.

7. Although Tempe ranks high in the cities that are bike-friendly, I hardly ever ride on the streets because it's not safe. Many people are distracted when they drive and don't see cyclists or don't care about them. Some who drive feel that the roads belong to cars, not bikes. Until people improve their driving and their responsibility to allow other modes of transportation to coexist, we will continue to see cyclists getting hit. Many more people would get out on their bikes if they felt safe.
8. Glad to see the City is considering a protected bikeway. I personally use bike lanes on high speed roadways, but most people I know are not comfortable doing that.
9. While I support bike lanes, I do not support adding another signal in an already signal heavy corridor, especially with Tempe's complete lack of any coordination between signals. The existing signals already cause numerous backups and encourage people to speed up, drive erratically, and race around other cars out of frustration. This signal is too close to existing signals and should not be part of this project.
10. All bike lanes should be continuously green with physical buffers. With the increased population in the city, other modes of transportation in Tempe need to be 100% supported to cut down on congestion and pollution. If you build cycling infrastructure properly you will see an increase in people choosing to ride bikes instead of driving.
11. This bike lane project should also be integrated with the current network: please consider connecting it to the Indian Bend pathway + to the Tempe Town lake path at the Curry/Miller intersection.
12. I would like to see the green bike lane paint every where in the lane, breaking only at turn in and out spots for businesses and streets.
13. I think any of these options will be a welcome improvement to our city's bike infrastructure. I really like the idea of the vertical delineators.
14. Make all COT main roads like this.
15. One element I totally disagree with is the green pavement overlay with graphic on top. They will gradually become dark from tire marks and will more likely not be repaired. This decoration has nothing to do with bike safety; but is some salesman great sell. Save some money.
16. To be honest, I'm frankly surprised the city is asking for input on these two questions. If the option is between two types of barriers and two widths of buffer areas for bike lanes, why wouldn't the city just select the option that is most safe either from other studies of these types of infrastructure or from the judgement of traffic engineers? If it's already been decided to put a barrier and buffer in, just go with what will be most safe for cyclists.
17. I'd encourage better and more robust protection for the bike lane.
18. Thanks for focusing on bike safety.
19. As someone who rides this route 2-3 times a week, thank you so much for proposing a buffer with vertical dividers! Right now I have to go on the sidewalk because the road is far too dangerous; it's scary how many cars pulling in and out of the stores do not look for bikes.

I hope that these improvements can be extended to Rural Road in North Tempe. That's the other route I ride regularly and it's also terrifying biking on the road, so I end up on the sidewalk which is not safe either.

I strongly support road diets. Cars speed too much on Scottsdale Road (often very loudly), and changing the _system_ for all roads to be more safe and enjoyable to all is an excellent approach.

20. Fully protected bike lanes are sorely needed

21. Continue to build out bike infrastructure as a long term investment in Tempe.

22. Preface: To provide comments this survey forced me to select among two options and did not allow for an "other" or "neither". I selected two of the options, just so I could post comments, but think neither option is acceptable.

I just looked at the last two February PDFs for this project. I have serious safety concerns with the proposed bike lanes. These concerns are rooted in standard guidelines, considerable experience with cyclists and knowledge of bicycle facility design, and collaboration with fellow cyclists. Briefly, here are my major concerns:

- a) AASHTO (American Association of State Highway and Transportation Officials, Guide for the Development of Bicycle Facilities) clearly states "Along sections of roadway with curb and gutter, a usable width of 4 ft measured from the longitudinal joint to the center of the bike lane line is recommended" Assuming this section of roadway has the typical 1.5 ft gutter pan (however some in Tempe are 2 ft) the resulting BL is 3.5 ft (or 3 ft This is well below the AASHTO preferred width of 5 ft, and the minimum of 4 ft. The effective BL width will be even less when other factors such as shy distance is accounted for. Gutter pan seams are very dangerous longitudinal seams for cyclists and I have witnessed many crashes caused by them. AASHTO recognizes this danger and does not count the gutter pan as a useable surface. Why is the option that shows a 3 ft buffer with a 5 ft BL measured for the curb to the BL line considered and offered as an option? Why is the BL shown as 5 ft when the usable width is much less? This is very misleading.
- b) Regarding utility covers and especially drainage grates; AASHTO states "This is a particular concern if the minimum operating width of the lane falls below 4 ft. Therefore, the width of the bike lane should be adjusted accordingly, or else the structures should be removed." Others and I have had many close calls with motorists when having to avoid drainage grates in the BL's in Tempe. Are there utility covers or drainage grates that extend past the longitudinal gutter joint, and if so, what are the plans to ensure user safety?
- c) Over a year ago, I was informed by the Tempe Transportation Dept that Tempe frequently does not require an engineering drawing for the striping of a road, or apply a standard dimensional tolerance for striping. The results of this are very apparent as many BL sections are 2.5-3 ft wide (not really a Bike Lane); so narrow that the standard 40 foot wide bike lane pavement marking does not fit in the lane. This is very dangerous, and 2 years ago I was almost hit by a motorist in one these sections on Ray Road Examples of this can be found along Guadalupe Road, Hardy Drive, Grove Parkway, among many other roads. What will Tempe do to ensure that the BL's are striped per engineering intent and what is being presented to the public?

- d) Regarding the “channelization devices” obstructions that are shown in the buffer between the BL and traffic lane. These obstructions are approximately 3 ft. high and are extremely dangerous in many respects, of which a few are:

Cyclists do not always see or anticipate these obstructions and hitting one can result in serious injury or worst. While riding on Washington St about 2 years ago I was focused on avoiding a delineator (candlestick) with my handlebars, when I hit a poorly placed channelization device obstruction and was violently thrown from my bike. I was lucky in that I stopped sliding inches before my helmet would have hit the curb and only suffered scrapes, bruises, and destroyed clothing. In Nov/2021 I was in a group of riders proceeding north on Mill Ave, south of Rio Salado when another very experienced rider hit the very difficult to see channelization device obstruction. Fortunately he only suffered a flat tire and very harrowing experience from that collision and did not take out any other riders in the group. Obstructions are not a potential cause of crashes, they have, and will continue to cause crashes. Has this been considered in the design? The obstructions make it very difficult, if not impossible to, to safely navigate to the center median or left turn lane to turn left. What is the design intent to enable cyclists to make left turns into businesses along this route? Have the risks of following this intent and the unintended consequences (what people will do, not what you want them to do) been identified and evaluated? Obstructions make it very difficult to pass fellow cyclists, particularly in a narrow BL such as those in the designs shown. This BL is along an arterial roadway (cyclist equivalent of an urban freeway) where many cyclists like to travel at higher speeds to quicken their commute. This will result in some cyclists slowing down to “try” to safely pass other cyclists, and diminish the usefulness and desire to use the BL. Some cyclists will execute a dangerous pass with a high delta speed differential. In both these cases, even without factoring in the extra “oeshy distance” the passing rider will allow for the obstructions in the buffer, crashes are all but guaranteed. In a BL without obstructions in the buffer, it is very easy for a cyclist to look over their shoulder and safely enter the buffer or traffic lane to execute a safe pass. Has the ability of cyclists to safely pass in the proposed design been evaluated?

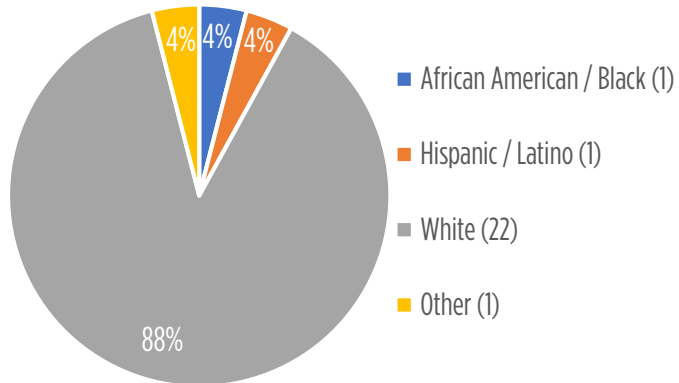
Will the obstruction markers meet the legal and/or safety recommendations (depending on the wording) in the MUTCD (Manual for Uniform Traffic Control Devices)?

As antidotal evidence, I have ridden Tempe BL’s with channelization device obstructions on Mill Ave and Ash Ave, with both large and small groups of riders, in the dark and in daylight. Everyone is amazed, perplexed, and appalled; I have not heard one positive comment. People cannot believe that Tempe would install such dangerous and confusing infrastructure, and frequently exclaim, “What they were they thinking?” They have caused crashes. These particular obstruction locations warrant serious safety mitigation actions, but I will not address that now. I bring this up at this time as it is pertinent to this design project. If this spurs Tempe to take quick action in these areas now, that will be considered a bonus.

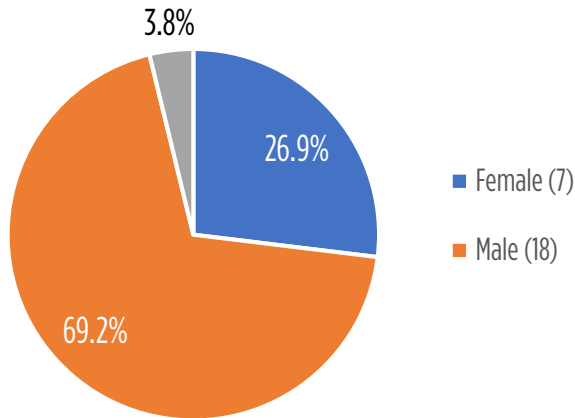
These obstructions will not stop a motor vehicle from entering the BL, but will cause a cyclist to crash, perhaps into the traffic lane. What is the design intent of the channelization device obstructions and have you considered other design options to more safely meet that intent?

In summary, my research and experience shows that for a safe design, the usable width of the BL should be 5 ft (and no less than 4 ft), and should not have any type of obstruction in the buffer.

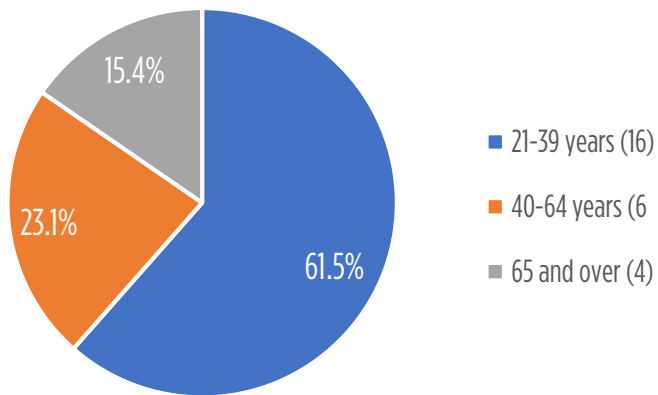
Question 8: Respondents were asked to choose what race or ethnicity they identified with. (25 responses)



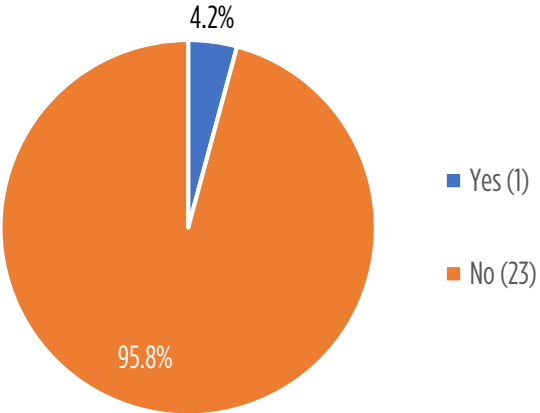
Question 9: Gender (26 responses)



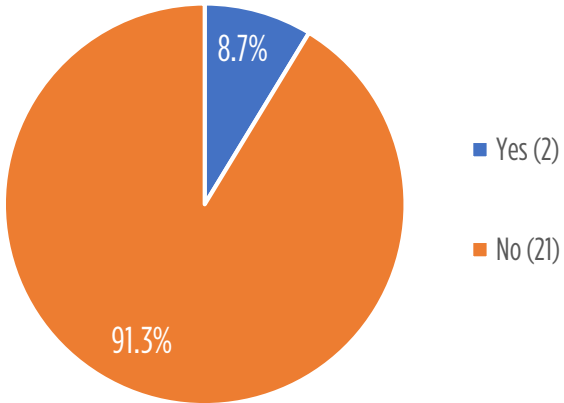
Question 10: Age (26 responses)



Question 11: Are you currently experiencing any accessibility issues? (24 responses)



Question 12: Veteran status (23 responses)



V. Demographic Information

For project area

Project Area BIPOC characteristics:

- 36.8% minority population
- 23.2% Hispanic
- 9.24% Limited English Proficiency

19.8% live at or below poverty

1.7% of workers over 18 bike to work

8.8% have no vehicle available

Total population of corridor: 13,152

Project Area: Census tracts within area bounded by Continental Dr., Miller Road, Curry Road, College Ave. (5.5 square miles)

Race and Ethnicity		
Total Population	13,152	-
Hispanic	3,047	23.2%
Non-Hispanic		
White, Non-Hispanic	8,310	63.2%
Black, Non-Hispanic	482	3.7%
Native American, Non-Hispanic	264	2.0%
Asian, Non-Hispanic	727	5.5%
Pacific Islander, Non-Hispanic	0	0.0%
Other, Non-Hispanic	0	0.0%
Two or More, Non-Hispanic	322	2.4%
Minority	4,842	36.8%

Ability to Speak English		
Population 5 years and over	12,751	-
Speak Only English	9,305	73.0%
Speak Other Languages	3,446	27.0%
Speak English "very well"	2,268	-
Persons with Limited English Proficiency (LEP)	1,178	-
Speak English "well"	713	-
Speak English "not well"	379	-
Speak English "not at all"	86	-

Poverty Status in the Past 12 Months		
Persons for whom poverty status is determined	13,152	-
Persons with income below poverty level	2,601	19.8%
Persons with income below 150% of poverty	3,770	28.7%
Persons with income below 200% of poverty	4,826	36.7%

Commuting to Work		
Workers 16 years and over	8,533	-
Car or Truck - drive alone	6,661	78.1%
Car or Truck - carpool	778	9.1%
Public Transportation	170	2.0%
Bicycle	147	1.7%
Walked	166	1.9%
Other means (taxicab, motorcycle, etc.)	114	1.3%
Work at home	497	5.8%

Vehicles Available		
Occupied Housing Units	5,629	-
No vehicle available	497	8.8%
1 vehicle available	2,453	43.6%
2 vehicles available	1,773	31.5%
3 or more vehicles available	906	16.1%

Source: United States Census Bureau, American Community Survey

Source: U.S. Census Bureau, 2015-2019 American Community Survey (ACS) 5-Year Estimates. ACS data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate is represented through the use of a margin of error (MOE). In addition to sampling variability, the ACS estimates are subject to nonsampling error. The MOE and effect of nonsampling error is not represented in these tables. Supporting documentation on subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website (www.census.gov/acs) in the Data and Documentation section. Sample size and data quality measures (including coverage rates, allocation rates, and