Transit Shelter Design Project: Public Input Summary, July 2020

I. Background

Tempe is working with a consultant team, guided by a Steering Committee, to develop new shelter designs that encourage increased ridership by improving the waiting environment and provide a new iconic Tempe identity for the transit system.

Currently, there are approximately 800 transit stops in Tempe; 40% have shelters. Tempe is committed to working with all stakeholders to develop a new shelter that is sustainable, comfortable, and adapts to a variety of locations. Prior to this round of input:

- 4 public meetings (October 2019, January 2020)
- 4 steering committee meetings
- Meeting with residents of Broadway Apartments
- 5 Pop ups to survey transit riders at bus stops
- 9 presentations to commissions

II. Outreach

- **Postcards** inviting the public to attend the meetings or to comment online were mailed to 3853 households. The mailing was targeted to households surrounding bus stops with the highest ridership. A virtual public meeting was held on July 21, 2020; **23 people attended online.**
- The topic was **posted online** from July 21 – August 4, 2020 through Tempe Forum.

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

FACEBOOK	7/7/20 – public meetings. Reach/Impressions: 1902 | Engagement: 156 7/17/20 – public meeting reminder. Reach/Impressions: 1157 | Engagement: 78 7/29/20 – online input reminder. Reach/Impressions: 1495 | Engagement: 87
TWITTER	7/7/20 – public meetings. Reach/Impressions: 4643 | Engagement: 93 7/17/20 – public meeting reminder. Reach/Impressions: 1922 | Engagement: 92 7/29/20 – online input reminder. Reach/Impressions: 2009 | Engagement: 52
NEXTDOOR	7/7/20 – public meetings. Reach/Impressions: 2575 | Engagement: 3 7/21/20 – public meeting reminder. Reach/impressions: 2940 | Engagement: 5 7/29/20 – online input reminder. Reach/Impressions: 2476 | Engagement: 3

PRESS RELEASE	7/7/20 – virtual public meeting. 2001 emails sent, 29.5% open rate, 1.1% click rate 7/20/20 – Coronavirus newsletter. 6505 emails sent, 34.1% open rate, 5.2% click rate

III. Survey Results

A total of 101 unduplicated survey responses were received.

Respondents were asked to share their input regarding the proposed design concept:

1. I think the design used depends on the space where it goes. For example, if it's a small space, use the small B design. If it's in from of Friendship Village, use a larger design, like C or D. It's nice to have the open center to allow for any airflow and some separation of seating.
2. A is enough.
3. I like the micro & small
4. Thank you for this informative presentation (July 21 Web meeting) ! I just love the idea of original art possibly for use in the "screen" perhaps through neighborhood grants. You can tell a lot of work and research went into all of this. Many thanks to all of you for your efforts!
5. The medium one looks great
6. For 20 years I commuted via public transportation. I believe both the Medium and the Large (C and D above) shelters would be appropriate. The more opportunity to cast shade at a shelter the better. Some transit rides have quite a long wait at stops.
7. I am tossed up between size small and size medium. The small seems to be a good size for stops that are not near an intersection as to keep the homeless from taking them over (sadly this is happening to many stops) . The medium is a good size for those stops near intersections and near the high schools where it seems to have quite a few people waiting in the hot elements.
8. Props for not making more waiting areas with a see through top. I am born and raised here and used the bus for a few years and can not imagine having to sit in a 110 degree weather under a clear plastic roof, it makes no sense to have those here in AZ. I know how busy Tempe can be, the signs on the stops say Apache, which is very busy, so I am voting for more stops like C or D. They have a great long/wide roof, many seats and good dividers for some privacy. I do hope the benches are made of plastic (or something like that) and not metal. Another great idea would be to add water fountains.
9. Really like the look of Concept B. I don't ride the bus much but feel sorry for folks waiting in the heat. I will be riding the bus when I am too old to drive.
10. Though I do not ride I have friends and family who do so I am mindful of the transportation service and frequently scan stops. More often then not there is more then one person awaiting a bus at heavier traffic times of day so medium

size seems ideal to accommodate shelter needs. If budgets would stretch farther so that all stops could have shelter then in lower transfer/utilization areas the small model would suffice.

11. They look good, please make sure the roofs are angled to offer the best shade protection during the busiest times.
12. Looks good
13. I like the concept; however the small shelters are quite small, and more lighting for all of them in the evening and early am. With the heat of the sun in the afternoon; what can be done to provide a bit more shelter out of the sunlight?
14. The design is aesthetically pleasing and should suit the needs of passengers. My recommendation would be to add an angled ledge to the roof to block the sun during different times of the day.
15. Modern and up to date. The shelter should be oriented so that shade is maximized at the hottest times of the day
16. C. It provides good shelter for passengers who deserve comfortable and covered places to rest as they wait during hot summer months. As a regular bus commuter I've noticed that some existing shelters do not afford good visibility, both for seeing the oncoming bus and for being seen at the shelter. Sometimes if the bus driver can't see a person at the shelter he will not slow down or stop, so it's important to be able to see the bus approaching, to be able to stand up and be visible to the driver. 2. I would appreciate "no smoking" signs at bus shelters. If someone is smoking I will stand well away from the shelter. 3. I think our new social distancing rules are here to stay forever and should be considered in shelter designs. 4. I like the idea of incorporating art elements into the design.
17. Pretty basic. I don't think this is the design I voted for months back. I feel like the benches that face each other in the medium and large is awkward. It's awkward to have to face strangers. It'd be nice if the roof was larger/longer on the side that faces a setting sun. Would be nice if there was a live vine/plant growing up the sides.
18. Really like the designs. In light of social distancing, the larger size may be best. The larger size likely provides the most shade/sun, rain protection despite the assumed higher cost. Great job everyone!
19. Providing shade and shelter from the elements being the main function - and natural cooling, ideally - why are trees not incorporated (or shown) around the shelters? In conjunction with an organization such as Trees Matter, for example, the most appropriate trees for each location could be determined and could provide an opportunity for community engagement and volunteering with planting.
20. I like the clean lines and overall design but wonder how much shade will actually be provided.
21. I like the shade.
22. The helpful message about the shelters seems to be missing. Aside from that, the shelters are visually appealing and appear to cast a good deal of shade in the morning and afternoon. How are they at noon when the sun hits from the high side on the front? Are there posts to separate the seats on the bench to discourage sleeping on the benches?

23. The medium concept is visually appealing. It also allows for weather break and social distance.
24. I think the size of the shelters should be determined on an individual basis. Stops with higher ridership need a bigger shelter, but there is no reason to take up the space and spend the money to create a large shelter where there is a small ridership and little to no potential for an increase in ridership
25. Medium one is nice because it provides space and shade but wouldn't be as expensive to build as the larger one.
26. I like the designs, I think they are functional and provide shade.
27. I really like D. There is more shade and seats, which are much needed in Tempe.
28. The larger separated designs are better so riders can sit away from other people. I like the end seating on the large design. There should be cement posts or some sort of protection in the front of seating so cars can't crash into waiting riders. There are a lot of distracted drivers these days. Lots of protection from the sun especially late afternoon angles is needed. I don't ride the bus but I have a family member that does. She has had problems in the past with homeless people at some bus stops so that has to continued to be monitored so riders are comfortable waiting for the bus.
29. A and b too small medium okay don't think we need it large for our population
30. I prefer C, Medium, as it provides more shelter for shade, and space to keep distance from people.
31. It looks great and distinguished.
32. Shelters on bus stops is a critical issue that is long overdue the attention it deserves. About 20% of Tempe's residents live below the poverty line (!!!!!!) and public transit is a major mode of transportation. Only 40% of the bus stops provide shade covering, causing undue pain to people waiting for the bus. In one of the sunniest, hottest cities in America, we must do better. I'm glad the city is addressing this issue and working to construct shelters on all the transit stops. They need to be large, comfortable, shaded, and pleasant to wait in. There should be an emphasis on 'green shade' which utilizes plants to block sunlight entering the bus stop at oblique angles, while making the bus stop enjoyable to look at and inhabit. Right now, the city council has an opportunity to make Tempe more beautiful while providing a major service to it's poorest residents. Don't screw this up. The proposed concept design is aesthetically unappealing and lacks a humanistic element. In the presentation on Designing Tempe's New Transit Shelters, there is a Concept 'A' which I thought elevated both of these considerations forward. The concept 'C' shown in the survey above is anti-humanist and the utilitarian architecture communicates discomfort. Please reconsider and choose Concept 'A'.
33. Somewhat boring. I love our artistic transit shelters. These are better than the plain ones that don't have artwork but they seem very conservative.
34. Looks great and provides shade and seating.
35. I like the idea of the awning structure. It provides a decent amount of shade, without taking up too big a footprint. I also like the openness for plenty of line of sight in all directions. I think this will help some of the riders feel more secure and in tune with their environment. I don't think these structures need to be so inviting that they attract people as just a place to hang out.

36. The bus stops along Southern between Price and McClintock have homeless people living in them. The stop on Country Club Way and Southern has a guy who hangs a hammock to sleep at night, and he often sleeps there during the day as well. These stops have been rendered virtually useless to those who really want to ride the bus. I suggest that Tempe bus stops remain shaded in some manner. However, they should not be made large, private, and comfortable to encourage even bigger groups of homeless people taking them over. I wouldn't even consider riding a city bus with the current condition of the stops closest to my home.
37. I like he concept and the design(s). I especially like that there are proportional sizing for areas where there is lesser to greater easement or right of way. I like the uniformity of design, material selection and like the Tempe Color Pallet used in creating paint selections. If we hope to increase bus ridership, we'll need to provide relief from the hot sun on extreme heat days.
38. Shaded bus stops are very important. These look nice. I hope we don't lose the unique bus stops.
39. Conservative. I prefer the lovely artistic transit shelters, but if we can't have those all around, these are better than the standard ones we currently have.
40. I would take public transportation more if there was lighting at all stops and an emergency button to security. I am envisioning something similar to what they have on college campuses.
41. I like the design. I like the idea that the shelters will be sustainable.
42. The largest concept should be used whenever possible, due to the fact that so many people smoke in the shelters. When someone is smoking under the shelter (this happens most times I am at the bus stop) I have to leave the shaded area to get away from the smoke. A larger shaded area would be very helpful (as well as actual enforcement to prevent people from smoking under the shelters). Any kind of solar powered cooling that can be combined with the simple shade would be phenomenal, as well as lots of lighting for safety. In other cities the bus stops sometimes have a button you can press that will start a flashing light to let drivers know there is someone waiting at the bus stop at night. I have read that some bus stops will only have a tree for shade. This will not be enough, every bus stop needs to have a roof for shade, though it would be doubly nice and effective if it were combined with a nice shade tree planted behind it.
43. The more shade the better. D :thumbsup:
44. Don't do it.
45. I believe that we should use the large shelter. Considering that the governor has not put in proper corrective measures to help slow the spread of COVID-19, the least we should do for Tempe is provide enough space and shade for those who use public transportation while also allowing a distance of 6 feet for social distancing.
46. C Medium seems sufficient and assumably less expensive than D, provides space for social distancing. W/o cost specs it's hard to compare. If the goal is to increase ridership, build for the goal.
47. I think the basic design is well conceived. I have some concern on the durability of the flip down seats. It would be great to have spots of color against the neutral screens such as the Tempe light green on the seats. The more rectangular trash receptacle, aesthetically, appeals to me more than the rounder versions because

the angles and material flow better with the shelter design. I look forward to seeing what can be done to celebrate the neighborhoods the shelters will reside in.

48. They look good, but it's important that the roof is actually wide enough to actually provide cover from the sun and rain when and is not just decorative. If it only protects at noon, when the sun is directly overhead, then you've failed.
49. I think the designs look great!
50. Prefer large, we need as much shade as possible in this city. In fact, we need more park bike/walk paths that are shaded.
51. all designs are fine. select the one that best fits this area in terms of number of riders picked up on an average stop at this bus stop. if the number is 3 or less, then build A or B, if the number is greater than 4, then build a larger stop. The size of the stop should be based on average number of riders using the bus stop throughout the period of time the buses are in use each day.
52. I prefer small. It seems the larger the stops, the more loitering and transients they attract.
53. I like the overall design. Given the need for social distancing, will these models still work? How easy will each of the sizes be able to be cleaned and disinfected?
54. Will roof orientation alter to maximize shading? Will there be trash receptacles? Can water fountains be added at high use locations?
55. it seems the larger sizes attract homeless people; although the larger sizes would provide the most shade for individuals waiting.
56. Concept C
57. Larger Shelter roof allows more shelter from sun and rain, as well as more seating with social distancing.
58. Perhaps a mix of shelters is called for…larger for the busier stops…and smaller for less used stops.
59. I like the medium size, it welcomes more people and adds more places to sit and wait.
60. Shade is key to getting more people to use buses. I'd also suggest charging stations if feasible.
61. I prefer the design simplicity of the small and medium, however I would hope that the structure could include even more shade, even if there is no additional seating. Any metal seating gets very hot in the summer, so it's less desirable that just standing beneath a more ample shade structure. Standing outside for any period of time not under a shade is so uncomfortable, and a reason to avoid the bus altogether.
62. i think C will be perfect, such a good design, useful for people with desabilities i opt for it; https://algeriahome.com and also not very large and can be implemented every where
63. Looks fine. Does it seat the most amount of groups (different people with good separation) possible?
64. While the design is visually pleasing, I am concerned about shade for the seats in the smaller concepts. If the roof is not angled correctly, seats will be useless

during midday hours when the sun will be the most direct on passengers waiting for the bus.

65. i like the designs, they look modern. it is difficult to see details in the images. I don't think panels on the sides of the structure add much value, the roof is overhanging for shade... side panels make it difficult to watch for the bus. please have seating so that people can not lay down and take over the entire seating area.

66. Do NOT put wheelchair spaces on the end of the shelters!!! They will be used for locking bicycles and storing the rental scooters. If the City is serious about being inclusive, wheelchair spaces should be in the center of seating to increase visibility, and thus awareness.

67. I PREFER "D". ALL OF THE DESIGNS ARE SIMPLE AND OFFER COMFORTABLE SEATING AND SOME PROTECTION FROM THE SUN. #D OFFERS MORE SEATING AND WOULD BE MOST PRACTICAL.

68. The larger the better to achieve your goal of higher ridership... more people = need more space under shade structure.

69. I love the shade design D provides! My only concern is the metal seats. Even if seating is available, if the seats are hot, I will not sit on them. I would suggest wooden seats and adding some sort of plant to cover the shelter to make it cooler in temp. (I've seen it around Phoenix for context).

70. The designs are fine. They're not iconic. There's nothing glaringly wrong with them. They're extremely fine. If you're going for iconic, I'd go back to the drawing board. If you're going for extremely fine, you've nailed it.

71. I just think it's funny that Kathy D. on 3042 S Country Club Way, who has never ridden the bus, knows that all of the bus stops on Southern are "rendered useless" due to homeless people. That's just a blatant lie and I would be embarrassed to post something so bigoted on a public forum, along with my name and address. I guarantee she's never had a personal encounter with any of these people and if she did, she would realize that her neighbor with the Trump poster in his yard and AK sticker on his car is a bigger threat to public safety than the guy with the hammock. Instead of demonizing people who live outside your little white church bubble, let's actually make some progressive changes in Tempe, making it better for everyone. If anything, these bus shelters could provide more shelter and resources to those in need. They should also have information for people in need of help, like suicide prevention hotlines, AHCCS, etc... They could also have bike service stations along bike routes. They have a pump and other bike tools secured to a pole so anyone can use them if they need to service their bike. I've seen these in other cities and they're a real treat for cyclists. There might be some in Tempe, I just don't know about. I know we have Bike Saviours, which is a fantastic service. My biggest comment is; don't listen to any of these replies. Get the opinion of the folks who these designs could affect, not just people who have the time and resources to blabber their opinion from the comfort of their home. This forum is an obvious example of white privilege and none of the replies should be taken seriously (except for mine, obviously) - Go out on the bus or ride the light rail and get the opinion of the people who actually use these services, not the people who just drive by and make their judgements. Okay, time for coffee...

72. re new ntaxes. projects are you folks blind?

73. Love it. We need to have a more friendly and useable public transport system, and having adequate shade is part of that. I would prefer it to be maximum size

wherever possible. I'm not a bus rider at this point, but folks who are deserve protection.

74. Functional but boring design--no personality. What happened to the public art??

75. I think this is an idea that solves an age old issue. By my house, I can think of three different bus stops, only one has a shelter. The others are simply a bench by the bus stop sign. On Baseline east of McClintock, I've often seen people sitting back and away from the bench in the shade. (what little they can find) But the shade is back where the bus driver cant see them and I imagine they miss the bus because of this. Some stops have the cutover for the bus, and have a tiny bench or no bench at all. I think the minimum size should be (B) Small. I don't see any point on the (A) Micro I only have concerns that homeless might take over a sheltered stop. I do not use the bus for transit. I have tested it for my work commute, and I would have to leave 90 minutes or before work. It takes me 14 minutes if I drive. But I would definitely use the bus and train if gas prices became an issue. And I do use the train for down town. Parking at a park and ride is sometimes easier than downtown PHX

76. Very plain. Not a modern design.

77. The more shade, the bigger the better. Add trees nearby and vines or plants, I don't see waste cans. Solar panels could be connected to outlets for charging phones. Water would be nice as well.

78. They all look good.

79. Looks nice

80. The designs are not practical. The sun moves so being able to sit or stat under the top isn't possible. This is a waste of money. These are becoming homeless shelters instead. I've called Tempe, Police and Transit and nobody takes responsibility. You know what is needed at bus stops; DRINKING FOUNTAINS. I've been here since 1989 and Az isn't getting any cooler.

81. I think the medium or large shelters would be best as they increase the likelihood that seats within the shelter are shaded (dependent on time of day and positioning of course) and provide more space for riders to be in the shade while keeping distance from other riders waiting if they choose.

82. Choice B – small

83. i vote for the small shelter -B.

84. The more shade the better, but then again if its a certain time of day the overhead shade / roof doesn't matter. Vertical blockage of the sun is very sought out as there is usually no refuge anywhere near the bus tops. Also shade for 1 seat that is good for two people also is a waste when there's 5-6 people waiting for the bus.

85. Instead of spending money on what appears like metal transit shelters, is it possible to install trees (like palo verde) and have wooden seats? During the hot season, the seating would not be used and with the sun moving throughout the day the wide vertical stands block the view of incoming buses. Planting trees seems to be the most sustainable option plus they are beautiful and you don't need to spend money on design. Also, the city of Tempe needs to take this survey to the streets and ask directly to the ridership. By only taking the feedback via online survey, you are missing out on key information from the people that use this service.

86. These are all nice. I would like to see the micro or small stops pop up at the flag stops that are currently unshaded and extremely uncomfortable like Hardy south of Baseline :(Also, these look good already, but more cooling strategies are necessary for them to be truly comfortable, like plants and trees which is easy or some methods to mitigate heat storage and latent heat from the asphault and car traffic, that is a heftier project but there are some simple solutions like road diets and street-sidewalk barriers (like planters, dedicated bike lanes (like Hardy north of Southern), etc.

87. I really appreciate the proposed large signage for the stop name. As an infrequent rider I am often hard pressed to know where I'm getting off until I have a chance to learn the route and having signage that is easily viewable from the bus makes that process easier.

88. The "micro" ones look too small. While bigger may mean better for social distancing, it's also more to maintain and more of a target for graffiti, etc. Most of the time folks just need a little shade and maybe a place for a person or two to sit.

89. Like the proposed shading of the shelters. Are they made entirely of metal including the benches? Metal benches can be very hot in the summer May-October. I think there has to be a trash receptacle included or close by. Are the roofs white or a dark color? I think white might help deflect heat.

90. My experiences catching a bus is that more shelter is better. A place to sit and shade makes the wait so much easier. I realize that space at each designated spot should dictate size of shelter but I applaud providing a space to wait as a nudge towards increasing use of public transportation.

91. I find that the design is pleasing, but I worry that bind of the designs properly block heat from the sun. Any stops facing west of East will become much too hot and could be dangerous for citizens during summer, as these look like metal boxes that will, if anything, trap in heat. Please consider all white painted materials, larger rooftips to provide more shade, and perhaps obligatory placement of trees in the adjacent streetscape to help provide shade.

92. The more shade the better out here. I like options B and C. I think A is too small and looks crowded. Visually the 3 larger options look best.

93. Have a design that provides shade perhaps throughout the day not just in the mid afternoon. Ensure designs allow bus drivers to see if there are any inattentive passengers sitting in the bus stop. If there are more natural shade options to include such as trees. Trash and recycling bins would be much appreciated. Scooter parking would be helpful so that passengers may continue their journey after getting off the bus. "Cool pavement" as being tested in Phoenix would be really neat. And the bus stops to be a pull out rather than a stop in the street blocking traffic (a bus stop in the street causes traffic congestion, drivers to resent public transit, pollution from cars having to stop and go behind a bus, etc). Now the next suggestions are real techy but it would be nice to have LED signs that indicate when the next bus is arriving (or even provide real time tracking) that is much more reliable than the NextRide texting service. The LED sign doesn't always have to be on. I have visited another out of state city that had a button that you could press and then the LED sign would turn on with it's information. This was a way to save electricity I presume. I actually use the NextRide texting service but not all stops have the stop number sign and I sometimes find that the bus doesn't arrive at the predicted time by up to 15 minutes...

94. This project is long overdue! The design seems functional by providing several seating options for maximum shade. Glad to see materials are being considered to minimize heated surfaces. I hope the final color choices are "cool".
95. Looks like a typical bus shelter. Not particularly artistic or creative.
96. Use the smallest footprint that will save the City the most money. Road repairs should be the priority, not how nice the bus stops look.
97. I prefer the small Station. It has enough room for two at least and the side awnings to provide shade. Small has a better footprint- not as much space taking up./I used to take the bus every week to class at Pyle - now closed. Once a month for other errands.
98. Shade canopy and screen walls should both be as wide as possible to provide maximum shelter from bright, hot days. Perhaps there could be a button-activated signal of some kind so that the driver knows to stop even if a person is not visible in the shelter.
99. I like the design but will there be greenery like in the PowerPoint slide 4 (example of existing structure) and slide 8 (Early Concept Exploration A)? I just hope they maximize shade. The transit shelters on Hardy between Broadway and University are a joke - no real shade and no proper cover in case it rains. These appear MUCH better.
100. I support the medium size shelter as they provide sufficient shade and also have a reasonable footprint. The micro and small sizes would not provide enough shade for customers. The large size is nice but would take up quite a bit of space on/near sidewalks and other common areas. Thank you for considering my comments.
101. I believe that the Large shelter is the best option. It is roomy enough for patrons to social distance and to provide adequate space for non-smoking patrons to be away from patrons who smoke, thus hopefully minimizing exposure to second-hand smoke. There appears to be ample seating and shelter from the sun and other inclement weather. It appears to have space to shelter bicycles or other items (e.g., groceries, luggage) from exposure on the exterior.

Emailed comments

I wanted to give some feedback about the new bus designs in Tempe.

1. On rainy days the shelter won't protect you much because the rain may fall at an angel and get you wet anyway. And if there are a few people in the stop there may be only 1 pedestrian who is able to stand on the opposite wall where the rain isn't falling.

2. The shelter won't protect a pedestrian in the sun. The shade from the roof may only cover the top 3 feet of the shelter. And pedestrians won't benefit from that. In fact, the problem may be caused that a pedestrian moves to the back of the wall of the shelter to be in the shade while they wait for their bus. And then they miss their bus because the wall was blocking the bus driver from seeing the pedestrian.

Maybe a design could be created that has 4 poles on each side of roof--and there are signs that hang down from the roof at pedestrian level that show routes and bus schedules or advertising. This way the center of the roof is functional for rain protection and sun protection and the functionality of the wall remains functional.

This is the product I just came across today while researching for our owner who is concerned that handrails exposed to direct sun may be too hot to touch. It is just a coating and readily available. I think that Option B was the right one and am glad to see that is moving forward for farther
development. Good luck for the rest of the project. Please let me know if I can be a help. Stay safe and well.

It would be nice if the designers of bus stop shelters took into consideration the location of the sun at each site.

From: xx
Sent: Tuesday, July 28, 2020 6:25 AM
To: Tempe <support@opengov.com>; Richardson, Bonnie <bonnie_richardson@tempe.gov>
Subject: Re: Announcements from the City of Tempe for 07/28/2020

Transit shelter drawings:

Dear Bonnie,

Perhaps we can learn from the one-size-fits-all design of the light rail "shade availability." It does not work in every situation because the sun is in different parts of the sky at the hottest time of the day -- in the afternoon.

If the transit shelters can always maximize shade during the hottest AFTERNOON time of day, it would be preferable. That may mean 2 different designs for shelters on the different sides of the street:

To shade the riders from the harsh south-west sun transit stops on the:

- east and north sides of the street would have more roofing spread in FRONT of the people sitting on a bench
- west and south sides of the street would have more roofing BEHIND the people on the benches

Blessings,

From: xx
Sent: Tuesday, July 28, 2020 2:27 PM
To: Richardson, Bonnie <bonnie_richardson@tempe.gov>
Subject: Feedback about Shelters

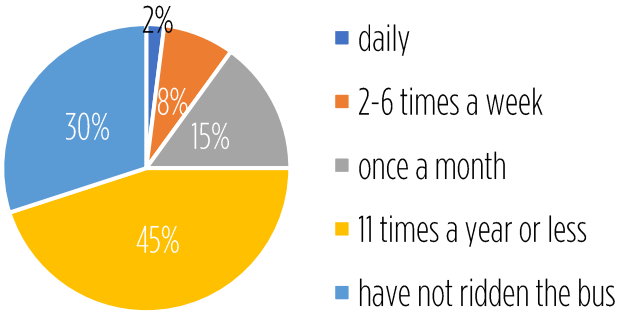
Hi Bonnie,

You are the first contact I could find. I saw the new bus stop designs. My input is that with a wall in the center of the stop pose a few problems.

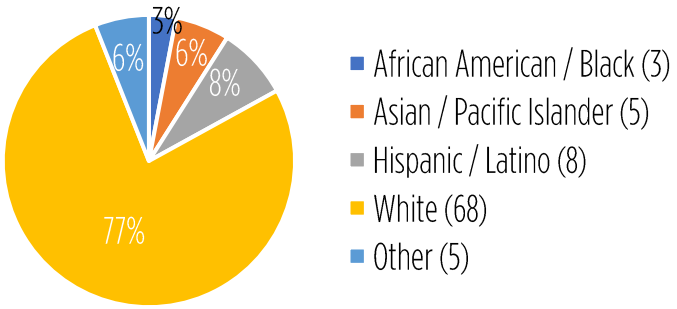
1. On rainy days the shelter won't protect you much because the rain may fall at an angel and get you wet anyway. And if there are a few people in the stop there may be only 1 pedestrian who is able to stand on the the opposit wall where the rain isn't falling.
2. The shelter won't protect a pedestrian in the sun. The shade from the roof may only cover the top 3 feet of the shelter. And pedestrians won't benefit from that. In fact, the problem may be caused that a pedestrian moves to the back of the wall of the shelter to be in the shade while they wait for their bus. And then they miss their bus because the wall was blocking the bus driver from seeing the pedestrian.

Maybe a design could be created that has 4 poles on each side of roof--and there are signs that hang down from the roof at pedestrian level that show routes and bus schedules or advertising. This way the center of the roof is functional for rain protection and sun protection and the functionality of the wall remains functional.

3. How often do you ride the bus? (100 responses)

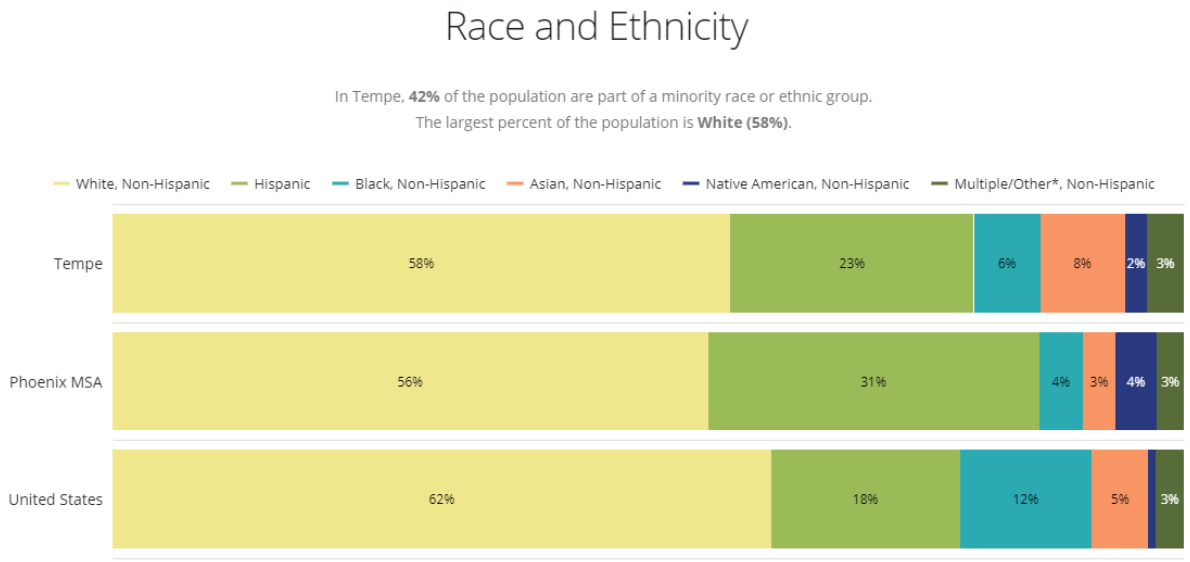


4. Respondents were asked to choose all that apply (88 responses; some checked more than one option)

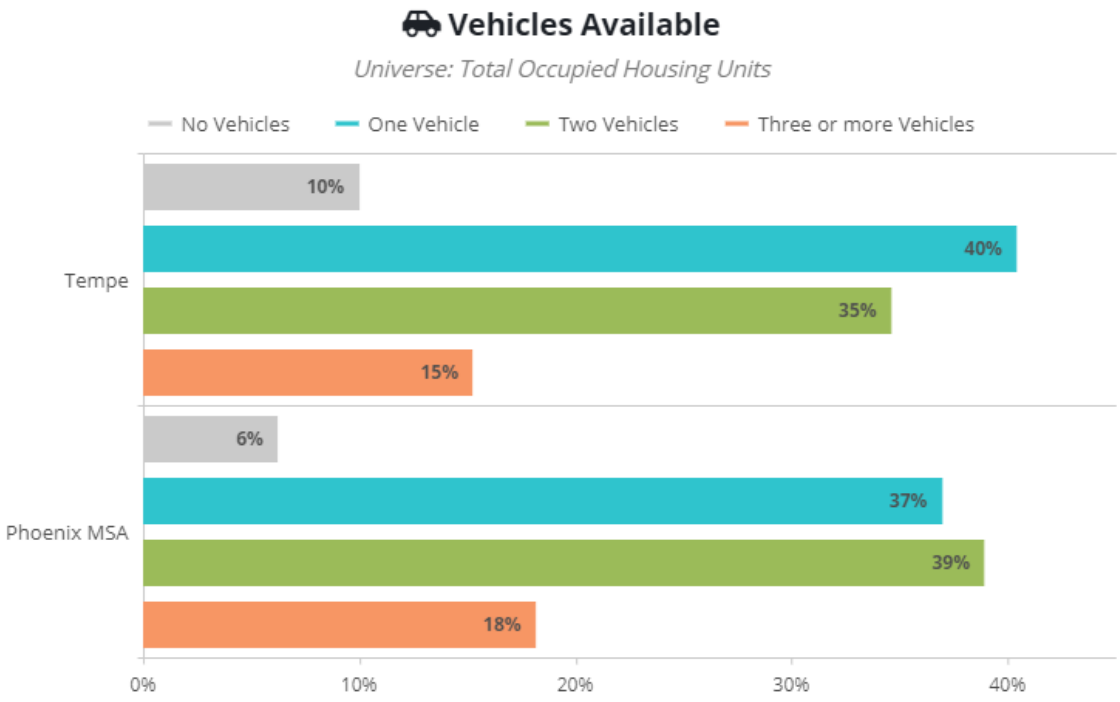


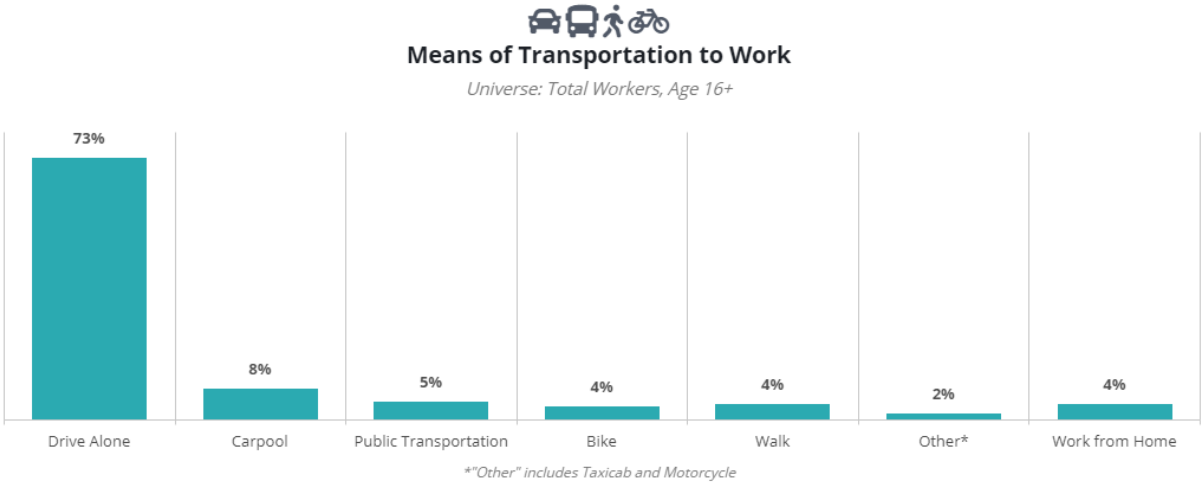
IV. Demographic Information

Since Tempe has bus routes throughout the entire city, the project area is the city limits.

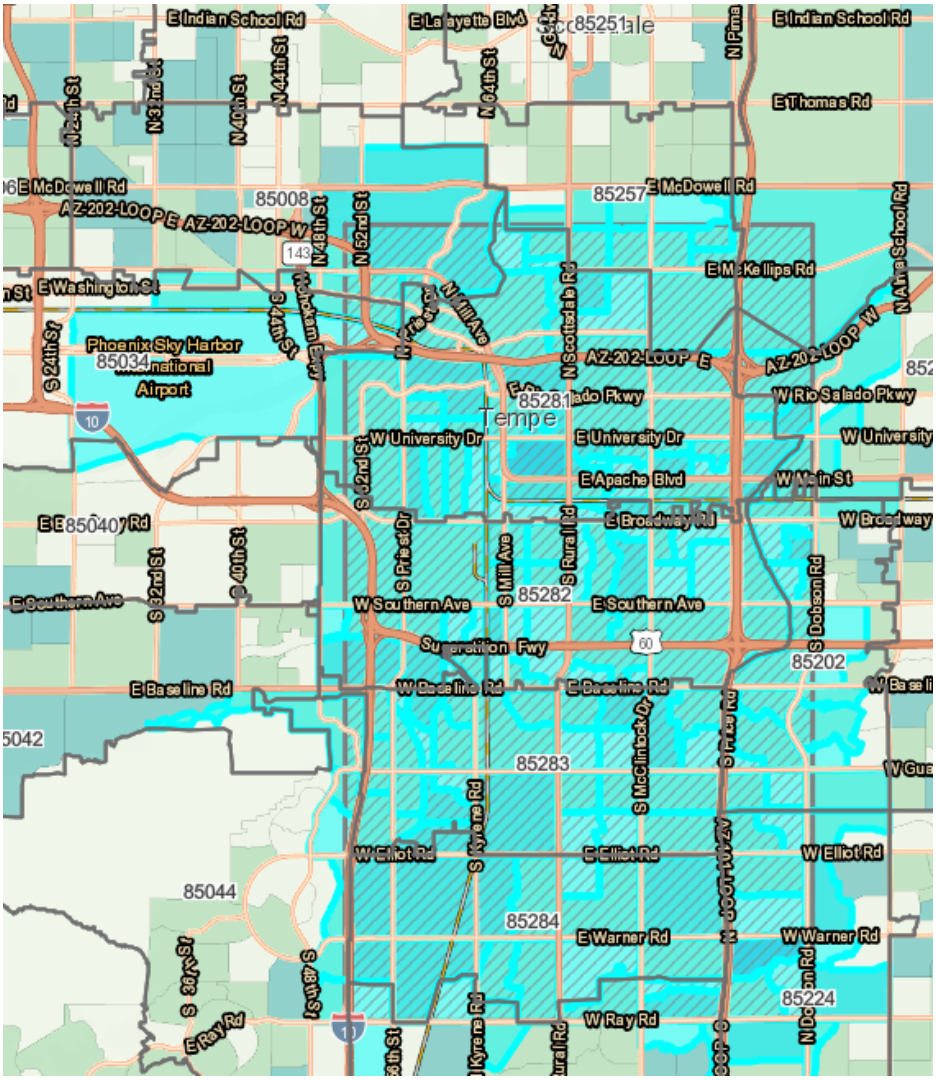


Transportation in Tempe





The data that follows is based on census tract data that includes the area in turquoise below.



Selected Block Groups ACS 2012-2016 ACS 5-Year Estimates		
Topic	**Estimate**	**Percent**
Total Population		***45,191***
Race and Ethnicity		
Hispanic	9,169	20.3%
Non-Hispanic		
White, Non-Hispanic	27,256	60.3%
Black, Non-Hispanic	3,189	7.1%
Native American, Non-Hispanic	1,127	2.5%
Asian, Non-Hispanic	2,602	5.8%
Pacific Islander, Non-Hispanic	451	1.0%
Other, Non-Hispanic	22	0.0%
Two or More, Non-Hispanic	1,375	3.0%
Minority (1)	17,935	39.7%
Ability to Speak English		
Population 5 years and over	***42,869***	-
Speak Only English	33,072	77.1%
Speak Other Languages	9,797	22.9%
Speak English "very well"	7,198	-
Persons with Limited English Proficiency (LEP)	2,599	-
Speak English "well"	1,716	-
Speak English "not well"	725	-
Speak English "not at all"	158	-
Households		
Total Households	***18,021***	-
Family Households (Families)	8,430	46.8%
Married-couple family	4,997	-
Female Householder, no husband present	2,138	-
with own children under 18 years	906	-
Nonfamily Households	9,591	53.2%
Householder living alone	5,919	-
Household Income (in 2016 inflation-adjusted dollars)		
Total Households	***18,021***	-
Less than $10,000	2,041	11.3%
$10,000 to $14,999	1,104	6.1%
$15,000 to $24,999	1,990	11.0%
$25,000 to $34,999	1,811	10.0%
$35,000 to 49,999	2,701	15.0%
$50,000 to $74,999	2,851	15.8%
$75,000 to $99,999	2,652	14.7%
$100,000 to $149,999	1,800	10.0%
$150,000 to $199,999	638	3.5%
$200,000 or more	433	2.4%
with related children under 18 years	101	-
Female householder, no husband present	671	-
with related children under 18 years	612	-
Male householder, no wife present	206	-
with related children under 18 years	145	-
Commuting to Work		
Workers 16 years and over	***25,946***	-
Car or Truck - drive alone	18,570	71.6%
Car or Truck - carpool	2,381	9.2%
Public Transportation	1,227	4.7%
Bicycle	1,543	5.9%
Walked	545	2.1%
Other means (taxicab, motorcycle, etc.)	619	2.4%
Work at home	1,061	4.1%
Vehicles Available		
Occupied Housing Units	***18,021***	-
No vehicle available	1,946	10.8%
1 vehicle available	7,362	40.9%
2 vehicles available	6,100	33.8%
3 or more vehicles available	2,613	14.5%
Area		
Total Area in Acres	6,816.2	-
Total Area in Square Miles	10.7	-
Source: United States Census Bureau, American Community Survey 2012-2016 5yr Estimates		

Source: U.S. Census Bureau, 2012-2016 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 response rates) can be found on the American Community Survey website (www.census.gov/acs) in the Methodology section. The MOE for individual data elements can be found on the American FactFinder website (factfinder2.census.gov). Note: Although the ACS produces population, demographic and housing unit estimates, the 2010 Census provides the official counts of the population and housing units for the nation, states, counties, cities and towns. Prepared by: Maricopa Association of Governments, www.azmag.gov, (602) 254-6300