

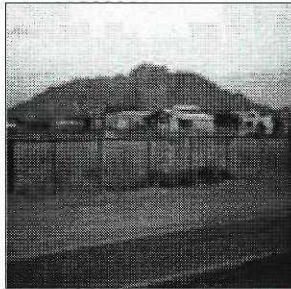


Appendix II — Southeast Chandler Tomorrow



Appendices: Southeast Chandler Area Plan

APPENDIX II - SOUTHEAST CHANDLER TOMORROW



"Adopt an area plan for the Southeast Chandler Character Area that preserves the agricultural atmosphere of the community and creates open spaces, community gardens, and a feeling of openness."

— City of Chandler Land Use Element

Section A — Southeast Chandler Tomorrow

In Maricopa County, the Maricopa Association of Governments (MAG) projects slower resident population and housing growth between 2000-2005; then a gradual rise in each 5-year period thereafter to 2020. For the entire period from 1995-2020, MAG projects average annual resident population growth of 79,496 and average housing unit growth of 32,707 units per year.

MAG's Chandler Planning Area encompasses an area larger than the City's corporate boundaries and includes Southeast Chandler. Within the Chandler Planning Area, during the 1995-2020 period, MAG projects that average annual resident population growth will be 4,941 persons, and housing unit growth will be 2,031 units per year.

Sunregion has prepared three growth projection scenarios for Southeast Chandler, and they are provided below. These are identified as the *trends*, *moderate*, and *aggressive* scenarios. As the name implies, the trends scenario is based on the assumption that past growth trends will continue in the future. The moderate scenario is keyed to MAG's resident population projections for the Chandler Planning Area

(Sunregion has supplemented these projections with seasonal resident projections, as well as housing unit projections). The aggressive projections are those which we believe provide a ceiling which will not be pierced during the projection horizon.

Section B — Trends Population and Housing Unit Projection

The trends population and housing scenario is the most conservative of the three sets of projections. Given the subdivision development in the area, and what is planned, Sunregion cannot foresee any situation over the 22-year projection horizon where average annual growth will be less than that reflected in the trends scenario.

Subsection B₁ — Assumptions

The following assumptions have been utilized in making these projections.

- ❖ Consistent with trends from 1980-1998, 180 resident and seasonal occupied units will be developed each year from 1998-2020. From 1990-1998, the average annual increase in occupied resident and seasonal units was 177 units. We have simply rounded up to 180 in the projections.
- ❖ In the projections, seasonal units are viewed as occupied units rather than classified as vacant units as in done in the U.S. Census.
- ❖ A 10 percent housing unit vacancy rate is assumed. Consequently, under the trends scenario, 200 housing units



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will be developed in the study area each year. This is also consistent with trends from 1990-1998 when 198 units were developed each year.

- ❖ Average household size is held constant at 2.2 persons per household for resident occupied housing units, and 1.9 persons per unit for seasonal housing units.
- ❖ Consistent with the resident seasonal housing unit mix in Southeast Chandler in 1998, we have assumed that 27.8 percent of the occupied units during the projection horizon will be seasonal units, and 72.2 percent year-round resident units.

As shown in Table 1, population rises by 8,380, from 3,718 to 12,098 during the period from 1998 to 2020. During the same period, the number of housing units increases by 4,401, from 1,950 to 6,351.

TABLE A/II-1
Trends Population And Housing Unit Projections For
Southeast Chandler

Year	Total Population*	Total Housing Units**	Total Resident & Seasonal Occupancy (HU)	Total Resident Population	Total Seasonal Population
1998	3,718	1,950	1,756	2,790	928
2005	6,384	3,351	3,016	4,792	1,592
2010	8,288	4,351	3,916	6,219	2,069
2015	10,193	5,351	4,816	7,649	2,544
2020	12,098	6,351	5,716	9,079	3,019

Source: Previous Tables; and, Sunregion Associates, Inc.

*Includes resident and seasonal population.

**Includes resident and seasonal occupied units as well as vacant units.

Subsection B₂ — Trends Housing Unit Acreage Needs Assumptions

The following assumptions have been utilized in making these projections.

- ❖ Table 2 is based on the total housing unit projections identified in Table 1.
- ❖ Table 2 reflects the projected total increase in the number of housing units developed from 1998-2005 and 2005-2020, as well as the total increase in units and acreage.
- ❖ Three different density assumptions have been utilized when making these projections; 2.5, 3.0, and 3.5 units per acre.



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TABLE A/II-2
Trends Housing Unit Acreage Projections for Southeast Chandler

Year	Total Housing Units*	2.5 Net Housing Units Per Acre	3.0 Net Housing Units Per Acre	3.5 Net Housing Units Per Acre
1998-2005	1,401	560 Acres	467 Acres	400 Acres
2005-2020	3,000	1,200 Acres	1,000 Acres	857 Acres
Totals	4,401	1,760 Acres	1,467 Acres	1,257 Acres

Source: Previous Tables, and, Sunregion Associates, Inc.

*Includes resident and seasonal occupied units as well as vacant units.

Section C — Moderate Population & Housing Unit Projection

As noted previously, the moderate population and housing unit projections are keyed to MAG's June, 1997 population projections for Southeast Chandler. MAG's projections are for resident population growth. We have also incorporated seasonal residents into the moderate projection scenario. We believe that it is quite possible that the moderate projection scenario could be realized over the projection horizon. As of October, 1998, there were 8,815 lots available either within active subdivisions or in planned subdivisions. If all these lots

are developed within the next 22 years, the average annual pace of development would be about 400 units per year.

Subsection C₁ — Assumptions

The following assumptions have been utilized in making these projections.

- ❖ In the projections, seasonal units are viewed as occupied units rather than classified as vacant units as in done in the U.S. Census.
- ❖ Resident housing units will account for an increasing share of total housing units as more families move to the planning area. In addition, resident units occupied by retirees will continue to account for a substantial share of the market. By 2005, 77.5 percent of the units will be year-round resident-occupied units, in contrast to 72.2 percent now. About 80 percent of the units will be year-round resident units in 2010, 82.5 percent in 2015, and 85 percent in 2020.
- ❖ Average household size is held constant at 2.2 persons per household for resident-occupied housing units, and 1.9 persons per unit for seasonal housing units.
- ❖ The housing unit vacancy rate is 10 percent in each projection period.



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As shown in Table 3, in the moderate projection scenario population rises by nearly 18,000 from 3,718 to 21,515 during the period from 1998 to 2020. During the same period, the number of housing units increases by nearly 9,800 units; from 1,950 to 11,746 units. This represents an average annual increase of 445 units.

TABLE A/II-3
Moderate Population and Housing Unit Projections for
Southeast Chandler

Year	Total Population*	Total Housing Units**	Total Resident & Seasonal Occupancy (HU)	Total Resident Population	Total Seasonal Population
1998	3,718	1,950	1,756	2,790	928
2005	9,192	4,788	4,310	7,351	1,841
2010	10,873	5,646	5,081	8,943	1,930
2015	14,305	8,074	6,661	12,090	2,215
2020	21,515	11,746	9,984	18,671	2,844

Source: Previous Tables, Maricopa Association of Governments, Socio-Economic Projections, June, 1997; and, Sunregion Associates, Inc.

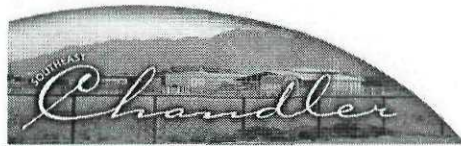
*Includes resident and seasonal population. Total resident population projections are those of the Maricopa Association of Governments.

**Includes resident and seasonal occupied units as well as vacant units.

Subsection C₂ — Moderate Housing Unit Acreage Needs Assumptions

The following assumptions have been utilized in making these projections.

- ❖ Table 4 is based on the total housing unit projections identified in Table 3.
- ❖ Table 4 reflects the projected total increase in the number of housing units developed from 1998-2005 and 2005-2020, as well as the total increase in units and acreage.
- ❖ Three different density assumptions have been utilized when making these projections; 2.5, 3.0, and 3.5 units per acre.



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TABLE A/II-4

Moderate Housing Unit Acreage Projections for Southeast Chandler

Year	Total Housing Units*	2.5 Net Housing Units Per Acre	3.0 Net Housing Units Per Acre	3.5 Net Housing Units Per Acre
1998-2005	2,838	1,135 Acres	946 Acres	811 Acres
2005-2020	6,958	2,783 Acres	2,319 Acres	1,988 Acres
Totals	9,796	3,918 Acres	3,265 Acres	2,799 Acres

Source: Previous Tables, and, Sunregion Associates, Inc.

*Includes resident and seasonal occupied units and vacant units.

Section D — Aggressive Population & Housing Unit Projection

Subsection D₁ — Assumptions

The following assumptions have been utilized in making these projections.

- ❖ In the projections, seasonal units are viewed as occupied units rather than classified as vacant units as in done in the U.S. Census.

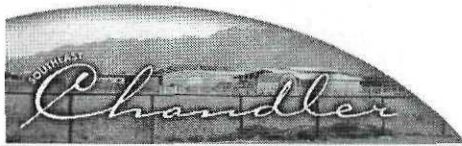
- ❖ Resident housing units will account for an increasing share of total housing units as more families move to the planning area. In addition, resident units occupied by retirees will continue to account for a substantial share of the market. By 2005, 77.5 percent of the units will be year-round resident occupied units, in contrast to 72.2 percent now. About 80 percent of the units will be year-round resident units in 2010, 82.5 percent in 2015, and 85 percent in 2020.

- ❖ Average household size is held constant at 2.2 persons per household for resident occupied housing units to 2005 and increased to 2.3 persons per unit from 2010-2020. Household size in seasonal units is 1.9 persons per unit.

- ❖ The housing unit vacancy rate is 10 percent in each projection period.

- ❖ Beginning with the 1998-2005 period we have increased the moderate housing unit projections by 20 percent, and in each 5-year period thereafter between 2005-2020 by 35 percent. We believe this will be sufficient to incorporate an unusually large burst of development activity during the present 1998-2005 period.

As shown in Table 5, in the aggressive projection scenario population rises by 26,016 during the period from 1998 to 2020, from 3,718 to 29,734. During the same period, the number of housing units increases by nearly 12,800, from 1,950 units in 1998 to 14,749 units in 2020. The latter increase represents an average annual housing unit increase of 582 units.



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TABLE A/II-5

Aggressive Population and Housing Unit Projections for Southeast Chandler

Year	Total Population*	Total Housing Units**	Total Resident & Seasonal Occupancy (HU)	Total Resident Population	Total Seasonal Population
1998	3,718	1,950	1,756	2,790	928
2005	10,279	5,356	4,820	8,219	2,060
2010	13,016	6,514	5,863	10,787	2,229
2015	19,653	9,792	8,813	16,723	2,930
2020	29,734	14,749	13,274	25,951	3,783

Source: Previous Tables, Maricopa Association of Governments, Socio-Economic Projections, June, 1997; and, Sunregion Associates, Inc.

*Includes resident and seasonal population. Total resident population projections are those of the Maricopa Association of Governments.

**Includes resident and seasonal occupied units as well as vacant units.

Subsection D₂ — Aggressive Housing Unit Acreage Needs Assumptions

The following assumptions have been utilized in making these projections.

- ❖ Table 6 is based on the total housing unit projections identified in Table 5.

- ❖ Table 6 reflects the projected total increase in the number of housing units developed from 1998-2005 and 2005-2020, as well as the total increase in units and acreage.
- ❖ Three different density assumptions have been utilized when making these projections; 2.5, 3.0, and 3.5 units per acre.

TABLE A/II-6

Aggressive Housing Unit Acreage Projections for Southeast Chandler

Year	Total Housing Units*	2.5 Net Housing Units Per Acre	3.0 Net Housing Units Per Acre	3.5 Net Housing Units Per Acre
1998-2005	3406	1,362 Acres	1,135 Acres	973 Acres
2005-2020	9,393	3,757 Acres	3,131 Acres	2,684 Acres
Totals	12,799	5,119 Acres	4,266 Acres	3,657 Acres

Source: Previous Tables, and, Sunregion Associates, Inc.

*Includes resident and seasonal occupied units and vacant units.



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Section E — Commercial (Retail) Land Use Projections

Subsection E₁ — Assumptions

The following assumptions underpin the commercial retail land use need projections presented below in Table 7.

- ❖ Sunregion's trends, moderate, and aggressive population projections in each time period from 1998-2020 form the basis for these commercial land use need projections.
- ❖ We have chosen to use an average per capita allocation of retail space of about 30 square feet. This factor is slightly less than the 31.2 average per capita figure in the Phoenix metroplex. Sunregion calculated the latter figure based on square footage data identified in the Property Book Directory of Shopping Centers, Kammrath & Associates, 1998. It has been Sunregion's experience that retail space per capita typically ranges between 15-40 square feet, depending on the locality.
- ❖ Based on the projected population under each scenario, the increase in population in each period is multiplied by 30 square feet of retail space per capita yielding gross building area demand. We then divided the total projected square footage by a lot coverage which typically ranges between 15 and 25 percent. In the computations below we have utilized a lot coverage factor of 15 percent.

- ❖ Finally, for planning purposes we usually expand the projected acreage by from 25 to 50 percent. The latter factor allows for freestanding commercial development which may locate outside of shopping centers as well as provides for holding zone acreage in the event that unanticipated development occurs. In the computations below we have built in an expansion factor of 25 percent.

Table 7 below provides summary data for each of the three projection scenarios as well as for a maximum build-out population.

TABLE A/II-7

Commercial Retail Acreage Projections for Southeast Chandler

Year	Trends Population Acreage	Moderate Population Acreage	Aggressive Population Acreage
1998-2005	17 Acres	31 Acres	38 Acres
2005-2020	35 Acres	71 Acres	112 Acres
Totals	48 Acres	102 Acres	150 Acres

Source: Previous Tables; and, Sunregion Associates, Inc.

*Includes resident and seasonal occupied units and vacant units.



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Section F — Commercial Office Land Use Projections

It may be anticipated that a considerable amount of the office demand which will materialize in the planning area over the projection horizon will locate within neighborhood and community shopping centers. However, there will be demand for freestanding office space especially as the area matures. Table 8 below provides summary data for each of the three projection scenarios.

Subsection F₁ — Assumptions

The following assumptions underpin the commercial office land use need projections presented below in Table 8.

- ❖ Past research by Sunregion indicates that 7.5 square feet of gross office square feet per capita is a reasonable planning figure in developing areas. We typically find that a significant amount of such square footage is absorbed by medical office facilities, as well as by law offices, accounting firms, other financial services firms, and the like.
- ❖ It is assumed that lot coverage will be 25 percent.
- ❖ An expansion factor of 50 percent (1.50) will be utilized.

TABLE A/II-8
Commercial Office Acreage Projections for Southeast Chandler

Year	Trends Population Acreage	Moderate Population Acreage	Aggressive Population Acreage
1998-2005	3 Acres	6 Acres	7 Acres
2005-2020	6 Acres	18 Acres	20 Acres
Totals	9 Acres	24 Acres	27 Acres

Source: Previous Tables, and, Sunregion Associates, Inc.

*Includes resident and seasonal occupied units and vacant units.

Section G — Industrial Acreage Projections

Although there is some industrial development on the northern portion of the 160 acres between Arizona Avenue and the Southern Pacific Railroad Tracks, Chandler Heights Road to Riggs Road, Sunregion believes that this land is ideally situated for high quality industrial/business park development. Its location, next to the SPRR and reasonably adjacent to the future municipal golf course further enhances its attractiveness for quality industrial development. Moreover, survey respondents strongly believed that quality industrial development belonged in this area.

It is Sunregion's sense that this land would not begin to be developed before the year 2007, or until infrastructure is available.



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Thereafter, it is believed that the land would be absorbed within 3-8 years. To a significant extent, the timetable depends on the development of a commercially desirable access to I-10.

Section H — SUPPORTING DATA

TABLE A/II-9

Mag Population and Housing Unit Projections for Maricopa County and the Chandler Planning Area

Year	Maricopa County Resident Population	Maricopa County Total Resident Housing Units	Chandler Planning Area Resident Population	Chandler Planning Area Resident Housing Units
1995	2,528,700	1,007,307	135,382	49,484
2000	2,954,150	1,178,160	169,395	63,116
2005	3,329,550	1,335,687	198,252	74,970
2010	3,709,575	1,490,212	221,664	84,638
2015	4,101,775	1,648,569	240,787	92,008
2020	4,516,100	1,824,979	258,915	100,253

Source: Previous Tables, Maricopa Association of Governments, Socio-Economic Projections, June, 1997.

TABLE A/II-10

Mag Population and Housing Unit Projections for Maricopa County and the Chandler Planning Area

Year	Maricopa County Resident Population	Maricopa County Total Resident Housing Units	Chandler Planning Area Resident Population	Chandler Planning Area Resident Housing Units
1995-2000	425,450	170,853	34,013	13,632
2000-2005	375,400	157,527	28,857	11,854
2005-2010	380,025	154,525	23,214	9,668
2010-2015	392,200	158,357	19,123	7,370
2015-2020	414,325	176,410	18,128	8,245

Source: Previous Tables, Maricopa Association of Governments, Socio-Economic Projections, June, 1997.



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TABLE A/II-11

Gross Commercial Retail Projections for Southeast Chandler

Year	Population Increase	Retail Sq. Ft. Per Capita	Building Sq. Feet	Lot Coverage Factor	Lot Square Feet	Expansion	Acreage
	Trends	Trends	Trends	Trends	Trends	Trends	Trends
1998-2005	2,666	30	79,980	.15	533,200	1.25	15
2005-2020	5,714	30	171,420	.15	1,142,800	1.25	33
Totals	8,380		251,400		1,676,000		48
	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate
1998-2005	5,474	30	164,220	.15	1,094,800	1.25	31
2005-2020	12,323	30	369,690	.15	2,464,600	1.25	71
Totals	17,797		533,910		4,152,364		102
	Aggressive	Aggressive	Aggressive	Aggressive	Aggressive	Aggressive	Aggressive
1998-2005	6,561	30	196,830	.15	1,312,200	1.25	38
2005-2020	19,455	30	583,650	.15	3,891,000	1.25	112
Totals	26,016		780,480		4,152,364		150
	Build Out*	Build Out	Build Out	Build Out	Build Out	Build Out	Build Out
1998-to Build Out	41,300*	30	1,239,000	.15	8,260,000	1.25	237

*The maximum build-out population is assumed to be 45,000, increasing from approximately 3,700 persons at present.

TABLE A/II-12

Gross Commercial Office Projections for Southeast Chandler

Year	Population Increase	Retail Sq. Ft. Per Capita	Building Sq. Feet	Lot Coverage Factor	Lot Square Feet	Expansion	Acreage
	Trends	Trends	Trends	Trends	Trends	Trends	Trends
1998-2005	2,666	7.5	19,995	.25	79,980	1.50	2.8
2005-2020	5,714	7.5	42,855	.25	171,420	1.50	5.9
Totals	8,380		62,850		251,400		8.7
	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate	Moderate
1998-2005	5,474	7.5	41,055	.25	164,220	1.50	5.7
2005-2020	12,323	7.5	92,423	.25	369,692	1.50	12.7
Totals	17,797		133,478		444,927		18.4
	Aggressive	Aggressive	Aggressive	Aggressive	Aggressive	Aggressive	Aggressive
1998-2005	6,561	7.5	49,208	.25	196,832	1.50	6.8
2005-2020	19,455	7.5	145,913	.25	583,652	1.50	20.1
Totals	26,016						26.9
	Build Out*	Build Out	Build Out	Build Out	Build Out	Build Out	Build Out
1998-to Build Out	41,300*	7.5	309,750	.25	1,239,000	1.50	42.7

*The maximum build-out population is assumed to be 45,000 increasing from approximately 3,700 persons at present.