

## **Section 3**

# **APPENDICES**

# **APPENDIX A MARKET ANALYSIS FOR ARIZONA AVENUE CORRIDOR**

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**APPENDIX A**

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**Market Analysis  
For  
Arizona Avenue Corridor  
City of Chandler, Arizona**

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## 1.0 Purpose

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The purpose of this report is to provide real estate market analysis of Downtown Chandler and the South Arizona Avenue Corridor that will provide a foundation for the strategic redevelopment of the area. The report will provide an overview of the characteristics of the current retail market, its strengths and challenges, the demographic characteristics of the population within the surrounding trade area and recommendations on the development of retail and other uses along the Corridor. In addition, the impact of major retail development occurring at the intersection of Arizona Avenue and the Loop 202 Freeway will be analyzed as well.

This study is organized into the following sections:

- Definition of Study Area
- Market Analysis of Study Area - An evaluation of the demographic characteristics of the population and the composition of retail uses within the Arizona Avenue Corridor.
- Metro Phoenix Retail Market - An overview of trends in the retail sector and the potential impact of new retail development on Corridor merchants.
- Strengths and Challenges Facing the Arizona Avenue Corridor – A summary of the major issues facing the City in redeveloping the Corridor.
- Conclusions and Recommendations – Suggested strategies for addressing the retail market along Arizona Avenue and redeveloping the Corridor.

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## **2.0 Definition of Study Area**

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The study area consists of the frontage properties along Arizona Avenue extending from Chandler Boulevard on the north to Pecos Road on the south. The northern portion of the Corridor from Chandler Boulevard to Boston Street encompasses the original historic Downtown of Chandler that today includes the City government center, the San Marcos Hotel, A.J. Chandler Park and a variety of historic buildings surrounding the park. The southern portion of the Corridor, starting at the alley on the south side of Boston Street to Pecos Road, is comprised of strip commercial uses and freestanding buildings situated on small lots (typically 50 feet wide by 150 feet deep) that front onto Arizona Avenue. Land uses along Arizona Avenue generally consist of retail with a mixture of office uses, quasi-public uses (churches) and light industrial uses. At the southern end of the Corridor is a large apartment complex at the northeast corner of Pecos Road and Arizona Avenue. South of Pecos Road are three large shopping centers surrounding the intersection of the Loop 202 Freeway and Arizona Avenue. Those shopping centers include a Kohl's department store at the southwest corner of the interchange, a Sam's Club and small shop space at the southeast corner and a Wal-Mart and small shop space at the northeast corner.

### Arizona Avenue Corridor



### 3.0 Market Analysis of Study Area

This section of the report will provide an overview of the demographic characteristics of the neighborhood surrounding the Arizona Avenue Corridor. Included in this section will also be a description of the retailers and other businesses within the Corridor and the square footage of building space in the area.

#### 3.1 Demographic Characteristics of Population

The characteristics of the population surrounding the Arizona Avenue Corridor vary with the distance from the Corridor. The following table shows the household characteristics for four different trade areas surrounding the Corridor. The column described as “Neighborhood Corridor” is that population living within one quarter mile east or west of Arizona Avenue. The remaining columns look at the characteristics of the population within one mile, three miles and five miles of the intersection of Arizona Avenue and Frye Road.

<b>Household Characteristics Neighborhood Surrounding Arizona Avenue and Frye Road</b>					
	Corridor Neighborhood	1 Mile Radius*	3 Mile Radius*	5 Mile Radius*	Maricopa County
2000 Population	4,886	16,865	101,311	219,158	3,072,149
1990 Population		10,334	47,890	113,447	2,122,101
2000 Average Household Size	3.71	3.37	2.97	2.91	2.71
2000 Average Household Income		\$47,152	\$62,562	\$69,103	\$59,655
2000 Median Household Income	\$27,400	\$39,082	\$55,643	\$61,321	\$45,821
2000 Per Capita Income		\$13,868	\$21,292	\$23,929	\$22,251
2000 Tenure of Occupied Housing Units	1,316	5,008	34,073	75,331	1,132,886
Owner Occupied	402	2,535	24,809	57,461	764,547
Renter Occupied	914	2,473	9,264	17,871	368,339
% Owner Occupied	30.5%	50.6%	72.8%	76.3%	67.5%
% Renter Occupied	69.5%	49.4%	27.2%	23.7%	32.5%
Note: Corridor Neighborhood is that area within 1/4 mile of Arizona Avenue.					
*Radius centered on Arizona Avenue and Frye Road					
Source: U.S. Census					

The neighborhood that directly impacts the Corridor is that population living adjacent to Arizona Avenue. According to the 2000 U.S. Census, that population had a median household income of approximately \$27,400 and an average household size of 3.7 persons per household. Household income increases with distance from the Corridor rising to an average of \$61,000 (in 1999 dollars) within five miles of the Corridor. A total of 1,316 households live within the immediate Corridor neighborhood, 70% of whom are renters. However, that high percentage is skewed by the presence of the Hacienda Del Sol apartment complex located at the northwest corner of Arizona Avenue and Pecos Road. The percentage of owner occupied units increases with distance from the Arizona Avenue Corridor.

The characteristics of the neighborhood surrounding the Arizona Avenue Corridor are not surprising given that it is the original center of Chandler and contains some of the oldest housing in the community. Most of the growth in Chandler has occurred on the peripheral areas, primarily in the form of single-family housing.

More detailed analysis of the population within the Arizona Avenue Corridor is provided in the following tables. The total number of persons living within one quarter mile east or west of Arizona Avenue is 4,886 with a very young median age of 25 years. This compares to the Maricopa County median of 33 years of age. The population of the Corridor is heavily weighted toward persons of Hispanic origin who comprise approximately 85% of all residents. Household income is heavily weighted towards the lower end of the income range although approximately 21% of the households earn more than \$50,000 according to the 2000 U.S. Census.

<b>Population by Age</b> <b>Arizona Avenue Corridor</b> <b>1/4 Mile East and West</b>		
<b>Age Group</b>	<b>Population</b>	<b>% of total</b>
Under 5	579	11.9%
5 to 9	461	9.4%
10 to 14	370	7.6%
15 to 17	225	4.6%
18 to 20	332	6.8%
21 to 24	443	9.1%
25 to 34	969	19.8%
35 to 44	671	13.7%
45 to 49	202	4.1%
50 to 54	177	3.6%
55 to 59	128	2.6%
60 to 64	98	2.0%
65 to 74	119	2.4%
75 to 84	83	1.7%
85 and over	29	0.6%
<b>Total Population</b>	<b>4,886</b>	<b>100.0%</b>
Under 21	1,967	40.3%
21 yrs to 54 yrs	2,462	50.4%
55 yrs and over	457	9.4%
<b>Median Age</b>	<b>25.4</b>	
Source: U.S. Census		



Households by Age of Householder By Tenure Arizona Avenue Corridor 1/4 Mile East and West						
Age of Householder	Owner		Renter		Total	
	Households	% of total	Households	% of total	Households	% of total
15 to 24 years	17	4.2%	146	16.0%	163	12.4%
25 to 34 years	58	14.4%	308	33.7%	366	27.8%
35 to 44 years	90	22.4%	224	24.5%	314	23.9%
45 to 54 years	74	18.4%	115	12.6%	189	14.4%
55 to 64 years	67	16.7%	68	7.4%	135	10.3%
65 to 74 years	53	13.2%	27	3.0%	80	6.1%
75 to 84 years	30	7.5%	22	2.4%	52	4.0%
85 years and over	13	3.2%	4	0.4%	17	1.3%
<b>Totals</b>	<b>402</b>	<b>100.0%</b>	<b>914</b>	<b>100.0%</b>	<b>1,316</b>	<b>100.0%</b>

Source: U.S. Census

Population by Race Arizona Avenue Corridor 1/4 Mile East and West		
Race	Population	% of total
White	439	9.0%
Black	158	3.2%
Native American	59	1.2%
Asian	27	0.6%
Native Hawaiian & Other Pacific	10	0.2%
Other	4	0.1%
Two or more races	44	0.9%
Hispanic Origin	4,145	84.8%
<b>Total Population</b>	<b>4,886</b>	<b>100.0%</b>

Source: U.S. Census

Household Income Arizona Avenue Corridor 1/4 Mile East and West		
Income range	Total Households	% of total
Less than \$10,000	136	10.3%
\$10,000 to \$14,999	142	10.8%
\$15,000 to \$19,999	165	12.5%
\$20,000 to \$24,999	154	11.7%
\$25,000 to \$34,999	212	16.1%
\$35,000 to \$49,999	233	17.7%
\$50,000 to \$74,999	169	12.8%
\$75,000 to \$99,999	65	5.0%
\$100,000 to \$149,999	22	1.7%
\$150,000 & above	17	1.3%
Total Households	1,316	100.0%
<b>Median Household Income</b>	<b>\$27,396</b>	

Source: U.S. Census

Housing in the Arizona Avenue Corridor is also older than much of the housing in the remainder of the City. Approximately one third of the units were built between 1980 and 1989, primarily within the Hacienda Del Sol apartment complex. Fifty-six percent of the units were built before 1980, representing much of the single family inventory in the area.

<b>Occupied Units by Tenure by Year Structure Built</b>				
<b>Arizona Avenue Corridor</b>				
<b>1/4 Mile East and West</b>				
<b>Year Structure Built</b>	<b>Owner</b>		<b>Renter</b>	
	<b>Households</b>	<b>% of total</b>	<b>Households</b>	<b>% of total</b>
Built 1999 to March 2000	24	5.9%	9	1.0%
Built 1995 to 1998	6	1.4%	49	5.4%
Built 1990 to 1994	8	1.9%	43	4.7%
Built 1980 to 1989	60	14.9%	385	42.1%
Built 1970 to 1979	72	18.0%	135	14.7%
Built 1960 to 1969	55	13.7%	112	12.2%
Built 1950 to 1959	57	14.2%	105	11.4%
Built 1940 to 1949	72	18.0%	39	4.3%
Built 1939 or earlier	48	12.1%	37	4.1%
<b>Total</b>	<b>402</b>	<b>100.0%</b>	<b>914</b>	<b>100.0%</b>
Source: U.S. Census				

An estimate of the amount of household spending that may be available within the Arizona Avenue Corridor is provided on the following table. The spending estimate is based on a number of households within one mile of the Arizona Avenue Corridor, which according to the 2000 Census with 5,008 households. The median income of those households was applied to a spending model developed by Elliott D. Pollack & Company based on the U.S. Consumer Expenditure Survey. The model calculates the amount of taxable household spending of the population for a variety of different daily needs. A household with an income of \$39,000 spends roughly 51% of its income on taxable goods and services. The largest categories of nontaxable spending are a home mortgage, rent, property taxes and health care.

<b>Taxable Household Spending Potential Households Within One Mile of Arizona Avenue Corridor</b>				
<b>Households</b>	<b>5,008</b>			
		<b>% of Income</b>	<b>% of Retail Spending</b>	<b>Total Spending Potential</b>
<b>Income</b>	<b>\$39,082</b>			
<b>Spending</b>				
<b>Food</b>	<b>\$5,016</b>	<b>12.8%</b>	<b>25.3%</b>	<b>\$25,119,334</b>
Food at home	\$2,982	7.6%	15.0%	\$14,933,950
Food away from home	\$2,034	5.2%	10.2%	\$10,187,130
<b>Alcoholic beverages</b>	<b>\$378</b>	<b>1.0%</b>	<b>1.9%</b>	<b>\$1,892,346</b>
<b>Utilities, fuels, and public services</b>	<b>\$2,566</b>	<b>6.6%</b>	<b>12.9%</b>	<b>\$12,850,274</b>
<b>Household supplies and operations</b>	<b>\$950</b>	<b>2.4%</b>	<b>4.8%</b>	<b>\$4,759,183</b>
Other household expenses	\$344	0.9%	1.7%	\$1,723,368
Laundry and cleaning supplies	\$134	0.3%	0.7%	\$669,195
Other household products	\$344	0.9%	1.7%	\$1,723,368
Postage and stationery	\$128	0.3%	0.6%	\$643,253
<b>Household furnishings and equipment</b>	<b>\$1,307</b>	<b>3.3%</b>	<b>6.6%</b>	<b>\$6,545,541</b>
Household textiles	\$105	0.3%	0.5%	\$527,723
Furniture	\$330	0.8%	1.7%	\$1,651,526
Floor coverings	\$42	0.1%	0.2%	\$208,453
Major appliances	\$172	0.4%	0.9%	\$861,547
Small appliances, miscellaneous housewares	\$81	0.2%	0.4%	\$406,649
Misc. household equipment	\$577	1.5%	2.9%	\$2,889,643
<b>Apparel and services</b>	<b>\$1,522</b>	<b>3.9%</b>	<b>7.7%</b>	<b>\$7,620,285</b>
<b>Vehicle purchases (net outlay)</b>	<b>\$3,216</b>	<b>8.2%</b>	<b>16.2%</b>	<b>\$16,105,526</b>
<b>Gasoline and motor oil</b>	<b>\$1,199</b>	<b>3.1%</b>	<b>6.0%</b>	<b>\$6,004,207</b>
<b>Other vehicle expenses</b>	<b>\$935</b>	<b>2.4%</b>	<b>4.7%</b>	<b>\$4,681,726</b>
Maintenance and repairs	\$569	1.5%	2.9%	\$2,849,309
Vehicle rental, leases, other charges	\$366	0.9%	1.8%	\$1,832,417
<b>Health care</b>	<b>\$101</b>	<b>0.3%</b>	<b>0.5%</b>	<b>\$505,869</b>
Medical supplies	\$101	0.3%	0.5%	\$505,869
<b>Entertainment</b>	<b>\$1,769</b>	<b>4.5%</b>	<b>8.9%</b>	<b>\$8,857,033</b>
Fees and admissions	\$394	1.0%	2.0%	\$1,975,310
Television, radios, sound equipment	\$655	1.7%	3.3%	\$3,279,299
Pets, toys, and playground equipment	\$346	0.9%	1.7%	\$1,730,311
Other entertainment supplies, equipment	\$374	1.0%	1.9%	\$1,872,114
<b>Personal care products and services</b>	<b>\$489</b>	<b>1.3%</b>	<b>2.5%</b>	<b>\$2,446,725</b>
<b>Reading</b>	<b>\$113</b>	<b>0.3%</b>	<b>0.6%</b>	<b>\$567,728</b>
<b>Tobacco products and smoking</b>	<b>\$300</b>	<b>0.8%</b>	<b>1.5%</b>	<b>\$1,502,580</b>
<b>Total Taxable Spending</b>	<b>\$19,860</b>	<b>50.8%</b>	<b>100.0%</b>	<b>\$99,458,358</b>

Source: U.S. Consumer Expenditure Survey

Aggregate potential spending of the population within one mile of the Arizona Avenue Corridor is nearly \$100 million. Food, both groceries and restaurant spending, is one of the largest categories at approximately 13% of gross income. Vehicle Purchases is another large category as well.

According to the above data, the population within one mile of the Corridor would generate about \$15 million in grocery sales. Today, the typical grocery store generates about \$18 million to \$19 million in annual sales. The 5,008 households and 16,865 people living near the Corridor, therefore, would provide the majority of support for a grocery store. However, there are several stores in

the area, including the new Wal-Mart, indicating that demand is probably satisfied.

The spending potential of this population within one mile of the Corridor is significant. However, most of those dollars are captured by retailers within nearby shopping centers. Unfortunately the Arizona Avenue Corridor is not a strong competitor today within the retail market.

### **3.2 Characteristics of Arizona Avenue Retail Corridor**

An extensive inventory of businesses within the Arizona Avenue Corridor was conducted as part of this study. The following table provides the inventory by type of business or use. The locations of these businesses are shown on a graphic in the Appendix of this report corresponding to major streets within the Corridor.

**Arizona Avenue Corridor Business Inventory**

**Restaurant**

AJ's Café  
 Brunchies  
 Chadow Café  
 Cupid's Hot Dogs  
 El Zocalo  
 Hillbilly Chili  
 Jack in the Box  
 Kokopelli Winery  
 La Stalla Restaurant  
 NY NY Deli  
 Pecos Lounge  
 Pirate's Fish & Chips  
 Pockets Bakery  
 Restaurant 98  
 Serrano's  
 Starbucks

**General Retail**

98 cent general store  
 98 cent store  
 99 cent store  
 Arizona Discount Store  
 Arrow Pharmacy/Market  
 Convenience Store

**Specialty Retail**

Antique Store  
 Art Store  
 ATV Store  
 Arizona Mesquite Company  
 Chandler Glassworks  
 Day One Art  
 DiSciacca  
 Flower Shop  
 Fountain World  
 Giro's a Mexico  
 La Bodega  
 Naughty but Nice Lingerie  
 Pottery Painting Store  
 Saba's Western Wear  
 Serendipity  
 Smoke Shop  
 T&B Glass  
 Unique Gifts & Antiques  
 Window Screens

**Grocery**

Mama Mia Market  
 Payless Market/ Carniceria

**Bank**

1st Credit Union

**Retail Auto**

Bob M's Tires  
 Frontier Tires  
 Pep Boys  
 Used Car Lot

**Auto Repair**

Discount Brake and Muffler  
 El Camino  
 Firestone  
 Hontech  
 Lloyd's Complete Auto  
 Mechanica  
 Mechanica  
 Mi Gente  
 Musclicar Garage  
 The Lube Shop

**Personal Services**

Appliance Repair  
 Day Spa  
 Laundry  
 Men's Barber Shop  
 Women's Salon

**Semi - Public**

Chamber of Commerce  
 Gospel 4 Life Church  
 Methodist Church  
 Rock Church of the Valley  
 VFW

**Office**

Agribusiness Management  
 Hispano Tax Service  
 Keystone Homes  
 Law Office  
 Labor Express  
 Mexican Tax Service  
 Montagnoso Development  
 Property Investment / Development  
 Real Estate / Mortgage  
 Saba Realty

**Industrial**

Architectural Stone Concepts  
 Dodge Electric  
 Ernie's Refridgeration / Sheet Metal

**Self-Storage**

National Self Storage

**Gas Station**

Circle K  
 Mobil / On the Run

**Residential**

345 Apartments  
 Hacienda Del Sol Apartments  
 Trailer Park

**Educational**

Earl Jones Institute  
 Western International University

Source: Elliott D. Pollack & Co.

In total, there are approximately 528,000 square feet of building space within the Arizona Avenue Corridor between Chandler Boulevard and Pecos Road. This inventory does not include any City owned buildings or the office buildings located on the eastside of A.J. Chandler Park. The most intensely developed

portion of the Corridor is that area between Frye Road and Fairview Street that contains a 67,000 square foot self-storage property. Excluding that site, the square footage between Frye Road and Fairview Street drops to 117,000 square feet. The square footage estimates do not include residential uses.

<b>Summary of Building Square Footage</b>	
Area	Building Square Feet
Chandler Avenue to alley south of Boston Street	175,094
Alley south of Boston Street to Frye Road	117,551
Frye Road to Fairview Street	184,096 *
Fairview Street to Pecos Road	51,449
<b>Total</b>	<b>528,190</b>
<b>Total Excluding Self Storage</b>	<b>461,190</b>
* Includes a 67,000 self storage site	
Source: Maricopa County Assessor	

The total square footage or building space in the Corridor, excluding the self storage business, is approximately 461,000 square feet. If this square footage was contained within a single shopping center site, it would consume approximately 50 acres of land, most of which would be devoted to off street parking. However, the businesses along Arizona Avenue do not function as a single shopping center and do not provide the same amount of parking that would normally be required in a conventional retail center. The shopping environment is also bifurcated by Arizona Avenue which is designed to carry traffic rather than to create an environment conducive to retailing. This factor contributes to the lack of strong retailing activity along Arizona Avenue.

Overall, there are four general categories of businesses along the Arizona Avenue Corridor:

- Specialty stores and restaurants.
- A combination of retail and service businesses catering to the local neighborhood.
- A few national chain retailers that may attract consumers from a trade area larger than the immediate neighborhood (PEP Boys, Firestone).
- Quasi-industrial and heavy commercial uses (electrical contractor, architectural stone company).

From a retailing perspective, the Corridor can also be divided into a north and south segment. Virtually, all of the restaurants in the Corridor are located at the northern end, north of Boston Street, where businesses are oriented towards the City government complex and A.J. Chandler Park. Many of the specialty retail businesses are also located in this area as well. The southern portion of the Corridor, generally south of the alley south of Boston Street, is more oriented towards providing services to the local neighborhood. Interspersed among these uses are some quasi-industrial or heavy commercial uses such as auto repair shops, contractor's offices and yards, and similar businesses.

Concern has been expressed that the construction of the Wal-Mart shopping center located south of Pecos Road could have a significant effect on retailing within the Arizona Avenue Corridor. These issues will be discussed in the following section.

### **3.3 Conclusions**

In summary, the uses found along the Arizona Avenue Corridor are typical of older retail areas found throughout Metro Phoenix. While historic sales performance data is not available from the City, these small businesses generally are marginally profitable and have located in older buildings because of lower rents. There are few national retail franchises in the area, indicating the entrepreneurial spirit of these business owners. Franchises will typically be found traditional shopping centers.

The northern portion of the study area has begun to gain some success due to adjacency to the City complex and A.J. Chandler Park. Most restaurants in the Corridor are located in this area along with additional specialty retailers. The area south of Boston Street is a mixture of uses that provide services to the local population or specialty goods such as the fountain outlet or architectural stone company. Once again, what is drawing these retailers to the area is a lower rent structure, less restrictive zoning and non-conforming buildings.

Competition for retail sales is fierce in Metro Phoenix. Competing retailers can be found in many shopping centers surrounding the Corridor, often at locations that are more convenient to the public. For Downtown Chandler to survive, it must become a destination that appeals to a broader trade area by offering unique goods and services. However, it must also become a place where people feel comfortable shopping. More than just introducing new uses to the area, its entire character must change. These issues will be discussed later in this report.

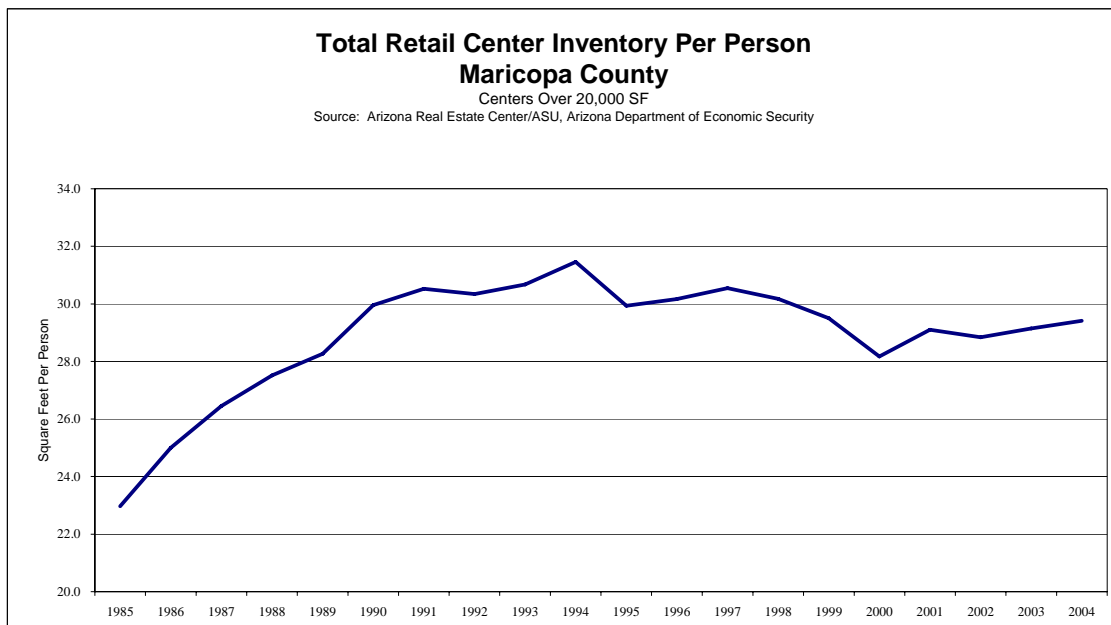
## 4.0 Metro Phoenix Retail Market Overview

This section of the report will provide information on the Metro Phoenix retail market and the trends that are currently affecting the retail sector. The section will discuss the potential impact of Wal-Mart and other new retail uses on the Corridor.

### 4.1 Retail Market

The Maricopa County retail market is driven by population growth. Factors such as residential density and household income determine how much retail space is constructed within a community or trade area. Dense or high-income areas typically have more retail square footage than rural or lower income neighborhoods.

At the end of 2004, the retail sector of the real estate market was comprised of approximately 103.6 million square feet of building space according to Arizona State University. These figures do not include freestanding retail buildings, hotels, car dealers, downtown retail areas or shopping centers smaller than 20,000 square feet. Retail centers have experienced significant growth since 1982, increasing by 176% from a base of 37.5 million square feet. At the same time, Maricopa County’s population has increased by approximately 121% or 1.9 million people. Therefore, over that time frame, the per capita inventory of retail space increased from 23.6 square feet per person in 1982 to 29.4 square feet per person in 2004. Since 1990, the retail inventory has hovered around the 30 square feet per person range.





Vacancy rates in the retail sector have increased slightly over the past few years from 5.3% in 2000 to 6.1% at the end of 2004 according to CB Richard Ellis. ASU reports a much higher vacancy rate of 10.3% for 2004, compared to 8.1% in 2000. The reason for this discrepancy between the two sources is unknown, but CB Richard Ellis is considered a more accurate source.

At the end of 2004, there were 6.2 million square feet under construction within 43 centers. Retail construction has declined since 2001 when 7.6 million square feet of space was completed, primarily because two new malls were in development at the time. Total completions in 2004 are slightly over 5.6 million square feet with 6.6 million square feet absorbed. On average, 3.5 million square feet have been absorbed annually from 1994 to 2004. In the last four years, absorption has averaged 4.9 million square feet annually. The demand for retail space created by strong population growth has maintained vacancy rates at moderate levels compared to other real estate sectors. In Maricopa County, as long as population growth and resident spending power persist, retail space will continue to be constructed.

Retail centers are generally classified into four categories.

- **Strip/specialty centers** are smaller retail centers that do not have an anchor store.
- **Neighborhood centers** are anchored by a grocer and possibly a drug store, and provide for the daily shopping needs of the population. Neighborhood centers contain about 40% of all the retail square footage in the metro area, although community/power centers have increased in importance over the last eight years.
- **Community centers/Power Centers** are anchored by at least one large discount store along with associated smaller shop space. Power centers comprised of several discount anchor stores are included in this category.
- **Regional malls** contain two or more full line department stores typically along with an enclosed shopping concourse.

The Maricopa County retail market is divided by type in the following table as of year-end 2004. Neighborhood centers contain most of the square footage followed by community centers. The vacancy rate for regional malls has declined in recent years as older centers have been repositioned in the marketplace. For instance, some of the original regional shopping centers, such as Chris-Town Mall, Thomas Mall and Los Arcos Mall have all been converted to discount power centers or demolished for other uses.

<b>Components of Retail Sub-Market Maricopa County Retail Centers Over 20,000 SF 4th Quarter 2004</b>			
Type of Center	Total SF	Percent of Total SF	Total SF Per Capita
Regional	14,874,041	14.4%	4.2
Community	36,809,951	35.5%	10.4
Neighborhood	40,517,698	39.1%	11.5
Strip/Specialty	11,446,597	11.0%	3.2
<b>Totals</b>	<b>103,648,287</b>	<b>100.0%</b>	<b>29.4</b>
Note: Totals may not add due to rounding			
Source: Arizona Real Estate Center, ASU, 4th Quarter, 2004			

The average square feet of retail space per person currently stands at 29.4. However, wide differences in the amount of retail exist between different parts of the metro area. At the high end, the northeast part of the Valley has about 43 square feet per person while the Southwest Valley only has about 16 square feet per person. These differences exist because of the income levels of the residents, the density of development, and the out-of-town tourist trade, much of which is currently captured by Scottsdale and Phoenix. The Northeast region, encompassing Northeast Phoenix and Scottsdale, has 48% more retail space per capita than the metro average. The Southeast Valley has 12% more retail space per capita than the average, but all other regions lag behind the county average.

<b>Retail Building Space Per Capita By Shopping Center Type and Region Maricopa County</b>						
Type of Center	Region					Metro Phoenix
	Northeast	Southeast	Southwest	Northwest	Central	
Regional	6.7	4.2	2.5	3.5	5.0	4.2
Community	16.3	11.1	5.5	8.7	6.1	10.4
Neighborhood	14.3	13.2	7.9	11.2	8.7	11.5
Strip/Specialty	6.0	4.2	0.6	2.5	2.3	3.2
<b>Total</b>	<b>43.3</b>	<b>32.7</b>	<b>16.5</b>	<b>25.9</b>	<b>22.2</b>	<b>29.3</b>
Sources: U.S. Census, AZ Dept. of Economic Security, ASU Real Estate Center						

The above data is useful in evaluating the retail marketplace. However, another useful factor is the ratio of new retail building construction activity compared to the growth of Maricopa County. In other words, the true measure of retail activity is the number of square feet of retail space that has been constructed for each new person added to the County population. The following outlines that data by type of retail center for the period between 1986 and 2004.

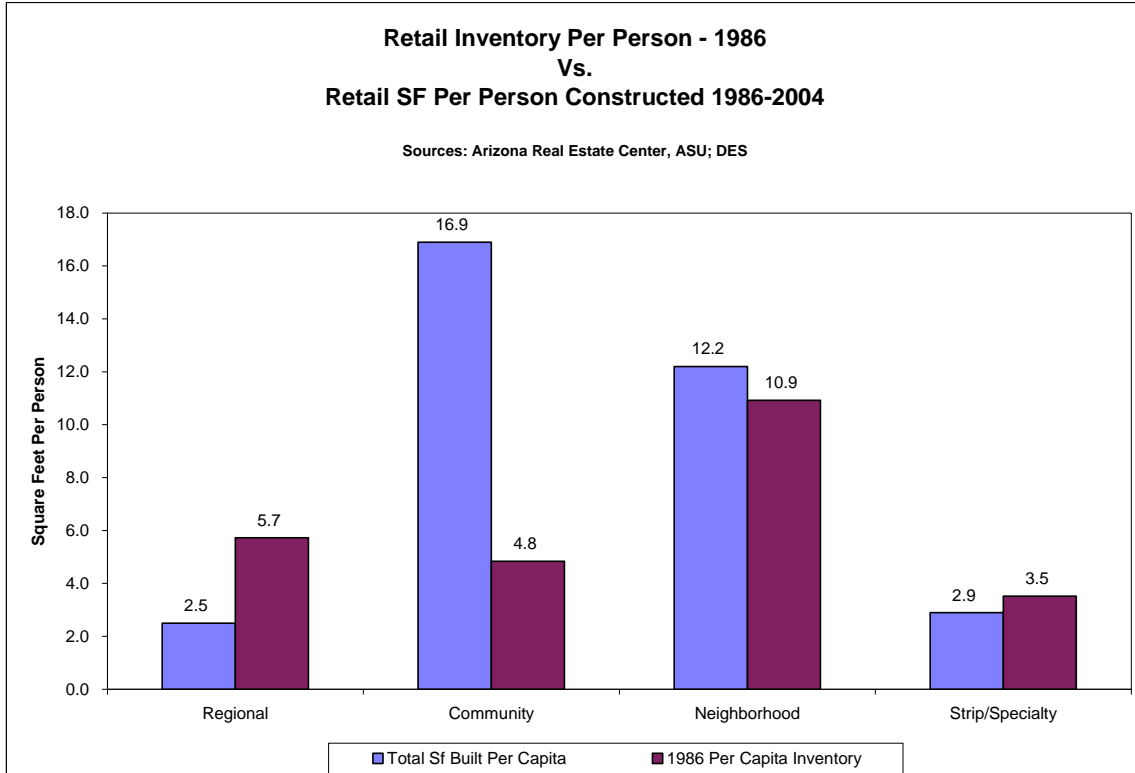
<b>Construction of Retail Space Per Capita 1986-2004*</b>			
<b>Metro Phoenix</b>			
<b>Retail Centers Over 20,000 SF</b>			
Type of Center	Total SF Built	Total SF Built Per Capita*	% of Inventory Built
Regional	4,107,572	2.5	7.2%
Community	27,704,416	16.9	49.0%
Neighborhood	19,961,630	12.2	35.4%
Strip/Specialty	4,833,084	2.9	8.4%
<b>Totals</b>	<b>56,606,702</b>	<b>34.5</b>	<b>100.0%</b>

\*Construction rate compared to new population added to metro area between 1986 and 2004.

Source: Phoenix Metropolitan Reports, AZ Real Estate Center, ASU

The most dramatic increase in retail activity has occurred in the community center category due to the construction of power centers since the 1990s. In addition, some regional malls have been converted to the power center format as the demographics of Maricopa County have changed over time. Since 1986, 49% of all retail space built in the metro area has been in community centers, spurred by the popularity of discount department stores and other big-box users. Community and power centers are expected to continue to be a major focus of retail activity for the foreseeable future. The inventory of regional malls in the Valley has declined in recent years. In the early 1990s, the inventory of regional malls stood at 6.0 square feet per person. Since that time, it has declined to 4.2 square feet per person as the tastes of the buying public have changed over time. Chandler Fashion Mall at Chandler Boulevard and the Loop 101 Freeway is the newest mall, completed at the end of 2001.

The following chart compares the inventory of retail space per person in 1986 to retail construction activity per new resident that occurred between 1986 and 2004. The neighborhood and specialty categories have maintained a fairly consistent construction pace. The community or power center category, however, has shown a significant increase in the past 18 years, growing from just 9.1 million square feet of space in 1986 to 36.8 million square feet in 2004. Community or power centers today comprise 35% of the market compared to 19% in 1986. This shift in shopping center retailing has been led primarily by large discount stores (Wal-Mart and Target) and others such as Home Depot, Lowe's, and Best Buy. The pace of construction of regional malls has slowed in the past 15 years to 2.5 square feet per person compared to the 1986 inventory of 5.7 square feet per person. Part of the reason for such a drastic decline in the inventory is the repositioning of regional mall sites to power center or other uses and the rise in popularity of power retail centers.



#### 4.2 Site Location Criteria of Discount Retailers

The spatial distribution of community and neighborhood retail centers is typically driven by major anchor tenants. Whether local grocery companies or national department store chains, all retailers have certain standards or criteria for evaluating real estate sites. These companies consider the trade area’s population size, household incomes, resident education levels and similar criteria before committing to a site. This section will outline the criteria for some of the metro area’s major retailers and the manner in which they site stores locally.

Interviews with real estate representatives of the major discount department store chains indicate that they typically require a population of 125,000 to 150,000 persons within a three to five mile trade area surrounding a site. In a developing part of the metro area, this population threshold may represent the ultimate build-out population of the area. This equates to between 46,000 and 55,000 households based on the average of 2.7 persons per unit in Maricopa County.

The typical spacing of stores in Maricopa County (within the same department store chain) is four to five miles based on current housing densities. The site selection criteria of the major chains take into account competition from other discount retailers. The key site location factors for discount retail chains are:

- Population
- Household income

- Visibility and access, preferably adjacent to a freeway.

The per capita square footage of discount department store space in Maricopa County currently stands at 2.2. The distribution of stores is not equal, however, because of differences in income and density. The northeast and southeast parts of the Valley have the largest inventory of discount department store space while the southwest has the smallest. Across the Valley, there is one store for every 55,000 people, with several additional stores in the construction or planning stage.

Costco operates differently from the traditional discount retailers. Costco is more of a destination outlet that people will drive farther to visit. As a result, customers typically visit the warehouses less often, but make larger purchases. There are only ten Costco's in Maricopa County or about one for every 330,000 people. Sales have been quoted at \$1,000 per square foot in the typical Costco, about two to three times the rate of the major competing discount retailers.

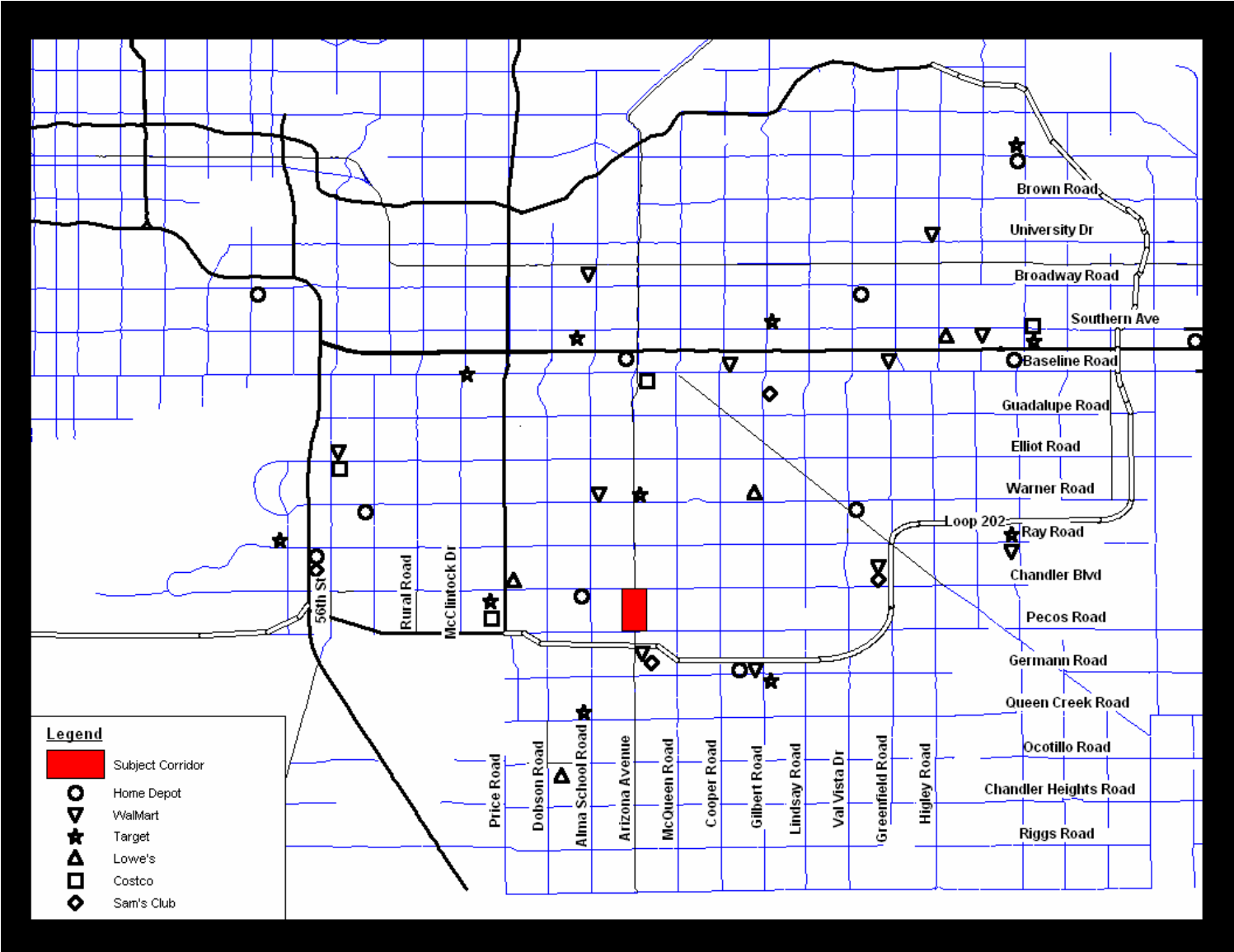
The various chains also target different segments of the market. Wal-Mart has typically targeted middle-income families, but stores are found in all areas including upscale North Scottsdale. Target prefers to see a portion of the trade area population with incomes higher than \$60,000 and a large percentage of college degrees. Target has developed a new store format aimed at this upper income segment called Target Greatland. These stores are about 40% larger than the typical Target, carry a wider variety of merchandise (but not groceries) and have a number of shopper-friendly features such as wider aisles.

In Maricopa County, the above site selection criteria have proven to be reliable in determining where the next power center might locate. As an area of the county reaches a critical population mass, these discount retailers are not far behind in purchasing independent sites or committing to purchase a site or lease a building from a retail developer within a power center.

In the Chandler area, Wal-Mart has encountered numerous difficulties placing stores in certain locations, particularly in south Chandler. As a result, the company appears to have adopted the strategy of locating stores along major freeways, such as the Loop 202, where these uses are more accepted and usually do not impact a nearby residential neighborhood. Information gathered by this company indicates that Wal-Mart will be constructing a Super center every three miles along the Loop 202. In addition to the Arizona Avenue site, there will be Wal-Mart Super centers at Gilbert Road, Val Vista Road and Power Road. There will likely be few opportunities to locate stores in southern Chandler or Gilbert.

The following map outlines the locations of big box retailers in the Chandler and Gilbert area.

### Major Discount Retailers



After reviewing the types of the uses within the Arizona Avenue Corridor, it appears that there will be little competition between the shopping center and the Corridor merchants. Most of the merchants along the Corridor have already learned how to compete within the age of the discount merchandisers. Both Target and Wal-Mart have been operating within the Chandler trade area for a number of years. The Corridor retailers have been operating with that competition for decades as well.

Most of the retailers within the Corridor have specific products that likely will not be found in Wal-Mart or Sam's Club. Mass merchandise retailers such as Wal-Mart and Target do not offer the same types of products or services. The Corridor merchants, for the most part, have differentiated themselves from the mass merchandisers or they would not currently be in business.

However, some impact will likely be felt by a few merchants now that Wal-Mart and Sam's Club are so close to the Corridor and more convenient to the nearby population. Those who could be affected include the small dollar or discount stores, the pharmacy and the tire stores. The close proximity of Wal-Mart to the Corridor will, nonetheless, have some impact on retail activity, but it is difficult, if not impossible, to determine the exact dollar amount of cannibalized retail sales.

### **4.3 Grocery Retail Market**

While the number of power centers in Metro Phoenix has grown significantly over the past decade, the construction of grocery-anchored neighborhood centers has kept pace with population growth. Grocery stores need to be convenient to the consumer and are typically found on smaller sites, 10 to 15 acres in size, close to residential neighborhoods. However, grocery retailers, which historically operated on thin margins, are under siege from other retailers that now carry a full line of grocery items. These retailers include Wal-Mart, Target, Sam's Club and Costco. As result, the grocery industry in Metro Phoenix has undergone significant consolidation in the past decade and grocery retailers are much more cautious in the selection of a site for an outlet.

The spatial distribution of grocery stores is driven by the national grocery chains. Each company has certain standards or criteria for evaluating real estate sites. They consider the trade area's population size, household incomes, resident education levels and similar criteria before committing to a site.

Because of their focus on convenience shopping, modern grocery retailers want to locate close to their customer base and are developing larger store formats that offer a wider array of non-grocery items in order to compete with the Wal-Marts and Targets. Most stores range in size from 45,000 to 65,000 square feet. However, some chains, such as Albertson's and Fry's, have built 80,000 square foot combined grocery and pharmacy stores to capture a larger share of the market.

Across the Valley, there are 4.5 square feet of space for each person or about 12,500 persons per store. Just a few of years ago, the ratio was over 5.0 square feet of space for each person. With the elimination of several chains from the market, the ratio has dropped significantly. However, these figures do not include the Super centers that have become a major force in the grocery business.

#### **4.4 Case Study on Grocery Store Demand**

To provide further context on grocery store penetration and demand, this firm has analyzed the grocery retail market in the Ahwatukee Foothills Village of the City of Phoenix. This area is located west of Interstate 10 and is bounded by South Mountain Park on its north and west and the Gila River Indian community on the south. Interstate 10 and the industrial development to the east in Tempe and Chandler form a manmade boundary along the eastern side of the Village. Because of these geographic boundaries of the Village, it provides a textbook case study of the relationship between retail development and population. It is a well-defined market area where there is likely little traffic generated to neighborhood centers from consumers outside the Village boundaries. It is the best example of a market area that has little overlap with surrounding market areas. The Village has been essentially built out since the 2000 Census and there has been limited additional retail development in the area over the past few years.

The analysis of retail space within the Ahwatukee Foothills area indicates that there are approximately 414,000 square feet of grocery store space within seven grocery stores. This equates into an average grocery store size of approximately 59,000 square feet. All the major national chains are represented in the Village including Safeway, Albertson's, Basha's, and Fry's. Wal-Mart is not represented in the area and there is a Target, but one that has limited grocery selection.

Based on the 2000 U.S. Census population of 75,961 people in the Village, there are approximately 10,850 persons for each grocery store or 5.46 square feet of grocery store space for every person. These ratios are slightly higher than the overall average for metro Phoenix, largely because of the high incomes in the Ahwatukee Village. In the Southeast Valley, the Village has one of the highest median incomes among all cities. Therefore, the number of people that are required to support a grocery store is typically lower.



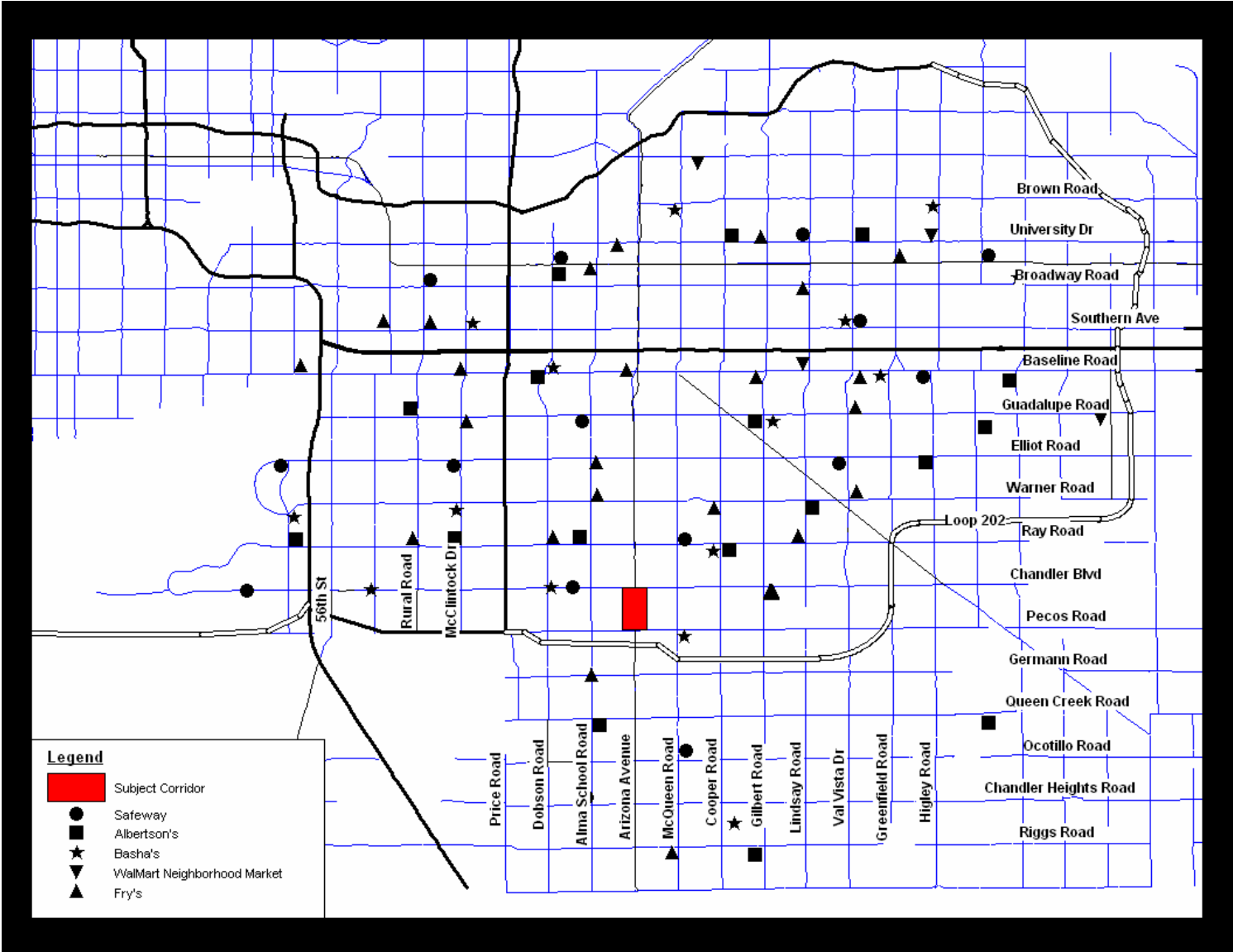
<b>Grocery Store Demand Factors Ahwatukee Foothills Village</b>	
Total Grocery SF	414,426
No. of Grocery Stores	7
Population (2000 Census)	75,961
<b>Persons/Grocery Store</b>	<b>10,852</b>
<b>Grocery Store SF/Person</b>	<b>5.5</b>
Sources: U.S. Census, Elliott D. Pollack & Co.	

Therefore, given this data, we feel comfortable that a ratio of one grocery store for every 12,500 people is a reasonable and conservative approximation of demand for any particular market area in Metro Phoenix.

With respect to the Arizona Avenue Corridor, there are many options to shop for groceries. The following map shows the location of the five major grocery chains in the Southeast Valley. Other smaller chains have not been identified. Arizona Avenue is devoid of grocery stores except for smaller chains near Ray Road. However, the needs of Corridor residents are satisfied in nearby locations on Alma School Road or McQueen Road. This map demonstrates why there are several small grocery stores located within the Corridor.

The population within one mile of Arizona Avenue and Frye Road is able to support the majority of the demand for a grocery store according to spending estimates derived earlier in this report. However, there are no sites large enough within the Corridor to accommodate a grocery store site. This is largely the reason why groceries are found on arterial streets other than Arizona Avenue. A contributing factor is the low household incomes in the Corridor that do not generate as much retail spending as other areas.

If the population within the Corridor grows in the future or changes in composition, demand for a grocery store on Arizona Avenue may be justified. However, the presence of existing competition in the area makes this a difficult proposition, particularly since Wal-Mart just opened at the south end of the Corridor.



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## 5.0 Strengths and Challenges Facing the Arizona Avenue Corridor

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Based on analysis of the characteristics of the Arizona Avenue Corridor retail market and the businesses that are currently located in the area, a series of strengths and challenges have been identified regarding the future redevelopment of the area. Following are those findings.

### 5.1 Strengths

- **Wal-Mart:** The impact of the new shopping centers at the Loop 202 and Arizona Avenue can only have a positive effect on the Arizona Avenue Corridor, primarily due to increased traffic that will be brought to the southern end of the Corridor. Since Wal-Mart will be constructing a Super center every three miles along the Loop 202, the trade area for the Arizona Avenue Wal-Mart will likely be very large, stretching as far south as Hunt Highway. Wal-Mart and Sam's Club will be destinations that will bring a large consumer population to the southern end of the Arizona Avenue Corridor.

As a result, Wal-Mart and the related retail centers at the Loop 202 will:

- Increase traffic along Arizona Avenue and provide more exposure for Corridor retailers.
- Change the image and perception of the area in the minds of many consumers.

The key to capitalizing on the Wal-Mart traffic is to develop strategies for Corridor merchants to capture the increase in consumer traffic.

- **Northern Segment of Corridor:** The northern portion of the Arizona Avenue Corridor (north of Boston Street) is attractive and possesses the historic character that should translate into a successful downtown. While still in its infancy and needing to mature, with additional redevelopment efforts by the City, the northern Corridor should be a success that can be grown to the south.
- **Competition:** Retail uses currently existing along Arizona Avenue do not, for the most part, compete with the types of retail uses found in the Loop 202 shopping centers. Most of Arizona Avenue retailers provide services to the immediate neighborhood or target a different trade area for retail or restaurant services.
- **Trade Area Demographics:** The trade area (3 mile and 5 mile radius) surrounding the Arizona Avenue Corridor is very large with high incomes. Both Gilbert and Chandler have some of the highest household incomes in the County. Disposable incomes in this part of the Valley will attract a

wide variety of retail uses. There is much potential for retail development throughout the trade area and Loop 202 corridor.

- **Street Character:** While Arizona Avenue is designed to carry vehicles at a high speed, recent improvements make the area relatively attractive. The street is wide with sidewalks and on-street parking is available in many locations. These improvements were an initial step in redeveloping the Corridor.

## 5.2 Challenges

- **Perception:** Probably the greatest deterrent facing redevelopment of the Corridor is the perception of the area as a low to moderate income area that is not attractive to most of the residents of the City of Chandler. The presence of day laborers along street corners adds to this image and will continue to deter any significant retail development in the area. Consumers shop where they feel comfortable and secure. The typical Chandler consumer does not feel comfortable in the environment found along Arizona Avenue south of Boston Street. North of Boston Street, civic facilities, the San Marcos Hotel and historic buildings provide a comfortable environment with varied retail and restaurant uses.
- **Image:** Arizona Avenue is a very wide street that is designed to carry traffic. There is no center raised median to break up the expansive asphalt and sidewalks are located directly adjacent to the curb. This design is not conducive to a retail environment and, in fact, the number of curb cuts along Arizona Avenue makes for a large number of traffic movements that curtail retail activity.
- **Competition:** The retail market in Chandler is very robust. Just three miles to the west is the Chandler Fashion Center and related retail development. To the east, the Santan Regional Mall is proposed in Gilbert. The mall and a related development, Main Street Commons, will have a significant specialty retail component that will be prime competition for retail development within the Corridor.
- **Land Uses:** Land uses along the Corridor south of Boston Street include a combination of retail businesses catering to the local trade area, quasi-industrial uses, and some uses that would attract a larger trade area beyond the immediate neighborhood. Services catering to the local market include dollar stores, Hispanic groceries, self service laundries and similar uses. Most of these are contained within older buildings. There are also a series of auto body, auto repair and tire shops that likely provide services to the immediate neighborhood. The mixture and type of uses are not cohesive and do not contribute to a strong retailing environment.

Some of the newer buildings in the area include a Pep Boys auto parts store, mini-storage, and some small office buildings. These types of uses may attract consumers from outside the immediate neighborhood. There are also some specialty businesses that can be classified as “heavy” commercial uses requiring outside storage (such as electrical contracting company and an architectural stone company).

In many respects the land uses along the southern portion of Arizona Avenue are responding to existing market conditions of the adjacent neighborhood. North of Boston Street, uses are clearly oriented toward the San Marcos Hotel and the government complex.

- **Gateway:** The immediate gateway into the southern portion of the Arizona Avenue Corridor is very weak, particularly on the eastside of Arizona Avenue. That situation, however, is changing and getting better with the construction of the new shopping centers at the intersection of Arizona Avenue and the Loop 202. The gateway could be much improved by making a seamless transition from the shopping centers at the Loop 202 to the southern part of the Corridor.
- **Parcel Size:** Lots are generally not conducive to modern development practices due to shallow depths and narrow widths. Assembly of small lots is a difficult, time-consuming, and costly task that will inhibit redevelopment efforts. More assembly of land has occurred on the west side of Arizona Avenue. Several new complexes and buildings have been constructed on the West resulting in an improved appearance. Assembly of parcels and extending the depth of lots along Arizona Avenue is critical to changing the character of the area.
- **Urban Form:** From a retailing perspective, the Arizona Avenue Corridor is taking on the shape of a dumbbell from the perspective of retail activity. On the north are the City Hall Complex and San Marcos Resort. To the south are the new shopping centers at the Loop 202. The retail uses and restaurants in the A. J. Chandler Park area will not compete with the national chain retail and restaurant uses located in the southern shopping centers. With these two destinations at either end of the Corridor, particular attention must be focused on intervening uses between Boston Street and Pecos Road.

The above list is a summary of the primary issues that are facing the Arizona Avenue Corridor based on analysis of the demographic characteristics of the surrounding neighborhood and the mix of retail and business uses along Arizona Avenue.

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## 6.0 Conclusions and Recommendations

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Elliott D. Pollack and Company has conducted market studies on the redevelopment of the historic downtowns of several communities in metro Phoenix. A common theme that has emerged from those studies is this: **the key to downtown redevelopment is the construction of new, dense housing projects rather than encouraging more retail development.** Retail development by itself does not create retail sales. People create retail sales and people living in the downtown area are a necessity for a successful redevelopment effort. One only needs to look at the successes and failures of downtown redevelopment to arrive at this very simple and basic conclusion. Some examples can illustrate this finding.

- **City of Phoenix:** Phoenix has poured hundreds of million dollars into its downtown over the past two decades for a variety of civic and public improvements that include museums, a baseball stadium, a basketball arena, a large convention center and numerous theaters. With all that, it is still a downtown that largely closes after 6:00 PM. One of the best known specialty retail developers in the country, the Rouse Company, built what was reputed to be the region's best privately financed entertainment complex - the Arizona Center. After years of difficulties, it has largely been turned into an office complex with a few restaurants. Over the past 20 years, the ingredient that has been missing from City plans is a strong residential component. Downtown Phoenix is now poised to make significant strides with the development of the Downtown ASU Campus. This infusion of employees and students should begin to create the critical mass of activity that would generate demand for retail services, which will ultimately support housing development.
- **City of Mesa:** Mesa has also spent millions of dollars in downtown redevelopment in the form of street improvements and building façade reconstruction. They have promoted office and retail development and now have a new performing arts center. The one key ingredient missing from these plans over the past couple of decades has been housing development. Downtown Mesa still continues to languish as a result.
- **City of Tempe:** The shining example of downtown redevelopment in metro Phoenix is Downtown Tempe. The reason it has been successful is the presence of 50,000 students plus ASU faculty and employees that visit the area every day. In the past five years, high density residential has become more of an important factor in the downtown area and a major project is just breaking ground. However, even with this success, there has been significant turnover of retail tenants along Mill Avenue. Vacant retail space can be found in a variety of locations. The lesson from Tempe is that maintaining a viable downtown is a continuing and costly effort due to competition from nearby shopping center developments. The

Harkins Theatre in Downtown Tempe was at one time the highest grossing theater in the chain. The construction of the Arizona Mills Harkins radically changed those results.

- **City of Scottsdale:** Downtown Scottsdale is a unique situation because of its historical tourism base that provided support for retail development in the downtown. Even with that support, retail sales in Downtown Scottsdale has had its ups and downs although Scottsdale Fashion Square has provided a primary anchor that continues to be the most successful regional mall in metro Phoenix. A variety of condominium projects have been constructed now in the downtown area and many more are being planned. This infusion of population will continue to maintain the viability of Downtown Scottsdale.

To further emphasize the need for a strong residential component to downtown redevelopment, a discussion paper by the Center on Urban and Metropolitan Policy at the Brookings Institution is summarized herein. This paper entitled “Ten Steps to a Living Downtown” was prepared for the City of Denver which for many years has had a vibrant downtown. The paper comments that Denver’s success is a combination of luck and determined action, partially fueled by a growing population and a stock of low cost buildings that could be redeveloped. Three of the ten steps suggested for downtown redevelopment in the paper are directly related to housing including:

1. Housing must be downtown’s political and business priority;
2. Downtown regulations must be streamlined and support residential growth; and
3. City resources should be devoted to housing.

Based on this experience and research, it is recommended that the primary effort of the City of Chandler in redeveloping its downtown be focused on housing rather than refocusing or expanding the current retail environment. Housing will provide the support and foundation for changing the character of the retail uses along the Arizona Avenue Corridor and strengthening the existing retail businesses that already exists there. More housing, not more or different retail uses, is the key ingredient that, over the long term, will lead to a healthy downtown retail environment.

## 6.1 Strategic Vision

Following are the primary strategic goals that should be adopted by the City of Chandler for Downtown redevelopment.

- **Positioning of Downtown** – Downtown Chandler should be positioned as the core and heart of the community. It should be a destination with an active street life occurring there from early morning to late in the evening.

With this in mind, it should be comprised of the highest density residential development found in the City. As supplements to the residential component, retail services and office uses should be encouraged as well. The City Hall Complex provides a catalyst for promoting these additional uses, particularly with the existing City courts and planned County court facilities in the area.

- **Housing:** The primary strategy for reinvigorating and changing the retail market along Arizona Avenue is to introduce moderate to high density housing to the area. A combination of housing types and densities should be considered including high density ownership units (condos) at 30 to 40 units per acre, rental units at similar densities, and moderate density single family attached or detached units at 8 to 16 units per acre. This part of Chandler should contain the most urbanized and densest development in the community. Residential uses should be introduced directly onto Arizona Avenue to promote new retail uses. **The City should establish a goal for construction of 1,000 new housing units in Arizona Avenue Corridor over the next 10 years.**

While mixed-use projects are promoted today as the way to incorporate live and work environments within a single building, they have generally not been successful and are highly risky from an investment perspective, particularly in a suburban setting. The inclusion of commercial space within a residential condo project should be limited and only where it makes sense from the perspective of foot traffic. Chandler should take small steps in redeveloping its Downtown and not overburden private developers in the early stages of the process.

- **Branding:** The Arizona Avenue Corridor should be embellished with a new identity. This should be accomplished through marketing strategies that focus on Downtown Chandler's strengths and a revived character (like "Copper Square" in Downtown Phoenix). Marketing materials should focus on a "live and work" environment, emphasizing a combination or mix of retail, office and high density residential uses.
- **Retail Themeing:** While housing is the focus of this strategic vision, opportunities exist for new retail development within the Corridor due to the construction of the Loop 202 Freeway. In particular, retail opportunities exist at the southern end of the Corridor, but current lotting patterns and fractured ownerships inhibit redevelopment. A theme for retail along the southern portion of the Corridor could build upon existing uses and zoning that is currently in place. A potential theme is suggested in the next section.

## 6.2 Implementation



Downtown redevelopment efforts require a long term investment horizon. Change will not happen quickly. But through careful and thoughtful planning, the downtown environment can improve one step at a time. Parts of downtown that exhibit positive characteristics should be strengthened and stabilized. Efforts should then be directed at expanding those positive assets to other parts of downtown.

Today, the northern end of the Arizona Avenue Corridor is the healthiest. Redevelopment efforts should start there and expand southwardly. At the same time, retail opportunities exist at the far southern end of the Corridor. Assembly of land should be considered for redevelopment efforts in that area as well. Following are the recommended primary implementation measures.

- **Housing:** There are approximately 41 acres of land within or adjacent to the Corridor that could be redeveloped into residential or other uses. Approximately 12 acres are available at the northern end of the Corridor and 29 acres south of Boston Street. The 12 acres on the north consist of four blocks of land along Chandler Boulevard, one of which is being considered for the City Hall site (southeast corner of Chandler Boulevard and Arizona Avenue). A fifth block is being developed into 56 townhouse units in the 123 Washington project. The remaining 29 acres are located along Arizona Avenue south of Boston Street and encompass most of the older buildings and vacant small lots. They do not include newer buildings such as Pep Boys.

It is recommended that the City encourage the development of both town home and condominium units within the Downtown. Town home densities should range from 12 to 16 units per acre, similar to the 123 Washington product. Condo units should be permitted to occur in densities of 30 to 40 units per acre that will require structured parking and four to five story buildings. The location and ultimate number of units that could be developed on the identified sites will depend upon the City's decision on the City Hall site and historical society museum.

High-density condo projects should be encouraged to have some retail space allocated to the ground floor of units if the project is located directly on Arizona Avenue. Generally, the retail portion of mixed use projects have been difficult to lease unless in high pedestrian traffic locations.

Following is preliminary development concept for the Corridor showing that it can accommodate over 800 residential units if all vacant and under utilized sites are assembled and redeveloped. A retail concept of five acres is described below.

<b>Preliminary Development Concept Arizona Avenue Corridor</b>			
Use	Acres	Units/Acre	Total Units
City Hall	4		
Museum	2		
Retail	5		
Residential			
High Density Condos	15	40	600
Townhomes	15	14	210
Totals	41		810

Source: Elliott D. Pollack & Co.

- Retail:** It is anticipated that the retail character of the Corridor will change over time and that some existing uses may transition to more productive uses. It is recommended that a five-acre assembled site be retained at the northeast corner of Arizona Avenue and Pecos Road. This site would be approximately 300 feet deep and stretch from Pecos Road north to Morelos Street.

This site could be used for a small retail center that targets the needs of the local population. However, it could also build upon some of the existing quasi-industrial uses that are currently present in the area that require a showroom and some outdoor storage. These uses could include the architectural stone company and the fountain outlet that are already located along the Corridor. The theme for the site would be a home designer or decorator site that could be expanded to flooring companies (tile, wood or carpet), lighting, specialty furniture and similar uses that provide specialized services and products to the growing residential area to the south. While these businesses would compete with Home Depot and Lowes, generally these large companies do provide the same level of service as the small companies.

For comparison, the Scottsdale Airpark has transitioned into a large assembly of similar types of home improvement and decorating uses targeting the upscale population in north Phoenix and Scottsdale. Household incomes in the Chandler and Gilbert area should be able to support a similar assembly of uses in the Arizona Avenue Corridor.

Restaurant and specialty retail uses should continue to be encouraged in the Corridor, particularly surrounding A.J. Chandler Park. New housing development will create additional demand for restaurants and begin to establish the area as a destination for such uses that offer an alternative to the national chains found in nearby shopping centers.

- **Office:** A small amount of additional office uses should be incorporated into the Downtown. Ground floor commercial space in condo buildings can provide some of this inventory. A specific goal for office space has not been provided since the existing office buildings on the east side of A.J. Chandler Park provide a significant supply (200,000 square feet). If the City vacates its office space in these buildings in the near future, it would be a readily available supply for private industry.

### 6.3 Additional Implementation Measures

Following are additional implementation measures that should be undertaken by the City to assist in redevelopment measures.

- **Street Character and Traffic Movement:** Arizona Avenue must be embellished beyond its current character in order to slow down traffic and improve the residential/retail environment. The installation of raised, landscaped medians will assist in changing the character of the street and reducing traffic movements. Alternative traffic circulation patterns should be considered on adjacent streets. The interface between the street and buildings needs to be evaluated (bringing new buildings closer to the street versus setbacks from the street) to create a more urban setting. Adequate parking needs to be provided.
- **Zoning:** Zoning for the suggested residential uses should be established to encourage the development of new housing, including mixed use buildings. Density requirements will likely need to be changed to accommodate the types of condominium buildings suggested for the Corridor.
- **Incentives:** Incentives should be developed to encourage high density housing such as fast track permitting, fee waivers, etc.
- **Land Assembly:** When necessary and financially feasible, the City should assist in the assembly of parcels. Extending the depth of lots along Arizona Avenue is critical to changing the character of the area.
- **Monitoring Retail Activity:** The City tax department should begin and maintain a database of retail sales activity in the South Arizona Avenue Corridor. Historical information should be developed from existing records in order to be able to determine the vitality of the Corridor and the cost/benefit of the redevelopment efforts.

## Appendix

### Chart of businesses within Arizona Avenue Corridor

<u>Name</u>	<u>Type</u>		<u>Name</u>	<u>Type</u>
Chandler Boulevard				
La Stalla Restaurant	Restaurant		Jack in the Box	Restaurant
Earl Jones Institute	Educational			
Law Office	Office			
Rock Church of the Valley	Church			
Keystone Homes	Office			
Cupid's Hot Dogs	Restaurant			
Buffalo				
San Marcos Resort	Hotel/Resort		Western International University	University
Starbucks	Restaurant			
AJ's Café	Restaurant			
Day Spa	Spa			
Commonwealth				
Vacant Space			1st Credit Union	Bank
Agribusiness Management	Office		Chamber of Commerce	Office
El Zocalo	Restaurant		City of Chandler Office Buildings	Office
Pockets Bakery	Restaurant			
Serendipity	Retail - Knick Knacks			
Chadow Café	Restaurant			
Barber Shop	Barber Shop			
Pottery Painting Store	Retail - Pottery Painting			
Flower Shop	Retail - Flower Shop			
Art Store	Retail - Art			
Real Estate / Mortgage	Office			
Restaurant 98	Restaurant			
Boston				
Hillbilly Chili	Restaurant		Naughty but Nice Lingerie	Retail - Clothing
Arizona Mesquite Co.	Furniture		Brunchies	Restaurant
DiSciacca	Art		Unque Gifts and Antiques	Retail
Saba Realty	Real Estate		Day 1 Art	Retail
Antiques	Retail		Serrano's	Restaurant
Saba's Western Store	Clothing		Lloyd's Complete Auto	Auto Repair
Kokopelli Winery	Restaurant		Musclecar Garage	Auto Repair
Arrow Pharmacy / Market	Retail - Grocery, Pharmacy			
98 cent store	Retail			
Chicago				
Pirate's Fish & Chips	Restaurant		Bob M's Tires	Tire Store
NY NY Deli	Restaurant		Giro's a Mexico	Retail - Phone Cards
Montagnoso Development	Office		Mobil / On the Run	Gas Station
98 cent general store	Retail			
Gospel 4 Life Church	Church			
Discount Brake and Muffler	Auto Repair			
The Lube Shop	Auto Repair			
Frye				
Hontech	Auto Repair		Used Car Lot	Used Car Sales
Firestone	Auto Repair		Labor Express	Day Labor Center
345 Apartments	Apartment		ATV Store	Retail-ATV's & accessories
Payless Market/ Carniceria	Grocery / Restaurant		Women's Salon	Hair
			Window Screens	Retail - Window Screens
			Hispano Tax Service	Office
			Mechanica	Auto Repair
Elgin				

<u>Name</u>	<u>Type</u>		<u>Name</u>	<u>Type</u>
Elgin				
Pep Boys National Self Storage Circle K	Retail - Auto Parts Self Storage Gas Station		Laundry 99 cent store Mexican Tax Service Antique Store Property Investment / Development Ernie's Refridgeration / Sheet Metal Convenience Store Smoke Shop Chandler Glassworks Architectural Stone Concepts Mechanica Fountain World	Laundry Retail Office Retail - Antiques Office Retail Retail - Cigarettes, Cigars Retail - Custom Glass Office / Retail Auto Repair Retail - Fountains
Fairview				
Trailer Park Hacienda Del Sol	Residential Apartments		Methodist Church Frontier Tires Mi Gente Appliance Repair La Bodega Arizona Discount Store Mama Mia Market VFW Dodge Electric El Camino T&B Glass Pecos Lounge	Church / Day Labor Center Retail - Tire Shop Auto Repair Appliance Repair Retail - Furniture Retail - Mexican stuff Grocery / Restaurant  Electronic Parts Auto Repair Glass Repair Restaurant / Bar
Pecos				
				San Tan Gateway North
			Wal - Mart Del Taco Super Cuts Wendy's Mirage Nails Quizno's Game Stop t-Mobile Sleep Gallery Bank One McDonalds	
Loop 202				
Kohl's M & I Bank				San Tan Gateway South
			Sam's Club Paddock Pools Sealy Mattress Subway Starbucks Payday Loans Nail World Go Wireless Family Dentist Fantastic Sam's hi-Health	

# **APPENDIX B COMMUNITY COMMENTS**

## APPENDIX B

### COMMUNITY COMMENTS

During the community meetings, many comments and questions were received from community members from the immediate neighborhoods. They addressed a range of concerns and opinions, and provided valuable information to the consultant team and Planning staff. These comments are summarized here, from notes taken at the meetings, organized by topic. City and consultant comments and responses are in parentheses.

#### Development Projects

Are there any developers interested in the west side of Arizona Avenue?

What type of developer is the City looking for?

What is the plan for Site 6? (City Hall and Museum sites have been chosen.)

Could the local people have a vested interest in any future development?

#### Property Acquisition

Do owners of properties have to sell to the City or developers?

Will owners be forced to make improvements and then have to sell?

Business owners could get together and sell larger parcels of land.

#### Community Services

If local stores move away, where do we shop?

Could Museum have space for food service operations?

#### Relocation

How do we afford a new or different home--more expensive? (Answer: The City has a relocation policy and program; see Chapter 6) (The City would relocate affected people to equal or better homes)

Could the City bring the vision to the neighborhoods rather than just buying properties and putting homeowners on their own?

#### Traffic and Streets

City could require developers to build the streets they need.

If California Street is opened to Pecos (at Fairview), would it be wider? (Answer: No)

Traffic needs to be slowed down in the neighborhoods. (City is looking at traffic calming and control in the Downtown area)

Dakota Street gets a lot of traffic from San Marcos Estates.

When will traffic light at Fairview happen? (This is being studied as an option)

Where would it be? (Both Fairview and Elgin should be examined)

The community needs crosswalks, lights, bus stops and bike lanes on South Arizona Avenue.

A light at Fairview does not help residents south of Fairview.

Delaware Street has a speeding problem. Adding more traffic on Delaware is not a good idea.

There are no plans currently to extend or otherwise design Delaware to carry more traffic.

(If there is a connection across Pecos east of South Arizona Avenue it would be at the median cut at the shopping center)

There are concerns about left turns onto Pecos from Wal-Mart.  
A pedestrian traffic signal is needed on Pecos—to cross the street.  
If Delaware extends to Pecos then there should be a traffic signal at Frye & Delaware.  
Who controls South Arizona Avenue (The City controls it)  
Community hears that more traffic is planned for the neighborhoods. (The intent is not to add through traffic in the neighborhoods)  
The study should consider taking through traffic on the east side of the railroad tracks, with limited access to the neighborhood.  
What happens if the neighborhood is closed off—i.e., a gated community?  
What about Washington and Arizona as a one-way pair of streets? (Arizona Avenue would need to be two-way)  
(Another possibility is a raised median along Arizona Avenue)

### **Businesses**

Storage unit business wants to add more office—City wants part of site for landscape and parking. (Zoning requires certain requirements at the time a building is improved. More office needs more parking)

### **Upgrading the Area**

Concern about more vibrant dense South Arizona Avenue might mean people who live there now will eventually have to move.  
Can the area currently zoned residential be re-zoned to commercial so that residents can take advantage of the higher values? The two sides of Arizona Avenue should be treated the same.  
How does commercial use integrate with single family use through zoning?  
What happens to Habitat for Humanity homes? (Remain in place)  
Concern: more density being equated with more drug trafficking.

### **Zoning**

Will the City charge property owners for re-zoning? (No, City will initiate at no cost to owners)  
What happens to existing businesses when re-zoned (Rezoning provides options but does not require relocation)  
Does re-zoning allow developers to come in and take over? (Current owners have options to remain or sell)  
Does the City set minimum standards? (Yes)

### **Neighborhoods and Properties**

What will happen to the properties east of Washington, north side of Pecos?  
The church on Kessler does not intend to sell its property.

### **Streetscape**

(Street lights are funded through the City's Capital Improvement Program)

### **Infrastructure**

Has anyone thought about sewer and water capacity? (There is plenty of service for the area)





# **APPENDIX C DEMOGRAPHICS AND BUSINESSES IN THE CORRIDOR**

## APPENDIX C

This Appendix provides an overview of the demographic characteristics of the neighborhood surrounding the Arizona Avenue Corridor. Included in this section will also be a description of the retailers and other businesses within the Corridor and the square footage of building space in the area.

### Demographic Characteristics of Population

The characteristics of the population surrounding the Arizona Avenue Corridor vary with the distance from the Corridor. The following table shows the household characteristics for four different trade areas surrounding the Corridor. The column described as "Neighborhood Corridor" is that population living within one quarter mile east or west of Arizona Avenue. The remaining columns look at the characteristics of the population within one mile, three miles and five miles of the intersection of Arizona Avenue and Frye Road.

<b>Household Characteristics Neighborhood Surrounding Arizona Avenue and Frye Road</b>					
	Corridor Neighborhood	1 Mile Radius*	3 Mile Radius*	5 Mile Radius*	Maricopa County
2000 Population	4,886	16,865	101,311	219,158	3,072,149
1990 Population		10,334	47,890	113,447	2,122,101
2000 Average Household Size	3.71	3.37	2.97	2.91	2.71
2000 Average Household Income		\$47,152	\$62,562	\$69,103	\$59,655
2000 Median Household Income	\$27,400	\$39,082	\$55,643	\$61,321	\$45,821
2000 Per Capita Income		\$13,868	\$21,292	\$23,929	\$22,251
2000 Tenure of Occupied Housing Units	1,316	5,008	34,073	75,331	1,132,886
Owner Occupied	402	2,535	24,809	57,461	764,547
Renter Occupied	914	2,473	9,264	17,871	368,339
% Owner Occupied	30.5%	50.6%	72.8%	76.3%	67.5%
% Renter Occupied	69.5%	49.4%	27.2%	23.7%	32.5%
Note: Corridor Neighborhood is that area within 1/4 mile of Arizona Avenue.					
*Radius centered on Arizona Avenue and Frye Road					
Source: U.S. Census					

The neighborhood that directly impacts the Corridor is that population living adjacent to Arizona Avenue. According to the 2000 U.S. Census, that population had a median household income of approximately \$27,400 and an average household size of 3.7 persons per household. Household income increases with distance from the Corridor rising to an average of \$61,000 (in 1999 dollars) within five miles of the Corridor. A total of 1,316 households live within the immediate Corridor neighborhood, 70% of whom are renters. However, that high percentage is skewed by the presence of the Hacienda Del Sol apartment complex located at the northwest corner of Arizona Avenue and Pecos Road. The percentage of owner occupied units increases with distance from the Arizona Avenue Corridor.

The characteristics of the neighborhood surrounding the Arizona Avenue Corridor are not surprising given that it is the original center of Chandler and contains some of the oldest housing in the community. Most of the growth in Chandler has occurred on the peripheral areas, primarily in the form of single-family housing.

More detailed analysis of the population within the Arizona Avenue Corridor is provided in the following tables. The total number of persons living within one quarter mile east or west of Arizona Avenue is 4,886 with a very young median age of 25 years. This compares to the Maricopa County median of 33 years of age. The population of the Corridor is heavily weighted toward persons of Hispanic origin who comprise approximately 85% of all residents. Household income is heavily weighted towards the lower end of the income range although approximately 21% of the households earn more than \$50,000 according to the 2000 U.S. Census.

<b>Population by Age</b> <b>Arizona Avenue Corridor</b> <b>1/4 Mile East and West</b>		
<b>Age Group</b>	<b>Population</b>	<b>% of total</b>
Under 5	579	11.9%
5 to 9	461	9.4%
10 to 14	370	7.6%
15 to 17	225	4.6%
18 to 20	332	6.8%
21 to 24	443	9.1%
25 to 34	969	19.8%
35 to 44	671	13.7%
45 to 49	202	4.1%
50 to 54	177	3.6%
55 to 59	128	2.6%
60 to 64	98	2.0%
65 to 74	119	2.4%
75 to 84	83	1.7%
85 and over	29	0.6%
<b>Total Population</b>	<b>4,886</b>	<b>100.0%</b>
Under 21	1,967	40.3%
21 yrs to 54 yrs	2,462	50.4%
55 yrs and over	457	9.4%
<b>Median Age</b>	<b>25.4</b>	
Source: U.S. Census		

Households by Age of Householder By Tenure Arizona Avenue Corridor 1/4 Mile East and West						
Age of Householder	Owner		Renter		Total	
	Households	% of total	Households	% of total	Households	% of total
15 to 24 years	17	4.2%	146	16.0%	163	12.4%
25 to 34 years	58	14.4%	308	33.7%	366	27.8%
35 to 44 years	90	22.4%	224	24.5%	314	23.9%
45 to 54 years	74	18.4%	115	12.6%	189	14.4%
55 to 64 years	67	16.7%	68	7.4%	135	10.3%
65 to 74 years	53	13.2%	27	3.0%	80	6.1%
75 to 84 years	30	7.5%	22	2.4%	52	4.0%
85 years and over	13	3.2%	4	0.4%	17	1.3%
<b>Totals</b>	<b>402</b>	<b>100.0%</b>	<b>914</b>	<b>100.0%</b>	<b>1,316</b>	<b>100.0%</b>

Source: U.S. Census

Population by Race Arizona Avenue Corridor 1/4 Mile East and West		
Race	Population	% of total
White	439	9.0%
Black	158	3.2%
Native American	59	1.2%
Asian	27	0.6%
Native Hawaiian & Other Pacific	10	0.2%
Other	4	0.1%
Two or more races	44	0.9%
Hispanic Origin	4,145	84.8%
<b>Total Population</b>	<b>4,886</b>	<b>100.0%</b>

Source: U.S. Census

Household Income Arizona Avenue Corridor 1/4 Mile East and West		
Income range	Total	
	Households	% of total
Less than \$10,000	136	10.3%
\$10,000 to \$14,999	142	10.8%
\$15,000 to \$19,999	165	12.5%
\$20,000 to \$24,999	154	11.7%
\$25,000 to \$34,999	212	16.1%
\$35,000 to \$49,999	233	17.7%
\$50,000 to \$74,999	169	12.8%
\$75,000 to \$99,999	65	5.0%
\$100,000 to \$149,999	22	1.7%
\$150,000 & above	17	1.3%
Total Households	1,316	100.0%
<b>Median Household Income</b>	<b>\$27,396</b>	

Source: U.S. Census

Housing in the Arizona Avenue Corridor is also older than much of the housing in the remainder of the City. Approximately one third of the units were built between 1980 and 1989, primarily within the Hacienda Del Sol apartment complex. Fifty-six percent of the units were built before 1980, representing much of the single family inventory in the area.

<b>Occupied Units by Tenure by Year Structure Built</b>				
<b>Arizona Avenue Corridor</b>				
<b>1/4 Mile East and West</b>				
<b>Year Structure Built</b>	<b>Owner</b>		<b>Renter</b>	
	<b>Households</b>	<b>% of total</b>	<b>Households</b>	<b>% of total</b>
Built 1999 to March 2000	24	5.9%	9	1.0%
Built 1995 to 1998	6	1.4%	49	5.4%
Built 1990 to 1994	8	1.9%	43	4.7%
Built 1980 to 1989	60	14.9%	385	42.1%
Built 1970 to 1979	72	18.0%	135	14.7%
Built 1960 to 1969	55	13.7%	112	12.2%
Built 1950 to 1959	57	14.2%	105	11.4%
Built 1940 to 1949	72	18.0%	39	4.3%
Built 1939 or earlier	48	12.1%	37	4.1%
<b>Total</b>	<b>402</b>	<b>100.0%</b>	<b>914</b>	<b>100.0%</b>

Source: U.S. Census

An estimate of the amount of household spending that may be available within the Arizona Avenue Corridor is provided on the following table. The spending estimate is based on a number of households within one mile of the Arizona Avenue Corridor, which according to the 2000 Census with 5,008 households. The median income of those households was applied to a spending model developed by Elliott D. Pollack & Company based on the U.S. Consumer Expenditure Survey. The model calculates the amount of taxable household spending of the population for a variety of different daily needs. A household with an income of \$39,000 spends roughly 51% of its income on taxable goods and services. The largest categories of nontaxable spending are a home mortgage, rent, property taxes and health care.

<b>Taxable Household Spending Potential Households Within One Mile of Arizona Avenue Corridor</b>				
<b>Households</b>	<b>5,008</b>			
		<b>% of Income</b>	<b>% of Retail Spending</b>	<b>Total Spending Potential</b>
<b>Income</b>	<b>\$39,082</b>			
<b>Spending</b>				
<b>Food</b>	<b>\$5,016</b>	<b>12.8%</b>	<b>25.3%</b>	<b>\$25,119,334</b>
Food at home	\$2,982	7.6%	15.0%	\$14,933,950
Food away from home	\$2,034	5.2%	10.2%	\$10,187,130
<b>Alcoholic beverages</b>	<b>\$378</b>	<b>1.0%</b>	<b>1.9%</b>	<b>\$1,892,346</b>
<b>Utilities, fuels, and public services</b>	<b>\$2,566</b>	<b>6.6%</b>	<b>12.9%</b>	<b>\$12,850,274</b>
<b>Household supplies and operations</b>	<b>\$950</b>	<b>2.4%</b>	<b>4.8%</b>	<b>\$4,759,183</b>
Other household expenses	\$344	0.9%	1.7%	\$1,723,368
Laundry and cleaning supplies	\$134	0.3%	0.7%	\$669,195
Other household products	\$344	0.9%	1.7%	\$1,723,368
Postage and stationery	\$128	0.3%	0.6%	\$643,253
<b>Household furnishings and equipment</b>	<b>\$1,307</b>	<b>3.3%</b>	<b>6.6%</b>	<b>\$6,545,541</b>
Household textiles	\$105	0.3%	0.5%	\$527,723
Furniture	\$330	0.8%	1.7%	\$1,651,526
Floor coverings	\$42	0.1%	0.2%	\$208,453
Major appliances	\$172	0.4%	0.9%	\$861,547
Small appliances, miscellaneous housewares	\$81	0.2%	0.4%	\$406,649
Misc. household equipment	\$577	1.5%	2.9%	\$2,889,643
<b>Apparel and services</b>	<b>\$1,522</b>	<b>3.9%</b>	<b>7.7%</b>	<b>\$7,620,285</b>
<b>Vehicle purchases (net outlay)</b>	<b>\$3,216</b>	<b>8.2%</b>	<b>16.2%</b>	<b>\$16,105,526</b>
<b>Gasoline and motor oil</b>	<b>\$1,199</b>	<b>3.1%</b>	<b>6.0%</b>	<b>\$6,004,207</b>
<b>Other vehicle expenses</b>	<b>\$935</b>	<b>2.4%</b>	<b>4.7%</b>	<b>\$4,681,726</b>
Maintenance and repairs	\$569	1.5%	2.9%	\$2,849,309
Vehicle rental, leases, other charges	\$366	0.9%	1.8%	\$1,832,417
<b>Health care</b>	<b>\$101</b>	<b>0.3%</b>	<b>0.5%</b>	<b>\$505,869</b>
Medical supplies	\$101	0.3%	0.5%	\$505,869
<b>Entertainment</b>	<b>\$1,769</b>	<b>4.5%</b>	<b>8.9%</b>	<b>\$8,857,033</b>
Fees and admissions	\$394	1.0%	2.0%	\$1,975,310
Television, radios, sound equipment	\$655	1.7%	3.3%	\$3,279,299
Pets, toys, and playground equipment	\$346	0.9%	1.7%	\$1,730,311
Other entertainment supplies, equipment	\$374	1.0%	1.9%	\$1,872,114
<b>Personal care products and services</b>	<b>\$489</b>	<b>1.3%</b>	<b>2.5%</b>	<b>\$2,446,725</b>
<b>Reading</b>	<b>\$113</b>	<b>0.3%</b>	<b>0.6%</b>	<b>\$567,728</b>
<b>Tobacco products and smoking</b>	<b>\$300</b>	<b>0.8%</b>	<b>1.5%</b>	<b>\$1,502,580</b>
<b>Total Taxable Spending</b>	<b>\$19,860</b>	<b>50.8%</b>	<b>100.0%</b>	<b>\$99,458,358</b>

Source: U.S. Consumer Expenditure Survey

Aggregate potential spending of the population within one mile of the Arizona Avenue Corridor is nearly \$100 million. Food, both groceries and restaurant spending, is one of the largest categories at approximately 13% of gross income. Vehicle Purchases is another large category as well.

According to the above data, the population within one mile of the Corridor would generate about \$15 million in grocery sales. Today, the typical grocery store generates about \$18 million to \$19 million in annual sales. The 5,008 households and 16,865 people living near the Corridor, therefore, would provide the majority of support for a grocery store. However, there are several stores in the area, including the new Wal-Mart, indicating that demand is probably satisfied.

The spending potential of this population within one mile of the Corridor is significant. However, most of those dollars are captured by retailers within nearby shopping centers. Unfortunately the Arizona Avenue Corridor is not a strong competitor today within the retail market.

**Characteristics of Arizona Avenue Retail Corridor**

An extensive inventory of businesses within the Arizona Avenue Corridor was conducted as part of this study. The following table provides the inventory by type of business or use. The locations of these businesses are shown on a graphic in the Appendix of this report corresponding to major streets within the Corridor.



**Arizona Avenue Corridor Business Inventory**

**Restaurant**

AJ's Café  
 Brunchies  
 Chadow Café  
 Cupid's Hot Dogs  
 El Zocalo  
 Hillbilly Chili  
 Jack in the Box  
 Kokopelli Winery  
 La Stalla Restaurant  
 NY NY Deli  
 Pecos Lounge  
 Pirate's Fish & Chips  
 Pockets Bakery  
 Restaurant 98  
 Serrano's  
 Starbucks

**General Retail**

98 cent general store  
 98 cent store  
 99 cent store  
 Arizona Discount Store  
 Arrow Pharmacy/Market  
 Convenience Store

**Specialty Retail**

Antique Store  
 Art Store  
 ATV Store  
 Arizona Mesquite Company  
 Chandler Glassworks  
 Day One Art  
 DiSciacca  
 Flower Shop  
 Fountain World  
 Giro's a Mexico  
 La Bodega  
 Naughty but Nice Lingerie  
 Pottery Painting Store  
 Saba's Western Wear  
 Serendipity  
 Smoke Shop  
 T&B Glass  
 Unique Gifts & Antiques  
 Window Screens

**Grocery**

Mama Mia Market  
 Payless Market/ Carniceria

**Bank**

1st Credit Union

**Retail Auto**

Bob M's Tires  
 Frontier Tires  
 Pep Boys  
 Used Car Lot

**Auto Repair**

Discount Brake and Muffler  
 El Camino  
 Firestone  
 Hontech  
 Lloyd's Complete Auto  
 Mechanica  
 Mechanica  
 Mi Gente  
 Musclicar Garage  
 The Lube Shop

**Personal Services**

Appliance Repair  
 Day Spa  
 Laundry  
 Men's Barber Shop  
 Women's Salon

**Semi - Public**

Chamber of Commerce  
 Gospel 4 Life Church  
 Methodist Church  
 Rock Church of the Valley  
 VFW

**Office**

Agribusiness Management  
 Hispano Tax Service  
 Keystone Homes  
 Law Office  
 Labor Express  
 Mexican Tax Service  
 Montagnoso Develoment  
 Property Investment / Development  
 Real Estate / Mortgage  
 Saba Realty

**Industrial**

Architectural Stone Concepts  
 Dodge Electric  
 Ernie's Refridgeration / Sheet Metal

**Self-Storage**

National Self Storage

**Gas Station**

Circle K  
 Mobil / On the Run

**Residential**

345 Apartments  
 Hacienda Del Sol Apartments  
 Trailer Park

**Educational**

Earl Jones Institute  
 Western International University

Source: Elliott D. Pollack & Co.

In total, there are approximately 528,000 square feet of building space within the Arizona Avenue Corridor between Chandler Boulevard and Pecos Road. This inventory does not include any City owned buildings or the office buildings located on the eastside of A.J. Chandler Park. The most intensely developed portion of the Corridor is that area

between Frye Road and Fairview Street that contains a 67,000 square foot self-storage property. Excluding that site, the square footage between Frye Road and Fairview Street drops to 117,000 square feet. The square footage estimates do not include residential uses.

<b>Summary of Building Square Footage</b>	
Area	Building Square Feet
Chandler Avenue to alley south of Boston Street	175,094
Alley south of Boston Street to Frye Road	117,551
Frye Road to Fairview Street	184,096 *
Fairview Street to Pecos Road	51,449
<b>Total</b>	<b>528,190</b>
<b>Total Excluding Self Storage</b>	<b>461,190</b>
* Includes a 67,000 self storage site	
Source: Maricopa County Assessor	

The total square footage of building space in the Corridor, excluding the self storage business, is approximately 461,000 square feet. If this square footage was contained within a single shopping center site, it would consume approximately 50 acres of land, most of which would be devoted to off street parking. However, the businesses along Arizona Avenue do not function as a single shopping center and do not provide the same amount of parking that would normally be required in a conventional retail center. The shopping environment is also bifurcated by Arizona Avenue which is designed to carry traffic rather than to create an environment conducive to retailing. This factor contributes to the lack of strong retailing activity along Arizona Avenue.

Overall, there are four general categories of businesses along the Arizona Avenue Corridor:

- Specialty stores and restaurants.
- A combination of retail and service businesses catering to the local neighborhood.
- A few national chain retailers that may attract consumers from a trade area larger than the immediate neighborhood (PEP Boys, Firestone).
- Quasi-industrial and heavy commercial uses (electrical contractor, architectural stone company).

From a retailing perspective, the Corridor can also be divided into a north and south segment. Virtually, all of the restaurants in the Corridor are located at the northern end, north of Boston Street, where businesses are oriented towards the City government complex and A.J. Chandler Park. Many of the specialty retail businesses are also located in this area as well. The southern portion of the Corridor, generally south of the alley south of Boston Street, is more oriented towards providing services to the local neighborhood. Interspersed among these uses are some quasi-industrial or heavy

commercial uses such as auto repair shops, contractor's offices and yards, and similar businesses.

Concern has been expressed that the construction of the Wal-Mart shopping center located south of Pecos Road could have a significant effect on retailing within the Arizona Avenue Corridor.

**BUSINESSES IN THE ARIZONA AVENUE CORRIDOR**

<u>Name</u>	<u>Type</u>		<u>Name</u>	<u>Type</u>
Chandler Boulevard				
La Stalla Restaurant Earl Jones Institute Law Office Rock Church of the Valley Keystone Homes Cupid's Hot Dogs	Restaurant Educational Office Church Office Restaurant		Jack in the Box	Restaurant
Buffalo				
San Marcos Resort Starbucks AJ's Café Day Spa	Hotel/Resort Restaurant Restaurant Spa		Western International University	University
Commonwealth				
Vacant Space Agribusiness Management El Zocalo Pockets Bakery Serendipity Chadow Café Barber Shop Pottery Painting Store Flower Shop Art Store Real Estate / Mortgage Restaurant 98	Office Restaurant Restaurant Retail - Knick Knacks Restaurant Barber Shop Retail - Pottery Painting Retail - Flower Shop Retail - Art Office Restaurant		1st Credit Union Chamber of Commerce City of Chandler Office Buildings	Bank Office Office
Boston				
Hillbilly Chili Arizona Mesquite Co. DiSciacca Saba Realty Antiques Saba's Western Store Kokopelli Winery Arrow Pharmacy / Market 98 cent store	Restaurant Furniture Art Real Estate Retail Clothing Restaurant Retail - Grocery, Pharmacy Retail		Naughty but Nice Lingerie Brunchies Unque Gifts and Antiques Day 1 Art Serrano's Lloyd's Complete Auto Musclecar Garage	Retail - Clothing Restaurant Retail Retail Restaurant Auto Repair Auto Repair
Chicago				
Pirate's Fish & Chips NY NY Deli Montagnoso Development 98 cent general store Gospel 4 Life Church Discount Brake and Muffler The Lube Shop	Restaurant Restaurant Office Retail Church Auto Repair Auto Repair		Bob M's Tires Giro's a Mexico Mobil / On the Run	Tire Store Retail - Phone Cards Gas Station
Frye				
Hontech Firestone 345 Apartments Payless Market/ Carniceria	Auto Repair Auto Repair Apartment Grocery / Restaurant		Used Car Lot Labor Express ATV Store Women's Salon Window Screens Hispano Tax Service Mechanica	Used Car Sales Day Labor Center Retail-ATV's & accessories Hair Retail - Window Screens Office Auto Repair
Elgin				

<u>Name</u>	<u>Type</u>		<u>Name</u>	<u>Type</u>
Elgin				
Pep Boys National Self Storage Circle K	Retail - Auto Parts Self Storage Gas Station		Laundry 99 cent store Mexican Tax Service Antique Store Property Investment / Development Ernie's Refridgeration / Sheet Metal Convenience Store Smoke Shop Chandler Glassworks Architectural Stone Concepts Mechanica Fountain World	Laundry Retail Office Retail - Antiques Office Retail Retail - Cigarettes, Cigars Retail - Custom Glass Office / Retail Auto Repair Retail - Fountains
Fairview				
Trailer Park Hacienda Del Sol	Residential Apartments		Methodist Church Frontier Tires Mi Gente Appliance Repair La Bodega Arizona Discount Store Mama Mia Market VFW Dodge Electric El Camino T&B Glass Pecos Lounge	Church / Day Labor Center Retail - Tire Shop Auto Repair Appliance Repair Retail - Furniture Retail - Mexican stuff Grocery / Restaurant  Electronic Parts Auto Repair Glass Repair Restaurant / Bar
Pecos				
			San Tan Gateway North	
			Wal - Mart Del Taco Super Cuts Wendy's Mirage Nails Quizno's Game Stop t-Mobile Sleep Gallery Bank One McDonalds	
Loop 202				
Kohl's M & I Bank			San Tan Gateway South	
			Sam's Club Paddock Pools Sealy Mattress Subway Starbucks Payday Loans Nail World Go Wireless Family Dentist Fantastic Sam's hi-Health	

# **APPENDIX D SOUTH ARIZONA AVENUE TRAFFIC STUDY**

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# South Arizona Avenue Traffic Study

## FINAL REPORT

Chandler, Arizona

June 16, 2006

*Submitted to:*



**Chandler** ♦ **Arizona**  
*Where Values Make The Difference*

*Submitted by:*



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## I. INTRODUCTION

### ***A. Problem Statement***

The 2001 City of Chandler Transportation Plan identifies Arizona Avenue as a six-lane road in the long range planning horizon. This includes the segment through downtown from Chandler Boulevard to Pecos Road. Recent land use planning studies, including the City Hall site selection and the South Arizona Avenue Planning Study, have proposed a mixed-use, pedestrian-friendly downtown area, which would include limiting Arizona Avenue to four lanes between Chandler Boulevard and Pecos Road. As a result, this study was undertaken to assess the impacts of maintaining four lanes on Arizona Avenue in the future.

### ***B. Background***

The City of Chandler continues to experience significant growth throughout the city including the downtown area where redevelopment is beginning to occur. The latest projections indicate that population and employment will increase in the downtown area as redevelopment occurs and the area is built out.

In addition to development growth, travel patterns to/from the downtown area have changed. The recently completed Loop 202 has an interchange at Arizona Avenue just south of downtown, which has changed the way motorists access downtown. In the future, mixed-use development will also change peak period travel characteristics.

The study area, as shown in Figure 1, is one-quarter mile east and west of Arizona Avenue from Pecos Road to Chandler Boulevard. It includes the intersections of Chandler Boulevard, Buffalo Street, Commonwealth Place, Boston Street, Chicago Street, Frye Road, Elgin Street, Fairview Street, and Pecos Road.

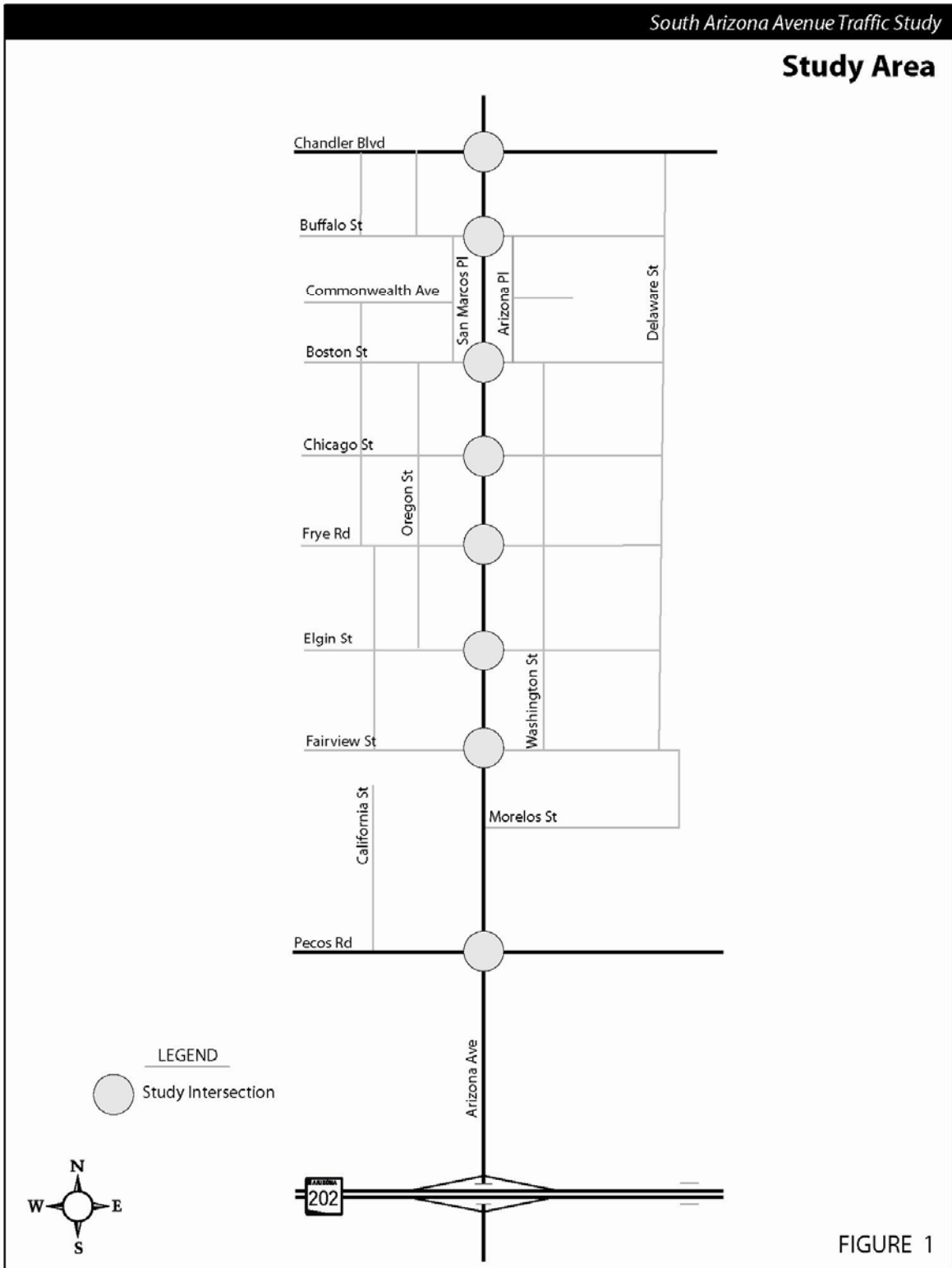


FIGURE 1

## **C. Study Process**

This report presents a description of existing and future conditions including the street system, land use, traffic signal locations, and proposed transit routes. Also included is a review of the forecasts contained in the 2001 Transportation Plan to determine if those forecasts should be revised. Additionally, recent land use plans being prepared for the downtown were used to generate site specific traffic that would impact Arizona Avenue. Based on the forecasts and the land use plans, intersection analysis was conducted to determine the projected operating conditions at the existing and proposed signalized intersections. If needed, additional intersection improvements were identified and impacts to adjacent streets examined. The report concludes with a summary of the recommendations for Arizona Avenue in downtown Chandler.

Data sources used for the study include the Maricopa Association of Governments (MAG) socio economic data for 2006, the 2001 Transportation Plan, City of Chandler Planning Department 2030 socioeconomic forecasts, land use plan from the South Arizona Avenue Corridor Study, City of Chandler 2004 traffic volumes, intersection turning movement volumes, SanTan Gateway Traffic Impact Analysis Report, and Traffic Impact Study Report for the Northeast Courts Complex.

The study included a presentation to both the Transportation Commission and the Planning and Zoning Commission.

## II. EXISTING CONDITIONS

This section documents the existing street system and land uses in the study area. Current traffic operations are described and analyzed.

### **A. Street System**

Arizona Avenue is a major north-south arterial street in the City of Chandler, which extends across the entire length of Chandler from the City of Mesa to Pinal County. In general, it is currently a four-lane road with a center two way left turn lane and with parking in the downtown area. Except for some restrictions at intersections, on-street parking is generally permitted on the east side between Pecos Road and Boston Street and on the west side between Boston Street and Fairview. There is sidewalk on both sides of the street. Access occurs at signalized intersections, unsignalized intersections, and driveways.

The signalized intersections are located at Chandler Boulevard, Buffalo Street, Boston Street, Frye Road, and Pecos Road. There is also a signalized pedestrian crossing at Commonwealth Place. All the signalized intersections include separate left turn lanes on Arizona Avenue. In addition, there is a separate right turn lane NB and SB at Chandler Boulevard, SB at Buffalo Street, SB at Boston Street, SB at Frye Road, and NB and SB at Pecos Road.

There is a transit line, route 112, which runs along Arizona Avenue with a southern terminus at Frye Road. The route currently loops around downtown using Boston Street, Delaware Street, and Frye Road.

### **B. Land Use**

The land use in downtown Chandler is mixed-use with residential, office and commercial uses. Specifically, City Hall and city offices are located on the east side of the corridor. The San Marcos Hotel and golf course are located on the

west side adjacent to the corridor. Commercial uses include restaurants and shops as well as a variety of older, small businesses on the south end of downtown.

Table 1 presents existing population and employment for the area bounded by Ray Road, McQueen Road, Loop 202, and Alma School Road. There are approximately 34,000 people living and 9,600 people working in that area today.

**TABLE 1  
CURRENT BUILDOUT POPULATION AND EMPLOYMENT  
SUMMARY**

TAZ	Population	Employment					Total
		Retail	Office	Industrial	Public	Other	
1244 <sup>1</sup>	6614	651	497	0	745	110	2003
1245 <sup>2</sup>	7059	755	69	10	164	286	1284
1246 <sup>3</sup>	9697	552	0	144	184	66	946
1247 <sup>4</sup>	5821	354	517	450	1683	91	3095
1260 <sup>5</sup>	3634	758	667	0	84	120	1629
1265 <sup>6</sup>	1251	405	264	0	1	13	683
<b>TOTAL</b>	<b>34,076</b>	<b>3475</b>	<b>2014</b>	<b>604</b>	<b>2861</b>	<b>686</b>	<b>9640</b>

<sup>1</sup>north of Chandler, west of Arizona

<sup>2</sup>between Chandler and Pecos, west of Arizona

<sup>3</sup>north of Chandler, east of Arizona

<sup>4</sup>between Chandler and Pecos, east of Arizona

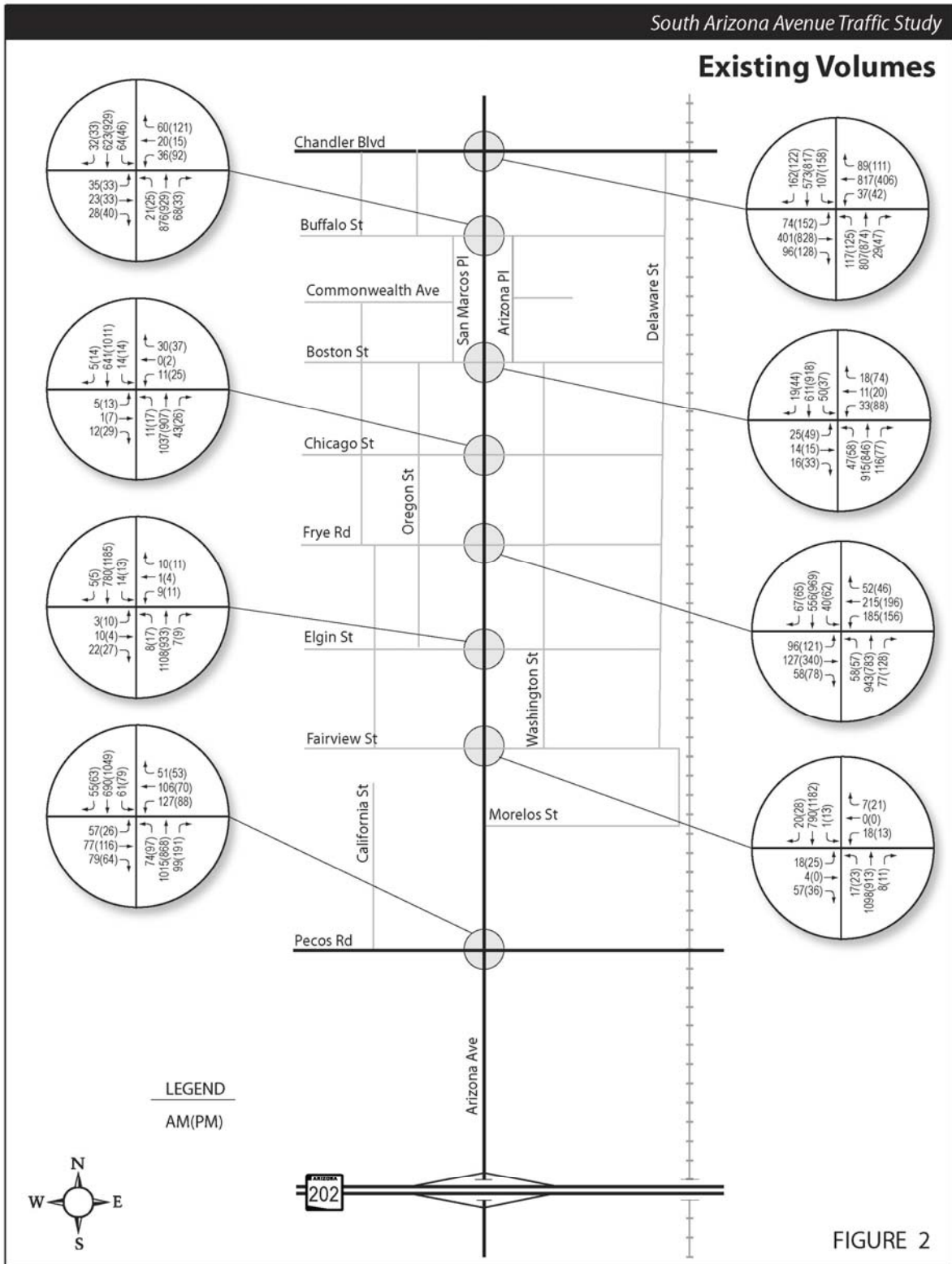
<sup>5</sup>south of Pecos, west of Arizona

<sup>6</sup>south of Pecos, east of Arizona

### ***C. Traffic Data***

According to the City of Chandler traffic data, the 2004 daily traffic on Arizona Avenue was 30,700 vehicles.

Intersections turning movement counts were conducted on Wednesday, March 29, 2006 at the five signalized intersections in the study area and at the unsignalized intersections of Chicago Street, Elgin Street, and Fairview Street. The counts were taken during the peak traffic periods from 6:30 to 8:30 am and from 4:00 to 6:00 pm. The AM and PM peak hour traffic volumes are shown in Figure 2.



A review of the turning movement volumes indicates that the peak hour volumes on Arizona Avenue are not consistent with a 24 hour volume of 30,700 vehicles per day. After discussion with City staff, it is assumed that traffic was reduced the day of the counts because of construction activities at Arizona Avenue and Chandler Boulevard and Arizona Avenue and Pecos Road.

In order to provide peak hour volumes consistent with the daily volume, the through volumes on Arizona Avenue were increased at each intersection to approximate peak hour volumes that would be consistent with a daily volume of 30,700 vehicles. Additionally, the volumes on Chandler Boulevard and Pecos Road were also adjusted to better represent the existing daily volumes on those streets.

#### ***D. Traffic Analysis***

The adjusted peak hour traffic was analyzed using the SYNCHRO software package. SYNCHRO analysis is based on the methodology presented in the Highway Capacity Manual (Transportation Research Board, 2000). This method uses the critical volumes passing through the intersection in one hour and compares those volumes to the capacity of the intersection and an associated delay. The analysis incorporates the effects of traffic volumes, geometry, traffic signal operation, truck and local bus volumes, pedestrian activity, and peaking characteristics. The result is a level of service determination for each approach and for the intersection as a whole.

Level of Service (LOS) is a term used to describe traffic operations. The various levels of service, which range from A to F, are generally defined as follows:



- **LEVEL OF SERVICE A** represents free flow operation.
- **LEVEL OF SERVICE B** is in the range of free flow, but the presence of other users in the traffic stream begins to be noticeable.
- **LEVEL OF SERVICE C** is in the range of stable flow, but marks the beginning of the range in which the operation of individual users becomes significantly affected by others.
- **LEVEL OF SERVICE D** represents high density but stable flow. Speed and freedom to maneuver are severely restricted, and the driver experiences a generally poor level of comfort and convenience.
- **LEVEL OF SERVICE E** represents operating conditions at or near the capacity level. All speed is reduced to a low but relatively uniform value.
- **LEVEL OF SERVICE F** is used to define forced or stop and go travel. This condition exists wherever the amount of traffic approaching a point exceeds the amount that can traverse the point.

The level of service for signalized intersections is based on average vehicle delay as shown in Table 2.

**TABLE 2  
CAPACITY CRITERIA FOR SIGNALIZED INTERSECTIONS\***

Level of Service (LOS)	Control Delay per Vehicle (sec)
A	less than 10
B	10.1-20
C	20.1-35
D	35.1-55
E	55.1-80
F	over 80

\*Source: Highway Capacity Manual

The resulting level of service and delay is presented in Table 3 for both peak hours. It should be noted that the intersection analysis for both the Chandler Boulevard and Pecos Road intersections was based on the completion of the recent intersection improvements.

**TABLE 3  
EXISTING INTERSECTION LEVEL OF SERVICE SUMMARY**

INTERSECTION/APPROACH	AM		PM	
	LOS	DELAY	LOS	DELAY
Arizona/Chandler	C	33	E	71
Arizona/Buffalo	A	6	A	7
Arizona/Boston	A	5	A	9
Arizona/Frye	B	18	C	32
Arizona/Pecos	B	20	C	29

The results indicate that only one intersection has an overall level of service of E or F and that is Chandler Boulevard in the PM peak hour.

### III. FUTURE CONDITIONS

This section presents the forecast assumptions and results from the 2001 Chandler Transportation Plan, current land use planning, updated traffic forecasts, and analysis of future conditions.

#### A. 2001 Chandler Transportation Plan Forecasts

According to the 2001 Chandler Transportation Plan, the 2040 (buildout) daily traffic forecast for Arizona Avenue between Chandler Boulevard and Pecos Road was 42,000 vehicles. The traffic forecast was obtained from MAG and is based on population and employment forecasts disaggregated to traffic analysis zones (TAZ) using the DRAM/EMPAL land use model and a geographic information system based sub area allocation model.

The TAZ data for the zones immediately adjacent to the study corridor was reviewed. The data is summarized in Table 4.

**TABLE 4  
BUILDOUT FORECAST POPULATION & EMPLOYMENT FROM THE  
2001 CHANDLER TRANSPORTATION PLAN**

TAZ	Population	Employment					Total
		Retail	Office	Industrial	Public	Other	
1244 <sup>1</sup>	5734	781	510	67	1159	59	2576
1245 <sup>2</sup>	6826	136	530	25	1023	894	2608
1246 <sup>3</sup>	9355	2004	14	93	224	104	2439
1247 <sup>4</sup>	5343	308	3890	1051	2041	339	7629
1260 <sup>5</sup>	4087	701	18	63	56	56	894
1265 <sup>6</sup>	2957	37	320	33	1	21	412
<b>TOTAL</b>	<b>34302</b>	<b>3967</b>	<b>5282</b>	<b>1332</b>	<b>4504</b>	<b>1473</b>	<b>16558</b>

<sup>1</sup>north of Chandler, west of Arizona

<sup>2</sup>between Chandler and Pecos, west of Arizona

<sup>3</sup>north of Chandler, east of Arizona

<sup>4</sup>between Chandler and Pecos, east of Arizona

<sup>5</sup>south of Chandler, west of Arizona

<sup>6</sup>south of Chandler, east of Arizona

As seen in Table 4, the projected population was 34,300 and the employment was 16,600.

## ***B. Land Use Plan***

In order to verify the forecast contained in the 2001 Chandler Transportation Plan, the latest buildout population and employment projections were obtained from the City planning department. The current buildout data reported by the City is summarized in Table 5.

**TABLE 5  
BUILDOUT FORECAST POPULATION AND EMPLOYMENT BASED  
ON 2006 LAND USE PLANS**

TAZ	Population	Employment					Total
		Retail	Office	Industrial	Public	Other	
1244 <sup>1</sup>	6780	688	497	0	745	110	2040
1245 <sup>2</sup>	7556	874	69	35	283	287	1548
1246 <sup>3</sup>	10496	736	0	172	229	67	1204
1247 <sup>4</sup>	6174	767	842	858	1683	91	4241
1260 <sup>5</sup>	5477	1581	2173	0	305	126	4185
1265 <sup>6</sup>	1712	679	905	0	3	15	1602
<b>TOTAL</b>	<b>38195</b>	<b>5325</b>	<b>4486</b>	<b>1065</b>	<b>3248</b>	<b>696</b>	<b>14820</b>

<sup>1</sup>north of Chandler, west of Arizona

<sup>2</sup>between Chandler and Pecos, west of Arizona

<sup>3</sup>north of Chandler, east of Arizona

<sup>4</sup>between Chandler and Pecos, east of Arizona

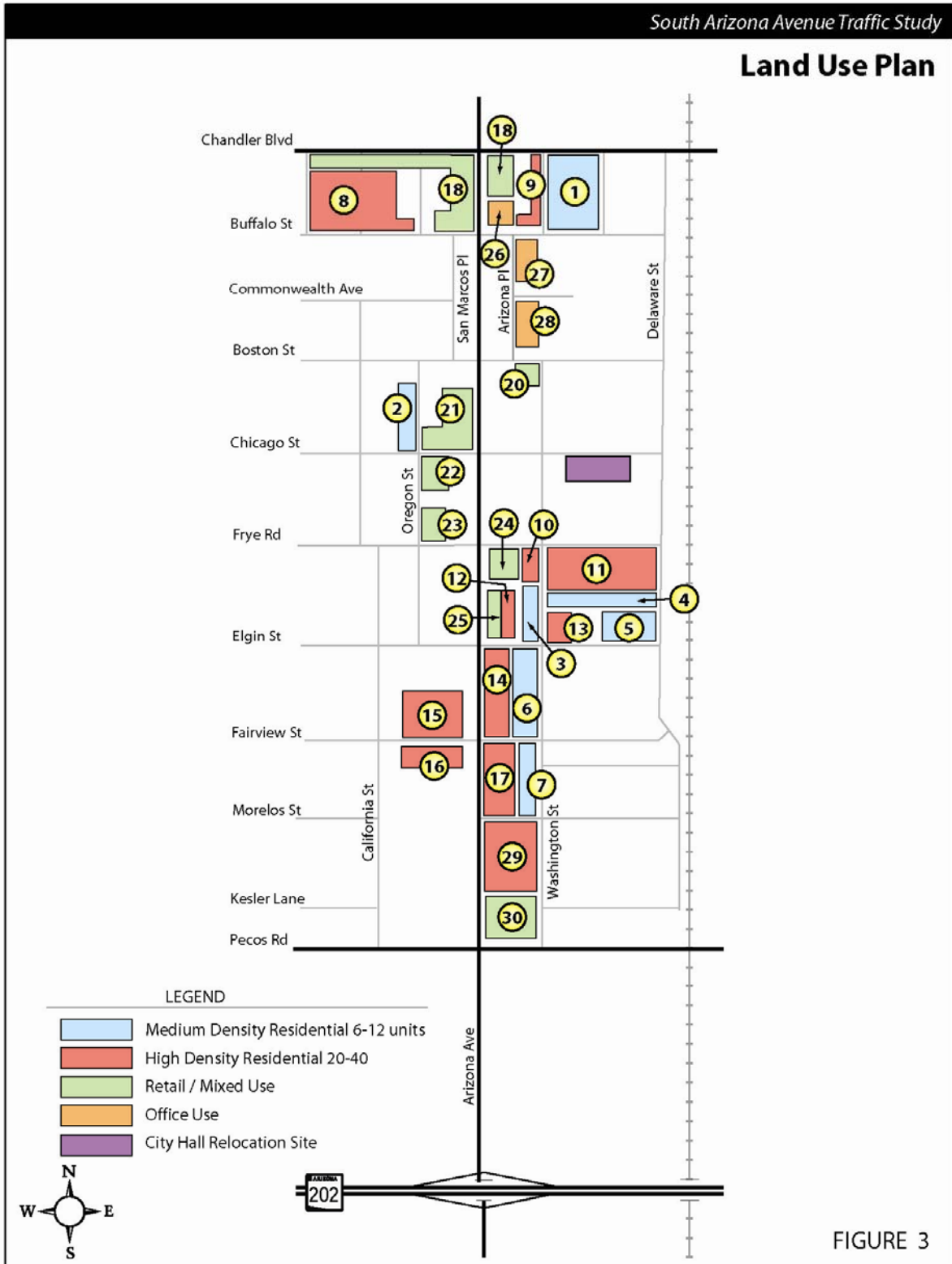
<sup>5</sup>south of Pecos, west of Arizona

<sup>6</sup>south of Pecos, east of Arizona

As can be seen from a comparison of Tables 4 and 5, the buildout population forecast based on the 2006 land use plans is higher than what was used in the 2001 Chandler Transportation Plan, while the employment is lower. The overall trip generation between the two forecasts would be similar so it was determined that the 42,000 vehicles per day forecast used in the 2001 Chandler Transportation Plan, which is a 37 percent increase compared to the 2004 count was valid for this analysis.

Although the 2001 Chandler Transportation Plan reflects a similar total population and employment projection compared to what is currently being considered, and therefore a valid traffic volume on Arizona Avenue; it is still necessary to examine the specific impact of the increased development on the east-west streets and the individual study intersections. The current development plan which was obtained from the South Arizona Avenue Corridor Study is depicted in Figure 3. Table 6 shows the estimated size and use associated with the land use plan in Figure 3. As can be seen in Table 6, the South Arizona Avenue Corridor Study land use plan includes 800 new dwelling units and 565,000 square feet of new commercial and office development. It should be noted that approximately 70 percent of the commercial and office development is planned between Chandler Boulevard and Boston Street.

An estimate of the traffic that would be generated by a proposed land use can be calculated using trip generation rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation, 7<sup>th</sup> Edition* (2003). These rates are the result of observations of traffic entering and exiting various types of land uses across the country and are considered to be the standard in the profession.



**TABLE 6  
DOWNTOWN CHANDLER LAND USE PLAN**

<b>Parcel #</b>	<b>Land Use</b>	<b>Dwelling Units</b>	<b>SQ.FT.</b>
1	Medium Density Residential	54	
2	Medium Density Residential	10	
3	Medium Density Residential	6	
4	Medium Density Residential	15	
5	Medium Density Residential	20	
6	Medium Density Residential	33	
7	Medium Density Residential	16	
8	High Density Residential	79	
9	High Density Residential	31	
10	High Density Residential	30	
11	High Density Residential	212	
12	High Density Residential	32	
13	High Density Residential	30	
14	High Density Residential	88	
15	High Density Residential	78	
16	High Density Residential	68	
17	High Density Residential	96	
18	Retail/Mixed		200,000
19	Retail/Mixed		14,571
20	Retail/Mixed		4,900
21	Retail/Mixed		25,615
22	Retail/Mixed		7,841
23	Retail/Mixed		9,800
24	Retail/Mixed		8,712
25	Retail/Mixed		4,879
26	Office		9,121
27	Office		105,000
28	Office		105,000
29	Retail/Mixed		43,561
30	Retail/Mixed		26,137
	Justice Courts		
<b>TOTAL</b>		<b>796</b>	<b>565,137</b>

The trip generation rate for the proposed justice courts was obtained from a Traffic Study for the Northeast Phoenix justice courts complex. It should be noted that the City Hall relocation is not included in the trip generation, since the existing City Hall

trips are included in the traffic counts and the 37 percent future growth projections. The trip generation is summarized by land use parcel in Table 7.

**TABLE 7  
TRIP GENERATION**

Parcel #	Land Use	Area/Units	AM IN	AM OUT	PM IN	PM OUT
1	Medium Density Residential	54	4	20	18	9
2	Medium Density Residential	10	1	7	6	3
3	Medium Density Residential	6	1	5	4	2
4	Medium Density Residential	15	2	9	9	4
5	Medium Density Residential	20	2	12	11	5
6	Medium Density Residential	33	4	18	16	8
7	Medium Density Residential	16	2	10	9	4
8	High Density Residential	79	14	70	67	33
9	High Density Residential	31	3	17	15	8
10	High Density Residential	30	3	16	15	7
11	High Density Residential	212	16	78	75	37
12	High Density Residential	32	4	17	16	8
13	High Density Residential	30	3	16	15	7
14	High Density Residential	88	8	39	36	18
15	High Density Residential	78	7	35	33	16
16	High Density Residential	68	6	31	29	14
17	High Density Residential	96	8	41	39	19
18	Retail/Mixed	200,000	0	0	55	71
19	Retail/Mixed	14,571	0	0	25	32
20	Retail/Mixed	4,900	0	0	15	19
21	Retail/Mixed	25,615	0	0	37	46
22	Retail/Mixed	7,841	0	0	18	23
23	Retail/Mixed	9,800	0	0	20	25
24	Retail/Mixed	8,712	0	0	19	24
25	Retail/Mixed	4,879	0	0	15	19
26	Office	9,121	24	3	15	74
27	Office	105,000	34	5	16	78
28	Office	105,000	42	6	17	82
29	Retail/Mixed	43,561	0	0	55	71
30	Retail/Mixed	26,137	0	0	37	47
	Courts		85	38	34	49
<b>TOTAL</b>			<b>490</b>	<b>479</b>	<b>893</b>	<b>1,118</b>



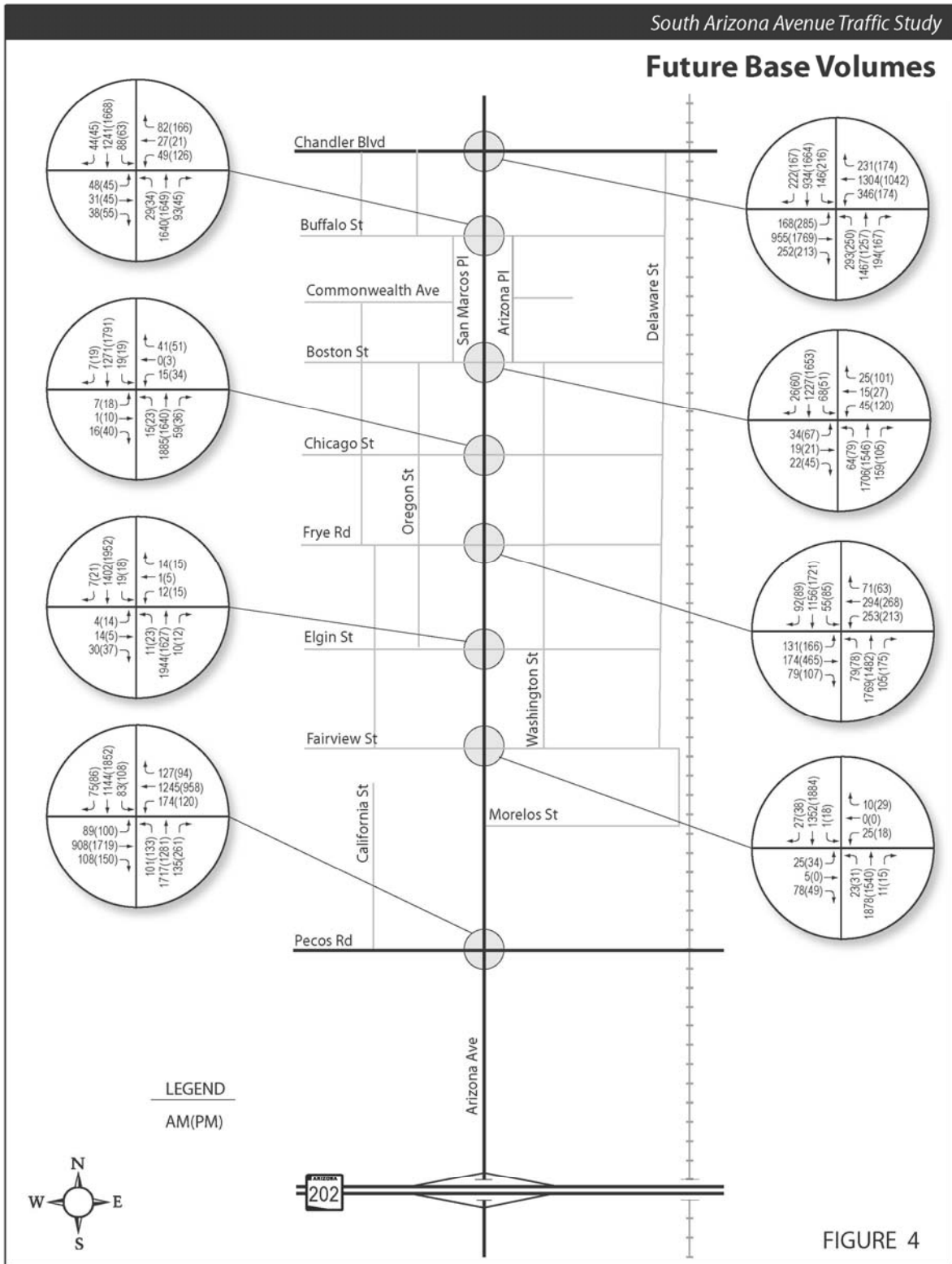
The total trips represent external trips after adjustment for five percent internal trips and five percent transit trips. The next steps in the process in to determine trip distribution and trip assignment for the redevelopment. The trip distribution was obtained from the SanTan Gateway Traffic Study Report dated October 2003 and is 25 percent to/from the north, south, east, and west. The traffic from the proposed downtown redevelopment is then assigned to the street system. Because of the proximity of SR 202, 75 percent of the traffic was assigned to the south on Arizona Avenue and 25 percent to the north. These redevelopment trips were only added to the crossroads or to Arizona Avenue as turns onto the crossroads. Additional through traffic was not added to Arizona Avenue since it was determined that the 37 percent growth included these redevelopment trips on Arizona Avenue.

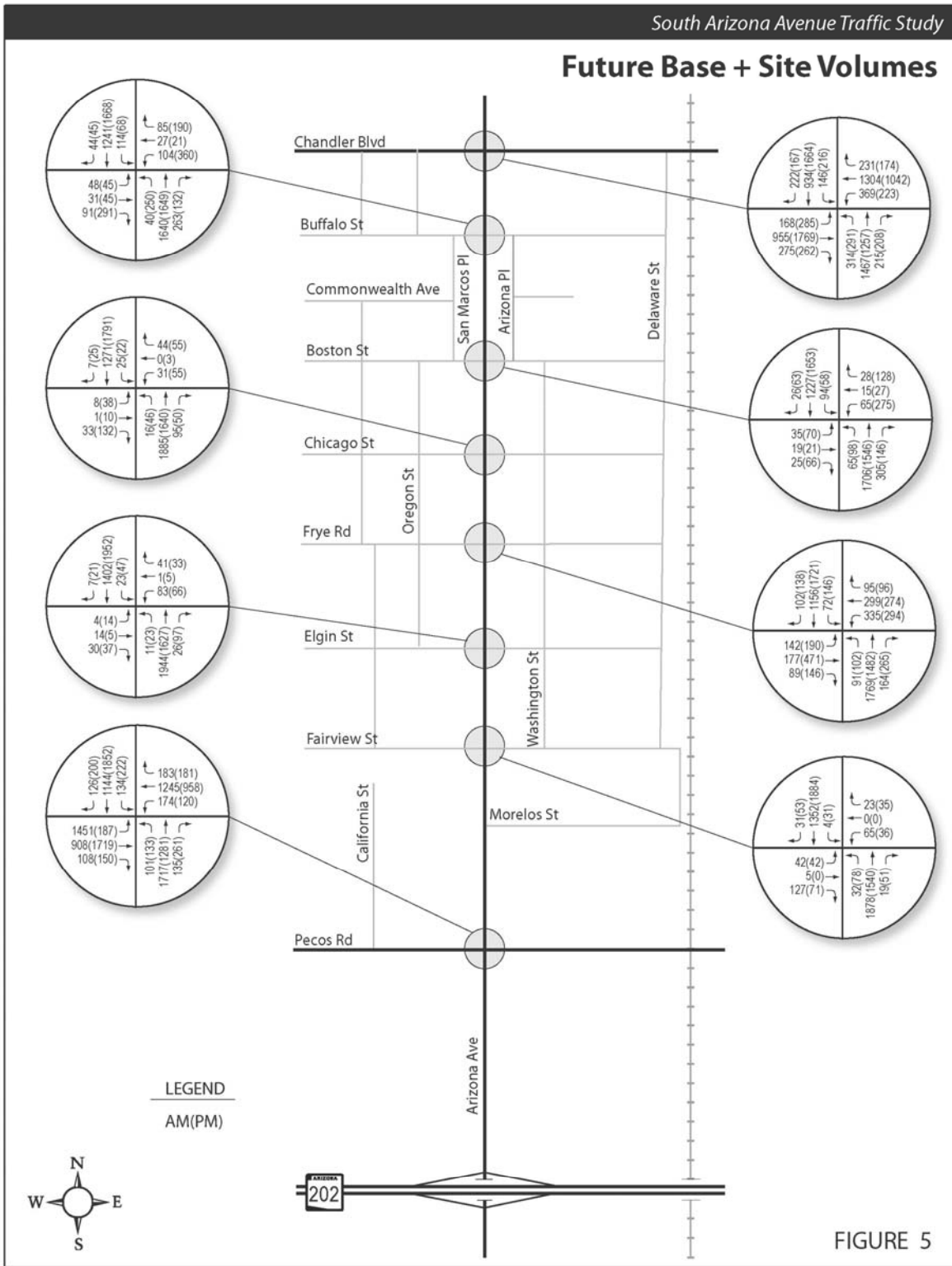
### ***C. Future Street System***

For the purpose of this analysis, the current lane configuration at each of the study intersections was assumed with the exception that northbound Arizona Avenue at Buffalo Street was assumed to have only two through lanes. The intersection of Fairview Street was included as a signalized intersection in the future analysis.

### ***D. Traffic Forecasts***

The following process was used to obtain the future peak hour traffic volumes at each of the study intersections. The adjusted existing turning movement volumes were increased by a growth rate of 37 percent to reflect the daily volume increase from 30,700 vehicles to 42,000 vehicles. The future base volumes are shown in Figure 4. The peak hour traffic volume that results from the downtown redevelopment was assigned to the study intersections based on the location of the individual developments. The resulting future base plus development traffic is shown in Figure 5.





## **E. Traffic Analysis**

The future peak hour traffic volumes were also analyzed using the SYNCHRO software methodology previously described in the existing conditions section.

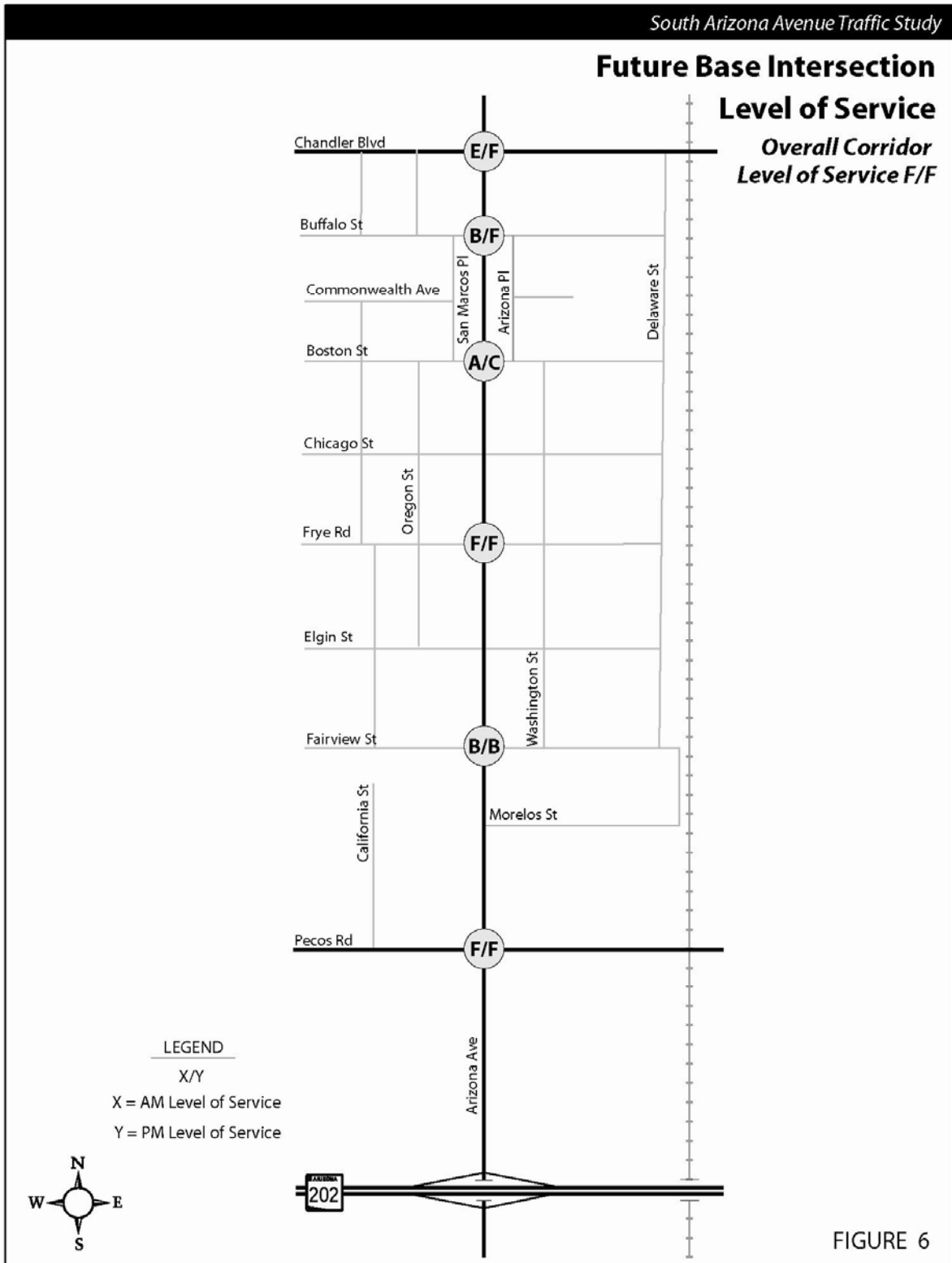
A summary of the future conditions analysis is presented in Table 8.

**TABLE 8  
FUTURE INTERSECTION LEVEL OF SERVICE SUMMARY  
(buildout land use)**

INTERSECTION	AM PEAK HOUR		PM PEAK HOUR	
	LOS	DELAY	LOS	DELAY
Arizona/Chandler	E	74	F	86
Arizona/Buffalo	B	16	F	129
Arizona/Boston	A	8	C	24
Arizona/Frye	F	112	F	147
Arizona/Fairview	B	17	B	15
Arizona/Pecos	F	99	F	84

As can be seen from Table 8, when only four lanes are provided on Arizona Avenue, several intersections are projected to be operating at level of service E or F in one or both peak hours. The intersection level of service is also shown graphically on Figure 6.

The overall level of service of an arterial street corridor is generally controlled by the operation at the major intersections. For the Arizona Avenue corridor from Chandler Boulevard to Pecos Road, the major intersections are assumed to be Chandler Boulevard, Frye Road, and Pecos Road. The weighted average delay for these three intersections would be 92 seconds in the AM peak hour and 98 seconds in the PM peak hour, which would equate to level of service F in both peak hours.



## IV. POTENTIAL IMPROVEMENTS

This section evaluates intersection modifications to improve the level of service as needed, discusses traffic calming as a feature on Arizona Avenue, and examines different cross sections that could be applied to Arizona Avenue.

### A. Intersection Analysis

The intersections with level of service E or F were examined to determine if there were any modifications that would improve the level of service without widening to six lanes on Arizona Avenue. This would include additional turn lanes or traffic signal phasing modifications.

The result of this additional analysis is presented in Table 9.

**TABLE 9  
FUTURE INTERSECTION LEVEL OF SERVICE -WITH  
IMPROVEMENTS (buildout land use)**

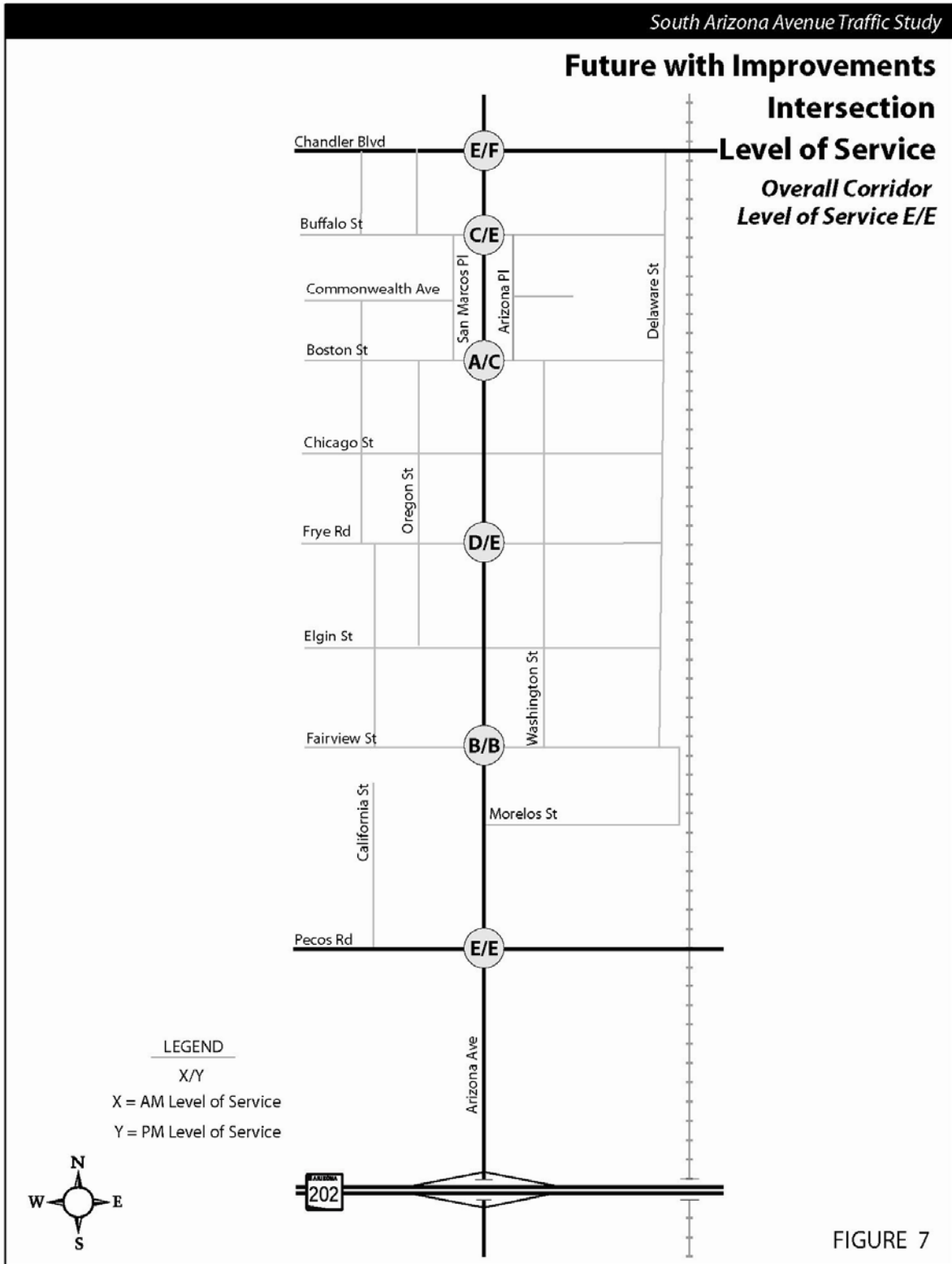
INTERSECTION/APPROACH	AM PEAK HOUR		PM PEAK HOUR	
	LOS	DELAY	LOS	DELAY
Arizona/Chandler	E	77	F	87
Arizona/Buffalo <sup>1</sup>	C	22	E	69
Arizona/Boston	A	6	C	24
Arizona/Frye <sup>2</sup>	D	52	E	65
Arizona/Fairview	B	17	B	16
Arizona/Pecos <sup>3</sup>	E	73	E	74

<sup>1</sup> add left turn phase northbound and westbound

<sup>2</sup> add second through lane eastbound and westbound and right turn lane northbound

<sup>3</sup> extend third northbound through lane north of Pecos Road and add northbound right turn lane

As can be seen comparing Tables 8 and 9, there is improvement in the level of service with the modifications footnoted in Table 9. However, level of service E or F would remain at certain intersections. The intersection level of service with improvements is also shown graphically on Figure 7.



The weighted average delay for the three major intersections on Arizona Avenue was computed with the modifications included and is 70 seconds in the AM peak hour and 77 seconds in the PM peak hour, which would equate to level of service E in both peak hours.

These results are not surprising given that the 2001 Transportation Plan recommended six lanes for Arizona Avenue. However, it should be noted that it is not uncommon for a City to accept level of service E or F in a downtown area where there is expected to be higher levels of pedestrian activity. Also, the E and F level of service are only expected to occur in the AM and PM peak period, which means that 20-22 hours of the day would be level of service D or better.

The mid-range plan in the 2001 Chandler Transportation Plan shows a level of service D for Alma School Road between Chandler Boulevard and Pecos Road and a level of service C for McQueen Road between Chandler Boulevard and Pecos Road. This would indicate that there is available capacity on these two streets in the short term to accommodate some Arizona Avenue through traffic. In the long term, additional transit or other improvements could improve level of service on Arizona Avenue.

### ***B. Consideration of Traffic Calming***

The City has received requests to consider traffic calming techniques to reduce speed on Arizona Avenue. While traffic calming was not a specific element of this study, it is recommended that the City conduct speed studies along Arizona Avenue to document the current condition. Based on the results, City staff can better evaluate the need for traffic calming and potential techniques for this corridor.



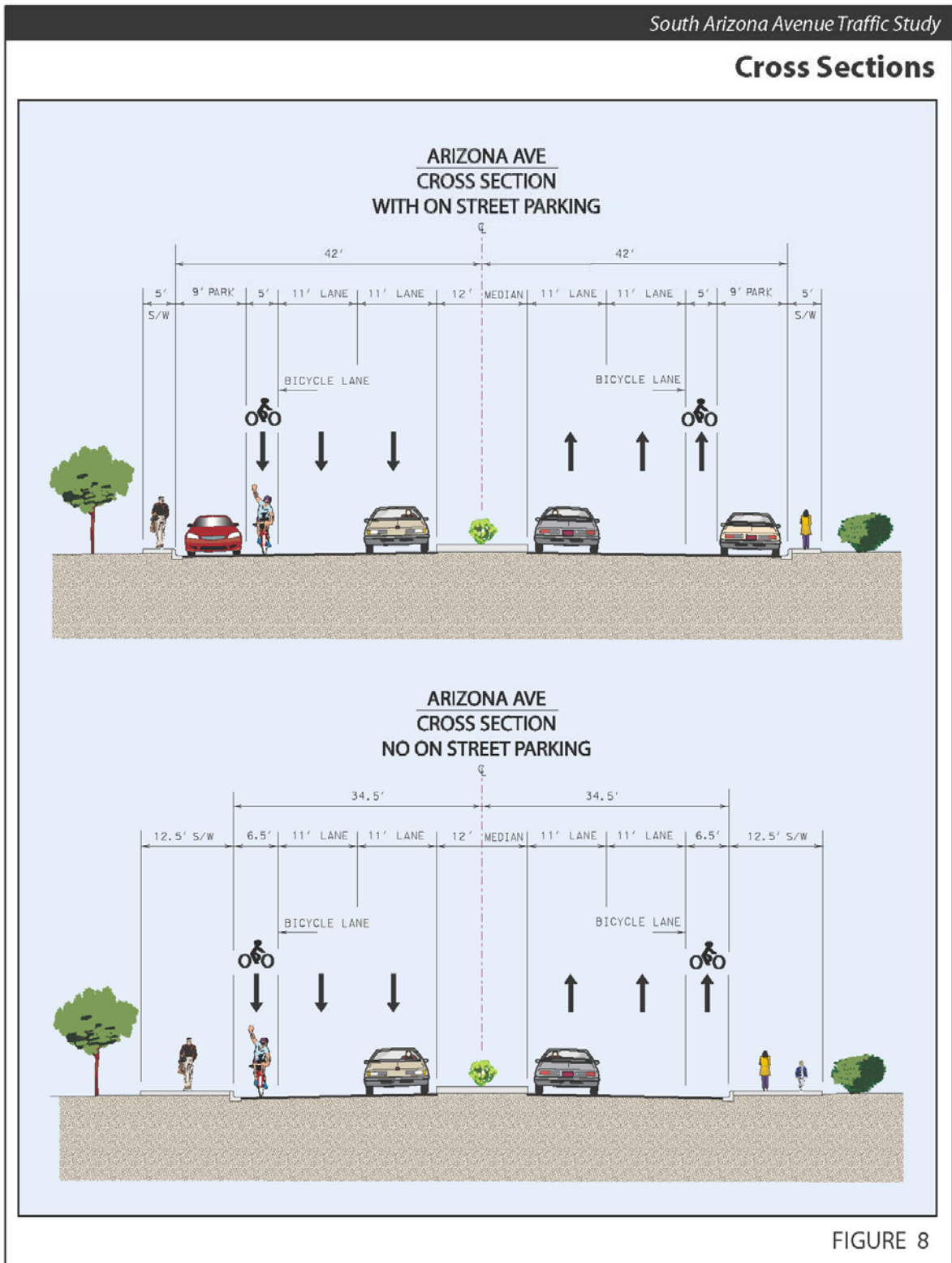
## **C. Arizona Avenue Cross Section Options & Implementation**

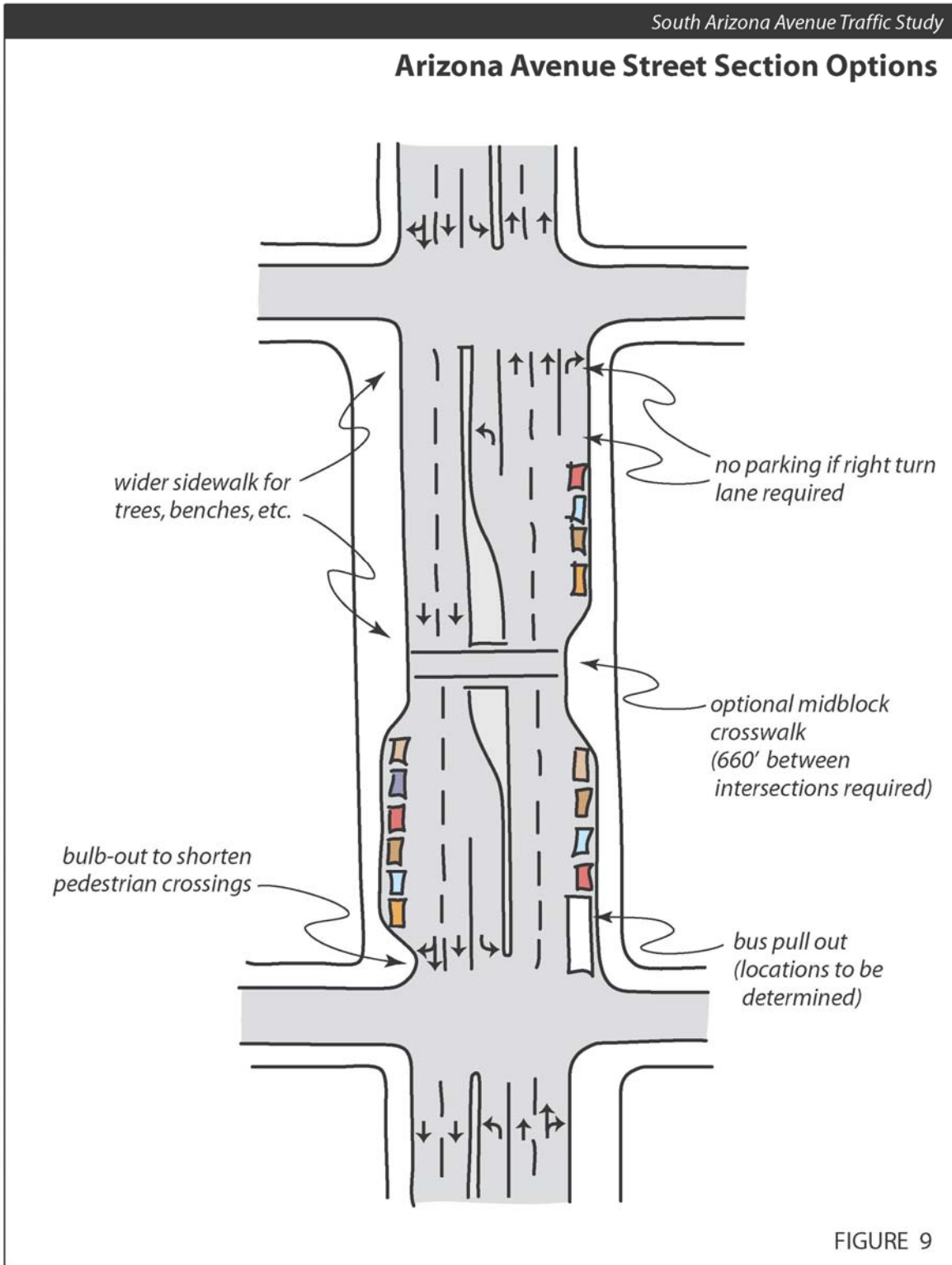
As was mentioned previously in this report, on-going land use planning studies include recommendations for Arizona Avenue that encourage bicycle and pedestrian activity to create a downtown urban setting for this section of Arizona Avenue. There are several options that can be considered that would support the goals for Arizona Avenue in the downtown area. Figures 8 and 9 present cross section options and their application in the downtown area.

Figure 8 shows two different cross sections that provide four through lanes on Arizona Avenue. One cross section includes a raised median, on street parking, and a bike lane that can be accommodated in the existing pavement width. The other option shows a cross section where parking is prohibited, the pavement width is less than today, and wider sidewalk and other amenities are provided.

Figure 9 presents variations on how the two cross sections could be applied in a typical block. In locations where the adjacent property requires on-street parking, the full pavement width can be provided. However, even with this treatment the area at an intersection can include a “bulb out” which allows a shorter pedestrian crossing of Arizona Avenue. In locations where on-street parking is not needed, the pavement width would be less than today and additional sidewalk would be provided. For example, at the southwest corner of Arizona Avenue and Boston Street which is being redeveloped, on street parking is not needed and a wider sidewalk can be provided.

If desirable and consistent with proposed development, mid-block crossings can be considered at locations where intersections are at least 660 feet apart. These locations would also provide for shorter pedestrian crossings of Arizona Avenue.





Both cross sections can be adapted to intersections that require right turn lanes. To provide a right turn lane, either on-street parking would be terminated or the pavement would be widened.

There is one area that will require further study to determine how to apply the four lane cross section, i.e. southbound at Buffalo Street. The recently completed improvements at Arizona Avenue and Chandler Boulevard provide three southbound through lanes at Chandler Boulevard that continue to Buffalo Street. The third southbound through lane becomes a right turn lane at Boston Street. The intersection of Buffalo Street also includes a southbound right turn lane. There is not sufficient distance to drop the third southbound through lane between Chandler Boulevard and Buffalo Street and other options should be examined.

The implementation of improvements to Arizona Avenue must be done in logical, consistent segments. As redevelopment plans become known, City staff should meet with developers to define their preferred Arizona Avenue cross section, examine continuity with adjacent sections, and establish appropriate construction time frame.

## V. SUMMARY AND RECOMMENDATIONS

The City of Chandler continues to experience significant growth throughout the city including the downtown area where redevelopment is beginning to occur. The latest projections indicate that population and employment will increase in the downtown area as redevelopment occurs and the area is built out. Current land use planning for the downtown area indicates that approximately 800 residential units and 565,000 square feet of mixed use development will be added.

In addition to development growth, travel patterns to/from the downtown area have changed. The recently completed Loop 202 has an interchange at Arizona Avenue just south of downtown, which has changed trip patterns to/from downtown. In the future, new mixed-use development will also change peak period travel characteristics.

The 2001 City of Chandler Transportation Plan identifies Arizona Avenue as a six-lane road in the long range planning horizon. Recent land use planning studies, including the City Hall site selection and the South Arizona Avenue Planning Study, have proposed a mixed-use, pedestrian-friendly downtown area, which would include limiting Arizona Avenue to four through lanes between Chandler Boulevard and Pecos Road.

The current intersection levels of service range from A to E in the study corridor. With the additional development and only four through lanes on Arizona Avenue, the corridor level of service is projected to be F in both the AM and PM peak hours at buildout.

Possible intersection modifications to improve future level of service were examined. If the intersection improvements outlined below are implemented, the overall corridor level of service would improve to E in the AM and PM peak hours.

The following summarizes the study recommendations.

- \* Arizona Avenue and Buffalo Street - Add a left turn signal phase northbound and westbound.
- \* Arizona Avenue and Frye Road - Add a second through lane eastbound and westbound and a separate right turn lane northbound.
- \* Arizona Avenue and Pecos Road - Restripe to provide a third through lane northbound and construct a separate right turn lane northbound.
- \* Conduct speed studies on Arizona Avenue and evaluate the potential for traffic calming measures such as speed tables.
- \* Coordinate with developers to provide the appropriate intersection cross section and block treatment depending on the need for on-street parking
- \* Conduct further study to determine the appropriate transition from three to two southbound through lanes between Buffalo Street and Boston Street.
- \* Meet with developers to define their preferred Arizona Avenue cross section, examine continuity with adjacent sections, and establish appropriate construction time frame.

**APPENDIX A – Existing LOS Summary**  
**APPENDIX B – Future LOS Summary**  
**APPENDIX C – Future with Improvements LOS Summary**

## **APPENDIX A – Existing LOS Summary**



**EXISTING INTERSECTION LEVEL OF SERVICE**

INTERSECTION/APPROACH	AM		PM	
	LOS	DELAY	LOS	DELAY
<b>Arizona/Chandler</b>	<b>C</b>	<b>33</b>	<b>E</b>	<b>71</b>
NB Approach	C	25	C	22
SB Approach	C	20	C	26
EB Approach	C	23	F	153
WB Approach	E	55	D	39
<b>Arizona/Bufalo</b>	<b>A</b>	<b>6</b>	<b>A</b>	<b>7</b>
NB Approach	A	4	A	2
SB Approach	A	1	A	4
EB Approach	D	39	D	35
WB Approach	D	39	D	36
<b>Arizona/Boston</b>	<b>A</b>	<b>5</b>	<b>A</b>	<b>9</b>
NB Approach	A	5	B	10
SB Approach	A	2	A	2
EB Approach	D	39	D	36
WB Approach	D	40	D	37
<b>Arizona/Frye</b>	<b>B</b>	<b>18</b>	<b>C</b>	<b>32</b>
NB Approach	B	18	D	38
SB Approach	A	10	C	23
EB Approach	C	29	D	42
WB Approach	C	30	C	29
<b>Arizona/Pecos</b>	<b>B</b>	<b>20</b>	<b>C</b>	<b>29</b>
NB Approach	B	105	C	28
SB Approach	B	12	C	27
EB Approach	D	36	C	34
WB Approach	C	32	C	33

## **APPENDIX B – Future LOS Summary**

## FUTURE INTERSECTION LEVEL OF SERVICE SUMMARY (buildout land use)

INTERSECTION/APPROACH	AM		PM	
	LOS	DELAY	LOS	DELAY
<b>Arizona/Chandler</b>	<b>E</b>	<b>74</b>	<b>F</b>	<b>86</b>
NB Approach	F	115	F	98
SB Approach	C	29	F	86
EB Approach	C	31	F	100
WB Approach	F	94	D	52
<b>Arizona/Bufalo</b>	<b>B</b>	<b>16</b>	<b>F</b>	<b>129</b>
NB Approach	B	20	F	233
SB Approach	A	6	A	8
EB Approach	C	34	C	24
WB Approach	D	38	F	206
<b>Arizona/Boston</b>	<b>A</b>	<b>8</b>	<b>C</b>	<b>24</b>
NB Approach	A	4	C	34
SB Approach	A	9	A	9
EB Approach	D	38	C	26
WB Approach	D	39	D	41
<b>Arizona/Frye</b>	<b>F</b>	<b>112</b>	<b>F</b>	<b>147</b>
NB Approach	F	201	F	235
SB Approach	B	13	E	78
EB Approach	C	33	F	125
WB Approach	F	89	F	140
<b>Arizona/Fairview</b>	<b>B</b>	<b>17</b>	<b>B</b>	<b>15</b>
NB Approach	C	24	C	21
SB Approach	A	4	A	8
EB Approach	D	39	D	38
WB Approach	D	40	D	36
<b>Arizona/Pecos</b>	<b>F</b>	<b>99</b>	<b>F</b>	<b>84</b>
NB Approach	F	241	F	86
SB Approach	C	34	F	104
EB Approach	C	29	F	95
WB Approach	C	34	C	28

## **APPENDIX C – Future with Improvements LOS Summary**

### FUTURE INTERSECTION LEVEL OF SERVICE -WITH IMPROVEMENTS (buildout land use)

INTERSECTION/APPROACH	AM		PM	
	LOS	DELAY	LOS	DELAY
<b>Arizona/Chandler</b>	<b>E</b>	<b>77</b>	<b>F</b>	<b>87</b>
NB Approach	F	126	F	101
SB Approach	C	29	F	86
EB Approach	C	31	F	100
WB Approach	F	94	D	52
<b>Arizona/Bufalo</b>	<b>C</b>	<b>22</b>	<b>E</b>	<b>69</b>
NB Approach	C	28	D	53
SB Approach	B	11	D	45
EB Approach	D	38	D	38
WB Approach	C	30	F	217
<b>Arizona/Boston</b>	<b>A</b>	<b>6</b>	<b>C</b>	<b>24</b>
NB Approach	A	4	C	34
SB Approach	A	6	A	9
EB Approach	D	38	C	26
WB Approach	D	39	D	41
<b>Arizona/Frye</b>	<b>D</b>	<b>52</b>	<b>E</b>	<b>65</b>
NB Approach	E	70	E	78
SB Approach	B	11	D	44
EB Approach	C	32	C	34
WB Approach	F	87	F	126
<b>Arizona/Fairview</b>	<b>B</b>	<b>17</b>	<b>B</b>	<b>16</b>
NB Approach	C	24	C	23
SB Approach	A	3	A	7
EB Approach	D	39	D	38
WB Approach	D	40	D	36
<b>Arizona/Pecos</b>	<b>E</b>	<b>73</b>	<b>E</b>	<b>74</b>
NB Approach	F	163	D	47
SB Approach	C	27	F	100
EB Approach	C	29	F	95
WB Approach	C	34	C	28

<sup>1</sup> add left turn phase northbound and westbound

<sup>2</sup> add second through lane eastbound and westbound

<sup>3</sup> extend third northbound through lane north of Pecos Road