

CHAPTER 5 - CIRCULATION

As the City of Chandler plans and redevelops South Arizona Avenue, careful attention will be needed to balance current resident and business needs, mobility, circulation, parking, economic vitality, land use, and pedestrian needs. To better facilitate new development and revitalization, the following transportation improvements will be needed along South Arizona Avenue.

The main factors driving the circulation plan are:

- Creating developable sites
- Preserving and protecting the single family neighborhood from cut-through traffic
- Providing safe access to and from Arizona Avenue to the single family neighborhoods and the high density residential residents.
- Creating a more pedestrian-oriented – intimate street cross section along Arizona Avenue

Each of these issues will need to be complemented by the other elements (economic, land use, and design) to be a part of a successful revitalized South Arizona Avenue Corridor.

This transportation overview is not intended to fully examine each of the issues nor provide comprehensive solutions but rather identify potential improvement opportunities associated with redevelopment approaches proposed by RNL, the City of Chandler, adjacent neighborhoods and others. Where needed, this overview suggests where further study may be warranted to better understand the implications and effects a particular redevelopment approach may have on the adjacent transportation network.

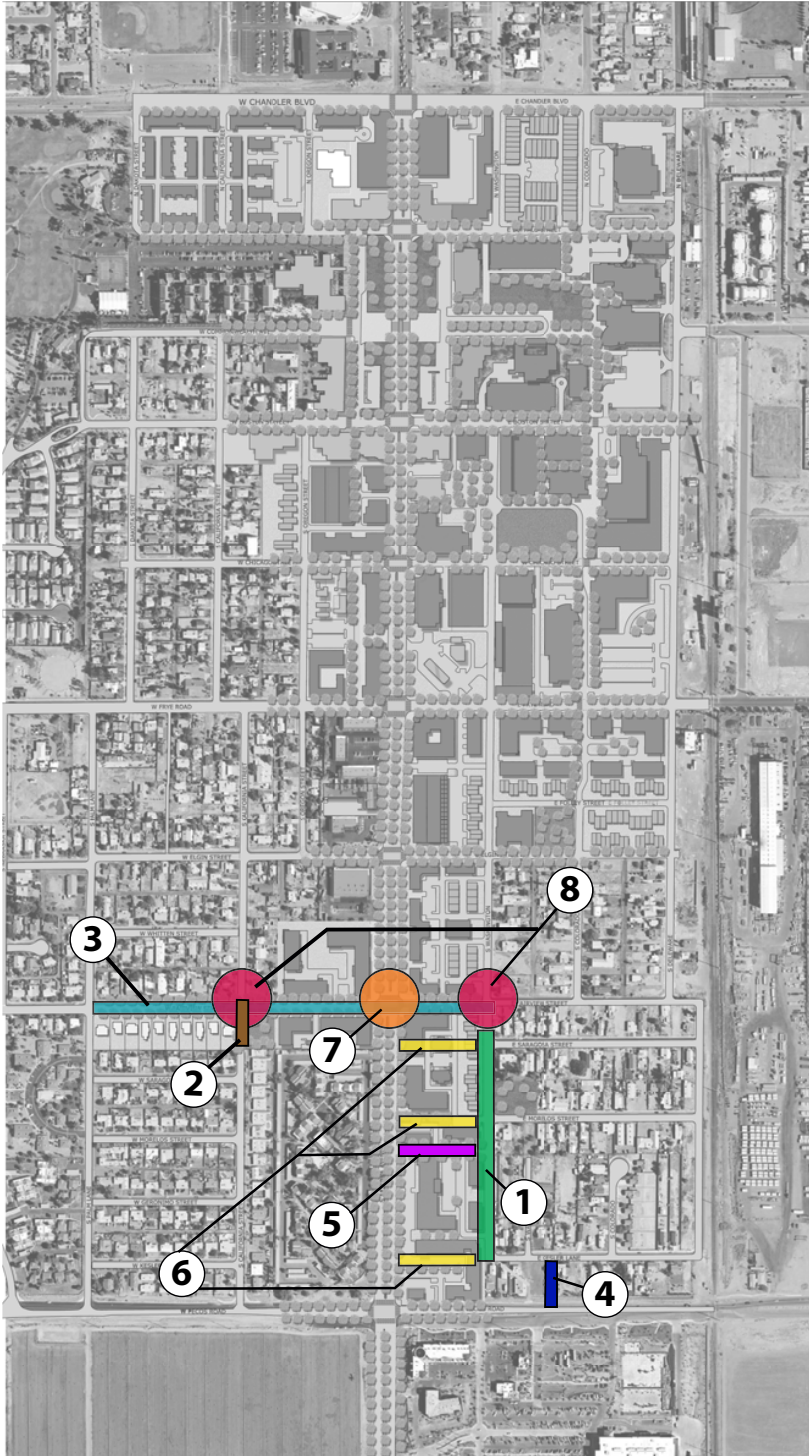
Circulation and Roadway Capacity

The paramount issue with downtown transportation is circulation and mobility. The ability to easily get to a destination in an activity center or downtown is primarily due to the network of streets and their ability to accommodate the traffic loads. Arizona Avenue between Chandler Boulevard and Pecos Road is currently classified as a Major Arterial street in the City's General Plan. The plan calls for Arizona Avenue to have six lanes (three lanes in each direction). However, this classification will need to be redefined as discussed in this chapter to better reflect the City's redevelopment efforts, incorporation of other modes of transportation and an overall vision for South Arizona Avenue.

Circulation

One of the benefits of the downtown area is its street grid. The grid provides site access to area land uses and provides alternative means of traveling the area without using Arizona Avenue. Having motorists use the collector and local streets of Downtown for local trips helps in two ways: first, it helps traffic capacity on Arizona Avenue by reducing the number of vehicles that use the major street. Second, it reduces the number of turning movements on and off of Arizona Avenue, thus reducing the number of conflicts between other motorists and pedestrians.

Evaluation of the current network and discussions of circulation with area neighborhoods revealed that the following connections should occur to promote better circulation within South Arizona Avenue neighborhoods for their convenience and protection.



1. Extend Washington Street south from Fairview Street to Kessler Street.
2. Extend California Street south from Fairview Street through mobile home park.
3. Acquire southern half of R.O.W. on Fairview from Palm Lane on west side of South Arizona Avenue to Washington Street on east side of Arizona Avenue.
4. Create new street connection form Kessler Street to Pecos Road.
5. Create new street connection from new Washington Street to South Arizona Avenue south of existing Morelos Street.
6. Abandon segments of Saragosa Street, Morelos Street, and Kessler Street located between Washington and South Arizona Avenue.
7. New traffic signal at Fairview Street and South Arizona Avenue.
8. Traffic calming at Fairview Street and California Street and at Fairview Street and Washington Street.

FIGURE 10

Circulation Improvements

- Widen Fairview Street from Palm Lane to Washington at a minimum.
- Connect California Street to Fairview Street south of Saragosa. The new connection will not include any widening of California Street.
- Provide traffic calming devices along California Street, Palm Lane and others as necessary to discourage speeding and cut-through traffic. The City will work with neighborhoods to select the appropriate traffic calming treatments for each street. Consider installing a roundabout at California Street and Fairview Street when California Street is connected through to Fairview Street.
- Extend Washington Street south to Kessler with a knuckle intersection.
- Do not connect Delaware Street with Pecos Road. A Delaware connection to Pecos Road is too close to the railroad tracks.
- Keep the connection of Delaware Street with Kessler Lane.
- Provide a new connection (Morelos Street) midway between Fairview Road and Pecos Road to Arizona Avenue, from Washington Street.
- Vacate Saragosa, Morelos, and Kessler between Arizona Avenue and Washington.

The City of Chandler has made it clear that any street extensions or alignment changes to existing streets will be made only with the consultation and consideration of the affected property owners. The City of Chandler will take great care to minimize property, business and residential disruption and relocation. All improvements will be made for the safety and convenience of the neighborhood.

Alternatives Evaluated

Street Connections: During the course of this study, several street alignment and connection alternatives were evaluated in the neighborhood east of South Arizona Avenue. They were considered because they were thought to create more convenient access for the neighborhood and in some cases better access and site definition for new projects on South Arizona Avenue. However, some of these alternatives would potentially create more traffic through the neighborhood and disrupt the quiet of the residential streets.

Alternative Circulation Route: During meetings with the public regarding this study, an observer inquired about the feasibility for a new route or connection to Delaware Street from South Arizona Avenue. This new connection would divert off of Arizona Avenue around Fairview Street and proceed in a northeasterly direction to Delaware Street. The idea was intended to divert some traffic from Arizona Avenue, but in doing so it would present problems.

One of the potential problems is that the new road would have required acquisition of several residential properties and doing so would have created a significant disruption to the existing neighborhood. It would have also bisected the existing rectangular blocks and parcels; thereby creating triangular lots that are more difficult to develop and more difficult to assemble into larger developable pieces. The roadway would have also funneled more traffic to one location rather than dispersing it over many intersections, thus causing poorer levels of service at the intersections. Further, a bigger intersection would have become a barrier to pedestrians by deterring them from crossing due to its size and the wait time between crossing cycles.

Connections to Pecos and Washington: The options evaluated by the consultants included a connection of Delaware from Kessler to Pecos. The concept was to create a transition for traffic from Pecos to the neighborhood, and north to the civic buildings. Meetings with the neighborhoods brought forth criticism of this connection because of a potential increase in traffic through the neighborhood as people began to use this "shortcut". Therefore, this option was rejected, in favor of new street connection to Pecos farther west of the railroad tracks, at the location of the new entrance to the regional shopping center south of Pecos.

Options for street connections to South Arizona Avenue were also investigated. The purpose of these was to create safe, convenient travel options for the neighborhood, while providing logical lot sizes for new development on the east side of South Arizona Avenue. Along with this, a new Washington connection between Kessler and Fairview was evaluated and adopted, because of the added convenience for the neighborhood and continuity of Washington, facilitating the new development between Washington and South Arizona Avenue. A new street between Washington and South Arizona Avenue, south of the vacated Morelos, was proposed to provide the neighborhood a safer place to enter South Arizona Avenue.

Roadway Capacity

The current policy and plan for Arizona Avenue in the Corridor is to maintain the Major Arterial classification and improve the roadway to three lanes in each direction. However, this size facility does not accommodate the current goals and vision of the City for the revitalization and redevelopment of South Arizona Avenue. A four lane configuration (two travel lanes in each direction) of South Arizona Avenue between Chandler Boulevard and Pecos Road, somewhat modified from its cross section today, is recommended to promote the type of development the City needs to revitalize the corridor.

To this end, the City of Chandler retained Parsons Brinckerhoff to further evaluate a four lane cross-section with on street parking and subsequently determined that such a cross-section would function at acceptable levels of service.

The recommended configuration of South Arizona Avenue is shown in Figure 11.

The Parsons Brinckerhoff Study (Appendix D) also includes two alternative street cross sections.

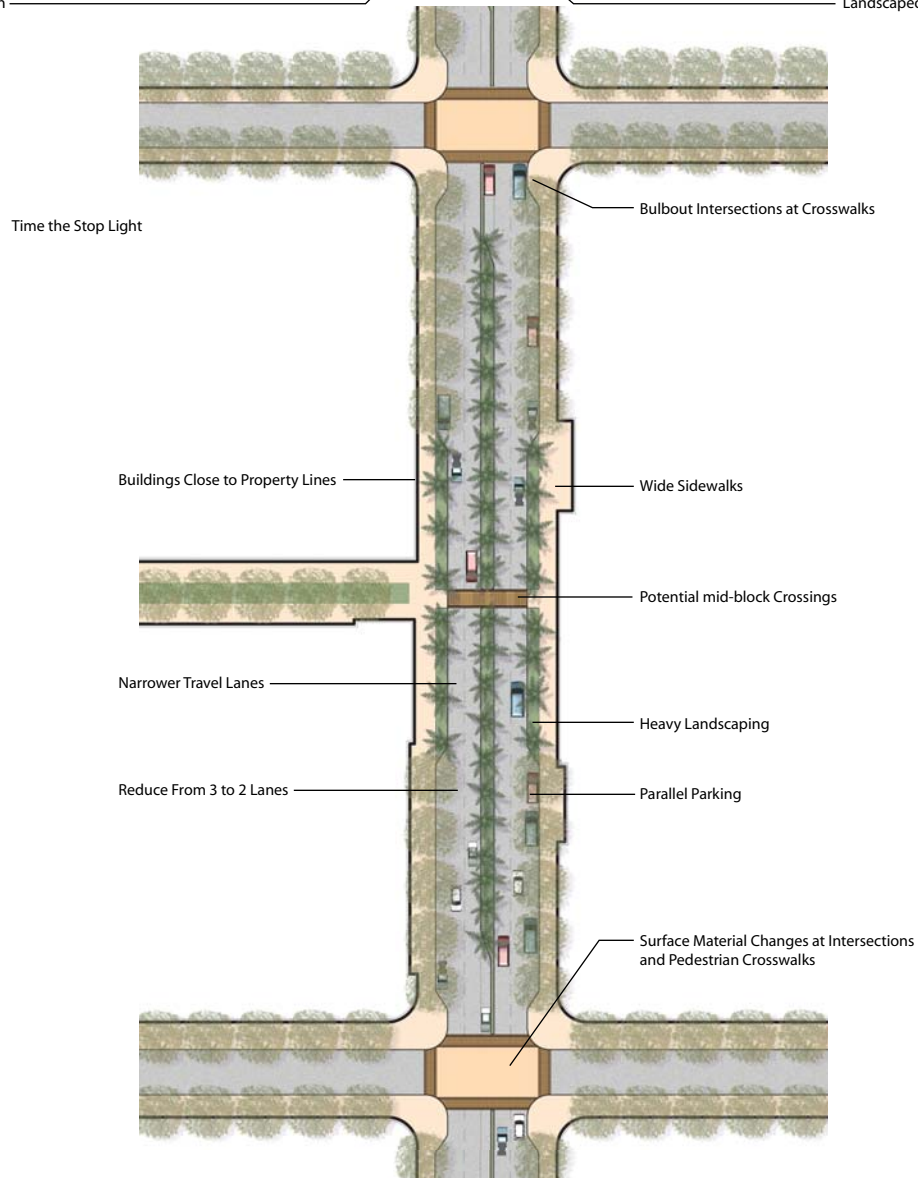
Conceptual Section



Wide Sidewalks (10ft. Min.)
Bike Lane
Two Travel Lanes
Landscaped Median

Wide Sidewalks (10ft. Min.)
Bike Lane
Two Travel Lanes
Landscaped Median

Conceptual Plan



Time the Stop Light

Bulbout Intersections at Crosswalks

Buildings Close to Property Lines

Wide Sidewalks

Potential mid-block Crossings

Narrower Travel Lanes

Heavy Landscaping

Reduce From 3 to 2 Lanes

Parallel Parking

Surface Material Changes at Intersections and Pedestrian Crosswalks

FIGURE 11

South Arizona Avenue
Conceptual Section and Plan

Walkability

With the exception of the area around the shops on San Marcos Place and A. J. Chandler Park in front of the Chandler Office Center, Arizona Avenue's pedestrian realm is deficient for promoting Downtown revitalization. However, the City of Chandler recognizes that through their revitalization efforts, South Arizona Avenue's walkability will be an integral part of the area's overall transportation system. Chicago Street has the potential to become a pedestrian corridor connecting cultural and entertainment venues with City Hall and a possible bus transit center/light rail depot to the east. The plan is to create a vibrant, pedestrian oriented, urban environment in the Cultural and Entertainment area that should become a hub for pedestrian oriented events such as arts festivals and other events that would require temporary closure of streets in that area.

Every trip begins and ends with walking. Walking remains the cheapest form of transport for all people, and the construction of a walkable community provides the most affordable transportation system any community can plan, design, construct and maintain. Walkable communities are more sustainable, and lead to more social interaction, physical fitness and diminished crime and other social problems. Walkable communities are more livable communities. Strategies that can be implemented on Arizona Avenue to improve walkability include:

Walkability Recommendations:

- **Provide consistent streetscape treatments** – Proper lighting, landscaping, street furniture, and shelters help provide a sense of place and define the pedestrian's realm. For example, the city should continue to cover or provide other means of shade for sidewalks much like those at San Marcos Place. This traditional shelter treatment will enhance the comfort and put pedestrians at ease as they walk the Arizona Avenue corridor. The Arizona Avenue right-of-way is not recommended for the overhead trellis treatment.
- **Provide signalized crossings at high pedestrian locations** – Concentrating pedestrian crossing activities at key locations (mid-block or at intersections) will help warrant the need of a traffic signal and provide a safer means to cross the street. Signals should be spaced properly to allow for coordination and good progression of traffic on Arizona Avenue.

Mid-block crossings should only be used when adjacent signalized intersections provide a substantially circuitous route for pedestrians. Unsignalized mid-block crossings should not be provided where traffic volumes do not create adequate gaps for pedestrians to cross safely.

- **Shorten the distance to cross Arizona Avenue** - Providing curb extensions or bulb outs at intersections will shorten the distance pedestrians will have to cross and provides areas to improve the streetscape.
- **Minimize curb cuts** - Minimizing curb cuts will flatten out the sidewalk making the surface more comfortable to cross. Further, it eliminates a potential vehicle/pedestrian conflict, thereby improving safety.
- **Maintain sidewalk/path continuity** - Ensure that sidewalks are interconnected between public areas, land uses, parking, and transit stops. In other words, provide pedestrian corridors that serve the same destinations as automobiles.
- **Maintain an open and well-lighted space** - Avoid creating narrow and "dark" places

to walk in order to improve safety. Dark areas promote crime, vandalism, and a sense of unease for pedestrians. A good streetscape should incorporate design elements such as wide sidewalks to make the pedestrian feel safe, secure, and better related in the abutting use.

- **Scale signing and lighting to pedestrians.**

Parking

Arizona Avenue has on street parking available south of Boston Street on both sides. Additional public parking is available in the parking garages on the municipal campus, surface lots by the Library and in temporary unimproved lots south of the shops on San Marcos Place. Parking is allowed on most of the side streets directly off Arizona Avenue.

Discussions with existing Arizona Avenue business owners during the open houses conducted for this project revealed that their customers like the convenience of on street parking ; but the business owners acknowledge that these parking spaces are limited. One business owner stated that she provides additional parking in the rear of her store, but finds that her customers rarely utilize it because it is difficult to get to and that the surrounding neighborhoods cause their customers “concern.”

As new developments occur along the South Chandler Avenue corridor, the city should carefully evaluate the parking needs for the variety of land uses it wants to encourage along South Arizona Avenue. The South Arizona Avenue area will need to be treated differently than areas in the more suburban areas of Chandler. Each land use will demand varying parking needs.

Since the new retail along Arizona Avenue south of Frye Road is expected to be incidental to a primarily residential neighborhood, parking is not expected to be an issue. These new high density residential/mixed-use developments may need one or two spaces at most for drop-off, delivery, or fifteen minute parking spaces. On street parking should be kept to a minimum. Sufficient off street parking will be required for each development.

- **Develop Additional Off street Parking** – On street parking will not be enough to handle future development. Therefore, additional off street parking will need to be integrated into future developments. The key to successful off-street parking is to maximize shared use parking. Place complementary land uses together to take full advantage of differing peak parking demands, clustering land use components together that have parking peaks at different day(s) of the week or hour(s) of the day. For example, an office building operating essentially from 8:00 a.m. to 5:00 p.m. during the week can be located closely to entertainment businesses (theaters, nightclubs, restaurants, etc...) that are active in the evenings and on week ends.

- **Maintain On street Parking** – Providing parking on Arizona Avenue maintains the look and feel of a traditional “Main Street” and adds an additional buffer between pedestrians and the travel way while providing a convenient method of parking. However, on street parking reduces vehicular capacity caused by parking maneuvers. In addition, the space used for on street parking is preserved for the City’s future transportation needs. For example, the parking might be converted to provide exclusive rapid transit lanes or used for additional roadway capacity.

Parking Recommendations

- Develop a South Arizona Avenue parking plan with specific area requirements and policies.

- Require development to provide additional off street parking.
- Minimize on street parking where feasible.

Transit

As land uses and developments are considered for the revitalization of Arizona Avenue, transit needs to be considered in their planning. Traditionally, access to development has been solely by the single occupant vehicle. Transit should be in the forefront of land use decisions for South Arizona Avenue.

Currently, regular bus service is limited along Arizona Avenue. The following is a list of existing routes that occur along the study area:

- Route 104 – Alma School
- Route 112 – Country Club/Arizona Avenue
- Route 156 – Chandler Boulevard
- Route 540 – Chandler
- Route 541 – Chandler

Most of these routes are tailored to take people out of Chandler and transport them to other places to work and shop. As Chandler's South Arizona Avenue transforms, new routes need to be considered to bring workers and shoppers in from other areas as well.

The primary challenge for the City will be how to treat transit in the downtown area. As rapid transit comes to Chandler (2010) considerations will need to be given to connecting the system to the land use mix to both serve and enhance the downtown areas. At a minimum, Chandler should:

- **Provide bus pullouts and shelters** at key locations along both sides of Arizona Avenue. Major signalized intersections along the corridor should provide far-side bus pull-outs as illustrated in Figure 6.2.
- **Incorporate transit stops at highly visible public spaces** that are directly connected to the pedestrian environment.

This study has identified the area east of Delaware St. between Chandler Blvd and Frye Rd as a potential location for a bus transit center. Furthermore, the railroad corridor has been identified as a potential alignment for a future light rail extension to Chandler. As such, this area along Delaware St. should be considered for future bus and/or light rail transit stations, ideally to take best advantage of the pedestrian links envisioned along Chicago St. that would connect the civic campus on the east side of Arizona Ave. to the cultural/entertainment uses to the west of Arizona Ave.