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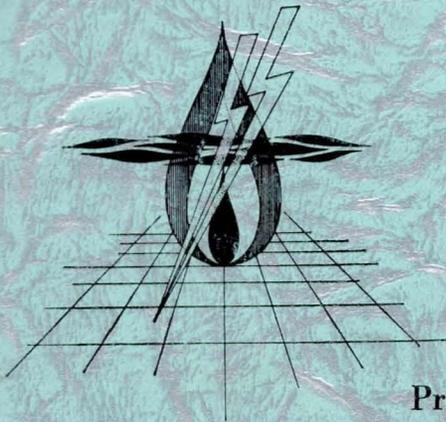
**1 comprehensive plan for..**

Property of  
Flood Control District of Maricopa County  
Phoenix, AZ 85009

# mesa

## ARIZONA

- Scope and objectives
- Economic analysis
- Population and land use



Prepared by Maricopa County and City of Mesa  
Planning and Zoning Departments . . 1961

A024.901



PART 1  
OF  
A COMPREHENSIVE PLAN FOR  
MESA, ARIZONA

Prepared For  
THE CITY OF MESA, ARIZONA

Prepared By Maricopa County and City of Mesa  
Planning and Zoning Departments..1961

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Economic Analysis and Projection By  
Western Business Consultants, Inc.

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PLANNING AND ZONING COMMISSION-DEPARTMENT

103 WEST JEFFERSON  
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PHOENIX, ARIZONA

May 9, 1961

City of Mesa  
Planning and Zoning Commission  
Mesa, Arizona

Gentlemen:

On April 16, 1959, Maricopa County, the City of Mesa, and Western Business Consultants entered into a planning program agreement. We are pleased to submit herewith a report covering the first five items of that agreement as follows: (1) Scope and Objectives of the Planning Program, (2) Economic Analysis and Projection for the Mesa Urban Area, (3) Population, (4) Land Use, and (5) Future General Land-Use Plan.

The report contains estimates of the amount and distribution of present and probable future population, present use of land, future land-use requirements, and the urban area for which physical plans will be prepared. Subsequent reports will be concerned with an analysis of the present zoning ordinance, zoning analysis, subdivision regulations, major streets and highways, schools, parks and recreational areas, administrative and legal aspects, long-range public improvement program, and the summarization of all the proposals which comprise a complete comprehensive plan for development of the Mesa Urban Area.

This report was prepared by the Maricopa County Planning and Zoning Department under the supervision of Robert M. Bowlsby, Principal Planner, and assisted by the Mesa Planning and Zoning Department. Western Business Consultants prepared Chapter 1, Economic Analysis and Projection.

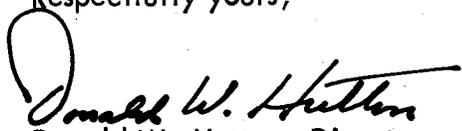
Mesa Planning and Zoning Commission

Page 2

May 9, 1961

It is suggested that this report be given widespread distribution in order that the entire Mesa urban community may become familiar with the current and long-range planning program.

Respectfully yours,

  
Donald W. Hutton, Director  
Maricopa County  
Planning and Zoning Department

  
Howard W. Godfrey, Director  
City of Mesa  
Planning and Zoning Department

RBM:jf

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## INTRODUCTION

The city of Mesa has the reputation for having lovely homes, many churches, fine schools, wide streets and an attractively laid-out community. It has an over-all appearance of cleanliness and much open space for recreational activities contributing to the enjoyment of pleasant casual living for both its residents and visitors. These community accomplishments were not accidental, but were planned for by farsighted Mormon pioneers. If this reputation is to continue, additional long-range plans must be made to preserve its present character and continued well-being.

Mesa, the third largest city in Arizona, is located within the State's largest metropolitan area. Its population has doubled since 1950 and it is expected to increase four-fold by 1980. It is important that plans be prepared in advance of this anticipated growth in order to insure adequate sites and proper location of streets and highways, schools, parks, and other public facilities.

As each community grows, it will gradually expand into adjacent territory, and in the case of adjoining communities in densely populated areas, the plans of each community must be carefully coordinated in order that mutual objectives of economical and orderly growth may be obtained. The need for uniform City-County zoning and subdivision regulations is readily apparent and a matter of mutual concern because much of the new growth of communities here is the result of annexation of adjoining territory.

This report is part of a comprehensive planning program which Mesa has undertaken in conjunction with the Maricopa County Planning Department. This is the first in a series of reports that will comprise a part of the Comprehensive Plan. The purpose of this report is to outline the scope and objectives of an integrated long-range planning program, provide a factual basis for future planning, establish land-use needs and location, and to help the citizens of Mesa know their community better, particularly its physical problems and needs as they relate to the function of planning.

PART I  
ECONOMIC ANALYSIS AND PROJECTION

Introduction and Summary

This economic analysis and projection for Mesa and vicinity was prepared by Western Business Consultants, Inc.

It is the purpose of the study to serve as a sound basis for community planning in the Mesa Area by providing a picture of the present economic base of the community, pointing out significant trends, and evaluating the factors which may stimulate or retard growth.

General Outlook

Mesa can expect to share substantially in the extremely rapid growth anticipated in Maricopa County during the next two decades.\* Analysis of Mesa's locational advantages for certain types of industry and for housing development indicates, in light of county growth patterns, that manufacturing employment in Mesa and vicinity may increase by 250 per cent between 1960 and 1980 and population, by 240 per cent during the same period.

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\* Growth factors in Maricopa County are analyzed and projected in Economic Analysis and Projection for Phoenix and Maricopa County, a study for the Maricopa County Planning and Zoning Commission and City of Phoenix Planning Commission, by Western Business Consultants, Inc., October 1959.

The extent to which this potential expansion of industry and population is realized will in large part be determined by the actions of the present residents of the area. Community action, for example, will be necessary to insure that the accessibility of Mesa to outlying centers of employment is not hampered by traffic congestion.

### Population Growth

The Mesa Urban Area\* is expected to have a population of at least 130,000 by 1980, in light of its present development prospects, assuming that adequate highway facilities link Mesa with other sections of the Salt River Valley. This growth would mean adding over 90,000 persons to the April 1960 population of the Area, which was approximately 38,000.

### Economic Base

Manufacturing and other non-agricultural industries have become increasingly important as sources of employment in recent years. These industries have been expanding rapidly at the same time that employment in agriculture has remained relatively stable. In spite of the favorable agricultural conditions and resulting high crop yields, agriculture is expected to decline in relative importance as the rapid increase in the non-agricultural industries continues.

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\* Mesa and vicinity is hereafter referred to in this section as the "Mesa Urban Area" which is defined for planning purposes as the present City of Mesa plus the unincorporated territory falling within these boundaries: north — Salt River and extension of Thomas Road; east — Greenfield Road; south — Baseline Road; and west — Price Road. All data given in this section of the report are for the Mesa Urban Area except as noted. The "main exception" is the information concerning employment. These estimates cover the "Urban Area," as defined here, plus employment at Falcon Field.

### Commuter — Residential Role

Mesa has had a significant role as a residential area for persons employed elsewhere in the Salt River Valley. This role is expected to be of continued importance, providing accessibility to other employment centers is maintained, and that Mesa continues to convey the impression of being a desirable residential area.

### Industrial Growth Potential

Manufacturing employment is expected to grow from approximately 1,000 in 1960 to 3,500 by 1975-80. The following are important factors in the anticipated growth:

- (1) Geographical location. Mesa's proximity to Arizona State University provides attraction to certain types of industry, particularly for the light manufacturer oriented toward research and development. Technological and other developments promise explosive growth in these industries during the 1960's and 1970's.
- (2) The tendency of many industries to locate outside the established industrial areas on sites suitable for landscaping.
- (3) The community "image." The layout, cleanliness, and general appearance convey the impression that Mesa is a desirable residential community.

It is probable that the expansion in manufacturing employment will be led by the electronic-electrical equipment industry, followed by the air-space craft equipment, apparel, and other industries.

### Land Requirements for Manufacturing

The projected increase of 2,650 persons employed in manufacturing over the average total number of 850 employed in 1958 is expected to require the use of an additional 140 acres for manufacturing purposes. Approximately 20 acres were used for manufacturing purposes in 1958, excluding the large acreage used by a plant producing rocket-powered aircraft accessories.

The estimates of land requirements are based upon the assumption that the employment increase will occur in light manufacturing and that emphasis will be placed upon sites which are adequate for offstreet parking and landscaping.

### Future of the Tourist Industry

The analysis contained in this report indicates that tourist volume may almost triple by 1975-80. If these expectations are realized, the tourist industry will account for about \$40 million in expenditures, and the employment of approximately 1,800 persons in the area. Among other factors important in this growth will be:

- (1) Mesa's location beyond the immediate urban development of Phoenix.
- (2) Its accessibility to the major scenic and recreational areas.
- (3) The national trends in income distribution and tourism, which suggest an increasing importance of middle-income tourists requiring moderately-priced facilities.

### The Outlook for Mobile Homes

Over 6 per cent of the population of the Mesa Urban Area was living in mobile homes in the spring of 1959. Based on national trends, it is estimated that the 1959 mobile-home population of 2,130 may grow to as much as 13,000 persons by 1980. An analysis of local, county, and national trends suggests that the Area can expect a minimum mobile-home population of about 8,200 by that date.

Of the total number of persons living in mobile homes in the Area in 1959, approximately 46 per cent were winter vacationers and retired persons. Only about 20 per cent were permanent, employed residents.

## Population Growth

### The Outlook

The Mesa Urban Area, as defined for this study,\* had a population of approximately 38,000 as of April 1, 1960, of which nearly 34,000 lived within the city limits of Mesa. Between April 1960 and January 1961, it is estimated that the population of the Mesa Urban Area increased more than 10 per cent and that it therefore exceeded 42,000 by the end of January 1961.\*\*

Prospects now indicate that the Mesa Urban Area may have a population of 68,000 by 1970, and 130,000 by 1980. How much of this population will live within the City of Mesa will depend upon subsequent annexation and the rate at which population density increases within the present city limits.

Comparison of the projected growth of the Mesa Urban Area with that of Maricopa County, the State of Arizona, and of the United States are provided by Table 1 and Figure 1. It will be noted that the rate of population increase anticipated for the Mesa Urban Area is substantially greater than that for Maricopa County and the State of Arizona. The basis for this anticipation is discussed in the following section.

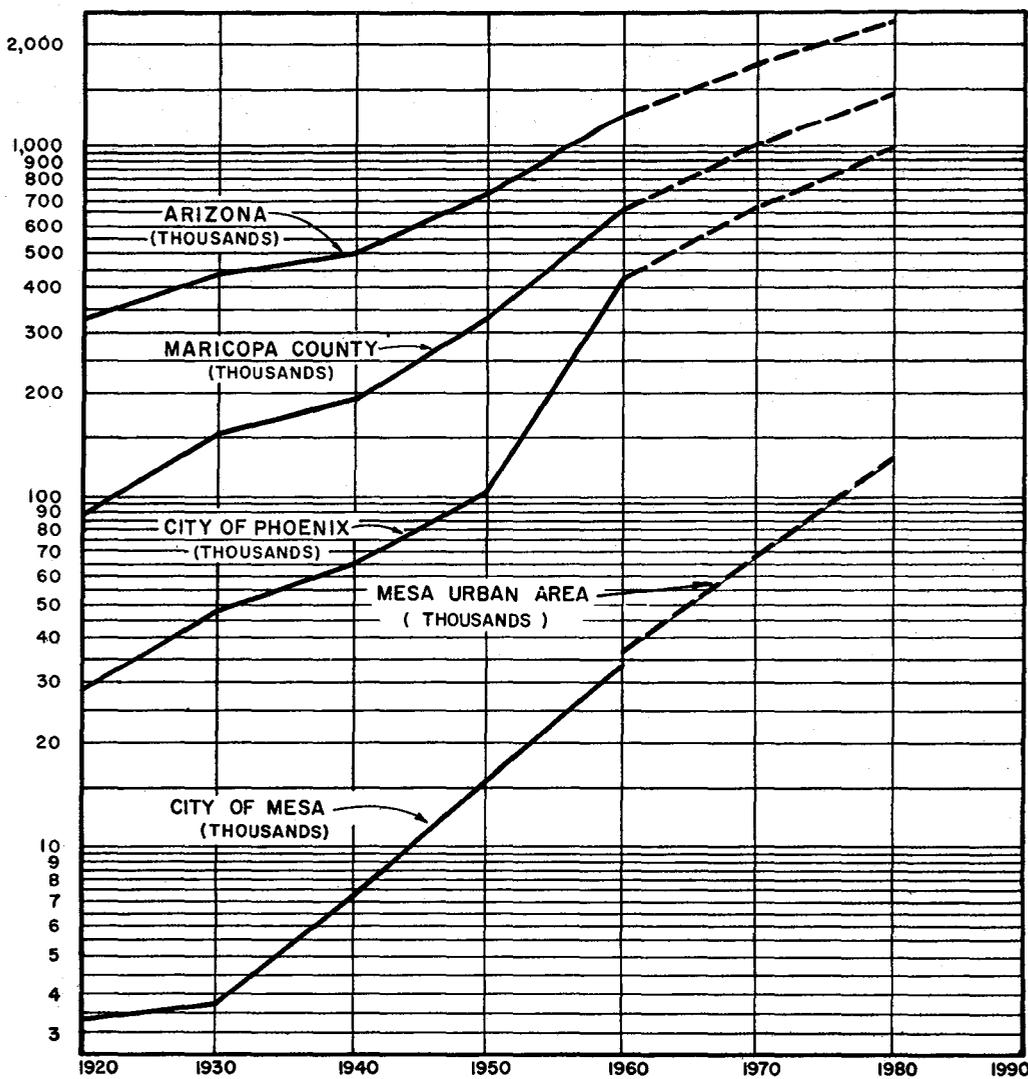
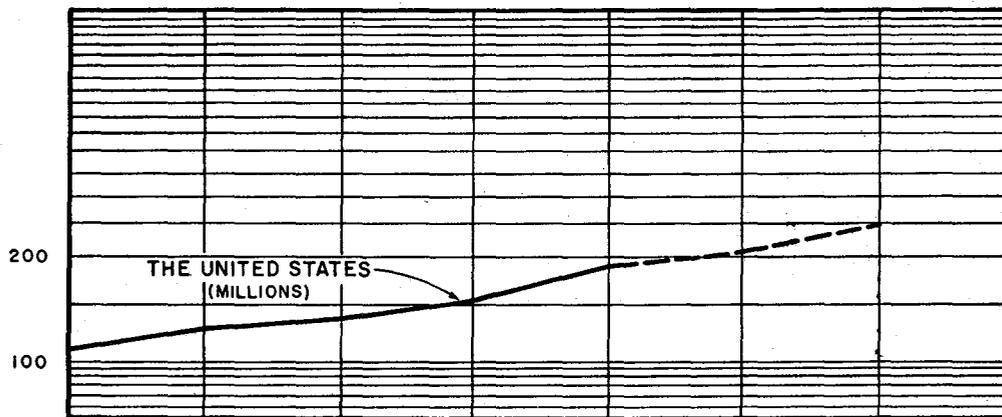
### Basis of Projections

The population projections given here for the Mesa Urban Area are based upon an analysis of the geographic trends in population growth within the Salt River Valley between 1950 and 1960. In extending these trends,

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\* The City of Mesa and surrounding unincorporated area falling within these boundaries: north — Salt River and extension of Thomas Road; east — Greenfield Road; south — Baseline Road; and west — Price Road.

\*\* Based upon increase in the number of residential electric meters in service after adjustment for seasonal change.



# 1920-1980 COMPARATIVE POPULATION GROWTH CITY OF MESA

PREPARED BY MARICOPA COUNTY PLANNING AND ZONING COMMISSION - OCTOBER, 1960  
R.D.W.

TABLE 1

PAST AND ESTIMATED FUTURE TRENDS IN POPULATION GROWTH, 1920 - 1980  
 United States, State of Arizona, Maricopa County, Mesa

	United States		State of Arizona			Maricopa County			City of Mesa		
	Population (000,000)	Increase Per Cent	Population (000)	Increase Per Cent U. S.	Increase Per Cent	Population (000)	Increase Per Cent Ariz.	Increase Per Cent	Population Persons	Increase Per Cent County	Increase Per Cent
1920	106		334	0.31		90	27		3,036	3.4	
1930	123	16	436	0.35	30	151	35	68	3,711	2.5	22
1940	132	7	499	0.38	14	186	37	23	7,224	3.9	95
1950	151	14	750	0.50	50	332	44	78	16,790	5.1	132
1960	179	18	1,302	0.73	74	664	51	100	33,772	5.1	101
									Mesa Urban Area*		
1960									37,950	5.7	
1970 (proj.)	209	17	1,800	0.86	38	1,020	57	54	68,000	6.7	79
1980 (proj.)	245	17	2,400	0.98	33	1,440	60	41	130,000	9.0	91

\* Area encompassed by Salt River and extension of Thomas Road on the north; Greenfield Road on the east; Baseline Road on the south; Price Road on the west.

Source: 1920-1960 population from reports of the U. S. Bureau of the Census; 1970 and 1980 estimates for U. S., Arizona and Maricopa County from Population Growth of the Phoenix Urban Area, Advance Planning Task Force, City of Phoenix and Maricopa County Planning Commissions, April 1959, p. 13; 1960, 1970 and 1980 estimates for Mesa Urban Area prepared by Western Business Consultants, Inc.

sub-area by sub-area, account has been taken of the probable impact upon population growth of topographical features, availability of land for residential development, probable character of the residential development, the distribution of water resources, probable availability of sewer service, the highway network, and the location of industry.

City of Mesa. Geographic trends in population growth were studied in terms of changes in population density. In the case of the City of Mesa, population per square mile has followed a generally declining trend since 1940 as the result of annexing less densely populated land than that already within city boundaries (see Table 2).

TABLE 2  
TRENDS IN POPULATION PER SQUARE MILE  
CITY OF MESA, 1940 TO 1960

Year	Land Area (Sq. miles)	Population	Population Per Square Mile
1940	1.77	7,224	4,100
1950	5.72	16,790	2,940
1955	6.26	23,800	3,800
1960			
City total	13.52	33,772	2,500
1950 area	5.72	23,948	4,190
Area annexed since 1950	7.80	9,824	1,260

Sources: Land area — City of Mesa Planning Department; Population — from U. S. Census, except 1955 which was taken from Water Works Survey of Mesa, Arizona, 1956, Headman, Ferguson and Carollo.

Between 1955 and 1960, the density ratio for the City of Mesa declined from 3,800 to 2,500 persons per square mile while the land area within the city limits more than doubled. Nevertheless, within the established core, population density increased. The 5.72 square miles within the city limits at the 1950 Census had a density of 2,940 persons per square mile in 1950 and of 4,190 in 1960. In contrast, the population of the 7.80 square miles annexed since 1950 had only a population of 1,260 persons per square mile in 1960.

In view of past trends, it is to be expected that the density of the territory annexed since 1950 will increase substantially in the next decade. This land is next in line of growth from the city's original core, and probably more suitable for single-home development (because of size of parcels and other reasons) than land which may still be vacant closer to the city's core.

What growth may be expected in the territory annexed since 1950? This territory contained 1,260 persons per square mile as of April 1, 1960 (see Table 2). It is estimated that this gross density will increase approximately 1,000 per decade in the 1960's and 1970's, or reach a density of approximately 3,300 persons per square mile by at least 1980. This estimate takes into account the "filling-in" experience which occurred in the 1950 area. Its population per square mile increased from 2,940 to 4,190 persons between 1950 and 1960, an increase of 1,250 per square mile (see Table 2).

The territory now within the city limits which was annexed since 1950 contains 7.80 square miles. At a gross density of 3,300 persons per square mile, it would therefore have a population of approximately 26,000 by 1980. The population within the 1950 area may increase but it has already reached a density level (4,190 persons per square mile) from which subsequent increases may be slow in light of present land-use patterns in Mesa. For a conservative estimate, one would assume no change in density, or the same population as in 1960, which was approximately 24,000. The estimate of

24,000 for the 1950 area, and 26,000 for the area annexed since 1950, when added together, gives a total of 50,000 as the estimated population within the April 1, 1960 city limits of Mesa by 1980.

Area Surrounding City. Accessibility, topography, and availability of water favor residential development of much of the peripheral unincorporated area surrounding the April 1960 city limits of Mesa. Already some development has spread to certain sections of this area. The total population, however, is still small in relation to that of the city — 4,178 in the Mesa Urban Area outside the City as compared with 33,772 in the City at the 1960 Census (see Table 1). Furthermore, better than 60 per cent of these 4,178 residents of the unincorporated portion of the Mesa Urban Area lived to the east of the City.\*

Substantial increases in the population of the peripheral unincorporated territory will probably not occur until much more of the undeveloped land within the city limits has been put to urban use. The 17 per cent increase in number of active residential meters in the City between January 1960 and 1961 indicates that the process of converting vacant and agricultural land to residential use within the city limits is well under way.

How much may the population of the present unincorporated portion of the Mesa Urban Area grow by 1980? There are 42 square miles in this unincorporated portion. This territory will surely not all be developed by 1980, considering that only 42 per cent of the land area within the City of Mesa was used for urban purposes as of January 1960. The balance was farmed or was vacant. Assume that 42 per cent of these unincorporated 42 square miles were developed, or 17.6 square miles, for residential, commercial, and other urban purposes. Within the City of Mesa, land developed for urban purposes had a population of 5,600 per square mile as of April 1960. At this ratio the

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\* Based upon distribution of population by census tracts.

urban development of 17.6 square miles of unincorporated territory would mean a population of approximately 100,000.

The attainment of a population of 100,000 in the present unincorporated portion of the Mesa Urban Area by 1980 now seems unlikely. First, it does not seem probable that the much larger unincorporated territory of 42 square miles will attain the same degree of urban development by 1980 as has now been achieved for the 13.5 square miles in the City. Even in the face of strong growth trends, substantial acreages could still remain undeveloped because of distance from main highways, especially in the northeastern and southeastern sections. In addition unfavorable elevation and terrain will probably discourage development of the more northern portion of the unincorporated territory in the vicinity of the Salt River.

Second, it is hardly reasonable to believe that the density of the outlying developments will equal those within the present city limits. In light of these considerations, it is believed that 80,000 is a more realistic estimate for the 1980 population of the present unincorporated portion of the Mesa Urban Area.

Urban Area. The population within the April 1960 city limits has already been estimated at 50,000 for 1980. Adding this figure to the 80,000 estimated for the present unincorporated section gives a total of 130,000 — the 1980 population projection for the Mesa Urban Area.

As pointed out earlier, this projection of a population of 130,000 for the Mesa Urban Area by 1980 assumes that this section of Maricopa County will grow at a much faster rate than the County as a whole. Were the Area simply to maintain its 1960 ratio to the County (5.7 per cent), it would only have a population of 82,000 for a County population of 1,440,000 in 1980 (see Table 1 projections). Present prospects indicate, however, that the Mesa Urban Area should grow faster than the County as a whole. Phoenix has been the center of greatest growth within the County but much of the "close-in" land in the immediate Phoenix area, which is suitable for single-family housing,

has already been developed. Therefore, it can be expected that the new single-family houses in the 1960's and 1970's will be built at greater and greater distances from Downtown Phoenix.

The Mesa Area should attract a significant portion of this development in view of the favorable "image" which the community possesses, the general availability of municipal water and sewer service, and the relative nearness to the campus of Arizona State University.

#### Assumptions

These population projections for the Mesa Area are based upon the assumption that adequate highway facilities will link the Mesa Area with other parts of the Valley, and that such facilities will be available in sufficient time to stimulate very substantial growth before 1980. How highway facilities are related to Mesa's future is discussed in subsequent sections of this report dealing with Mesa's potential as a residential area and as a location for industry.

## Economic Base

In the recent economic analysis of Maricopa County, two dominant economic trends were noted: "One is the marked economic growth of the County and the Phoenix Area and the other is the quickening pace of industrialization."\* These same trends have dominated the economy of Mesa during the past decade, and more particularly during the last five years.

Between 1950 and 1960, the average number of persons employed in Mesa and vicinity has increased from approximately 5,400 to over 10,000 — an increase of 86 per cent in ten years.\*\*

### Manufacturing

Manufacturing showed the most rapid rate of growth between 1950 and 1960. During this ten-year period, employment in manufacturing in the Mesa Area increased by over 220 per cent while total employment increased by about 86 per cent. In the one-year period 1958-59, employment in manufacturing grew by an estimated 27 per cent as against about 11 per cent growth in total employment. In 1950, manufacturing employment represented slightly under 6 per cent of total employment and over 8 per cent of total

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\* Economic Analysis and Projection for Phoenix and Maricopa County, a study for the Maricopa County Planning and Zoning Commission and the City of Phoenix Planning Commission, prepared by Western Business Consultants, Inc., October 1959.

\*\* These employment estimates are for the City of Mesa, an area approximately two miles beyond the January 1960 city limits and Falcon Field. This area is the immediate service territory of the Mesa Office of the Arizona Employment Service.

TABLE 3

EMPLOYMENT BY MAJOR ECONOMIC ACTIVITY, MESA AND VICINITY\*  
1950, 1958, 1959, 1960

Activity	E m p l o y m e n t , A p r i l							
	1950		1958		1959		1960	
	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total	Number	Percent of Total
Total employment	5,380	100	8,780	100	9,730	100	10,020	100
Total non-agri. wage & salaried	3,690		6,080		6,930		7,220	
Manufacturing	310	5.8	750	8.5	950	9.8	1,000	10.0
Mining & quarrying	45	0.8	80	0.9	80	0.8	120	1.1
Contract const.	375	7.0	500	5.7	650	6.7	700	7.0
Trans., comm. & public utilities	225	4.2	400	4.6	400	4.1	425	4.2
Wholesale & retail trade	1,095	20.4	2,000	22.8	2,250	23.1	2,350	23.5
Fin., ins., real estate	115	2.1	250	2.8	300	3.1	300	3.0
Service	890	16.5	1,400	15.9	1,500	15.4	1,500	15.0
Government	635	11.8	700	8.0	800	8.2	825	8.2
All other non-agri.**	890	16.5	1,700	19.4	2,000	20.6	2,000	20.0
Agriculture	800	14.9	1,000	11.4	800	8.2	800	8.0

\* These estimates include an area of approximately two miles beyond the present corporate limits of the city and the Falcon Field area.

\*\* Proprietors, unpaid family workers and domestics.

Source: 1950 estimates prepared by Western Business Consultants, Inc. based upon the 1950 U. S. Census; 1958-60 estimates supplied by the Mesa Office of the Arizona State Employment Service.

TABLE 4

DISTRIBUTION OF MANUFACTURING EMPLOYMENT  
MESA AND VICINITY, 1950 AND 1958

Type of Manufacturing Activity	Manufacturing Employment*		1958**	
	1950 Number	Per Cent of Total	Number	Per Cent of Total
Food and kindred products	126	38	160	19
Apparel and fabricated textile products	1	***	230	27
Lumber and wood products	35	11	33	4
Printing, publishing & allied industries	73	22	89	10
Concrete, clay, gypsum & related products	—	***	5	1
Fabricated structural metal products (excluding building specialties)	24	7	53	6
Machinery (excluding electrical)	30	9	37	4
Aircraft & other transportation equipment & components	7	2	215	25
Miscellaneous manufacturing industries	38	11	30	4
<b>Total manufacturing</b>	<b>334</b>	<b>100</b>	<b>852</b>	<b>100</b>

\* Includes proprietors; figures for manufacturing given in Table 3 include only wage and salaried workers.

\*\* Monthly average; figures for 1950 and those given in Table 3 are for April.

\*\*\* Less than 1 per cent.

Source: Estimated by Western Business Consultants, Inc., based upon information supplied by the Mesa Office of the Arizona State Employment Service, the 1950 U. S. Census, and an Industrial Land-Use and Employment Survey conducted by Western Business Consultants, Inc., March 1959.

wage and salaried non-agricultural employment. By 1960, these percentages had grown to 10 and slightly under 14, respectively.\*

Without in any way detracting from the significance of the rates of increase shown by manufacturing in the Mesa Area, it should be pointed out that the explanation for the extremely large percentage rates is in part the start from a relatively small base.\*\*

When looked at from the point of view of the number of jobs added, manufacturing retains its significance. During the 1950-60 period, approximately 700 jobs were added to the Mesa economy by manufacturing activity, which represented approximately 20 per cent of the increase in all non-agricultural wage or salaried employment.

In addition to the sharp increase in total manufacturing employment, significant changes in the distribution of employment between different types of manufacturing have taken place. The data in Table 4 reveal that from 1950 to 1958 the most dramatic increases took place in the Aircraft Equipment and Apparel categories.\*\*\*

These two groups of manufacturers were responsible for adding approximately 84 per cent of all the increase in total manufacturing employment between 1950 and 1958, all other categories being responsible for the remaining 16 per cent. Employment increases in transportation equipment and apparel manufacturing were so substantial, in fact, that all other categories declined in relative importance in spite of additions to employment in absolute terms.

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\* See Appendix Tables 1 and 2.

\*\* A change from 0 to 1 is an infinitely large percentage change; a change from 1 to 2 is a change of 100 per cent; a change from 2 to 3, a change of 50 per cent, etc.

\*\*\* Employment totals for manufacturing given in Table 4 differ from those in preceding table because these totals include proprietors, and, in the case of 1958, the figure shown is the monthly average for the year, not an estimate for April.

## Trade and Services

After manufacturing, the next highest rates of growth between 1950 and 1960 were shown by wholesale and retail trade, finance, insurance and real estate, and the "all other" category including proprietors. The trade, service, financial, and "all other" industries can logically be lumped together and considered as a trade and services group. The overall importance of this group in the Mesa economy is estimated to have climbed from about 56 to approximately 62 per cent between 1950 and 1958, and remained at about 62 per cent of total employment in 1960.

Recent data on Mesa retail sales are presented in Appendix Table 3. These data indicate a very substantial increase in retail sales between 1954 and 1958, although the rate of increase lagged behind that of the county generally.

As urbanization takes place — and as incomes increase — an increase in the relative importance of the trade and service industries is typical. In the case of Mesa, however, trade and service employment will be affected to the extent that Mesa becomes a residential area for persons employed elsewhere and its tourist business expands. To the degree that either or both of these possibilities comes about, the trade and services group will be of increasing importance — expanding more rapidly than would be the "typical" case. The factors influencing these possibilities are explored in a later section of this report.

Another factor that will be quite important to trade and service employment, however, is at present completely unpredictable — the future of nearby Williams Air Force Base. From data presently available, it is impossible to quantify the importance of the activity of Williams Air Force Base to the economy. It may, however, be placed within outer limits.

On the one hand, Mesa cannot be considered a "satellite" community of the installation, as are many small communities which have sprung up around military installations during the recent period of alternating hot and cold wars, but has a strong economic base as shown throughout this study. On the other hand, in mid-1959 Williams maintained approximately 2,500 military and 1,000 full-time civilian employees, with an annual total payroll variously estimated at \$10 million to \$15 million.

In view of the fact that Mesa offers the most fully-developed shopping facilities nearby (that is, short of going on into Phoenix), it undoubtedly experiences large sales of retail goods and services to military and civilian personnel of the base; and any change in the activities of the installation is of significance to the City.

Given the present unpredictability of the future of Williams Air Force Base, it must be assumed for purposes of this study that activity will continue roughly at its present magnitude.\*

#### Agriculture

The relative importance of agriculture as a source of employment declined throughout the period 1950-1960, as is shown in Table 3.

The technological and economic realities in agriculture are such that, barring some unanticipated and radical shift in technology, output is likely to do little better than hold its own. Moderate increases in productivity are, of course, quite likely to occur, which will exert some tendency to increase total agricultural output in the general Mesa Area as well as in the county generally. At the same time, however, as urbanization of the Mesa Area progresses, land will be removed from agricultural production and devoted to

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\* One official of the Air Force has stated that there will be little change in personnel at Williams as a result of the conversion of the base to operation by the Air Training Command. Phoenix Gazette, May 19, 1960.

industrial, commercial, and residential purposes. The removal of land from active production is likely to at least offset increases in productivity; and perhaps to more than offset it, causing agricultural output in the area to decline somewhat.

The rate at which land is removed from agricultural production and devoted to urban purposes is, of course, determined by land costs and the productivity of land in alternative uses. In areas of low crop yields, moderate increases in land prices will remove large areas from cultivation, and agriculture will offer little resistance to the push of urbanization. Much of the land under cultivation in the general Mesa Area, however, is among the most favorably situated land in the Valley, with excellent water conditions and high crop yield. It is therefore probable that agriculture will continue in the foreseeable future to play a significant role in the Mesa economy.

#### Mesa As A Commuter-Residential Area

The importance of Mesa's role as a residence for persons employed outside the Mesa Area cannot be presently determined. It is clear, however, that such a role does exist.

In connection with this study, a survey was conducted of individuals throughout the Salt River Valley who are knowledgeable of and active in the development of the entire Valley. This survey was directed toward identifying the factors that will determine the direction of Valley development in general, and in particular, to assess the problems and prospects of Mesa for various types of development. During the course of these interviews, Mesa was frequently referred to in its role as a "bedroom" community, now and in the future.

The extent to which this role will be important in the future will be determined primarily by the following factors: (1) the attraction of the area as a place of residence; (2) the general geographical direction of future industrial development in the Valley; (3) ease of access from the area to

areas of employment concentration; and, (4) availability of suitable housing. Of these factors, (1) and (4) will be almost completely determined by Mesa itself, consistent with community desires and attitudes; and (3) will be at least partially determined from within the area.

Regarding the directions and rate of development of various parts of the Valley, as might be expected, there are many different opinions. Directions of development are limited by natural barriers except to the west, the northwest, and to the southeast, toward the Mesa-Tempe area. Ultimately, therefore, there is general agreement that considerable development must occur within the area for which Mesa might quite logically serve as a residential location. The rate at which such development will take place, however, is more speculative, and will quite likely be influenced to a considerable degree by the actions of the communities in the various parts of the Salt River Valley.

The closest competitive area for which an important commuter role might develop is the Tempe Area. There is fairly general agreement that the most important single now-existing factor in that area that may well influence the location of industry is the location in Tempe of Arizona State University. Many of the new industries — particularly electronics and allied industries — are heavily oriented toward research and development. These industries have shown and are showing considerable interest in locating as near a university as other factors permit, thereby making the university accessible for their professional staff to continue studies, facilitating cooperative research programs with universities, and in general associating themselves with the "university atmosphere." Some of this type of development has already begun in the Tempe Area; and, depending upon the activity of Tempe itself in further attracting this development, it appears quite likely that it may occur at an accelerated rate in the future.

Mesa is generally regarded as a "nice place to live." It conveys to many the impression of being a well-planned, quiet residential community, with relatively good shopping and other facilities.

Assuming (1) that the community continues to maintain this desirable residential atmosphere ; and, (2) that adequate housing for rental or purchase is available, the future of the area as a commuter residence appears to be closely tied to the degree of accessibility of Mesa to Tempe and other areas. Traffic congestion was one of the most frequently mentioned potential barriers to the development of Mesa in this role. It was frequently pointed out during the survey, for example that as a result of the strip development along the Mesa-Tempe highway, even at present, the highway does not allow what might be termed "rapid accessibility." The problem is a good deal less serious to the south and to the north and west as far as Scottsdale. When entering the eastern edge of Phoenix, however, congestion again becomes a serious problem.

A number of highway improvements are underway which should substantially alleviate the congestion problem. Among these are the development of Transmission Road into Tempe, the widening and paving of Hayden Road from McDowell to the Mesa-Tempe highway, and the ultimate location of the interstate highway. The development of Transmission Road is currently in progress, with completion anticipated within a year to two years, and should lessen considerably the congestion problem of the Mesa-Tempe highway. Hayden Road is complete as this report is being written; and, in conjunction with Transmission Road, will provide an alternate route to the Scottsdale Area and the East-Phoenix Area via Mc Dowell Road.

Because of limits imposed by the Indian Reservation to the north and the irrigation district to the east, the primary source of industrial employment

outside the immediate Mesa Area should be located south of Mesa toward Chandler, and south of Highway 60-70-80-89 west toward Tempe. This suggests that it is extremely important that a major east-west route between the Mesa-Tempe highway and Baseline Road (State Highway 69) be constructed to serve Mesa residents working in that area between Mesa and Tempe. Also of importance is that north-south routes be kept free of local congestion in order to provide accessibility from residential areas on the north side of Mesa to the east-west access routes to the potential industrial employment centers.

The question of the location of the interstate highway has been subject to considerable debate. It appears at this writing, however, that the Phoenix to Tucson interstate highway will be located south of Tempe, paralleling Kyrene Road. A limited-access route from the south side of Mesa to the interstate as it is ultimately located would provide rapid access from Mesa to the west side of Phoenix as well as downtown Phoenix, while at the same time serving the entire potential Mesa-Tempe industrial areas. Such a route would greatly enhance Mesa's attractiveness as a location for commuter residence.\*

As the above discussion has indicated, the future of Mesa as a commuter-residential community will be primarily affected by forces determined within Mesa itself, including the influence that the community is able to exert in hastening the construction of access routes from Mesa to the interstate highway as it is completed. Assuming that Mesa takes advantage of its geographic location and its prior investment in planning, all indicators point to this role becoming of substantial importance in the relatively near future.

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\* A complete study of projected street and highway needs for the entire Phoenix Metropolitan Area has recently been completed. See A Major Street and Highway Plan for the Phoenix Urban Area and Maricopa County, prepared by Wilbur Smith and Associates for the Arizona State Highway Commission, Maricopa County, and the City of Phoenix, 1960.

## Mesa As A Retirement Area

As the recent opening of retirement communities suggest, retirement living promises to grow in the Mesa Area. Many of the same conditions which make Mesa an attractive residential location for commuters also makes it attractive to retired couples.

The entire desert area in the southwest — and Arizona in particular — is receiving increasing attention as a desirable area in which to retire because of its favorable climate and relatively informal social atmosphere. One result of this is the rapid growth around the state of entire communities designed and built specifically for retired persons, including one such community within the city limits of Mesa. These developments have the advantage of containing in close proximity those recreational activities which appeal to older persons and moderately priced housing, and offer the atmosphere of a group which has substantial areas of common interest. The interest shown by older citizens in those areas has been little short of phenomenal.

In addition to other advantages for retirement living, Mesa also offers a wide range of cultural activities, both in the City itself, and at nearby Arizona State University. The attractive new City Library in Mesa, for example, and the dramatic and musical productions of the University — along with similar activities — are potentially significant factors in the locational decisions of prospective residents.

There is little doubt of the continued increases in the immigration of older citizens into Arizona to retire. As incomes throughout the nation continue to rise for an expanding population that is living longer, both the number and per cent of the population that is able to move to more desirable areas for retirement will continue to increase; and to these groups, Arizona will continue to offer the same attractions that it now does.

As in other phases of development, the extent to which Mesa attracts older and retired groups will be substantially affected by the actions of the community for these groups in providing medical, residential, and recreational facilities adequate to their needs; and the extent to which the community makes such persons feel welcome.

## Industrial-Growth Potential

### Manufacturing Growth in Maricopa County

Employment in manufacturing has been increasing rapidly in Maricopa County — from 10,000 in 1950 to an average of approximately 33,000 in 1960. It is anticipated that total manufacturing employment will reach 77,000 between 1965 and 1970, an addition of over 44,000 new jobs during the next 5 to 10 years.

Manufacturing employment is expected to have an additional substantial increase during the 1970's, with the total for the County reaching 117,000 in or before 1980. Fulfillment of this expectation will require an increase of 84,000 between 1960 and 1975-80, an average gain of 4,200 to 5,600 new jobs per year.\*

Industries Leading the Expansion. Table 5 shows the industrial distribution of the anticipated additions to manufacturing employment in Maricopa County by 1975-80. These estimates indicate the widely differing rates at which the various industries are expected to expand during the next 15 to 20 years. One result of the disparity in these rates is that the bulk of new employment in manufacturing in the County is expected to occur in relatively few industries — notably the "science-oriented" industries. The 13 categories shown in Table 5 as having projected employment increases of 1,000 or more,

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\* For a much more thorough examination of anticipated growth in manufacturing employment in Maricopa County, see Economic Analysis and Projection for Phoenix and Maricopa County, a study for the Maricopa County Planning and Zoning Commission and City of Phoenix Planning Commission, prepared by Western Business Consultants, Inc., October 1959. Employment figures for 1960 were derived from Arizona's Current Employment Developments, Unemployment Compensation Division, Employment Security Commission of Arizona.

TABLE 5  
 PROJECTED INCREASE IN MANUFACTURING  
 EMPLOYMENT, BY INDUSTRY, MARICOPA COUNTY  
 1958 to 1975-80  
 (Ranked by employment increase)

Industry	Projected Increases in Employment 1958 to 1975-80	
	Number	Per Cent
Electronic & electrical products	36,850	1,053
Allowance for new industries	18,000	—
Aircraft equipment	6,470	118
Machine & tool & die shops	3,590	417
Fab. struct. metal prod., (exc. bldg. spec.)	2,810	270
Women's apparel	2,770	407
Concrete, clay, gypsum & rel. prod.	1,890	170
Primary metals	1,830	69
Dairy products	1,790	127
Publishing, with or without printing	1,780	146
Cooling, ref. & air-moving equip.	1,590	157
Millwork & other wood prod., (exc. furn.)	1,160	138
Bakery products	1,000	125
Other apparel & fab. textile prod.	970	133
Miscellaneous food industries	970	117
Beverage products	930	198
Meat products	800	123
Commercial printing	740	145
Chem. & allied prod., (exc. ag. chem.)	630	286
Paperboard containers & paper prod.	620	775
Professional equip. & related prod.	600	600
Coating, plating & allied services	450	300
Household furniture	400	133
Service ind. for the printing trade	400	160
Fabricated metal bldg. specialities	390	186
Other non-electrical machinery	330	194
Miscellaneous manufacturing	260	108
Misc. transportation equip.	190	173
Agricultural chemicals	120	67
Cottonseed-oil mills	30	7
Total manufacturing	90,360	344

Source: Calculated from Table XI of Economic Analysis and Projection for Phoenix and Maricopa County, p. 79.

TABLE 6

DISTRIBUTION OF MANUFACTURING EMPLOYMENT  
IN MARICOPA COUNTY BY INDUSTRIAL AREAS

Area	Per Cent of County Total 1958	
Old established area within City of Phoenix		
Sky Harbor East (16th to 48th Sts.)	19	
Southern Pacific Central (16th St. to 19th Ave.)	13	
Southern Pacific West (West of 19th Ave.)	13	
Grand Ave. — Santa Fe	11	
Downtown	<u>6</u>	62
Other Phoenix Areas		
South Phoenix	6	
North Phoenix	2	
Other Locations	<u>2</u>	10
Other Areas		
East McDowell	9	
Avondale — Goodyear	6	
Glendale — Deer Valley	6	
Mesa	3	
Tempe — Kyrene	3	
Chandler — Gilbert	<u>1</u>	<u>28</u>
		100

Source: Prepared by Western Business Consultants, Inc.

for example, are expected to account for about 90 per cent of the total increase in manufacturing employment during the period.

The "new industries" category makes allowance for: (1) the establishment of plants in the County by industries already existing elsewhere, as expansion in local and regional markets warrant; and (2) new industries that will be created as new products reach the commercial stage of development.

Intra-County Location Patterns. Manufacturing in Maricopa County has historically been centered in Phoenix, primarily in areas adjacent to the railroads. The data in Table 6 indicate that in 1958 the "railroad" areas and the downtown section of Phoenix together accounted for 62 per cent of the total County employment in manufacturing.

Dependence upon railroads for all freight movement was partly responsible for this concentration, coupled with the development of supply firms and warehousing along the tracks and the general feeling that the areas near the railroads were "the place" for industry. In the particular case of Phoenix, the location of the Sky Harbor air facility adjacent to the railroad has contributed to the concentration shown in Table 6 because of the industries which the airport itself has attracted.

A movement away from the older established industrial areas has, however, become evident in Phoenix. This is reflected in the data in Table 6 by the fact that in 1958, of the total County employment in manufacturing, 28 per cent was located in the newer outlying areas surrounding Phoenix — East McDowell, Avondale-Goodyear, Glendale-Deer Valley, Mesa, Tempe-Kyrene, and Chandler-Gilbert. Most of the plants in these areas are less than five years old.

"Suburban" areas have been becoming increasingly popular for industrial location, with the resulting dispersion of manufacturing over the general Phoenix area. Electronics industries, for example, have been locating far enough out to

acquire sites that will allow rapid accessibility to residential areas without requiring travel through areas of heavy traffic congestion, and that are large enough to allow adequate space for employee parking, garden-type landscaping, and future expansion of those facilities.

Other industries, such as the apparel, are selecting locations further out to tap the labor supply of a particular area or neighborhood; or, as in the case of dairy products and soft-drink bottling, to facilitate local distribution by being on or near the freeway systems. Still others are being encouraged to locate in areas remote enough that smoke and noise will not constitute a civic nuisance.

#### Mesa as an Industrial Location

Geographical Location. Mesa's location in the Valley offers several advantages to certain types of industry, particularly to light manufacturing oriented toward research and development. Important among these advantages is the geographical proximity of Mesa to Arizona State University, which is likely — and almost certain — to increase the services which it offers industry, in both graduate training and research. Although not in the immediate university area, Mesa offers ready accessibility to university facilities.

Except for the problems of traffic congestion, Mesa's location is such that it should be able to offer rapid access to the facilities of Sky Harbor Airport. Sky Harbor will probably remain the dominant air facility in the Valley, and as air travel and transport have been and are becoming more and more important, its continued accessibility will become an increasingly valuable asset.

The Mesa area provides advantages to some firms, also, in that it offers rapid accessibility to the Tucson and Casa Grande areas as well as the Phoenix urban area. As these areas continue to expand, this accessibility

is also likely to become of more importance, although it may be somewhat mitigated by the construction of the limited-access interstate route which will generally increase the accessibility of most locations in the Salt River Valley to the markets of Southern Arizona. With the continued expansion and urbanization of the Phoenix and Tucson areas, however, the Mesa-Tempe area should become increasingly attractive to firms engaged in warehousing and distribution.

Although not unique to the Mesa area, rail facilities are excellent, with present and potential sites available offering ready access to these facilities; and will therefore enhance the possibility of increased industrial activity.

Availability and Cost of Land. Large, level sites are available for industry in the Mesa area at the present time. Barring the possibility of the available land being split by speculators into parcels too small for major industrial users, land availability should pose no barrier to industrial development in the foreseeable future.

Available information indicates that the price of land in the Mesa area is presently not out of line with prices in comparable areas of the Valley, and should therefore provide no barrier for the present. Land prices in the future, however, are difficult to predict.

There is no reason, however, to think that present land costs in the Mesa area will be driven up more rapidly in the future than comparable land elsewhere. Within the foreseeable future, then, Mesa should be able to offer favorable sites for industrial purposes at prices advantageous when compared with the more centrally-located areas and comparable to other communities on the fringe of the Phoenix urban area.

Water and Other Utilities. The utility departments of the City of Mesa provide water and sewer facilities for the Mesa area and electrical and gas service for a portion. The balance of the area is supplied with electricity by the Salt River Power District and with gas by the Arizona Public Service Company. These utilities have made plans for expansion to supply growing needs.

Labor Supply and Housing. Labor supply is an important factor in determining the location of industry. The various communities of the Phoenix urban area, including Mesa, have good access to the highly mobile labor supply of the Phoenix area with certain qualifications. This general labor market was discussed in the Economic Analysis and Projection for Phoenix and Maricopa County. As the urban area expands in size and complexity, industry — particularly the light-manufacturing and technical industry likely to be attracted to the Mesa area — increasingly will look to the availability of reasonably-priced residential facilities for medium and upper-medium income families. Although the availability of such housing certainly is not a condition sufficient to offset possible disadvantages and guarantee industrial development, its absence would act as a positive deterrent; and may well be a condition prerequisite to continued development.

In the matter of housing, Mesa is well situated. The activity of builders in the area, the willingness of banks to finance developments, and the availability of land all point to the continued availability of attractive and high-quality housing at moderate prices.

The general desirability of Mesa as a residential city will enhance the attractiveness of the area to a potential industry looking into the matter of residential facilities. Access to other residential areas, including the executive housing areas of Scottsdale and Paradise Valley, will also be an important consideration; and is one facet of the general problem of accessibility discussed elsewhere.

The Community "Image." The attractiveness of the general Mesa area as a residential community is an integral part of that total conglomerate of subjective and objective observations constituting the total over-all impression of the community received by an outsider. Some of the parts of this total are fixed, such as climate, terrain, and the like. Others, however, are subject to change. The layout of the city, its cleanliness, and its appearance are among these.

These factors and others are important in determining the desirability of the area as a place in which to house employees. They are important also to the firm itself for, to a considerable extent, the firm associates itself with the area in which it is located, and the "image" of the community reflects in either a positive or negative way upon the prestige of a prospective industrial resident.

Evidence of the importance of maintaining this prestige is the tendency for many light-manufacturing and research-oriented industries to move plants into areas completely separate from older industrial areas, and into "industrial-parks." In the industrial-park areas, firms have the added assurance that future neighboring installations will have to meet minimum standards set by zoning and/or deed restrictions. Both the appearance of the area at the time a firm considers it for location, and assurances such as those provided by zoning and deed restrictions can be and quite frequently are very important factors in influencing location.

In this matter of image, also, extreme importance must be attached to the attitude of the community residents. A part of this attitude, of course, will be reflected in appearance. Other attitudes, however, will be of particular significance: the energy and ambition to improve, honesty in representing both the advantages and disadvantages of the city, and the degree of genuine receptiveness with which the newcomer — industry or individual — is met. A "sleepy" or "do-nothing" appearance, for example, may constitute a substantial drawback to a community in trying to attract modern, dynamic industries.

As the entire Mesa area experiences the rapid growth anticipated, the presence of sound planning for the community as a whole will be extremely important in maintaining the image of a desirable place in which to live and work.

The extent to which individuals or groups within the community are active in promoting development may also be of extreme — and even, within limits, deciding — importance.\* This statement does not mean, of course, that a community desiring industrial development must — or even should — make extravagant concessions or otherwise subsidize a firm as an inducement. Nevertheless, when the communities under consideration provide about the same economic advantages, the most important factor determining the location of a plant may be the "selling" job done by individuals or groups in the community, and the cooperative attitude they convey.

The survey of industrial locational factors conducted for this study confirmed that these factors — the activity of promotional groups and community "image" — are in almost all cases important, and in many cases decisive, in determining the choice of particular locations within the Salt River Valley.

#### Deterrents to Growth

The growth of the Mesa area is in large part a function of the growth of the Salt River Valley, and any factors operating to deter Valley growth would also act to deter the growth of Mesa. Factors that may limit growth in the Valley are explored in the Economic Analysis and Projection for Phoenix and Maricopa County.\*\*

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\* One example of such a group already at work in the Mesa area is the recently-formed Industrial Development Corporation.

\*\* See pp. 71-76.

Factors have been discussed here, however, that may deter growth in the Mesa area as contrasted with other areas within the Valley. Of these, two are probably the most important:

- (1) Traffic congestion. In the series of interviews conducted in connection with this study, the factor most often mentioned as a present problem and a potentially significant deterrent was that of accessibility to other parts of the Valley from the Mesa area.
- (2) Community attitudes. Also frequently mentioned was the matter of community attitudes. Although relations have apparently been quite good between the industries presently in Mesa and the city residents and administration, there seems to be a division of feeling on the desired rate of future growth. This division of attitude may not act in any positive way to slow or discourage growth, but could potentially hinder the community in attaining the rate of growth possible with unified action. Evidence indicates, however, that this problem is solving itself.

It has been pointed out that many of the factors that will determine the rate at which Mesa develops industrially will be in turn determined by future community actions. These actions will presumably be a reflection of the desires of the community itself. None of the potential barriers to the growth of the area are insurmountable; and, assuming that the desires of the community are effectively translated into action, the conclusion follows that the rate at which Mesa develops will, to a considerable extent, be dependent upon the rate at which it wants to develop.

## Employment Projections

### Summary

Employment projections for various economic activities in Mesa and vicinity are summarized below in Table 7. They indicate an increase in total local employment from 10,000 in 1960 to 30,000 in 1975-80. In addition, it is expected that the number of persons living in Mesa and commuting to work elsewhere in the Valley would also increase substantially.

TABLE 7

EMPLOYMENT PROJECTIONS, MESA AREA AND VICINITY  
1975-1980

Activity	Projected Employment 1975-1980	Approximate Increase from 1960	
		Number	Per Cent
Employment Total	30,000	20,000	200
Manufacturing	3,500	2,500	250
Wholesale & retail trade, and services (including financial, insurance, and real estate)*	19,850	13,700	220
Construction**	2,100	1,200	130
Transportation, utilities, and government	3,750	2,500	200
Agriculture	800	—	—

\* Including all other non-agricultural employment (proprietors, unpaid family workers and domestics).

\*\* Including mining of sand and gravel.

Source: Prepared by Western Business Consultants, Inc.

### Projection Basis

The projections given in Table 7 are based on the assumption that the general level of business activity will be high in 1975-80, and that no major unemployment problems will arise nationally or regionally.

Repeated stress has been placed in this report upon the effects of future local action on the pattern and speed of economic development. The estimates in Table 7 are conservative in the sense that they do not assume an ambitious and strongly-financed effort for industrial development on the part of the community. Neither do they assume a complete lack of such effort. The projections recognize the existence of these activities at the present time, such as those of the recently-formed Industrial Development Corporation, and assume that they will continue to progress in the future at a moderate rate.

The projections, therefore, may prove to be over-conservative. Higher employment levels may be attained prior to 1975, if promotional activities in the area proceed at an accelerated rate. Conversely, an opposite shift in community attitudes and actions could cause the projections to be too high.

As efforts are made to develop industry and tourism, it is further assumed Mesa will be able to preserve its image as a desirable residential community.

Manufacturing. In order to provide a basis for estimating manufacturing employment in Mesa in the 1975-80 period, an industry-by-industry analysis of locational requirements was made. In addition, interviews concerning the industrial potential of the Mesa Area were held with manufacturers already located in the Mesa Area, and with industrial realtors and officials of financial institutions in the Salt River Valley. For each industry, the evidence was weighed in terms of the portions of anticipated employment in Maricopa County that might be reasonably expected to locate in the Mesa Area. Industries not presently located in Mesa were included in the analysis, as were those already represented in the Area.

At the same time, a separate but related projection of manufacturing employment was constructed on the basis of relationships now existing between the industrial composition of Mesa and that of Maricopa County, and upon shifts anticipated in those relationships and in population distribution.

The two sets of projections were then compared, and both were compared to similar projections based upon slightly altered estimates of growth rates in individual activities. The final estimate of 3,500 employed in manufacturing by 1975-80 represents a synthesis of the various projections, which varied closely around this magnitude.

Agriculture. Because of factors already discussed under "Economic Base," employment in agriculture was assumed to remain constant.

Employment in Other Activities. Projections of employment in activities other than manufacturing and agriculture were based upon anticipated population growth and changes in the relationships of the various activities to population as development and urbanization proceed.

The entire projections were based upon an assumed approximate constancy in the proportion of the total population of the area constituting the labor force at about 20 to 22 per cent. This proportion is appreciably lower than the 32 per cent found in the county generally, and reflects the combination of retired persons, tourists, and those living in Mesa and employed elsewhere. The approximate constancy in this ratio, then, assumes that these factors will continue to be significant in the area in the future; and requires the further assumption, made explicit above, that Mesa retains the image of a desirable residential community.

#### Evaluation of Estimates

Estimating future magnitudes growing from a relatively small base is a hazardous undertaking. It involves the danger that a slight alteration in assumptions or individual magnitudes will result in an error that appears large

relative to the estimate due to the size of the magnitudes involved.

The estimates presented in this study represent a careful analysis of past, present, and anticipated economic trends in the nation, Maricopa County, and a specific analysis of those trends as related to the Mesa Area. They therefore represent what Mesa can reasonably expect from its location and "normal" relationships to the general area. "Normal" relationships, however, can and frequently do prove to be extremely volatile in relatively small groups. Whereas in a larger area and a larger group individual actions tend to disappear in favor of group characteristics, the actions of individual firms can be of extreme importance in an area such as Mesa.

At the time this report was written, for example, the evidence indicated that one manufacturer planned an expansion in the Mesa Area in the next few months which would boost total manufacturing employment in the area by almost 20 per cent — an increase that could hardly be accounted for in a "normal" growth rate! Similarly, success in attracting a large branch plant of a national manufacturing firm might well swamp the "normal" relationships.

It is often the case, too, that the nature of economic projections may encourage actions by individuals and groups that will cause those projections to be wrong. A projection of severe and continuing unemployment in an area might, for example, cause people not to enter the area that otherwise would have, or cause the local administration to take corrective steps to avoid the problem. In either case, "normal" trends are altered and the projection is proven wrong.

The projections contained in this study, therefore, should be considered working estimates which provide a basis for charting community activities and planning. They should be frequently reviewed and revised when necessary to take account of the degree of success achieved by these activities and of other changes in area trends.

## Land Requirements for Manufacturing

One of the major factors determining the amount of land used for manufacturing purposes is the particular process employed or product made. For example, the land space used per employee among manufacturing plants in the Mesa Area varied in 1958 from an average of a few hundred square feet in the case of commercial printing establishments to over 6,000 for the manufacture of concrete products, and to over 80,000 in the manufacture of rocket-powered aircraft accessories. The average for all manufacturing in the Mesa Area, omitting the rocket-powered accessory plant with its unusual requirements of space for safety purposes, was approximately 1,400 square feet per employee.

The land-employee ratio of existing plants in the Mesa Area, however, is believed to be too low to use as a basis for estimating the future land requirements of manufacturing. The locational advantages of the Mesa Area, which were discussed under "Industrial-Growth Potential" suggest that Mesa should attract light industry, especially plants in the electronics and other science-oriented fields. The new establishments in Maricopa County which fit this category are tending to use 2,300 square feet of land per employee.\* This ratio reflects not only the space requirements of such industries but also the allowance which is increasingly being made in site acquisition for land to be used for landscaping and off-street parking.

Manufacturing employment in the Mesa Area is expected to reach at least 3,500 by 1975-80 (see the projections provided in Table 7). This figure would mean an increase of 2,650 over the average total employment of 850 persons provided by manufacturing in 1958 (see Table 4). If an

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\* See Economic Analysis and Projection for Phoenix and Maricopa County, p. 94.

average of 2,300 square feet of land space per employee were used for these additional 2,650 employees, a total of 140 additional acres would be needed for manufacturing purposes.

In 1958, manufacturing plants, excluding the plant producing rocket-powered aircraft accessories, occupied approximately 20 acres of land. Adding to this figure the additional acreage required by 2,650 additional workers (per estimates made above), would give total requirements of 160 acres, excluding the needs of the rocket plant.

It should be kept in mind that these figures are estimates of only the land needed for manufacturing purposes and do not include the total 1980 industrial-land use requirements discussed in subsequent sections of this report. These requirements include not only the sites needed for manufacturing plants but also the land used for warehouses, utilities, railroads, service and storage yards, sewage disposal plants, and all other uses classified in the industrial category for zoning purposes.

## The Tourist Industry

### Accommodations

A survey conducted in March 1959 by Western Business Consultants, Inc. indicated a total of 59 hotels, motels, lodges, and other establishments providing lodging for tourists in the Mesa Urban Area. These establishments, ranging in size from 3 to 86 units, contained a total of 987 units, or an average of about 17 units per establishment.

These accommodations are largely located along Main Street in Mesa, and, as shown in Table 8, they are concentrated in Census Tracts M-113, M-114, and M-115.

TABLE 8  
TOURIST ESTABLISHMENTS AND UNITS, 1959  
MESA URBAN AREA

Census Tract	Tract Boundaries		Number of Est'bs.	Number of Units	Range of Establishment Size in Units
	East	West			
M-112	Greenfield Road	Gilbert Road	5	67	5 - 35
M-113	Gilbert Road	Horne Street	14	136	3 - 34
M-114	Horne Street	Country Club Drive	11	349	6 - 86
M-115	Country Club Drive	Price Road	24	352	6 - 25
M-116	S.P.R.R.	Price Road	5	83	3 - 25
Total			59	987	3 - 86

Source: Estimates prepared by Western Business Consultants, Inc., based upon a special survey, March 1959, and upon information supplied by the Mesa Chamber of Commerce.

### Economic Significance

The economic impact of tourism in Mesa, as elsewhere, is difficult to assess. A random telephone survey of hotels and motels in the county done in connection with the Economic Analysis and Projection for Phoenix and Maricopa County suggested that it would be appropriate to estimate the population of these establishments for April using 82 per cent as the portion of the total units occupied, and 2.36 as the average number of persons per occupied unit. Applying these factors to the 987 units in the Mesa Study Area yields an estimate of approximately 810 tourist units occupied and containing approximately 1,900 persons in April, 1959. These estimates, of course, assume the rate of occupancy and the persons per occupancy to be the same in Mesa as in the county generally.

Tourists also stay in mobile home parks and rooms in private homes. A special mobile home survey conducted in March 1959, for example, indicated that there were approximately 850 persons in mobile home parks in the Mesa Urban Area classed as winter vacationers.

An estimate of the significance of tourist expenditures to Mesa can be developed from the estimates of their significance to Maricopa County.\* In 1958, the dollar volume of tourism in Maricopa County amounted to an estimated \$165 million, and accounted for employment (including self-employed) of 3,000 persons in hotels and motels and 4,800 persons in retail trade.

The best means available for allocating these volume estimates to the Mesa area is to do so according to the ratio of tourist accommodations (hotels and motels) to the total in Maricopa County.\*\* This method yields

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\* See Economic Analysis and Projection for Phoenix and Maricopa County, p. 116.

\*\* In 1958, approximately 8.2 per cent of the tourist units in the county were located in the Mesa Study Area.

an estimate of approximately \$13.5 million in volume for the Mesa Urban Area in 1958, and employment resulting from tourism in the Study Area of approximately 250 in hotels and motels and 400 in retail trade. These estimates are at best rough measures in view of: (1) the difficulty attached to assessing the volume for the county; (2) the fact that a portion of the tourist volume is served by accommodations other than hotels and motels; and (3) variations in occupancy rates and average tourist expenditures in different areas of the County.

### Growth Prospects

The national and local factors affecting the potential growth of the tourist industry in Maricopa County were examined in the Economic Analysis and Projection for Phoenix and Maricopa County.\*

Several factors indicate that Mesa should share fully in the anticipated expansion in the Valley tourist industry:

- (1) Its location in the Valley, beyond the immediate urban development of Phoenix; and its proximity to the Superstition-Mountain and Apache-Junction areas, in which accelerated tourist activity is expected to locate.
- (2) A high degree of accessibility to many of the scenic and recreational areas surrounding the Valley.
- (3) Trends in income distribution and tourism, which suggest that the middle-income tourist may be of increasing importance in the future relative to those with very high incomes. Moderately-priced facilities are presently available in the area, and as demand for this type of accommodation increases, they can be

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\* See pp. 115 ff.

provided without threatening an exclusive-resort "image" present in some areas. It is anticipated that the more exclusive resort-type accommodations will become increasingly available in the Superstition-Mountain and Apache-Junction areas from which Mesa can reasonably expect to receive a substantial portion of tourists' retail expenditures if adequate shopping facilities are available.

The discussion of community attitudes and activities are pertinent also to the future of Mesa in the tourist industry. The adequacy of residential and recreational facilities for winter vacationers as well as the rates at which those facilities are offered will significantly influence the growth of tourism in the area, as will the attitude of permanent community residents. If these factors remain favorable, Mesa might well be able not only to maintain its share — estimated above at approximately 8.2 per cent — of the Maricopa County tourist industry, but to increase it. Depending upon the variables discussed above, an estimate of 10 per cent of the County tourist volume may be conservative.\* Based upon estimates for the County,\*\* this percentage would imply as much as \$40 million in tourist volume for the Mesa area by 1975-1980, with employment from tourism expanding to as much as 700 persons in hotels and motels and 1,100 in retail trade, respectively.

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\* Similarly, the share might decline on negative assumptions regarding community activities and attitudes.

\*\* See Economic Analysis and Projection for Phoenix and Maricopa County, p. 116.

## Mobile Homes in the Mesa Area

### The Outlook

The mobile-home population of the Mesa Urban Area (as defined in this study) can be expected to range from 8,200 to 13,000 persons by 1975-80. The realization of the higher potential figure will largely depend upon the extent and quality of new park construction. The implications of these estimates for 1975-1980 are outlined in Table 9 in terms of homes and spaces.

Basis. The estimates contained in Table 9 were based upon national and regional trends. A study of these trends has indicated that 10 per cent of the national population may be living in mobile homes by 1970.\* This ratio has been used in Table 9 to indicate the potential growth of mobile-home living which could occur in the Mesa Urban Area if expansion followed national trends. A minimum estimate has been provided by assuming continuation of the 1959 ratio, that is, of 6.3 per cent of population living in mobile homes.

Land Requirements. Some spaces can be added at existing parks. Based on the reports received in the survey, operators believe that they could add 325 spaces on approximately 29 acres now owned or leased but not presently occupied by mobile homes or service facilities. But 325 additional spaces would be only a beginning toward meeting the demand projected in Table 9.

How much additional land will be required depends upon both public policy concerning mobile-home parks and the plans of developers concerning size of spaces offered and amounts of land devoted to community purposes within a park. Swimming pools, community recreation buildings, and park

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\* For a discussion of these trends, see Economic Analysis and Projection for Phoenix and Maricopa County, p. 124.

TABLE 9  
 PROJECTION OF THE MOBILE-HOME POPULATION  
 OF THE MESA URBAN AREA

	1959	1975 - 1980	
	Survey Estimate	Minimum	Potential
Total Population, Mesa Urban Area	34,000*	130,000	
Mobile-home population			
Per cent of Mesa Area population	6.3	6.3	10
Population	2,130	8,200	13,000
Mobile homes			
Persons per mobile home	2.0	2.0	2.0
Spaces	1,250	4,550	7,200
Per cent occupancy	85	90**	90**
Parks	27	See text following this table.	
Ave. spaces per park	46		
Acres utilized	69		
Spaces per acre	18		

\* Note that this population estimate is for early 1959 and that the estimates given in Table 1 are for April 1960.

\*\* The average November-April occupancy of 90 per cent was used for projecting space requirements.

Source: Estimates and projections prepared by Western Business Consultants, Inc. The 1959 estimates are based upon a special survey of mobile-home parks made for this study. Response to this survey included approximately 63 per cent of the parks which contained 71 per cent of the mobile-home spaces in the Mesa Area, as determined by information from park directories and other sources. Accordingly, data from the survey were expanded to provide the empirical foundation of the remainder of this part of the study.

landscaping, for example, occupy a substantial amount of land in a modern park. In Economic Analysis and Projection for Phoenix and Maricopa County, it was found that:

"A de luxe park with all conceivable extras can now handle eight homes per acre and it is doubtful if this figure will be reduced in the foreseeable future. It should be noted for comparison purposes that sub-divisions devoted to moderately priced conventional dwellings are usually figured at four lots per acre."\*

Also of considerable importance in determining the character of the expansion in mobile-home parks, are these findings:

"The average mobile-home park in Maricopa County has approximately 38 spaces and takes up 2.83 acres. By national standards, they are small parks. In fact, Maricopa County has no large parks. Only two have 200 spaces or more, only 12 have more than 100.

"Florida's parks average 95 spaces; the eleven western states, 75 spaces. Bradentown, Florida has a park with over 1,100 spaces; Sarasota, 950 spaces, and several other communities claim parks with 200-500 spaces. A park is being completed with 3,000 spaces on 400 acres, accepting only retired couples with mobile homes 10 feet wide or greater. California, too, has considerable number of parks with 200 or more spaces.

"It would appear that large sized parks have much to commend them. A park of less than 50 or 60 spaces is probably a part-time or marginal enterprise for the operator, and apparently many parks in the County fall in this category. In addition, the more mobile homes are dispersed in small parks throughout a community, the more conflicts arise between mobile homes and other land uses.

"In contemplating the growth of the mobile-home industry, planning authorities might well consider the possibility of mobile-home 'communities' or 'subdivisions.' A planned community of even two or three thousand homes, with complete shopping and other facilities, could conceivably be developed within 30 minutes driving time of downtown Phoenix."\*\*

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\* P. 142.

\*\* Pp. 142-143.

### Growth, 1950-1959

Relatively little data for past years is available on mobile-home parks in the Mesa Urban Area. It is therefore difficult to ascertain with any degree of precision the rate at which such accommodations have been installed. An examination of back issues of Woodall's and other directories, however, does yield a general indication of the sort of growth that has taken place.

In the period 1950 — 1954, it appears that new parks and spaces were constructed in the Mesa Area at about the same rate that others ceased operations, with the result that the aggregate quantities experienced very little change.

From 1954 to 1959, however, it is clear that new parks were formed and new spaces were installed at an accelerated pace. The 1959 Survey estimate of 1,250 spaces in 27 parks located within the Mesa Urban Area represents a growth of approximately 80 per cent within a 5-year period in the number of spaces available.

### Location by Census Tracts

The distribution of mobile-home parks and spaces by census tracts is shown in Table 10 for the Mesa Urban Area. This distribution reveals that the bulk of the spaces and of the land area utilized for mobile-home purposes is found in Tract M-115.

TABLE 10  
 MOBILE-HOME PARKS AND SPACES, BY CENSUS TRACT,  
 MESA URBAN AREA  
 MARCH 1959

Census Tract	Tract Boundaries		Number of Parks	Number of Spaces
	East	West		
M-112	Greenfield Road	Gilbert Road	3	104
M-113	Gilbert Road	Horne Street	3	133
M-114	Horne Street	Country Club Drive	2	44
M-115	Country Club Drive	Price Road	16	813
M-116*	S.P.R.R.	Price Road	2	85
M-117*	Gilbert Road	S.P.R.R.	1	71
Total			27	1,250

\* North of Baseline Road

Source: Estimates prepared by Western Business Consultants, Inc., based upon a survey conducted March 1959.

## Park Characteristics

Size. Mobile-home parks in the Mesa Urban Area range in size from about 8 to 125 spaces, with an average size of 46 spaces per park. The larger parks are found in Census Tract M-115 which lies between Price Road and Country Club Drive and north of the Southern Pacific Railroad.

Appointments. Ratings for most of the mobile-home parks throughout the county are given in Woodall's Official Mobile Park Directory. Parks rated by Woodall's are examined by questionnaire and inspection, then placed in one of six categories. These categories are noted by ratings for each park of zero to five stars, in order of increasing quality. Unrated parks, and parks under construction, are placed in a no-star category, as are parks failing to meet the standards required for the one-star rating.\*

The 1959 issue of Woodall's Guide lists no parks in the Mesa area with a five-star rating, which "represents the ultimate in mobile home living." \*\* Two parks, however, were given a four-star rating, which is defined as follows:

"A park in the four-star category provides many extras. Roads, cement work, buildings and landscaping are more costly (than in three-star parks).

"Recreational features probably include a nice club room, there may be shuffleboard court, and possibly a swimming pool.

It may be a deluxe park in appearance and facilities. A four-star park reflects superior management. "\*\*\*\*

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\* For an explanation of the rating system, see Woodall's Official Mobile Home Park Directory, (Chicago: Woodall Publishing Co., 1958), pp. 6, 7. For this and additional historical perspective see Economic Analysis and Projection for Phoenix and Maricopa County, pp. 135, 136.

\*\* Woodall's, pp. 7, 23-25.

\*\*\* Woodall's, p. 7.

The two parks listed with four-star rating contain 161 spaces, approximately 14 per cent of the total spaces within the 24 parks listed.\* Another 27 per cent of the total listed spaces were within the 16 parks given one-star rating. Two-star parks contained 16 per cent of the spaces.

Four of the respondents to the mobile-home survey conducted in March 1959, stated that their parks contained swimming pools.

Rental Rates. Monthly rental rates for mobile-home spaces in the Mesa Urban Area varied at the time of the survey from \$16.00 to \$35.00 with \$20.00 as the typical rate.

Rate of Occupancy. Survey data indicated that an average of approximately 90 per cent of the mobile-home spaces available in the Mesa Urban Area are usually occupied in the November to April winter season and an average of about 50 per cent in the summer season of from May to October.

Rental of Mobile Homes. Survey results indicate that relatively fewer mobile homes are available for rental in Mesa than in the County generally. Respondents indicated the presence of 11 mobile homes available for rental in 4 parks.\*\*

Age of Mobile Homes. Almost one out of every seven mobile homes in the Mesa Urban Area at the time of the survey in March 1959, was less than one year old. Almost half of them were less than three years old, and only about one out of eight was over five years old.

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\* The same issue of Woodall's lists for Maricopa County, 2 parks with 5 stars, 13 with four stars, 24 with 3, and 33 with 2. See Economic Analysis and Projection for Phoenix and Maricopa County, p. 136.

\*\* Economic Analysis and Projection for Phoenix and Maricopa County, p. 126.

### The Mobile-Home Families

Number. At the time of the survey in March 1959, the total mobile-home population in the Mesa Urban Area is estimated to have been approximately 2,130 persons — 6.3 per cent of the total population of the area. The average number of persons per family was 2.0, somewhat lower than the 2.2 found in the County generally.\*

Age Distribution. As compared with all mobile-home residents in Maricopa County, those in the Mesa Urban Area are older and have fewer children. At the time of the survey, only 12.9 per cent of the total population were children, as compared with 15.6 per cent for the County. Those over the age of 50 accounted for 55.8 per cent of the total living in mobile homes in the Mesa Urban Area as compared to only about 40 per cent in the County.

TABLE 11

#### AGE DISTRIBUTION OF MOBILE-HOME DWELLERS, MESA URBAN AREA, MARCH 1959

Age	Per Cent of Population
<u>Children</u>	
Under school age	4.8
School age	8.1
Total children	12.9
<u>Adults</u>	
Under 35	11.1
36 - 50	20.2
51 - 65	26.8
Over 65	29.0
Total adults	87.1
All ages	100.0

Source: Survey by Western Business Consultants, Inc.

\* The average for the 11 western states is 2.4. Average for the nation is 2.9, and average reported for Florida is 2.07. See, Economic Analysis and Projection for Phoenix and Maricopa County, p. 126.

Employment. Retired persons and winter vacationers together accounted for 74.5 per cent of the mobile-home families at the time of the survey.\* The proportion of the heads of families that were employed was correspondingly low (20.2 per cent). The 29.0 per cent in the retired classification is substantially higher than either the national average of 10-15 per cent or the 23.8 per cent for Maricopa County. The proportion of winter vacationers was also significantly higher for the Mesa Urban Area than for the County average of 24 per cent and the national average of less than 5 per cent.\*\*

TABLE 12  
DISTRIBUTION OF HEADS OF MOBILE-HOME FAMILIES  
BY EMPLOYMENT STATUS, MESA URBAN AREA  
MARCH 1959

Employment Status	Per Cent of Total
Employed	20.2
Winter vacationers	45.5
Retired residents	29.0
Armed service	0.6
Over-nights	4.7
Total	100.0

Source: Survey by Western Business Consultants, Inc.

\* Vacationers accounted for 91.1 per cent of the temporary residents.

\*\* Economic Analysis and Projection for Phoenix and Maricopa County, p. 128.

Tenure. About half of the mobile-home families in the Mesa area in March 1959 had been residing at their then-present location for less than six months; and only about 1 out of 5 had been there over 24 months. The high proportion of recently-located residents is a result of the very high proportion of winter vacationers in the total. A high proportion of the long-tenure residents were permanently retired.\*

TABLE 13  
 DISTRIBUTION OF FAMILIES BY LENGTH OF RESIDENCE  
 IN PRESENT PARKS, MESA URBAN AREA  
 MARCH 1959

Length of Residence	Per Cent of Families
Less than 6 months	48.8
6 - 12 months	17.5
12 - 24 months	16.2
Over 24 months	17.5
Total	100.0

Source: Survey by Western Business Consultants, Inc.

\* Of the permanent residents, 59 per cent were retired.

## Mobile Homes East of the Mesa Urban Area

Significant developments in mobile-home accommodations have been taking place in recent years in the area east of Greenfield Road to the Maricopa County line, i.e. in Census Tract M-111. The importance of these developments stems from:

- (1) Quantity of facilities available. Based upon the 1959 survey, it is estimated that 16 parks in Tract M-111 contain approximately 807 available mobile-home spaces.
- (2) Rate of development. In recent years, spaces for mobile homes have been added in this area at a rate exceeding that of the Urban Area.
- (3) Qualitative difference in development. The parks — and the population of these parks — within Tract M-111 differ in several respects from those in the Mesa Area. Because of the importance of some of these factors to community planning in the Mesa Area, they are explored below.

Park Size and Quality. The size of parks found in Tract M-111 ranges from 12 to 153 spaces, with an average of 52 spaces. It is notable that two of these parks are larger than any found within the Mesa Urban Area, and contain almost 40 per cent of the total estimated spaces in M-111. It is also notable that both of these parks are rated four-star parks by Woodall's — indicating a general index of quality attained (but not excelled) by only two parks in the Mesa Area. Rather a high proportion of the mobile-home spaces in M-111, therefore, are located in high quality parks.

Rate of Occupancy. Occupancy rates for Tract M-111 as a whole are somewhat lower than that for the Mesa Urban Area, and are more subject to seasonal variation. The results of the survey indicated that approximately 82 per cent of the available spaces are occupied during the November to April

period, and only about 26 per cent during May to October. Occupancy rates show considerable variation between individual parks, however, and for the larger and higher-quality parks in M-111, these rates were as high as any of those in the Mesa Area.

Age distribution. The mobile-home population is significantly older than that found in the Mesa Urban Area. Those over 50 years of age constituted 91.6 per cent of the total population, as compared with 55.8 per cent in the Mesa Urban Area. Children accounted for only 2.9 per cent of the total population, as compared to 12.9 per cent in the Mesa Area.

Employment Status. As compared with 20.2 per cent in the Mesa Urban Area, only 8.0 per cent of the mobile-home population of Tract M-111 was employed at the time of the survey. The importance of winter vacationers was about the same in both of the areas (about 45 per cent of the population); but the importance of retired residents was substantially higher in M-111 (39.9 per cent of the total population) than in the Mesa Area (29.0 per cent).

Tenure. Virtually all (99 per cent) of the mobile-home residents in Tract M-111 had been living in their then-present parks for less than 12 months at the time of the survey; and 75.5 per cent of them had a tenure of less than 6 months. The percentage in each of these categories is substantially above those comparable for the Mesa Area (66.3 and 48.8, respectively).

Unused Land. Survey results indicate that a total of 175 acres of land is currently owned or leased but not now utilized by mobile-home park operators in Tract M-111 as compared with only 29 acres in the Mesa Urban Area. According to the estimates provided by the park operators, over 2,200 spaces could be added in this already-acquired land in M-111, as against approximately 325 spaces in the Mesa Urban Area.

PART 2  
SCOPE OF THE PLAN AND CHARACTERISTICS OF  
THE AREA

Background To City Planning

The idea of laying out a city according to a plan or design is not new, even though it has only recently been recognized in this country as a needed profession. The extent to which design prevailed, however, varied at different periods in history and in different civilizations and cultures. It is a mistake to assume that ancient city planning has very much in common with contemporary city planning. As it is known and practiced today, city planning is only a fairly recent phenomenon that could not have commenced before the advent of the science of statistics. Neither could it have taken place prior to the development of a democratic form of government in which the well-being of the people is a primary goal. This goal of democratic government has many manifestations. The one of interest here is the goal of maintaining the physical environment of cities—where people live, work and carry on most of their activities in a state of well-being. To achieve this goal is a function of local government. A primary way of achieving it is by the complex and changing process of city planning.

The historical background of a community is of great value because it shows the continuity between the past, present, and future and because it provides knowledge of experience in the town growth pattern that is useful in planning for its future. Cities develop in response to human needs

that can only be met by men living together in a community. The early need to band together was for protection from wild animals and hostile tribes. In more recent times, these needs were for other reasons: commerce (New York City); industry (Pittsburgh); administration of government (Washington, D.C.); the free exercise of religion (Salt Lake City); education (Ann Arbor, Michigan) and recreation and entertainment (Miami), are examples.

Opportunities for social contacts and the ready availability of goods and services are among the forces that continue to attract people to urban communities. The combination of attractions that was mainly responsible for the origin of the city is not always the one that accounts for its significant and perhaps greatest development.

Cities grow both from within and from without. Growth from within, consisting of the excess of births over deaths, is usually not significant numerically. Growth from without may result from the release of farm workers replaced by improved farm machinery, from industrial developments that attract workers and their families from other rural regions and other cities, climatic and recreational advantages which are attractive to retirees, and from the complex of forces that has led to a steady movement of people to the deep-water areas of the country and to metropolitan regions. Mesa's growth will come from the latter.

There are several significant factors which influence the normal force of physical city growth. Often topography is an important factor that influences a city's growth. Generally, level land is sought by business, moderate elevations by residences, water level land by transportation lines, warehousing and manufacturing. Railroad lines within a city sometimes act as barriers to growth, but fingers of development may push out along their lines and along major highways, resulting in star-shaped cities.

Limited access freeways speed this process because they open up fresh country sites to urban development. The spaces between the fingers are gradually filled in from the center of the city outward and as the city ages, it assumes a more even configuration.

Planning is a continuous process. Cities are dynamic rather than static. Thus, it is necessary to review periodically the plans in order that they may be kept up to date and be of maximum benefit. On the other hand, plans should not be changed for the sake of expediency.

### Scope and Objectives

#### Scope

City planning consists of methods and techniques employed to coordinate and bring into harmony the uses made of land for various urban purposes such as residential, commercial, industrial, streets, parks, playgrounds, schools, libraries, fire stations, and utilities. These varied uses, whether public or private, are related and interdependent. Unless design, coordination and adjustment are applied in determining their location and relation to one another, and unless all are located in accord with a general plan for the development of the community, serious maladjustments and deficiencies are likely to ensue.

The planning program for Mesa will cover the following 10 related subjects, as listed in the planning contract: (When completed, the reports will be consolidated and bound together to form chapters in a single report referred to as "The Comprehensive City Plan.")

#### 1. Economic Analysis and Projection

Certain economic information is required to develop a comprehensive plan of land use. This information, prepared by Western Business Consultants,

includes a total population projection to 1980, and an analysis of the economic base, industrial potential, tourist-trade outlook, and mobile-home needs.

## 2. Scope of the Plan and Characteristics of the Area

The scope of the plan describes the geographic area to be studied, subject matter to be included, and the purpose of each report.

The city of Mesa has certain natural assets and unique area advantages that influence the city's growth. These factors are known as characteristics of the area and should be understood in order to develop the best plan for the future. They include historic background, water resources, geology, topography, climate, and the economics of the area.

## 3. Population Distribution and Density

Before physical plans can be prepared it is necessary to determine the present distribution and density of population, and the desirable future distribution and density of the population that is anticipated. This information is graphically shown on a series of plates and tables.

## 4. Land Use and Zoning

The existing land use establishes a base for zoning and patterns for future community growth. The information is also essential in analyzing the adequacy of existing and proposed zoning regulations, and analyzing population and land use ratios. These ratios applied to future population estimates determine the amount of land needed for future urban purposes, and as a measure of the adequacy of zoning regulations.

## 5. Major Streets and Highways and Parking

The growth and pattern of community development is influenced by the location and character of major streets and highways. This will be studied

together with an analysis of existing parking facilities and future parking requirements for the business district. A system of major streets and highways for Mesa will be prepared and closely coordinated with the major street and highway plan which was adopted subsequently by Maricopa County and the city of Phoenix.

#### 6. Land Subdivision Regulations

Subdivision regulations are concerned with the principles and standards of subdivision design and physical requirements, information to be shown on preliminary and final plats, and the procedure to be followed in subdividing and platting land. The present procedure for processing subdivision plats in the city of Mesa will be studied, and subdivision regulations will be prepared that are designed to meet the needs and problems of the Mesa area.

#### 7. Schools, Parks, and Recreational Areas

A coordinated school, park, and recreational system is essential for developing sound neighborhoods. This subject will be studied in detail and will take into consideration present population and future needs for Mesa and Environs. This study will consider any information and plans that may be provided by the Mesa School District and other governmental agencies.

#### 8. Administration of the Plan

A Comprehensive Plan is only as effective as the degree to which it is followed and administered. This work will include a study of existing planning and zoning laws applicable to Mesa and the relationship of other governing agencies concerned with planning matters.

9. Long-Range Improvement Program

The long-range improvement program is the link between the Comprehensive Plan and the annual spending for capital improvements by fiscal agencies. The various proposals recommended by the Plan, together with those by other independent agencies, will be programmed in accordance with priority needs over a six-year span. However, cost estimates will not be included.

10. Comprehensive Plan

A separate report will be prepared that will summarize all the various planning proposals for Mesa and Environs.

This report will be prepared in a form that can be reproduced after previous reports have been reviewed by the Mesa City Council and it will reflect any necessary modification or changes that may be warranted.

Objectives of the Planning Program:

The first objective of the planning program is to obtain a thorough knowledge and understanding of the local conditions of the community and reasons for its existence, and for its continuing development.

The second objective is to prepare a general plan for future use of the land. The land use plan determines within certain limits where people live, work and play. The zoning ordinance shall be adjusted, where necessary, to implement the desired land use plan.

The third objective is the actual preparation of the comprehensive plan, consisting of a number of written and graphic proposals dealing with specific elements of the urban community as outlined earlier under the planning program for Mesa. Each of these elements will be given special detail study before proposals are made as part of the plan.

The fourth objective is to provide the community with the authority and controls necessary to carry out the Plan.

The process of planning and carrying out the Plan involves all elected and appointed officials, municipal department heads, private developers, private citizens, and citizen groups. Official actions toward effectuating the Plan would include:

- a. Adoption of the Plan.
- b. Revision of the zoning ordinance, if warranted.
- c. Adoption and enforcement of a subdivision control ordinance.
- d. Annual preparation of a six-year capital improvements program.
- e. Provision for a continuing program of advance study for the refinement and adjustment of the Plan.

#### History of Mesa

On September 14, 1877, a small party of Mormons banded together in Paris, Idaho, to begin a thousand-mile journey south to the land described by the Spanish-speaking people as the "Valle Del Sol." This party, known as the Mesa Company, was later to select a townsite which is now Mesa, the third largest city in the state of Arizona. Others joined this group as it traveled south until the company reached eighty-three persons, of which fifty-six were children.

In early January, 1878, the Mesa Company arrived at Jonesville or Jones Settlement, now known as Lehi, Arizona, a settlement established nearly one year earlier by a party organized by Daniel W. Jones in Saint George, Utah. The Mesa Company was received cordially and the settlers of Jonesville proudly displayed a large area already under cultivation.

Mr. Jones offered additional land that could be cultivated, and irrigated by water from the Salt River.

Had the Mesa Company accepted the offer and established themselves there, the entire course of Mesa's history would have been different. However, the leaders of the Mesa party did not accept the offer as it was felt that with their large number and with additional settlers coming in from time to time, the river bottom land would become too crowded. They began looking over the surrounding area for a possible site for their settlement.

Up on the mesa south of Jonesville there appeared to be thousands of acres of land suitable for farming but useless for that purpose unless water could be made available to irrigate it. Despite the apparent absence of water, the leaders of the Mesa Company decided that this would be the site for their settlement. Temporary arrangements were made with Mr. Jones to raise crops along the Salt River flood plain until water could be made available up on the mesa for farming purposes.

Actual work on a canal to supply water up on the mesa began February 17, 1878. Many difficulties were encountered during construction of this canal and it was some nine months later that water reached the selected townsite.

#### Selecting a Townsite

Shortly after the Mesa Company arrived in the Salt River Valley, but before completion of the canal, the question arose as to exactly where on the mesa they should locate their townsite. The leaders of the Company secured the services of Captain William A. Hancock, United States Government surveyor, who located and marked the corners of twelve sections of land in the vicinity. After riding over much of the mesa it was de-

cided that Section 22 of Township 1 North, Range 5 East of the Gila and Salt River Base and Meridian was best suited for the establishment of their townsite. On July 12, 1878, a claim was filed on this section of desert land at the United States Land Office in Florence, Arizona. A final certificate for the homestead was received by the Mesa Company on April 29, 1881, but a deed for the same was not received until May 24, 1888.

Settlers began moving on the townsite soon after completion of the canal. Early structures, other than homes, included a school and a home which was later used as a community center and an assembly for Mormons to worship.

The original townsite may be described as the center of Mesa as we know it today. This square mile of land is now enclosed by 4th Street on the north, Mesa Drive on the east, 4th Avenue on the south, and Country Club Drive on the west.

#### Naming of Mesa

The early settlers of Jonesville spoke of the land to the south above the bluff as the "mesa", the Spanish word meaning table. For a period of time, after the Mesa Company had moved into the new townsite, they spoke of their community as Mesa or Mesa City. When an attempt was made to establish a post office, the name "Mesa" was not acceptable to the Post Office Department since a post office had been recently opened at the little village of Mesaville, located at the mouth of Arivaipa Creek near old Camp Grant on the San Pedro River. It was felt the name "Mesa" would be confused with Mesaville.

For a time, all mail for the Mesa townsite was addressed to Hayden's Ferry, now Tempe, and located some six miles to the west. However, local

residents still spoke of their townsite as Mesa City even though there was talk of calling it Hayden.

As the Mesa community continued to grow, the inconvenience of having the post office six miles away became greater. The Post Office Department was petitioned again, and on January 19, 1889, a post office was established. The Mesa community was first called Zenos, but the post office at Mesaville was closed shortly thereafter, and "Mesa" became the official name of the new village.

### Early Growth

Although the growth of Mesa for the first few years was slow, the population was, for the most part, made up of permanent residents. By 1888, its three hundred citizens felt the village should incorporate and organize a municipal government. A petition to this effect was drawn up July 5, 1888, and presented to the Maricopa County Board of Supervisors. The Board's action made incorporation official on July 15, 1888, and the first officials for public office were elected in early August, 1888.

By September, 1893, Mesa was an agricultural community of one thousand persons. Streets were laid off at regular intervals and were exceptionally wide, following the suggestion of Brigham Young, who envisioned the ideal townsite as being one mile square with streets 132 feet wide separating blocks of ten acres. Business establishments included general merchandise stores, stables, blacksmith shops, drug stores, butcher shops, millinery shops, restaurants and hotels. A newspaper was established in 1891. Industries consisted of a creamery and cheese factory, cannery, three wineries and one distillery.

On March 5, 1892, the Phoenix and Eastern Railroad purchased a franchise to extend a railroad line into Mesa. However, this line did not

materialize and Mesa was still without a railroad in 1894. The following year, 1895, the Maricopa, Phoenix and Salt River Railroad was given permission to run its tracks into Mesa and a short time later a branch line from Tempe was built. It was not until 1925 that Mesa had a main-line railroad, which was established by the Southern Pacific Railroad.

### Later Growth

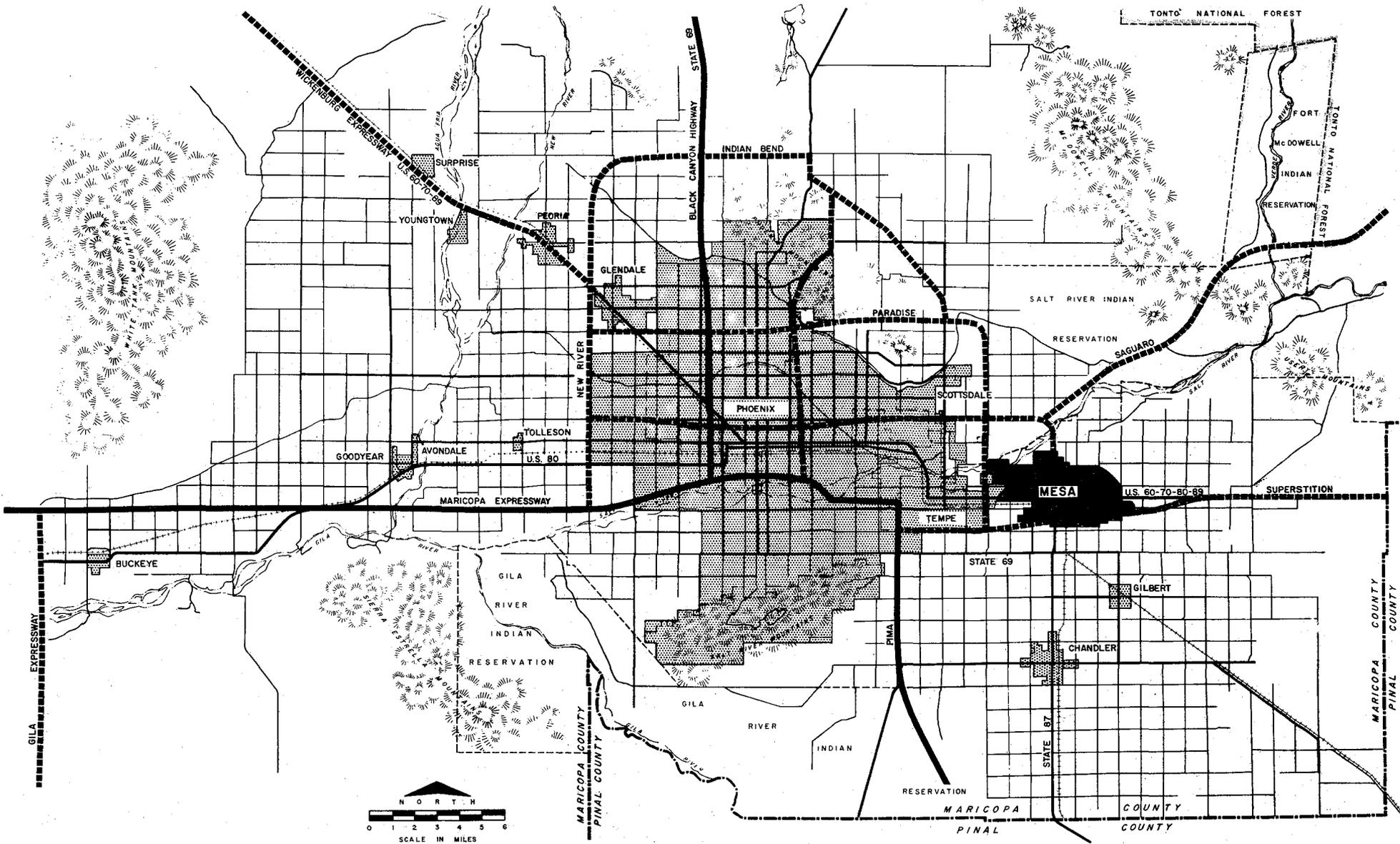
Mesa's population exceeded one thousand persons by 1900. Increased construction of canals in the area resulted in a large increase of land under cultivation, and farming was the chief industry in the Mesa vicinity. Main crops at this time were alfalfa, wheat, grapes and deciduous fruits. Scattered orange groves began to appear and the dairy industry was well established.

During 1905-06 Mesa was used as the railroad freight terminus for materials used in the construction of the Roosevelt Dam.

By 1910 the population of Mesa was 1,692 persons. Agriculture in the area was further enhanced by the completion of Roosevelt Dam in 1911, the first in a series of dams to be built as a part of the Salt River Valley irrigation project.

In the year 1912, the Egyptian Cotton Company established the first cotton gin in Mesa, and for the next several years cotton became the major source of revenue in the Mesa area. Cotton was "King" and successful harvests were celebrated by the annual "King Cotton Carnival." By 1917 Mesa had purchased its own gas and electric company.

In 1921 a post-war economic slump hit the entire nation and the cotton market crashed with a drop in price from \$1.00 a pound to 28 cents. As a result, farming in the Mesa area became more diversified.



  
 NORTH  
 0 1 2 3 4 5 6  
 SCALE IN MILES  
 PREPARED BY  
 MARICOPA COUNTY PLANNING DEPARTMENT  
 R.D.W. MARCH, 1961

 PROPOSED INTERSTATE EXPRESSWAY SYSTEM  
 OTHER PROPOSED FREEWAY-EXPRESSWAY SYSTEM  
 EXISTING MAJOR STREETS

# VICINITY MAP

## MESA ARIZONA

PLATE NO. 2

## Geographical Factors

### Location

The city of Mesa is located in the eastern portion of Maricopa County, sixteen miles east of Phoenix. Its location is shown on Plate 2, Vicinity Map, in relationship to the Major Street and Highway Plan adopted for the Phoenix Urban Area and Maricopa County. Six major trunkline highways — U.S. 60, 70, 80, 89, and Arizona 87 and 93 — now serve the city in addition to the main line of the Southern Pacific Company Railroad and two major bus lines.

The heavy black line shown on the map is the proposed location of the National System of Interstate and Defense Highways. This system is now under construction (Black Canyon Expressway) in Phoenix and will be completed over a scheduled period of time. Its close proximity to Mesa (approximately seven miles) provides easy access within the Phoenix metropolitan area as well as points throughout the United States. The heavy broken black lines represent general corridor locations of other proposed local expressways needed to meet the 1980 traffic demands in the area. This system when completed will be equally beneficial thus providing direct access to both a metropolitan area expressway and an interstate system.

Los Angeles, third largest metropolitan area in the United States, is presently within ten hours truck-driving time from Mesa. Within a few minutes to twelve hours are Phoenix and Tucson, Arizona; San Bernardino and San Diego, California; El Paso, Texas; and Albuquerque, New Mexico. Altogether, these readily available western metropolitan centers have a population of ten million and may exceed twenty million by 1980.

### Nearby Recreational Facilities

The Apache Trail: Mesa is exceptionally well situated to all kinds of nearby recreational facilities. Fifteen miles east of Mesa on State Route 88,

begins the famed Apache Trail. Here begins a 48-mile course, rich in scenery, laden with legend through the mysterious Superstition Mountains. Part paved, part gravel, the roadway passes the edge of deep canyons and brilliant cliffs. At hand are numerous lakes and abundance of game, for this is a paradise for hunters and fishermen as well as water sports enthusiasts, hikers, and horsemen.

Starting at Apache Junction, the Apache Trail proceeds through the ghost town of Goldfield, winding through some of the most spectacular scenery in Arizona, up through Tortilla Flat and overlooking Canyon Lake, to Fishcreek and the famous Fishcreek grade with its "Walls of Bronze," and on to Roosevelt Dam and the expanses of Roosevelt Lake. Beyond the dam is the entrance to the Tonto National Monument and the well-preserved cliff dwellings of vanished Indian tribes. These ancient ruins are located high in an overhanging cliff above Roosevelt Lake and according to archaeologists were inhabited by the Solado Indians as early as 1300 A.D. In 1907, 1,120 acres in this area were set aside by presidential proclamation and known as the Tonto National Monument.

Deer and javelina (wild pigs) may be hunted in nearby Tonto National Forest within an hour's drive from Mesa. Bear, elk, mountain lion, and turkey may be hunted in the higher mountain areas, and also game birds which include quail, whitewing dove, ducks and geese.

Theodore Roosevelt said, "The Apache Trail combines the grandeur of the Alps, the glory of the Rockies and the magnificance of the Grand Canyon... To me, it is the most awe-inspiring and most sublimely beautiful panorama nature has ever created."

### Topography

Mesa is situated on a broad alluvial plain adjacent to the Salt River on the north and between the Gila River ten miles to the south. This plain slopes gently

towards the Gila River beginning from a ridge line located one and one-half miles north of town, running in a southwesterly direction and parallel to the Salt River. North of the ridge line the topography breaks sharply, becoming part of the flood plain of the Salt River Valley. The McDowell, Utery, and Superstition Mountains are situated to the north and east respectively, comprising part of the watershed area. The intermountain valleys and plains are deeply filled with alluvium, consisting of poorly assorted, coarse sediments interspersed with silt and clay. The soil in the valleys is fertile, and where water without a high saline content is available for irrigation, the crops yields are high.

Most of the area inside the corporate limits of Mesa is well drained, with the exception of a small area in the southern part of the city subjected to occasional flooding due to the lack of an improved storm drainage system. The solution to this problem is currently under study.

### Climatology

The climate of the Salt River Valley is very attractive to residents, tourists, and health seekers. The sun shines 85 per cent of its possible daylight sojourn, along with a low average relative humidity of 32 per cent. (measured at noon) This results in a dry, warm climate.

Summers are hot with an average July temperature of 87.8 degrees. Extremes during the summer often exceed 110 degrees. Winters are very pleasant with an average January temperature of 49.1 degrees. The record high temperature is 116 degrees as compared with a record low of 15 degrees.

Yearly rainfall averages 7.64 inches with maximum amounts usually occurring in two seasons: July through September, and December through March. In general, precipitation is small during spring and autumn.

Average daily temperatures in Mesa are listed below:

<u>Maximum</u>	<u>Winter Months</u>	<u>Minimum</u>	<u>Maximum</u>	<u>Summer Months</u>	<u>Minimum</u>
88	October	53	83	April	48
75	November	41	93	May	55
67	December	36	101	June	63
64	January	34	104	July	73
68	February	38	102	August	72
74	March	42	98	September	65

(The average yearly temperature is 68.1)

### Utilities

Mesa has an adequate supply of water, electrical power, and natural gas, and its own sewage disposal system. It is unique among other Arizona communities in that it owns its own utility systems, making possible the lowest utility rates in the state, and providing a major share of the City's revenue.

The major source of available power is obtained from the Colorado River and Ocotillo Power Plant through the Arizona Power Authority and Arizona Public Service with no shortage anticipated. Gas is purchased from the El Paso Natural Gas Company of El Paso, Texas.

The city of Mesa currently provides more than 35,000 people with water obtained from seven deep wells, with a total pumping capacity of 11,000 gallons per minute. There are also four elevated storage tanks, with a storage capacity of 1,450,000 gallons and a 10,000,000 gallon underground storage reservoir. The wells, water mains (4" and above) and the sanitary trunk sewer lines are shown on Plate 3.

It is anticipated that by the year 1980, underground water resources will no longer be capable of supplying potable water to the Phoenix metropolitan

# CITY OF MESA

MARICOPA COUNTY ARIZONA

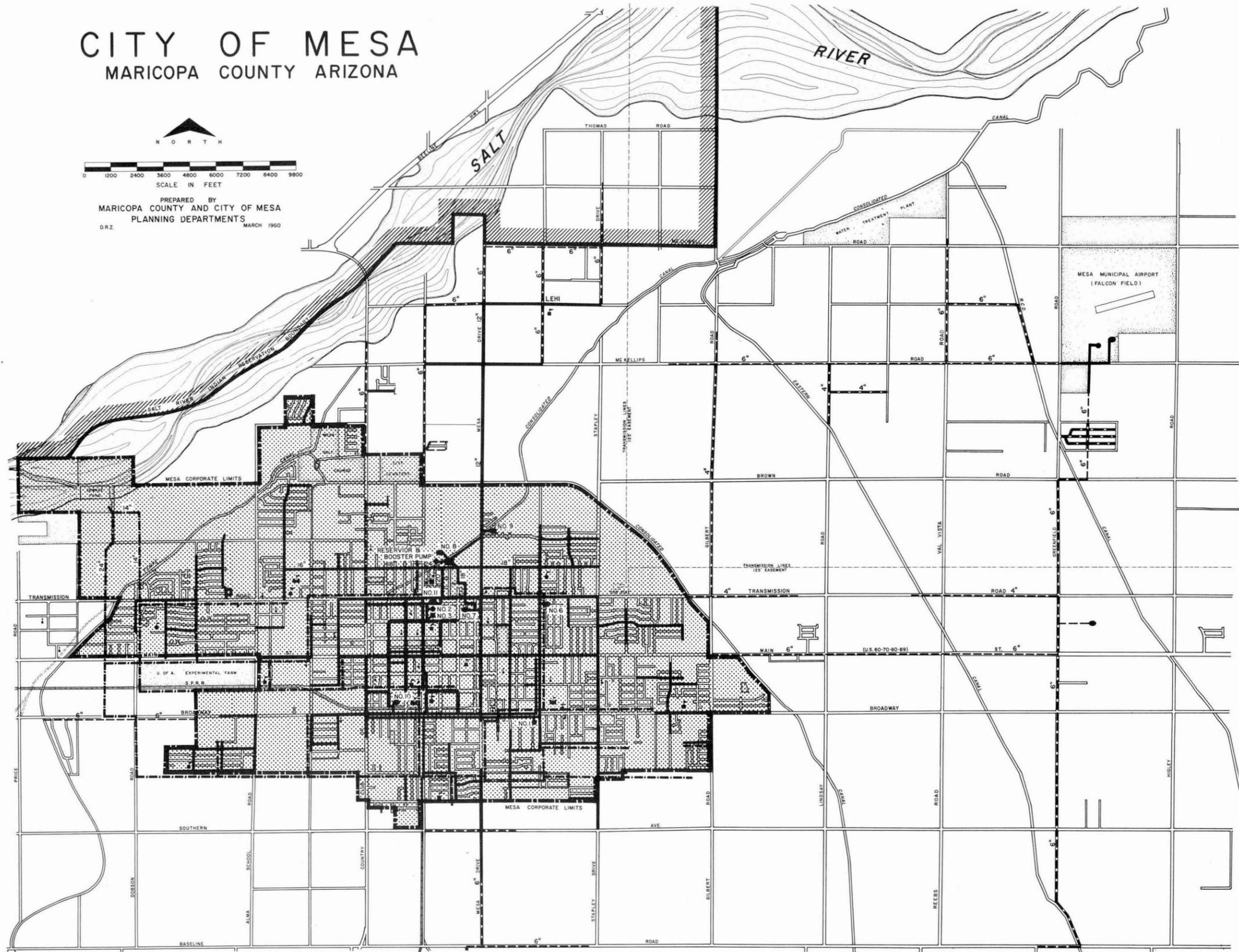
NORTH



SCALE IN FEET



PREPARED BY  
MARICOPA COUNTY AND CITY OF MESA  
PLANNING DEPARTMENTS  
D.R.Z. MARCH 1960



## EXISTING UTILITIES

### WATER AND SANITARY SEWER SYSTEMS

PLATE NO. 3

#### L E G E N D

- TRUNK SEWER LINES 10" OR LARGER
- WATER MAINS 8" OR LARGER
- - - WATER MAINS 4" OR 6"
- NOTE WATER MAINS UNDER 8" NOT SHOWN INSIDE CORPORATE LIMITS
- WELL SITES
- ELEVATED STORAGE TANKS
- ▨ INCORPORATED AREA

area, and that surface water requiring water treatment plants will be needed to supplement the tremendous demand. Mesa has completed its plan and study for water and gas expansion.

### Salt River Project

The Salt River Project became a reality with the passing of the first Reclamation Act by the United States in 1902. This Act provided money to finance construction of Roosevelt Dam which was completed in 1911. This is still the world's largest masonry dam. Five more dams have since been added to the water storage system, three on the Salt River and two on the Verde River. Along with the development of the water storage and canal system, a series of hydro and steam-electric generating plants, and transmission and distribution lines have been built.

The Salt River Project impounds millions of gallons of water which is used for agricultural and residential purposes in the "Valle Del Sol." It is also an important flood control system and a source of electricity in the valley.

The Project has been a significant factor in relation to the past growth of Mesa in that it has provided water to allow many more acres of land to be cultivated in this vicinity. It will continue to be an important factor as Mesa continues to increase in population and industrial facilities become more numerous.

### Arizona Mormon Temple

The Arizona Mormon Temple is truly Mesa's outstanding landmark. It is located on a landscaped twenty-acre tract near the center of the city.

Entrance to the temple is reserved to members of the church, however, the beautifully landscaped grounds are open to the public.

There are only twelve Mormon Temples and nine are in the United States. The Temple in Mesa was completed in 1927 at a cost of \$800,000. It is designed, like other Mormon Temples, after the Temple of Solomon, although it is twice the size. The walls have friezes depicting the gathering of Israel, and the baptismal font rests upon the backs of twelve life-size terracotta oxen representing the twelve tribes of Israel. A flower-bordered reflecting pool stretching from the gate to the main temple entrance, mirrors the white building and slender Italian cypresses. The dark blue-green expanse of lawn forms a pleasing contrast with the whiteness of the Temple.

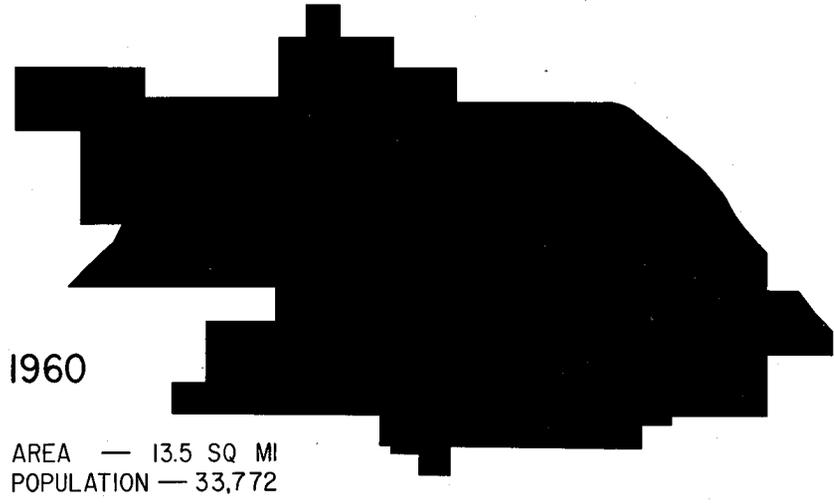
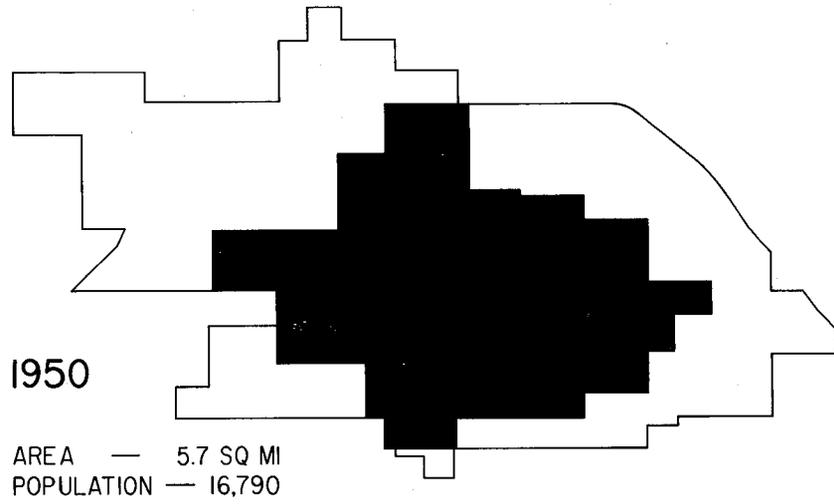
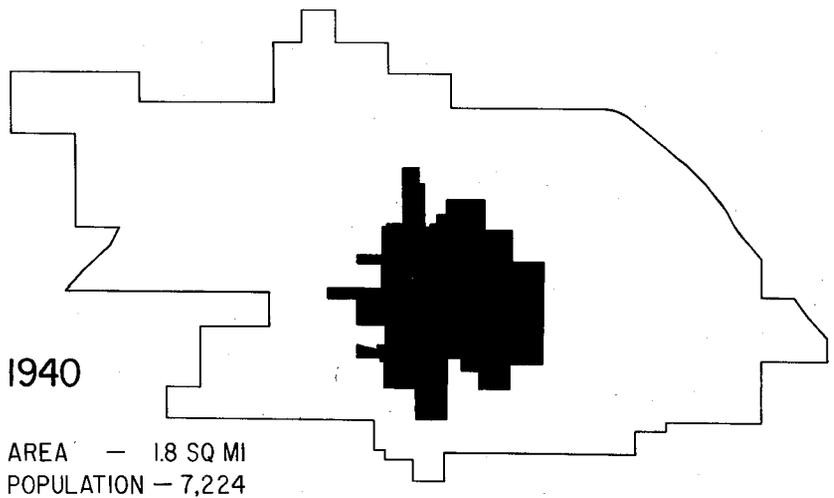
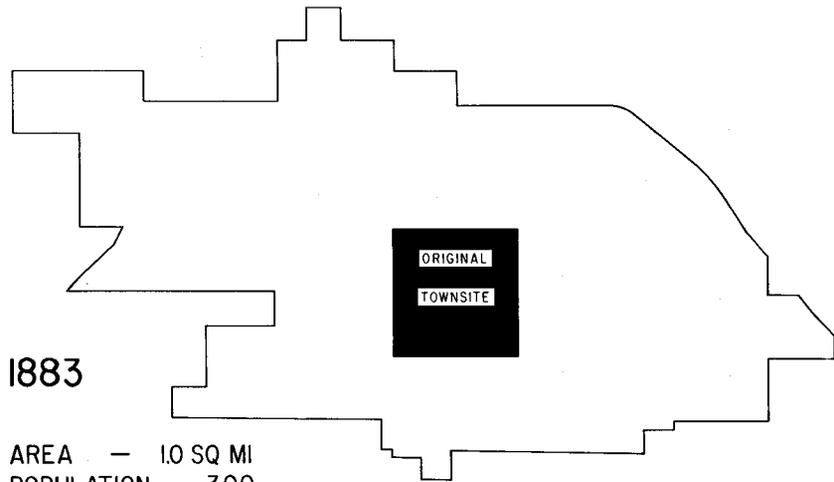
#### Salt River Indian Reservation

Located north of Mesa is the Salt River Indian Reservation, part of which is located on the south side of the Salt River. This portion of the reservation contains approximately 1,200 acres of rich bottom land and it is situated within the path of Mesa's natural area of expansion. This situation could produce serious problems pertaining to the orderly growth and development of the area unless there is close planning coordination between the Salt River Indian Reservation and the city of Mesa.

#### Annexation

The growth of Mesa by major annexations between 1883 and 1960 is shown on Plate 4. Mesa has grown in size from its original townsite of one square mile to its present size of 14.52 square miles. A tabulation by year, area, and population is shown on Table 14.

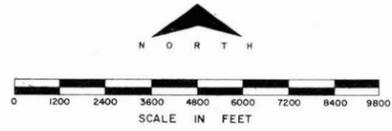
Physical growth has been orderly and carefully thought out, with new



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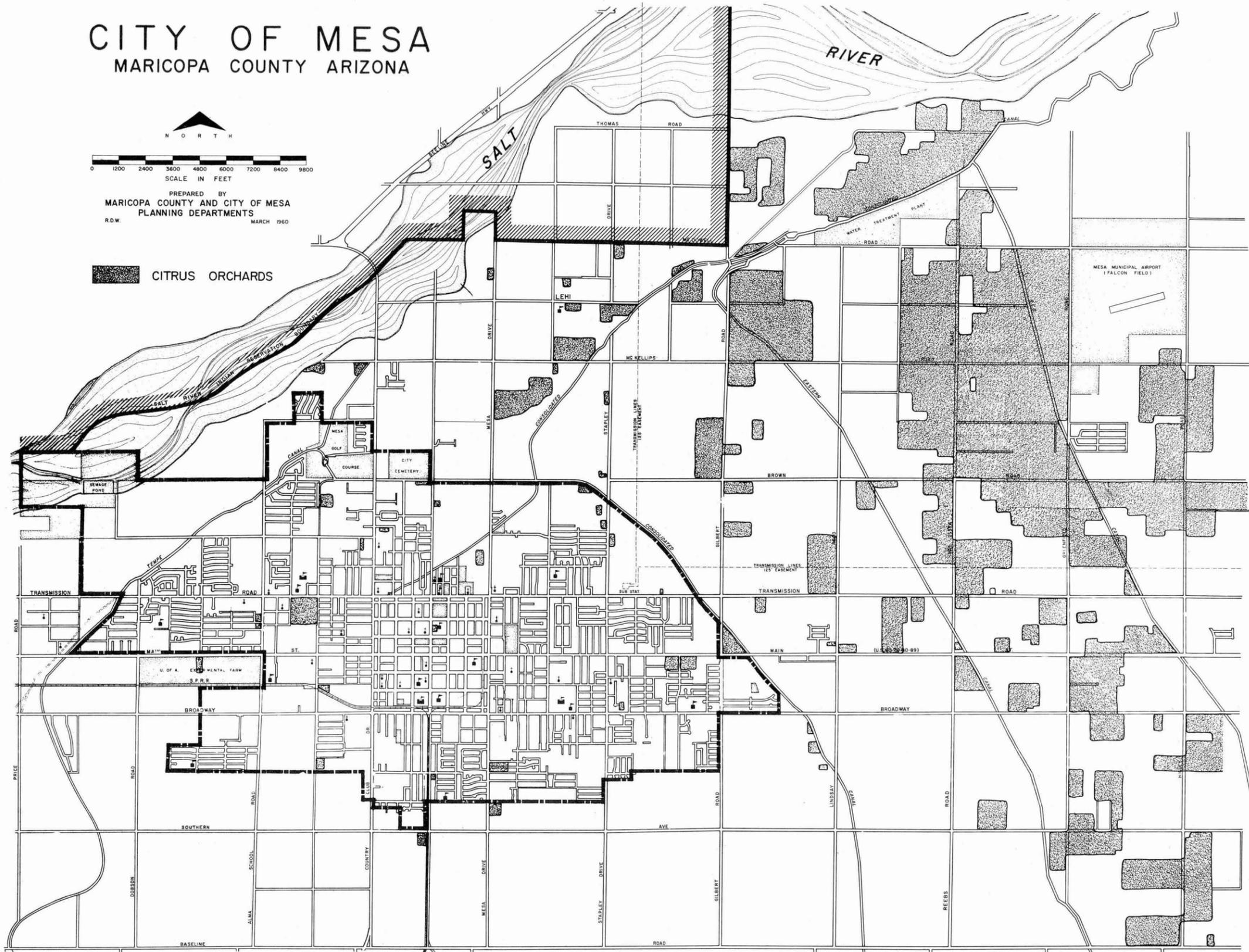
# GROWTH OF MESA ARIZONA

CITY OF MESA  
MARICOPA COUNTY ARIZONA



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PLANNING DEPARTMENTS  
R.D.W. MARCH 1960

 CITRUS ORCHARDS



EXISTING CITRUS ORCHARDS

annexations meeting little opposition, probably due in part to the fact that the city of Mesa does not have a city property tax. The growth pattern in Mesa has been significant, beginning with the original one square mile marked off by the Mormon pioneers in 1878 and growing slowly to 5.72 square miles by 1950. From 1950 to 1960 there began a decade of rapid expansion: the area expanded to 13.52 square miles and its population increased from 16,790 persons to 33,772 persons.

TABLE 14  
PAST GROWTH

Year	Area (Square Miles)	Population
1888 - 1930	1.0	1,000 - 3,711
1940	1.77	7,224
1950	5.72	16,790
1960 (March 1)	13.52	33,772

Existing Citrus Lands

A substantial amount of land is presently in citrus use in the area east of Mesa. These citrus-bearing groves contain grapefruit, oranges, and lemons and contribute to a substantial part of the Mesa economy. The groves are located generally between Gilbert Road and Higley Road extending south of the Salt river to Baseline Road. The groves are shown on Plate 5

Most of the orchards are beyond the projected 1980 limits of urbanization, but will eventually provide excellent home sites for residential development if needed and if protected early from encroachment by non-residential uses.

## PART 3

### POPULATION

#### The Need For Population Estimates For Physical Planning

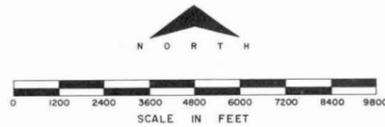
Private and public agencies rely heavily upon population figures as one of the chief elements in the determination of the physical facilities needed. However, neither can time their activities to always coincide with a decennial census, thereby having accurate up-to-date population data. Thus, a need usually exists to estimate the population of an area between census. The same need is also applicable to future population estimates because in most cases the physical planning of today must be designed to accommodate future population. For planning purposes it is necessary to determine the amount of distribution and densities of existing and future population.

Past population trends and future population projections are covered under Part 1 of this report and are reflected in the population distribution and density maps found in this part. Table 15, Population By Census Tracts provides a complete tabulation of existing and future population distribution by census tracts.

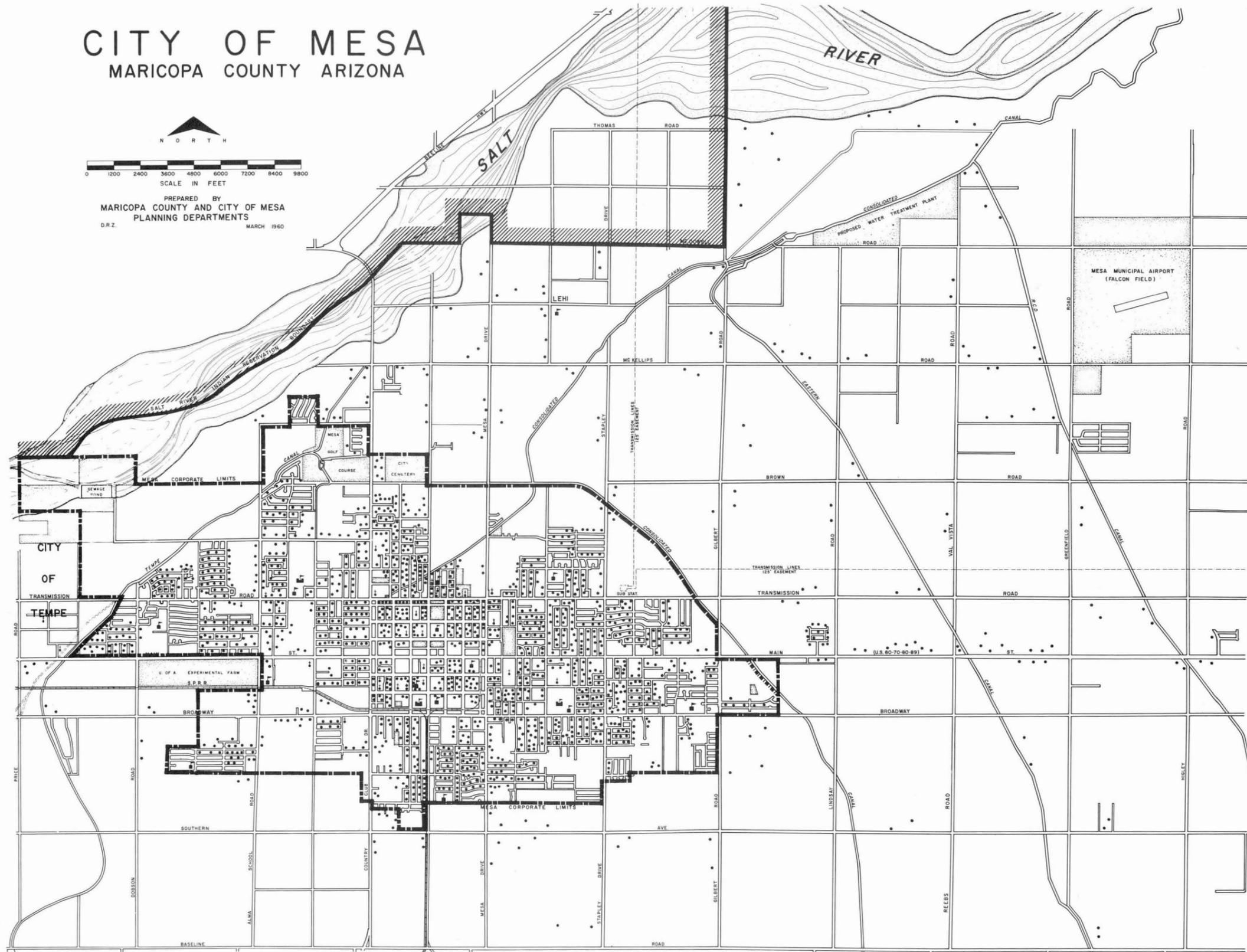
#### Distribution of Population - 1960

The distribution of 1960 population for the Mesa Urban Area is shown on Plate 6. Each dot on the map represents 25 persons, the resulting pattern of dots indicates that the past direction of growth has been very orderly and confined for the most part within the corporate boundaries. The concentration

# CITY OF MESA MARICOPA COUNTY ARIZONA



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ONE DOT EQUALS 25 PERSONS

# POPULATION DISTRIBUTION-1960

TABLE 16  
 POPULATION BY UNIT AREAS - 1960  
 Mesa Urban Area

Census Tract	*Gross Area (acres)	Population	Persons Per Gross Acre
M-112	14,145	2,688	0.19
M-113	1,196	6,143	5.12
M-114	1,530	10,037	6.55
M-115	2,421	8,642	3.57
M-116	291	1,530	5.26
M-117	1,200	5,498	4.55
M-119	4,204	300	0.72

\* Includes, for the most part, developed land contained within the pattern areas as shown on Plate 7, and does not necessarily contain the entire area within the census tract as defined within the Mesa Urban Area.

TABLE 15  
POPULATION BY CENSUS TRACTS  
Mesa Study Area

Census Tracts	<u>Gross Acres</u>			<u>1960 Population</u>			<u>1980 Population</u>
	Mesa	Fringe	Total	Mesa	Fringe	Total	Mesa Urban Area
* M-112	206	13,939	* 14,145	225	2,585	2,810	27,050
M-113	1,592	368	1,960	6,024	61	6,085	20,625
M-114	2,004	-----	2,004	10,024	-----	10,024	25,050
M-115	3,254	1,617	4,871	8,626	351	8,977	17,825
* M-116	986	4,406	* 5,392	3,433	726	4,159	15,575
* M-117	1,128	2,432	* 3,560	5,440	277	5,717	17,375
* M-119	-----	4,204	* 4,204	-----	178	178	6,500
TOTALS	9,170	26,966	36,136	33,772	4,178	37,950	130,000

\* Census Tracts - Area excluded in computations

M-112 - Portion north of Thomas Road

M-116 - Portion south of Baseline Road

M-117 - Portion south of Baseline Road

M-119 - Portion east of Greenfield Road and south of Baseline



of dots around the central core of the city of Mesa and in other scattered locations indicates a more intense use of the land in those areas (apartments, small lots, mobile home parks, etc.).

### Density of Population - 1960

The density of population is a measure of the crowding together of people on any given area of land. Density is an exceedingly useful measure in planning work. For example, if the population density of a given area is known, the amount of traffic generated by that area can be determined and hence the location, width, and design of streets can also be determined. In general, density patterns are achieved through the zoning regulations in terms of "lot area per family" requirements. In residential areas, it is generally not considered satisfactory from a health and welfare standpoint to have more than 30 dwelling units in a multi-family two-story structure to a net acre of land.

Density is also significant since it is a measure of determining whether or not an area contains enough population to support a satisfactory and economical level of governmental service; planners often use the figure of ten persons per gross acre as a minimum. However, it is difficult to draw specific conclusions in the absence of studies that define the acceptable minimum level of governmental services in a given community. Also properties that contain a high assessed value could, theoretically at least, support a satisfactory and economical level of governmental service at lower densities than would be possible in areas of low assessed valuation.

The 1960 population densities for Mesa are shown on Plate 7 by unit area and by census tract. It is significant to note in Mesa that the densities range between 3.5 and 6.5 persons per gross acre. The low range in part can be explained by the fact that only 41.9 per cent of the area inside the corporate

limits is developed, a high percentage of the developed area is in streets and alleys, and the small amount of high density uses in the area (i.e. multi-family dwelling units and mobile home courts). A complete tabulation of these figures is shown on Table 16.

### Future Population

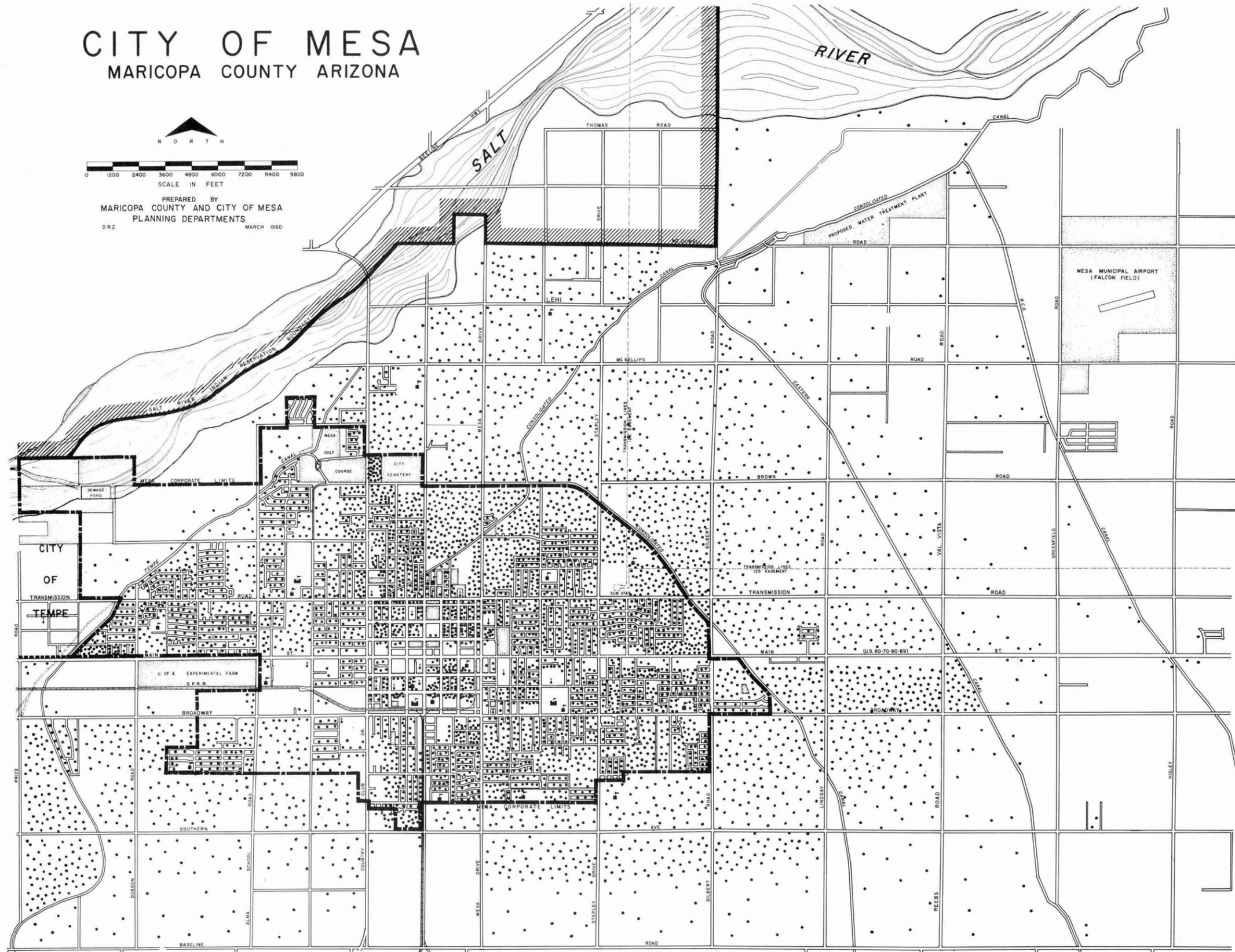
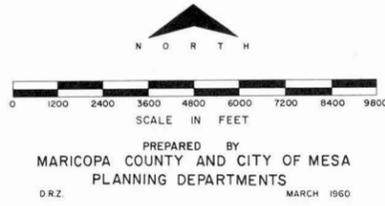
#### Population Distribution - 1980

The 1980 distribution of population in the Mesa urban area is shown on Plate 8. Each dot represents 25 persons. The location of the future population is based upon the residential areas shown on the Generalized Land-Use Plan - 1980 (see Plate 11) and also on the assumption that the community will continue to develop in an orderly outward fashion in the future.

Commercial, industrial, public and semi-public areas are not expected to contain many residential dwelling units and thus these areas are void of any dots. Increased concentration of dots in the older section of Mesa results from a more intense use of the land and development of land which is presently vacant. This suggested pattern of development is considered normal and characteristic of most cities but should be watched closely and carefully controlled if urban blight is to be avoided. Increased development is to be expected along Southern Avenue and east of Price Road due to the proposed location of the Superstition Expressway (Note: Exact location of the Expressway has not been determined, but ultimately expected to be shifted south of Southern Avenue).

The Population Distribution map for 1980 shows a desirable distribution of 130,000 persons, which is the population expected to comprise the Mesa Urban Area (excluding any population to be found within the Salt River Indian Reservation and the city of Tempe).

# CITY OF MESA MARICOPA COUNTY ARIZONA



# POPULATION DISTRIBUTION - 1980

PLATE NO. 8

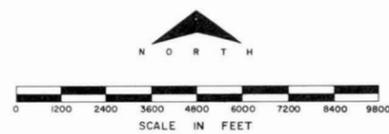
ONE DOT EQUALS 25 PERSONS

### Future Density - 1980

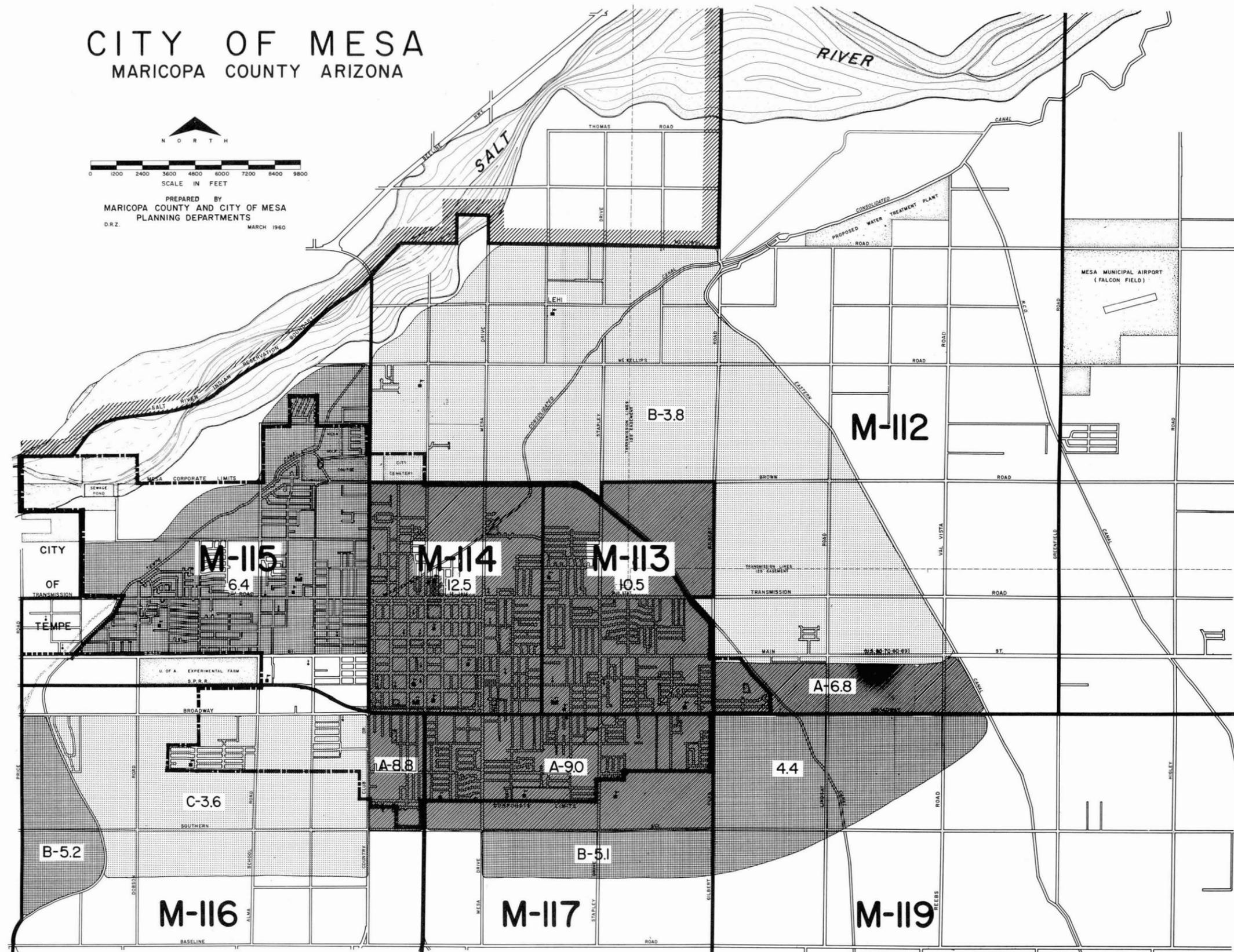
The 1980 adjusted gross population density is shown on Plate 9. This map is comparable to the 1960 population density map and varies only where there is expected to be an increase in the population density. This change occurs both in the older sections of Mesa (such as that found in Census Tract M-113, M-114, and parts of M-117) and the newer sections lying to the north and southwest. (See Census Tracts M-112, M-115, and M-116) It is important to note that the densities found at the periphery do not represent the maximum holding capacity of the area. However, they represent a density comparable to what now exists near the corporate city boundaries. As the area matures and grows outward in concentric radials, the density pattern will increase to a holding capacity controlled by the zoning ordinance. The proposed densities found in M-115 and M-112A, compare favorably with that now found to exist in M-114. The proposed densities found in M-116B, M-117B, and M-119 compare with those now found in M-113, M-116, and M-117. It would be extremely desirable if the future growth pattern continues to be as orderly as that found to exist. This pattern of growth outwardly can best be achieved through subdivision regulations and policies pertaining to the extension of public services beyond the city limits.

A complete tabulation breakdown of population density by unit area for 1980 is shown on Table 17. This table reveals a breakdown of densities within census tracts which is based upon the future generalized land-use map and normal community growth patterns.

CITY OF MESA  
MARICOPA COUNTY ARIZONA



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POPULATION DENSITY-1980  
BY CENSUS TRACTS

PLATE NO. 9

LEGEND

PERSONS PER GROSS ACRE

	0.0-1.9		4.0-5.9
	2.0-3.9		6.0-15.0

NOTE - LETTER PREFIX DENOTES PARTS WITHIN CENSUS TRACT'S BOUNDARIES  
NUMBER DENOTES PERSONS PER GROSS ACRE

TABLE 17  
 POPULATION DENSITY BY UNIT AREA - 1980  
 Mesa Urban Area

Census Tract	Gross Area (Acres)	Estimated Population	Persons Per Gross Acre
M-112A*	670	4,600	6.8
B	5,800	22,500	3.8
M-113	1,960	20,600	10.5
M-114	2,004	25,000	12.5
M-115	2,800	17,800	6.4
M-116A*	320	2,800	8.8
B	650	3,400	5.2
C	2,300	8,200	3.6
M-117A*	1,600	14,400	9.0
B	480	2,500	5.1
M-119*	1,360	5,000	4.4

\*Census Tracts - Area excluded in computations.

M-112 - Portion north of Thomas Road.

M-116 - Portion south of Baseline Road.

M-117 - Portion south of Baseline Road.

M-119 - Portion east of Greenfield Road and south of Baseline Road.

## PART 4

### EXISTING LAND USE

#### Need For Land Use

Present patterns of land use largely determine future patterns. A land use survey and analysis thereof provides basic information on land-use distribution and characteristics. Once a desirable future land-use plan is determined, it is possible to design the various physical facilities that will be needed.

Other public and private agencies can also utilize land-use information. For example, the amount of unused but useable land available within the city and the whole urban area, should be an important consideration in determining policies in matters of annexation, subdivision control, and utility extensions. It will permit the appraisal, in a general way, of the adequacy of school and park recreational facilities; and may show that an excessively large proportion of the land has been placed in streets and alleys - calling attention to the need for revising subdivision practices.

#### Land Use Survey Area

The geographical area included in the land-use survey is generally enclosed by the Salt River and the boundary of the Salt River Reservation on the north, Greenfield Road on the east, Baseline Road on the south, and Price Road on the

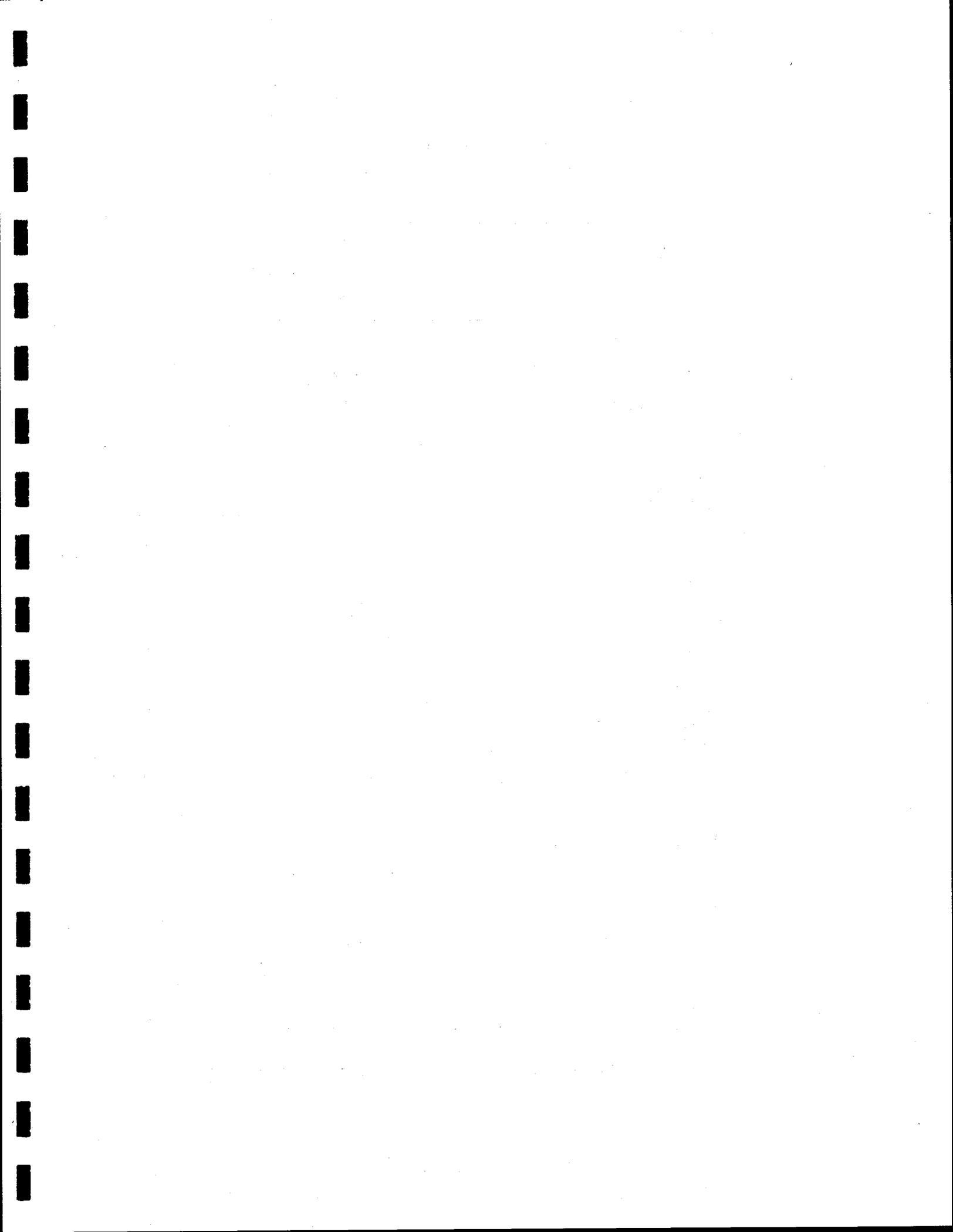


TABLE 18  
EXISTING LAND USE - MESA, ARIZONA

Land Use	CITY OF MESA		
	Acreage	% of Devel- oped Area	% of Gross Area
Single-Family	1,650.4	42.9	18.0
Two-Family	28.0	.7	.3
Multi-Family	34.8	.9	.4
Trailer Parks	31.0	.8	.3
<b>TOTAL RESIDENTIAL</b>	<b>1,744.2</b>	<b>45.3</b>	<b>19.0</b>
Open Commercial*	60.7	1.6	.7
Closed Commercial	160.9	4.2	1.7
<b>TOTAL COMMERCIAL</b>	<b>221.6</b>	<b>5.8</b>	<b>2.4</b>
Light Industry	111.4	2.9	1.2
Heavy Industry	35.9	.9	.4
RR and Public Utilities	5.7	.2	.1
<b>TOTAL INDUSTRIAL</b>	<b>153.0</b>	<b>4.0</b>	<b>1.7</b>
Streets and Alleys	1,237.1	32.1	13.5
Parks and Playgrounds	48.3	1.3	.5
Public and Semi-Public	441.3	11.5	4.8
<b>TOTAL PUBLIC AND SEMI-PUBLIC</b>	<b>1,726.7</b>	<b>44.9</b>	<b>18.8</b>
<b>TOTAL DEVELOPED LAND</b>	<b>3,845.5</b>	<b>100.0</b>	<b>41.9</b>
Agriculture	2,141.7		23.4
Vacant	3,183.5		34.7
<b>TOTAL UNDEVELOPED LAND</b>	<b>5,325.2</b>		<b>58.1</b>
<b>TOTAL GROSS AREA</b>	<b>9,170.7</b>		<b>100.0</b>

\* Includes motels, hotels (trailer parks), and guest ranches.

Note: Slight discrepancies in totals are the result of rounding to the nearest tenth.

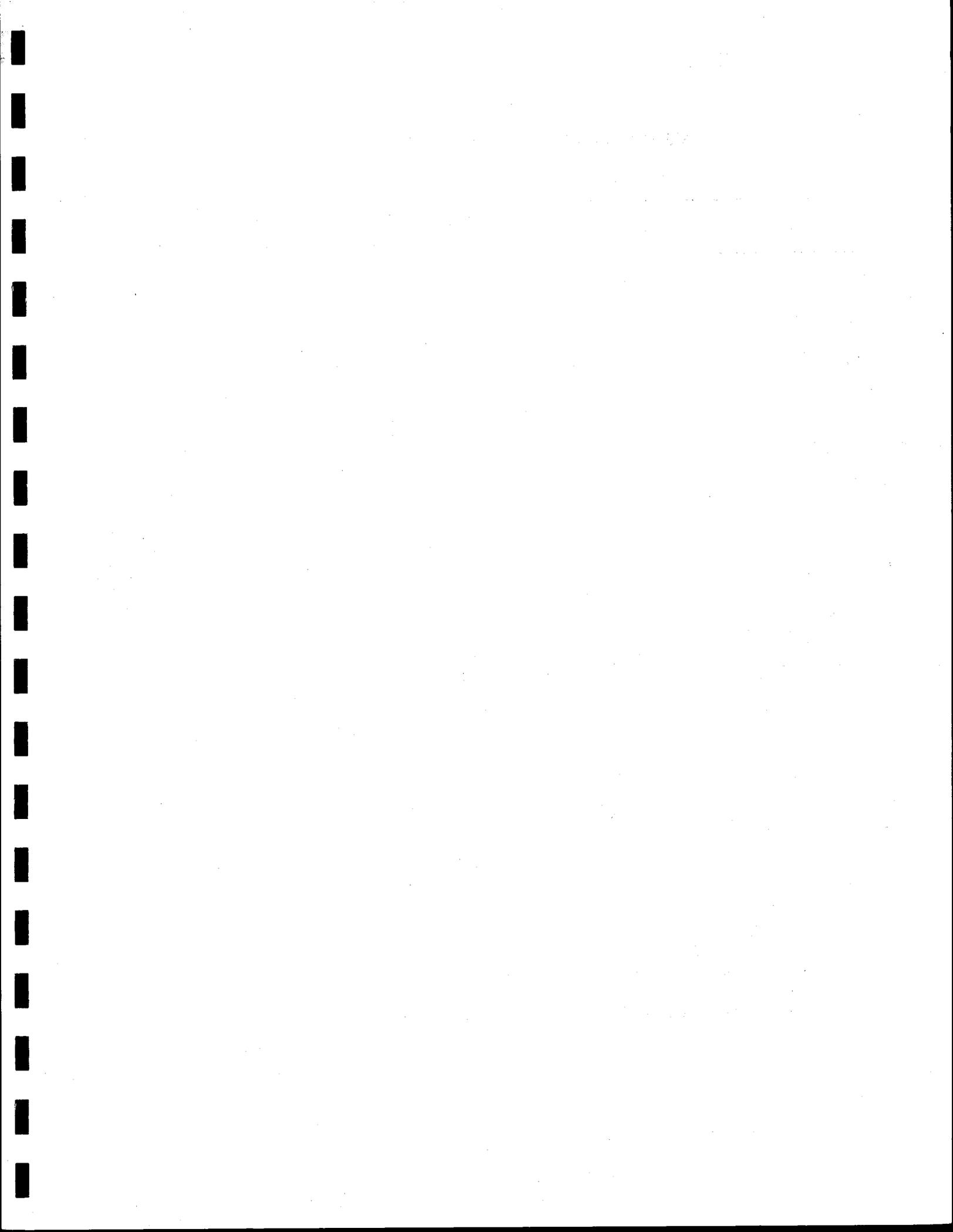


TABLE 19  
EXISTING LAND USE BY CENSUS TRACT  
Mesa Survey Area

Land Use	Land Use Acreage By Census Tract						
	M-112*	M-113	M-114	M-115	M-116*	M-117*	M-119*
Single-Family	229.6	368.2	452.8	567.3	178.5	271.9	18.6
Two-Family	5.3	2.2	15.3	6.9	2.1	3.1	---
Multi-Family	2.0	3.4	16.2	8.4	2.7	4.4	---
<b>TOTAL RESIDENTIAL</b>	<b>236.9</b>	<b>373.8</b>	<b>484.3</b>	<b>582.6</b>	<b>183.3</b>	<b>279.4</b>	<b>18.6</b>
Open Commercial	25.8	17.9	27.3	45.3	17.5	3.7	---
Closed Commercial	48.2	27.4	70.7	61.1	15.8	5.6	---
<b>TOTAL COMMERCIAL</b>	<b>74.0</b>	<b>45.2</b>	<b>98.0</b>	<b>106.4</b>	<b>33.3</b>	<b>9.3</b>	<b>---</b>
Light Industry	26.1	8.6	28.2	64.4	65.8	32.8	23.4
Heavy Industry	49.1	2.7	3.2	468.8	24.7	.3	---
RR and Public Utilities	2.6	1.9	.5	43.6	19.3	.8	---
<b>TOTAL INDUSTRIAL</b>	<b>77.8</b>	<b>13.2</b>	<b>31.9</b>	<b>586.8</b>	<b>109.8</b>	<b>33.9</b>	<b>23.4</b>
Streets and Alleys	726.2	237.9	433.3	330.4	378.4	339.0	164.8
Parks and Playgrounds	---	---	45.1	---	3.2	---	---
Public and Semi-Public	46.5	64.9	112.5	272.9	5.5	29.5	---
<b>TOTAL PUBLIC AND SEMI-PUBLIC</b>	<b>772.7</b>	<b>302.8</b>	<b>590.9</b>	<b>603.3</b>	<b>387.1</b>	<b>368.5</b>	<b>164.8</b>
<b>TOTAL DEVELOPED LAND</b>	<b>1,178.9</b>	<b>735.0</b>	<b>1,215.1</b>	<b>1,869.1</b>	<b>713.5</b>	<b>691.1</b>	<b>206.8</b>
Agriculture	7,269.9	576.9	510.1	1,365.8	3,346.7	1,568.8	3,347.2
Vacant	5,696.2	648.1	278.8	1,636.1	1,331.8	1,300.1	650.0
<b>TOTAL UNDEVELOPED LAND</b>	<b>12,966.1</b>	<b>1,225.0</b>	<b>788.9</b>	<b>3,001.9</b>	<b>4,678.5</b>	<b>2,868.9</b>	<b>3,997.2</b>
<b>TOTAL ALL LAND</b>	<b>14,145.0</b>	<b>1,960.0</b>	<b>2,004.0</b>	<b>4,871.0</b>	<b>5,392.0</b>	<b>3,560.0</b>	<b>4,204.0</b>

\* Census Tracts - Area excluded in computations:

M-112 - Portion north of Thomas Road.

M-116 - Portion south of Baseline Road.

M-117 - Portion south of Baseline Road.

M-119 - Portion east of Greenfield Road and south of Baseline Road.

west. This includes an area approximately 56 square miles, excluding that found to be in the city of Tempe and the Salt River Indian Reservation. Of this amount, only 13.52 square miles are within the corporate limits of Mesa.

The land-use data found in this report is the result of a comprehensive field check made of every lot and parcel of land, and classified into one of twenty-three different land-use categories by the Maricopa County Planning and Zoning Commission Staff in the spring of 1960. Each land use was then measured and tabulated in terms of acreage and land use for various purposes. This tabulation is shown on Table 18, Existing Land Use - Mesa, Arizona, and also on Table 19, Existing Land Use By Census Tracts.

Census Tracts	Area Excluded From Survey
M-112	Portion north of Thomas Road
M-113	None
M-114	None
M-116	Portion south of Baseline Road.
M-117	Portion south of Baseline Road.
M-119	Portion east of Greenfield Road and south of Baseline Road.

## Existing Land-Use Map

The existing land-use pattern for Mesa and Environs is shown on Plate 10, Generalized Land Use - 1960. This map reflects the presently developed uses consolidated into four broad categories of land use. They are residential, commercial, industrial, public and semi-public and are shown on the map by contrasting patterns. Specific school and church locations are shown with appropriate symbols together with other significant land-use factors influencing the development of the area.

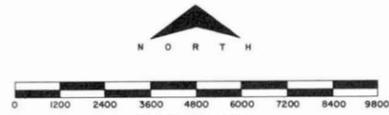
### Major Characteristics of Existing Land Use

#### General Arrangement

The Mesa urban area has been under the influence of Planning and Zoning through its period of heaviest growth and is evident in the existing arrangement of land uses. This pattern of land use is fairly typical of most small urban communities surrounding control cities with its undefined central business district extending itself into strips along Country Club Drive and Main Street (U.S. Highway 60, 70, 80, and 89). Adjoining the commercial developments is a significant amount of multi-family residential development which in turn gives way to single and two-family uses extending outward to the limits of urbanization. Industry has tended to group along transportation routes showing a preference for railroad facilities. Throughout the urban area there is a significant amount of intermingling of land uses not readily apparent from Plate 10. This mixture of uses has been a primary cause of deterioration and blight and is more prevalent in older sections of the urban area which developed prior to the advent of Planning and Zoning. In other areas land-use conflicts have developed from failure to base zoning on a comprehensive

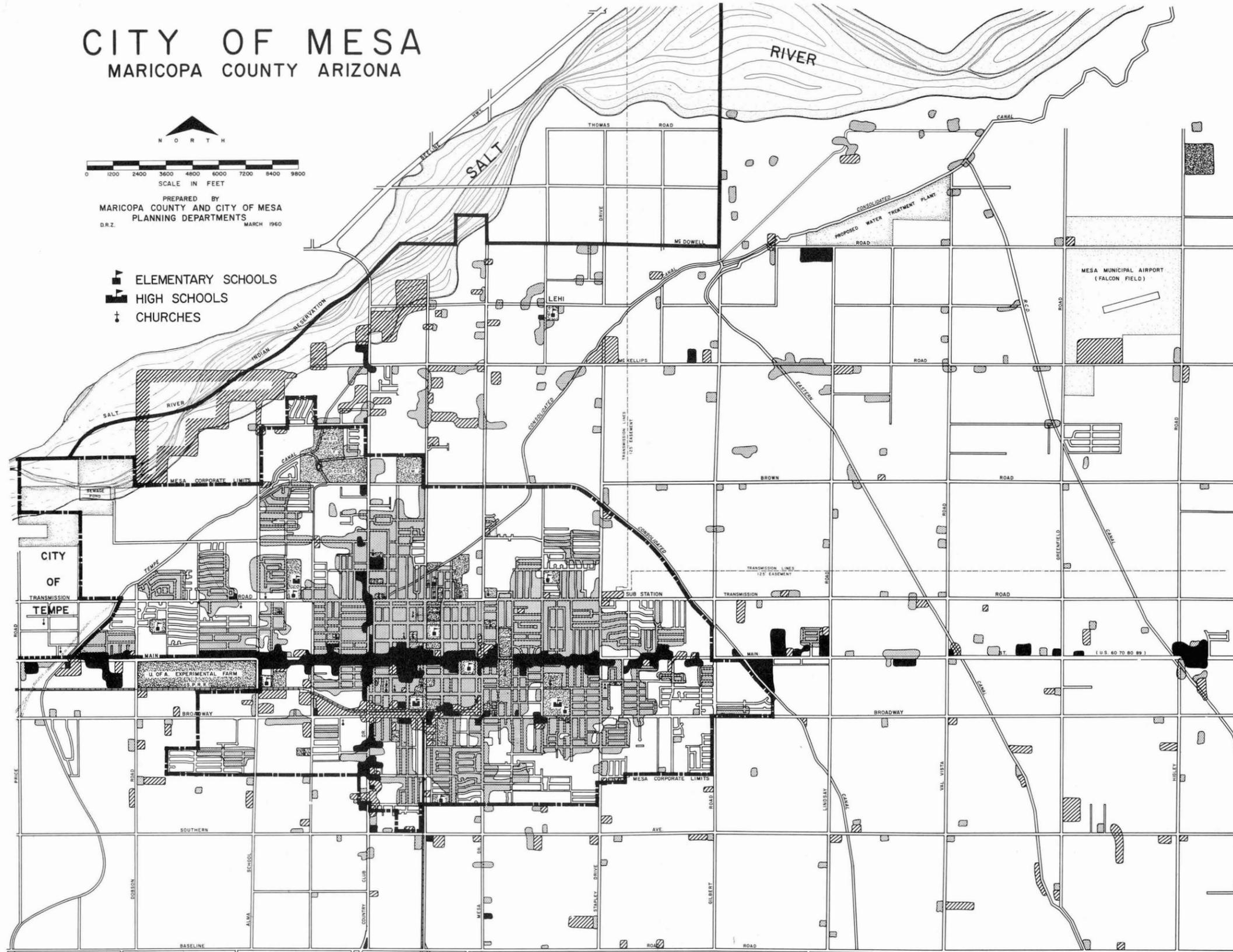
# CITY OF MESA

MARICOPA COUNTY ARIZONA



PREPARED BY  
MARICOPA COUNTY AND CITY OF MESA  
PLANNING DEPARTMENTS  
D.R.Z. MARCH 1960

- ELEMENTARY SCHOOLS
- HIGH SCHOOLS
- † CHURCHES



## GENERALIZED LAND USE-1960

### LEGEND

- RESIDENTIAL
- INDUSTRIAL
- COMMERCIAL
- PUBLIC & SEMI-PUBLIC

study of land use and land-use needs and to relate subsequent zoning amendments and subdivision proposals to a land-use plan.

#### Undeveloped Land

Agriculture and vacant land accounts for 58 per cent of the total gross land area within the city of Mesa. While this is not a unique condition in rapidly growing urban areas, it is necessary to examine the causes and effects in order to guide the future land development policies. Usually, topographic limitations and land economics in a given area are the basic reasons why very little land within the city of Mesa could be considered as unsuitable for urban development by reasons of topography or other natural factors. A similar pattern occurs in the city of Phoenix.

Undeveloped parcels scattered throughout the city of Mesa disrupt the continuity of streets and public utilities and make the provision of urban services more expensive and less efficient. Therefore, every available planning device should be employed to encourage the development of vacant areas within the City, and its integration with existing land uses.

#### Limiting Growth Factors

The past growth pattern of Mesa has been influenced largely by several significant limiting physical growth factors. They include: the location of U.S. Highway 60, 70, 80, and 89; Southern Pacific Railroad Tracks; the Consolidated Canal and Tempe Canal; Salt River Power Transmission lines along Transmission Road; and the political boundaries of the Salt River Indian Reservation and the city of Tempe. Other factors which have controlled the growth pattern are the city of Mesa's sound policy of extending the public utilities, and the reluctance on the part of land owners to sell their property. Future growth is not expected to stop when reaching these barriers, but will be deflected and moves toward the northeast, south, and to a more intense

degree east along 60, 70, 80, and 89, and between Transmission Road and Southern.

It is important to note that the high voltage power transmission lines located a quarter mile north of Transmission Road and east of Stapley Drive may also have influenced the path of past development near the north-east section of town. It is unlikely that the power transmission lines will ever be moved for economical reasons, therefore, means to minimize their appearance and effectively use the adjoining lands must be found.

#### Ratio of Existing Land Use to Population

Table 20 shows the ratio of existing land to population for the city of Mesa as compared with the average ratios of eleven other urban areas and those of five other central cities having over 250,000 population. Compilation and analysis of the land-use data from many cities and urban areas throughout the United States has shown that a definite predictable relationship exists between land use and population. This therefore represents comparative data which is of considerable value in the estimation of the land need for urban uses by the future population. A later section of this report gives more detailed consideration to future land needs expressed as a ratio of land use to population.

#### Percentage of Developed Land Occupied by Types of Uses

As a further aid in comparing local use of land with that in other urban areas and in central cities, Table 21 has been prepared to show the percentages of the total developed land occupied by types of uses in the city of Mesa as compared to the averages found in the Phoenix urban area and in other satellite cities with populations between 10,000 and 25,000.

TABLE 20  
RATIO OF EXISTING LAND USE TO POPULATION  
Compared To Phoenix Urban Area and Other Satellite Cities

Land Use	DEVELOPED ACRES PER 100 PERSONS			
	City of Mesa	Phoenix Urban Area	10 Satellite Cities (3)	10 Other Satellite Cities (4)
Population	33,772(1)	397,836(2)	10-25,000	Over 25,000
Single-Family	4.92	5.44	6.33	1.79
Two-Family	.08	0.26	0.24	.31
Multi-Family	.10	0.35	0.20	0.23
Mobile-Home Parks	.09	---	---	---
<b>TOTAL RESIDENTIAL</b>	<b>5.19</b>	<b>6.05</b>	<b>6.77</b>	<b>2.33</b>
Open Commercial	0.18	---	---	---
Closed Commercial	0.48	---	---	---
<b>TOTAL COMMERCIAL</b>	<b>0.66</b>	<b>0.54</b>	<b>0.28</b>	<b>0.18</b>
Light Industry	0.33	0.46	0.21	0.78
Heavy Industry	0.11	0.19		
RR and Public Utilities	0.02	0.10	0.40	0.34
<b>TOTAL INDUSTRIAL</b>	<b>0.46</b>	<b>0.75</b>	<b>0.61</b>	<b>1.12</b>
Streets and Alleys	3.69	2.91	3.27	1.55
Parks and Playgrounds	.14	0.15	0.62	0.20
Public and Semi-Public	1.31	1.34	1.69	0.40
<b>TOTAL PUBLIC AND SEMI-PUBLIC</b>	<b>5.14</b>	<b>4.40</b>	<b>5.58</b>	<b>2.15</b>
<b>TOTAL DEVELOPED LAND</b>	<b>11.45</b>	<b>11.74</b>	<b>13.75</b>	<b>5.77</b>

(1) U.S. Census Bureau - 1960.

(2) City of Phoenix and Maricopa County - Advance Planning Task Force, 1959; "Land Use Of The Phoenix Urban Area."

(3) Harland Bartholomew, "Land Uses in American Cities," 1955; Brentwood, Missouri; Clayton, Missouri; Kirkwood, Missouri; Richmond Heights, Missouri; Webster Grove, Missouri; Highland Park, Illinois; LaGrange, Illinois; Wilmette, Illinois; Winnetka, Illinois; University Park, Texas.

(4) Harland Bartholomew, "Land Uses in American Cities," 1955; Beverly Hills, California; Bloomfield, New Jersey; East Chicago, Indiana; East Orange, New Jersey; East St. Louis, Illinois; Evanston, Illinois; Irvington, New Jersey; Maywood, Illinois; New Westminster, B.C.; Oak Park, Illinois.

TABLE 21  
 PERCENTAGE OF DEVELOPED LAND OCCUPIED BY SPECIFIC USES  
 Compared to Phoenix Urban Area and 10 Other Satellite Cities

Land Use	PERCENTAGE OF DEVELOPED LAND		
	City of Mesa	Phoenix Urban Area	10 Other Satellite Cities(3)
Population	33,772(1)	397,836(2)	10-25,000
Single-Family	42.9	46.3	47.83
Two-Family	.7	2.2	1.79
3 or more Family	.9	3.0	1.55
Trailer Parks	.8		
<b>TOTAL RESIDENTIAL</b>	<b>45.3</b>	<b>51.5</b>	<b>51.17</b>
Open Commercial	1.6	---	---
Closed Commercial	4.2	---	---
<b>TOTAL COMMERCIAL</b>	<b>5.8</b>	<b>4.6</b>	<b>2.09</b>
Light Industry	2.9	3.9	
Heavy Industry	.9	1.6	1.60
RR and Public Utilities	.2	0.8	3.03
<b>TOTAL INDUSTRIAL</b>	<b>4.0</b>	<b>6.4</b>	<b>4.63</b>
Streets and Alleys	32.1	24.8	24.71
Parks and Playgrounds	1.3	1.3	4.65
Public and Semi-Public	11.5	11.4	12.75
<b>TOTAL PUBLIC AND SEMI-PUBLIC</b>	<b>44.9</b>	<b>37.5</b>	<b>42.11</b>
<b>TOTAL DEVELOPED LAND</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>

(1) U.S. Census Bureau - 1960.

(2) City of Phoenix and Maricopa County - Advance Planning Task Force, 1959; "Land Use of the Phoenix Urban Area."

(3) Harland Bartholomew, "Land Uses in American Cities", 1955; Brentwood, Missouri; Clayton, Missouri; Highland Park, Illinois; Kirkwood, Missouri; LaGrange, Illinois; Richmond Heights, Missouri; University Park, Texas; Webster Grove, Missouri; Wilmette, Illinois; Winnetka, Illinois.

Analysis of Existing Land Use  
And Significant Trends

Residential Land Use

The predominant use of land in Mesa is residential accounting for 45.3 per cent of the developed land. This percentage is somewhat lower than that found in the Phoenix urban area or in 10 other comparable satellite cities. The low residential percentage figure is the net result of a significant high percentage of the developed land found to be in public and semi-public (44.9 per cent) and highway commercial (5.8 per cent) use. The amount of land devoted to multi-family and mobile-home use is comparatively low indicating a high per cent of individual land ownership. However, the situation is expected to change during the next 20 years of growth.

Much of the new residential development is now taking place in the northwest section of town. This area is well adapted for residential use, being well protected from adverse commercial and industrial development. However, this area is limited in size due to the location of the Salt River and the Salt River Indian Reservation. Future single-family residential development is expected to fill in much of the close-in undeveloped areas and continue its pattern of development to the north. The south and east section of the city are also experiencing considerable residential growth, especially apartments and mobile-home park-type developments. Increased activity may also be expected near or in the vicinity of the proposed Superstition and Indian Bend Expressways.

## Commercial

Commercial uses account for 5.8 per cent of all the developed land in Mesa, with much of it directed towards highway trade along the Main Street (U.S. Highway 60, 70, 80, and 89). A rather significant amount is located on both sides of Country Club Drive both north and south of Main Street. This pattern is expected to continue together with a significant amount of additional commercial activity at the intersection of all section line roads. However, this pattern should be carefully controlled and adjusted to the existing need and not to speculation.

## Industrial

Mesa contains a limited amount of industry comprising only 4 per cent of all the developed land. Most of this figure is light industrial (2.9 per cent) with the remaining amount in use for heavy industrial (0.9 per cent), and railroads and public utilities (.2 per cent). Industrial development is presently concentrated along the Southern Pacific Railroad tracks near Broadway Avenue.

It is significant to note that the industrial uses shown on Plate 11, north of Mesa and adjacent to the Salt River, are sand and gravel operations. Light industrial expansion is expected to continue along the railroad tracks and within the Mesa Industrial Airport (Falcon Field) to a greater degree.

Heavy industrial uses should in the future be kept to a minimum in the Mesa area and careful consideration should be given to location of new light industrial uses in order to preserve existing and future residential values.

## Public and Semi-Public

Public and semi-public uses account for 44.9 per cent of the developed

land and are nearly equal to the amount of land in use for residential use. This high percentage is the result of 1,237 acres in use for street and alleys, which accounts for 32.1 per cent of all the developed land in Mesa. This figure is 7 per cent more than that found in street and alley use in the Phoenix urban area or other comparable communities.

The percentage of developed land in use for parks and playgrounds compares closely with that found in the Phoenix urban area. However, when compared with other comparable-size communities the percentage figure is low.

Mesa now contains 48.3 acres of developed land in use for parks and playgrounds, but is approximately 290 acres deficient when compared to national parks and recreational standards (one acre of park or recreational land per 100 people).

PART 5  
FUTURE LAND USE

The Future Community

The broad objective of the Comprehensive Plan should be the gradual attainment of a city that will be safe, efficient, spacious and attractive as a place to live, work or play. In such a city the impact of urbanization can be minimized by reducing the inconvenience and hazards of travel, by providing ample well-located parks and other recreational areas, and by maintaining high standards for schools, housing and other community facilities.

The future community should be reasonably compact to make it possible to provide essential public services at a reasonable cost, yet spacious so that everyone can enjoy a maximum of light and air. It should be well balanced in respect to travel time, between home and work, and to recreational areas and shopping centers.

The present defects of the city must be recognized and gradually corrected, and preventive measures taken to avoid the same mistake in the future. Among these defects are the overcrowding of land in blighted areas, increasing traffic congestion, lack of public parks, and a deficiency in off-street parking space in the central business district.

A determination of the area of future urbanization is necessary at this point. The size of the area depends on the future population to be

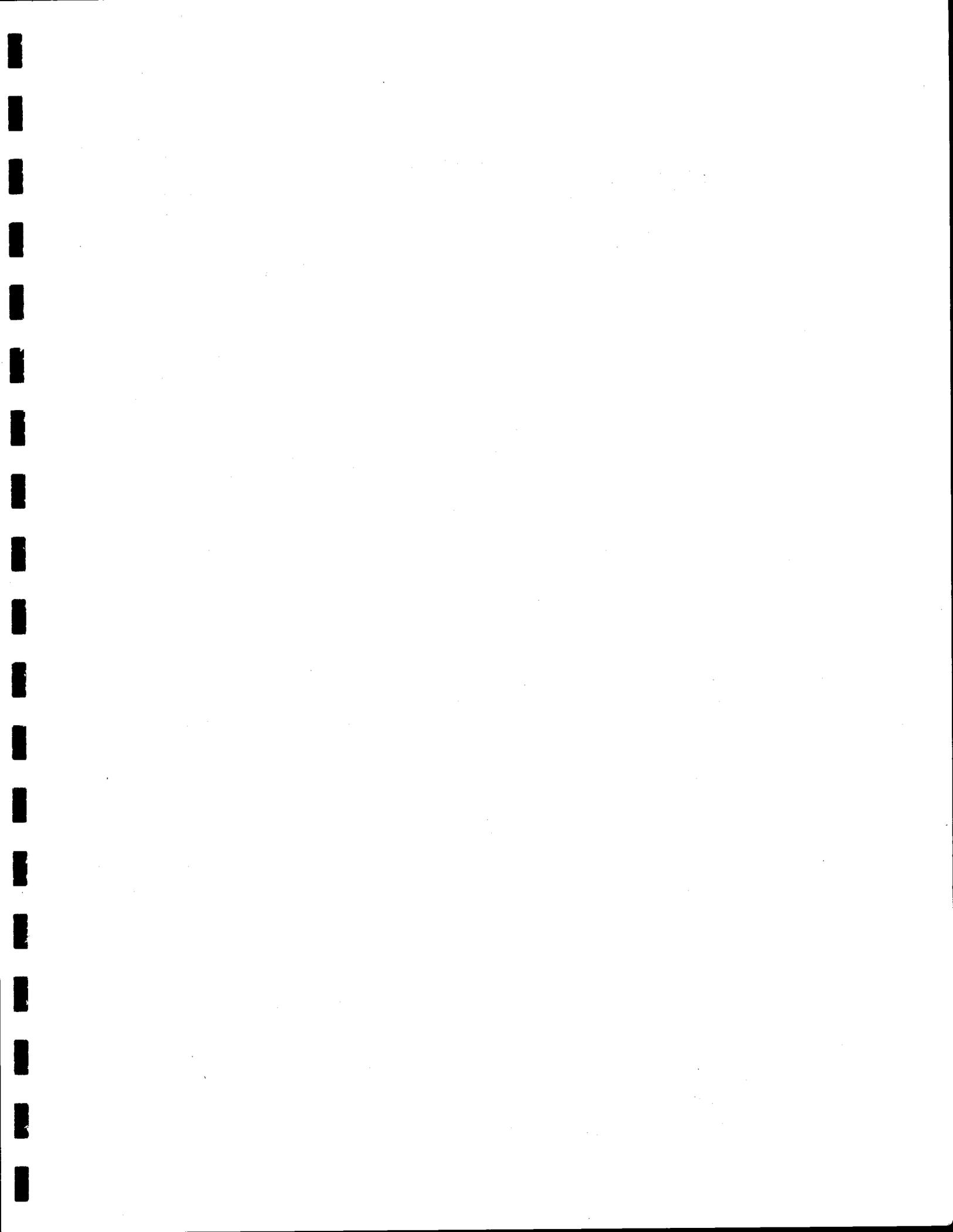


TABLE 22  
COMPARISON OF EXISTING LAND USE AND EXTIMATED  
LAND-USE NEEDS FOR 1980  
Mesa Urban Area

Land Use	1960 Land Use Population 33,772 <sup>(1)</sup>			1980 Estimated Land-Use Needs Population 130,000 <sup>(2)</sup>		
	Acres	Acres		Acres	Acres	
		Per 100 Persons	% of Developed Area		Per 100 Persons	% of Developed Area
Single-Family	1,650.4	4.88	42.9	6,500	5.00	40.2
Two-Family	28.0	.08	.7	195	.15	1.21
3 or More Family	34.8	.10	.9	156	.12	1.00
Mobile-Home Parks	31.0	.09	.8	767	.59	4.6
<b>TOTAL RESIDENTIAL</b>	<b>1,744.2</b>	<b>5.15</b>	<b>45.3</b>	<b>7,618</b>	<b>5.86</b>	<b>47.0</b>
Open Commercial	60.7	.18	1.6	273	.21	1.7
Closed Commercial	160.9	.48	4.2	585	.45	3.6
<b>TOTAL COMMERCIAL</b>	<b>221.6</b>	<b>.66</b>	<b>5.8</b>	<b>858</b>	<b>.66</b>	<b>5.3</b>
Light Industry	111.4	.33	2.9	546	.42	3.4
Heavy Industry	35.9	.11	.9	182	.14	1.1
RR and Public Utilities	5.7	.02	.2	26	.02	.2
<b>TOTAL INDUSTRIAL</b>	<b>153.0</b>	<b>.46</b>	<b>4.0</b>	<b>754</b>	<b>.58</b>	<b>4.7</b>
Streets and Alleys	1,237.1	3.66	32.1	4,056	3.12	25.0
Parks and Playgrounds	48.3	.14	1.3	1,300	1.00	8.0
Public and Semi-Public	441.3	1.30	11.5	1,625	1.25	10.0
<b>TOTAL PUBLIC AND SEMI-PUBLIC</b>	<b>1,726.7</b>	<b>5.10</b>	<b>44.9</b>	<b>6,981</b>	<b>5.37</b>	<b>43.0</b>
<b>TOTAL DEVELOPED LAND</b>	<b>3,845.5</b>	<b>11.37</b>	<b>100.0<sup>(3)</sup></b>	<b>16,211</b>	<b>12.47</b>	<b>100.0</b>
Agriculture	2,141.7					
Vacant	3,183.5					
<b>TOTAL UNDEVELOPED LAND</b>	<b>5,325.2</b>					
<b>TOTAL ALL LAND</b>	<b>9,170.7</b>					

(1) U.S. Census Bureau - 1960.

(2) Western Business Consultants, Inc.

(3) Total land required to accommodate a population of 130,000.

accommodated together with the amount of land needed in the future for commercial, industrial, public and semi-public uses. Topography of the area must be considered especially as it relates to the future provisions of sewers and other utilities.

Careful consideration of these factors leads to the conclusion that the future 1980 urban area of Mesa should be nearly double the present 9,170 acres within the city. The approximate outer limits of the 1980 urbanized area is shown with the shaded pattern on Plate 11. This area contains approximately 24,000 acres as compared to the 16,211 acres estimated to be needed to accommodate 130,000 population (see Table 22). The outer 1980 urban boundary limits were expanded beyond the actual needs in order to coincide with the nearest physical and political boundaries in the area of new growth. It would be highly desirable if the future area of urbanization be consolidated within the pattern shown on Plate 11.

#### Future Land-Use Needs

There is a close relationship between the amount of land used for various urban purposes and the population of a community. With certain adjustments these ratios provide a means of estimating future land-use requirements. Table 22 contains a comparison of existing land use and estimated land-use needs for 1980 by applying these land use population ratios.

In arriving at these estimates the following factors were considered:

1. Suburban residential development will remain spacious but shows no significant inverse in lot size.
2. A significant increase will be required for two-family and multi-family dwelling purposes.

3. Commercial enterprise will continue to occupy the same amount of land as comparable projects heretofore carried out in the city of Mesa.

4. Substantial industrial development is anticipated within the Mesa urban area requiring more space for efficient operation (including off-street parking facilities for employees).

5. Large quantities of land will be needed for parks and recreational use, to meet the proposed higher standards.

6. Less land per 100 people in use for streets and alleys.

Application of these ratios to the projected 1980 population results in a total of 16,211 acres needed for urban purposes at that time. This is an increase of over 7,041 acres over the total area now used. At the present time there are 9,170 acres of land within the corporate limits, 5,325 of which are vacant or in agriculture use. It is evident, therefore, that although there is a surplus of vacant land now within the corporate limits it could not accommodate the 1980 land requirements.

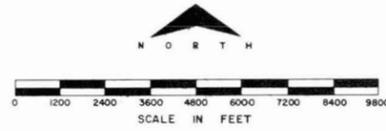
In 1960 there were 11.37 acres of land in use for all urban purposes for each 100 persons residing in the city of Mesa. By 1980 it is estimated that the land-use requirements will be in the ratio of 12.47 acres per 100 persons, and that the city will have attained a population of 130,000. These increased land-use population ratios were arrived at by assuring that more area will be used in all residential categories, industrial, and in parks and playgrounds.

#### Future Generalized Land Use - 1980

Plate 11 shows a suggested generalized land-use pattern that should be attained for the future Mesa urban area. The map reflects the existing land-use patterns and trends, zoning, and is adjusted to meet the future 1980 land-use needs.

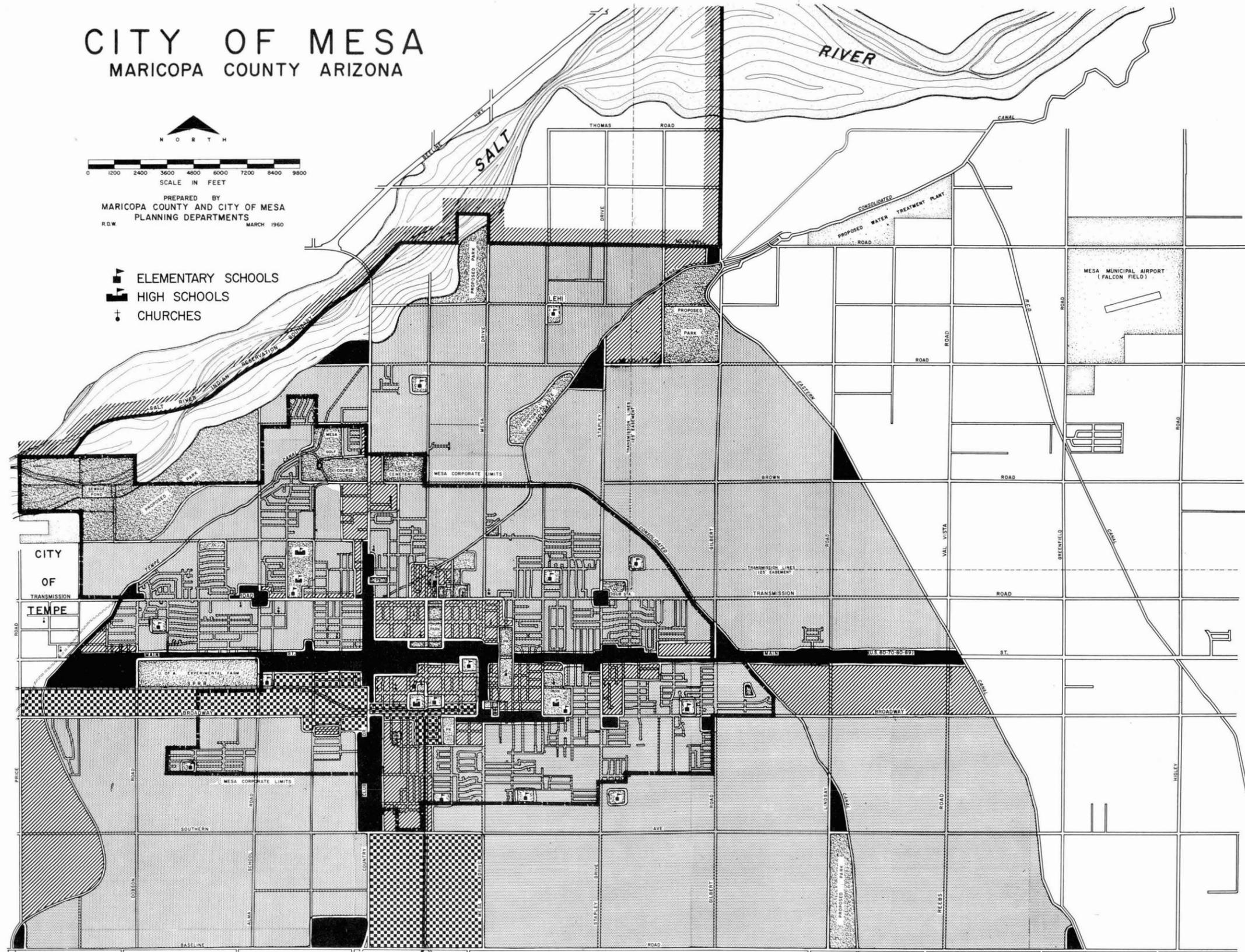
# CITY OF MESA

MARICOPA COUNTY ARIZONA



PREPARED BY  
MARICOPA COUNTY AND CITY OF MESA  
PLANNING DEPARTMENTS  
RDW MARCH 1960

- ELEMENTARY SCHOOLS
- HIGH SCHOOLS
- CHURCHES



## GENERALIZED LAND USE-1980

PLATE NO. 11

### LEGEND

- |  |  |  |                      |
|--|--|--|----------------------|
|  | RESIDENTIAL<br>LOW DENSITY<br>5 TO 20 PERSONS PER ACRE       |  | COMMERCIAL           |
|  | RESIDENTIAL<br>MEDIUM DENSITY<br>20 OR MORE PERSONS PER ACRE |  | INDUSTRIAL           |
|  |  |  | PUBLIC & SEMI-PUBLIC |

The various district boundaries as shown on this plate should not necessarily be considered fixed but should serve as a long-range guide in development of public policies relating to land use and utility services. This plan should also be used as the basis for analyzing future zoning requests. The map does not attempt to locate all the neighborhood commerce needed for 1980 at this time, as such determinations should be made at the time land is subdivided. The few commercial areas shown outside the existing corporate boundaries are good examples of where neighborhood shopping facilities could be located. Several of these shown are on or near the intersection of major arterials and utilize to good advantage small parcels of land resulting from the location of irrigation canals thus providing the residential properties added protection from traffic lights, noise and dust generated from commercial activity. Other small shopping centers and community-type shopping centers will be needed but should be confined to the boundaries of each section of land or officially designated major thoroughfares.

Several areas on the map have been designated for possible park locations. Other sites will be necessary but will be recommended at a later date together with a comprehensive school, park and recreational report.

#### Methods of Obtaining Pattern

One of the objectives of the planning program for Mesa is to provide the community with the tools and the guidance necessary to carry out the plan.

Private development is controlled and guided principally by zoning, subdivision control, and building codes. Public development is guided primarily by the plan and public policies regarding extension of urban services (e.g. utilities).

The zoning ordinance provides for the control of private development and use of land in such a way as to avoid congestion, insure public safety, insure adequate light and air, prevent overcrowding of the land and undue concentration of people, and otherwise promote the health, safety, morals, and general welfare of the citizens of the community. A zoning ordinance includes a text of regulations and their applications to the land by means of a districting map. Sound zoning is based upon knowledge of existing land use, judgment of existing and future land-use needs, and guidance from the Comprehensive Plan. As part of the planning program, the zoning ordinance will be revised. One of the purposes of a zoning ordinance is to implement a plan of land use.

The subdivision control ordinance provides for the orderly growth and harmonious development of land. Its objectives are to coordinate local street systems, develop stable neighborhoods, secure adequate sites for schools, parks, and other public facilities, secure home sites of maximum utility and livability, and convey land by accurate legal description.

If the city's annual budget is to help progressively in carrying out the plan, its preparation must be integrated with the planning process. The long-term capital improvements program is the link between the Comprehensive Plan and the annual spending for capital improvements. It is, in effect, the financial plan which accompanies the physical plan. By means of capital proportionment programming, various proposals embraced in the Comprehensive Plan can be gradually accomplished over a period of years.

The following items are methods and procedures which should be adopted for implementing the plan:

1. Adopt the plan.

2. Adjust present zoning regulations to coincide with the suggested future land-use plan where such may be warranted.
3. Adopt subdivision rules and regulations.
4. Annual preparation and review of a five-year capital improvement program.
5. Make provision to keep the city plan up to date.

APPENDIX

APPENDIX TABLE 1

INDEXES OF EMPLOYMENT BY MAJOR ECONOMIC ACTIVITY  
 MESA AND VICINITY  
 1950, 1958, 1959, and 1960  
 (1950 = 100)

Activity	Index			
	1950	1958	1959	1960
Total employment	100	163	181	186
Total non-agricultural, wage and salaried	100	165	188	196
Manufacturing	100	242	306	323
Mining and quarrying	100	178	178	267
Contract construction	100	133	173	187
Transportation, communication, and public utilities	100	178	178	189
Wholesale and retail trade	100	183	205	215
Finance, insurance, real estate	100	217	261	261
Service	100	157	169	169
Government	100	110	126	130
All other non-agricultural (Prop., unpaid family workers and domestics)	100	191	225	225
Agriculture	100	125	100	100

Source: Computed from text Table 3.

APPENDIX TABLE 2  
 COMPOSITION OF NON-AGRICULTURAL WAGE  
 AND SALARIED EMPLOYMENT  
 MESA AND VICINITY  
 1950, 1958, 1959, and 1960

Activity	Per Cent of Total Non-Agricultural Wage & Salaried Employment			
	1950	1958	1959	1960
Total non-agricultural wage and salaried employment	100.0	100.0	100.0	100.0
Manufacturing	8.4	12.3	13.7	13.9
Mining and quarrying	1.2	1.3	1.2	1.7
Contract construction	10.2	8.2	9.4	9.7
Transportation, communication, and public utilities	6.1	6.7	5.8	5.9
Wholesale and retail trade	29.7	32.9	32.5	32.4
Finance, insurance and real estate	3.0	4.1	4.3	4.2
Service	24.2	23.0	21.6	20.8
Government	17.2	11.5	11.5	11.4

Source: Computed from text Table 1.

APPENDIX TABLE 3  
 RETAIL TRADE, CITY OF MESA\*  
 1954 and 1958

	1954	1958	Increase, 1954-1958**	
			Mesa Per Cent	Maricopa Per Cent
Establishments:				
Total (number)	251	313	25	21
With payroll (number)	179	227	27	31
Sales: (\$000)				
Total, all establishments	34,556	47,602	38	49
Establishments with payroll	32,842	46,120	40	52
Payroll, entire year (\$000)	3,570	5,038	41	52
Paid employees, workweek ended nearest November 15:				
Total (number)	1,307	1,853	42	51
Full workweek	1,071	1,529	43	47
Active proprietors of unincorporated business	249	296	19	24

\* The physical area for which the above data were collected in 1954 and 1958 differ slightly because of annexations and other boundary changes. This fact should be taken into consideration when these data are evaluated.

\*\* Retail trade as used here includes establishments in major groups 52 through 59 of the Standard Industrial Classification Manual, 1957, issued by Bureau of the Budget. It is therefore comparable directly to the "Retail Trade" classification in the Economic Analysis and Projection for Phoenix and Maricopa County, p. 88.

Source: U. S. Department of Commerce, Bureau of the Census, 1958 Census of Business, BC58-RA3, p. 3-8; and 1954 Census of Business, R-1-3, p. 3-6.