



PROVIDING VALUE FIRST

Neighborhood Traffic Mitigation Plan

Maple Ash, Mitchell Park and Wilson Art & Garden
Neighborhood Associations

Tempe, Arizona

February 2021

PREPARED FOR:

Neighborhood Traffic Mitigation Steering Committee

PREPARED BY:

Y2K Engineering, LLC.



1921 S. Alma School Rd, Ste 204 \ Mesa, AZ 85210



480.696.1701



info@y2keng.com

TABLE OF CONTENTS

1.0	Introduction	03
2.0	Background	04
3.0	Traffic Considerations.....	05
3.1	Vision Zero.....	05
3.2	Existing Traffic Data	05
3.3	Effectiveness of Existing Traffic Calming Devices	05
3.4	Tempe Streetcar.....	05
3.5	Intersection of Ash Avenue and University Drive	05
4.0	Community Involvement	06
5.0	Proposed Countermeasures	07
5.1	Description	07
5.2	Proposed Solutions	07
5.3	Neighborhood Traffic Mitigation Plan.....	13
6.0	Project Implementation	15
6.1	Construction Considerations.....	15
6.2	Interim Solution and Testing	15
6.3	Planning Level Cost Estimate.....	15
6.4	Next Steps	17

LIST OF TABLES

Table 1:	Planning Level Cost Estimate	16
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LIST OF FIGURES

Figure 1: Study Area.....	04
Figure 2: Speed Cushions on Encanto Drive	08
Figure 3: Speed Cushions on La Jolla Drive.....	08
Figure 4: Speed Table at Palmcroft Drive and College Avenue.....	08
Figure 5: Raised Crosswalk Example.....	08
Figure 6: Diagonal Diverter Illustration	09
Figure 7: Diagonal Diverter Example	09
Figure 8: Diagonal Diverter Using an Alternative Curbing Product.....	09
Figure 9: Star Diverter Illustration from Tempe Step Manual	10
Figure 10: Star Diverter Illustration from Tempe Step Manual.....	10
Figure 11: Star Diverter Illustration using Alternative Curbing Product.....	10
Figure 12: Star Diverter Illustration using Alternative Curbing Product	10
Figure 13: Raised Median on 13th Street.....	11
Figure 14: Raised Median with Crosswalk Example.....	11
Figure 15: Raised Median Example.....	11
Figure 16: Raised Median with Entry Sign Example	11
Figure 17: Road Closure Illustration from Tempe Step Manual	12
Figure 18: Road Closure on Knox Road.....	12
Figure 19: Road Closure on Lemon Street	12
Figure 20: Road Closure on Lemon Street	12
Figure 21: Road Closure Example.....	13
Figure 22: Road Closure using Alternative Curbing Product.....	13
Figure 23: Road Closure using Alternative Curbing Product.....	13
Figure 24: Neighborhood Traffic Mitigation Plan	14

1.0 Introduction

In an effort to address traffic safety and neighborhood preservation concerns, Maple Ash, Wilson Art and Garden, and Mitchell Park neighborhood associations joined together and were awarded a Maryanne Corder Neighborhood Grant from the City of Tempe for the development of a Neighborhood Traffic Mitigation Plan. Although they are separate neighborhood associations, they are intertwined, flowing into one another, and what happens in one impacts all three. Therefore, it benefits the neighborhoods to work as a combined group to help preserve the three neighborhoods.

The steering committee is comprised of two representatives from each neighborhood association with guidance provided by City of Tempe staff in Neighborhood Services and Transportation. Y2K Engineering, a transportation planning and traffic engineering consulting firm, was selected to provide technical expertise in transportation safety, traffic calming, and mitigation of cut-through traffic.

The neighborhood representatives include:

- Christine Kimball, Maple Ash
- Karyn Gitlis, Maple Ash
- Heather Throop, Mitchell Park
- Justin Stewart, Mitchell Park
- Joe Livingston, Wilson Art and Garden
- Linda Knutson, Wilson Art and Garden

A study was conducted entailing a detailed examination and analysis of the neighborhood transportation network to develop solutions for reducing speeds and cut-through motor vehicle traffic while preserving bicycle, pedestrian, and transit access. The Neighborhood Traffic Mitigation Plan aligns with Tempe's Vision Zero in that the goal is to "increase safe, healthy, equitable mobility for all." The project area includes the three neighborhood associations (Maple Ash, Wilson Art & Garden, and Mitchell Park) within the boundaries of University Drive, Mill Avenue, 13th Street, and Hardy Drive. The study area is adjacent to the activity within the Mill Avenue District, Tempe Town Lake, Downtown Tempe, and Arizona State University (ASU). Figure 1 depicts the study area for the Neighborhood Traffic Mitigation Plan.



"Increase safe, healthy, equitable mobility for all."



Figure 1: Study Area

2.0 Background

The neighborhoods in the study area have a history of traffic calming projects. A traffic calming project for 13th Street was completed in 2006 between Mill Avenue and Hardy Drive to make 13th Street a more pedestrian and bicycle friendly environment by providing improved facilities. In 2008, various traffic calming devices including speed humps, chicanes, and traffic circles were installed on other neighborhood streets in the study area as an effort to reduce traffic and reduce cut-through traffic. In the past two years, the neighborhood has had at least five of their public art pieces on Farmer Avenue, two art pieces on 9th Street, and one piece damaged by speeding and/or negligent drivers of motor vehicles.

Increased development, construction activities, and new micro-mobility transportation options have placed more demand on Tempe’s roadways resulting in additional traffic through the neighborhoods. A thriving economic environment in Tempe has led to major development over the last ten years. A large part of that development has occurred (and continues to occur) along University Drive and Mill Avenue, which border the study area to north and east. Developers have demolished single-family homes in the neighborhoods and replaced them with multi-family dwellings in the form of apartments, condominiums, and townhomes.

Development projects within the City of Tempe are discussed in further detail in the Existing Conditions Report included in Appendix A.

3.0 Traffic Considerations

3.1 Vision Zero

The City of Tempe is the first Vision Zero city in Arizona. Vision Zero is a traffic safety policy that takes an ethical approach towards achieving safety for all road users. As part of Vision Zero, the City of Tempe is implementing a safe systems approach for setting speed limits. According to the Institute of Transportation Engineers (ITE), “the safe systems approach emphasizes that some degree of roadway user error will always occur, and that such errors should not result in a fatality or serious injury.” The primary criterion is the safety of all road users. Pedestrians, bicyclists or other active forms of transportation are the most vulnerable users of the transportation network because they cannot protect themselves from the speed and mass of a motor vehicle, and they often have minimal or no outer protection. As a result, the safe systems approach usually results in lower speed limits.

3.2 Existing Traffic Data

Bi-directional speed and motor vehicle volume counts were collected utilizing pneumatic tubes at 24 locations for 72 hours on Thursday November 7, 2019, Friday November 8, 2019, and Saturday November 9, 2019. There was an ASU home football game and the Tempe Town Lake 20th anniversary event both held on Saturday during the traffic counts. Wilson Street was under construction during the counts due to Southwest Gas working on underground lines. Therefore, the counts on Wilson Street may not be representative of typical conditions. From the traffic counts, Friday had the highest daily traffic counts within the study area. The traffic counts indicate a cut-through pattern primarily using 13th Street, Farmer Avenue, 10th Street, 9th Street, Ash Avenue and Maple Avenue. The traffic counts are in the Existing Conditions Report included in Appendix A.

The City of Tempe provided historical counts for the study area from year 2008. Most of the segments have experienced an increase in daily traffic volumes. The segments with the largest increases during the 11 years (greater than 50%) occurred on Farmer Avenue, 9th Street, Ash Avenue, Maple Avenue, and Roosevelt Street.

Based on the speed data collected at the count sites, the 85th percentile speed is lower than 25 mph on all the neighborhood streets in the study area with the exceptions of Howe Street and 13th Street, which have 85th percentile speeds less than 30 mph. While 85 percent of the drivers travel at reasonable speeds, there were incidents of speeding over 40 mph, including some speeds over 50 mph. The State of Arizona considers excessive speeding to be 15 mph over the speed limit.

Excessive speeds are a safety concern for the local neighborhood streets, especially those with pedestrian and bicycle activity. According to the study, Impact Speed and a Pedestrian’s Risk of Severe Injury and Death, 2011 (AAA Foundation for Traffic Safety), the average risk of severe injury for a pedestrian struck by a vehicle is 10% at an impact of 16 miles per hour (mph), 25% at 23 mph, 50% at 31 mph, 73% at 39 mph, and 90% at 46 mph.

3.3 Effectiveness of Existing Traffic Calming Devices

To reduce speeds along an extended section of street, a series of traffic calming devices is needed. A single speed hump acts as only a point speed control. For speed humps, the recommended spacing is 300 to 500 feet. Multiple devices are required for the length of the street to achieve the desired level of discomfort to discourage speeding and cut-through traffic. Ash Avenue, Maple Avenue, and Howe Street have long segments without any traffic calming devices. The series of existing traffic calming devices in

the study area are generally effective in reducing speeds. As revealed by the existing traffic counts, the existing traffic calming devices do not provide a substantial amount of inconvenience to prevent cut-through traffic.

3.4 Tempe Streetcar

The Tempe Streetcar is under construction and planned for completion in 2021. The Tempe Streetcar route travels on Mill Avenue adjacent to the study area and will travel a short distance on University Drive between Ash Avenue and Mill Avenue. With construction of the Tempe Streetcar, new traffic signals are being installed at the Mill Avenue/9th Street and Mill Avenue/11th Street intersections.

3.5 North-South Rail Spur Multi-Use Path Project

The North-South Rail Spur Multi-Use Path is a project that will provide a non-motorized connection spanning from Tempe Town Lake/Downtown Tempe to Knox Road near the Chandler border, making it the longest continuous pathway in the community. The preliminary design includes concepts for a 7-mile, non-motorized path from Knox Road on the south to a planned pathway north of University Drive. The North-South Rail Spur Multi-use Path project is scheduled for construction starting in FY2022-2023. The currently planned project route will connect University Drive to 13th Street along Farmer Avenue. Proposed devices identified along Farmer Avenue may be implemented through this project.

3.6 Intersection of Ash Avenue and University Drive

The intersection of Ash Avenue and University Drive is signalized with signs and pavement markings prohibiting the northbound and southbound through movements of vehicular traffic. The impact of development at the intersection of Ash Avenue and University Drive is a concern of the stakeholders. The impact of the future Tempe Streetcar and congestion at the Mill Avenue/University Drive intersection are also concerns. The existing conditions restrict vehicle through movements in the northbound and southbound directions on Ash Avenue via signs and pavement markings. However, drivers of motor vehicles have been observed going through on Ash Avenue. There is significant bicycle and pedestrian activity at this intersection, especially since Ash Avenue has dedicated bike lanes. The future Tempe Streetcar is also routed through this intersection. Recommendations have been made for the Ash Avenue/University Drive intersection and are included in a technical memorandum. After the streetcar construction, the City of Tempe will monitor and observe the area and will determine at that time if these recommended improvements are warranted. The recommended improvements are discussed in a Technical Memorandum included in Appendix B.

4.0 Community Involvement

A website was maintained with project information throughout the study process. The steering committee routinely met during the study process with Tempe staff and the consultant. Informational neighborhood workshops were held on November 18, 2019 and November 23, 2019 at The Graduate introducing the study, summarizing existing data, and presenting various traffic calming countermeasures. The workshops provided an opportunity for public input through boards and note comments. The attendees used stickers to identify their preferences on the boards. The traffic calming devices receiving the most votes include diverters, intersection cul-de-sacs (closures), and bulb-outs. The boards also gathered preferences for prioritization. Overall, the meeting attendees prioritize safety over access, landscape/trees over parking, and walking/bicycling over mobility by car. Photos of the meeting boards are included in Appendix C and Appendix D.

A survey was created and disseminated through different platforms including distribution via the steering committee, publishing on the project website, and neighborhood workshops. The survey received 144 responses with most participants completing it online. Paper copies were made available at the meetings and for those participants requesting one. The survey results indicate that cut-through traffic, speeding, and pedestrian and bicycle safety are the biggest concerns on the neighborhood streets. A large portion of the participants do not view the existing traffic mitigation/calming strategies effective in reducing cut-through traffic. When asked to describe the traffic issues in further details, participants mentioned cut-through traffic, speeding, violation of stop signs, unsafe driving, Farmer Avenue, the Ash Avenue/ University Drive intersection, and bicycle and pedestrian safety. The complete survey results are included in Appendix E.

A virtual meeting presenting the draft traffic mitigation plan was conducted on September 30, 2020. The presentation is included in Appendix F. The meeting was recorded, and the video link was provided on the website along with the presentation slide show. Following the virtual meeting, a survey link was provided to gather feedback regarding the Traffic Mitigation Plan. This survey received 221 responses from residents, property owners, and businesses. Cut-through traffic, speeding, and safety for bikes and pedestrians were rated as critical concerns. Comments regarding the draft mitigation plan are summarized in the document provided in Appendix F.

5.0 Proposed Countermeasures

5.1 Description

The intent of the Neighborhood Traffic Mitigation Plan is to implement solutions that promote the use of the surrounding collector and arterial streets while mitigating impact to the local streets as much as possible. The Neighborhood Traffic Mitigation Plan is comprehensive and proposes multiple countermeasures for the study area within the boundaries of University Drive, Mill Avenue, 13th Street, and Hardy Drive. Although the study area includes three separate neighborhood associations, the local street network within the study area is intertwined and what happens in one impacts all three. Therefore, countermeasures were developed that avoid the negative outcome of cut-through traffic being directed to an adjacent local street.

The Neighborhood Traffic Mitigation Plan aligns with Tempe's Vision Zero. The existing Orbit bus route that travels through the neighborhood will not be impacted by the plan. The proposed countermeasures have been developed to enhance the pedestrian and bicyclist environment on Farmer Avenue to compliment the future North-South Rail Spur Multi-use Path proposed along Farmer Avenue.

5.2 Proposed Solutions

Traffic calming is most effective when streets have multiple devices with 300 to 500 feet spacing. Therefore, various countermeasures have been proposed throughout the study area including speed humps, raised crosswalks, diagonal diverters, star diverters, raised medians, and road closures.

Traffic calming information is provided on the Federal Highway Administration's Traffic Calming ePrimer website (https://safety.fhwa.dot.gov/speedmgt/traffic_calm.cfm). The following descriptions for the proposed traffic calming devices are from the City of Tempe's Streetscape and Transportation Enhancement Program (STEP) Manual (February 7, 2008).

Speed Cushion

A speed cushion consists of two or more raised areas placed laterally across a roadway. The raised hump encourages drivers to reduce speeds while driving over them. The height and length of the raised areas are comparable to the dimensions of a speed hump. The primary difference is that a speed cushion has gaps (often referred to as “cutouts”) between the raised areas to enable a vehicle with a wide track (e.g., a large emergency vehicle, some trucks, some buses) to pass through the feature without any vertical deflection. Speed cushions are often installed in a series and are spaced between 300 and 600 feet apart. Figure 2 and Figure 3 depict examples of speed cushions in Tempe on Encanto Drive and La Jolla Drive.



Figure 2: Speed Cushions on Encanto Drive



Figure 3: Speed Cushions on La Jolla Drive

Raised Crosswalk/Speed Table

Speed tables are raised and “flat-topped” and are generally wide enough to accommodate the wheelbase of a car. The purpose of the speed table is to reduce the speed of traffic on local or collector streets. Speed tables may be installed mid-block or at an intersection to facilitate pedestrian crossing. Speed tables function similar to speed humps, however speed tables tend to have less impact on cars and emergency vehicles. They can also be marked as a raised crosswalk to facilitate a pedestrian crossing. By raising the level in which the pedestrians cross they become more visible to approaching motorists. Speed tables tend to cost more to construct than speed humps and may be less effective at reducing traffic speed. Speed tables can impact emergency or transit routes. Drainage needs to be considered with the construction of speed tables. Figure 4 depicts a speed table in Tempe at Palmcroft Drive and College Avenue, and Figure 5 depicts an example of a raised crosswalk.



Figure 4: Speed Table at Palmcroft Drive and College



Figure 5: Raised Crosswalk Example

Diagonal Diverter

A diagonal diverter is a traffic calming tool constructed diagonally across an intersection to redirect traffic and maintain one movement. A diverter is normally used to control direction and flow of traffic in residential neighborhoods. Diverters can improve safety by restricting turning movements and can reduce traffic volume on a cut-through route on a major street. Diverters typically limit turning and access. Implementation of a diverter may require a wider street to accommodate traffic. Figure 6 is an illustration of a diagonal diverter, and Figure 7 is an example of a diagonal diverter. Figure 8 depicts an example of a diagonal diverter using an alternative curbing product.



Figure 6: Diagonal Diverter Illustration



Figure 7: Diagonal Diverter Example

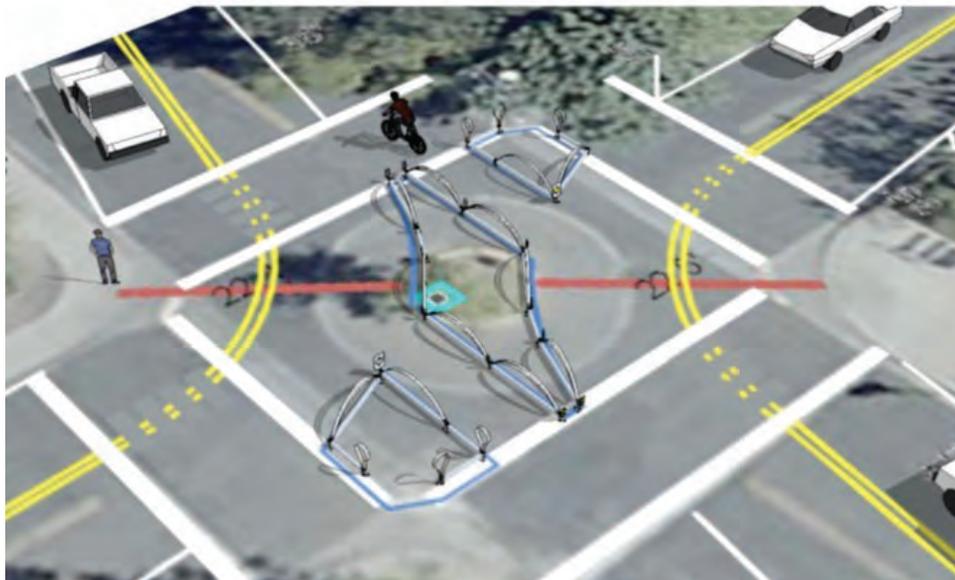


Figure 8: Diagonal Diverter Example using an Alternative Curbing Product

Star Diverter

A star diverter is a raised barrier placed in the intersection that allows traffic to make only right turns and prevents traffic from proceeding through the intersection. A star diverter can be installed within the existing intersection and right-of-way. A star diverter may reduce traffic volume and restrict “straight through” movement of traffic. A star diverter eliminates all left turns and through traffic and would change local traffic circulation patterns. A star diverter reduces potential for crashes by eliminating conflicting movements. Figure 9 and Figure 10 depict illustrations of a star diverter, and Figure 11 and Figure 12 depict examples of a star diverter using an alternative curbing product.

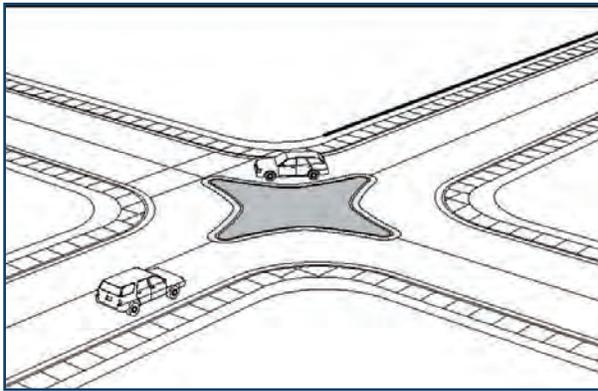


Figure 9: Star Diverter Illustration from Tempe Step Man-

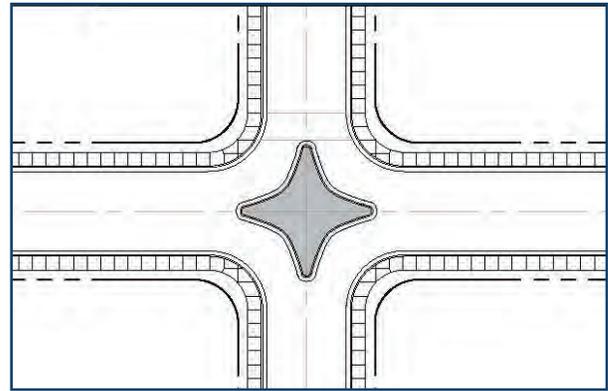


Figure 10: Star Diverter Illustration from Tempe Step Manual



Figure 11: Star Diverter Example using an Alternative Curbing Product

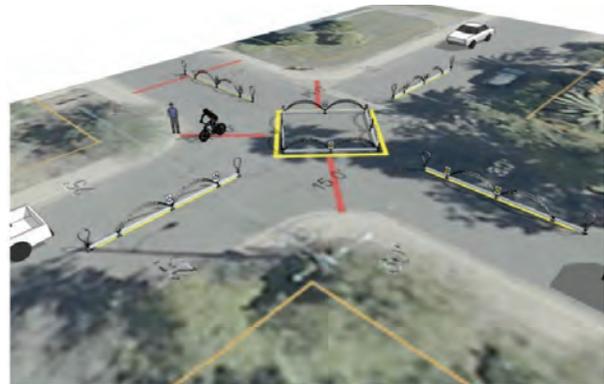


Figure 12: Star Diverter Example using an Alternative Curbing Product

Raised Median

A raised median is a raised island near the centerline of a local street. The median narrows the traffic flow and serves as a “channel” to slow traffic. The implementation of a median for traffic calming will produce a speed reduction and may reduce traffic noise. Medians may be constructed on local, collector, or arterial streets. Medians do not reduce traffic or inherently improve safety and will require maintenance. The implementation of medians will, in most cases, limit on-street parking. Medians may also limit bicycle lanes and driveway access. Figure 13 is an example of a raised median on 13th Street near Hardy Drive. Figures 14 through 16 depict various examples of raised medians.



Figure 13: Raised Median on 13th Street



Figure 14: Raised Median with Crosswalk Example



Figure 15: Raised Median Example



Figure 16: Raised Median with Entry Sign Example

Road Closures/Intersection Cul-de-sac

The intersection cul-de-sac prevents cut-through traffic by blockading a road prior to an intersection. The implementation of an intersection cul-de-sac would also require approval from the fire and sanitation departments as it impacts access. An intersection cul-de-sac will effectively block cut-through traffic and slow traffic speeds. Speed reduction occurs only on the street that is closed. Cul-de-sacs have a high cost of implementation and may impact utilities. Intersection cul-de-sacs can only be implemented on local streets. Transit, emergency service, and sanitation routes may also be impacted by prohibiting through traffic. Figure 17 is an illustration of a road closure, and Figures 18 through 20 depict road closure examples in Tempe at Knox Road and Lemon Street. Figure 21 is an example of a road closure and Figure 22 and Figure 23 depict examples of a road closure using an alternative curbing product.

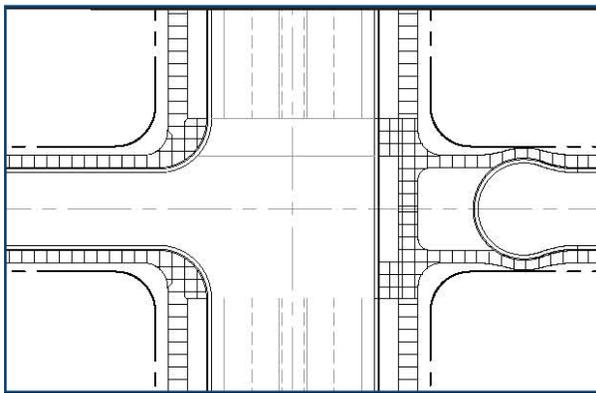


Figure 17: Road Closure Illustration from Tempe Step Manual



Figure 18: Road Closure on Knox Road



Figure 19: Road Closure on Lemon Street



Figure 20: Road Closure on Lemon Street

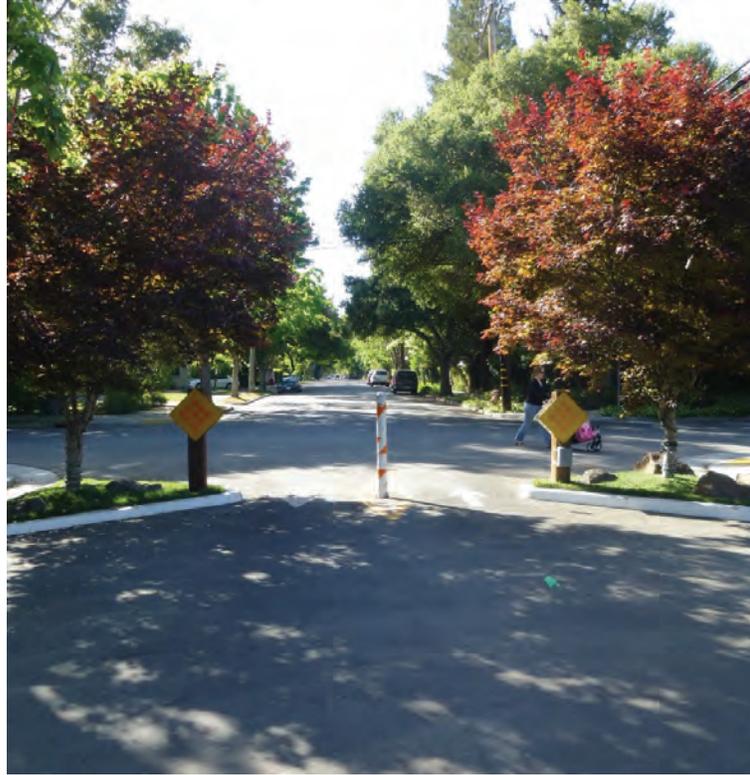


Figure 21: Road Closure Example

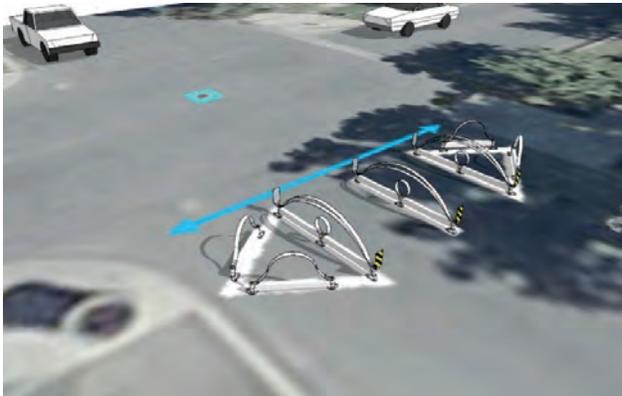


Figure 22: Road Closure Example using an Alternative Curbing Product

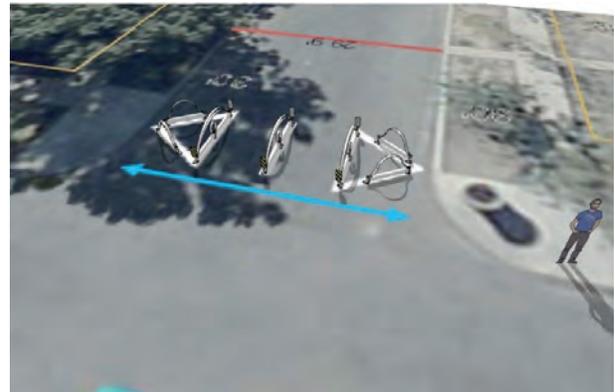


Figure 23: Road Closure Example using an Alternative Curbing Product

5.3 Neighborhood Traffic Mitigation Plan

Several mitigation strategies consisting of various traffic calming arrangements were considered and reviewed by the Neighborhood Traffic Mitigation Steering Committee.

Figure 24 depicts the Neighborhood Traffic Mitigation Plan on a study area map with the proposed countermeasures.

6.0 Project Implementation

6.1 Construction Considerations

Modular construction is an alternative design to concrete medians and curb. There are various modular curbing products that allow for quick-build bike and pedestrian safety infrastructure. The modular curbing products can be used to create curb extensions/intersection bump-outs, refuge islands, and center medians. The curbing product functions as a protective curb, but is quick build, movable and reusable. As depicted in the previous figures, the modular curbing can also be used in the installation of diverters and road closures. They have the advantage of being a temporary measure for trial periods or until additional funds are acquired for more permanent infrastructure, if desired. Once removed, they can be used for other projects.

Alternative curbing rail products are durable steel rails that connect and swivel at posts to create the desired barrier configuration. The system can be anchored into asphalt or concrete, and vertical elements can be attached to any post. Rails sit two inches above grade to allow for storm water drainage and debris clearance. Rails are available in galvanized or a powder coat color (over galvanized) finish.

Approval from the City Traffic Engineering division is required and depending on the solution, design consultation may be needed based on the extent and type of mitigation to evaluate constructability, utility, and drainage issues. City of Tempe staff provided preliminary comments regarding the plan, which are included in Appendix H.

6.2 Interim Solution and Testing

The proposed diverter and road closure countermeasures could be designed with modular curbing products to reduce initial costs and provide an interim solution and testing period. More permanent infrastructure could be installed later including concrete curb, which is more expensive and requires drainage, utility, and landscape considerations.

6.3 Planning Level Cost Estimate

A planning level cost estimate was prepared for the countermeasures proposed in the neighborhood traffic mitigation plan. An interim cost was estimated utilizing modular curb products for some of the devices including diverters and street closures. These devices may also remain as long term solutions if desired, but will need to be maintained and replaced at a greater frequency than permanent concrete curb infrastructure. The total life cycle cost of the modular curb products is unknown. For both the interim and ultimate costs, speed cushions and raised crosswalks are based on pavement construction, since modular curb products are not applicable. The ultimate cost estimate is based on solutions involving concrete curb.

Table 1: Planning Level Cost Estimate

Countermeasure	Location	Cost Estimate - Interim (Modular Curb)			Cost Estimate - Ultimate		
		Installation	Engineering Design	Interim Total	Installation	Engineering Design	Ultimate Total
1 Speed Cushion	On 13th Street between Roosevelt Street & Wilson Street	\$7,000	\$0	\$7,000	\$7,000	\$0	\$7,000
2 Speed Cushion	On 13th Street between Wilson Street & Farmer Avenue	\$7,000	\$0	\$7,000	\$7,000	\$0	\$7,000
3 Raised Crosswalk	On 13th Street, just east of Maple Avenue	\$20,000	\$5,000	\$25,000	\$20,000	\$5,000	\$25,000
Phase 1 (13th Street) Total:		\$34,000	\$5,000	\$39,000	\$34,000	\$5,000	\$39,000
4 Bike Sharrow Symbol Pavement Markings (3 sets)	On 10th Street between Ash Avenue & Mill Avenue	\$600	\$0	\$600	\$600	\$0	\$600
5 Street Closure	On Maple Avenue, south of 10th Street	\$5,742	\$1,000	\$6,742	\$15,000	\$3,500	\$18,500
6 Diagonal Diverter (SW to NE)	At Ash Avenue/9th Street Intersection	\$11,256	\$2,000	\$13,256	\$25,000	\$5,000	\$30,000
7 Diagonal Diverter (SW to NE)	At Wilson Street/11th Street Intersection	\$8,130	\$1,600	\$9,730	\$20,000	\$5,000	\$25,000
8 Star Diverter	At Roosevelt Street/12th Street Intersection	\$14,532	\$3,000	\$17,532	\$20,000	\$5,000	\$25,000
9 Diagonal Diverter (SW to NE)	At Judd Street/Howe Street	\$8,130	\$1,600	\$9,730	\$20,000	\$5,000	\$25,000
10 Speed Cushions (Two)	On Judd Street between 12th and 13th Street	\$14,000	\$0	\$14,000	\$14,000	\$0	\$14,000
11 Bike Sharrow Symbol Pavement Markings (12 sets)	On Farmer Avenue	\$2,400	\$0	\$2,400	\$2,400	\$0	\$2,400
12 Refresh and Realign Speed Hump Markings (7 sets)	On Farmer Avenue	\$1,400	\$0	\$1,400	\$1,400	\$0	\$1,400
13 Lighting at Chicanes (One side of street, 3 locations)	On Farmer Avenue	\$15,000	\$3,000	\$18,000	\$15,000	\$3,000	\$18,000
14 Reconstruction of Chicanes with Landscaping (4 sets)	On Farmer Avenue	\$40,000	\$6,000	\$46,000	\$40,000	\$6,000	\$46,000
15 Raised Crosswalk	On Farmer Avenue, just north of 9th Street	\$20,000	\$5,000	\$25,000	\$20,000	\$5,000	\$25,000
16 Street Closure ¹	On Farmer Avenue at 10th Street	\$11,484	\$3,000	\$14,484	\$60,000	\$14,000	\$74,000
17 Street Closure	On Roosevelt Street, south of 9th Street	\$5,742	\$1,000	\$6,742	\$15,000	\$3,500	\$18,500
18 Street Closure	On Mitchell Drive at 10th Street	\$5,742	\$1,000	\$6,742	\$15,000	\$3,500	\$18,500
19 Street Closure/Neighborhood Public Space (2 closures)	On McKemy Street between 9th Street & Laird Street	\$10,000	\$4,000	\$14,000	\$30,000	\$8,000	\$38,000
Phase 2 Total:		\$174,158	\$32,200	\$206,358	\$313,400	\$66,500	\$379,900

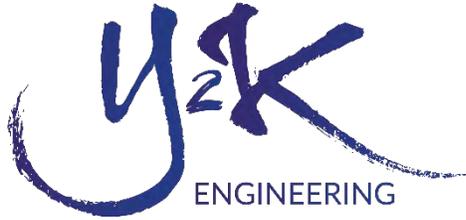
1. The street closure on Farmer Avenue at 10th Street should not occur until other diverters and the closure on Maple Avenue is funded and implemented.

6.4 Next Steps

- Approval from the City Traffic Engineering division is required and depending on the solution, design consultation may be needed based on the extent and type of mitigation to evaluate constructability, utility, and drainage issues.
- The installation of a star divertor may require an exception if the width of the travel lane is less than twenty-two feet as required by the Tempe Fire Medical Rescue Department.
- Based on the location of proposed traffic calming devices, specifically street closures and diverters, the Tempe Fire Medical Rescue Department and Tempe Solid Waste and Recycling might need to establish new routes and evaluate the accessibility of their vehicles. New routes for trash and recycling pick-up would need to be communicated to the residents.
- Special consideration was given in the development of the countermeasures to not impact the existing Orbit transit route.
- City Staff will monitor traffic impacts of the Tempe Streetcar post construction at the Ash/University, 9th/Mill, and 10th/Mill intersections.
- The North-South Rail Spur Multi-use Path project is scheduled for construction starting in FY2022-2023. The currently planned project route will connect University Drive to 13th Street along Farmer Avenue. Proposed devices identified along Farmer Avenue may be implemented through the multi-use path project.
- At the time of this plan, City Staff is working on improved methodologies for the traffic mitigation and calming process.



APPENDIX A: EXISTING CONDITIONS REPORT



PROVIDING VALUE FIRST

Neighborhood Traffic Mitigation Study: Existing Conditions Report

Maple-Ash, Mitchell Park and Wilson Art & Garden
Neighborhood Associations

Tempe, Arizona

March 2020

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1921 S. Alma School Rd, Ste 204 \ Mesa, AZ 85210



480.696.1701



info@y2keng.com

Table of Contents

1.0	Introduction	1
1.1	Purpose of Study	1
1.2	Study Area	1
2.0	Background	2
2.1	History of Study Area.....	2
2.2	Grant Application	3
2.3	Neighborhood Traffic Mitigation Grant Steering Committee.....	4
3.0	Scope of Study.....	4
4.0	Relevant Transportation Projects	6
4.1	Tempe Streetcar.....	6
4.2	North-South Rail Spur Multi-Use Path.....	7
5.0	Nearby Development	7
5.1	The Local Apartment Complex/Whole Foods Market	7
5.2	Mirabella at ASU.....	7
5.3	Westin Tempe	7
5.4	The Collective	8
5.5	Tempe Hilton Canopy.....	8
5.6	Farmer Arts District 1	8
5.7	Other Future Development	9
6.0	Existing Conditions	9
6.1	Roadway and Intersection Characteristics	9
6.2	Existing Traffic Calming.....	11
6.3	On-Street Parking	13
6.4	Transit Facilities.....	13
6.5	Pedestrian Facilities.....	14
6.6	Bicycle Facilities.....	14
6.7	Crash Analysis.....	14
6.8	Traffic Volume and Speed Data	18

List of Tables

Table 1 – Crash Summary for Neighborhood Streets	14
Table 2 – Crash Summary by Collision Manner	15
Table 3 – Historical Traffic Volume Comparison.....	21

List of Figures

Figure 1: Project Location.....	1
Figure 2: Study Area	2
Figure 3: Damaged Artwork Pieces.....	3
Figure 4: Tempe Streetcar Route	6
Figure 5: Location of Nearby Development.....	8
Figure 6: Examples of Existing Traffic Calming Devices in Study Area	11
Figure 7: Existing Traffic Control and Traffic Calming Devices.....	12
Figure 8: Orbit Venus Route	13
Figure 9: All Crashes during 5-year Period (2014-2018) on Study Area Streets	15
Figure 10: All Serious Injury and Fatal Crashes during 10-year Period (2009-2018).....	17
Figure 11: Daily Traffic Volumes.....	19
Figure 12: Isolated Incidents of Excessive Speed Based at Count Site Locations	20

1.0 Introduction

1.1 Purpose of Study

The purpose of this study is to prepare a comprehensive Neighborhood Traffic Mitigation Plan and Project List for the Maple-Ash, Wilson Art & Garden, and Mitchell Park neighborhood associations in Tempe, Arizona. This study includes a detailed examination and analysis of the neighborhood transportation network to develop solutions for reducing speeds and cut-through motor vehicle traffic while preserving bicycle, pedestrian, and transit access. The Neighborhood Traffic Mitigation Plan aligns with Tempe’s Vision Zero in that the goal is to “increase safe, healthy, equitable mobility for all.” This project is funded through the City of Tempe’s Maryanne Corder Neighborhood Grant.

1.2 Study Area

The study area includes the three neighborhood associations (Maple-Ash, Wilson Art & Garden, and Mitchell Park) within the boundaries of University Drive, Mill Avenue, 13th Street, and Hardy Drive. The study area is adjacent to the activity within the Mill Avenue District, Tempe Town Lake, Downtown Tempe, and Arizona State University (ASU). Figure 1 depicts the project location within the City of Tempe, and Figure 2 provides an aerial of the study area.



Figure 1: Project Location



Figure 2: Study Area

2.0 Background

2.1 History of Study Area

A traffic calming project for 13th Street was completed in 2006 between Mill Avenue and Hardy Drive to make 13th Street a more pedestrian and bicycle friendly environment by providing improved facilities. In 2008, various traffic calming devices including speed humps, chicanes, and traffic circles were installed on other neighborhood streets in the study area as an effort to reduce traffic and reduce cut-through traffic.

Increased development in the vicinity of the study area, nearby construction activities, and new micro-mobility transportation options have placed more demand on Tempe's roadways resulting in additional traffic through the neighborhoods included in the study area. In the past two years, the neighborhood has had four of their public art pieces on Farmer Avenue and two art pieces on 9th Street damaged by speeding and/or negligent drivers of motor vehicles. Figure 3 depicts a few instances of the damaged artwork pieces.

A thriving economic environment in Tempe has led to major development over the last ten years. A large part of that development has occurred (and continues to occur) along University Drive and Mill Avenue, which border the study area to north and east. Along with the commercial development, developers have demolished single-family homes in the neighborhoods and replaced them with multi-family dwellings in the form of apartments, condominiums, and townhomes.

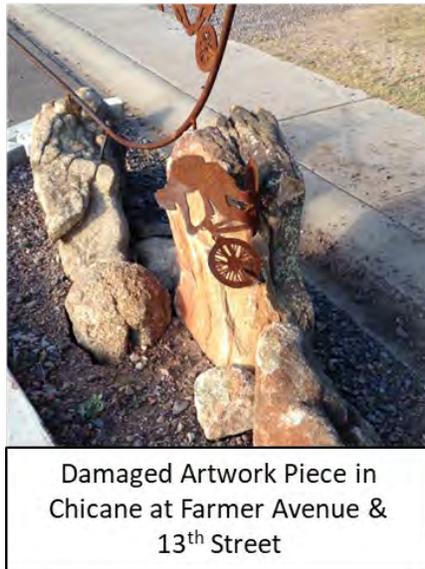


Figure 3: Damaged Artwork Pieces

The historic character of the neighborhoods has always been considered “walking and bicycling friendly”. Being near Arizona State University (ASU) and downtown Tempe, neighbors, students and visitors all enjoy the opportunity to walk and ride along the shade filled streets. It is important to stakeholders to maintain the historic character and safety of the downtown neighborhoods.

2.2 Grant Application

In an effort to address traffic safety and neighborhood preservation concerns, Maple Ash, Wilson Art and Garden, and Mitchell Park neighborhood associations joined together to write a Traffic Mitigation Study Grant Proposal. Although they are separate neighborhood associations, they are intertwined, flowing into one another, and what happens in one impacts all three. Therefore, it benefits the neighborhoods to work as a combined group to help preserve the three neighborhoods. The neighborhoods were awarded a \$45,000 Maryanne Corder Neighborhood Grant from the City of Tempe for the development of a Neighborhood Traffic Mitigation Plan.

2.3 Neighborhood Traffic Mitigation Grant Steering Committee

The Neighborhood Traffic Mitigation Grant Steering committee is comprised of two representatives from each neighborhood association with guidance provided by City of Tempe staff in Neighborhood Services and Transportation. Y2K Engineering, a transportation planning and traffic engineering consulting firm, was selected to provide technical expertise in transportation safety, traffic calming, and mitigation of cut-through traffic.

The neighborhood representatives include:

- ❖ Christine Kimball, Maple Ash
- ❖ Karyn Gitlis, Maple Ash
- ❖ Heather Throop, Mitchell Park
- ❖ Justin Stewart, Mitchell Park
- ❖ Joe Livingston, Wilson Art and Garden
- ❖ Linda Knutson, Wilson Art and Garden

3.0 Scope of Study

The following items are included as part of the scope of study for developing the comprehensive Neighborhood Traffic Mitigation Plan.

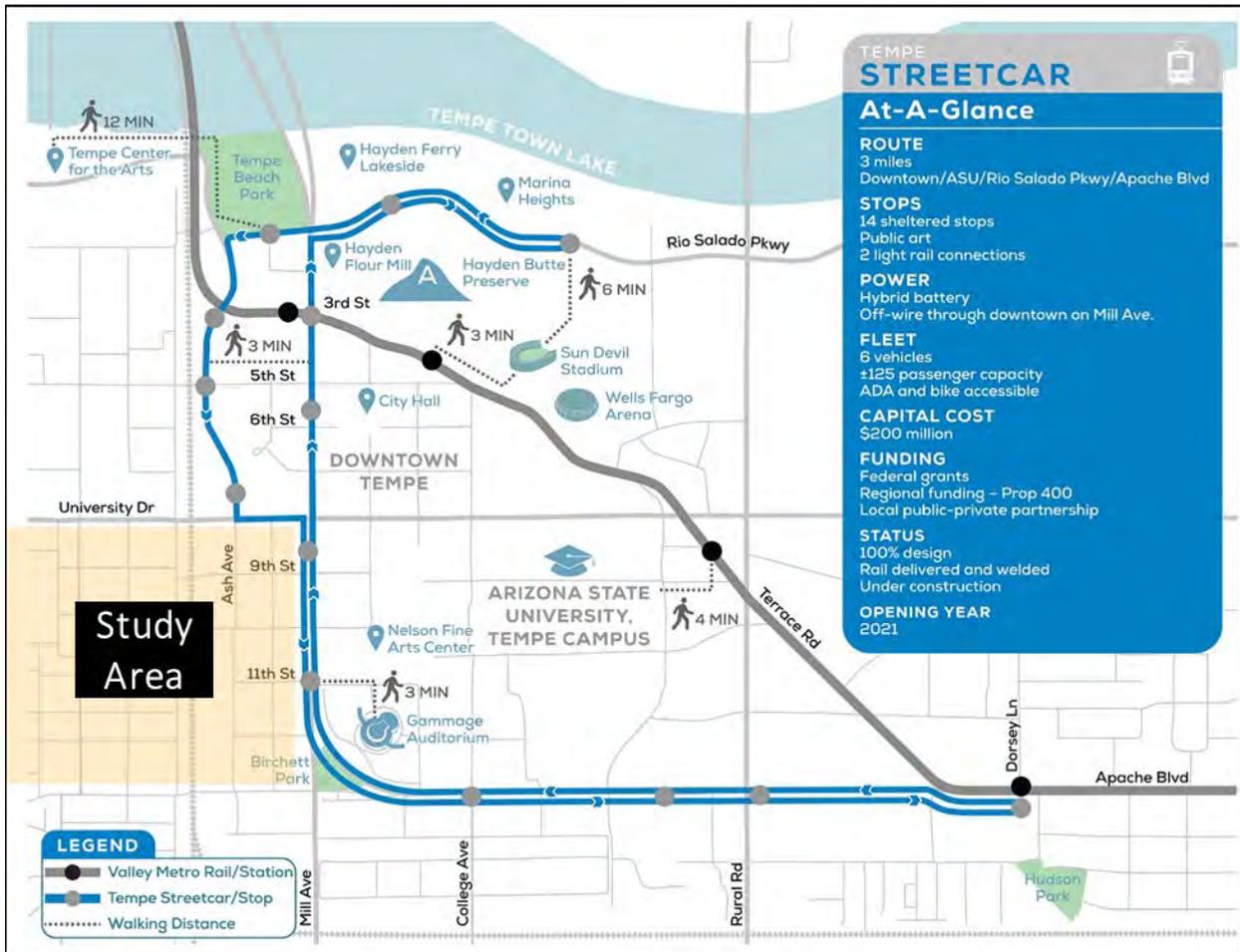
- ❖ **Existing Conditions.** Conduct a field review and document existing conditions relating to the roadway system, lane configurations, pedestrian facilities, bicyclist facilities, transit facilities, posted speed limits, roadway lighting and traffic control devices.
- ❖ **Ash Avenue and University Drive.** Review the existing operations and signage at the intersection of Ash Avenue/University Drive.
- ❖ **Crowdsourcing Neighborhood Input.** In conjunction with the existing conditions field review, develop a project website, online web application, and neighborhood survey to collect public input in addition to feedback collected at the public meetings.
- ❖ **Crash Analysis.** Obtain and analyze crash data for the study area from the City of Tempe or Arizona Crash Database for the most current five-year period available. Review fatal crashes for the most current ten-year period.
- ❖ **Historical Traffic Counts.** Obtain historical traffic counts from the City of Tempe from before traffic calming was implemented and any more recent traffic counts available within the study area. These will be used to perform before/after volume and speed comparison analysis.
- ❖ **Current Traffic Counts.** Collect current traffic counts and speeds at multiple locations within the study area for a 72-hour period. Conduct 24-hour turning movement counts at two intersections where diverters are being considered.

- ❖ ***Origin-Destination Analysis.*** After collecting traffic volumes and input from stakeholders on locations and times that cut-through traffic is at its worst, utilize mobile map applications, Google Maps and Waze, to query directions to and from five destinations outside of the study area. Document the recommended cut-through routes and calculate the estimated travel time difference between the cut-through routes and the community preferred routes on the collector and arterial street network.
- ❖ ***City Guidelines and Planning Review.*** Review the City guidelines and, from the City, obtain a summary of long-term transportation and development plans for downtown Tempe and ASU, adjacent to the study area, that may impact traffic within the study area.
- ❖ ***Working Paper #1, Existing Conditions Report.*** Publish, in a report format, the results of the field review, crowdsourced input, crash analysis, traffic counts and graphics, complete with schematic figures, and tables to document existing conditions.
- ❖ ***Neighborhood Workshops.*** Hold two neighborhood workshops with the public and project stakeholders. The purpose of the neighborhood workshops is to present the key findings of the Existing Conditions Report, discuss neighborhood concerns and potential countermeasures including traffic calming devices, closures, and diverters.
- ❖ ***Countermeasure/Project Identification.*** With stakeholder input and data collected in previous tasks, develop a comprehensive list of strategies to mitigate cut-through motor vehicle traffic within the study area neighborhoods. The effectiveness of existing traffic calming devices will be analyzed and considered when developing new countermeasures. Strategies should preserve bicycle and pedestrian mobility and access to transit to the greatest extent practicable. Develop location(s) for implementation, conceptual design figures, and planning-level cost estimates for each countermeasure or project.
- ❖ ***Working Paper #2, Countermeasures.*** Publish the results of the design workshops and countermeasure identification in a report format.
- ❖ ***Prioritization Public Meetings.*** Hold two countermeasure prioritization meetings with the public and project stakeholders. The purpose of the prioritization meetings are to review draft traffic mitigation concepts, gain consensus on the final list of countermeasures, identify the lead and support stakeholders for each, and to prioritize their implementation.
- ❖ ***Available Funding.*** Work cooperatively with the steering committee and a City of Tempe liaison to identify and compile a list of grant sources that the neighborhood associations can apply for towards implementation.
- ❖ ***Neighborhood Traffic Mitigation Plan.*** Compile the findings and recommendations of Working Paper #1 and Working Paper #2 and incorporate stakeholder comments into a published report format.

4.0 Relevant Transportation Projects

4.1 Tempe Streetcar

The Tempe Streetcar is under construction and planned for completion in 2021. The Tempe Streetcar will connect riders to neighborhoods, major business centers, and regional events and destinations. It is the Valley’s first modern streetcar line. Streetcar stops are similar to bus stops and occur more frequently than light rail stations. The Tempe Streetcar route travels on Mill Avenue adjacent to the study area and will travel a short distance on University Drive between Ash Avenue and Mill Avenue. Figure 4 includes a map of the Tempe Streetcar Route.



Source: Valley Metro

Figure 4: Tempe Streetcar Route

4.2 North-South Rail Spur Multi-Use Path

The North-South Rail Spur Multi-Use Path is a project that will provide a non-motorized connection spanning from Tempe Town Lake/Downtown Tempe to Knox Road near the Chandler border, making it the longest continuous pathway in the community. The preliminary design includes concepts for a 7-mile, non-motorized path from Knox Road on the south to a planned pathway north of University Drive. Phase 1 will travel between University Drive and Baseline Road with Phase 2 connecting Baseline Road to Knox Road.

One short segment of this proposed path system (north of University Drive) has already been built as part of the Encore on Farmer housing development.

The section from University Drive to 13th Street, which travels through the study area, will be routed along Farmer Avenue and along 13th Street to Roosevelt Road. The preliminary design depicts ‘sharrow’ pavement markings along Farmer Avenue. A ‘sharrow’ pavement marking indicates a shared roadway for motor vehicles and bicycles. It is important to calm and reduce traffic on Farmer Avenue and 13th Street to support the future bicycle and pedestrian path.

5.0 Nearby Development

5.1 The Local Apartment Complex/Whole Foods Market

The Local apartment complex is a nine-story building with studio, one-bedroom, two-bedroom, and three-bedroom apartments constructed in 2019 on the northwest corner of Ash Avenue and University Drive. A Whole Foods Market opened on the ground floor of the complex in November 2019. The 40,000+ square foot grocery market includes freshly-prepared foods to-go, a convenient coffee bar, and a separate full-service bar with a selection of beer and wine. The site location is depicted in Figure 5.

The impact of development at the intersection of Ash Avenue and University Drive is a concern of the stakeholders. The existing conditions restrict through vehicle movements in the northbound and southbound directions on Ash Avenue via signs and pavement markings. However, drivers of motor vehicles frequently ignore the restriction according to residents creating a conflict with pedestrians, bicyclists, and other vehicles. There is significant bicycle and pedestrian activity at this intersection, especially since Ash Avenue has dedicated bike lanes.

5.2 Mirabella at ASU

Mirabella at ASU is a 20-story senior living facility located near the southeast corner of Mill Avenue and University Drive. The building is scheduled to be completed in 2020 and will include 252 independent living apartments and 52 health-care units. It also consists of an indoor pool, theater, art museum, spa, dog park and four restaurants for use by residents. There is concern that future traffic from Mirabella at ASU will cut through the neighborhoods via 9th Street and 10th Street. The site location is depicted in Figure 5.

5.3 Westin Tempe

The Westin Tempe was recently constructed on 7th Street between Mill Avenue and Myrtle Avenue. It is an 18-story full-service business hotel with 290 rooms. The site location is depicted in Figure 5.

5.4 The Collective

The Collective is under construction at 7th Street and Myrtle Avenue and will be a 22-story luxury mixed-use tower project. It will consist of 268 residential units, office, and commercial uses. The site location is depicted in Figure 5.

5.5 Tempe Hilton Canopy

Canopy by Hilton is under construction on University Drive at Myrtle Avenue and will be a 14-story boutique-style hotel with 200 guest rooms, a lobby-level café, meeting space, and a rooftop pool and terrace bar. It is scheduled to open in January 2020. The site location is depicted in Figure 5.

5.6 Farmer Arts District 1

Farmer Arts District 1 is a multi-family residential building with 171 units on Farmer Avenue, north of University Drive. The site location is depicted in Figure 5.

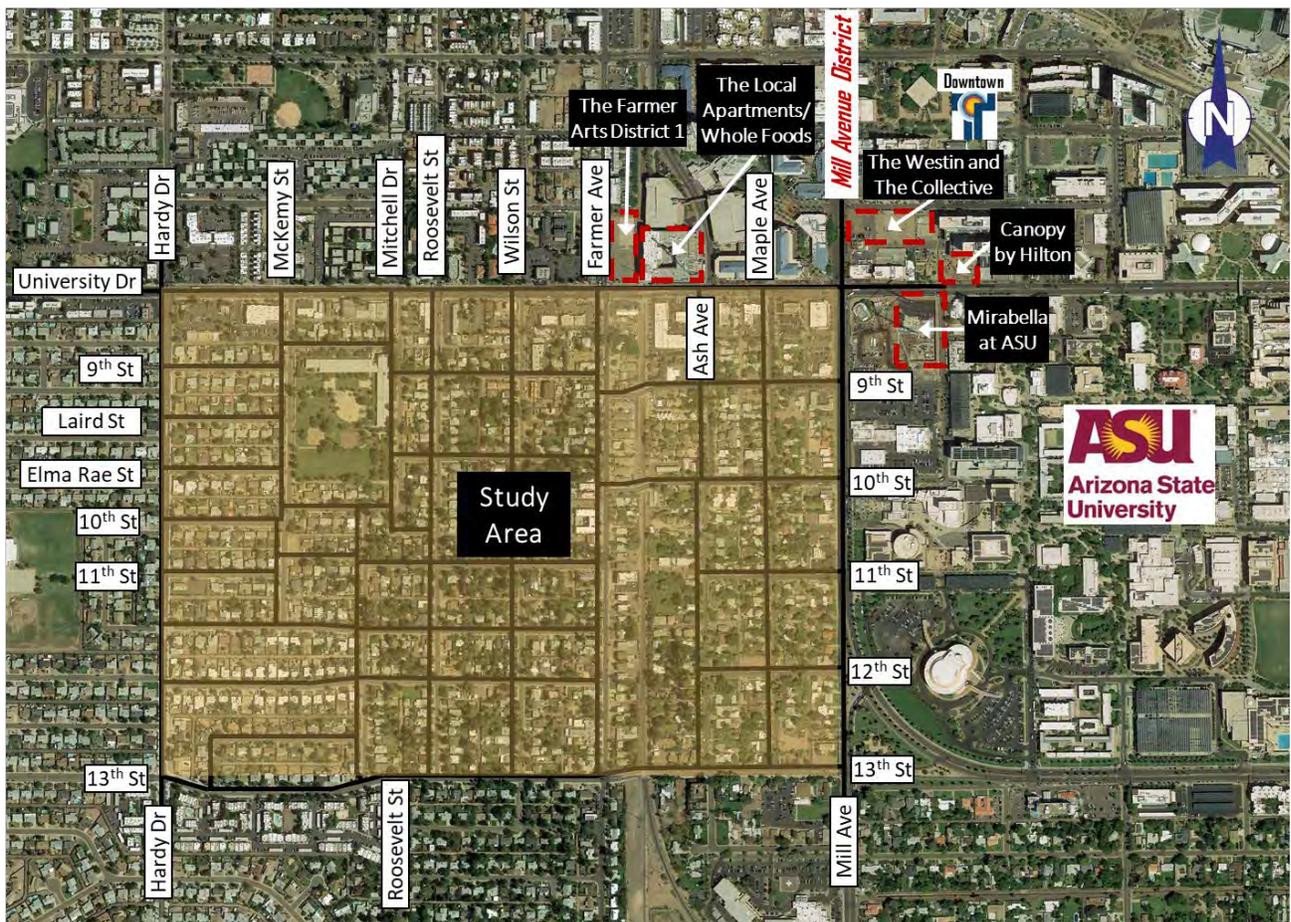


Figure 5: Location of Nearby Development

5.7 Other Future Development

Development projects within the City of Tempe are listed on Tempe's website at www.tempe.gov/projects. The following are other future developments in the area with approved development plans:

- ❖ Vib Tempe (5-story hotel with 102 rooms): On Farmer Avenue, south of 5th Street
- ❖ Farmer Arts 2 (office and commercial): On Farmer Avenue, north of 5th Street
- ❖ Hilo (11-story apartment complex with 122 units): On Mill Avenue at 7th Street
- ❖ Omni Tempe (14-story hotel with 330 rooms and 30,000 square-foot conference center): Mill Avenue and University Drive
- ❖ 707 S Forest (20-story multi-family mixed use): On Forest Avenue at 7th Street
- ❖ 430 W 7th Street (multi-story multi-family apartments): On Wilson Street at 7th Street

6.0 Existing Conditions

6.1 Roadway and Intersection Characteristics

The study area is bounded by University Drive to the north, 13th Street on the south, Mill Avenue to the east and Hardy Drive to the west. Per the *City of Tempe's 2015 Transportation Master Plan*, the following are descriptions of the different roadway classifications:

Arterial Streets provide regional and local connections, are primarily aligned on an east-west and north-south grid spaced at one-mile increments.

Collector Streets are primarily located at the half-mile spacing between arterial streets and provide local connections.

Local Streets are those within neighborhoods and only provide local connections.

Per Figure 13: Existing Functional Classification in the *City of Tempe's 2015 Transportation Master Plan*, University Drive and Mill Avenue are classified as arterials and Hardy Drive and 13th Street are classified as collectors. The other streets in the study area are classified as local.

The intersection traffic control within the study area, not including the boundary intersections, includes stop signs and traffic circles. The stop sign controlled intersections include a variety of two-way and all-way stop control. The traffic circles are controlled by yield signs, with the exception of the traffic circle at Ash Avenue and 9th Street, which is controlled by stop signs.

At the boundary of the study area, there are traffic signals on University Drive at Hardy Drive, Roosevelt Street, Farmer Avenue, Ash Avenue and Mill Avenue. On Mill Avenue, there are traffic signals at 10th Street and 13th Street. The intersection of Hardy Drive and 13th Street is also signalized.

The local streets within the study are all two-lane streets with one travel lane in each direction. There are sidewalks on both sides of the streets. The local streets do not have dedicated bike lanes. On-street parking varies and is discussed in the parking section. The speed limit on the local streets in the study area is 25 miles per hour (mph). Five of the local streets (Roosevelt Street, Wilson Street, Farmer Avenue, Ash Avenue and Maple Avenue) provide a direct and continuous connection from University Drive to 13th Street. Farmer Avenue is the only street that continues all the way south to Broadway Road.

13th Street: 13th Street is the only collector within the study area and provides a continuous connection between Hardy Drive and Mill Avenue. It is a two-lane roadway with one travel lane in each direction. Dedicated bike lanes are provided in each direction from Hardy Drive to Mill Avenue. Sidewalks are provided on both sides of the street. On-street parking is restricted on 13th Street between Judd Street and Mill Avenue. Some on-street parking is provided on 13th Street between McKemy Street and Judd Street. The posted speed limit on 13th Street is 25 mph.

Hardy Drive: Hardy Drive is a collector that borders the study area to the west, and is a two-lane roadway divided by a two-way left-turn lane. Dedicated bike lanes are provided in each direction on Hardy Drive. South of Howe Street, the bike lanes are raised to the height of the sidewalk on both sides of the street until 16th Street. A raised intersection is installed at 13th Street and Howe Street. Sidewalks are provided on both sides of Hardy Drive. There is no on-street parking on Hardy Drive. Per the City of Tempe's BIKEiT map, Hardy Drive is designated as a BIKEiT Boulevard and as a route that will connect the Western Canal to the Crosscut Canal. The posted speed limit on Hardy Drive is 30 mph.

University Drive: University Drive is an arterial street that borders the study area to the north. University Drive has two travel lanes in each direction divided by a combination of raised medians and a center two-way left-turn lane. Dedicated bike lanes are provided in both directions, and sidewalks are provided on both sides of the street. The posted speed limit on University Drive near the study area is 35 mph.

Mill Avenue: Mill Avenue is an arterial street that borders the study area to the east. Mill Avenue has three travel lanes in the southbound direction and two travel lanes in the northbound direction. There are no dedicated bike lanes on Mill Avenue adjacent to the study area. There are sidewalks on both sides of the street. At 13th Street, Mill Avenue has two travel lanes in each direction. The Tempe Streetcar, currently under construction, will travel in the center of the roadway. The posted speed limit on Mill Avenue near the study area is 35 mph.

Intersection of Ash Avenue and University Drive

The intersection of Ash Avenue and University Drive is signalized with signs and pavement markings prohibiting the northbound and southbound through movements of vehicular traffic. The impact of development at the intersection of Ash Avenue and University Drive is a concern of the stakeholders. The impact of the future Tempe Streetcar and congestion at the Mill Avenue/University Drive intersection are also concerns. The existing conditions restrict vehicle through movements in the northbound and southbound directions on Ash Avenue via signs and pavement markings. However, drivers of motor vehicles are often observed going through on Ash Avenue. There is significant bicycle and pedestrian activity at this intersection, especially since Ash Avenue has dedicated bike lanes. The future Tempe Streetcar is also routed through this intersection.

6.2 Existing Traffic Calming

A traffic calming project for 13th Street was completed in 2006 between Mill Avenue and Hardy Drive to make 13th Street a more pedestrian and bicycle friendly environment by providing improved facilities with the goal of reducing the speeds and volumes of vehicular traffic.

Features of the project included:

- ❖ replacing four-foot sidewalks with six-foot sidewalks,
- ❖ replacing rounded (roll) curbs with vertical curbs,
- ❖ providing ADA-compliant ramps,
- ❖ adding sidewalk bulb-outs at side streets,
- ❖ adding six-foot bike lanes,
- ❖ moving overhead utility lines underground,
- ❖ adding landscaping to the existing vegetation along the street,
- ❖ constructing an artist-designed entry monument, and
- ❖ constructing traffic calming measures including four-way stops, speed tables and medians.

In 2008, various traffic calming devices including speed humps, chicanes, and traffic circles were installed on other neighborhood streets in the study area as an effort to reduce traffic and reduce cut-through traffic. The neighborhood associations utilized the Maryanne Corder Grant to install additional traffic calming measures including a traffic circle at 12th Street and Judd Street and speed humps on 13th Street. Examples of some of the existing traffic calming devices in the study area are depicted in Figure 6, and the general locations of all the devices are illustrated in Figure 7.



Figure 6: Examples of Existing Traffic Calming Devices in Study Area

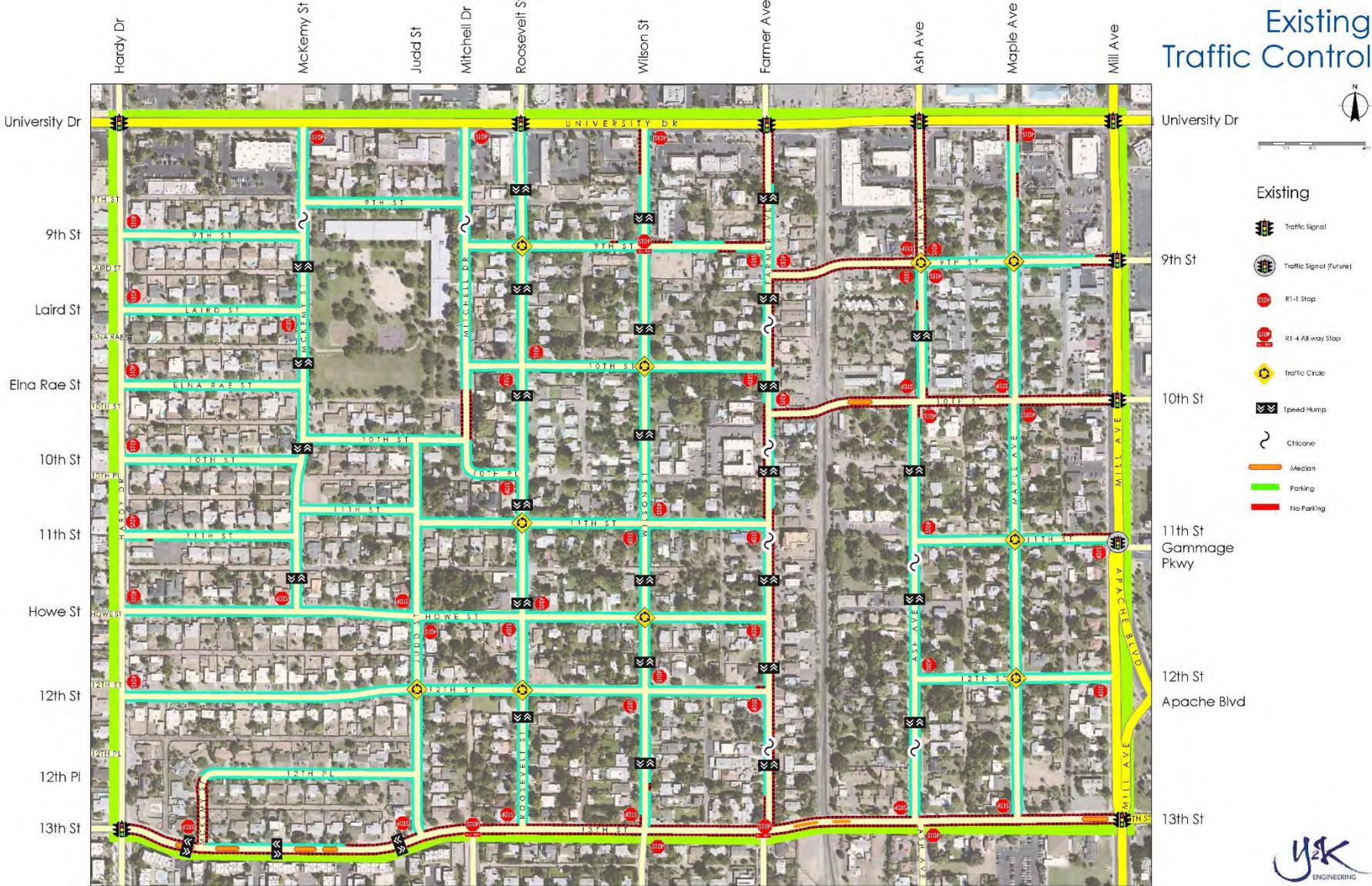


Figure 7: Existing Traffic Control and Traffic Calming Devices

6.3 On-Street Parking

On 13th Street, on-street parking is restricted between Judd Street and Mill Avenue, and some on-street parking is provided between McKemy Street and Judd Street. A field review of the parking on the local streets was completed by members of the steering committee. Parking permits and restrictions vary on the local streets within the study area.

6.4 Transit Facilities

Existing transit service in Tempe includes light rail transit, local and express bus service, neighborhood circulators (Orbit), paratransit, and the currently under construction Tempe Streetcar. The Tempe Streetcar is planned for completion in 2021 and will connect riders to neighborhoods, major business centers, and regional events and destinations. The Tempe Streetcar route is previously depicted in Figure 4.

Valley Metro operates local bus routes on University Drive (Route 30), Hardy Drive (Route 62), and Mill Avenue (Routes 65 and 66). The Orbit is a free neighborhood circulator shuttle service provided by the City of Tempe. The Orbit routes use “flag” stops, which means that the driver will pick up and drop off passengers in neighborhoods as long as it is safe. The Orbit Venus travels through the study area originating from Roosevelt Street to the south, connecting to Farmer Avenue via 13th Street and then to 10th Street. Figure 8 depicts the Orbit Venus route.



Source:

City of Tempe

Figure 8: Orbit Venus Route

6.5 Pedestrian Facilities

There are no existing paths within the neighborhood. There are sidewalks on both sides of the streets in the Maple Ash and Wilson Art and Garden neighborhoods. Within the Maple Ash neighborhood, there are sidewalks that are detached from the roadway on Ash Avenue, Maple Avenue, 9th Street, 10th Street, 11th Street and 12th Street. The sidewalks in the Wilson Art and Garden neighborhood are attached, which means they are adjacent to the roadway. There are some streets in the Mitchell Park neighborhood without sidewalks including 9th Street, Laird Street and Elna Rae Street. The sidewalk on the east side of Mitchell Drive is not continuous.

Within the study area, there are marked crosswalks at the following intersections: Ash Avenue/9th Street, Ash Avenue/13th Street, Farmer Avenue/13th Street, and Roosevelt Road/13th Street. There are also marked crosswalks at the signalized intersections bordering the study area.

6.6 Bicycle Facilities

Within the study area, there are dedicated bike lanes in both directions on 13th Street. There are no dedicated bike lanes on the local streets.

Adjacent to the study area, Hardy Drive is designated as a BIKEIT Boulevard and as a route that will connect the Western Canal to the Crosscut Canal. There are dedicated bike lanes on University Drive in both directions. There are also dedicated bike lanes on Ash Avenue, north of University Drive.

The North-South Rail Spur Multi-Use Path is a project that will provide a non-motorized connection spanning from Tempe Town Lake/Downtown Tempe to Knox Road near the Chandler border, making it the longest continuous pathway in the community. The section from University Drive to 13th Street, which travels through the study area, will be routed along Farmer Avenue and on 13th Street.

6.7 Crash Analysis

The City of Tempe is the first Vision Zero city in Arizona. Vision Zero is a traffic safety policy that takes an ethical approach towards achieving safety for all road users. Engineering safety countermeasures from the Plan will be incorporated when developing countermeasures as part of the Neighborhood Traffic Mitigation Plan. The countermeasures will consider safety benefits for all road users.

Crash Summary

Five years of Accident Location Identification Surveillance System (ALISS) crash data from 2014 to 2018 were obtained from ADOT’s Safety Data Mart database for the study limits. Table 1 summarizes the number of crashes by year on the neighborhood streets, not including the adjacent arterials (Hardy Drive, University Drive and Mill Avenue).

Table 1 – Crash Summary for Neighborhood Streets

<i>Crash Type</i>	2014	2015	2016	2017	2018	Total
<i>All Crashes</i>	19	20	24	20	30	113
<i>Bicyclist</i>	4	1	0	2	1	8
<i>Pedestrian</i>	0	1	0	2	1	4

Table 2 summarizes the crashes on the neighborhood streets not including the adjacent arterials (Hardy Drive, University Drive and Mill Avenue) by collision manner. Figure 9 depicts all the crashes for a five-year period from 2014 to 2018.

Table 2 – Crash Summary by Collision Manner

YEAR	Collision Manner										TOTAL
	Single Vehicle	Angle	Left-Turn	Rear End	Head On	Sideswipe Same Direction	Sideswipe Opposite Direction	Bicycle	Pedestrian	Other	
2014	1	8	1	1	0	4	0	4	0	0	19
2015	2	3	4	5	1	1	1	1	1	1	20
2016	4	7	2	4	1	0	0	0	0	6	24
2017	7	1	0	4	0	1	0	2	2	3	20
2018	0	5	4	6	1	5	2	1	1	5	30
TOTAL	14	24	11	20	3	11	3	8	4	15	113

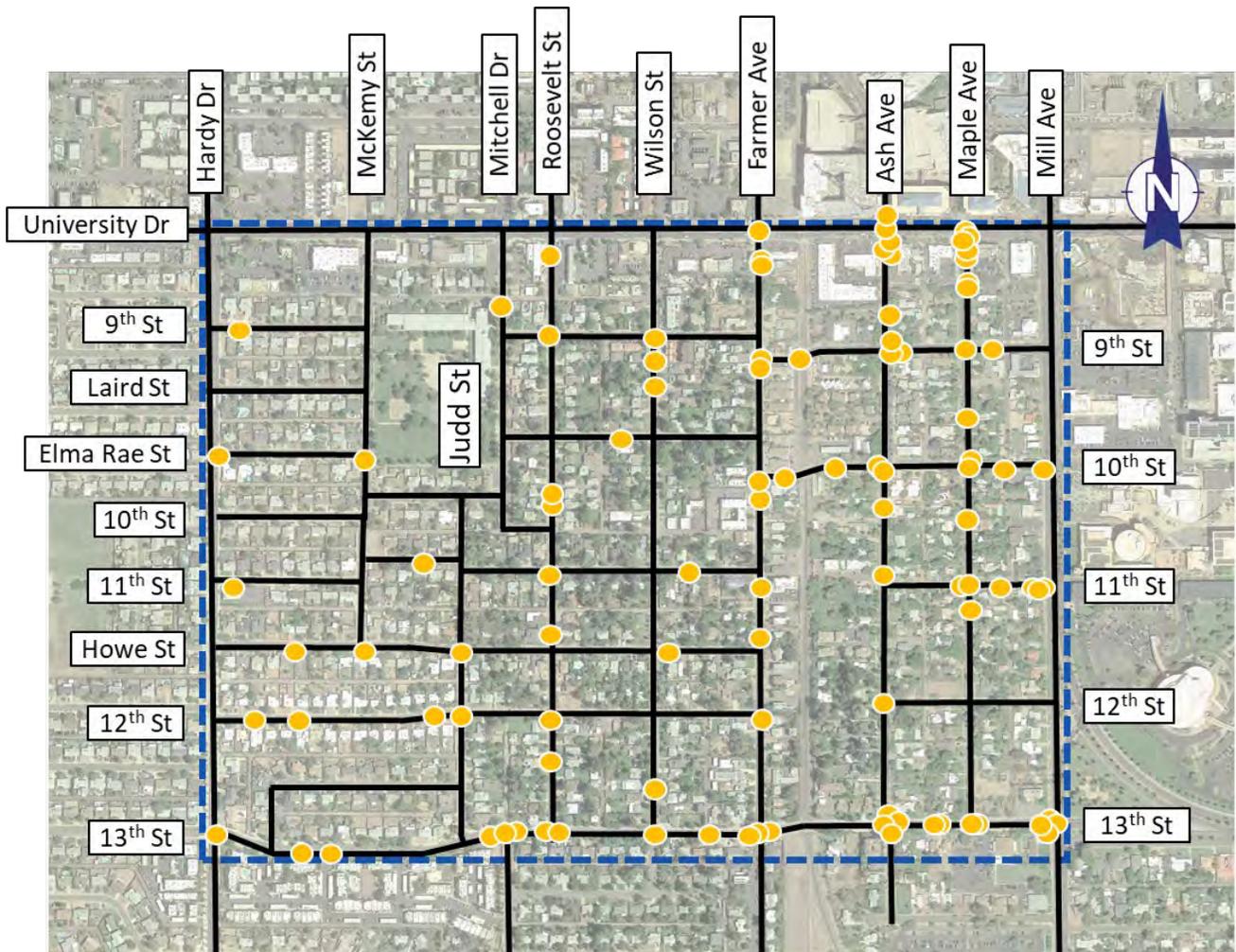


Figure 9: All Crashes during 5-year Period (2014-2018) on Study Area Streets

Crash Severity

Crashes are categorized per the injury severity level for the person(s) involved in a crash. The Arizona Department of Transportation (ADOT) assigns injury severity levels per the definitions in the *Model Minimum Uniform Crash Criteria (MMUCC) Guidelines, Fourth Edition (2012)*, as required by the Federal Highway Administration (FHWA). The following are the descriptions for the different injury severity levels.

No Injury - No apparent injury is a situation where there is no reason to believe that the person received any bodily harm from the motor vehicle crash. There is no physical evidence of injury and the person does not report any change in normal function.

Possible Injury - An injury reported or claimed which is not a fatal, suspected serious or suspected minor injury. Examples include momentary loss of consciousness, claim of injury, limping, or complaint of pain or nausea. Possible injuries are those which are reported by the person or are indicated by his/her behavior, but no wounds or injuries are readily evident.

Suspected Minor Injury - A minor injury is any injury that is evident at the scene of the crash, other than fatal or serious injuries. Examples include lump on the head, abrasions, bruises, minor lacerations (cuts on the skin surface with minimal bleeding and no exposure of deeper tissue/muscle).

Suspected Serious Injury - Any injury other than a fatal, which results in one or more of the following:

- Severe laceration resulting in exposure of underlying tissues/muscle/organs or resulting in significant loss of blood
- Broken or distorted extremity (arm or leg)
- Crush injuries
- Suspected skull, chest or abdominal injury other than bruises or minor lacerations
- Significant burns (second and third degree burns over 10% or more of the body)
- Unconsciousness when taken from the crash scene
- Paralysis

Fatal Injury - Any injury that results in death within 30 days after the motor vehicle crash occurred. If the person did not die at the scene but died within 30 days of the motor vehicle crash in which the injury occurred, the injury classification should be changed from the attribute previously assigned to the attribute "Fatal Injury".

Figure 10 depicts all the serious injury and fatal crashes within the study area during the ten-year period from 2009 to 2018. The study area includes the arterials bordering the neighborhoods. There was one fatality involving a bicyclist at the Ash Avenue/University Drive intersection in 2010, and one fatality involving a motorist at the Mill Avenue/13th Street intersection in 2018. The bicyclist fatality at the Ash Avenue/University Drive intersection involved an angle crash between a bicyclist and vehicle. The fatal crash at the Mill Avenue/13th Street intersection involved a motorcycle hitting a curb and rolling over.

There were no reported serious injury or fatal crashes involving a bicyclist or pedestrian on the neighborhood streets from 2009 to 2018. There was one serious injury crash in 2014 on 13th Street near Roosevelt Street involving a motorcycle hitting a curb. In 2012, there was one serious injury crash on Roosevelt Road near 13th Street involving a single vehicle hitting a bush or tree stump.

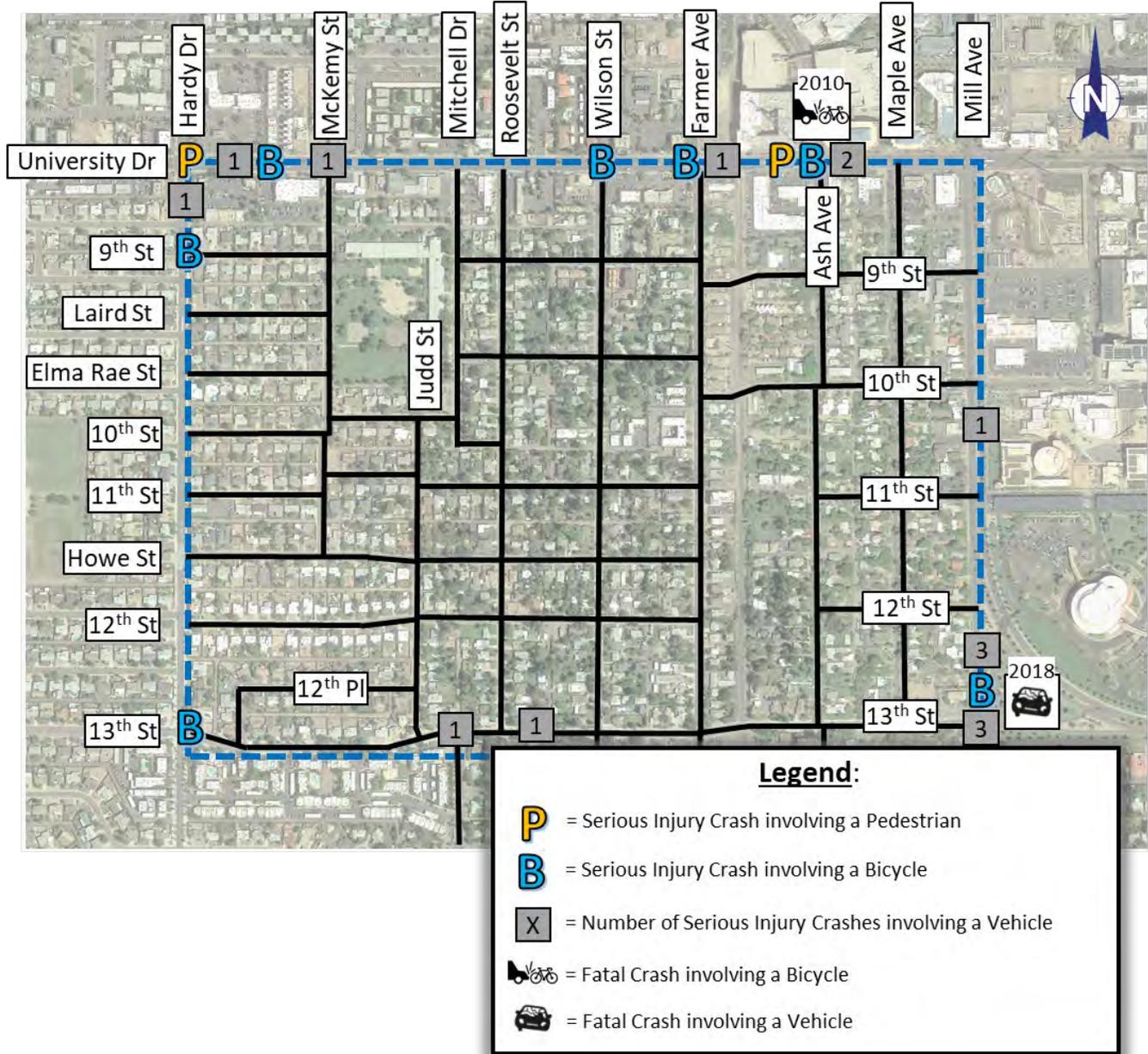


Figure 10: All Serious Injury and Fatal Crashes during 10-year Period (2009-2018)

Pedestrian and Bicycle Crashes

Pedestrians, bicyclists or other active forms of transportation are the most vulnerable users of the transportation network because they cannot protect themselves from the speed and mass of a motor vehicle, and they often have minimal or no outer protection. Therefore, crash prevention is an important component for the safety of pedestrians and bicyclists. The 2019 MAG Active Transportation Plan provides a toolbox for promoting safety for the active transportation users. The 2019 MAG Active Transportation Plan provides a framework for encouraging and providing safe connectivity for all users.

The majority of pedestrian and bicyclist crashes occurred on the arterial streets bordering the neighborhoods. During the five-year period, there was one crash involving a pedestrian on 13th Street and 3 crashes involving a bicyclist on 13th Street. There was one reported crash involving a pedestrian at the Roosevelt Street/12th Street intersection.

6.8 Traffic Volume and Speed Data

Current Traffic Counts

Bi-directional speed and motor vehicle volume counts were collected utilizing pneumatic tubes at 24 locations for 72 hours on Thursday November 7, 2019, Friday November 8, 2019, and Saturday November 9, 2019. There was an ASU home football game and the Tempe Town Lake 20th anniversary event on Saturday during the traffic counts. Wilson Street was under construction during the counts due to Southwest Gas working on underground lines. Therefore, the counts on Wilson Street may not be representative of typical conditions.

From the traffic counts, Friday had the highest daily traffic counts. The Friday daily traffic volumes are summarized in Figure 11. Also depicted in Figure 11 are the suspected cut-through traffic routes.

Speed Data

The City of Tempe is the first Vision Zero city in Arizona. Vision Zero is a traffic safety policy that takes an ethical approach towards achieving safety for all road users. As part of Vision Zero, the City of Tempe is implementing a safe systems approach for setting speed limits. According to the Institute of Transportation Engineers (ITE), “the safe systems approach emphasizes that some degree of roadway user error will always occur, and that such errors should not result in a fatality or serious injury.” The primary criterion is the safety of all road users. Pedestrians and bicyclists are more vulnerable to injury and death when hit by a vehicle. As a result, the safe systems approach usually results in lower speed limits.

For this analysis, the 85th percentile speed at the count sites is reported. The 85th percentile speed is defined as, “the speed at or below which 85 percent of all vehicles are observed to travel under free-flowing conditions past a monitored point.” Another way to consider this is the speed at which only 15% of traffic violate on average. Most drivers drive at a speed based on the visual aspects of the road and a 'feel' for the road, and not necessarily the speed limit. Speed reduction can be accomplished by changes to the geometry, side friction, and sufficient enforcement.

Based on the speed data collected at the count sites, the 85th percentile speed is lower than 25 mph on all the neighborhood streets in the study area with the exceptions of Howe Street and 13th Street, which have 85th percentile speeds less than 30 mph. While 85 percent of the drivers travel at reasonable speeds, there were isolated incidents of speeding over 40 mph, including some speeds over 50 mph. The State of Arizona considers excessive speeding to be 15 mph over the speed limit.

Excessive speeds are a safety concern for the local neighborhood streets, especially those with pedestrian and bicycle activity. According to the study, *Impact Speed and a Pedestrian's Risk of Severe Injury and Death, 2011* (AAA Foundation for Traffic Safety), the average risk of severe injury for a pedestrian struck by a vehicle is 10% at an impact of 16 miles per hour (mph), 25% at 23 mph, 50% at 31 mph, 73% at 39 mph, and 90% at 46 mph.

Locations with recorded excessive speeds at the count sites are depicted in Figure 12.

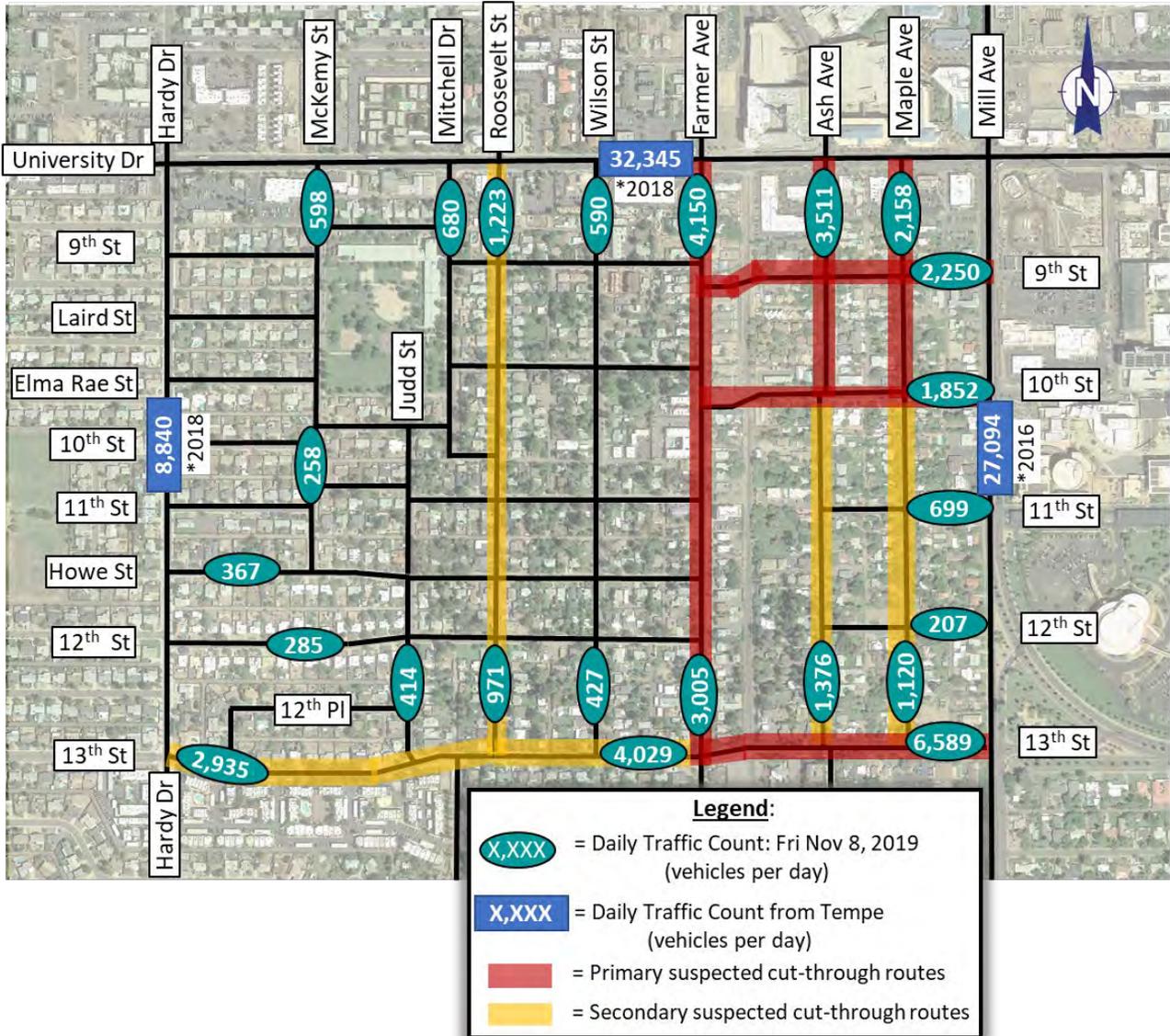


Figure 11: Daily Traffic Volumes

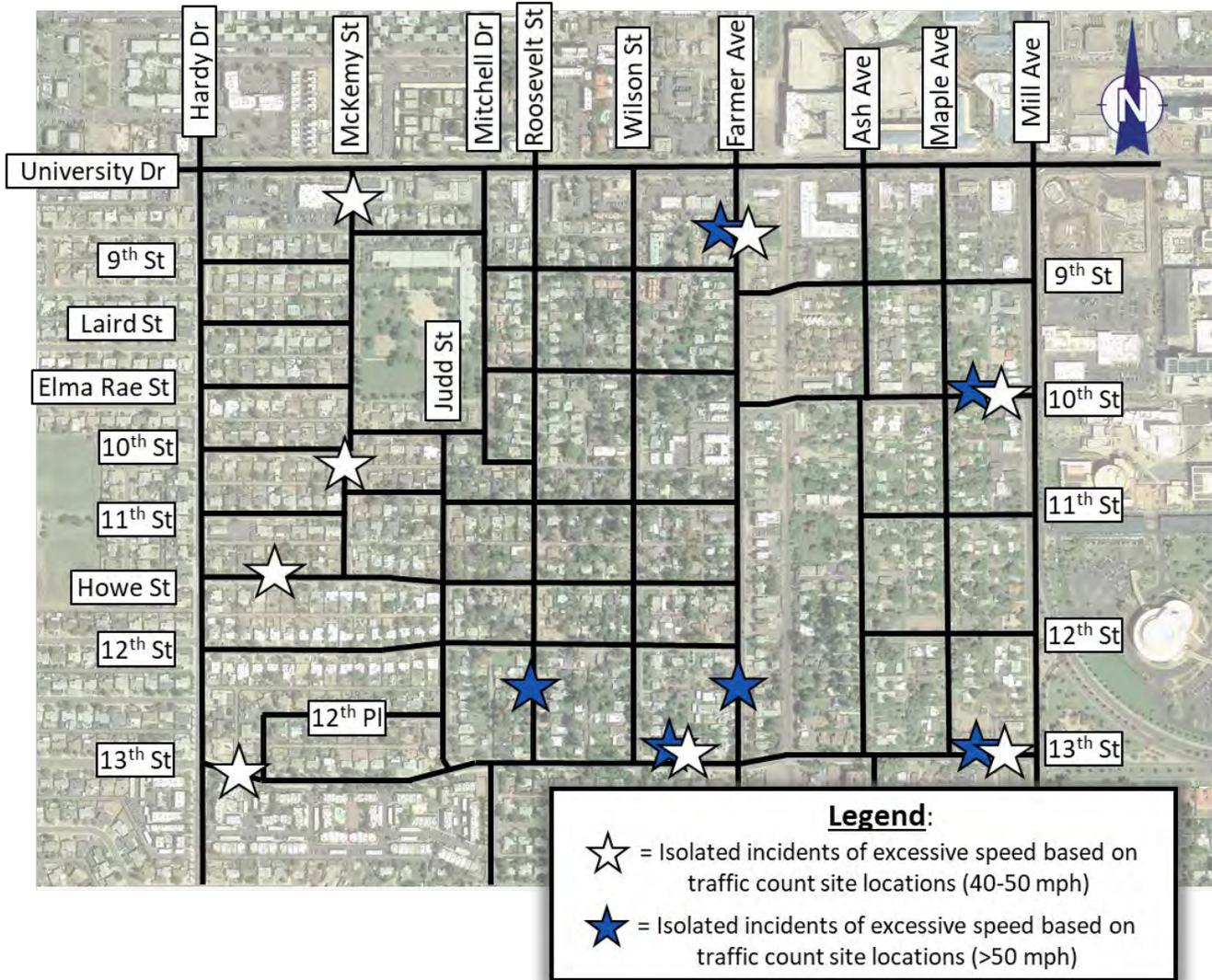


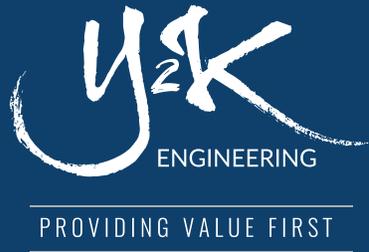
Figure 12: Isolated Incidents of Excessive Speed Based at Count Site Locations

Historical Comparison

The City of Tempe provided historical counts for the study area from year 2008. They are summarized in Table 3 with a comparison to the collected 2019 collected traffic counts. Most of the segments have experienced an increase in daily traffic volumes. A decrease is indicated on Wilson Street; however, Wilson Street had on-going construction at the time of the traffic counts in November 2019. The segments with the largest increases during the 11 years (greater than 50%) occurred on Farmer Avenue (north of 9th Street), 9th Street (east of Maple Avenue), Ash Avenue (north of 13th Street), Maple Avenue (between 12th Street and 13th Street), Maple Avenue (north of 9th Street), Farmer Avenue (south of 12th Street), and Roosevelt Street (north of 9th Street).

Table 3 – Historical Traffic Volume Comparison

Site	On Roadway	Location	Nov 2019 Daily Traffic Volume (vpd)			Oct 2008 Weekday Average for Daily Traffic Volume (vpd)	Growth based on Weekday (Thurs) Counts	
			Thurs 11/7/19	Fri 11/8/19	Sat 11/9/19		% Increase over 11 years	Annual Percentage
1	MCKEMY ST	Btwn UNIVERSITY DR & 9TH ST	553	598	576	635	-12.91%	-1.25%
2	MITCHELL DR	Btwn 9TH ST (WEST) & 9TH ST (EAST)	593	680	620	609	-2.63%	-0.24%
3	ROOSEVELT ST	N of 9TH ST & S/O ALLEY	1,150	1,223	1,030	740	55.41%	4.09%
4	WILSON ST	Btwn UNIVERSITY DR & WILSON ST	483	590	558	644	-25.00%	-2.58%
5	FARMER AVE	N of 9TH ST	3,618	4,150	4,088	1,733	108.77%	6.92%
6	ASH AVE	N of 9TH ST	2,894	3,511	3,211	2,399	20.63%	1.72%
7	MAPLE AVE	N of 9TH ST	1,873	2,158	0	1,097	70.74%	4.98%
8	9TH ST	E of MAPLE AVE	2,074	2,250	2,072	994	108.65%	6.91%
9	10TH ST	E of MAPLE AVE	1,878	1,852	1,801	1,979	-5.10%	-0.48%
10	11TH ST	E of MAPLE AVE	792	699	531	759	4.35%	0.39%
11	12TH ST	E of MAPLE AVE	190	207	122	163	16.56%	1.40%
12	MAPLE AVE	Btwn 12TH ST & 13TH ST	1,058	1,120	1,214	600	76.33%	5.29%
13	13TH ST	E of MAPLE AVE	6,281	6,589	6,121	2008 data not available for 13th St.		
14	ASH AVE	N of 13TH ST	1,279	1,376	1,453	724	76.66%	5.31%
15	FARMER AVE	S of 12TH ST	2,710	3,005	2,866	1,622	67.08%	4.78%
16	13TH ST	E of WILSON ST	4,307	4,029	3,342	2008 data not available for 13th St.		
17	WILSON ST	S of 12TH ST	370	427	405	523	-29.25%	-3.10%
18	ROOSEVELT ST	N of 13TH ST	951	971	838	863	10.20%	0.89%
19	JUDD ST	Btwn 12TH ST & 12TH PL	389	414	372	361	7.76%	0.68%
20	13TH ST	E of HARDY DR	3,315	2,935	2,124	2008 data not available for 13th St.		
21	12TH ST	Btwn HARDY DR & JUDD ST	266	285	274	304	-12.50%	-1.21%
22	HOWE ST	Btwn HARDY DR & MCKEMY ST	361	367	333	275	31.27%	2.50%
23	MCKEMY ST	Btwn 10TH ST & 11TH ST	260	258	255	357	-27.17%	-2.84%



APPENDIX B:

ASH AVENUE/UNIVERSITY DRIVE TECHNICAL MEMORANDUM



TECHNICAL MEMORANDUM

Date: March 20, 2020

Subject: University Drive & Ash Avenue Bicycle Safety Improvements

Project: Neighborhood Traffic Mitigation Study

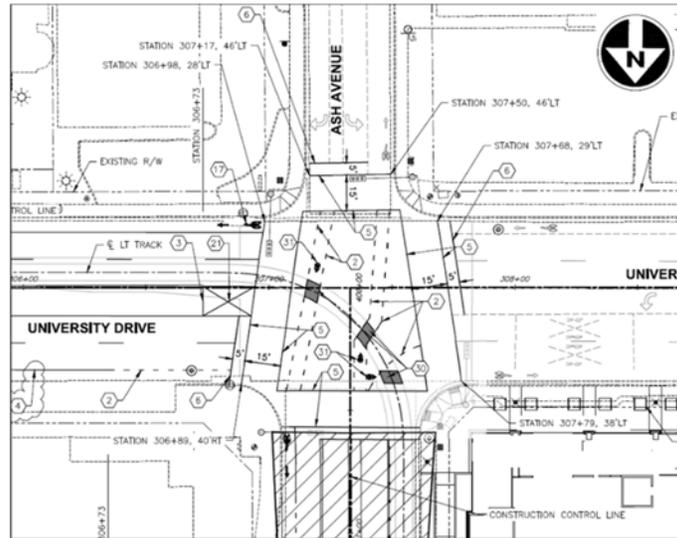
Introduction

Through the public input process for the Neighborhood Traffic Mitigation Plan (Maple-Ash, Wilson Art & Garden, and Mitchell Park neighborhood associations), residents expressed feedback regarding their concern for safety at the intersection of University Drive and Ash Avenue. The residents stated that they have observed vehicles ignoring the existing signs at the intersection and travel north-south through the intersection.

The intersection of University Drive and Ash Avenue has a historically high number of bicycle related crashes. The nature of these crashes is attributed to vehicles disobeying movement restrictions (e.g. vehicles traveling through the intersection from a turn-only lane). Two potential safety countermeasures to improve safety for cyclists include the implementation of a leading bicycle interval and an exclusive bicycle phase. Both of these strategies require bicycle signals, bicycle detection, and supplemental street signs.

Additional technology that could be installed includes a bicycle indicator that provides feedback to the cyclist that they have been detected by the traffic signal and that the bicycle phasing will be activated. Regardless of the countermeasure chosen, the bicycle lanes for the northbound and southbound approaches should remain between the right-turn and left-turn lanes. This eliminates right-hook conflicts where a vehicle turns right directly in front of a cyclists that is traveling through the intersection.

The current intersection configuration includes bicycle lanes for all four approaches. As shown on the next page, the eastbound and westbound University Drive bicycle lanes are located on the right side of the approaches in a traditional manner. The northbound and southbound Ash Avenue bicycle lanes are located between the dedicated left-turn and right-turn lanes and continue straight through the intersection towards the outside of the departure lanes. Northbound and southbound through movements for motor vehicles is prohibited by signs.



Crash History

From 2014 to 2018 there were a total of 13 pedestrian and bicycle crashes at the intersection of Ash Avenue and University Drive. There were seven crashes in 2014, zero crashes in 2015, two crashes in 2016, zero crashes in 2017, and four crashes in 2018. Of these crashes, nine were non-incapacitating injury crashes, two were possible injury crashes, and two were non injury crashes. Further, seven of the crashes occurred during the daytime and six occurred during the nighttime. This indicates that the intersection safety for pedestrians and bicycles may be increased with an improvement in street lighting at the intersection. At night, the signs that are mounted on the traffic signal mast arm to prohibit northbound and southbound through movements for motor vehicles are inconspicuous. Three of the crashes involved pedestrians and ten of the crashes involved bicyclists.

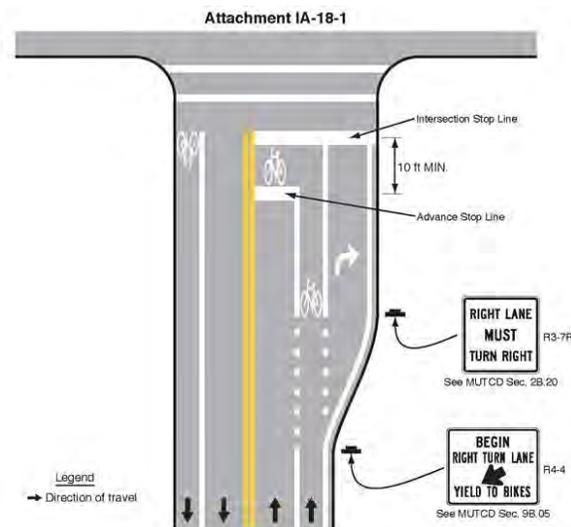
Ped & Bike Crashes: Injury Severity								
YEAR	Fatality	Serious Injury	Non-Incapacitating Injury	Possible Injury	No Injury	Daytime	Nighttime	TOTAL
2014	0	0	5	2	0	3	4	7
2015	0	0	0	0	0	0	0	0
2016	0	0	1	0	1	1	1	2
2017	0	0	0	0	0	0	0	0
2018	0	0	3	0	1	3	1	4
TOTAL	0	0	9	2	2	7	6	13

Differentiation of Pedestrian and Bicycle Crashes at University Drive and Ash Avenue

Ped & Bike Crashes			
YEAR	Pedestrian	Bicycle	TOTAL
2014	1	6	7
2015	0	0	0
2016	0	2	2
2017	0	0	0
2018	2	2	4
TOTAL	3	10	13

Intersection Bicycle Box

In 2016, the Federal Highway Administration (FHWA) published a memorandum for the interim approval for optional use of an intersection bicycle box (IA-18). The intersection bicycle box is a designated area on the approach to a signalized intersection, between an advance stop line and the intersection stop line, intended to provide bicycles a space in which to wait in front of stopped motor vehicles during the red signal phase so that they are more visible to motorists at the start of the green signal phase.



Green-colored pavement (IA-14) should be used within a bicycle box and the approach bicycle lane.

Green bike-cross markings, which are white dotted bicycle lane lines filled in between with green, should be used to define the northbound and southbound bicycle lanes crossing the intersection.

Bicycle Signal Implementation

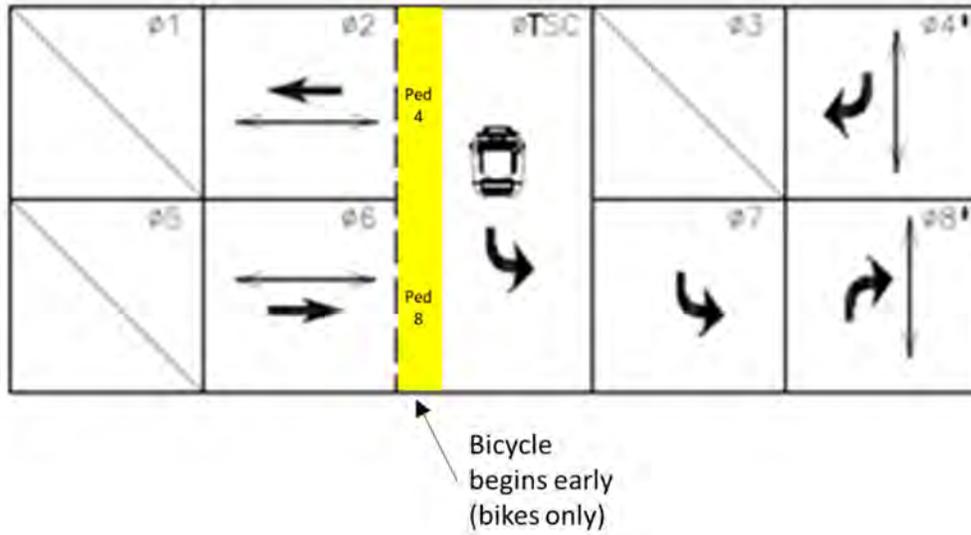
In 2013, the FHWA published a memorandum for the interim approval for optional use of a bicycle signal face (IA-16). According to the memorandum, a newly installed bicycle traffic signal has been shown to increase compliance by bicyclists with the traffic control and can provide an opportunity to either reduce the overall number of bicycle crashes or reduce the bicycle crash rate up to 45 percent. Bicycle traffic signals operate similarly to a vehicle traffic signal by displaying a red, yellow, and green. The bicycle traffic signal shall be a minimum of seven feet above the sidewalk and separated vertically or horizontally from the nearest vehicle traffic signal for the same approach by at least three feet. In addition, a bicycle SIGNAL (R10-10b) sign shall be installed immediately adjacent to every bicycle signal face that is intended to control only bicyclists. The bicycle signal should be placed so that visibility is maximized for bicyclists and minimized for adjacent or conflicting motor vehicle movements. Mounting the bicycle signal on the traffic pole would be applicable at the intersection of University Drive and Ash University.



Leading Bicycle Interval

The leading bicycle interval operates similarly to a leading pedestrian interval. When a cyclist is detected at the intersection, the bicycle signals will turn green several seconds before the parallel vehicles are given a green indication. This option would allow a bicyclist to establish their presence in the intersection before the vehicles receive their respective green phases. Safety benefits from the implementation of a leading bicycle interval include increased visibility of bicyclists, reduced conflicts between bicyclists and vehicles, increased likelihood of motorists yielding to bicyclists, and enhanced safety for bicyclists who may be slower to start into the intersection. This option would require 3 to 7 seconds be taken from vehicle movements and therefore would not critically impact vehicular delays. Further, it would allow the signal to maintain coordination as the cycle length would not have to be increased. The City of Tempe is evaluating the effect of a leading bicycle interval to determine the impact on other users, including the streetcar and vehicles, and how implementation would impact the overall intersection operations. If leading bicycle interval is implemented, leading pedestrian interval should be concurrently implemented.

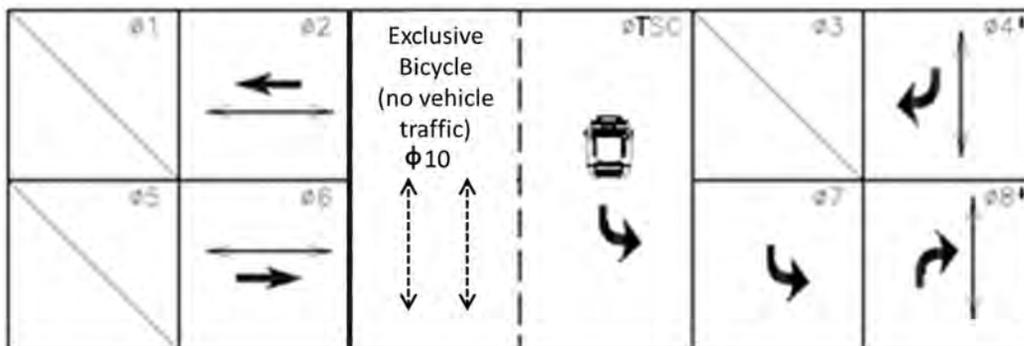
If a leading bicycle interval cannot be provided due to constraints of installing the bicycle traffic signals, signs should be installed instructing bicyclists to utilize the pedestrian signal and leading pedestrian interval should be implemented.



Exclusive Bicycle Phase

An exclusive bicycle phase stops all vehicular movement and gives cyclists adequate time to complete their movement before serving vehicles again. Similar to a leading bicycle interval, this safety countermeasure would require bicycle signals, bicycle detection, and supplemental signage. This safety countermeasure would have the highest improvement for cyclist safety as they have the dedicated right-of-way within the intersection. A concern is if the intersection is operating close to capacity then significant congestion will likely occur. Additionally, adding an exclusive bicycle phase to the intersection would require an increase in cycle length forcing the signal to drop out of coordination with up-stream and down-stream intersections.

An exclusive bicycle phase is not recommended at the intersection of University Drive and Ash Avenue since there is already an exclusive phase for the Tempe Streetcar. An additional exclusive phase would lengthen the cycle length and increase congestion.



Left and Right Arrow Signal Heads

It is recommended to replace the traffic signal heads for northbound and southbound traffic with left and right arrow signal faces to clarify that a through movement is not permitted. It is recommended that the right-turns use a three section signal head that includes a steady right-turn red arrow, a steady right-turn yellow arrow, and a flashing right-turn yellow arrow. During the permissive right-turn movement, a flashing right-turn yellow arrow will indicate to motorists that a through movement is not permitted while not assigning right-of-way that would conflict with the concurrent pedestrian phase. According to the Manual on Uniform Traffic Control Devices (MUTCD), this unique assembly can be used if it is intended that a right turn on red after stop be permitted. Supplemental to the signal, a RIGHT TURN SIGNAL sign shall be used with these faces if the red indication is displayed when the signal faces for the adjacent left-turn lane is not displaying a red indication and the red indication in the right-turn signal is not visibly limited.



NO STRAIGHT THROUGH Sign

It is recommended to replace the existing sign with a NO STRAIGHT THROUGH sign (RB-10) sign on the mast arm for improved conspicuity. This sign would indicate to motorists that they are not permitted to travel through the intersection with the intention of reducing crashes involving a bicyclist and motorist making a northbound or southbound through movement. To further emphasize that vehicles are not permitted to travel through the intersection, this sign could be an illuminated blank out sign which would be visible at all times of the day.



Next Steps

Resulting from discussions with City of Tempe staff, the City will monitor and observe the intersection operations once the Tempe streetcar is constructed and operational. At that time, the City will determine if these recommended improvements are warranted.



APPENDIX C:
NEIGHBORHOOD MEETING
BOARDS (NOVEMBER 18, 2019)

WHAT IS TRAFFIC CALMING?

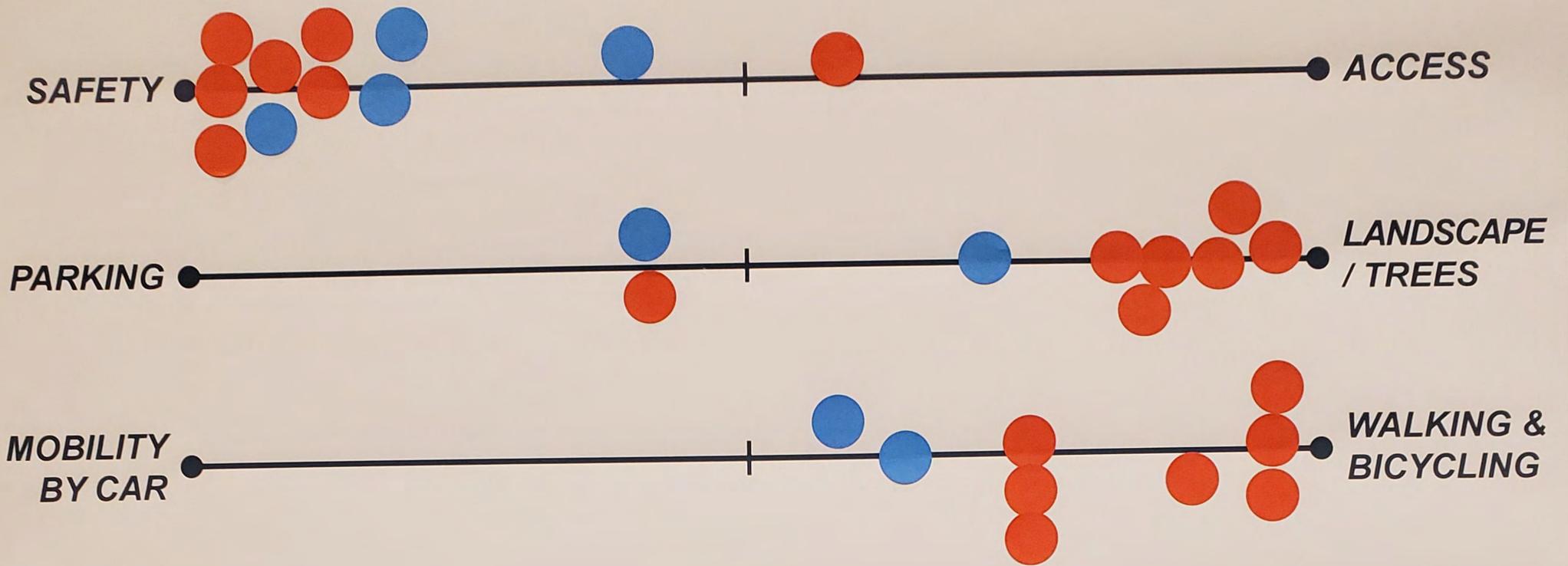
Traffic calming is the intentional design of a roadway to slow down traffic, reduce cut-through traffic, and improve safety for pedestrians and bicyclists. Using the stickers provided, place a dot next to the traffic calming devices you most prefer.

Traffic Device/Type	Traffic Reduction	Speed Reduction	Safety	Traffic Access Restriction	Emergency Vehicle Access	Maintenance Problems	Level of Violation	Impact to Bicycles	Impact to Transit	Costs	Cast Your Vote
Median	No	Yes	None	Some	No Problems	Vandalism	Low	Some	None	Moderate	
One-way Choker	Likely	Yes	None	None	Some constraint	Yes	Moderate	Minor	Minor	Moderate	
Two-way Choker	No	Minor	None	Non	No Problems	Yes	Low	Yes	Yes	Moderate	
Bulb-Out	Unlikely	Minor	Improved for pedestrians	None	Some constraint	Yes	Low	Yes	Yes	Moderate	
Chicane	Unlikely	Likely	None	None	Some constraint	Vandalism	Moderate	Minor	Minor	Moderate	
Star Diverter	Yes	Yes	Unclear	Yes	Some constraints	Yes	Low	None	Yes	Moderate	
Right-turn Diverter	Yes	Likely	Unclear	Minor	Minor	Low	Low	None	Some	Moderate	
Traffic Football	Unlikely	Likely	None	None	Likely	Likely	Low	Some	Some	High	
Intersection Cul-de-sac	Yes	Likely	Improved	Total	Some constraint	Vandalism	Low	None	Totally restricted	High	
Traffic Circle	Possible	Likely	Unclear	None	Some constraints	Vandalism	Low	None	Restricted	Moderate	
Median Barrier	Yes	None	Improved	Right turn only	Minor constraint	None	Low	Minor constraint	None	Moderate	
Roundabout	Possible	Likely	Unclear	None	None	Likely	Low	None	None	High	
Speed Hump	Unlikely	Minor	None	None	Minor	None	Low	Minor	Some	Low	
Speed Table	Unlikely	Minor	None	None	Minor	None	Low	Minor	Some	Moderate	
Departure Choker	Yes	Minor	Improved	Yes	No Problems	None	Moderate	Minor	Some	Moderate	
Entry Choker	Yes	Minor	Improved	Yes	Some constraint	None	Moderate	Minor	Possible	Moderate	
Diverter	Yes	Likely	Improved	Yes	Some constraints	Yes	Low	Minor	Yes	Moderate	
Semi-diverter (Type A)	Yes	Likely	Improved	One direction	Minor constraint	Vandalism	High	Some	Some	Moderate	
Semi-diverter (Type B)	Yes	Likely	Improved	Yes	Some constraint	Yes	Low	None	Yes	Moderate	
Stop Sign	Unlikely	None	Unclear	None	No Problems	Vandalism	High	None	None	Low	
No Left Turn / Thru / Right Turn Sign	Yes	None	Improved	No turns	No Problems	Vandalism	High	None	No Turns	Low	
One-Way Street	Unlikely	None	Improved	One direction	One direction	None	Low	One direction	One direction	Low	
Permit Parking	No	No	None	None	None	Low	Low	None	None	Low	

Traffic calming is the intentional design of a roadway to slow down traffic, reduce cut-through traffic, and improve safety for pedestrians and bicyclists. Using the stickers provided, place a dot next to the traffic calming devices you most prefer.

Traffic Device/Type	Traffic Reduction	Speed Reduction	Safety	Traffic Access Restriction	Emergency Vehicle Access	Maintenance Problems	Level of Violation	Impact to Bicycles	Impact to Transit	Costs	Cast Your Vote
Median	No	Yes	None	Some	No Problems	Vandalism	Low	Some	None	Moderate	
One-way Choker	Likely	Yes	None	None	Some constraint	Yes	Moderate	Minor	Minor	Moderate	
Two-way Choker	No	Minor	None	Non	No Problems	Yes	Low	Yes	Yes	Moderate	●
Bulb-Out	Unlikely	Minor	Improved for pedestrians	None	Some constraint	Yes	Low	Yes	Yes	Moderate	●
Chicane	Unlikely	Likely	None	None	Some constraint	Vandalism	Moderate	Minor	Minor	Moderate	
Star Diverter	Yes	Yes	Unclear	Yes	Some constraints	Yes	Low	None	Yes	Moderate	● ●
Right-turn Diverter	Yes	Likely	Unclear	Minor	Minor	Low	Low	None	Some	Moderate	
Traffic Football	Unlikely	Likely	None	None	Likely	Likely	Low	Some	Some	High	●
Intersection Cul-de-sac	Yes	Likely	Improved	Total	Some constraint	Vandalism	Low	None	Totally restricted	High	● ● ● ● ● ● ●
Traffic Circle	Possible	Likely	Unclear	None	Some constraints	Vandalism	Low	None	Restricted	Moderate	● ● ● ●
Median Barrier	Yes	None	Improved	Right turn only	Minor constraint	None	Low	Minor constraint	None	Moderate	●
Roundabout	Possible	Likely	Unclear	None	None	Likely	Low	None	None	High	
Speed Hump	Unlikely	Minor	None	None	Minor	None	Low	Minor	Some	Low	
Speed Table	Unlikely	Minor	None	None	Minor	None	Low	Minor	Some	Moderate	
Departure Choker	Yes	Minor	Improved	Yes	No Problems	None	Moderate	Minor	Some	Moderate	
Entry Choker	Yes	Minor	Improved	Yes	Some constraint	None	Moderate	Minor	Possible	Moderate	● ● ●
Diverter	Yes	Likely	Improved	Yes	Some constraints	Yes	Low	Minor	Yes	Moderate	● ● ● ● ● ● ●
Semi-diverter (Type A)	Yes	Likely	Improved	One direction	Minor constraint	Vandalism	High	Some	Some	Moderate	● ● ● ● ● ● ● ●
Semi-diverter (Type B)	Yes	Likely	Improved	Yes	Some constraint	Yes	Low	None	Yes	Moderate	● ●
Stop Sign	Unlikely	None	Unclear	None	No Problems	Vandalism	High	None	None	Low	
No Left Turn / Thru / Right Turn Sign	Yes	None	Improved	No turns	No Problems	Vandalism	High	None	No Turns	Low	
One-Way Street	Unlikely	None	Improved	One direction	One direction	None	Low	One direction	One direction	Low	●
Permit Parking	No	No	None	None	None	Low	Low	None	None	Low	

Using a sticker, cast your vote by indicating how you prioritize each item on the access.
 For example, if you prioritize access more, you'd place the sticker closer to the word access.
 If you prioritize safety more, you'd place the sticker closer to the word safety.



PARKING LOT

Using post-it notes, include thoughts or comments you have related to transportation safety in your neighborhood.

A collection of 15 hand-drawn post-it notes and a small diagram, all related to transportation safety in a neighborhood. The notes are arranged in three rows.

- Row 1 (Yellow notes):**
 - Wilson - Roosevelt to Farmer was under construction. Reconnect here after it reopens to normal conditions.
 - line of sight issues
 - Consider closing off ~~access~~ auto access to neighborhood from Mill Ave at 10th St. - bike and pedestrian traffic only.
 - Consider making Farmer Avenue a one-way street with one lane for traffic and one lane for N-S rail spur (bike + pedestrian). Divider between the →
 - Consider closing off auto access to neighborhood from University, especially from Roosevelt to Maple, i.e., 5 streets. (Roosevelt, Wilson, Farmer, Ash, Maple)
 - Reduced traffic volume / speed on Farmer will be critical with North-South Spur. - restrict access by diversions or make one way?
- Row 2 (Yellow, Pink, and Blue notes):**
 - Close up neighborhood streets to any thru access
 - Temporary closures to see effect on study counts
 - NEED Traffic reports to stop sending traffic thru 13th St i.e. KTAR
 - Limit L/R turns in neighborhood from University certain times of the day
 - Maple street diagram: A small diagram showing a street layout with 'ALLEY' labels and 'MAPLE' at the bottom. It includes a 'Blue Pizza' location and a 'Chicago' location. Arrows indicate traffic flow and restrictions.
 - Mill to Maple on 9th Street, propose 24 hr permit. should restrict parking
- Row 3 (Blue notes):**
 - Most of the traffic is trying to go N/S need restrictions to limit N/S flow
 - Photo radar van! Make it needed
 - Keep traffic from entering neighborhood from University @ 13th St

WHAT ARE YOUR TRANSPORTATION PRIORITIES?

Using a sticker, cast your vote by indicating how you prioritize each item on the access. For example, if you prioritize access more, you'd place the sticker closer to the word access. If you prioritize safety more, you'd place the sticker closer to the word safety.

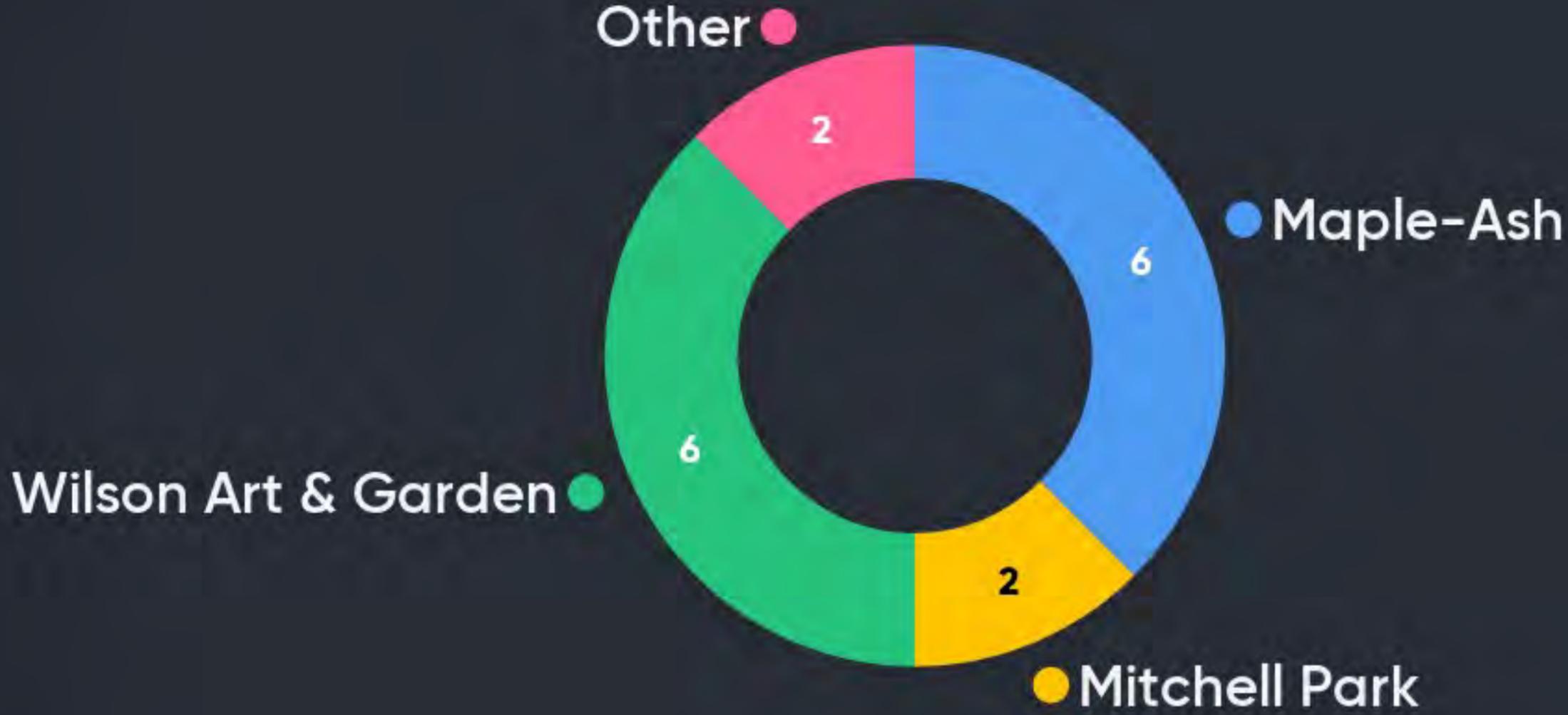


PARKING LOT

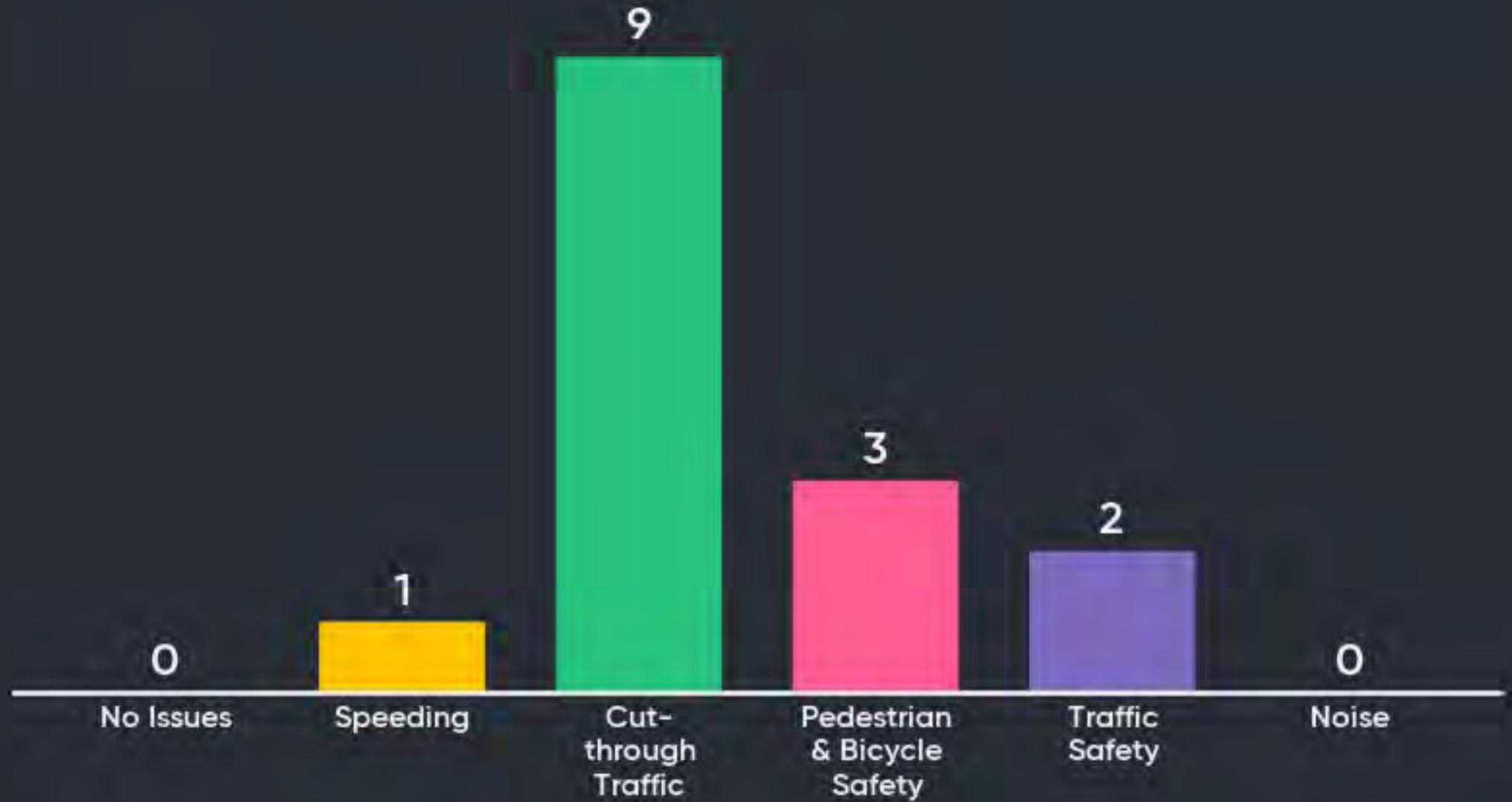
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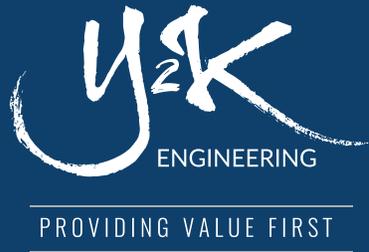
- RIGHT TO LEFT TURN ONLY SIGNAL LIGHTS AT ASH + UNIVERSITY NORTH + SOUTH - BOUND
- "NO ACCESS" LIGHT AT ASH + UNIVERSITY
- SW gas has Wilson turn up so that may need to be cauted again.
- Right + LEFT TURN ONLY LIGHTS @ 10th + mill NO THROUGH TRAFFIC ON 10th * THIS IS A CONCERN W/ MICHIGAN OPEN
- TRAFFIC ENFORCEMENT CAMERAS?
- Chicanes, Foot billys and bulb-outs tend to force bicyclists into the path of cars.
- My concern is "line of sight" issues. In particular turning south on to Maple from east bound 11th street. Parked cars on Maple cause the problem.
- I have become a big fan of the bike lanes painted the same green as this post it note.
- STOP SIGN RUNNING IS A MAJOR PROBLEM IN ALL NEIGHBORHOODS BUT SLOW'S MUCH WORSE ON STREETS JUST TO THE WEST OF FARMER SPECIFICALLY AT WILSON 12th + WILSON
- ~~Stop~~ Bike lanes separated from cars by a curb are hard to clean. They collect pokey things that cause flat tires.

Which neighborhood do you reside in?



What do you perceive as the biggest traffic issue on your neighborhood streets?





**APPENDIX D:
NEIGHBORHOOD MEETING
BOARDS (NOVEMBER 23, 2019)**

WHAT IS TRAFFIC CALMING?

Traffic calming is the intentional design of a roadway to slow down traffic, reduce cut-through traffic, and improve safety for pedestrians and bicyclists. Using the stickers provided, place a dot next to the traffic calming devices you most prefer.

Traffic Device/Type	Traffic Reduction	Speed Reduction	Safety	Traffic Access Restriction	Emergency Vehicle Access	Maintenance Problems	Level of Violation	Impact to Bicycles	Impact to Transit	Costs	Cast Your Vote
Median	No	Yes	None	Some	No Problems	Vandalism	Low	Some	None	Moderate	
One-way Choker	Likely	Yes	None	None	Some constraint	Yes	Moderate	Minor	Minor	Moderate	
Two-way Choker	No	Minor	None	Non	No Problems	Yes	Low	Yes	Yes	Moderate	
Bulb-Out	Unlikely	Minor	Improved for pedestrians	None	Some constraint	Yes	Low	Yes	Yes	Moderate	
Chicane	Unlikely	Likely	None	None	Some constraint	Vandalism	Moderate	Minor	Minor	Moderate	
Star Diverter	Yes	Yes	Unclear	Yes	Some constraints	Yes	Low	None	Yes	Moderate	
Right-turn Diverter	Yes	Likely	Unclear	Minor	Minor	Low	Low	None	Some	Moderate	
Traffic Football	Unlikely	Likely	None	None	Likely	Likely	Low	Some	Some	High	
Intersection Cul-de-sac	Yes	Likely	Improved	Total	Some constraint	Vandalism	Low	None	Totally restricted	High	
Traffic Circle	Possible	Likely	Unclear	None	Some constraints	Vandalism	Low	None	Restricted	Moderate	
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Roundabout	Possible	Likely	Unclear	None	None	Likely	Low	None	None	High	
Speed Hump	Unlikely	Minor	None	None	Minor	None	Low	Minor	Some	Low	
Speed Table	Unlikely	Minor	None	None	Minor	None	Low	Minor	Some	Moderate	
Departure Choker	Yes	Minor	Improved	Yes	No Problems	None	Moderate	Minor	Some	Moderate	
Entry Choker	Yes	Minor	Improved	Yes	Some constraint	None	Moderate	Minor	Possible	Moderate	
Diverter	Yes	Likely	Improved	Yes	Some constraints	Yes	Low	Minor	Yes	Moderate	
Semi-diverter (Type A)	Yes	Likely	Improved	One direction	Minor constraint	Vandalism	High	Some	Some	Moderate	
Semi-diverter (Type B)	Yes	Likely	Improved	Yes	Some constraint	Yes	Low	None	Yes	Moderate	
Stop Sign	Unlikely	None	Unclear	None	No Problems	Vandalism	High	None	None	Low	
No Left Turn / Thru / Right Turn Sign	Yes	None	Improved	No turns	No Problems	Vandalism	High	None	No Turns	Low	
One-Way Street	Unlikely	None	Improved	One direction	One direction	None	Low	One direction	One direction	Low	
Permit Parking	No	No	None	None	None	Low	Low	None	None	Low	

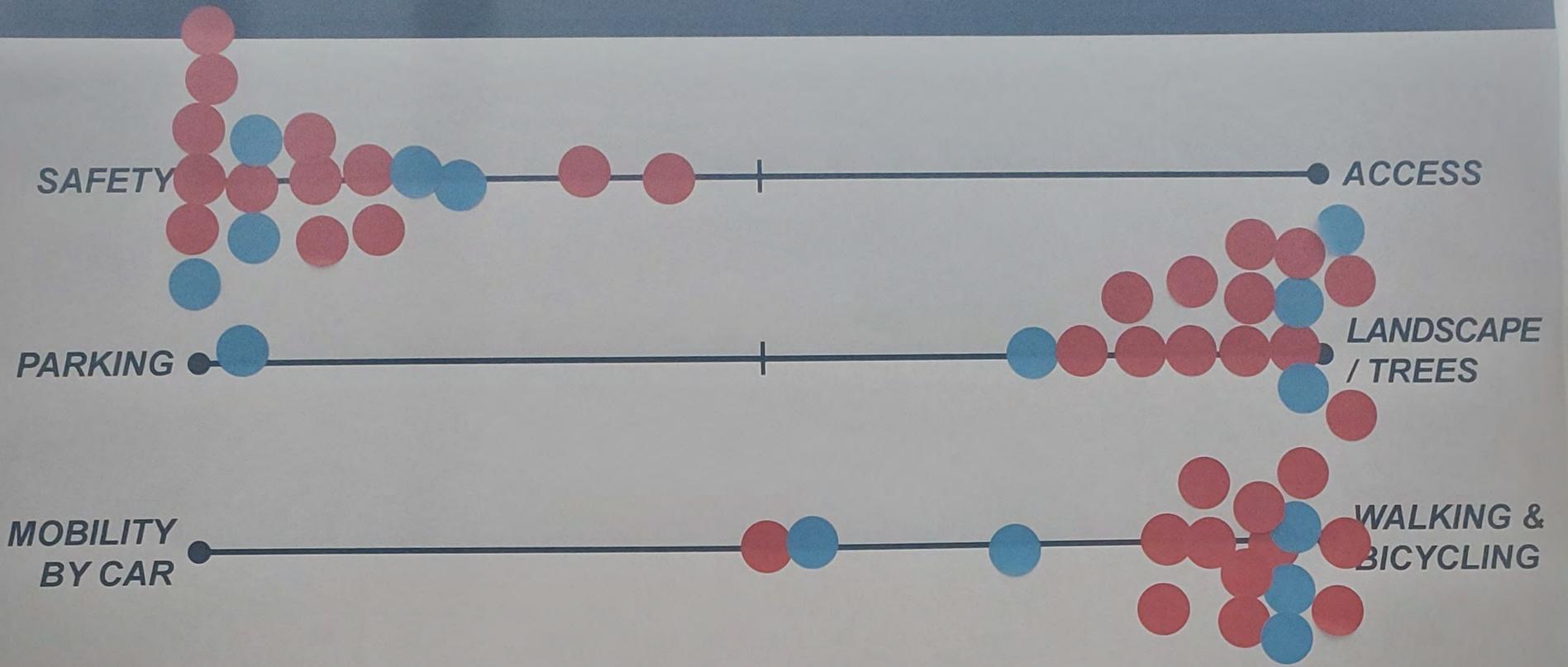
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Median	No	Yes	None	Some	No Problems	Vandalism	Low	Some	None	Moderate	
One-way Choker	Likely	Yes	None	None	Some constraint	Yes	Moderate	Minor	Minor	Moderate	
Two-way Choker	No	Minor	None	Non	No Problems	Yes	Low	Yes	Yes	Moderate	
Bulb-Out	Unlikely	Minor	Improved for pedestrians	None	Some constraint	Yes	Low	Yes	Yes	Moderate	
Chicane	Unlikely	Likely	None	None	Some constraint	Vandalism	Moderate	Minor	Minor	Moderate	
Star Diverter	Yes	Yes	Unclear	Yes	Some constraints	Yes	Low	None	Yes	Moderate	
Right-turn Diverter	Yes	Likely	Unclear	Minor	Minor	Low	Low	None	Some	Moderate	
Traffic Football	Unlikely	Likely	None	None	Likely	Likely	Low	Some	Some	High	
Intersection Cul-de-sac	Yes	Likely	Improved	Total	Some constraint	Vandalism	Low	None	Totally restricted		
Traffic Circle	Possible	Likely	Unclear	None	Some constraints	Vandalism	Low	None	Restricted	Moderate	
Median Barrier	Yes	None	Improved	Right turn only	Minor constraint	None	Low	Minor constraint	None	Moderate	
Roundabout	Possible	Likely	Unclear	None	None	Likely	Low	None	None	High	
Speed Hump	Unlikely	Minor	None	None	Minor	None	Low	Minor	Some	Low	
Speed Table	Unlikely	Minor	None	None	Minor	None	Low	Minor	Some	Moderate	
Departure Choker	Yes	Minor	Improved	Yes	No Problems	None	Moderate	Minor	Some	Moderate	
Entry Choker	Yes	Minor	Improved	Yes	Some constraint	None	Moderate	Minor	Possible	Moderate	
Diverter	Yes	Likely	Improved	Yes	Some constraints	Yes	Low	Minor	Yes		
Semi-diverter (Type A)	Yes	Likely	Improved	One direction	Minor constraint	Vandalism	High	Some	Some	Moderate	
Semi-diverter (Type B)	Yes	Likely	Improved	Yes	Some constraint	Yes	Low	None	Yes	Moderate	
Stop Sign	Unlikely	None	Unclear	None	No Problems	Vandalism	High	None	None	Low	
No Left Turn / Thru / Right Turn Sign	Yes	None	Improved	No turns	No Problems	Vandalism	High	None	No Turns	Low	
One-Way Street	Unlikely	None	Improved	One direction	One direction	None	Low	One direction	One direction	Low	
Permit Parking	No	No	None	None	None	Low	Low	None	None	Low	

WHAT ARE YOUR TRANSPORTATION PRIORITIES?

Using a sticker, cast your vote by indicating how you prioritize each item on the access.
 For example, if you prioritize access more, you'd place the sticker closer to the word access.
 If you prioritize safety more, you'd place the sticker closer to the word safety.



PARKING LOT

Using post-it notes, include thoughts or comments you have related to transportation safety in your neighborhood.

DOES ACCIDENT DATA INCLUDE
 POC INJURIES
 + FATALITIES?

1. WHAT'S YOUR OPINION
 ON THE EFFECTIVENESS
 OF "NAMED STREETS"
 (PEOPLE DRIVE MORE
 CAREFULLY +
 SAFELY WHEN
 SIGNS ARE
 REMOVED)?

CONSIDER USING
 TRAFFIC "BUTTONS"
 AS TEMPORARY
 AL ELEMENTS?

WHAT ABOUT
 "TIMING OF DAY"
 TRAFFIC FLOW?
 (SIMILAR TO CENTRAL
 AVE IN PHOENIX)

2. ARE THE VARIOUS
 T. CALMING
 DEVICES STILL
 KEEP THE STREET
 AS THE PRE-
 DOMINANT ELEMENT
 "WALKERS", (N. EVRUE)
 PUT THE PRIORITY
 OVER THE CAR.
 * WORTH CONSIDERING

Cross
 walk
 stripes
 installed,
 whenever
 possible

ON STREET
 PARKING AS
 A TRAFFIC
 CALMING
 DEVICE?

The current
 rules we have
 need to be
 enforced. There
 is too much
 speeding and
 going through
 the stop signs.

WHAT ARE YOUR TRANSPORTATION PRIORITIES?

Using a sticker, cast your vote by indicating how you prioritize each item on the access.
For example, if you prioritize access more, you'd place the sticker closer to the word access.
If you prioritize safety more, you'd place the sticker closer to the word safety.



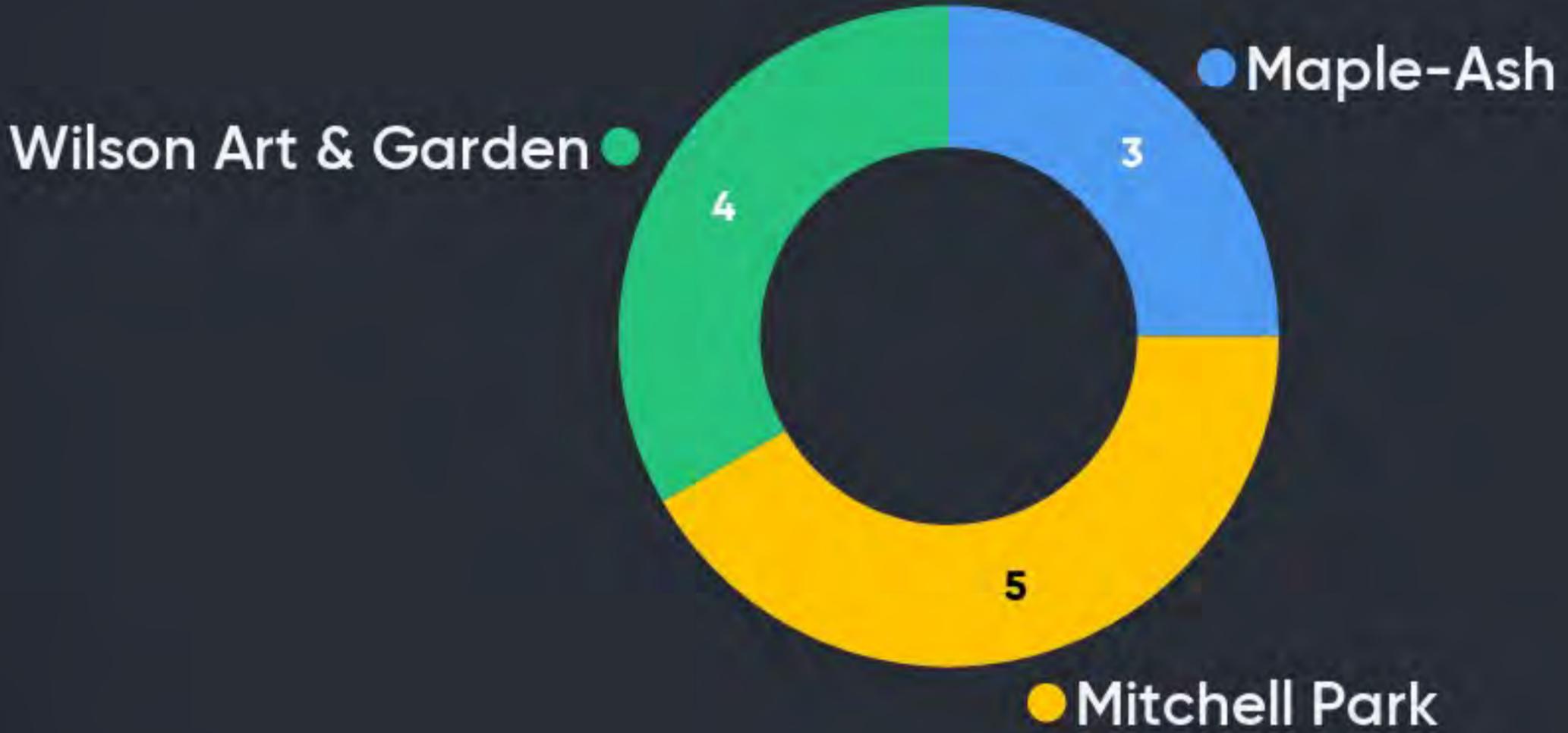
PARKING LOT

Using post-it notes, include thoughts or comments you have related to transportation safety in your neighborhood.

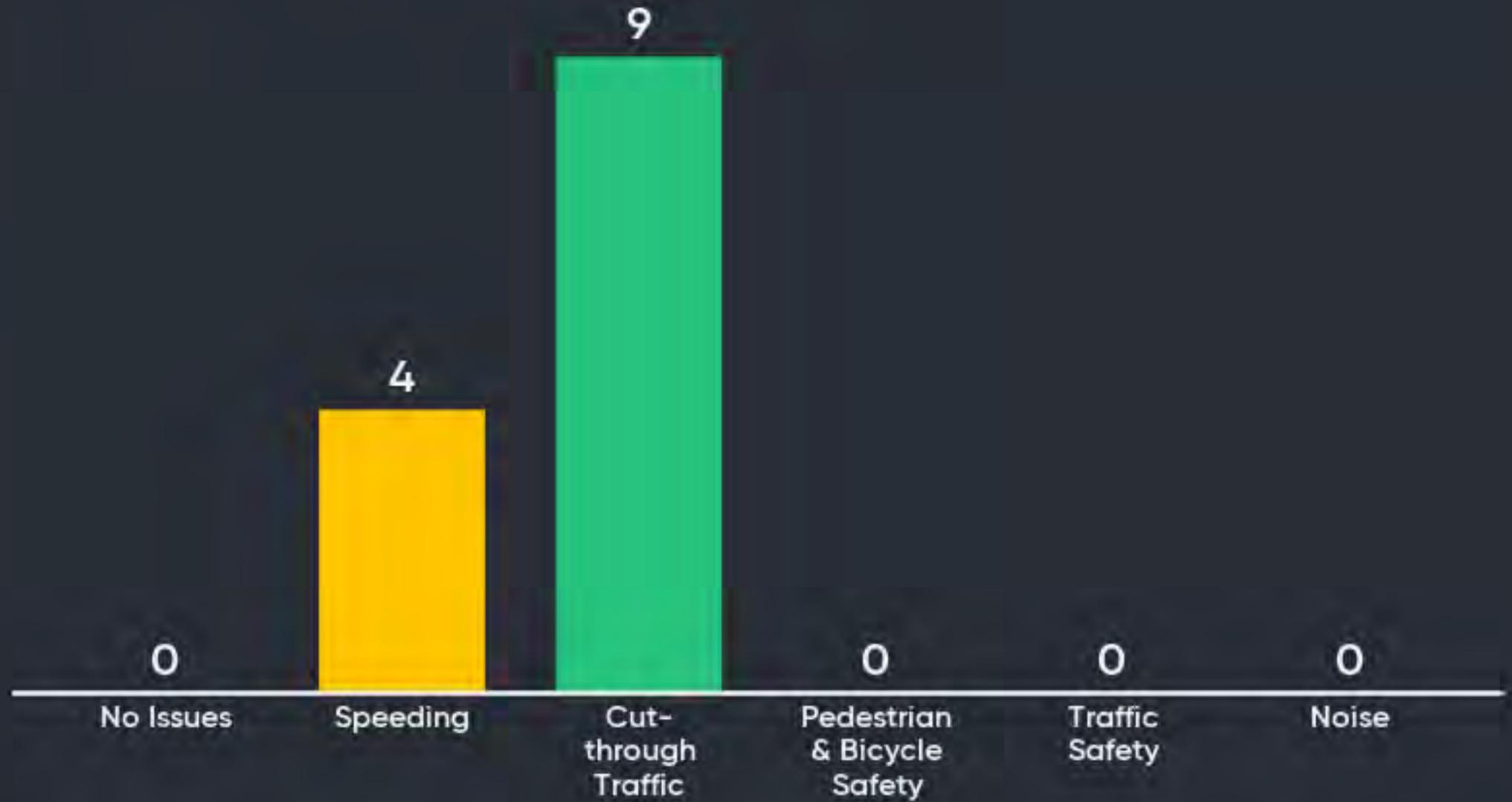
Device installations should be designed to include stormwater management low impact development features

Please, please, please coordinate with N/S pedestrian/bicycle pathway that will go down Farmer-
Farmer needs severe physical restrictions to impact speed & cut through to enable the N/S pedestrian pathway to not be a kill zone

Which neighborhood do you reside in?



What do you perceive as the biggest traffic issue on your neighborhood streets?





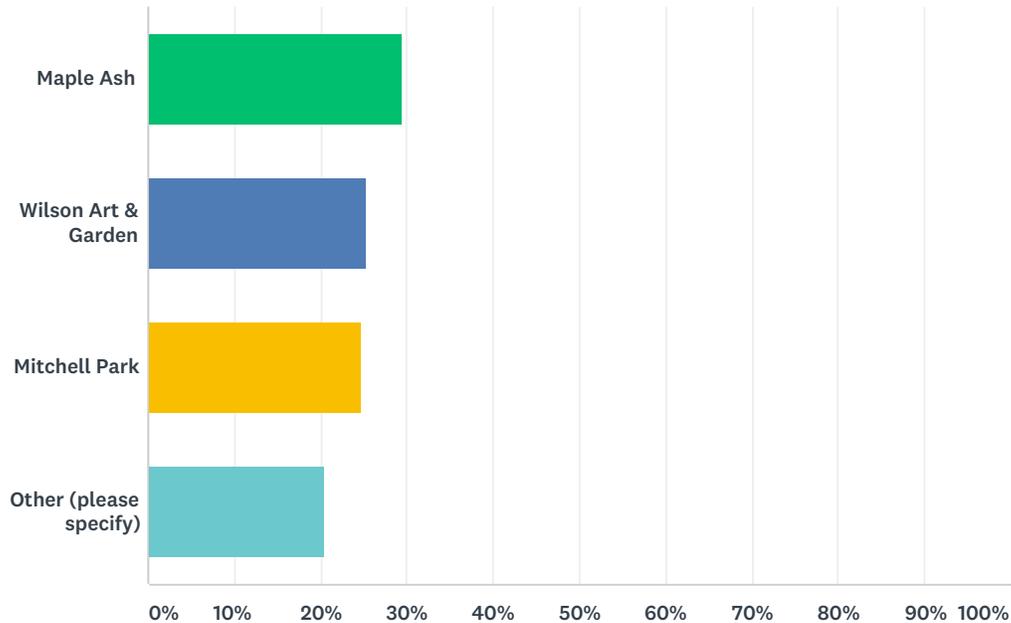
PROVIDING VALUE FIRST

APPENDIX E:

SURVEY RESULTS

Q1 Which Neighborhood do you reside in?

Answered: 142 Skipped: 2



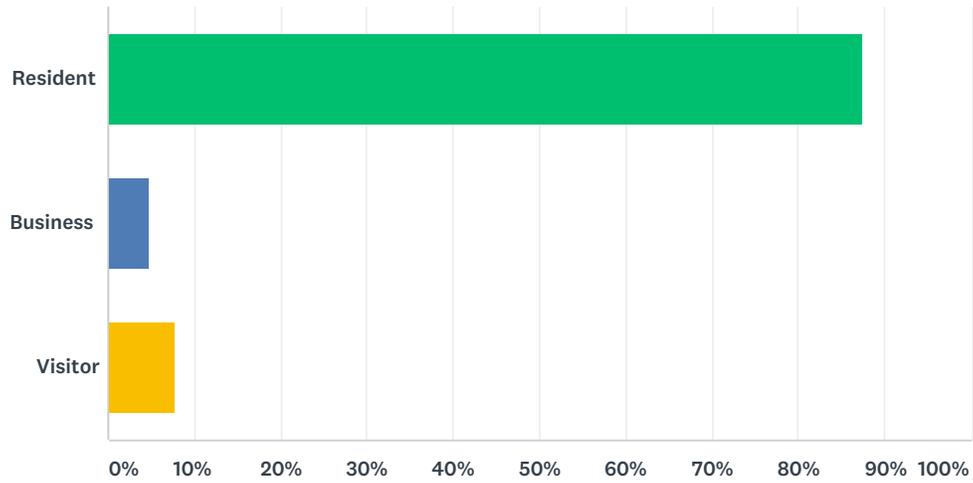
ANSWER CHOICES	RESPONSES	
Maple Ash	29.58%	42
Wilson Art & Garden	25.35%	36
Mitchell Park	24.65%	35
Other (please specify)	20.42%	29
TOTAL		142

#	OTHER (PLEASE SPECIFY)	DATE
1	S Tempe but business in the areas	12/4/2019 2:55 PM
2	Sunset	12/3/2019 3:37 AM
3	Arcadia Ingleside	11/27/2019 1:26 AM
4	Gilliland	11/26/2019 7:53 PM
5	Clark Park	11/25/2019 2:48 PM
6	University Homes	11/25/2019 7:55 AM
7	South Tempe	11/25/2019 3:41 AM
8	Gilliland	11/24/2019 9:52 PM
9	Holdeman	11/24/2019 9:32 PM
10	Clark park	11/24/2019 9:31 PM
11	Holdeman	11/24/2019 7:37 PM
12	Marilyn Ann Neighborhood	11/24/2019 7:29 PM
13	victory acres	11/24/2019 7:12 PM

14	Allegre	11/24/2019 6:24 PM
15	Apache Corridor	11/24/2019 6:16 PM
16	Cole Park	11/24/2019 5:51 PM
17	Gilliland	11/24/2019 12:22 AM
18	Gilliland	11/24/2019 12:21 AM
19	Holdeman	11/17/2019 3:32 PM
20	Holdeman	11/15/2019 11:43 PM
21	Tempe Casitas	11/15/2019 11:20 PM
22	s tempe	11/15/2019 2:51 PM
23	Farmer Wilson	11/11/2019 6:55 PM
24	Riverside	11/7/2019 4:29 AM
25	Sunset (just north of MA, so ride through a lot)	11/6/2019 2:47 AM
26	Gilliland Neighborhood	11/5/2019 6:47 PM
27	gilliland	11/5/2019 4:31 PM
28	15th st	11/5/2019 1:04 AM
29	Holdeman	10/31/2019 2:35 AM

Q2 How are you associated with the study area?

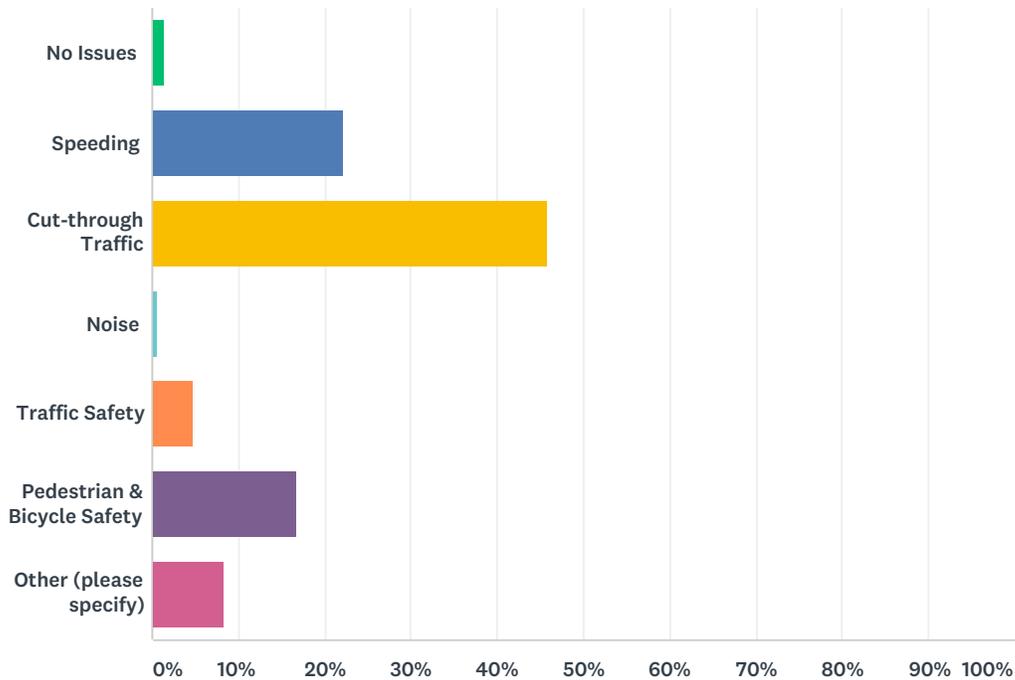
Answered: 143 Skipped: 1



ANSWER CHOICES	RESPONSES	
Resident	87.41%	125
Business	4.90%	7
Visitor	7.69%	11
TOTAL		143

Q3 What do you perceive as the biggest traffic issue on the neighborhood streets within the study area?

Answered: 144 Skipped: 0



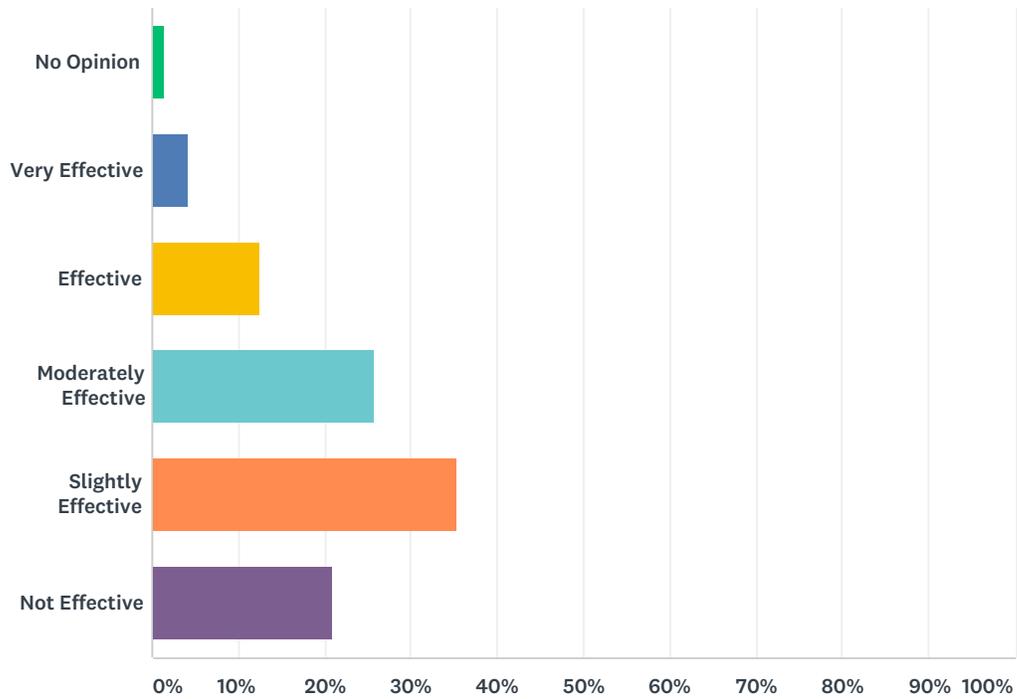
ANSWER CHOICES	RESPONSES	
No Issues	1.39%	2
Speeding	22.22%	32
Cut-through Traffic	45.83%	66
Noise	0.69%	1
Traffic Safety	4.86%	7
Pedestrian & Bicycle Safety	16.67%	24
Other (please specify)	8.33%	12
TOTAL		144

#	OTHER (PLEASE SPECIFY)	DATE
1	Heavy Traffic	11/25/2019 3:41 AM
2	Narrow roads, too many stoplights	11/24/2019 9:07 PM
3	Congestion in areas surrounding campus that make cutting through necessary, and the difficulty of moving around, in general, in central in Tempe. Tempe is not keeping up with the size of campus, and the needs for safe mobility around it. People need to move through for living, work, shopping. Congestion fuels frustration, erratic behaviors and unsafe conditions.	11/24/2019 6:24 PM
4	Accessibility by transit & safe walking conditions	11/24/2019 6:16 PM
5	Many of these are related. My concern is speeding, cut-through and overall traffic flow. I can not easily drive out of the neighborhood.	11/22/2019 3:47 AM

6	Speeding and cut through	11/11/2019 6:55 PM
7	SEVERAL of the above: pedestrian & bicycle safety (huge concern right now), noise, speeding, cut-through traffic	11/8/2019 9:10 PM
8	Multiple! Pedestr safety, noise, multiple use sidewalks	11/8/2019 2:09 AM
9	Population density	11/6/2019 10:45 AM
10	congested parking	11/5/2019 2:36 PM
11	Weird traffic devices. Not sure they help or just lead to accidents	11/5/2019 1:04 AM
12	Traffic safety for pedestrians and cyclists from speeding, noisy cut-through traffic. No lie. It's horrible on W 12th.	11/4/2019 8:43 PM

Q4 How effective do you view the existing traffic mitigation/calming (traffic circles, speed humps, chicanes) in reducing speed?

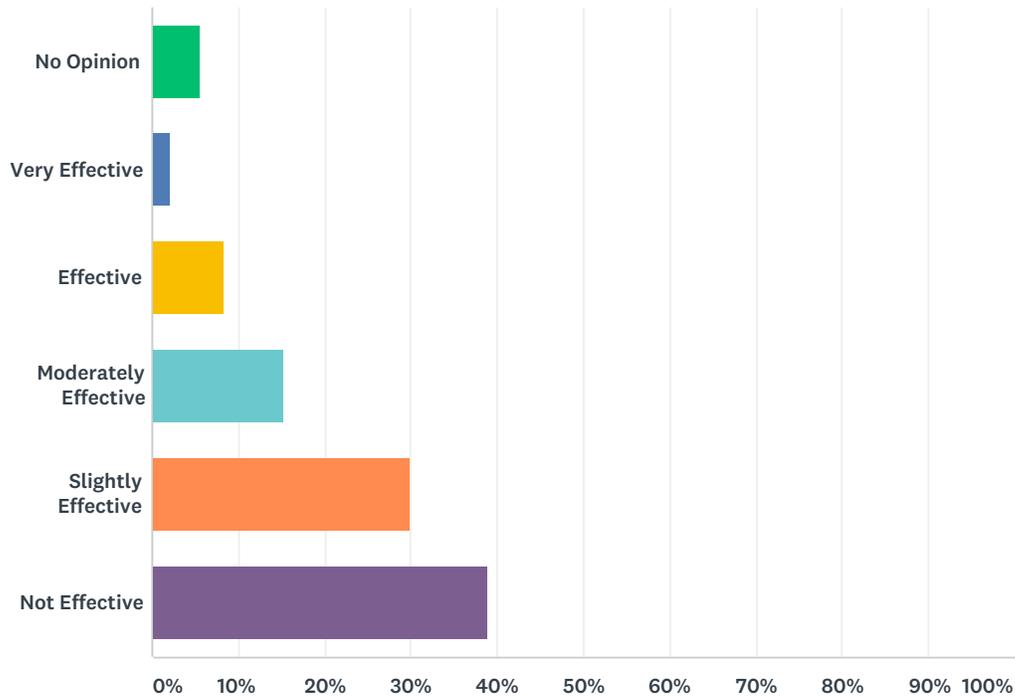
Answered: 144 Skipped: 0



ANSWER CHOICES	RESPONSES	
No Opinion	1.39%	2
Very Effective	4.17%	6
Effective	12.50%	18
Moderately Effective	25.69%	37
Slightly Effective	35.42%	51
Not Effective	20.83%	30
TOTAL		144

Q5 How effective do you view the existing traffic mitigation/calming strategies (traffic circles, speed humps, chicanes) in reducing cut-through traffic?

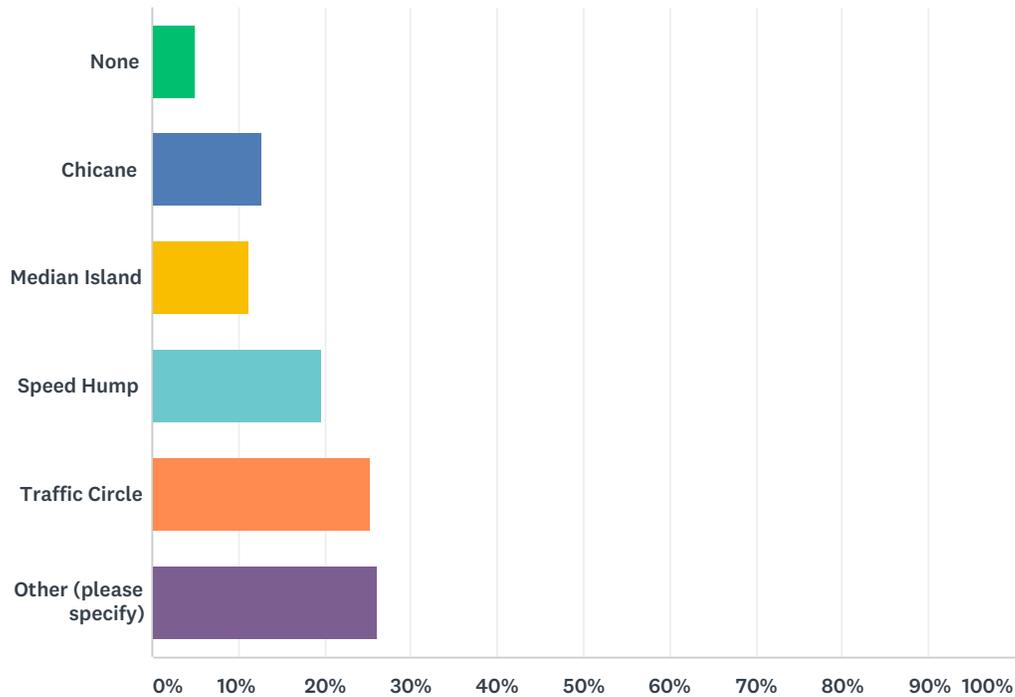
Answered: 144 Skipped: 0



ANSWER CHOICES	RESPONSES	
No Opinion	5.56%	8
Very Effective	2.08%	3
Effective	8.33%	12
Moderately Effective	15.28%	22
Slightly Effective	29.86%	43
Not Effective	38.89%	56
TOTAL		144

Q6 Which traffic calming device do you prefer? (Refer to the project website's traffic calming page for illustrations of the different traffic calming strategies.)

Answered: 142 Skipped: 2



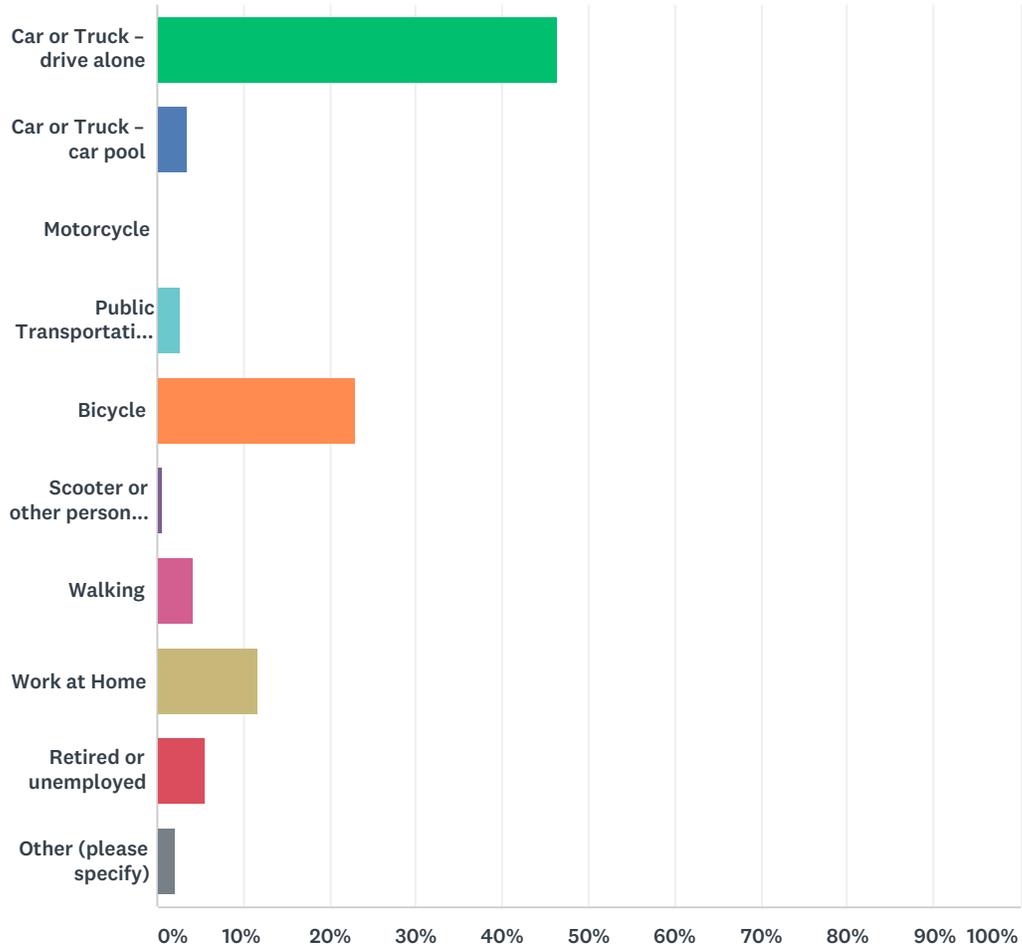
ANSWER CHOICES	RESPONSES	
None	4.93%	7
Chicane	12.68%	18
Median Island	11.27%	16
Speed Hump	19.72%	28
Traffic Circle	25.35%	36
Other (please specify)	26.06%	37
TOTAL		142

#	OTHER (PLEASE SPECIFY)	DATE
1	Fix the intersection of Ash and University. Cars cannot go straight yet they do anyway, endangering drivers and bicyclists yet no one in power seems to care	12/3/2019 3:37 AM
2	4 way stop signs	12/2/2019 4:02 PM
3	More of all of the above, close streets, police presence	11/25/2019 4:57 PM
4	Street Closures	11/25/2019 7:55 AM
5	diverters	11/25/2019 4:30 AM
6	BIG speed humps	11/25/2019 2:34 AM
7	Narrowing lanes, widening (or installing) sidewalks, fully protected bike lanes	11/24/2019 6:16 PM

8	street closure, limited right or left turn only	11/24/2019 4:41 PM
9	I'll leave that to the professionals based on the study results	11/24/2019 12:43 AM
10	Stop sign	11/24/2019 12:22 AM
11	Just down access from the main streets that allow access into the neighborhood	11/23/2019 5:10 AM
12	Traffic Footballs	11/22/2019 10:16 PM
13	Close some streets off	11/22/2019 6:17 PM
14	3- and 4-way stops at all intersections	11/19/2019 7:42 PM
15	break up the thoroughfares be flipping stop signs every at every other intersection.	11/19/2019 7:21 PM
16	Diverter	11/19/2019 4:03 AM
17	Diverter	11/19/2019 4:03 AM
18	Streets are too narrow for calming	11/18/2019 8:12 PM
19	Diverter - make it hard for folks who cut-through to travel the distance from 13th to Mill.	11/18/2019 7:50 PM
20	Close our streets	11/18/2019 12:53 AM
21	Some drivers are not phased by any efforts to control their speed	11/15/2019 11:43 PM
22	unsure	11/15/2019 2:51 PM
23	higher fines for speeding in residential and ASU student zones	11/11/2019 6:55 PM
24	It depends on which street. Some streets need forced turns and even complete closures.	11/10/2019 9:07 PM
25	Depends on the location.	11/10/2019 8:59 PM
26	strategies that literally make it impossible for cut through traffic to utilize our neighborhood and streets to bypass congestion on the major streets.	11/10/2019 6:00 PM
27	streets limited to pedestrian and bicycle use (with car traffic only for residents)	11/8/2019 9:10 PM
28	Remove asphalt (which requires regular dumping of petroleum) from streets and replace with large granite cobblestones. Rough surface would likely deter speeding.	11/8/2019 1:49 AM
29	Better flow on main roads that are currently clogged and inefficient to accommodate the extreme amount of development in the area. This is what causes cut-through traffic in the first place	11/7/2019 4:29 AM
30	Rather than creating speed tunnels, why not flip every other stop signs? So every other intersection (regardless of direction traveling) has a stop sign.	11/7/2019 1:12 AM
31	Perhaps median barriers, one way streets or complete blockage of heavy traffic entry areas should be considered	11/5/2019 11:56 AM
32	Traffic footballs	11/5/2019 4:01 AM
33	It takes a combination of devices	11/1/2019 6:51 AM
34	Closing maple and ash on 9th st on the south end of street.	10/31/2019 4:48 AM
35	not sure	10/29/2019 10:14 PM
36	Close off streets forced turns.	10/22/2019 12:41 AM
37	star diverters and right turn diverters	10/21/2019 6:04 PM

Q7 What is your primary transportation mode to work or school?

Answered: 144 Skipped: 0

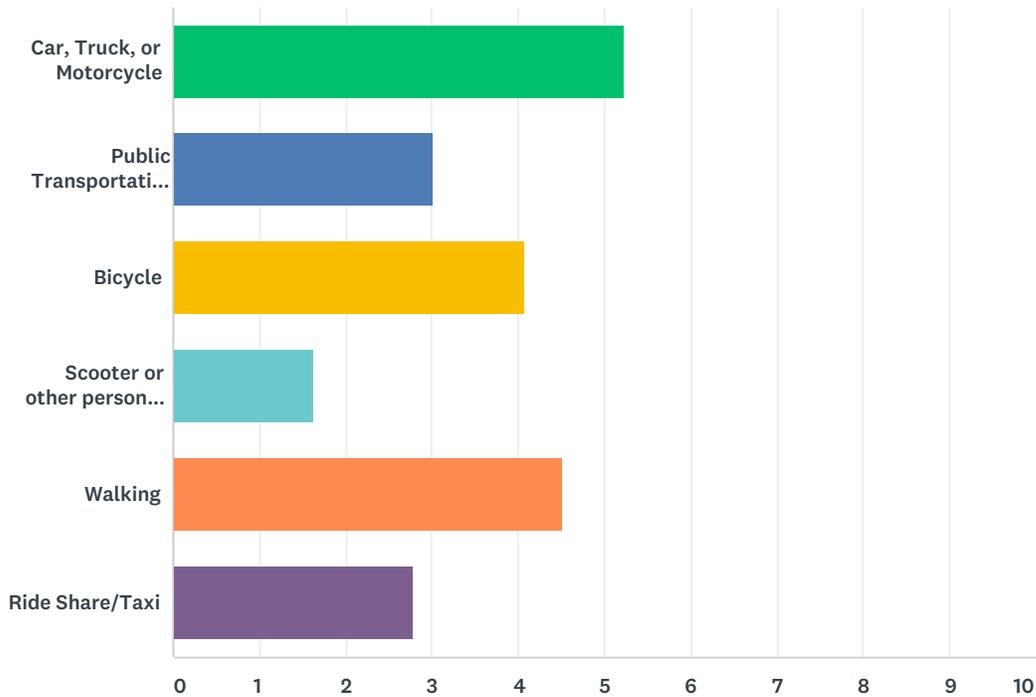


ANSWER CHOICES	RESPONSES	
Car or Truck – drive alone	46.53%	67
Car or Truck – car pool	3.47%	5
Motorcycle	0.00%	0
Public Transportation (Orbit, bus, or light rail)	2.78%	4
Bicycle	22.92%	33
Scooter or other personal mobility device	0.69%	1
Walking	4.17%	6
Work at Home	11.81%	17
Retired or unemployed	5.56%	8
Other (please specify)	2.08%	3
TOTAL		144

#	OTHER (PLEASE SPECIFY)	DATE
1	Smart, tiny car. I have tried lightrail and buses and they took way too long, had me sweating at unshaded stops, and walking too much in the heat. Tempe public transit options don't make any sense between the points of campus and around Tempe that I need to travel, which are only a few miles apart! The new system around south campus is insane: why a different system that requires transfers? Why not light rail through there? These west Tempe neighborhoods are just dealing with the overflow of an insanely behind-the-needs system around campus. Slowing traffic may help homeowners, but skirts the real/bigger issues of central Tempe needs.	11/24/2019 6:24 PM
2	Car, Bicycle, and Train	11/18/2019 7:50 PM
3	Bicycle, unless I have a meeting or have to visit a site.	11/11/2019 4:44 PM

Q8 Rank the following transportation modes from 1 to 6 according to how often you utilize each mode with 1 being the 'most frequently' used mode and 6 being the 'least used/not used' mode.

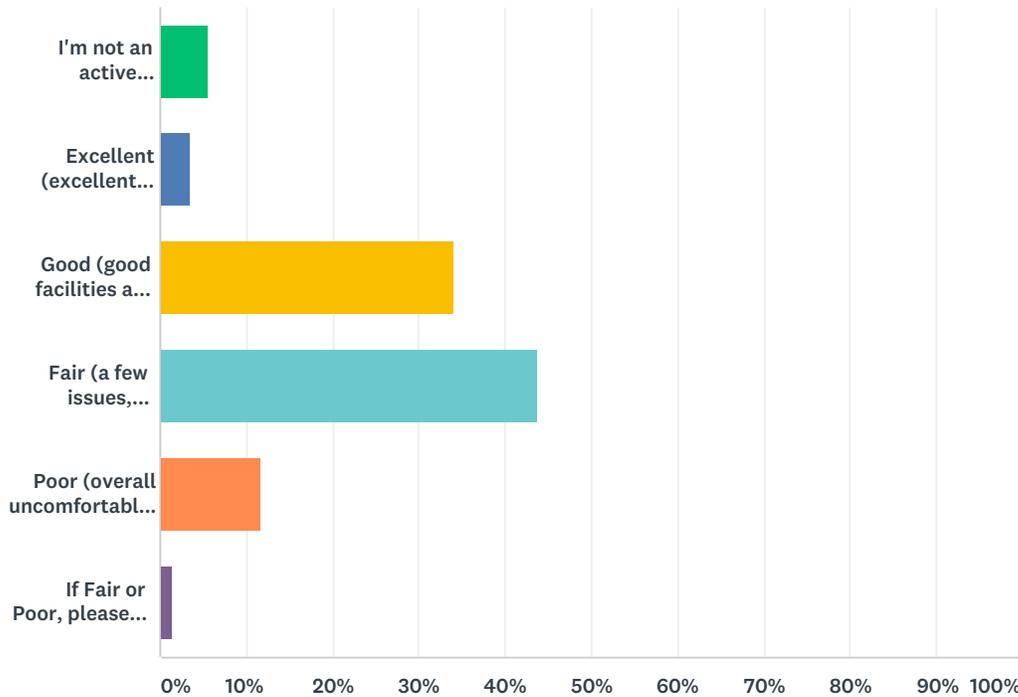
Answered: 144 Skipped: 0



	1	2	3	4	5	6	TOTAL	SCORE
Car, Truck, or Motorcycle	61.94% 83	17.16% 23	11.94% 16	2.24% 3	2.99% 4	3.73% 5	134	5.22
Public Transportation (Orbit, bus or light rail)	4.62% 6	10.00% 13	18.46% 24	30.77% 40	20.77% 27	15.38% 20	130	3.01
Bicycle	24.09% 33	20.44% 28	21.17% 29	13.87% 19	13.87% 19	6.57% 9	137	4.07
Scooter or other personal mobility device	0.78% 1	2.33% 3	2.33% 3	10.08% 13	22.48% 29	62.02% 80	129	1.63
Walking	13.77% 19	47.10% 65	23.19% 32	9.42% 13	5.80% 8	0.72% 1	138	4.51
Ride Share/Taxi	0.74% 1	5.88% 8	20.59% 28	30.15% 41	30.15% 41	12.50% 17	136	2.79

Q9 If you are an active pedestrian or bicyclist in the neighborhood for recreation and/or commuting purposes, how do you rate your experience? If Fair or Poor, please describe why in Question 10.

Answered: 144 Skipped: 0



ANSWER CHOICES	RESPONSES	
I'm not an active pedestrian or bicyclist.	5.56%	8
Excellent (excellent facilities and comfortable experience)	3.47%	5
Good (good facilities and comfortable experience)	34.03%	49
Fair (a few issues, environment needs improvement)	43.75%	63
Poor (overall uncomfortable experience)	11.81%	17
If Fair or Poor, please explain:	1.39%	2
TOTAL		144

Q10 Describe in further detail the traffic issues on your neighborhood streets. If you do not perceive any issues, type "NONE".

Answered: 139 Skipped: 5

#	RESPONSES	DATE
1	Side walks are not wheelchair or stroller accessible. No bike lanes. Traffic cut through and speeding are an issue	12/14/2019 9:30 PM
2	13th Street - terrible, too much traffic, dangerous speeds, noise. Cars turning north going west on 13th street go at dangerous speeds around the corner with little visibility. Cars go at dangerous speeds on Maple Ave and Ash Avenue. The intersection at Maple Avenue and University Dr is a disaster waiting for more accidents. Many cars do not obey the instruction to turn left or right and proceed straight (north) on Maple Ave. Those of us who live in the Maple Ash neighborhood are desperately in need of more devices to calm traffic in our neighborhood. The speed table on 13th Street is absolutely useless. Cars fly over that device and barely slow down. turn left or right at Maple & University, and proceed straight.	12/5/2019 11:51 PM
3	It takes me an hour to travel from University and Hardy to South Tempe during rush hour due to traffic	12/4/2019 2:55 PM
4	not enough safe bike lanes or motorists who behave safely around cyclists. Motorists need to be held much more accountable for their actions that could cause a cyclist to lose their life	12/3/2019 3:37 AM
5	rush hour cut thru traffic	12/2/2019 4:02 PM
6	lack of sidewalks on my street. additionally, cut through traffic makes walking/cycling/running hazardous on my street. We are also one street over from 13th, and are used by motorists at high speeds, jeopardizing young children, pets, and pedestrians.	12/1/2019 1:55 AM
7	distracted driving, poor infrastructure for bike/ped, cops ticketing cyclists, cars speeding	11/27/2019 5:44 PM
8	NONE	11/27/2019 1:26 AM
9	The Orbit buses drive to fast.	11/26/2019 7:53 PM
10	When Mill Avenue was only one lane south of University, the traffic would back up and divert through the neighborhood. Without traffic enforcement, the wide streets make it easy to roll through intersections and get speed even on short straight blocks in between.	11/25/2019 11:40 PM
11	Non-permitted parking needs to be enforced. ASU students are using our neighborhoods as a parking lot. This reduces the width of the street constricting traffic. Cut through traffic is increasing as the construction detours cause traffic delays. Speeding is a problem as well as straight-through traffic at Ash and University.	11/25/2019 7:38 PM
12	I see a lot of people using Maple and 9th to cut around the traffic at Mill and University. I've also observed going the wrong way around the traffic circles in order to navigate them more quickly.	11/25/2019 6:22 PM
13	Cars moving through intersections while bikes, pedestrians trying to cross, cars speeding down Ash Ave, Ash/university disregard traffic signs,	11/25/2019 4:57 PM
14	Cars still drive relatively fast even with the current speed reduction techniques. When I drive slow I sometimes get passed by cars behind me. I don't think many people driving through view this as a residential area, but rather a short cut around Mill Ave.	11/25/2019 2:48 PM
15	Lots of cut thru traffic on Farmer Ave. Traffic on W Broadway does not want to turn N on Mill due to thr Apache Mill intersection. I think closeing Farmer Ave at Broadway might help alliveate this issue.	11/25/2019 7:55 AM
16	there is more and more traffic on the streets and a lot more speeding on the roads. Also there are more and more Ubers. My cars have been hit three times while parked on the street outside of my house.	11/25/2019 4:30 AM
17	Too many cars.	11/25/2019 3:41 AM

18	The chicane barriers on Farmer, Ash, etc are terrifying. Instead of calming traffic they force you play side mirror roulette with the person who will not yield to you. I will never ride my bike through those if another car is coming my way. I'll use the sidewalk instead.	11/25/2019 2:34 AM
19	I can't go anywhere from 4-6pm due to the congestion.	11/24/2019 9:52 PM
20	Car Cars drive too close to bicycles and her distracted by mobile phones so it can be very scary riding a bike in the neighborhood. Also there are a lot of cyclist that go the wrong way in the bike lane which can be also very dangerous	11/24/2019 9:32 PM
21	Speeding	11/24/2019 9:31 PM
22	Need bike paths!! Stop hindering traffic.	11/24/2019 9:07 PM
23	I'm glad the greater Maple Ash neighborhoods are doing this however I'm concerned about the impact this effort will have on the neighborhoods just outside of this area (i.e. Gililand, Holdeman, Clark Park and Marilyn Ann). I fear as an unintended consequence that traffic mitigation in the greater Maple Ash neighborhoods could encourage more traffic in our neighborhoods west of Hardy Dr and south of 13th Street. I hope that the impact this will have in our neighborhoods will also be taken into consideration. Thank you.	11/24/2019 7:37 PM
24	1. Insufficient lighting on Hardy during the night for pedestrians crossing. Consider adding a "flashing pedestrian" sign at 16th and hardy and other intersections.2. University and Hardy intersection is so small and as a driver and pedestrian I avoid at all costs. 3. Hardy just north of Univeristy going north is not safe for bicyclists (no lighting nor safe bike lane) and should be made safer. 4. More consistent 4-way stops. Right now there is a mix of 4 way and 2 wat stops. 5. Ash and University intersection should be re-paved and made more flat, and more clear instructions or physically unable to drive thru to neighborhood.	11/24/2019 7:29 PM
25	I find Chicanes to put cars in the middle of the road. I also have two friends who have been hit by cars within the neighborhood whilst using the "facilities" in the past month. Drivers remain the problem, and the complete lack of policing and penalizing drivers for looking at their phones, running lights, turning without looking or signalling and, moreover, hitting pedestrians or cyclists.	11/24/2019 7:12 PM
26	I feel like the chicanes are dangerous, cars come through right next to you nearly impossible to leave any space, should build them so the normal "bike lane" area of the street is still open to bikes while making cars slow down.	11/24/2019 6:27 PM
27	Traveling short distances to/from the southern parts of ASU Tempe Campus require a ridiculous amount of time via public transport systems, including too much time out in the heat! The systems immediately around campus are inadequate, the streets too narrow vs. the ridiculously large set-back areas for houses, etc. Tempe needs to expedite street-broadening, adding bike and bus lanes, adding more SMALLER buses, shading stops, and funding/facilitating more public transit that doesn't require so many transfers/outdoor wait times just to travel a few miles between central Tempe destinations.	11/24/2019 6:24 PM
28	Too many streets have ZERO bike or pedestrian infrastructure (e.g. Farmer Ave doesn't even have sidewalks), and even those which do have totally inadequate pedestrian/bike infrastructure. Maple-Ash, Mitchell Park, & the surrounding area are all far too car-dependent to be safe & accessible for non-motorists, and. We must take active measures not just to create safe infrastructure for non-motorists, but to dis-incentivize driving.	11/24/2019 6:16 PM
29	Fast drivers	11/24/2019 5:51 PM
30	1. Some places the sidewalk just disappears. Um... what the fuck?!? 2. People leaving scooters in/on the sidewalk instead of putting them on the road. Scooters should be parked where the cars are parked. 3. Fucking asshole drivers. My god, waiting ten seconds for a pedestrian to cross the street is not the end of the world. The speeding is ridiculous. 4. On occasion, glass bottles are broken on/near the sidewalk and it takes weeks for the city to come clean it up. It's a hazard to pets, children, and people in open-toed shoes. 5. People going straight through the light at Ash (north/southbound). 6. The north and south side of Farmer across University do not line up correctly, it causes weird traffic over there. 7. People cutting through parking lots (TFM and CVS specifically). 8. Drivers not using the bike boxes correctly. Either turning on red and/or physically having their vehicle in the green box. 10. Cutting through the neighborhood instead of waiting in the queue on Mill/Uni like everyone else. 11. The general, entitled attitudes that drivers seem to have, and their total disregard for human life in favor of "convenience". 12. Unfettered capitalism (but that's a larger issue).	11/24/2019 5:46 PM
31	None	11/24/2019 5:39 PM

32	There has been zero enforcement for speed. Zero enforcement for thru traffic at Ash and University. Traffic engineering has been aware of the neighborhood issues for years with very little substantial effort to truly limit speed and cut thru traffic that has proven successful in other areas of north Tempe, complete closures and limited access left right turns	11/24/2019 4:41 PM
33	Speeding	11/24/2019 5:18 AM
34	Bike riding in the area is nuts. Southbound Mill (at University) the bike lane is non-existent. Get on the sidewalk or get hit. My hopes were short lived when I learned of the north south rail spur. Dumping additional bikes and pedestrians onto farmer without responsible traffic control is crazy and an accident and lawsuit for the city in the making.	11/24/2019 12:43 AM
35	Unsafe driving through the neighborhoods is a major problem, both cut through traffic and speeding. Few driver yield to bikes at the traffic circles.	11/24/2019 12:22 AM
36	Drivers speeding, driving on my lawn, not stopping, tailing me when I bike, blocking bike lanes.	11/24/2019 12:21 AM
37	Rush hour traffic cutting through the streets are a super big problem for the area	11/23/2019 5:10 AM
38	There is too much cut through traffic. There are too many people living and visiting in a very small area that was not meant to support such a congested population. I perceive that the traffic volume will grow as people start to occupy all the highrises. I wonder about how the city can support such gridlock even with improving public transportation.	11/22/2019 11:23 PM
39	I have had multiple near collisions with cars cutting through the neighborhood as I walked through the neighborhood. I even had a construction truck almost hit me.	11/22/2019 10:16 PM
40	Extremely dangerous with speeders and bikes not following laws.	11/22/2019 6:17 PM
41	I bike when I can but the biking conditions are not safe and this deters me and my family. I worry for the safety of my two daughters biking to school— no bike lanes, distracted drivers going too fast, no good bike routes to destinations. We want bike lanes with barriers. Tempe deters bikers with its lack of bike friendly infrastructure. It must make bike lanes better to reduce car traffic in Tempe. The city it flat, sunny, and you can bike most months yet it is one of the least bike-friendly cities I have ever lived.	11/22/2019 4:46 PM
42	Ash & University is a quirky intersection as most motorists to seem to see the allowed traffic maneuver's. Also, cut-through traffic down Ash Ave. to bypass Mill Ave. to get to either University or Apache/13th St. is very common.	11/22/2019 4:14 PM
43	speed humps are pointless	11/22/2019 3:11 PM
44	Parking. Too many parked cars on streets.	11/22/2019 3:06 PM
45	Need a left turn light at either ash or farmer so that I can get out of neighborhood. Work with chick fil a as their customers block maple and university making it undrivable and limits access to university. Also at Maple and Ash do you something about the drivers that Cutthrough. They typically are angry by this point and our loud, too fast, and do not yield at the roundabouts. I believe that monitoring this area will have a positive impact.	11/22/2019 3:47 AM
46	I reside on Maple/10th street and have a few specifics issues. First and foremost, the two-way stop signs at 10th and Maple DESPERATELY need to be four/all-way stop signs. Working from home, I see actual or almost car/car and car/pedestrian or bike accidents numerous times every week. Secondly, there should be more signage and enforcement prohibiting cars from park within the designated 20 feet of an intersection/stop sign. It makes it even more difficult to navigate and hinders visibility of intersecting traffic. Additionally, the parking permit enforcement is inadequate at best; at any given point there are 2-10 cars parked on my street without permits (again, I work from home so I'm that neighbor always looking out the window:). ASU and core power yoga attendees park on Maple Ave all day with little to no worry they will get a ticket- and they're right. Finally, the line that forms on Maple Ave near University Dr for Chickfila every day for lunch is not only dangerous but extremely frustrating for residents. I'm not sure anything can be done about that but doesn't hurt to mention right? Thanks in advance for your time and consideration!!	11/21/2019 1:33 AM
47	None	11/19/2019 11:22 PM
48	A general disregard for traffic laws and/or courtesy by a subset of all drivers; poor and improper parking technique (wrong-way parking, partial blocking of driveways, too far from curb, etc) The noise of those speeding over speed humps; garbage and recycling truck drivers set empty containers while moving which results in containers in the right of way; scooters left in yards and sidewalks.	11/19/2019 7:42 PM

49	Parking on Farmer. Foliage &/or construction signs blocking view into intersections (e.g.- going west on 9th at Farmer)	11/19/2019 7:21 PM
50	ASU students parking. Speeding of excessive traffic. Over congestion of electric bicycles.	11/19/2019 5:18 PM
51	Farmer Avenue is out of control! Close it off at one end, make it one way, force turns, or whatever else will work. Someone is going to get very hurt or killed with the volume on that street.	11/19/2019 4:03 AM
52	Farmer Avenue is out of control! Close it off at one end, make it one way, force turns, or whatever else will work. Someone is going to get very hurt or killed with the volume on that street.	11/19/2019 4:03 AM
53	People who don't obey stop signs, don't know how to use traffic circles. People who drive to fast. Park without a permit. Block driveways. Too much construction.	11/19/2019 12:02 AM
54	Lights on Farmer needed	11/18/2019 11:26 PM
55	In the past 3-5 years, traffic has increased in the neighborhood and the speed of drivers had increased as well. Fir example, on the cloud intersection of 9 th & Wilson a four-way stop sign was added in front the Harmony development. Without waiting longer than a few minutes you can see cars drinking through the intersection without stopping. Ok have also seen 18-wheel trucks, delivery trucks using the neighborhood to drive through to avoid University. It seems like fir someone me drivers the speed bumps, chicanes, and roundabouts are merely 'obstacles', and not a warning to slow down. Drivers routinely drive the wrong direction (roundabouts), or drive up on the sidewalks (speed bumps) to avoid them. Driving bing speed has also noticeably increased. These are manly "drive through" automobiles trying to avoid the Mill & University intersection.	11/18/2019 10:13 PM
56	Slower speeds speed humps help	11/18/2019 9:41 PM
57	Speeding, drive thru, parking, traffic circles	11/18/2019 8:12 PM
58	Almost every driver I see has their head down, staring st their cell phone WHILE THEY'RE DRIVING!	11/18/2019 8:07 PM
59	Speed of traffic. Too many cars go directly through Ash across Mill. The ROW is for bicycles only.	11/18/2019 7:50 PM
60	Constant and unending cut-through traffic	11/18/2019 3:46 PM
61	Heavy traffic	11/18/2019 1:35 AM
62	People speed through our neighborhood everyday while I am walking my dogs. They are cut through traffic speeding down Farmer St or Roosevelt St. to make the light at University. I watched a guy drive right into a chicane on Roosevelt in the very early morning while walking my dog, he could have hit me if I had been there a minute earlier. People speed through the four-way stop sign at 9th and WilsonSt. everyday. I worry that someone on a bicycle or scooter will be hit.	11/18/2019 12:53 AM
63	Mobile devices	11/17/2019 3:32 PM
64	none	11/15/2019 11:43 PM
65	Drivers who cut through, speed, fail to stop all the way at stop signs.	11/15/2019 11:20 PM
66	Running stop signs, speeding and driving in bicycle lanes	11/15/2019 8:58 PM
67	none	11/15/2019 2:51 PM
68	Need to ride on sidewalk- very little room between parked cars and traffic	11/14/2019 4:42 PM
69	With more housing appearing in the area we have more cars on the street. Ash is not a drive thru with only a left right on University. The stop light on Farmer has been a big help. With Whole Foods opening I see more traffic cutting thru Farmer and trying to avoid Mill and University. (That is coming but not yet.)	11/12/2019 10:27 PM
70	Maple Ash is considered a bike path, however Ash has become a major through-street. The city has allowed North-bound traffic on Ash at University. This creates a danger to bikes all along Ash and especially at the intersection. Cars speed down Ash creating a hazard for all.	11/12/2019 1:20 PM
71	Congestion from hardy to mill	11/12/2019 5:27 AM
72	NONE	11/12/2019 1:39 AM
73	Need selective closures to prohibit / restrain traffic volumes and encourage and grow bike walk transit use . Make closures or partial closures with some native landscape	11/11/2019 9:05 PM
74	ASU Students using the neighborhood as a shortcut/parking lot	11/11/2019 7:39 PM

75	Speeding in a major problem, morons who drive on sidewalks to avoid traffic calming devices. Also, why are there 4 meth houses side by side along 13th street?	11/11/2019 6:55 PM
76	Would love a few sections of decomposed granite walking paths instead of all concrete. Would love more shaded walking paths.	11/11/2019 6:40 PM
77	Vehicles cutting through to avoid traffic and trains, speeding with no regard for safety. Also cyclists not obeying traffic laws.	11/11/2019 5:29 PM
78	Except for the cut-throughs, and occasional speeders, I'm fairly OK with the traffic in the neighborhood. I especially like the way drivers express their courtesy by pulling off to the side to let oncoming cars pass through. I'm looking forward to participating further and seeing how this project develops.	11/11/2019 4:44 PM
79	This is the oldest residential area in the entire city. The future is inner city living. To make this area desirable for folks to invest there lives here we must improve the quality of life. We have a major airport, Union Pacific, and we are geographically centered in the fastest growing country in this country. This square mile is pretty important to Tempe's future. I love this city. I have spent most of my life in this area. Thanks for continually looking for forward thinking and progressive ideas.	11/10/2019 9:07 PM
80	Farmer Avenue is a extremely congested with cut through speed racers, Orbit buses, garbage trucks, bikes, pedestrians. The game of chicken between the chicanes is out of control. Orbit drivers are the some of the worst offenders.	11/10/2019 8:59 PM
81	speeding is the primary issue, rentals not being maintained properly by slum lords is the other serious issue in our neighborhood. I am thankful for the limitations placed on all of the birds and other scooter devices because that was a serious problem too, so thank you!	11/10/2019 6:00 PM
82	Something needs to be done at Ash and University. Drivers often proceed straight across University. This is dangerous to bicycles. I appreciate the new signage but I still see someone proceeding straight nearly daily. I have seen drivers do this even when a cyclist is crossing from the South. Separately, perhaps we need speed limit signs for the speed tables on Hardy. Many drivers race over. Just look at the road on the South speed table. Cars are scraping the road because they are speeding.	11/10/2019 2:30 AM
83	Streets with no stop signs, NEED stop signs. I also believe the police need to better enforce traffic laws, regularly, not once a semester, in the neighborhood	11/10/2019 2:22 AM
84	Ash and University intersection traffic signs/laws are not being followed by a very high percentage of car drivers. The "no through movement" sign doesn't seem to deter anyone from crossing University north and south from Ash Avenue.	11/9/2019 6:32 PM
85	I am a very careful bicycle driver (always ride in the same direction as traffic, wear helmet, lights, etc.). I barely escaped death too many times and witnessed too many accidents (in our neighborhood). About one time a week, I witness a car on Mill crossing full speed either 13th or 10th street in a red light. Cars drive full speed through Ash, Maple, and other streets. Drivers text and talk on the phone while driving, putting bicycle drivers at risk. Our neighborhoods need to be given back to pedestrians and bicycles. We need streets limited to residents' traffic, one-way streets, no-car days, etc. We need campaigns to raise awareness for more safety and alternative transit. Mill and University need stricter speed limitations, more traffic lights, less traffic lines (especially with street car coming).	11/8/2019 9:10 PM
86	Too much on street parking due to business parking intrusions resulting in sidewalk blockage and street crossing visibility safety issues.	11/8/2019 3:24 PM
87	The traffic circles have been a big improvement, so I feel safer on a bike. However the city of tempe left steel trench covers out in the street unmarked, which I hit at night without seeing and tore ligaments in both my wrists	11/8/2019 3:10 PM
88	Sidewalks in the area are uneven. Construction on Mill Avenue and in the downtown area make walking hazardous. Cut-through traffic makes the traffic in my neighborhood heavy and makes it less safe to walk.	11/8/2019 5:47 AM
89	Drivers do NOT stop at stop signs, rather they slow (sometimes) and pull through. No traffic enforcement.	11/8/2019 2:31 AM
90	Noise/volume, speed, speeding bikes and scooters on sidewalks with pedestrians	11/8/2019 2:09 AM
91	Neighborhood streets are fine. Neighboring arterials are a catastrophe. They are far too dangerous for bicycles even with the bike lanes because they're only separated from auto traffic by a stripe.	11/8/2019 1:49 AM

92	Heavy tragic, speeding	11/8/2019 1:24 AM
93	Lack of accommodation for higher traffic due to development, causing congestion, unsafe driving, cut-through traffic. The lack of enforcement of traffic and bike laws meant to support cyclists and pedestrians is also an issue. None of these issues would exist if Tempe city council hadn't sold out to developers in the first place, and now we are seeing the consequences of their careless, selfish actions	11/7/2019 4:29 AM
94	Someone will die when a slaloming car loses control flying around a roundabout	11/7/2019 1:12 AM
95	I live on Howe. I'd love to see fewer people speeding and cutting through. And also fewer cars parked on the street	11/6/2019 4:27 PM
96	It's not an issue of road constraints it's a population issue. Stop developers from creating multi unit housing, stop the growth of rental properties, stop asu from encroaching upon neighborhoods	11/6/2019 10:45 AM
97	Our neighborhoods are very comfortable for bicycling, but the areas immediately adjacent are more challenging. Higher speed limits and randomly parked cars are the biggest risks on the surrounding streets. There are too many streets in Tempe where the sidewalk serves as the bike lane. If any of those exist in our neighborhood, we should correct them.	11/6/2019 3:58 AM
98	The biggest is the specific abuse of the University/Ash intersection and cars going straight with zero regard for pedestrians or cyclists. Otherwise, speed of cut through drivers remains an issue with stop signs regularly run and even traffic circles skipped at times by cars turning left. Still, they do slow cars down more than other options in my view.	11/6/2019 2:47 AM
99	Large trucks cutting through and making tight turns. Some People ignorant of traffic circle rules. alley traffic next to Mitchell Park. Some people do not follow turnabout rules.	11/6/2019 2:10 AM
100	lots of parking on the streets which makes the road narrow and difficult to navigate on a bike or in a car; rented scooters lying on the side walk in the dark -tripping hazard; excessive speeding through the neighborhood and on Hardy	11/5/2019 6:47 PM
101	drivers do not look right before turning right	11/5/2019 4:31 PM
102	People driving too fast, this is related to cut through traffic.	11/5/2019 4:23 PM
103	none	11/5/2019 3:16 PM
104	Parking on Roosevelt is very, very congested.	11/5/2019 2:36 PM
105	Poorly paved roads, metal slabs, potholes	11/5/2019 2:28 PM
106	Too many cars	11/5/2019 1:06 PM
107	Living on Ash Ave has become problematic. The intersection at University and Ash Ave needs traffic solutions to keep illegal north/ south travel from occurring. Ash Ave is a "Bike Route" (green Bike Route signs) but has no bike lanes, allows parking on both sides of the street, and now riding bikes on the sidewalks is illegal. Riding a bike on this "Bike Route" has become unsafe.	11/5/2019 11:56 AM
108	Speeding	11/5/2019 4:42 AM
109	I bike down Farmer. There are lots of bumps and holes. More dangerous than that are the speeding cars. I also walk with this block with my dog and frequently have to dodge speeding cars.	11/5/2019 4:01 AM
110	Coming Northbound on Ash, crossing University. The signage indicates that both northbound and southbound may not go straight unless they are on a bike. Numerous cars disregard the signage and can be seen proceeding straight through the light. Most of the time it is northbound on ash. People are trying to get to the parking structure for "The local" apartments, or the parking structure across the street.	11/5/2019 3:47 AM
111	Parking, speeding, cut through traffic	11/5/2019 3:33 AM
112	Just rename Wilson St "Mill/Uni Bypass" already	11/5/2019 3:08 AM
113	Poot lighting, road dips rough on bikes and cars, bicyclists without lights/salmoning, no cross walk across Farmer at tenth.	11/5/2019 2:39 AM
114	Cut thru traffic going really fast. I'm worried some of the speeders will hit peds, pets , bikes	11/5/2019 2:39 AM
115	The roundabouts are very small and I always feel like the other drivers are going to blow right through them. It seems like a 4 way stop would be better. I do, however, appreciate the art.	11/5/2019 2:24 AM
116	Speeding down Mitchell Dr	11/5/2019 1:24 AM

117	Scooters discarded on sidewalks	11/5/2019 1:22 AM
118	Rather have more speed humps than dangerous chicane	11/5/2019 1:04 AM
119	People use W 12th as a straight-away despite the two small traffic circles. The street is straight on each block and people go as fast as possible to get around W 13th, Hardy, etc. People also park backwards which is dangerous as it confuses oncoming traffic. Physical barriers or blocking off access to Hardy are needed.	11/4/2019 8:43 PM
120	None	11/3/2019 5:36 AM
121	No sidewalks. Need calming structures on neighborhood streets	11/2/2019 4:07 AM
122	I live on 12th and Hardy, and I believe the traffic calming on 13th has worked--to the extent that speeders are diverted to 12th. I would like Hardy to work more like College at Daley Park. I like the traffic circles as well, but they need signage or other upgrades to get motorists to use them correctly.	11/1/2019 10:12 PM
123	The areas on Hardy where the traffic is at the same height as the pedestrian and bicycle paths seem very dangerous. There is nothing stopping the cars from accidentally driving right into pedestrians	11/1/2019 9:41 PM
124	We had a big increase in traffic, primarily north south. Speeding is also a problem and some drivers seem to think stop signs are only a suggestion.	11/1/2019 6:51 AM
125	As a pedestrian, walking in the evening with the traffic issues noted becomes more unsafe with poor street lighting.	10/31/2019 5:09 AM
126	The mornings are dangerous on maple. Drivers cutting through Maple ave to avoid mill are speeding and very aggressive.	10/31/2019 4:48 AM
127	(1) Hardy Drive has too much commuter traffic. I would support more trees and street medians along Hardy Drive in order to discourage or slow down traffic (2) The Ash Ave / University Dr intersection needs to be re-configured to prevent cars from illegal going northbound or southbound through that intersection.	10/31/2019 2:35 AM
128	Many of the sidewalks are not ADA. So, when I have to cross a road with my stroller it's actually pretty hard. I have to get off on the side of the sidewalk and get into traffic and then do the same thing in the other side. It would be so terrible but 1) it's not ADA and 2) people speed!	10/31/2019 2:30 AM
129	The issue of cars going South on Ash crossing over to University is the most concerning. While local residents know only bicyclists can go south on Ash through University, through-traffic/non-local people drive south on Ash. I see it at least 2x a day and near close pedestrian encounters. There should be soft dividers places that FORCES people to only go left or right when going South on Ash onto University. Years ago a death happened and I'd hate for another one to happen again. Please use these resources to make our neighborhood safe.	10/31/2019 1:33 AM
130	Going south on Hardy, there is an island shortly before turning left on 9th St. There is barely enough room for a car to slip into the middle lane after the island, without overshooting the left turn, and without sticking out into traffic on the rear. This is impossible should 2 cars be turning left on 9th. There has been an accident there already. I think the island needs to be removed.	10/29/2019 10:14 PM
131	Dangerously fast cars. I've seen dogs killed by cars on Maple. Multiple accidents at 11th and Maple. Way too many cut through cars.	10/29/2019 7:11 PM
132	I have a few issues. The first is cars disobeying the bike only option on the University and Ash cross street right by the new Whole Foods. Cars always go through that light and they are not supposed to. As a cyclist, this intersection is very scary. Additionally, right by Casey Moores/Cartel I was almost hit on my bike. A car merged toward the side and almost side swiped me in the neighborhood. Lastly, I live on Maple and cut-through traffic is a MAJOR problem. I have seen multiple dogs killed/injured by speeding cut-through cars in addition to accidents on Maple and 11th. I also park my car on the street and my car has been hit and run twice.	10/28/2019 11:34 PM

133	I have one suggestion for the intersection Ash/University where cars on Ash are not allowed to cross north or south, only turn west/east. This is constantly violated, creating a hazard for bicyclists and others. I think some of this is on purpose, but some of it also drivers not being aware that they should not cross straight. Even Google maps directs you to go north or south. If the city wants to maintain this driving pattern, then I would suggest having arrows on the light signals instead of the current regular lights, which in normal circumstances suggest go straight. Drivers tend to prioritize traffic commands in the following order: Police directions, lights, signs, markings in the road. In my opinion, that is why many drivers go wrong here. In Davis, CA, they even had light signals for bikes, which could indicate that only bikes are allowed to go straight across.	10/27/2019 6:11 AM
134	Traffic has increased greatly in the neighborhood as a result of construction on University Ave. I need to be much more aware when on my bike, especially on Farmer Ave and on 10th St (I commute to ASU).	10/25/2019 12:42 AM
135	I think that people are cutting thought this neighborhood and drive WAY TO FAST	10/22/2019 1:56 AM
136	Some closures need to happen	10/22/2019 12:58 AM
137	Speed and cut through traffic.	10/22/2019 12:41 AM
138	Cut through traffic and speeding and almost nonexistent enforcement of parking restrictions and traffic light violations create a zone of danger. These factors also send a message to neighbors that neighborhood safety is not a high priority.	10/21/2019 6:10 PM
139	Our three neighborhoods are beautiful to walk or ride bike through. However the safety of doing either of those two activities continues to get worse. Cut through traffic and speeding vehicles are increasing with all of the construction that has been going on over the last two years. There was time that if we were riding our bikes west on 10th st and came to Farmer we would stop and then be able to take a left on Farmer. Last week we had to wait for 9 vehicles before we could even make the turn and then had to do it quickly because a 10th vehicle was picking up speed after making the turn from University to Farmer. (5:30 pm) Even though Tempe has enacted rules and regulations for the electric scooters, there are always multiple scooters left on sidewalks, many time blocking the walkway.	10/21/2019 6:04 PM



APPENDIX F:

MITIGATION PLAN PRESENTATION

Neighborhood Traffic Mitigation Study

MAPLE-ASH, WILSON ART & GARDEN, MITCHELL PARK
NEIGHBORHOOD ASSOCIATIONS

September 30, 2020

Neighborhood Steering Committee &

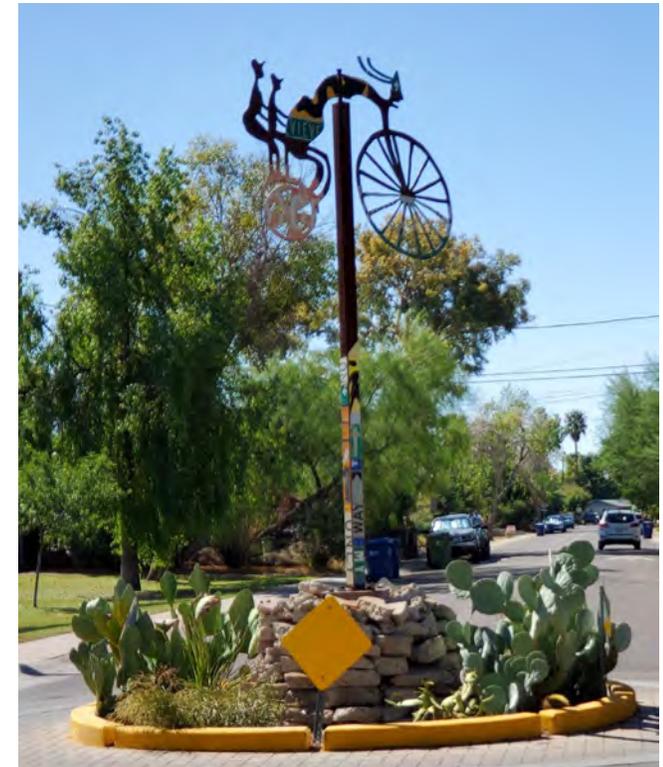




Purpose of the Study

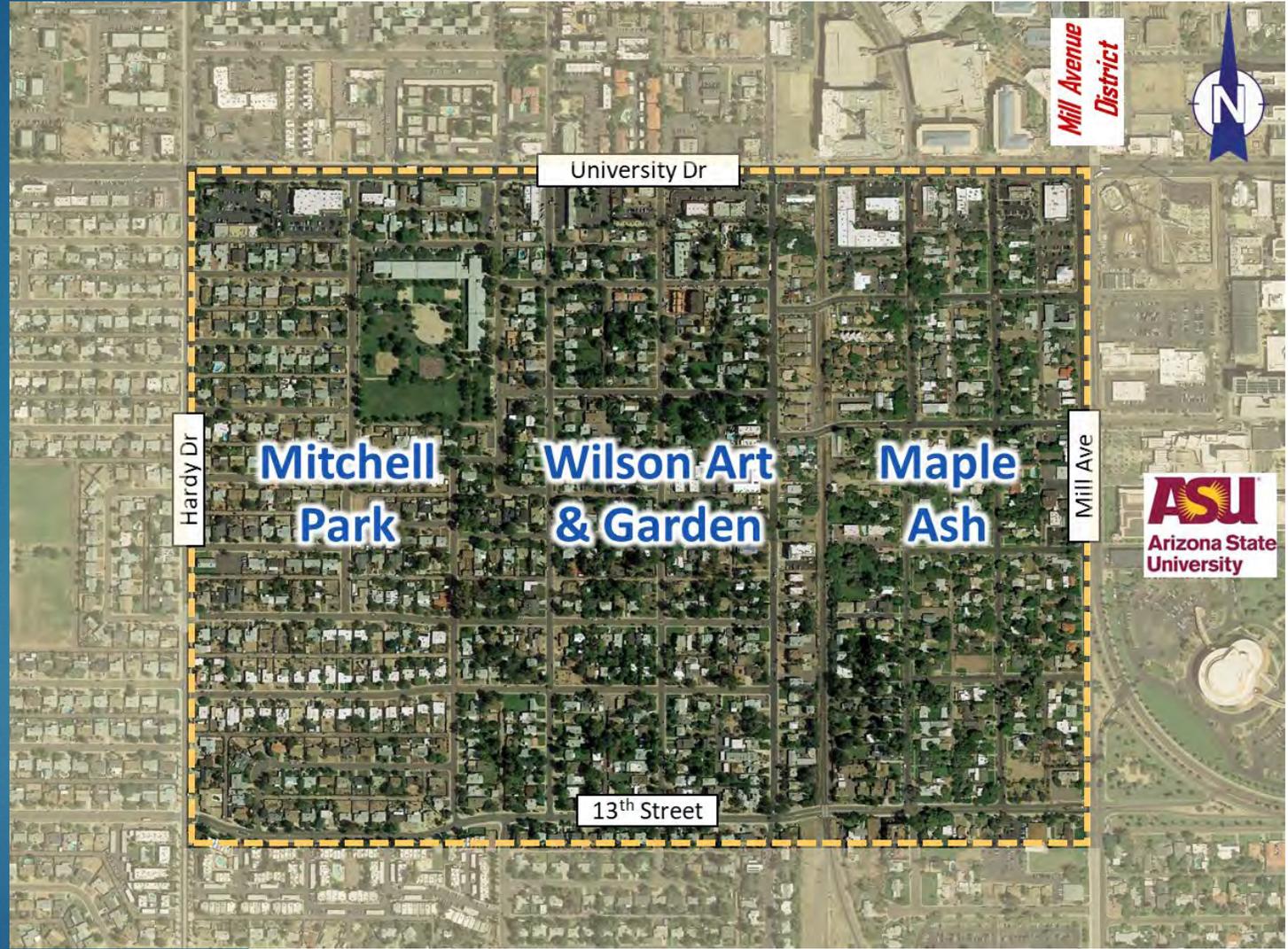
“Increase safe, healthy, equitable mobility for all.”

- ▶ Prepare a comprehensive Neighborhood Traffic Mitigation Plan and Project List
- ▶ Detailed analysis of the neighborhood transportation network
- ▶ Develop solutions for reducing speeds and cut-through traffic
- ▶ Preserve bicycle, pedestrian and transit access
- ▶ Align with Tempe’s Vision Zero Action Plan





Study Area



Area History

- ▶ Existing traffic calming devices include
 - ▶ traffic circles
 - ▶ chicanes
 - ▶ speed humps
 - ▶ raised medians
- ▶ Increased development and traffic
- ▶ Issues with cut-through traffic and speeding



Traffic Circle



Chicane

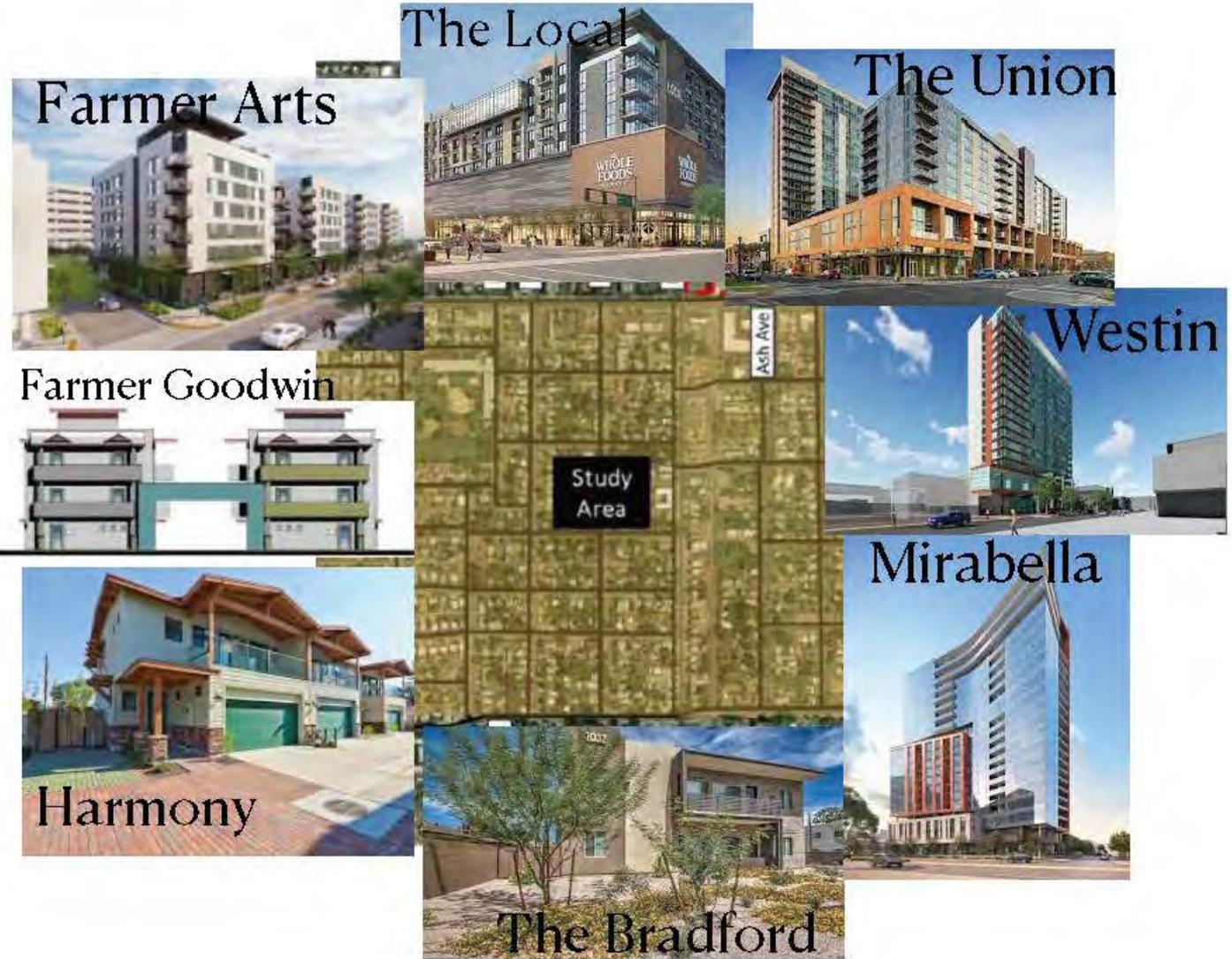


Speed Hump



Raised Median

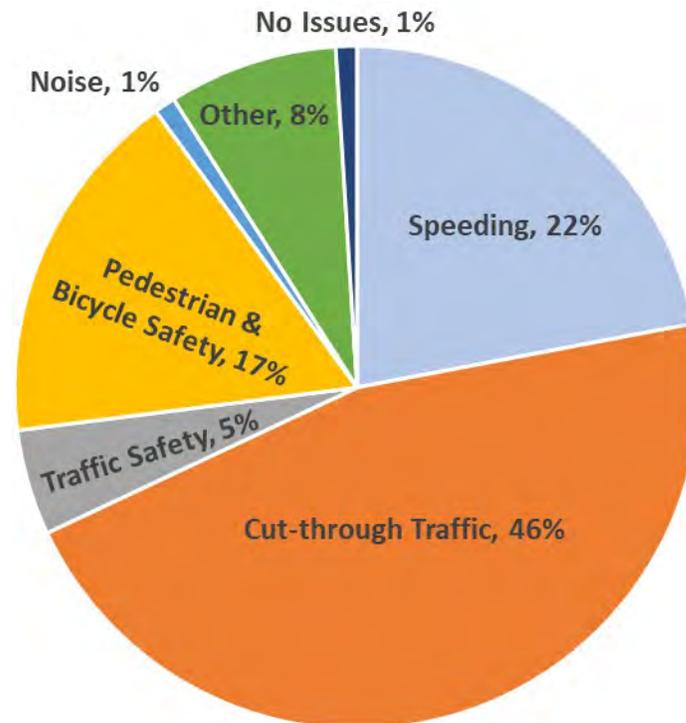
Increased Development



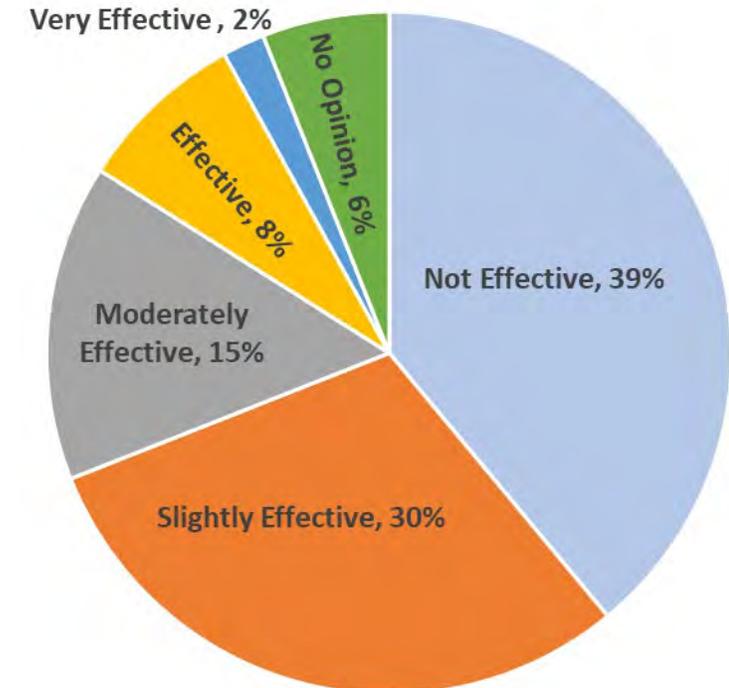
Community Input - Survey

- ▶ 144 survey responses received in Fall 2019

Biggest Traffic Issue

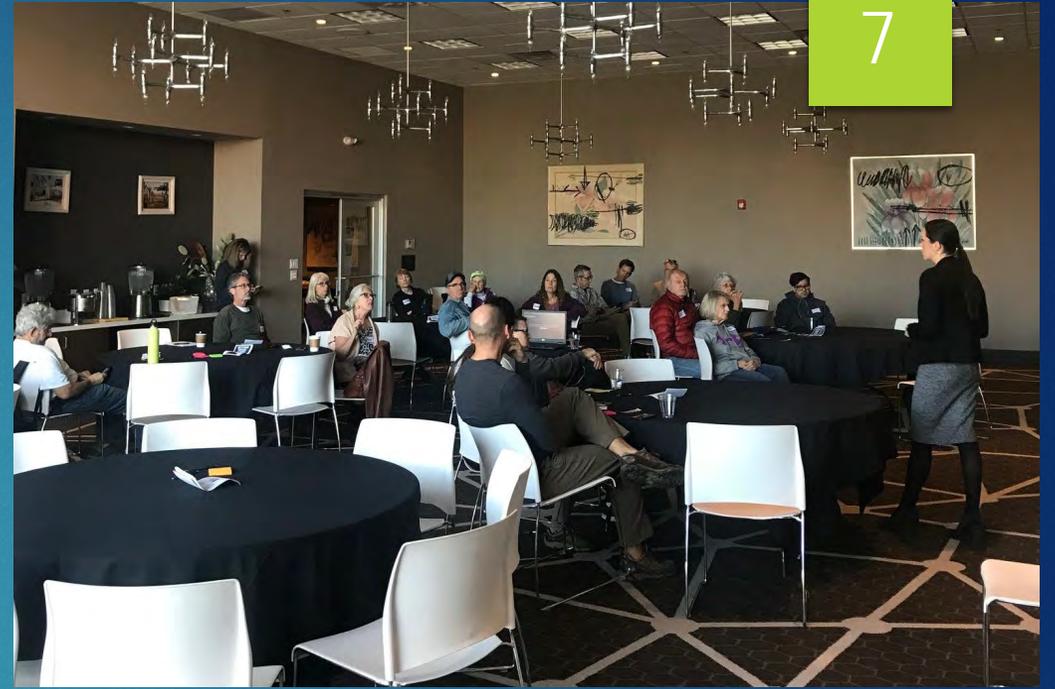


Effectiveness of Existing Traffic Calming



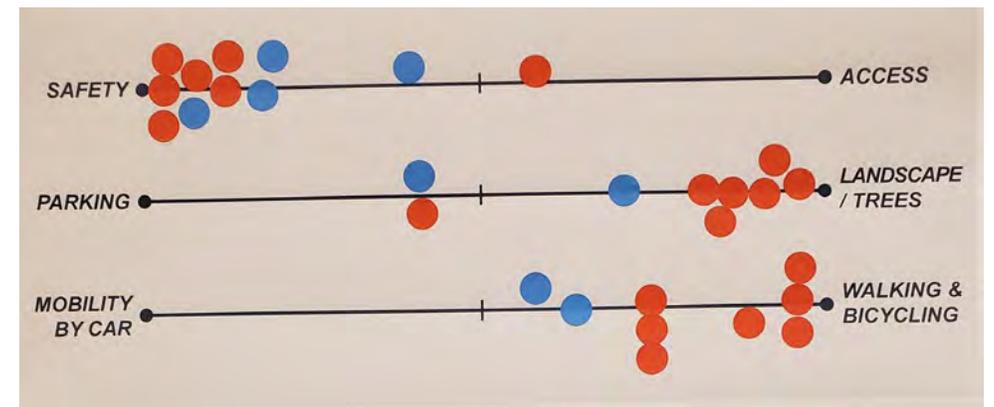
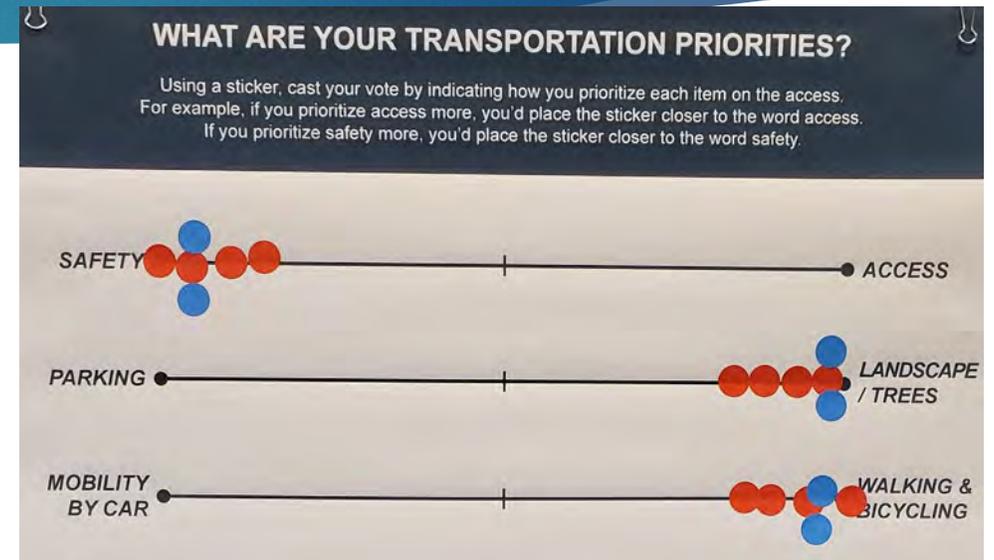
Community Input – Public Workshops

- ▶ November 18th and 23rd, 2019
- ▶ Safety, access, parking, mobility by car, landscape/trees, and walking/bicycling were prioritized.

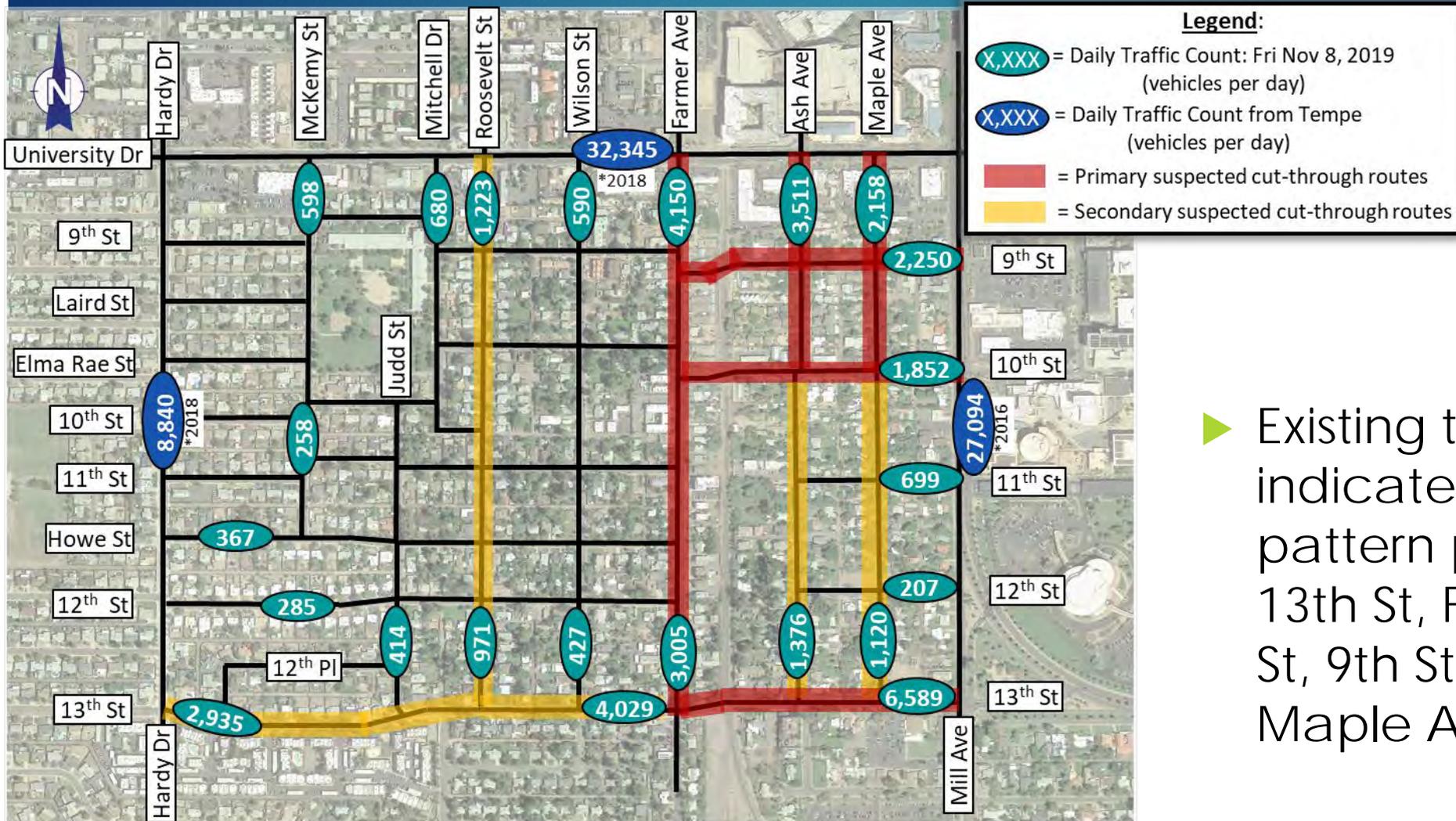


Community Input – Public Workshops

- ▶ Public input favored diverters, intersection cul-de-sacs (closures), and bulb-outs.
- ▶ Safety, landscape/trees, and walking/bicycling were prioritized over mobility by car.



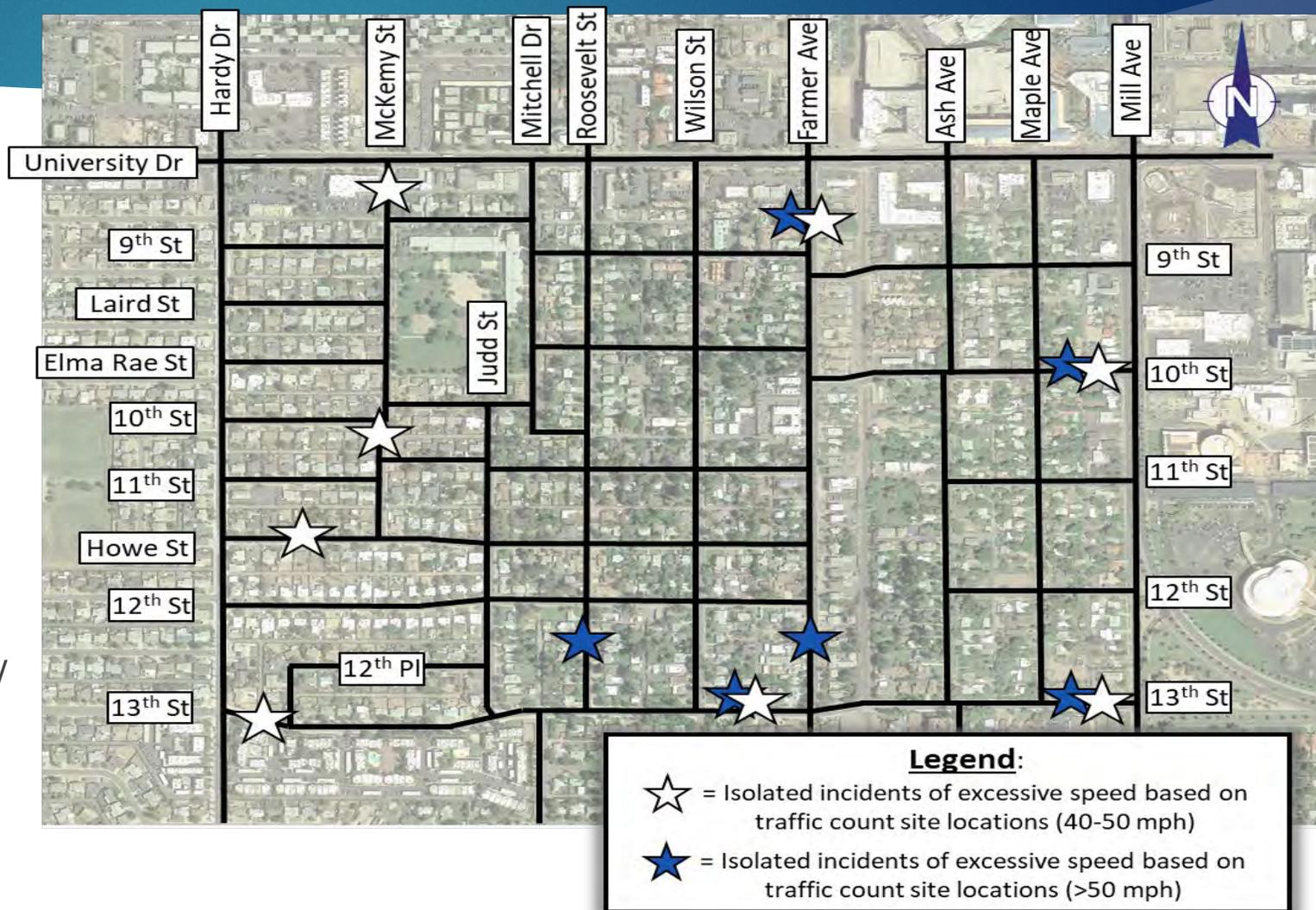
Traffic Data - Volume



Existing traffic counts indicate a cut-through pattern primarily using 13th St, Farmer Ave, 10th St, 9th St, Ash Ave, and Maple Ave.

Traffic Data - Speed

- ▶ Isolated incidents of speeding over 40 mph were recorded, including some speeds over 50 mph.
- ▶ The State of Arizona considers excessive speeding to be 15 mph over the speed limit.
- ▶ Excessive speeds are a safety concern for the local neighborhood streets, especially those with pedestrian and bicycle activity.



Traffic Mitigation Countermeasures

11

Proposed network of countermeasures:

- ▶ Speed Cushions
- ▶ Raised Crosswalks/
Speed Tables
- ▶ Diagonal Diverters
- ▶ Star Diverters
- ▶ Road Closures

Anticipated outcomes:

- ▶ Modify driver behavior
- ▶ Motivate drivers to use
collector and arterial roads
- ▶ Reduce high speed traffic
& maximum observed
speed

Proposed Speed Cushions

- ▶ Proposed on 13th St between Roosevelt St and Farmer Ave



Encanto Drive



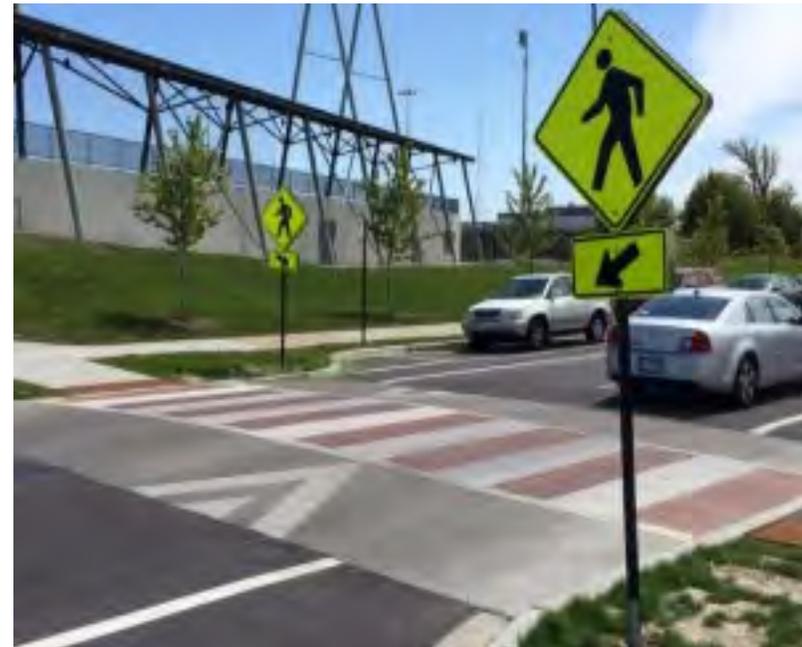
La Jolla Drive

Proposed Raised Crosswalks aka Speed Tables

- ▶ Proposed on 13th St, east of Maple Ave and Farmer Ave and 9th St



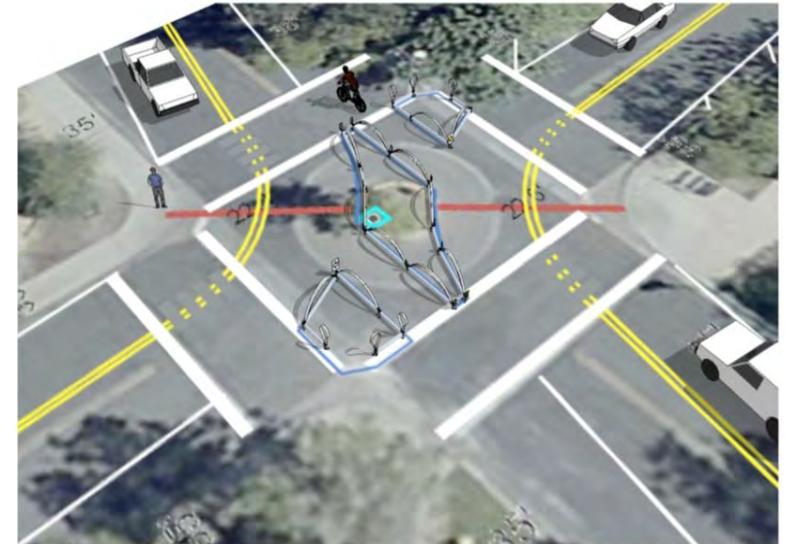
Palmcroft Drive & College Avenue



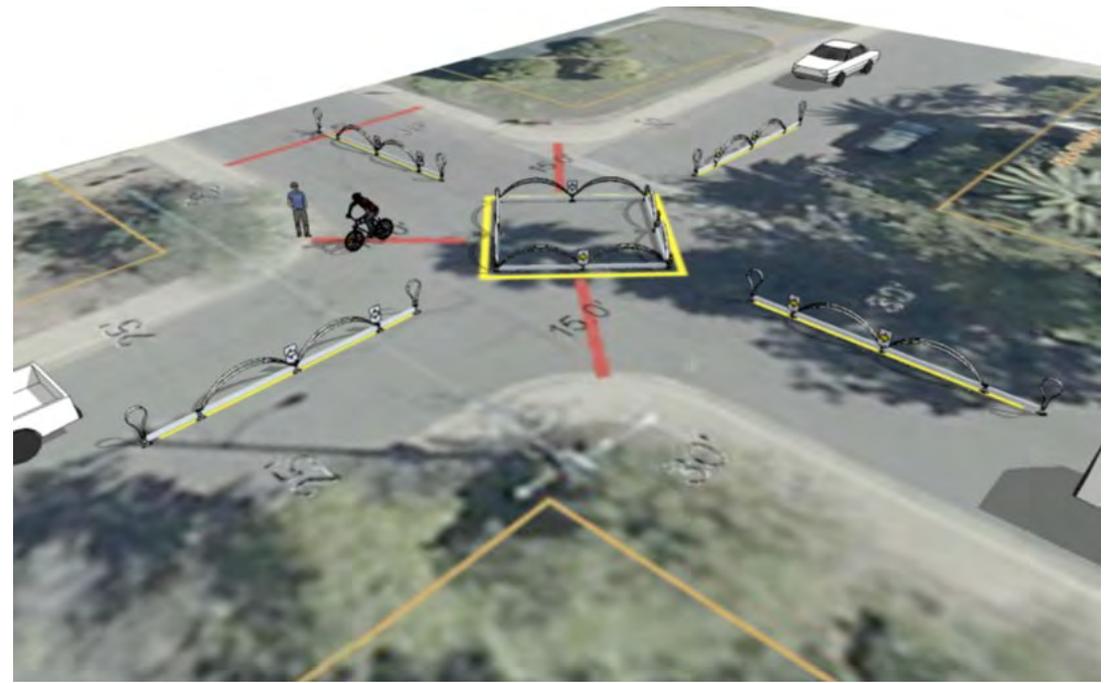
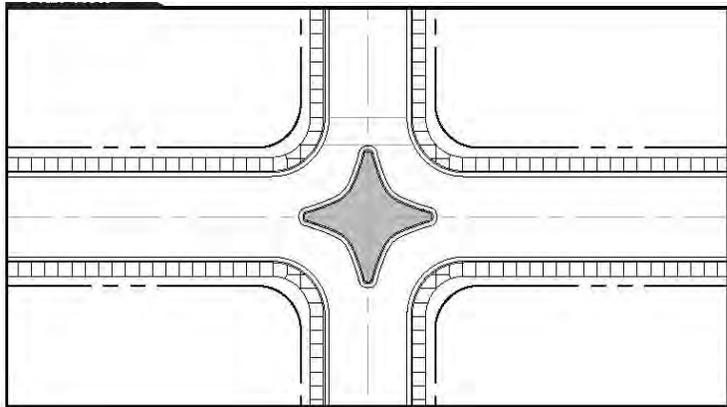
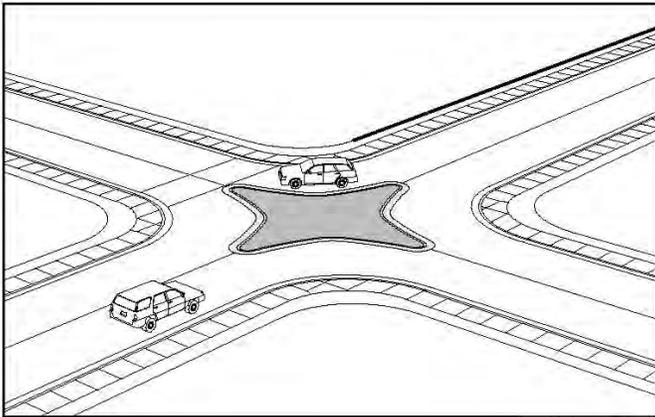
Proposed Diagonal Diverters



- ▶ Ash Ave & 9th St
- ▶ Wilson St & 11th St
- ▶ Judd St & Howe St



Proposed Star Diverter

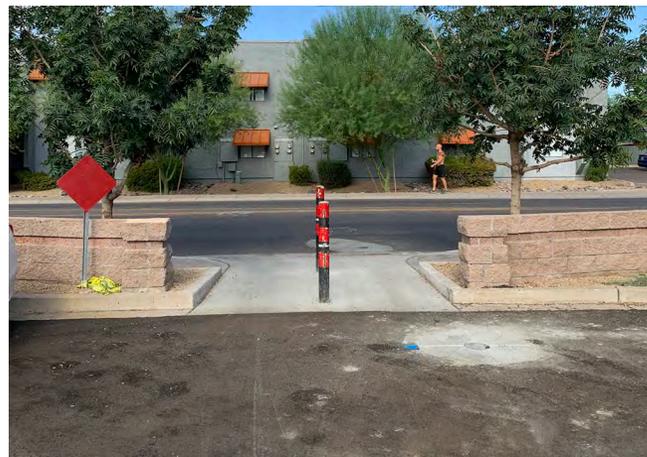
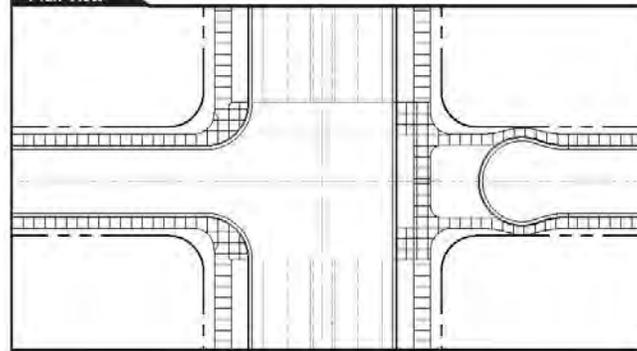


► Roosevelt St / 12th St

Proposed Road Closures



Knox Road



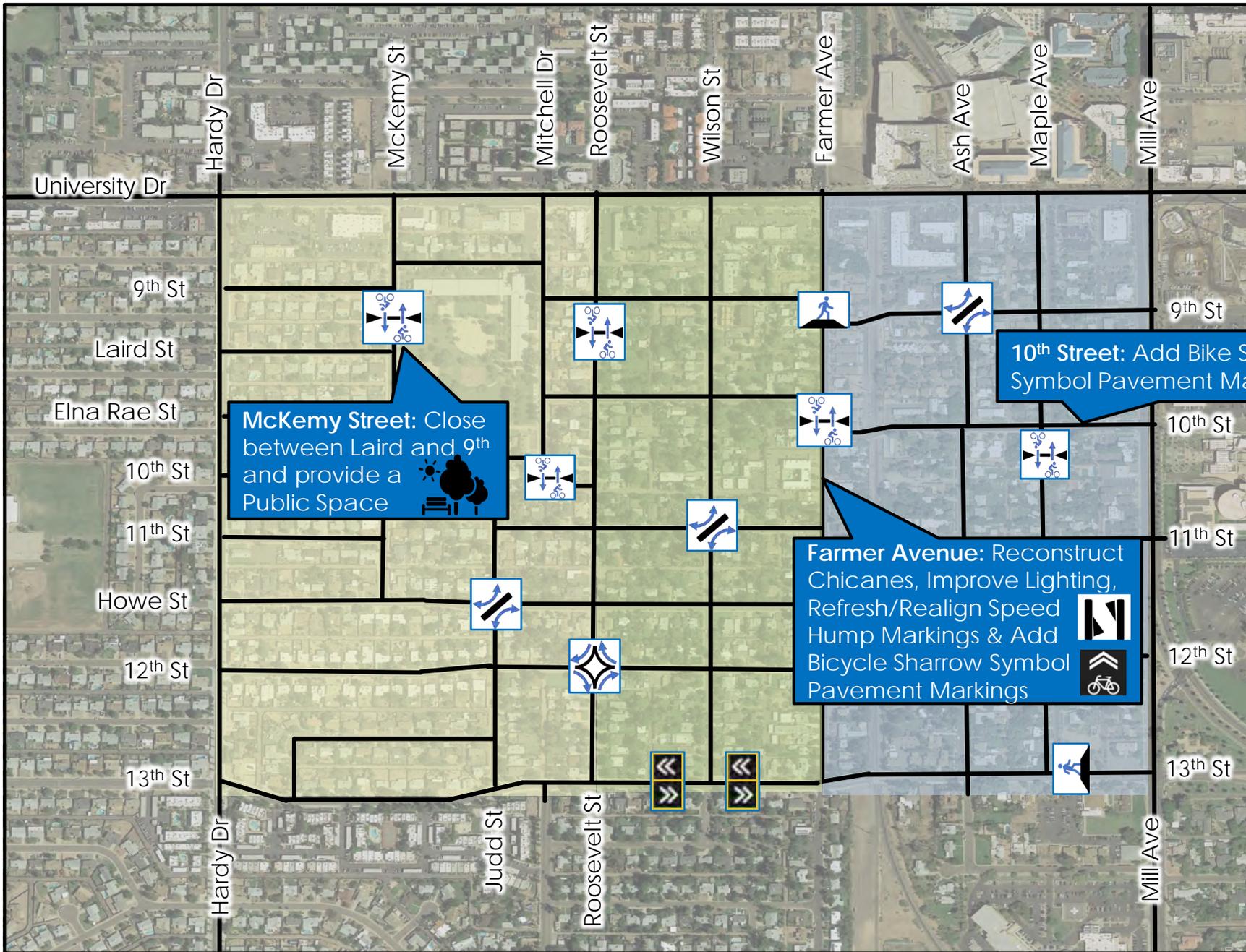
Lemon Street

- ▶ Maple Ave & 10th St (south leg)
- ▶ Farmer Ave & 10th St (north leg)
- ▶ Roosevelt St & 9th St (south leg)
- ▶ Mitchell Dr & 10th St (south leg)
- ▶ McKemy St between Laird and 9th St for public space



Proposed Traffic Mitigation Plan

17



Legend:

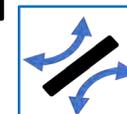


= Speed Cushion



= Raised Crosswalk

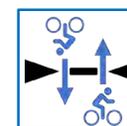
10th Street: Add Bike Sharrow Symbol Pavement Markings



= Diagonal Diverter



= Star Diverter



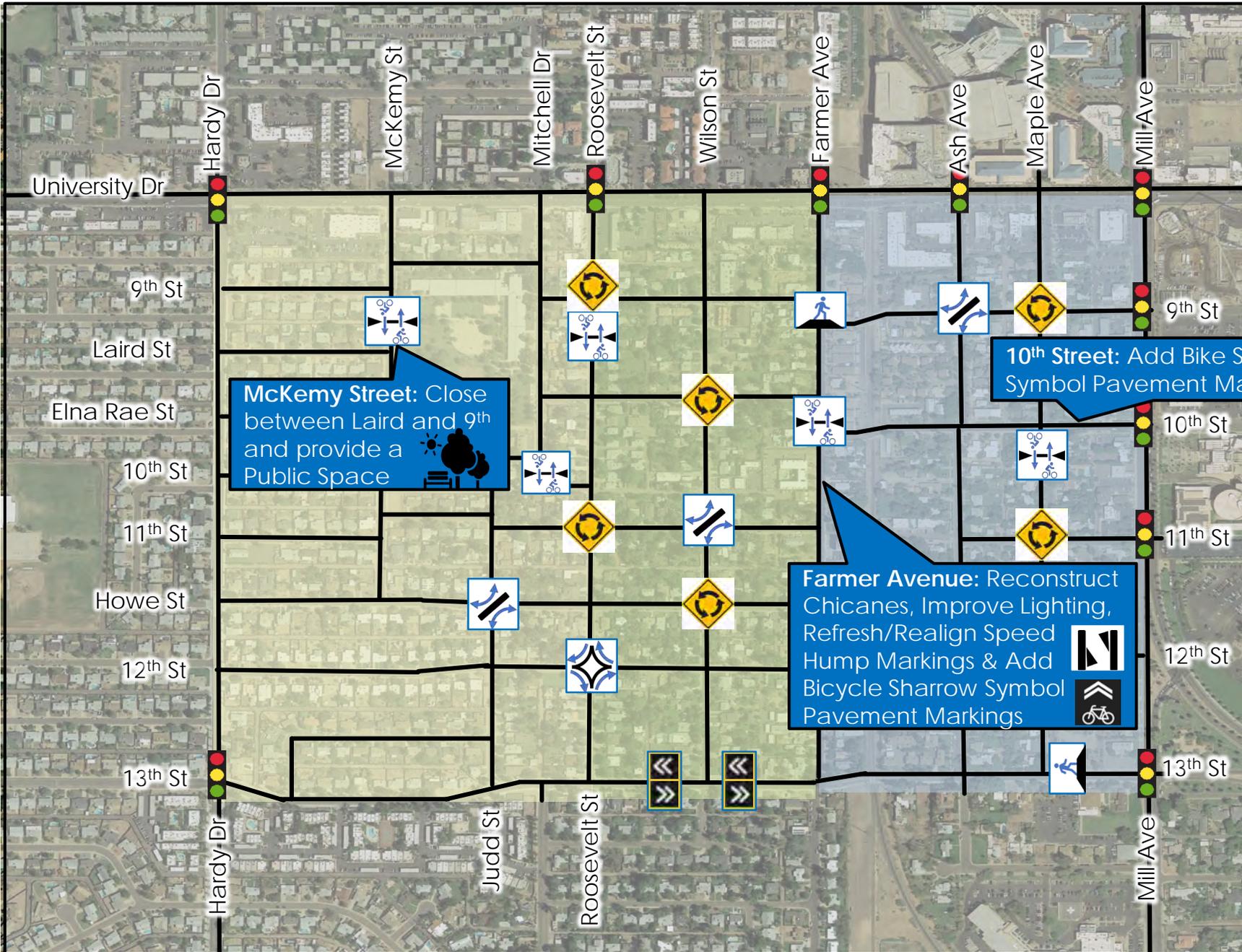
= Road Closure

McKemy Street: Close between Laird and 9th and provide a Public Space

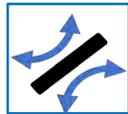
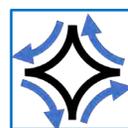
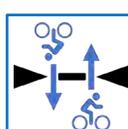
Farmer Avenue: Reconstruct Chicanes, Improve Lighting, Refresh/Realign Speed Hump Markings & Add Bicycle Sharrow Symbol Pavement Markings

Proposed Traffic Mitigation Plan

18



Legend:

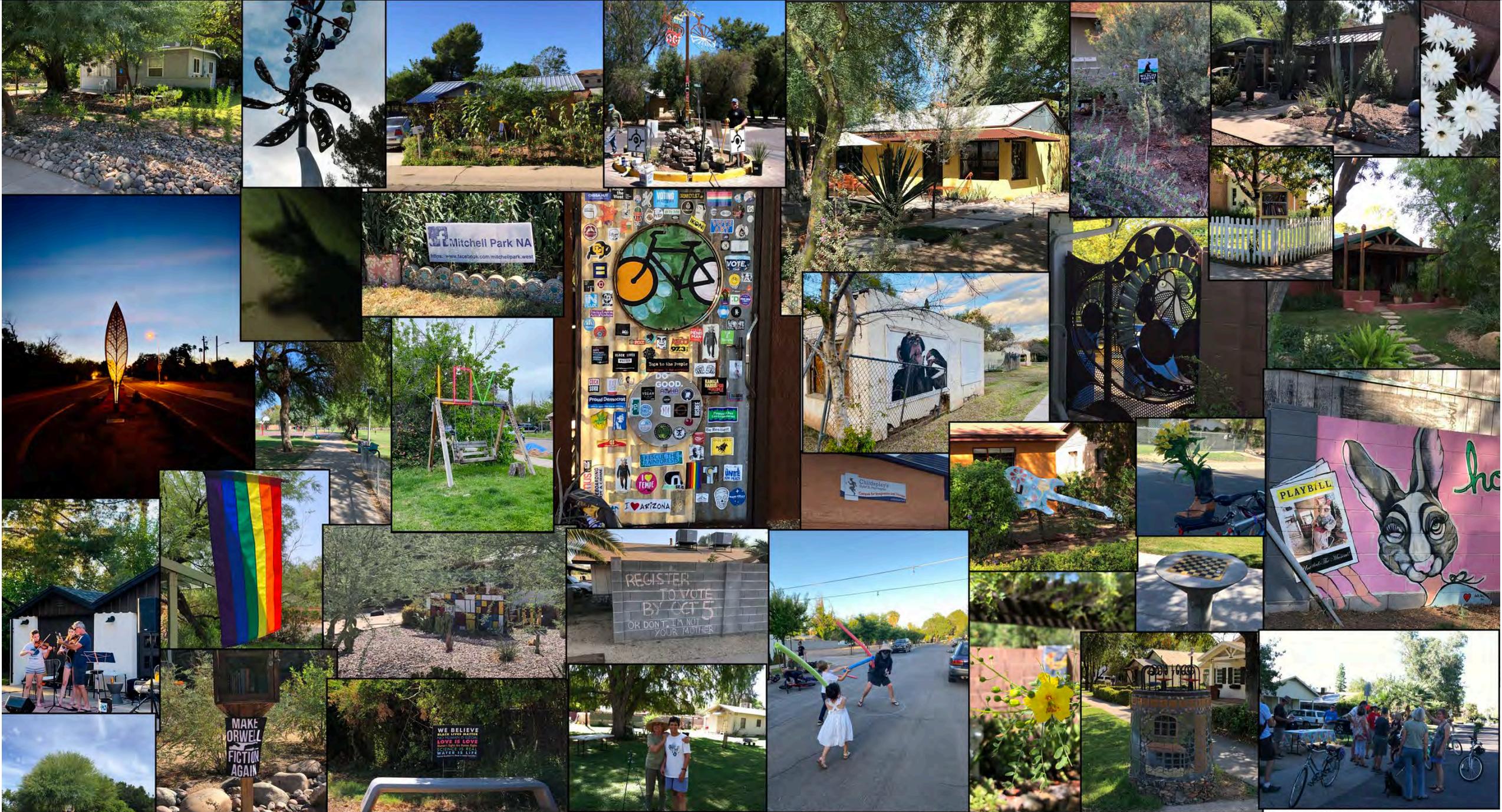
-  = Speed Cushion
-  = Raised Crosswalk
-  = Diagonal Diverter
-  = Star Diverter
-  = Road Closure
-  = Existing Traffic Circle
-  = Existing Traffic Signal

Traffic Mitigation Plan & Considerations

- ▶ The Neighborhood Traffic Mitigation Plan aligns with Tempe's Vision Zero initiative.
- ▶ The existing Orbit bus route that travels through the neighborhood will not be impacted by the plan.
- ▶ The proposed countermeasures have been developed to enhance the pedestrian and bicyclist environment on Farmer Avenue to compliment the future North-South Rail Spur Multi-use Path.

Traffic Mitigation Plan & Considerations

- ▶ The plan was strategically developed so no block within the study area bears the burden of shifting traffic.
- ▶ Several mitigation strategies consisting of various traffic calming arrangements were considered and reviewed.
- ▶ The proposed diverter and road closure countermeasures could be designed with modular curbing products to reduce initial costs and provide an interim solution and testing period. More permanent infrastructure could be installed later including concrete curb.



Maple-Ash, Wilson Art & Garden and Mitchell Park Neighborhoods

Questions?

<https://tinyurl.com/TrafficMitigation>

Complete the survey!

Leave a message if you
have additional
questions

Study Documents & FAQ



APPENDIX G:

MITIGATION PLAN SURVEY RESULTS

Downtown Neighborhoods Traffic Mitigation Survey Results: November 2020

Background

In July of 2019, Maple Ash, Mitchell Park, and Wilson Art & Garden Neighborhood Associations received a grant to study traffic patterns and data in order to develop mitigation strategies. The neighbors have been working with Y2K Engineering over the last nineteen months to develop a proposal to address traffic concerns in the three neighborhoods.

As part of the public input process conducted by the three downtown neighborhoods, a survey was developed to assess the level of support for the draft traffic mitigation plan. The survey was advertised to the neighborhood using postcards, social media posts (see appendix), yard signs in the neighborhood, emails to neighborhood lists, and through virtual meetings held online. A hard copy of the survey was provided on request along with supporting documents.

The survey was open from September 29 to November 24, 2020. Two hundred and twenty-one (221) responses were received from residents, property owners, and businesses. Not all respondents answered every question, with the exception of the “**what neighborhood do you live in?**” which was mandatory.

For context:

Number of Households

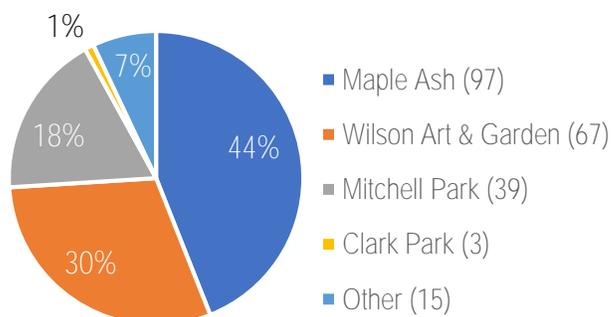
Maple Ash Neighborhood Association	332
Mitchell Park Neighborhood Association	278
Wilson Art & Garden Neighborhood Association	309
property owners not residing in the neighborhood	336

Number of multi-family units

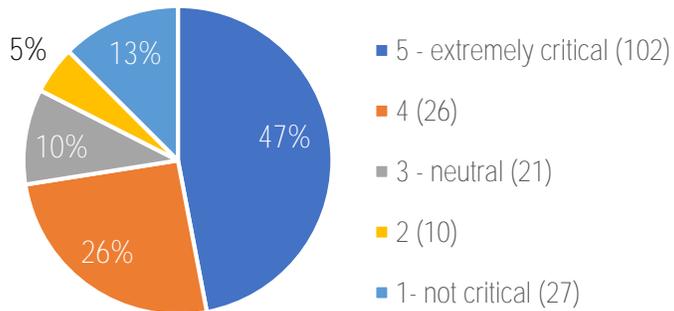
Sienna Court HOA	10
Ash Court HOA	21
Ash Avenue Condos	10
The Bradford	6
Apartments 210 W. 10th	7
Villa Nicole Apartments	24

Survey Results

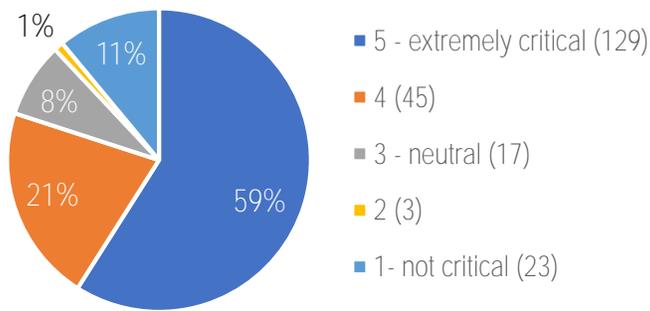
Question 1: What neighborhood do you live in? (221 responses)



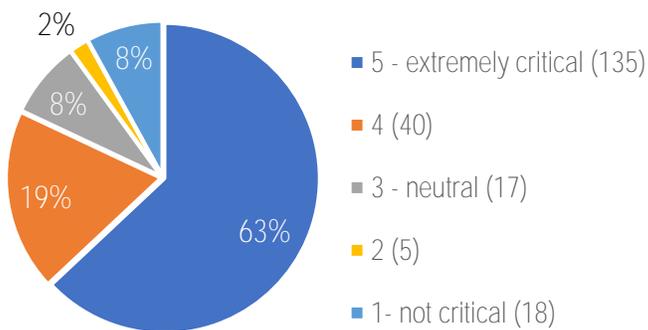
Question 2: Please rate each of these concerns on a scale of 1 to 5 with 1 being least critical of a concern and 5 being a very critical concern. (215 responses)



Cut through traffic



Speeding



Safety for bikes and peds

Question 3: Please share any thoughts you have regarding the traffic mitigation plan. (168 comments)

Comments that are supportive:

1. It looks fantastic
2. I am support of the plan. This will provide safety and preserve the livability of these neighborhoods, despite all of the development in the vicinity.

3. we support the project as presented, great job. We need to find a solution to the increased traffic and speed.
4. The plan sounds really good and I encourage the City to adopt it. The City should be proactively encouraging walking, biking, and children playing outside in their neighborhoods and this plan seems aimed at encouraging these activities. I am especially in favor of expedient implementation of the measures on 13th street-- my children bike this route every day and it is unsafe.
5. As an aside, I am disappointed in the City's upkeep of the vegetation inside the current roundabouts-- they are full of weeds and dead plants. Five years ago, when the neighborhood proposed to the City that the neighborhood take over the upkeep of these roundabouts because of their sorry condition, the City assured us that they wanted the responsibility and would make sure they are kept up and beautified. This has not occurred and this deterioration contributes to a dilapidated look to our beautiful neighborhoods.
6. I am shocked at how cheap these measures are and this suggests they can be implemented quickly. I also believe traffic mitigation and safety should be a prerequisite to any development project that is approved by the city.
7. I am hopeful that funding will be available in light of the closures of many local businesses that provided taxes to the city. I am thinking that there will less money available than might have been the case had we not been blindsided by Covid-19.
8. I have reviewed the plan carefully. It is very well thought through. I am fully in support of the plan. Indeed, I believe that it is urgent that it be implemented. The study revealed disturbing traffic patterns, including significant cut-through traffic and excessive speeding, both of which pose serious dangers to residents, including the numerous children who live and play on this street, my own included. I also frequently witness drivers blow through the two-way stop on maple at 10th because they are looking at their phones. It is only a matter of time before one of the many cyclists on 10th is hit and killed. Therefore, it is urgent that the city take action and implement these measures. I say this as someone who would be most effected by the measures because I live at Maple and 10th and my access to 10th by car would be cut off by the closure of maple at 10th. Nevertheless, I am strongly in favor of that closure. The minor cost of having to change my route to get to University is significantly outweighed by the benefit of reducing and slowing traffic. Apart from my immediate neighbors, I would bear more cost than anyone else who might opposes this measure, and yet I am in support of it. Please take into consideration the views of those of us who must live with the dangers posed by the inadequate traffic control in our neighborhoods. I urge the city of Tempe to move rapidly and decisively to implement the proposed plan.
9. I am definitely a huge favor for the cul-de-sac closure on 10th and Maple. Is there any additional support the City of Tempe can offer towards speeding in the neighborhood(s)?
10. This is great!
11. Normally I wouldn't be about this, but I side with lesser of 2 evils. Too many careless drivers cut through the neighborhood, college students, construction workers and their big trucks.. I've been almost hit a few times by all of the above. I like to make the traffic direction and the dead ends to be removable. i.e. simple poles in the ground with locks.. so it would be easy to lift restrictions if needed.
12. The data presented at the September 30, 2020 webinar was compelling. The new and continuing development surrounding the neighborhoods continues to put pressure on the traffic volume in these neighborhoods. The increase in the number of cars cutting through the neighborhood, high speed travel, Mapquest, Haze, and other app directed routes will only continue to put neighbors at risk. Something needs to be done to redirect and slow traffic in the defined area.
13. I am very impressed with the plan and believe it will serve to discourage cut through traffic, as well as slow traffic through the neighborhoods. I am more than willing to alter my favorite routes to get places in order to have these traffic mitigation strategies implemented.
14. I like and support all of the traffic mitigation concepts and would love to see them implemented.

15. I like the changes that have been proposed. I think they will enhance safety for bicyclists and pedestrians without making it difficult for residents and business patrons to navigate to their destinations. I appreciate the thought and the effort that the team has put into this study. Your hard work really shows!
16. I think overall it is a sound plan. Regarding the masterplan, there may be a flaw in it for residents on Ash between 10th & 13th as it would be rather difficult to access that area. However, I see that as kind of the point because if its difficult for the homeowner, it will be difficult for the common cut-through driver.
17. As a long-time resident - I fully support the plan. Traffic in the area continues to increase. Speed is an issue and at times there appears to be a blatant disregard for public safety. More and more children are living and playing in the neighborhood. The study provides the data to support the argument that the City Council needs to address this issue and that traffic in the area is a liability.
18. Some form of effective mitigation is essential. We don't have that now. We see lots of cut though traffic daily, as well as people speeding down Ash Ave. Drivers rarely observe traffic signs (they don't stop at stop signs, and they cross University at the Ash Ave stoplight in spite of signs prohibiting it). We're concerned that unless mitigation efforts are robust, drivers will continue to ignore signage and find ways to go around mitigation efforts. Sadly, law enforcement does not seem to be present, or effective, in citing drivers who ignore traffic regulations.
19. EXCELLENT PRESENTATION!
20. I love it! The process of getting it? Ask me later.
21. I appreciate all of the work that has gone into this study. By getting rid of the straightaways in our neighborhoods, especially between University Dr. and 13th St., it seems we can cut down on vehicles speeding through the neighborhood. Making it more difficult to get through the neighborhood should decrease cut-through traffic, but drivers will need to experience this inconvenience first before avoiding the neighborhoods as a "short cut" around traffic. Could the City place signs on Mill Ave, University Dr., 13th St., and Hardy alerting drivers, for example "No through traffic, street closures and diverters in effect?" This might help.
22. Looks great. All for it. The more traffic control measures, the better. The safer and better suited downtown Tempe gets for cyclists, the better.
23. I like it all ! Something needs to be done about the high volume of traffic , speeders and careless drivers zooming thru our streets. Tempe is continuing to grown so I hope that developers and building owners in downtown Tempe and the surrounding new buildings can chip in. It's only fair.
24. My concerns are mostly with traffic volume and cut through traffic. I am thinking that a lot of southbound traffic can be forced to turn left or right off of southbound Ash at University by marking lanes and having the traffic light arrows only allow right or left turns. In other words, no room for any cars that would try to go south. Designated turn lanes only. As it stands now there is A LOT of sneak through traffic even though there is signage. This would reduce traffic going into the Maple-Ash Neighborhood. Also, why aren't the developers paying some of these costs as it is their projects that are causing inconvenience and danger to the residents including the children? Since I live on 13th St., I support those mitigations that calm traffic there.
25. I am 100% behind this plan.
26. Traffic calming, better and safer bike lanes
27. **The proposed traffic mitigation's for these neighborhoods are overdue. I fully support these efforts and hope the Tempe City elected officials I voted for will support these efforts to keep my neighbors safe.**
28. I am in favor of this plan.
29. It seems that a lot of time and consideration has been put into this plan. I support it 100% and look forward to its implementation!

30. Addressing our **neighborhood's traffic safety is long overdue**. Thanks to the City for finally focusing on our neighborhood.
31. With three young kids, I am concerned about their safety with so much traffic on our street. We go for walks with scooters and bikes when the **weather is nice, and the traffic and speeding is always a concern**. I'm all for this plan!
32. I live with my son for 3 years and ride bike in the mornings. A lot of fast traffic and dangerous. Hope this will fix it
33. The traffic has gotten so bad through the years. **With the boom in development it will only get worse**. It's nice to know that change is on the way.
34. **The current state of traffic on our street isn't safe for pedestrians, especially kids**.
35. Great proposal!
36. I support the most restrictive proposed measures to reduce dangerous and cut through traffic in the neighborhood.
37. Thanks to the committee and Y2K for a thorough and thoughtful proposal. I am so pleased with all of the elements and I am ready for it to be installed yesterday! I am sure it's been mentioned by others but signage on University and 13th will be needed.
38. My only concern about testing right now is the decrease in traffic due to people working from home and students taking classes online. I think the proposed plan looks good.
39. I came to Tempe to teach in the School of Business at ASU in 1962 and this was a small town next to Phoenix,....The area of concern was a calm, friendly place and time has taken its toll and now needed are some influences to bring the neighborhood back to the old standards of safety, etc. I CONGRATULATE THE TEAMS IN GETTING THIS FAVORABLE PLAN IN PLACE AND LOOK FORWARD TO ITS INSTALLATION....p.s. My property is a RENTAL: and these comments reflect the concerns of my tenants, expressed over the years of my management.....
40. I like the plan. I continue to have concerns regarding speeding on University Ave and Mill and even 13th Street and the risk this poses to bikes and pedestrians. I would also love to see Art/plantings incorporated into barriers though I am THRILLED to see some work focused on the impact of traffic to the neighborhoods which are a lovely part of downtown Tempe!!
41. Safety for bikes and pedestrians gets a score of 5 from me because I think that is the primary concern (safety). However cut through traffic and speeding in the neighborhood rank a 4 because although intrinsically annoying they are major contributors to the safety problem in my opinion. I think some of the proposed traffic control devices, like right turns only at intersections, will make cut through traffic not worth the effort.
42. Drastic changes (like those described in the proposal) are needed to address the increase in traffic in the area. With the population increase and traffic changes along Mill and University to support the new streetcar line, there is only going to be more and more cut through traffic.
43. I pretty much like all of the proposed ideas. I did not attend the meeting but after reading the email I like everything that is thrown out there.
44. Overall a good plan to slow drivers down. I don't prefer diverters or other devices that force people to make a right turn if they need to make a through movement.
45. The proposed plan, overall, looks wonderful, but I wonder whether it goes far enough in ensuring the safety of bicycle riders, pedestrians, children, and people with reduced mobility. Overall, I think that the different entry points into the neighborhood should clearly signify to drivers that the area is a residential neighborhood where speed limit is strongly reduced. One-way traffic is a way to achieve this. Many people who filled the preliminary enquiry mentioned the intersection of Ash and University as a dangerous site, but I am not sure if the plan addresses this intersection sufficiently. An idea would be to allow more space for

pedestrians and bicyclists in front of Cartel and Otto Pizzeria, perhaps with a larger sidewalk, trees or shrubs, and one-way traffic? That portion of Ash, between University and 9th street, could even become a semi-pedestrian area. Also, road closures are great—isn't one needed on Ash as well? A few more trees to reduce street width would be wonderful too.

46. I like the plan and it covers all the priority issues
47. Glad mitigation is being considered. Would like speed bump on West 11th St between Hardy and McKean. A little concerned about how to get home from 13th St.
48. I think these plans are great but I wish they would include the portion of Maple from University to 9th street, which is where my home is. Traffic on our street is insane, everything from people speeding unnecessarily because they are angry about the new no turning left from the street or onto the street to our street being used as a parking lot for Chic-fi-la, Blaze and First Watch though the street itself is a 24 hour resident parking only zone.
49. I have viewed the proposed plan on the slideshow presentation and I support it. The proposed traffic mitigation plan will both improve safety and the aesthetics of the neighborhood, which is quite pleasant.
50. I'm in
51. This plan is very much needed!
52. Looks like a lot of thought went into this plan. I'm highly positive about it and tremendously appreciative of all those who put in the time to make this happen. Thank you! Thank you! I think it will go a long way towards helping life "at traffic ground zero". All that said, I'm concerned it does not do enough for traffic at the intersection of 9th and Maple, especially 1.) the volume cutting through from eastbound on University to southbound Mills Ave in the evenings and 2.) all the traffic generated by the lunchtime trade at the drive through at Chick Filet, and 3.) drivers leaving CVS and the Bank at 9th and Mill.
53. We bought our house on maple ave 14 years ago. we now have four kids and the speeding traffic is a serious concern. it's become a safety hazard. we need to make maple a deadend at 10th to stop the cut through speeders.
54. The road closure is extremely important to preserve the historic homes in Tempe. Road closures in Phoenix have only enhanced neighborhoods as well as businesses surrounding them.
55. While I like the idea of a traffic mitigating effort at Judd and Howe and I do think it will aid in the issue I am about to address, I think we need to consider extra actions at Judd and 12th. The main issue is speeding, the coinciding issue the fact that no less than 8 young children, all 6 or younger live at Judd and 12th. The kids and families know and play with each other and are frequently close to these speeding cars. Additional kids live nearby as well and have to cross streets in order to get to Mitchell Park. While not scientific, we have observed that the amount of traffic has increased as well as the speed and it is dangerous for our kids. We are asking for a simple speed hump and signs that children are at play. We support and believe the other traffic mitigation efforts are helping areas, but are also funneling traffic through Judd st.
56. As I type this there is excessive traffic in front of my house on Farmer. The drivers are reckless because they are not neighbors. They drive on the sidewalk and drive too fast. I would like to see the diagonal diverters and the road closures. The speed tables and speed cushions should help as well. A concrete curb along Farmer would be amazing to stop possible sidewalk accidents.
57. I really like the proposal. I appreciate the addition of a public space. The targeted closures and diverters will help.
58. Testing the plan should help determine if all the mitigation additions are workable for the people living in the area, and still meet the goal of preventing cut-through drivers yet not adding traffic volume to other adjoining streets. I am trying to visualize how we get to and from our property on Ash.

59. I like the proposed plan. I live at howe and McKemy and we see #1 speeding and # cut through. Glad to see something bering done. But drivers still have a good run between hardy and judd. Would like to see some other traffic calming between west of judd. Maybe one speed bump or the segmented ones.
60. I love the idea of road closures with bike & pedestrian access only. Coming from the Bay Area where I was a bike commuter, these were great.
61. Sounds good!
62. Like it
63. I live on 13th St. speeding and traffic is definitely an issue and I support speed bumps, median planters, roundabouts bump outs, or raised bike lanes. Anything to slow down traffic in my neighborhood I would see as positive. People speed like crazy especially on 13th which my home faces. I do not support the road closures and diagonal and star dividers. I would like less people driving through my neighborhood but not if it means myself and my neighbors are unable to get to and from of our own homes and forcing further traffic onto 13th. Downtown Tempe is directly North of our neighborhood so naturally most of the places I go to require getting up to university drive. **Trader Joe's, Whole Foods, restaurants, and my work is all in downtown Tempe.** Based on the proposed plan it would make my commute significantly longer and force more people up and down 13th st. Which is also a neighborhood street.
64. **It's about time!**
65. **It's extremely important change the traffic patterns in these areas. Heavy traffic and speeding cars put our children at risk**
66. The plans we reviewed looked good, but did not include the signage that would be installed to warn drivers that no direct routes exist to go through the neighborhood. I would like to know how diverters will be signed, especially for drivers entering neighborhoods from Hardy, 13th, Mill and University.
67. This has been a growing concern of mine over the last three years before learning of these proposed plans. I live in the Holdeman neighborhood which is outside the focal area, but previously lived for years in various apartments in the Maple Ash neighborhood ten to fifteen years ago, so I have some context for the changes in development and resulting increases in traffic. Presently, I walk to my job at ASU regularly through the focal neighborhoods and walk and bike through them for recreation/exercise. I welcome any measures to manage the increased traffic to provide more safety and a better neighborhood aesthetic.
68. I think this mitigation plan would be helpful for the neighborhood! I live on Farmer, and even the improved lighting and better marked speed bumps I think would reduce speeding on this street and make it safer for cyclists/pedestrians. Can speed limit signs be posted on Farmer? I also think the public space idea between Laird and 9th would be great! Are there more details on this space?
69. I'm glad that the plan doesn't involve the introduction of more chicanes, which I find force cyclists further into the road and could increase bike-car collisions rather than reduce them. This seems like an excellent plan.
70. I like the proposed ideas. However, the diagonal diverter is a bit confusing and I think given how many non local people cut through the area, it may not be utilized correctly. I personally like roundabouts but people still blow through them. Our house is at Wilson and 10th and I have seen many near-accidents (most recently last week when a Tempe police officer did not yield and almost hit a car that had the right of way).
71. Great start we have increased cut through traffic which is often speeding Howe street from Roosevelt to **hardy Is another "hot " spot"**
72. This NEEDS to be implemented NOW..... enough already.
73. I think many of the design ideas are excellent. I had also thought that maybe some streets should become one way streets and have pull in parking on one of the side with a dedicated lane for bikes on the other side. A very new source of traffic coming into the neighborhood will be the large apt development on the SW corner of Broadway and Roosevelt. These 600+ new neighbors will be driving right up Roosevelt to 13th St

if no diverters/or other options are considered. Also Roosevelt is missing sidewalks for pedestrians from 17th st to 13th st.

74. **This has been an issue for years and has been getting continually worse. I'm glad the city has finally decided to address the problems that increased development has caused the adjacent neighborhoods.**
75. I felt all the ideas presented in the initial plan were sound places to start from.
76. I imagine the plan will allow or more safety for pedestrians, which is important to us as we have little children and often go on walks around the neighborhood. Our route to our home from work/other activities when driving will be altered slightly, but we don't feel inconvenienced by that.
77. Maple-Ash is bounded by the most abused streets/routes for cut-through traffic which also can lead to increased speeds. Good to see some attention is being paid. Most of the suggestions seem quite viable. Let's get it done!
78. This is much needed for traffic calming. Let's test it out
79. I fully support the proposed plan to mitigate traffic

Comments that are NOT supportive:

1. I am concerned that it will direct more neighborhood traffic into certain areas due to the restrictions of the diverters.
2. Fix University. The fact that we spent money for rails for street cars shows antiquated thinking from our leaders and citizens. Automatous vehicles exist that do not require tracks high voltage, street construction and barriers. Shame on our leaders and neighborhood reps for wasting money
3. I am against the proposed changes. You folks created these issues when you allowed permit parking which made the streets wide open and empty and subject to speeding and cut thru traffic. Now you want to spend money on narrowing streets you made wide open with your permit parking by building larger and bigger Chicanes and building more speed bumps. Your proposed traffic diverter at 9th St and Ash Ave specifically will limit Tempe Fire and Police access to the home I own at 934 S Ash Ave. You will make it hard for me to get to my home or leave my home. The fact that I found out about this proposed plan recently shows certain people were being deceptive on purpose and avoiding a negative comments so it seemed this proposal had large support when in fact it does not have support. I did not receive notice or card or a map of the changes until recently.
4. Having a stop sign & a roundabout is redundant & unnecessary. The point of a roundabout is to avoid having to stop. If you want traffic to move more smoothly, come up with a solution so that the main streets are more efficient rather than perpetuating the slow moving nature. Now we have congested main streets & neighborhood streets because of these flaccid solutions. I do not slow down going through those traffic diverters. There is plenty of room for two cars to pass safely with competent drivers. Spend your money on smart technology street lights that encourage more meaningful flow of traffic instead of congested the flow **of the neighborhood. People cut through the neighborhood because it's a city. Cities have traffic & they will cut through no matter what. A traffic diverted is a waste of money & will not slow people down.**
5. **These traffic diverters don't stop people from cutting through the neighborhoods. Having a traffic solution on the main streets so they aren't congested will stop them. Now we will have congested main streets & congested neighborhood streets. If you want discourage people from cutting through the neighborhoods, maybe it's the main streets that need to be addressed & not the neighborhood. Now the residents of the neighborhood, who drive these streets everyday, have to deal with the consequences of construction, closures, & inadequate traffic control on the city's part. The problem is stop lights & construction on**

university & mill, not that that aren't curbs with large fallen over rocks that are supposed to deter driving fast. There are better uses for our tax dollars.

6. I had of negative comments I submitted at the video presentation. It seems great effort was made to not read these into the meeting as it was being recorded. The direct texting among participants to silence my comments was obvious. Only positive comments were addressed. This proposed changes will have negative consequences that were not addressed.
7. I own my home at 936 S Ash Ave. It is obvious Y2K engineers overlooked how I enter and leave my residence. The proposed plan will negatively affect my safety and welfare. The proposed plan actually increases danger to my safety. I am against these proposed traffic changes that will negatively affect my safety and welfare. Did anyone look at how I enter and leave my residence I own at 936 S Ash Ave? How come I was not consulted prior to these meetings.
8. It will be terrible for the neighborhood and very unsafe with more cars
9. I am against the suggested changes. Seems like a waste of money and not efficient use, this won't work in practicality to cut down traffic/speeds. All it does is hurt my neighborhood/my own time of navigating through to my home. Also this is the first time I have heard of the suggested plans to mitigate/slow the flow of traffic, a neighbor told me who also is against the proposed ideas.
10. This is dangerous to pedestrians, pedestrians including children... cats... this neighborhood was so peaceful **and it's becoming chaos disturbing** all of our lives.
11. This plan is not smart for local businesses in the area and for the people who live in the neighborhood
12. Negatively affects the value of my home. Also the noise level will be much worse
13. Not to happy with it. I feel we have enough 'one way' Left turn or Right turn only, areas.
14. Maybe if we could pass a bill making it a HIGHER FINE area. Such as schools have.
15. It is ironic the photo on this traffic safety survey is a photo of a upside down bike sculpture built in the street. I have seen a bicyclist flip a bike and get hurt on this build out in the street. Be sure to add some more sharp objects so you kill us.
16. Just stop installing ugly barriers and hazards
17. I am against the road closures on Maple and Farmer and the traffic diverter at Ninth and Ash that will negatively affect the value and use of my home I own at 209 W 9th St.
18. Totally would not support this idea..better ideas to calm traffic
19. The proposed plan to mitigate traffic will create more problems. The plan sponsors happen to be at South end of the neighborhood and have no idea what happens on the North side.
20. **Seems like this is a solution to a problem that doesn't really exist and would just be really annoying for us locals, plus I wouldn't want to see Casey's/Cartel/etc have their businesses hurt by less traffic.**
21. Who are you people? You did not earn this grant for a traffic study. You manipulated words to get money to benefit a few people who happen to be Neighborhood representatives. Your plan will cause a cluster traffic mess for the rest of us. Stop the madness !
22. Not necessary. Will impact ability and freedom to access the neighborhood.
23. Please stop your crazy project

24. Stop wasting money. I do not care where the money die this traffic mitigation came from it is a waste. Improve our parks !
25. Stupid waste.
26. **Quit wasting money. Who cares if you got a grant. It's still a waste of money**
27. I live on the 400 block of Howe. The plan basically has me trapped **on my block. You can't have a road** closure on both Wilson and Farmer.
28. This plan does not address the cutting through of traffic via the alleyways. The hard road closures and right only intersections will only increase this problem. I would much rather live with traffic on the roads than in gravel alleyways with limited visibility and width.
29. How to waste money: 1. Apply for a grant 2. Receive the grant 3. Grant winner responds with the obvious wants from applicant. 4. Use the grant study report to waste taxpayer money
30. Stop. Just stop this silliness.
31. The diagonal diverters just seem like they would be annoying and end up trapping cars in the neighborhood. I'm not a fan of the road closure idea.
32. We feel closing the streets is extremely inconvenient for all involved. Residents, fire and police, city services... There has already been a lot of money already put into slowing and diverting traffic. One just needs to realize living close to a downtown has more traffic and quit complaining or move.
33. Please quit this irresponsible waste of money and time. The traffic study is flawed as it was taken during trolley construction where vehicle traffic was diverted on purpose to our neighborhood street.
34. The dollars it would take, can be better spent on more critical issues.
35. Against see my written submitted letter
36. It's going to effect a thriving business [s] in my neighborhood.
37. Stop this insane project
38. You are going to cause other problems with your stupid plan
39. Pleases Stop this plan. You are going to have people going thru the alleyways.
40. I do not live in Maple Ash, but I own Ash Ave Comics in University Square Plaza on Ash Ave. I strongly do not support the Proposed Diagonal Diverters (specifically at the intersection of Ash Ave and 9th St) or Road Closures. I believe this Diverter would harm my business by restricting access to the plaza, this compounded with other traffic obstacles (ex: no left turn onto University Dr from Maple because of street car traffic barrier) would limit the available options for customers to travel to my business. There are regularly shutdowns of Mill Ave, both north and south of University Dr., for special events, the Diagonal Diverters would cause a major headache for a customer diverted into the Maple Ash neighborhood on a detour, and likely push traffic into cutting through the parking lots of businesses and residential alleys as drivers look to bypass a closed or congested road. Even something as simple as traveling from the Chase bank at University at 9th to the University Square Plaza could become a longer trip if a special event has University/Mill closed or if there is some incident with the street car which has vehicle traffic restricted. There are solutions to the traffic nightmare that the city transportation department and city government has burdened the residents and businesses of downtown Tempe with, unfortunately the actions recommended in this traffic study will further harm residents and small businesses already feeling the squeeze from years

of development and accompanying infrastructure upgrades that have mostly benefitted the developers and their luxury housing projects.

41. We are a local business in the University Square Plaza off of University Dr. and Ash Ave. facing east on Ash Ave. The business has low street visibility due to where it is situated. We rely heavily on drive by and walking traffic, like many others in the area. We believe that cutting traffic through Ash Ave and Maple Ave will dramatically hurt local businesses making it very difficult and prevent individuals to get to the University Plaza. Safety of bikes and pedestrians is a responsibility that is held by both parties - the vehicle and the persons, pedestrians, and bikers. There is extremely low visibility at night due to poor street lighting, bikers that dont use proper lighting gear at night, and bikers utilizing the opposite side of the road at day or night, with no light gear making it extremely dangerous for vehicles and themselves. How about proposing a plan for a better bike route for bikers and increasing light/road visibility instead? :)
42. This traffic calming plan will cause traffic to cut thru alleyways. Not just the alley near me. These are public streets and not a gated community. I oppose this plan.
43. Regarding the diagonal diverter at 9th and Ash—I am opposed to its installation for the following reasons: Any driver going north or south on Ash or east or west on 9th can circumvent the diverter and continue in **the direction they want simply by cutting through the alleys on our block (call it the Circle K or Mrs. Rita's block)**. It would definitely cut down on traffic headed south on Ash (Great for Karyn but not for us)—but would probably increase the cut through traffic in our alleys by 500 to 600 percent. No thank you. There are alleys in most blocks within the study area. It is hard to believe that they were not discussed that much during your meetings. With respect to Sec. 29-25 our alleys have had signs posted for years with NO enforcement by the Tempe Police for either pedestrian or vehicular cut through traffic. None. Also traffic on **13th Street turning north is all “pushed” East to Farmer which is closed at the north leg at 10th forcing traffic East onto 10th Street or into the very area identified as the “Primary” suspected cut through area. This plan as proposed will not improve things In our area but only make them worse.**
44. The traffic flow will bleed into the nearby alley ways. There is already plenty of traffic using the alley ways to travel right now. I believe this will increase the traffic in the alleys and the police very rarely inforce the laws to stop people from driving through the alley.
45. Stop this nonsensical waste of time and money. This is nit the solution
46. I do not want to lose business in our neighborhood
47. Not a fan.
48. I object to the plan for 9th and Ash. The diversion won't allow us to drive directly to the businesses at the corner of Ash and University, particularly the ones on the SW corner.
49. Your test plan is disaster in the making. Please stop. You are negatively going to affect local neighborhood traffic.
50. Wrong solution proposed
51. While I am concerned for neighborhood safety, the plan is too extreme for the issues. Farmer needs better controls, as does, perhaps Roosevelt, but needlessly tying up neighborhood streets with diverters and closures is unnecessary and dangerous; emergency vehicles will have poor access and the plan will cause greater stress and anxiety for residents setting the stage for accidents and fatalities. I appreciate the thought that has gone into this, but it simply goes too far.

Comments that are neither supportive nor not supportive:

1. I think the plan is helpful but does not address some of the biggest issues that impact traffic. Cars will always utilize our neighborhood to travel as long as University continues to get backed up. Without fixing University, no amount of money, time or desire, will keep people from driving through the neighborhood.
2. I live on Maple near Chick-fil-A. I think there should be a speed bump placed on Maple between University and 9th. The number of cars who race through this specific stretch is extremely great and continuous due to fact that restaurant stays busy well past 10 p.m. every night. The noise from the constant car acceleration and angry car horns can be heard in the house continuously. Angry drivers make for dangerous drivers
3. I would also like to see the section on Maple, between University and the alley that runs behind Blaze and Chick-Fil-A (parallel to University) become a no-parking Zone. At this time it is open parking (no permit required) yet this is the one place we could actually use the extra space to allow cars to move around cars waiting in the restaurants drive-through line. Because Chick-Fil-A's drive through backs into the street (most of the day!) there is no room for cars trying to move through the neighborhood to go around. So, they get mad, honk their horn or simply tear around the waiting cars with no care what is on the other side of waiting cars. I have seen too many near miss accidents, including with Pedestrians. My car was hit as it was parked by an angry driver.
4. I realize that we aren't supposed to be making it easier for people to move through the neighborhood but we either do that or make Chick-Fil-A do something with their drive through so it is not continuously blocking the street. For what it is worth, I would like to see the City remove the 24 hour, 7-days a week no parking without permit out front of my house (810 S. Maple). The city isn't enforcing it so it is pretty pointless. I would prefer some of our local restaurant workers have a free place to park after 6 p.m. and on weekends. We have always been able to find parking out front of our house, with exception of ASU football games. Not sure why the decision was made but it is pointless.
5. I am concerned that traffic will be directed on Ash Ave to enter and exit the neighborhood. Events will be able to use the traffic lights easily on Mill at 10 & 9 th. I do appreciate all of the work on this effort. Thank you so much for all that has been done.
6. Seems pretty good, although cutting thru maple to 9th to mill is still available.
7. The map doesn't communicate to me how the road will be closed at the intersection of 10th and Mitchell. For some reason, the other closures are explained, but this one is not. Will traffic stop at Mitchell? Or 10th? or both? with what obstruction?
8. I was nearly run over on Roosevelt between Howe and 12th. It frustrates me when drivers turn into the neighborhood and speed excessively.
9. I ride my bike to the lake to row everyday and cars are in the bike lane and almost hit me I am 15 years old
10. I'm just concerned, that for those of us who have mobility restrictions, and must rely on vehicles for our mobility, some of the proposed traffic restrictions in this neighborhood may be a burden.
11. It could be slightly annoying until I got used to the changes.
12. No street closures please add roundabouts and chicanes. The street closures directly impact the residents of these neighborhoods.
13. A round about is better to slow the traffic on Ash and other streets as it reduces the high speeds.
14. I am a business owner if the University Square Complex. I am extremely concerned with the proposed plan. Looks like it will be good for the home owners in the neighborhood & terrible for the businesses that provide

community, connection and employment to the very neighborhood you're cutting them off from. The loss of the 3500 car count on Ash will be detrimental. I believe the reason people cut through the neighborhood now, is because of all the additional traffic lights on Mill & also University. Additionally Mill and University bordering the 3 neighborhoods that paid for the study, have been under construction off and on for the last 1.5 years. It does not make sense to me why the study was done at the time that the construction on the main arteries is so terrible that people are cutting through the neighborhood at a much greater rate than they typically would. Is there a way to pursue modifying the way google maps read - to deter unnecessary cut through for uses like ride share programs, or when a traffic incident happens - and the GPS re-routes for a short cut, without modifying the streets that the very people who live in the community use? Also - I'm concerned that as a business owner, we weren't part of developing the plan. It seems extremely far along in the process. Even the way the first question is worded - it says where do you LIVE. Don't get me wrong, I agree with the objectives, but wish they didn't have to come at such a cost to the unique businesses in University Square + Casey Moore's. I love that it will make it a safer place to walk & bike, I'm in total support of that. We have a great neighborhood base of customers and we love when people visit the shop in a low impact way, but a large part of our core business is people leaving the neighborhood, driving in their cars, on their way to work. It is nearly impossible for you to access our complex coming from anywhere south.

15. Get rid of the ""NO STREET PARKING"" in specific areas. Allow anyone with a permit to park in the street. With the streets full of parked cars, such as MAPLE, the traffic is FORCED to move slowly, as there are natural barriers in the way.
16. if there's any way to mitigate neighborhood parking from patrons of corepower yoga, chipotle, casey moore's etc. that would be ideal.
17. I am curious about the 4-way stop sign at Wilson and 9th. I like the idea of all way (3-way, 4-way) stop signs in this area, but don't see any other examples. Why here and/or why only here? Signage is much cheaper than many other traffic controls, though arguably less effective. Also would like to see closure at 9th St. at east side of RR tracks and also a 9th and Mill Ave. Otherwise a great way to avoid light at University and Mill.
18. 1 - We see drivers crossing the stoplight at Ash Ave and University daily, both NB and SB, in spite of traffic regulations that are meant to prohibit such crossings. Drivers will continue to ignore these regulations without more law enforcement (unlikely). That makes us skeptical that a diagonal diverter, as shown in the slides, will prevent drivers from going around the diverter in their desire to cut through the neighborhood. The diverter at 9th and Ash must physically prevent vehicles from driving around the diverter. Otherwise drivers WILL find a way around it.
19. 2 - Considering the number of drivers who ignore the regulations not to cross University at the Ash Ave stoplight, and lack of enforcement there by Tempe PD, why not change the regulations to allow crossing to take place. But put a stronger diverter in place at 9th and Ash to physically prevent drivers from going south, or north, on Ash past this point? This would make it easier for business patrons to reach destinations north of 9th from University, while preventing drivers from using Ash as a cut through route NB and SB, as they do now.
20. 3 - As the plan stands now there are many good ideas, and we support them. But we're not certain the the road closure on Maple at 10th St will not also push more drivers onto Ash Ave. That's why whatever plan there is to prevent cut through between Ash/University (i.e. the diverter at Ash and 9th) is essential to our street.
21. 4 - The plan will also impact the way we exit our neighborhood, especially going NB, say, to Scottsdale. From Ash Ave, we will no longer be able to use Farmer as a way of avoiding the more congested area

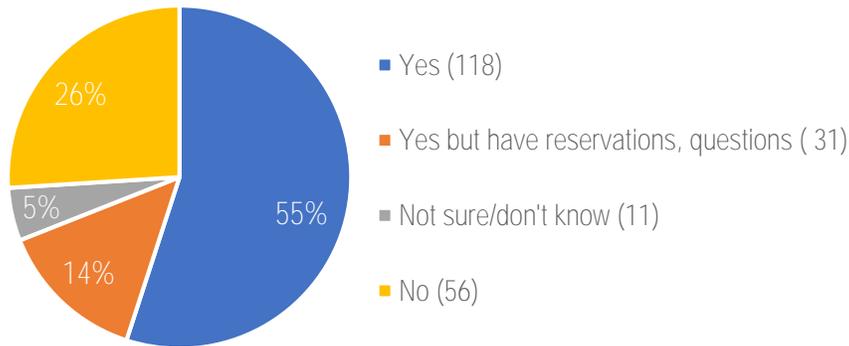
around Mill and University. But we're willing to put up with that inconvenience IF changes result in less cut through traffic on our street. But the changes must be real. After the regulations at the stoplight at Ash and University went into effect prohibiting crossing University, we observed them (and still do), and find another route. But other drivers don't, and cut across. We're the ones who pay the price for that regulation, not the scofflaws. We don't want to see that kind of change again.

22. If you truly represented the residents you would not take a traffic survey when University and Mill Ave has major construction.
23. I have lived on the SW corner of 9th and Farmer for greater than 30 years. For many years, Farmer Ave. has been nick named "Farmer Freeway" because so many vehicles travel this street and many at fast rates of speed. In the last few years I have seen a severe increase in traffic on Farmer Ave and it is becoming increasingly dangerous. Cars have crashed into my block wall on 3 different occasions while taking the corner too fast and a few months ago a vehicle crashed into the fence across the street for the same reason. I have witnessed bicyclist get hit by cars and pedestrians having to jump out of the way. A very elderly man, Wayne, frequently walks the neighborhood and on more than one occasion, I feared he would be hit while crossing the street. The neighborhood has several locals who speed and squeal tires around the corner on a daily basis. Typically around 4 pm we experience an uptick in cut through traffic and everyone is in a hurry, honking horns, slamming on brakes, speeding around cars that are actually going the speed limit and at times, driving on the sidewalk and yards to get around other vehicles. It is like watching a game of chicken between the cars, bikes and pedestrians. Many of these drivers are texting while driving which adds to the danger. I used to feel comfortable doing yard work outside my block wall but for more than a year, I fear for my safety due to the traffic. Often I won't consider doing yard work outside my fence until Sunday morning when it is "safer" to be near the sidewalk and street. This needs to stop. Someone is going to get seriously hurt or killed. There are many parents who push strollers or ride bikes with young kids, several elderly who walk, many walking dogs, kids on skateboards with headphones on so they don't necessarily hear oncoming vehicles, lots of bicyclists, scooters, etc. The people vs cars is scary to watch. I personally have complained about this for several years, calling many departments within the city as well as the police department. So far, it all seems to have fallen on deaf ears...
24. Eliminate the weird curb bevels on Farmer with the art to allow for vehicle and bicycle traffic in both directions.
25. There should be more done to slow and reduce traffic on 13th street between Hardy and Roosevelt. It is one of the primary cut through points on work days and weekend nights (particularly during ASU events). I regularly see people driving in excess of 40 mph along this stretch of road and drifting into the bike lane---a significant portion of these drivers are police with their lights and sirens off.
26. I agree that this entire area needs further traffic calming, but am somewhat worried that the proposed changes will make it difficult for residents to move around by vehicle. Also, while certainly helping with the speeding problem, it seems that many of the barriers will just divert the traffic onto adjoining streets, thus pushing the problem into someone else's front yard. I would also like to see more measures in place for reducing/prohibiting ASU student parking in front of our residences. There are times when I can't even park in front of my own property because all curb space is already occupied by non-residents.
27. I am a careful driver, very cautious and slow. And I don't feel safe driving here for the last couple of months. It got much worse!
28. we should have permit parking, more chicanes in the neighborhood, need more Green Infrastructure/LID
29. I'm concerned the plan does not do enough for traffic at the intersection of 9th and Maple, especially 1.) the volume cutting through from eastbound on University to southbound Mills Ave in the evenings and 2.) all the

traffic generated by the lunchtime trade at the drive through at Chick Filet, and 3.) drivers leaving CVS and the Bank at 9th and Mill.

30. One of the biggest issues I see is when cars are going south on Ash cutting through from north of University which all residents know only cyclists can go south down Ash. More prominent roadblocks should be put in place to prevent through traffic to cut across that sometimes result in fatal accidents. Soft but permanent pylons could be a great solution but still force drivers going south to only go left or right. Please consider this to prevent any other collisions from happening.
31. I think with the addition of the median on University west of Mill ave making left hand turns from Maple to westbound University unavailable the cut through traffic will be diminished appreciably.
32. Are speed cameras a possibility? Hide them in bushes so the neighborhood beauty is not disturbed. Running though stop signs is also an issue. Especially at 10th and Ashe. Some sidewalks are right along the road, rather than 5 feet of grass between the road and sidewalk. With no buffer zone it feels unsafe walking dogs in these areas because of the speeding
33. Lack of tax income has crushed the city budget.
34. The round-about intersection of 9th and Ash is so confusing for drivers. Tires are always screeching, so many drivers almost getting in to accidents ALL THE TIME. And people still speed into the neighborhood after they get through the intersection, both on 9th and Ash.
35. **I'm sure I'll be annoyed if and when roads are blocked or diverted, but I'll adjust.**
36. I think the only really effective traffic calming is the dips (like on 10th at Maple and Ash, or the giant one on 13th east of Hardy) - Everything else is just another element to the obstacle course.
37. Thank you to the committee for their work on this project.
38. We need designated bike lanes and updated sidewalks down Farmer. There is considerable exposure to hazard from traffic. Also making room for trees which that street lacks in comparison to Wilson and Ash is important and can be used to mitigate traffic (median or parallel to bike path)
39. Rented on from Tim Wright on farmer for years. Hope to buy (not from Tim Wright) in the area soon. Traffic and Tim Wright are a bitch especially in the am and pm.
40. We have a 5 year old daughter and are moving from the neighborhood because our lease is up. Although the neighborhood is great, the traffic can be a nightmare and dangerous. We are looking for a place in a safer area.

Question 4: Do you support the plan to mitigate traffic in the area with testing? (216 responses)



Question 5: What questions or reservations do you have?

1. My concern is that it seems like this plan is simply created to keep people from driving through the neighborhood as the residents want to create a serene place to live. The fact of the matter is everyone in this neighborhood choose to live close to the campus. The campus did not come after the residents. Residents should keep some perspective.
2. Again, without fixing traffic flow on University Drive, people will always drive through. Sure, it may be at a slower pace but they will still drive through. The main issue is mitigating traffic flow on University. My guess is this street car addition will only make it worse.
3. The other issue, a bit outside of the noted area so please pass along, is the meridian that has been placed on University for street car. Cars traveling west on University can no longer turn left onto Maple (restaurants), so they make a u-turn at University and Ash. You can stand out there during lunch and see a constant stream of U-turns. This is highly dangerous as pedestrians are constantly using the cross walk. I have seen way too many near misses. There will be a pedestrian seriously injured or killed on this corner if you don't do something about it. "
4. no reservations
5. I am only concerned that it will be stuck behind bureaucratic red tape for years on end and will not get implemented quickly enough. Tempe has a chance to revitalize its neighborhoods and walkability, safety, and beauty, are crucial to this. This plan is a step in the right direction.
6. None. All of my concerns were answered decisively at the webinar presentation on 9/30. I am fully in support of the proposed measures.
7. Nice job on the study and the committee's involvement. Thank you for taking the time and effort to make our neighborhood safer. If the City of Tempe does not want to implement the recommended changes quickly, maybe some temporary four way stop signs at strategic intersections could be implemented to help solve the speeding and driver cut through motivation.
8. I wonder where the diverted traffic will flow. Will it create another overused corridor?
9. It was a lot to take in with all the designs.. I just haven't digested the information fully. I still think having removable restrictions and making every intersection have possible restrictions allow for non permanent solution.

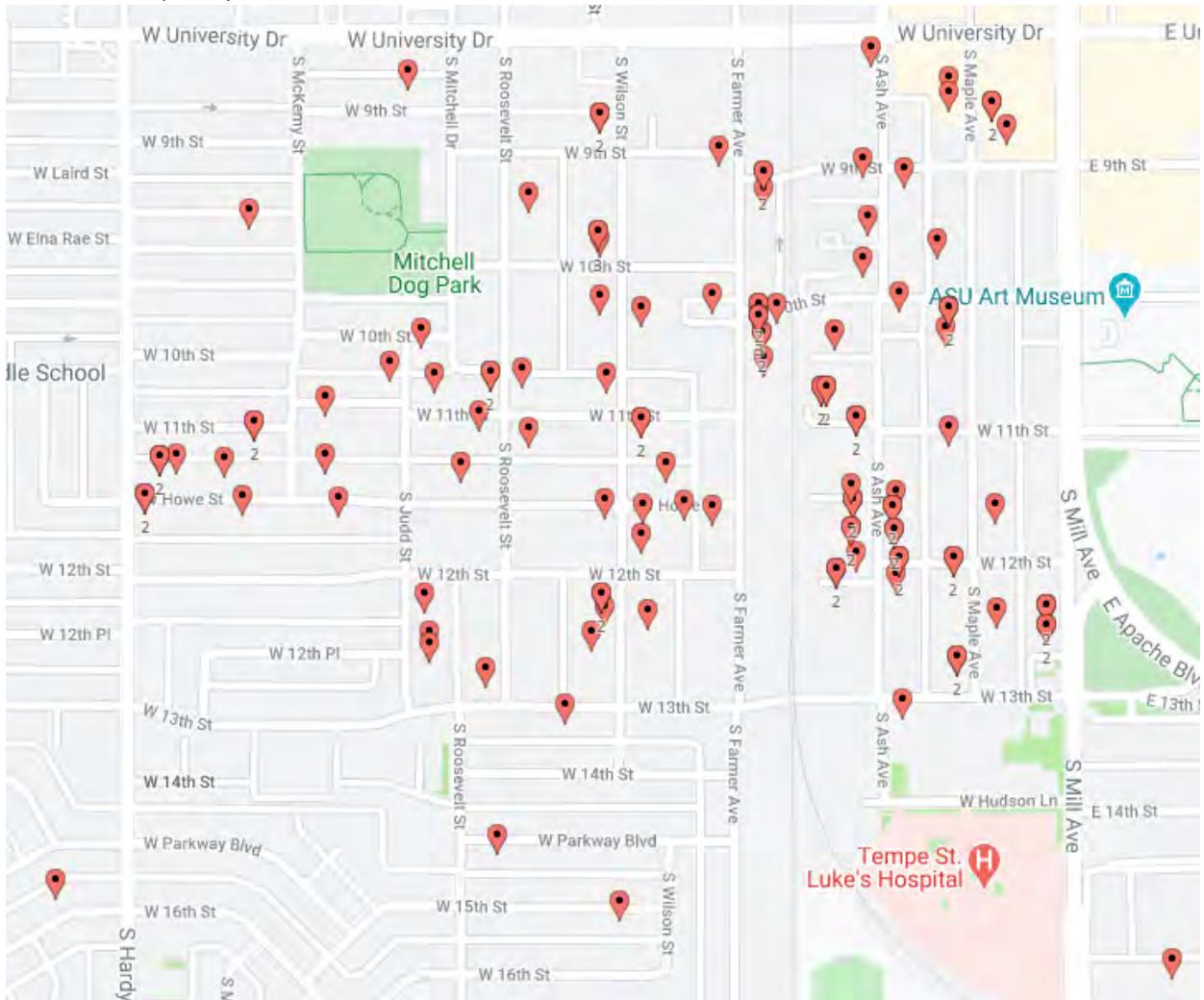
10. My only reservation/concern is that alot of time and money went into this and if a vocal minority can stop this then it will be for naught. The College Ave Street Calming was ambitious and got dumbed down to be ineffective in terms of cut thru and speed. The street looks nicer but the traffic calming part did not really happen, in my opinion. I don't want people to start taking one item or another out as it's a system and if you take one item out then it will fall apart.
11. We live on 12th/Wilson and work on Mill/5th. If I'm driving to/from will the mitigation make me take multiple streets just to get to work?
12. How would testing add to the knowledge already attained?
13. I think that the engineering firm picked by our neighborhood did a great job. Why doesn't city of tempe do a better job? I looked up what the annual salary of these folks are and they make way too much money annually for the poor output that has been done in respects to traffic mitigation in our neighborhood.
14. I would like for speed cameras and warning signs to be installed. There is no legitimate reason for pulling 40mph in a residential neighborhood, and those who do must be punished.
15. what other problems this might cause ie were traffic may shift to
16. How long is the "Testing" period?
17. How may we give feedback?
18. How responsive will the City be to feedback?
19. The map on the presentation was slightly confusing... The road closure on McKemy between Laird and 9th was called out and is clear. There were other road close symbols in Mitchell Park including one on 10th and Mitchell. Are those also part of the proposed changes? I am OK either way but just curious given I live on 10th and Mitchell.
20. How long will they test the plan and will residents be able to give feedback again once the test period is done?
21. When will this get done?
22. The street closures concern me because the people who live in the neighborhood no longer will have a direct route in and out of the neighborhood and will create more traffic in other areas of the neighborhood.
23. I want to make sure it doesn't hinder our local businesses, like Casey Moore's, Coffee Cartel, etc. Businesses on the South side of University.
24. Your proposed changes are a waste of money and the simple solution is right in front of you. You folks caused the problem and have a free solution. Remove your silly permit parking signs and you have narrow streets again discourage cut thru traffic and speeding.
25. I think their is an easier solution to the problems we are facing, but instead we are throwing money at the wall hoping it sticks. Mitigating/slowing the flow of traffic/speeding can be solved in other ways than the proposed.
26. Proposed plan not safe for pedestrians.
27. The prospect of a RIGHT OR LEFT TURN only @ 9th St. & Ash I feel would make it MORE difficult to get home as I live North of 9th ON Ash.
28. I think we need to carefully maintain the areas of Tempe, but am concerned with to much intervention.

29. I'm concerned that businesses haven't been a part of the conversation until this point. These are all small local businesses that are part of the community too. I would like to see alternative solutions that will help the entire community - residents & businesses.
30. I don't feel making MANDATORY RIGHT or LEFT TURNS will slow traffic, or alleviate any EXTRA TRAFFIC we are currently experiencing. I do however feel, once the construction is finished with the new high-rises and local trolley, we will experience an extreme drop in neighborhood traffic. Due to all the closures on Mill and east of mill on University and Main Street or Apache, people are looking for quicker ways and using our neighborhood to get to their desired location.
31. My reasons are in comments above. I'm not sure the measures to prevent cut through traffic on Ash Ave are strong enough given the way drivers now ignore traffic regulations.
32. I'm somewhat concerned that leaving the neighborhood to head westbound on University will be pretty difficult with the new plan.
33. The plan would also make it more difficult to navigate the neighborhood for people who actually live there.
34. Diversions may cause unfamiliar drivers participating in cut through traffic to frustration speed. I prefer a solution that moves traffic around the outskirts of the neighborhood faster.
35. Already stated in the above section.
36. As I wrote above, I wonder whether the plan goes far enough in ensuring the safety of bicycle riders, pedestrians, children, and people with reduced mobility.
37. I would love for the stretch of Maple between University and 9th to be considered as an area where traffic needs to be more properly mitigated. Our street is treated like an overflow parking lot for Chic-Fi-La, Blaze and First Watch, since the city decided permits for parking lots that can't handle their actual dining capacity was appropriate, this is despite the street being a 24 hour permit parking only zone. When we call to have Parking come, we are met with annoyance and resistance which is frustrating since this is some neighbors only place to park their vehicles. On any given day you can also attempt to drive down Maple but there will likely be a line for Chic-Fi-La blocking parking on the street and creating a hazard in general as those who are trying to get around the line are often aggressive and careless. In addition to the restaurants, we have construction workers in their personal and work vehicles who also treat our street like it is their own personal parking lot, bathroom and break area. We hope to see this decrease as the street car becomes finished but it has been a nightmare dealing with people defecating and leaving their trash in our yards, all while blocking parking for actual residents. All of this to say I think the city has handled the enforcement of the neighborhood permit zones poorly, before COVID, why give the residents of this street the satisfaction of a sign that states '24 hour permit parking only' and then when we call to have it enforced we are left feeling as we are the burden. We understand Parking is down because of COVID but that does not give the city an opportunity to ignore our immediate concerns, especially since all it does to benefit us is to give us a place to park where the benefit to the city is actual revenue.
38. Speeding is a major issue on our street now as well since there is no longer a left hand turn allowed off of Maple onto University and similar from University to Maple. This has caused a considerable increase of cars speeding onto our street now because of frustration, making it unsafe for pedestrians, cyclists and the residents on the street. I think it could be beneficial to install a speed bump in the middle of Maple, between University and 9th, similar to the speed bumps on every other street in the Maple-Ash neighborhood, to promote safe speeds and to protect the neighbors from being casualties of reckless driving.

39. The street closure on McKemy near Mitchell park seems like it would cause more cut-through traffic as people who want to park on McKemy to use Mitchell Park would be blocked from parking near the volleyball and soccer fields. This would put more traffic on 9th Street.
40. I have no reservations.
41. On a scale of 1 to 10, 10 being extremely concerned, I'm a 10 about the above situation at 9th and Maple.
42. **I'd like it to be trapped on my street. Eliminate one of the closures on either Wilson or Farmer. You've trapped those on the 400 block of Howe St.**
43. What is the plan to prevent and control traffic in the alleys?
44. Again, Judd street And 12th needs more attention simply due to the fact that several kids live at this **intersection. I know you all handled the quantity of cars issues, but I'd appreciate attention to the specific** residents of the areas. We are asking for maybe 2 speed humps and some signage. We feel that would adequately slow people down.
45. Additionally, can we please consider getting some ADA sidewalks? I, as well as many of the parents I know/ have seen choose to walk in the road, or have to go into the road in order to cross the street since the curbs are vertical and difficult to maneuver with strollers.
46. Will the mitigations reduce cut through traffic and speeding, or will they just change the flow of those things?
47. I live on Maple and although there is far too much traffic as is, I think the changes at University will cause cut through traffic without the need for a road closure at 10th and Maple.
48. Will the City reconsider the timing options of traffic lights (e.g. putting a left-turn arrow for westbound (eastbound) traffic on University Av turning south (north). Customers entering the University Square Center or Casey Moore's could use that help.
49. Please build asap 🙏👉
50. Specifically my reservations are to the road closures and dividers that prohibit neighbors from easily getting to and from their own homes.
51. We are a business that has observed local traffic. There are many factors that have created the high traffic increase, from continuous construction; construction workers parking in the neighborhoods, continuous street closers rerouting outside traffic to low enforcement being present to ticket those vehicles crossing south or north on University Dr. and Ash Ave.
52. I would like to see a couple speed humps installed on Judd between 13th and 12th streets, unless it can be demonstrated that the closures and diverters will be conspicuously signed to warn people that speeding off of 13th street headed north will be an exercise in futility.
53. I don't believe that the study took into account that people will use the alley ways to travel to avoid the proposed traffic mitigation. Believing that the police will deter people and that people will just follow the laws is not based on what will really happen.
54. I live in Mitchell Park, and I drive to CVS/Cartel frequently (and slowly). This is because making lefts onto University, especially with the train, feels hazardous. I worry road closures would interrupt my route.
55. Once the testing is completed, and if the mitigation plan moves forward, is there any type of financial impact to be expected on the current residents to fund implementation of the plans? I read through the powerpoint slides, but did not have a chance to watch the recording, so I apologize if this was addressed in the recording. Thank you.

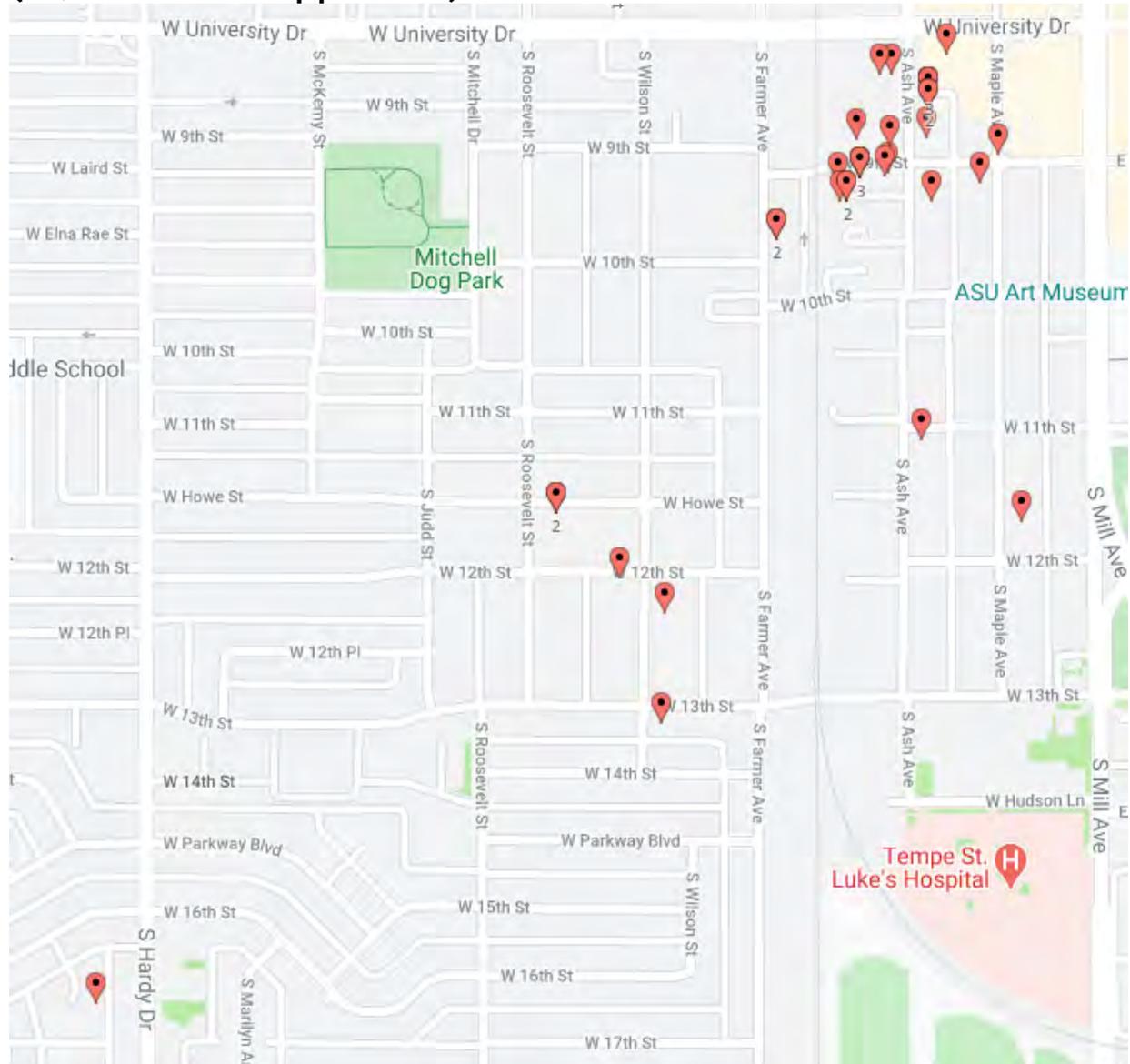
56. I feel that it would have been great to include the Clark Park neighborhood in the design. Please see if you can look at Roosevelt between Broadway and 13thSt.
57. I'm unclear how the road closures will function on 10th -- at 10th/Farmer and 10th/Maple.
58. If I'm reading the map correctly, traveling north and west (to Phoenix) or accessing the businesses along University to the west of Mill, will require going east to Mill or south to 13th and around. This is indirect and will take getting used to. Are there any projections regarding how traffic may be slowed down on Mill once the light rail is operational? If traffic is heavy on Mill, does this effectively limit residents on S Ash to one way out of the neighborhood (going south on Ash to 13th)?
59. Understand that there are some business owners that have expressed concerns about the impact of the proposed mitigation. They are already trying to keep afloat with the challenges that COVID-19 has brought. Let's see if there are compromises that can be made between residents and businesses of the neighborhood.
60. How can Farmer be made green again?
61. Put diverters and closures on Farmer and Roosevelt, but drop the rest of the plan.

Map of respondents answering they support traffic mitigation plan or that support it with questions or reservations that provided an address (124)



Map of respondents answering they are not in support that provided an address

(36; total not in support =56)



Appendix 1

Social Media Posts (Facebook)

2019

January 25, 2019 – Mitchell Park Neighborhood (Discussion of the 2019 Maryanne Corder Grant)

January 21, 2019 – Mitchell Park Neighborhood (Discussion of the 2019 Maryanne Corder Grant)

October 30, 2019 — Maple Ash

November 4, 2019 – Mitchell Park Neighborhood

November 4, 2019 – Maple Ash Farmer Wilson (MAFW)

November 4, 2019 – UnModded

November 4, 2019 – NW Tempe Neighborhoods

November 4, 2019 – NW Tempe Neighborhoods

November 4, 2019 — Wilson Art & Garden Neighborhood Association (WAG)

November 11, 2019 — WAG

November 11, 2019 – MAFW

November 15, 2019 — WAG

November 17, 2019 — WAG

November 18, 2019 — Maple Ash Neighborhood

November 22, 2019 — WAG

November 23, 2019 — WAG

November 22, 2019 – Mitchell Park Neighborhood

2020

February 12, 2020 — WAG

February 29, 2020 — WAG

September 27, 2020 – Mitchell Park Neighborhood

September 30, 2020 – Mitchell Park Neighborhood

October 12, 2020 — Maple Ash Neighborhood

October 16, 2020 – MAFW

October 19, 2020 — Maple Ash Neighborhood (boosted)

October 24, 2020 — Maple Ash Neighborhood

October 25, 2020 – Mitchell Park Neighborhood

October 28, 2019 — Maple Ash Neighborhood (story)

November 15, 2020 – Mitchell Park Neighborhood

November 15, 2020 — Maple Ash Neighborhood

November 22, 2020 – Mitchell Park Neighborhood

November 23, 2020 - WAG

November 25th, 2020 – Mitchell Park Neighborhood

Social Media Post (NextDoor)

November 25, 2020 — Wilson Art & Garden Neighborhood Association

Maple Ash Email Blasts:

2019

November 7, 2019

November 18, 2019

November 22, 2019

2020

September 29, 2020

October 9, 2020

October 11, 2020

October 15, 2020

October 30, 2020

November 9, 2020

November 23, 2020

Mitchell Park Email Blasts:

2019

January 21, 2020

November 4, 2020

November 11, 2020

November 22, 2020

2020

January 17, 2020 (Mitchell Park General Meeting, Traffic Grant was mentioned)

February 21, 2020

September 30, 2020

October 25, 2020

November 15, 2020

November 22, 2020

November 25, 2020

Wilson Art & Garden Neighborhood Association Email Blasts

March 2, 2020

March 12, 2020

April 18, 2020

September 26, 2020

September 29, 2020

October 6, 2020

October 9, 2020

November 23, 2020

November 25, 2020

Zoom meetings

October 3, 2020

October 4, 2020

October 9, 2020

October 11, 2020

October 14, 2020

October 15, 2020

October 18, 2020

November 1, 2020

Other Communications 2019

October: **Traffic** Mitigation Flyer with dates for public meeting and website for information given out at GAIN 2019

October: Contact Information for Neighborhood Representatives from Steering Committee posted on **Traffic** Mitigation Website

Other Communications 2020

October: fliers in Halloween bags

November:

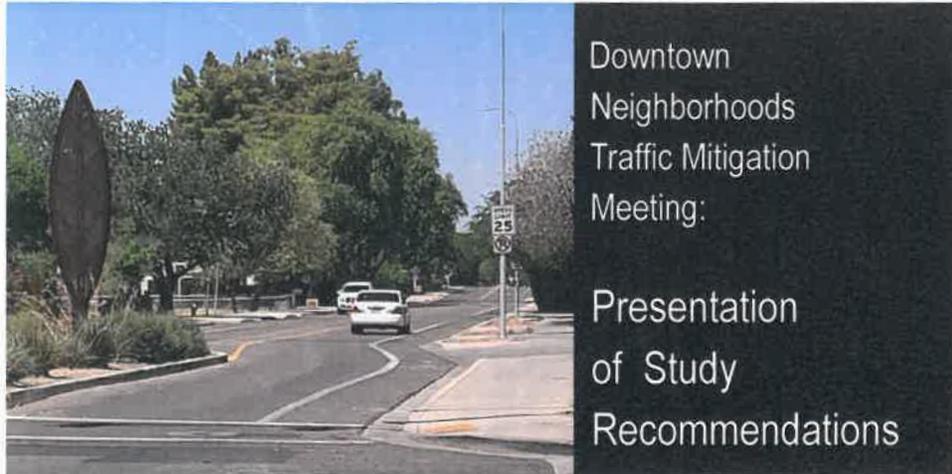
- Distributed flyers throughout all three neighborhoods with QR scans for **Traffic** Mitigation Plan and Survey Website
- Yard signs throughout all three neighborhoods with QR scans for **Traffic** Mitigation Plan and Survey Website

Maple Ash Neighborhood Association meetings (no postcard)

October 16, 2019

November 10, 2019

December 1, 2019



Come tell us what you think! Join us for a VIRTUAL meeting on
Wed, Sept. 30, 2020 at 6 p.m.

For meeting link: <https://tinyurl.com/TrafficMitigation>

So what's this about? We have been engaged in a neighborhood traffic study for well over a year with the goal of *reducing cut through traffic and making our streets safer for all users*, especially bikes and pedestrians. With a grant from the City of Tempe, we hired a consultant to collect data and prepare a comprehensive plan with specific strategies.

In this meeting we will present the plan, answer your questions, and get your feedback.

Go to <https://tinyurl.com/TrafficMitigation> for the meeting link, more information and to provide feedback after the meeting.

Once the survey closes our consultant will compile the results and comments into a final report that will be forwarded to the City for their consideration. Your voice is important.

Still have questions? Leave a message on the website (above in bold) and your neighborhood rep will call or email you. We're happy to discuss!

The Downtown Traffic Steering Committee represents neighbors living in the area bordered by University Dr, Mill Ave, 3th St, and Hardy Dr.

Can't get online or want a hard copy of the presentation, plan, and survey mailed to you? Call Laura at 480-350-2840 and we will get you the information.



UPDATE: Neighborhood Traffic Mitigation Grant

Neighbors:

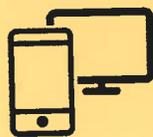
We would like to bring you up to date on the progress that has been made in developing a traffic mitigation plan for our three neighborhoods (Maple Ash, Wilson Arts & Garden, and Mitchell Park). As you may remember, the three neighborhood associations came together last year to apply for a grant from the City of Tempe that funded a consultant to collect traffic data and draft a plan to help with cut through traffic and speeding. Two representatives from each of the neighborhoods have been meeting twice a month since August 2019 to guide the process and provide input to the consultants. Two neighborhood meetings and an online survey were conducted in November 2019 to gather your input on this plan.

A draft plan was completed just as the COVID 19 crisis hit and the meetings planned for this month have been shelved for now. It is our intent to bring this plan to all of you as soon as the restrictions on meetings are lifted. Please keep an eye out for future meetings where we'll present and discuss the draft plan and gather your input before finalizing the plan.

In the meantime, the three neighborhoods have come together again this year to apply for another grant for a speed table and speeds cushions to slow traffic on 13th Street from Mill Ave. to Farmer Ave. These recommendations are consistent with the findings and recommendations of the traffic study which included data regarding speeding and crash concerns. The application is being finalized and will be submitted prior to the May 11 deadline.

If you have questions about the traffic mitigation study or input re the grant application for 13th St. traffic calming, please contact one of us – we're happy to discuss. Contact us through the website:

<https://tinyurl.com/TrafficMitigation>



Please stay safe and stay tuned,

Christine Kimball & Karyn Gittis, Maple Ash N.A.
Linda Knutson & Joe Livingston, Wilson Art & Garden N.A.
Justin Stewart & Heather Throop, Mitchell Park, N.A.

We need your help! The Maple Ash, Wilson Art & Garden, and Mitchell Park Neighborhood Associations are working together to develop a plan to deal with traffic issues in our neighborhood. Reps from our three neighborhoods applied for and received a grant from Neighborhood Services to work with a consultant to come up with specific strategies. Work has begun to do traffic counts, analyze data, and meet with neighborhood reps and city staff.

We need you to tell us about what you see on the streets...where are conflicts? What works? What doesn't? Go to <https://tinyurl.com/TrafficMitigation> and provide your two cents (scroll to bottom for survey, etc.)

Then go to your **calendar** and reserve these dates:

Neighborhood Design Workshop | Mon, Nov. 18, 2019 | 6 - 8 pm

Neighborhood Design Workshop | Sat, Nov. 23, 2019 | 9 - 11 am

Location for both: The Graduate Hotel, 225 E. Apache

(same info and activities at each meeting -choose one)

Questions? Check out the website above for a list of your neighbors that are working to make changes for our neighborhood. Or call Laura in Neighborhood Services: 480.350.2840; laura_kajfez@tempe.gov.

Neighbors: We need to hear from you!

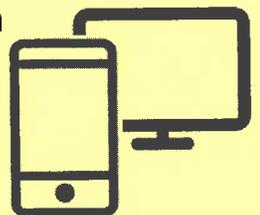
Our neighborhood has engaged in a planning process that is proposing changes as to how traffic flows on our neighborhood streets. See the results and weigh in!

Your voice matters. View the presentation and fill out a quick online survey at

www.tinyurl.com/TrafficMitigation

The deadline to respond has been extended to Wed, Nov. 25, 2020.

Thanks!
Your reps on the Neighborhood Steering Committee



Questions? Can't get online and want a paper copy?

Call Laura: 480-350-2840

2019



Maple Ash Neighborhood Association

Maple Ash Neighborhood Association Meeting

Sunday, Feb. 10 | 5:00 p.m.

Casey Moore's
9th St. & Ash Ave.
upstairs dining room

Join neighbors to discuss the next neighborhood grant.

Participate in a traffic calming map activity

And more!

Info: karyn.gitlis@gmail.com

2019



Mitchell Park West Neighborhood Association MEETING

Saturday, Jan. 26 - 10 a.m.
Mitchell Park

TOPICS

1. Status of Maryanne Corder grant 2018 project
2. 2019 Maryanne Corder Grant ideas
3. Update from Police Officer and City officials about the neighborhood (pending)
4. Neighbors' input and/or concerns
5. Nomination and voting for next year's board

Get involved with your neighborhood! Business owners, home owners, and renters are all part of our community and urged to attend.

Interested in making a difference? Become a board member and help us next year. Please email mitchellparkwest@gmail.com for any questions or concerns, or how you can help.

2019



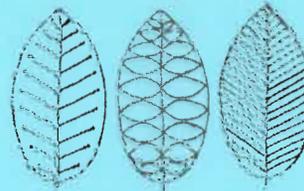
Mitchell Park Neighborhood Association MEETING

Thursday, March 7
6:30 p.m.
612 W. Howe St.

Final vote and input for the 2019 Maryanne Corder Grant. Current grant idea includes a joint traffic study grant with Maple-Ash NA and Wilson Arts & Garden NA

If you would like to submit ideas, or cannot make it to the meeting and have input, please email: mitchellparkwest@gmail.com

2019



Wilson Art & Garden District Neighborhood Association General Meeting

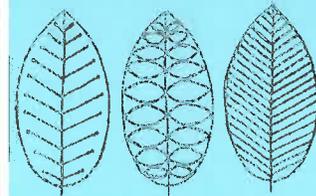
Saturday, February 23 | 10 am
Ellertson Community Garden
1013 S. Wilson Street

Agenda

- Standpipe (Wilson & 9th St) Update
- Traffic calming concerns
- Vote on 2019 Maryanne Corder Grant proposal: neighborhood traffic study in conjunction with Maple Ash and Mitchell Park Neighborhood Associations (for 2020 implementation)

Questions?
bonniegerepka@gmail.com

2020



Wilson Art & Garden District Neighborhood Association Meeting

Sunday, March 1 | 10 a.m.
Ellertson Community Garden
10th St. & Wilson St.

Agenda

1. 2019 MaryAnne Corder Grant update (Traffic Mitigation Study)
2. Community Garden update
3. Election of N.A. Board
4. Discuss proposals for 2020 Maryanne Corder Grant application



Mitchell Park Neighborhood Association MEETING

Sunday, Feb. 2, 2020 | 10 a.m.
Mitchell Park - west ramada

Business owners, home owners, and renters are all part of our community and urged to attend. Coffee and donuts will be provided.

TOPICS

1. Status of Maryanne Corder grant 2019 project
2. 2020 Maryanne Corder Grant ideas
3. Update from Police Officer and City officials about the neighborhood (pending)
4. Neighbors' input and/or concerns
5. Nomination and voting for next year's board

Mitchell Park is looking for some new board members this year! Get involved with your neighborhood! Interested in making a difference? Please email mitchellparkwest@gmail.com for any questions or concerns, or how you can help.

2020



GAIN BY GIVING

Collection week: Oct. 10 - 17

Due to the current health crisis we will not be having our yearly potluck for Getting Arizona Involved In Neighborhoods (GAIN). Instead we will be collecting non-perishable food items to donate to Tempe Community Action Agency. Items can be placed throughout the week of Oct. 10-17 in "no contact " drop-boxes on the porches of the following homes:

- 917 S. Roosevelt Street
- 427 W. 11th Street
- 1005 S. Farmer Avenue

ALSO, If you were unable to attend any of the public meetings regarding the proposed traffic mitigation plan please visit www.tinyurl.com/TrafficMitigation to view it and share your thoughts on the accompanying survey by October 31, 2020. Your input is important!

THANK YOU!

2020



GAIN by giving!

Drop off items Oct. 10-17

Due to the current health crisis Mitchell Park with Wilson Arts and Garden District will not be having our yearly potluck for Getting Arizona Involved In Neighborhoods (GAIN). Instead we will be collecting non-perishable food items to donate to Tempe Community Action Agency. Items can be placed throughout the week of Oct. 10-17 in "no contact " drop-boxes on the porches of the following homes:

- 814 W. Howe Street
- 612 W. Howe Street

ALSO, If you were unable to attend any of the public meetings regarding the proposed traffic mitigation plan please visit www.tinyurl.com/TrafficMitigation to view it and share your thoughts on the accompanying survey by October 31, 2020. If you are unable to go online call Laura at 480-350-2840 to get a hard copy of the materials. Your input is important!
THANK YOU!

Traffic Mitigation Survey: Downtown Neighborhoods, Fall 2020



Our neighborhoods have been engaged in a neighborhood traffic study for well over a year with the goal of reducing cut through traffic and making our streets safer for all users, especially bikes and pedestrians. With a grant from the City of Tempe, we hired a consultant to collect data and prepare a comprehensive plan with specific strategies to mitigate these concerns.

Please take a moment to share your thoughts about the plan that has been developed.

1. What neighborhood do you live in?

- Maple Ash (Mill to Ash, University Dr. to 13th St.)
- Wilson Art & Garden (University to 13th St, Farmer to East side of Roosevelt)
- Mitchell Park (University to 13th St., West side of Roosevelt to Hardy)
- Clark Park (13th St. to Broadway, Farmer to Roosevelt)
- Other _____

2. Please rate each of these concerns on a scale of 1 to 5 with 1 being least critical of a concern and 5 being a very critical concern.

	1	2	3	4	5
Cut through traffic					
Speeding in the neighborhood					
Safety for bikes and pedestrians					

3. Please share any thoughts, comments, ideas you have regarding the proposed plan to mitigate traffic in the project area. (Mill Ave, 13th St, Hardy Dr, University Dr.)

4. Do you support the plan to mitigate traffic in the project area with testing?

- Yes
- Yes, for the most part, but still have questions or reservations
- Not sure / don't know**
- No

OVER PLEASE ⇒

5. If you answered that you still have questions or reservations, what are they specifically?

The following are not mandatory, but will help us with follow through. Please provide us with the information you are comfortable with sharing.

Name: _____

Address: _____

Email: _____

Thank you for taking the time to share your thoughts! Once the survey is closed, the results will be compiled and published on the website: <https://tinyurl.com/TrafficMitigation>

The Downtown Traffic Mitigation Study Steering Committee

Karyn Gitlis, Maple Ash

Christine Kimball, Maple Ash

Justin Stewart, Mitchell Park

Heather Throop, Mitchell Park

Linda Knutson, Wilson Art & Garden

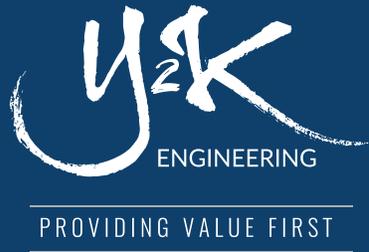
Joe Livingston, Wilson Art & Garden

Once completed you may either:

mail to: Laura_Kajfez, Neighborhood Services Office, 21 E. 6th Street, Tempe, AZ 85281

Or scan and email to laura_kajfez@tempe.gov

Or drop it off in with your neighborhood representative.



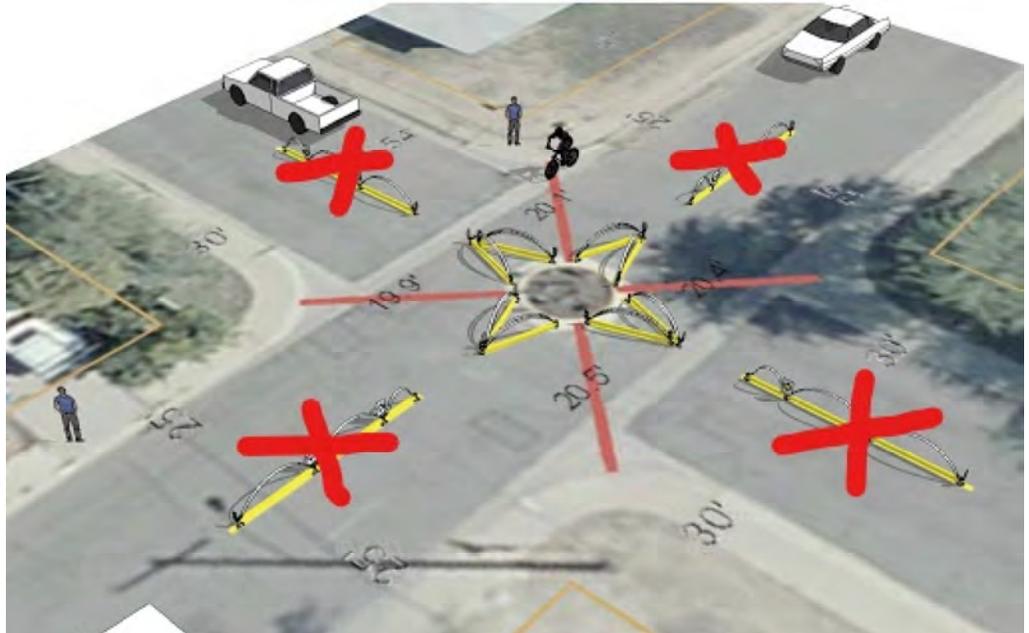
APPENDIX H:

CITY OF TEMPE STAFF COMMENTS

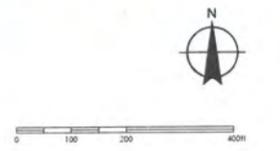
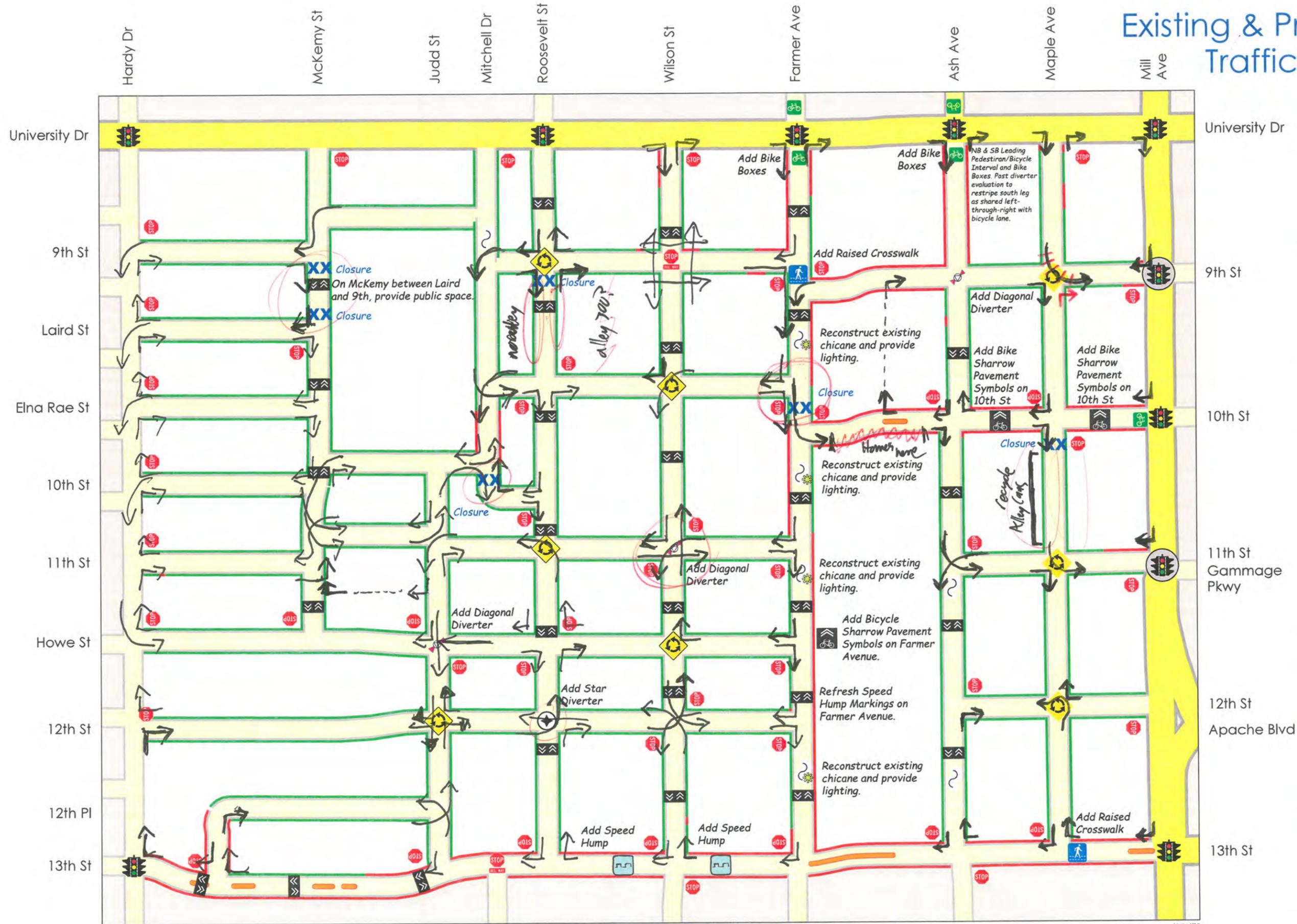
City staff submitted the Neighborhood Traffic Mitigation Plan draft map through the City's site plan review process in Spring 2020. In the interdepartmental review, three departments expressed specific comments about the proposed plan.

- Solid Waste
 - See included maps depicting potential issues and solutions for continued service to the neighborhood.
- Municipal Utilities
 - Water utility access must be maintained to existing waterline located on the west side of McKemy St. and to the alley between Lair and 9th St.
- Fire
 - Fire Department staff requested engineering design drawings of the proposed devices to provide specific comments. Staff informed the Fire Department that engineering design is not part of the scope of work of the neighborhood plan. A follow up meeting was held with Y2K Engineering and the Fire Department to determine what issues or concerns there could be with the proposed devices. The result of that discussion was a solution for the proposed closures and diverters that would allow large municipal vehicles to navigate through the closures and diverters while not allowing smaller vehicles to navigate through. Y2K's proposed concept designs for the closures and diverters include curb cuts spaced to allow fire trucks to navigate through the devices. Additionally, the Fire Department staff expressed concerns about the curbs extending outwards from the star diverter concept and asked if those curbs could be removed to allow for a fire truck to complete the turn.
 - All designs would need to be shown visually with all dimensions on the traffic calming devices before the Fire Department Administration can make an official decision.
 - Reference the City of Tempe Fire and Refuse Vehicle Maneuvering Diagrams.
 - Ambulance dimensions: The width of the wheels is 5'6"; between the tires is 5'1"; the clearance is about 12"; and total wheel base is 13.7 front to back.
 - Fire Truck dimensions: The dimensions of the City's fire trucks were not provided at the time of this report. Those dimensions will be considered in the final engineering design of the devices.

Vanessa Spartan, AICP
Engineering & Transportation Department | Transportation Planning
480.350.2897 | Vanessa_Spartan@tempe.gov



Existing & Proposed Traffic Control



- Proposed**
- Bike Box Pavement Marking
 - Bike Sharrow Pavement Marking Symbols (both directions, every 100 feet)
 - Lighting
 - Raised Crosswalk
 - Speed Hump
 - Diagonal Diverter
 - Star Diverter
 - Closure

- Existing**
- Traffic Signal
 - Traffic Signal (Future)
 - R1-1: Stop
 - R1-4: Stop (All Way)
 - Traffic Circle
 - Speed Hump
 - Chicane
 - Median
 - Parking
 - No Parking

Alternative A



Neighborhood Traffic Mitigation Plan

Countermeasure	Location	Group	City of Tempe Comments
1 Speed Hump	On 13th Street between Roosevelt Street & Wilson Street	A	
2 Speed Hump	On 13th Street between Wilson Street & Farmer Avenue	A	
3 Raised Crosswalk	On 13th Street, just east of Maple Avenue	A	
4 Two Bike Box Pavement Markings ¹	On Ash Avenue at University Drive	B	
5 Bike Sharrow Symbol Pavement Markings	On 10th Street between Ash Avenue & Mill Avenue	B	
6 Two Bike Box Pavement Markings	On Farmer Avenue at University Drive	C	
7 Bike Sharrow Symbol Pavement Markings	On Farmer Avenue	C	
8 Refresh and Realign Speed Hump Markings	On Farmer Avenue	C	
9 Raised Crosswalk	On Farmer Avenue, just north of 9th Street	C	
10 Lighting at Chicanes (One side of street)	On Farmer Avenue	C	
11 Reconstruction of Chicanes with Landscaping	On Farmer Avenue	C	
12 Street Closure	On Maple Avenue, south of 10th Street	D	would have to convert 10th - 11th street to alley recycle
13 Diagonal Diverter (SW to NE)	At Ash Avenue/9th Street Intersection	E	Difficult to route around but manageable
14 Diagonal Diverter (SW to NE)	At Wilson Street/11th Street Intersection	E	would cause rerouting, but manageable
15 Star Diverter	At Roosevelt Street/12th Street Intersection	E	would cause rerouting, but manageable
16 Diagonal Diverter (SW to NE)	At Judd Street/Howe Street	E	would cause rerouting, but manageable
17 Street Closure	On Roosevelt Street, south of 9th Street	F	No way to pick up west side of Roosevelt, south of closure
18 Street Closure	On Mitchell Drive at 10th Street	G	May cause pickup issues at 3 homes in loop; going thru west alley
19 Street Closure ²	On Farmer Avenue at 10th Street	H	Manageable but would cause extensive rerouting and a significant distance added.
20 Street Closure/Neighborhood Public Space	On McKemy Street between 9th Street & Laird Street	I	would cause a recycle rerouting and trash alley closure.

east side could be alley recycle. 3009. existing cans

1. Refer to the Technical Memorandum prepared by Y2K Engineering for the Ash Avenue/University Drive intersection for traffic signal operation recommendations to be implemented with the Streetcar project.

2. The street closure on Farmer Avenue at 10th Street should not occur until other diverters and closures are funded and implemented.

TRASH

Neighborhood Traffic Mitigation Plan

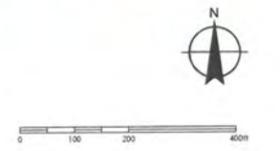
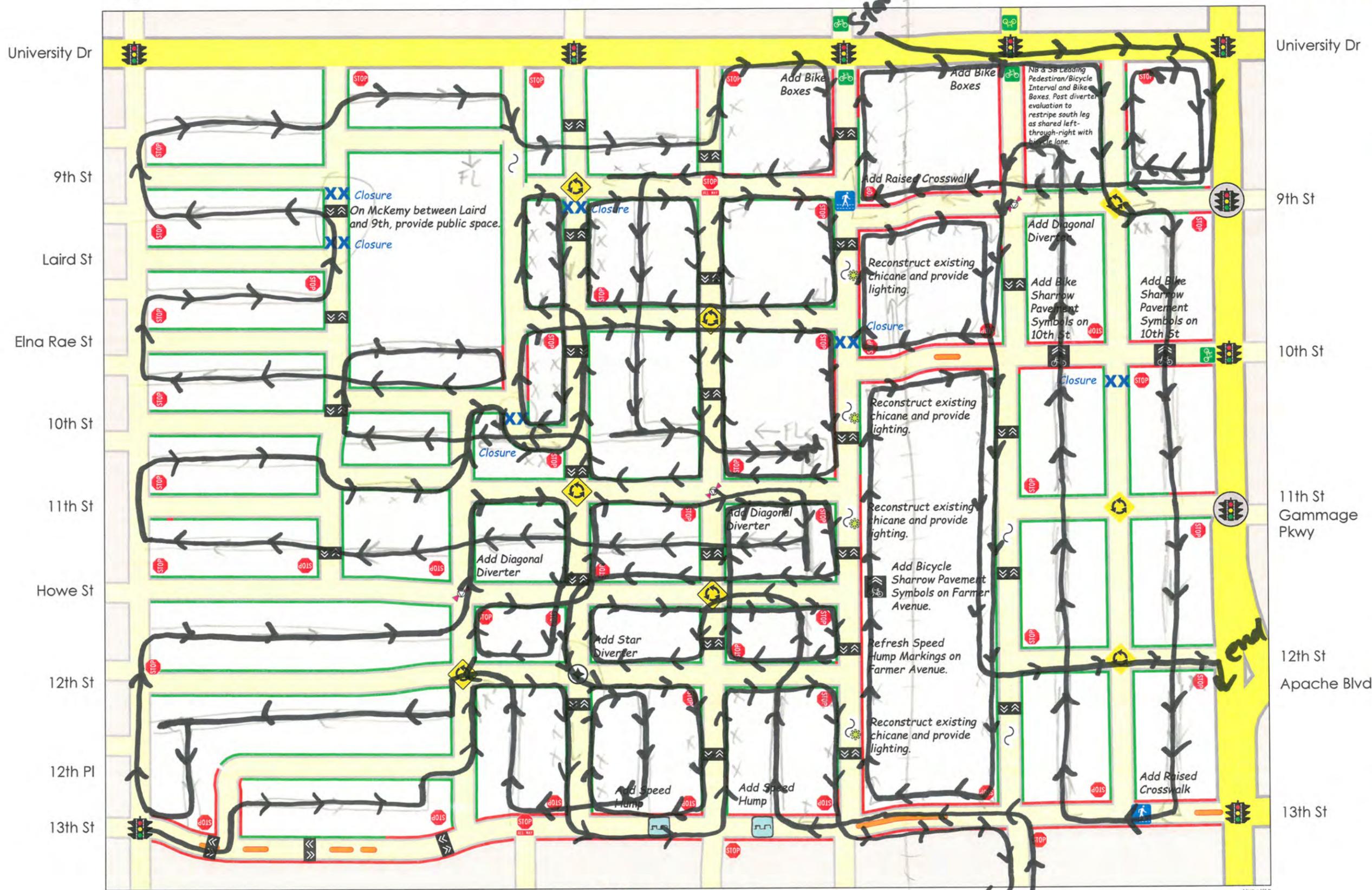
Countermeasure	Location	Group	City of Tempe Comments
1 Speed Hump	On 13th Street between Roosevelt Street & Wilson Street	A	N/A
2 Speed Hump	On 13th Street between Wilson Street & Farmer Avenue	A	N/A
3 Raised Crosswalk	On 13th Street, just east of Maple Avenue	A	N/A
4 Two Bike Box Pavement Markings ¹	On Ash Avenue at University Drive	B	N/A
5 Bike Sharrow Symbol Pavement Markings	On 10th Street between Ash Avenue & Mill Avenue	B	N/A
6 Two Bike Box Pavement Markings	On Farmer Avenue at University Drive	C	N/A
7 Bike Sharrow Symbol Pavement Markings	On Farmer Avenue	C	N/A
8 Refresh and Realign Speed Hump Markings	On Farmer Avenue	C	N/A
9 Raised Crosswalk	On Farmer Avenue, just north of 9th Street	C	N/A
10 Lighting at Chicanes (One side of street)	On Farmer Avenue	C	N/A
11 Reconstruction of Chicanes with Landscaping	On Farmer Avenue	C	N/A
12 Street Closure	On Maple Avenue, south of 10th Street	D	trash is all alley right here
13 Diagonal Diverter (SW to NE)	At Ash Avenue/9th Street Intersection	E	would have to re-route 10th/11th
14 Diagonal Diverter (SW to NE)	At Wilson Street/11th Street Intersection	E	would have to re-route
15 Star Diverter	At Roosevelt Street/12th Street Intersection	E	would have to re-route, also turning radius issues
16 Diagonal Diverter (SW to NE)	At Judd Street/Howe Street	E	would have to re-route
17 Street Closure	On Roosevelt Street, south of 9th Street	F	curbside trash pick-up on both sides
18 Street Closure	On Mitchell Drive at 10th Street	G	curbside trash pick-up on both sides
19 Street Closure ²	On Farmer Avenue at 10th Street	H	may not affect trash only
20 Street Closure/Neighborhood Public Space	On McKemy Street between 9th Street & Laird Street	I	NO - we enter the alley here

1. Refer to the Technical Memorandum prepared by Y2K Engineering for the Ash Avenue/University Drive intersection for traffic signal operation recommendations to be implemented with the Streetcar project.

2. The street closure on Farmer Avenue at 10th Street should not occur until other diverters and closures are funded and implemented.

diverters ~~will~~ add miles and time by re-sequencing

Existing & Proposed Traffic Control



Proposed

- Bike Box Pavement Marking
- Bike Sharrow Pavement Marking Symbols (both directions, every 100 feet)
- Lighting
- Raised Crosswalk
- Speed Hump
- Diagonal Diverter
- Star Diverter
- Closure

Existing

- Traffic Signal
- Traffic Signal (Future)
- R1-1: Stop
- R1-4: Stop (All Way)
- Traffic Circle
- Speed Hump
- Chicane
- Median
- Parking
- No Parking

Alternative A

