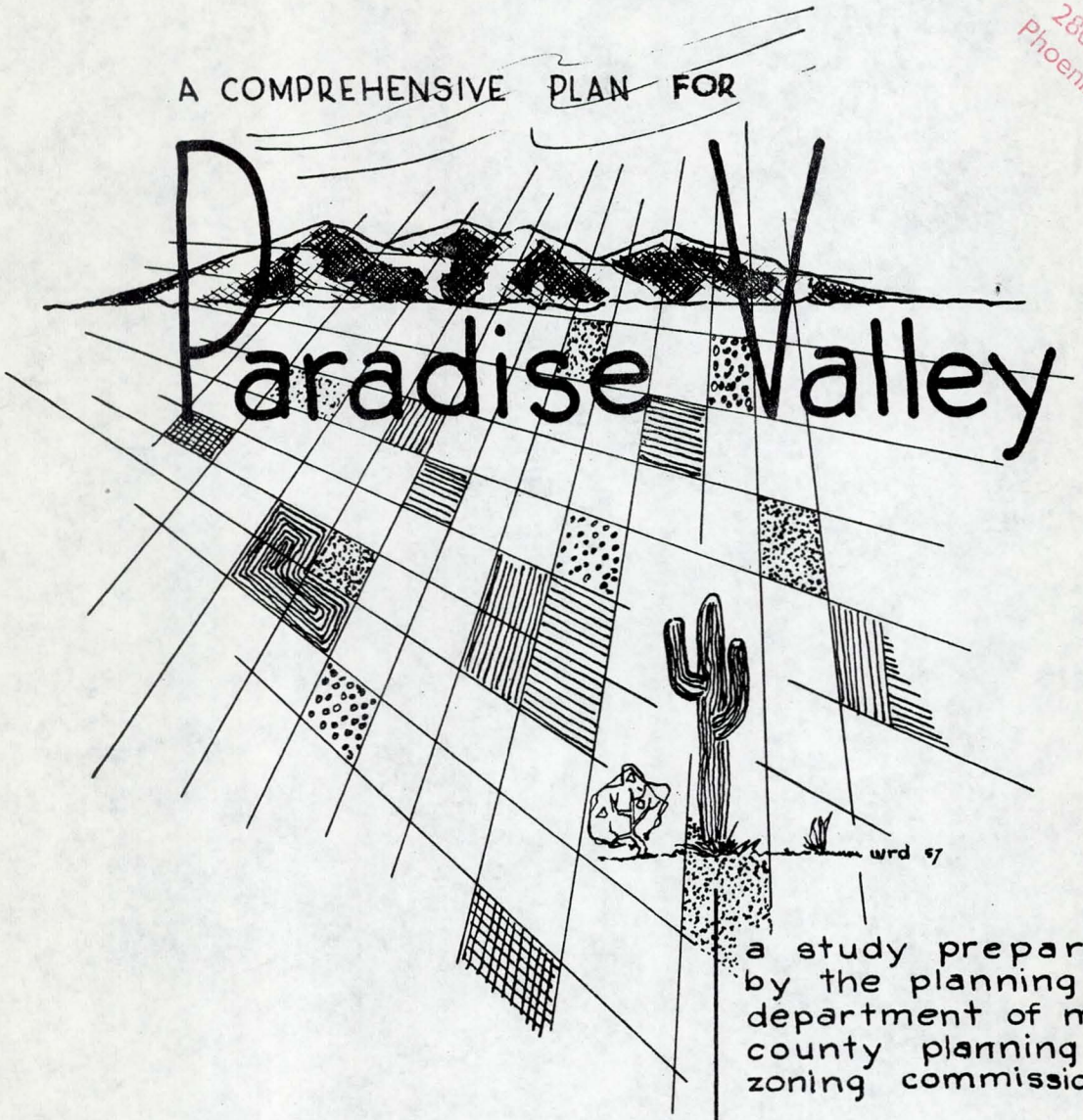
A COMPREHENSIVE PLAN

FOR

P A R A D I S E V A L L E Y

A COMPREHENSIVE PLAN FOR

Paradise Valley



a study prepared by the planning department of maricopa county planning and zoning commission.

june 1957

maricopa county , arizona

A COMPREHENSIVE PLAN FOR LAND-USE IN PARADISE VALLEY

MARICOPA COUNTY, ARIZONA

prepared for the

MARICOPA COUNTY PLANNING AND ZONING COMMISSION

by the

MARICOPA COUNTY PLANNING DEPARTMENT

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June 1, 1957

Maricopa County Planning
and Zoning Commission
103 West Jefferson Street
Phoenix, Arizona

Gentlemen:

I am presenting, herewith, for your consideration a report on the growth and development of the Paradise Valley area of Maricopa County along with recommendations for control of future development in the Valley. The report has been prepared as an aid in making decisions concerning future land-uses in this important part of Maricopa County.

The basic work on the study was done by staff members Stanley K. Dabrowski, Planning Analyst II, and William R. Dedrick, Planning Analyst I, of the Advance Planning Section of the Department. Economic analysis and population forecasts have been prepared by James Gillies, Planning Department Consultant.

Yours sincerely,

R. R. McGrew
Director

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INTRODUCTION

The section of Maricopa County known as Paradise Valley covers an area of 210 square miles on the eastern and north edge of Sunnyslope and Scottsdale. It extends from the Arizona Canal and the Phoenix Mountains on the south to Cave Creek on the north; and from the McDowell Mountains on the east to the Foot Hill Mountains on the west. Urban development in the Valley has been relatively slight except in the southern portion near Scottsdale and eastern area between Cactus and Union Hills Drive; but as the city of Phoenix expands more and more people will be looking to Paradise Valley for their future homes. This is not surprising since it is a beautiful region of rugged mountains, sloping hills and massive desert - one of the most desirable residential regions in the Greater Phoenix Area.

Lovely as it is, Paradise Valley still creates numerous problems for home-owners. Since it is surrounded by mountains, the floor of the Valley is a veritable lake bed for the various rivers and washes that lead out of the hills. Fortunately the volume of rainfall is low during most of the time, so the area remains dry; but on the occasions when there are heavy rains, flooding is the result. Normal drainage of the area is to the southwest to the foot of the Phoenix Mountains and from the mountains to the southeast along the Arizona Canal. Problems of flooding can, of course, be controlled by appropriate canals and open drainage areas.

Paradise Valley is currently a matter of pressing interest for the residents of Maricopa County, and more particularly for the County Planning Commission because as the Greater Phoenix Area develops it is apparent that Paradise Valley will develop along with it. Until the present time (1957), most of the area has been zoned to encourage the construction of homes on large lots and there has been no industrial and very little commercial zoning. The question which the Commission must decide and decide very soon, is whether the present pattern of development in Paradise Valley - namely large lot zoning and restrictions on industry - should be continued. The future of the area rests in the hands of the Commission. At the present stage of development of the Valley it is possible to enact controls which can create almost any type of future which seems appropriate for the area. It is the purpose of this report to present the various factors which the Commission may wish to consider in developing their recommendations. One thing is very certain: It is now time to consider the overall development of the Valley and to make the decisions which will aid in controlling that development during the next few years.

I. The Relation of Paradise Valley to the Greater Phoenix Area

Paradise Valley is physically an integral part of the Greater Phoenix Area. It is also an integral part of the area economically. As Phoenix grows and develops, so must Paradise Valley. The future of the Valley and of Phoenix are one and the same thing.

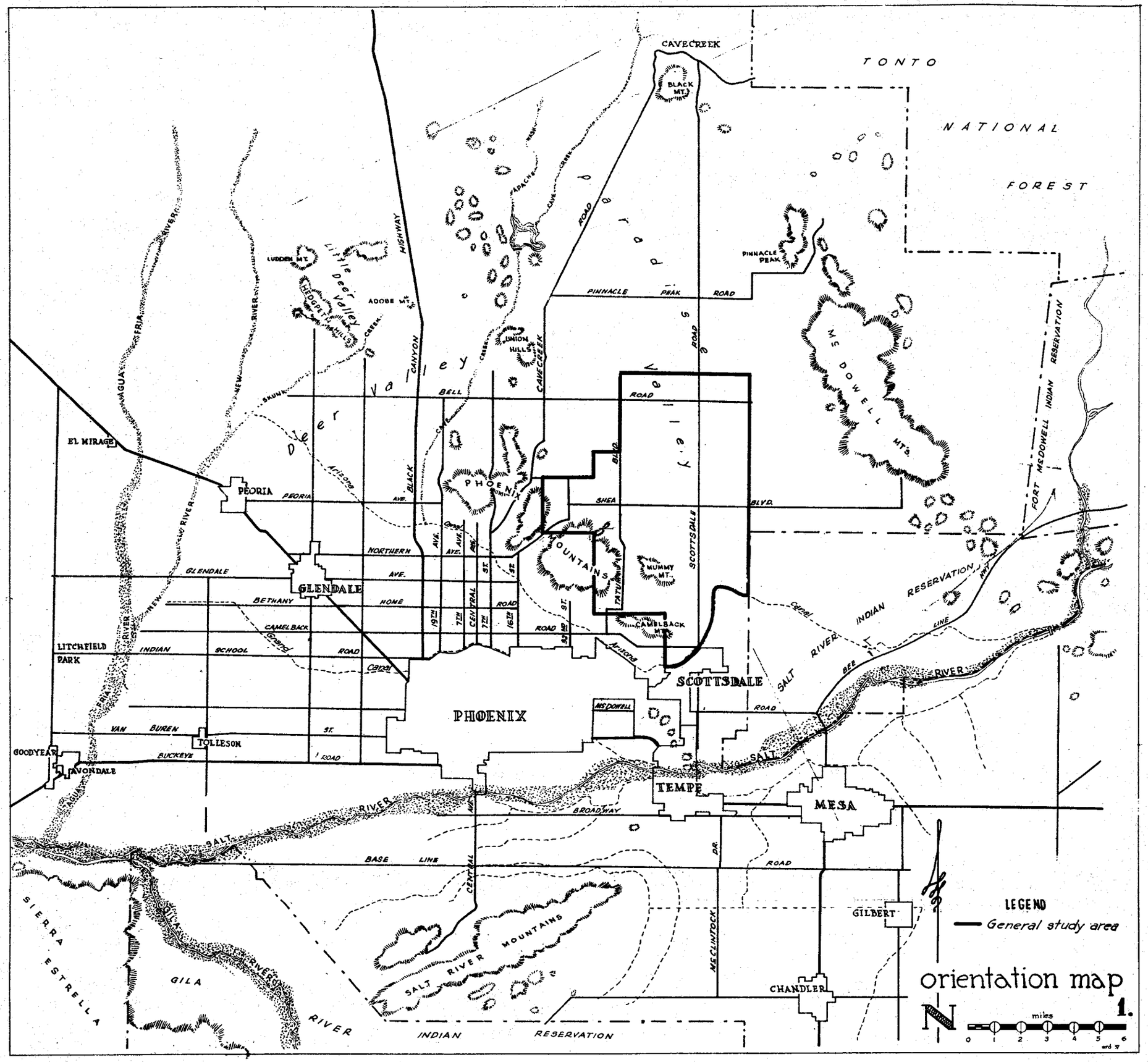
There is little question that Phoenix is undergoing and will continue to undergo tremendous growth and development. The past decade has witnessed an influx into Phoenix of many major industries, new commercial establishments and, of course, thousands of people. There is every likelihood that this expansion will continue and as it does more and more of the physical land area of Phoenix will be developed. A question which everyone interested in the growth and development of the region must be concerned with, is "where will the new expansion physically take place?" Will it be to the south of Phoenix, will it be in Deer Valley, will it be absorbed in the built-up areas of the city, or will it be in Paradise Valley? One great advantage of the Phoenix region is that there is lots of room for physical expansion. It is merely a question of directing development in such a manner that there will be the most efficient use of land and the development of the type of city that people of the region will be proud and pleased to live in.

The problem, therefore, is one of choice. Various sections of the region can be developed in completely different manners because undoubtedly there is enought physical space available to accommodate all the increase which may be expected to take place.

Just as it is a fair assumption that the population of the Greater Phoenix Area will increase substantially in the next decade and that with the increase there will be concommittant increases in industry and commercial operations, it is quite possible to assume some of the characteristics of the new population. The bulk of the new population will be in the middle

income bracket since they will be supported by work in the new industry, there cannot be a great increase in population; therefore, it is appropriate to assume that the bulk of the increase will be in the income bracket appropriate for skilled factory workers. There will, of course, be many other newcomers in the entire range of incomes but the bulk of the increase will be in the middle income range. As a result the majority of the population increase will demand medium priced homes and, therefore, the great press for housing will be of the small or medium tract type. There will be other demands, but the bulk will be very similar to that now being constructed in Maryvale. The increase in population in Phoenix, therefore, is going to be supported primarily by industry. The question of importance is, "where should that industry and the housing for the people who work in that industry be located?" There is room for it in many sections of the Greater Phoenix Area. Should part of it go to the Paradise Valley region?

Before answering this most crucial question it is important to quantify the extent of development which Phoenix is going to undergo in the next decade. Since changes in land-use requirements in the area are going to be associated with changes in population the most satisfactory starting point for detailed analysis is prediction of population growth in the region.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MUMMY MT.
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7th Ave.
7th St.
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LITCHFIELD PARK
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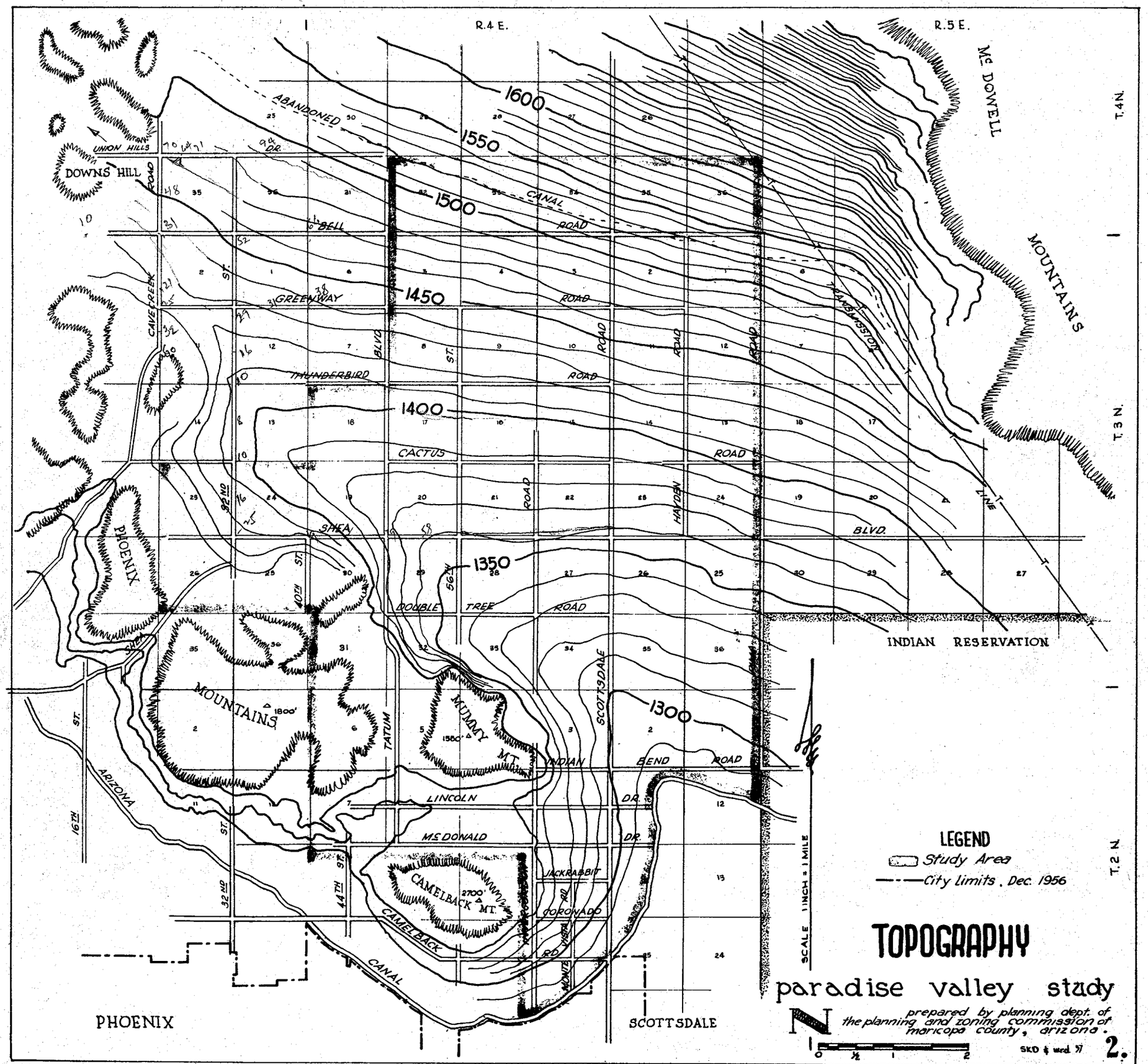
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McDONALD DR.
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TATUM BLVD.
SCOTTSDALE ROAD
HAYDEN ROAD
McDOWELL MOUNTAINS
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PHOENIX MOUNTAINS
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2700'
INDIAN RESERVATION
PHOENIX
SCOTTSDALE
LEGEND
Study Area
City limits, Dec. 1956
SCALE 1 INCH = 1 MILE
TOPOGRAPHY
paradise valley study
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Population Growth

One of the immediate results of the rapid growth which Arizona has been undergoing in the past decade is the very rapid increase in the size of major urban areas within the State. By 1953 Phoenix contained as great a population as one-half of all the State in 1950, and it is still growing. Consequently, much of the good developable land and the vacant areas immediately adjacent to the City of Phoenix have been developed for housing, commercial and industrial sites, and as the population continues to increase more and more land in the surrounding area is being brought into urban use. Much of the expansion is taking place in Maricopa County and, therefore, control of this rapid urbanization movement and planning for further changes comes under the jurisdiction of the Maricopa County Planning and Zoning Commission. One of the areas which has, so far, been relatively undeveloped is the Paradise Valley region on the outskirts of Phoenix and, therefore, it provides an excellent opportunity for careful planning and control in order to assure that the area is developed in a way which will assure the maximum use of the land and proper protection for property owners in the area. However, effective planning for this region depends on the nature and type of pressures which are going to develop for the use of the land, and the most effective pressure is that of population. In other words, before an effective physical plan for Paradise Valley can be developed, it is important to ascertain the potential population growth which the area is expected to accommodate. Projections of population are made in the next section.

III. Forecasted Population for the Greater Phoenix Area

It is very difficult to make predictions of Future population growth for Paradise Valley on the basis of past and current population in the area for the simple reason that the Valley has been practically uninhabited. (See map 3)

Projections based on the current population are impracticable. However, on the basis of projected populations for the State, County and City evidence can be obtained which makes possible valid predictions of the future population of Paradise Valley.

Forecasted Population for the United States, Maricopa County, Phoenix Area and the City of Phoenix*

Year	United States	Arizona	Maricopa County	Greater Phoenix	Phoenix**
		(000)	(000)	(000)	(000)
1910	92,396	204	-----	-----	11
1920	106,455	334	-----	-----	29
1930	123,072	436	151	-----	48
1940	131,954	499	186	120	65
1945	132,481	594	-----	-----	-----
1948	146,093	690	-----	-----	-----
1950	151,234	750	332	230	107
1952	155,761	871	-----	-----	-----
1954	161,197	993	480	320	144
1955	164,991	1,050	500	340	153
1960	177,883	1,348	680	455	200
1965	190,991	1,660	830	601	264
1970	205,246	1,986	1,010	710	312
1975	220,794	2,327	1,500	850	374

These projections are based primarily on extension of past population growth with an assumed increase in the rate of

*These are at best rough estimates; but they serve the purposes of this report. Much of the information is based on H. C. Nielson, Population Trends in the United States Through 1975 (Stanford Research Institute, 1955).

**These data are for the physical area of the city which has continuously changed because of annexations.

growth because of the increasing rate of development in the area. Since projections are for somewhat distant periods it is impracticable to make detailed studies to check their exactness, but it is possible, and important, to consider whether or not the forces which were responsible for population growth in the past are likely to continue in the future. The most important growth forces in Arizona during the past fifteen years have been:

1. Climate: The Phoenix area has always been an important tourist and health resort. During the winter season the population increases substantially and this increase supports an extensive number of service trades, the employees of which make their home in Phoenix throughout the year. However, the proportion of total income payments in the State of Arizona in 1952 for trade and services was only about the same as throughout the United States. This suggests that as long as the area serves as an important vacation and health center, there will always be jobs created by the tourist industry. It also suggests, however, that at the present time the proportion of income created by the vacation trade is not as great as might at first be expected. The climate of the area is also responsible for another major source of income, namely agriculture. In 1952 18.5 per cent of income payments in Arizona were the result of agricultural production. Although there is

evidence to indicate that this proportion of payments will increase, it is not an important population growth factor.

2. Government: The heavy expenditures by the federal Government in Arizona on military establishments has been an important growth factor in the past, and probably will continue to be important in the future. Income from this source in Arizona is above the average for the nation by some 5 per cent.

3. Manufacturing: In 1956 income from manufacturing in the state of Arizona was much lower than the average throughout the United States; and yet, in the past few years manufacturing industries have boomed in Arizona and particularly in the Phoenix and Tucson areas. In spite of the activity, however, much manufacturing is still quite new in the state. The only reasonable conclusion which can be drawn from an examination of the rates of growth of manufacturing in the Phoenix area, and the present relationship of manufacturing to other economic activity within the State, is that manufacturing is bound to increase, not only substantially, but tremendously, within the next two decades.

Percentages and ratios, of course, are only indices of the past. Manufacturing will not increase unless the conditions favorable to manufacturing are present. A short review of the factors necessary for successful industrial operations indicates that

not only are they present in the Phoenix region, but that they are present in an exceedingly favorable manner. There is ample amounts of level land, a good climate, favorable living conditions, large amounts of power, a large labor, adequate transportation facilities, and a general attitude that is favorable to the establishment of industry in the region. For all these reasons, plus the general fact that much industry is moving west, it is reasonable to expect that manufacturing will expand tremendously in the Phoenix area.

It is apparent that all the factors necessary for population growth are present in ample degree in the greater Phoenix area, but that the most important force is going to be, as it has recently been, manufacturing expansion. This expansion in the industrial base of the area has important implication for land planning in Maricopa County.

IV. The Implications of Manufacturing Expansion for Planning in Phoenix

If the population growth which predicted for Maricopa County in the next twenty years is dependent upon a general expansion of the industrial base of the area, planning must take this into consideration. The type of zoning which is going to be needed is that which can help facilitate the development of inter-related areas where industry, commercial and residential developments can be encouraged together. The basic planning problem in the County is in

facilitating such development.

With an estimated increase of 300,000 families it is expected that they will be supported in the following manner:

Manufacturing:	80,000
Services relating to manufacturing:	200,000
Retired and others:	20,000

This means that only 20,000 families need be considered in a planning outside of industrial areas. Of this 20,000 it is reasonable to assume that 75% of them will be in the modest income bracket, and 25% or 5,000 will be exceedingly wealthy or retired. Let us assume, however, that these figures are low, because average family size is smaller in older people, and plan for 10,000 families in the upper income bracket who are living on job earnings.

This tentative distribution gives a good basis for planning. It indicates that the heavy growth of the future is certain to be in areas where manufacturing plants can be established and that other developments will be secondary.

A careful perusal of the various regions open to expansion in the vicinity of Phoenix indicate that the Deer Valley area is the one where the bulk of this development should be encouraged. It has natural industrial sites, there is good land for residential development and the area is effectively serviced by railroads and highways: It is the appropriate direction to encourage much of the on-coming Phoenix expansion.

V. Population Distribution and Land Planning

It has been estimated that the population increase in Maricopa County by 1975 will be approximately 1,000,000

increasing the total population to about 1,500,000. The important question is where will these additional 1,000,000 live. At present, 1957, the 500,000 people in the County are clustered primarily around the Greater Phoenix area (340,000) and it is reasonable to expect that this same pattern will be repeated in 1975. Therefore, with a population of 1,500,000 it can be expected that approximately 1,000,000 of them will live in areas adjacent to the city. Since the best land for development within its limits has already been used, it is evident that the bulk of this population increase will have to be absorbed in the areas surrounding the city. A major question concerning planners is, therefore, where should this population increase be encouraged, because it is evident that with the amount of land available in Deer Valley, and Paradise Valley, and to the south and west of the community that the problem is not one of finding space, but rather of directing development in such a manner that land will be placed into its highest and best use. In other words, the problem which is facing so many communities, namely, finding physical space to absorb the increased population will not be present in Maricopa County. The task of directing where population increases should go is not in itself an easy one and even with far-sighted planning and zoning it cannot always be achieved to the satisfaction of everyone.

In order to evaluate various policies for the use of land it is important to consider the principles governing the allocation of land and the functions of zoning and planning with relation to these principles. First, land ought to be

used in a manner to yield the highest economic return. In the last analysis the highest and best use of land must be judged in terms of the earnings which the land will yield.

If planning or zoning attempts to stand in the way of such uses, the planning and the zoning will definitely yield to the superior forces of the market place. Secondly, the highest and best use to which land can be placed throughout different areas differs. One area may be appropriate for an inter-related development of industrial, commercial and residential uses, whereas another area may be proper for a specific type of development. The task of the planner is to try to tell in advance what developments should be encouraged and to zone in such a way that the desired use of land occur. Actually, this task is not as difficult as it may appear at first sight because different areas lend themselves to different types of development. For example, industrial land must be level, serviced by railroads and highways, closely associated with major utility lines, and in a district where the employees can find adequate housing in a price range they can afford, not too far from the plant. Clearly, a major industrial development would not be appropriate in a deluxe high priced residential area.

Granted these points then the function of zoning and planning comes down primarily to one of providing a framework within which the natural forces of the market will effectively allocate land, and of protecting the public interest in land development. The latter point refers primarily to maintaining appropriate open spaces for parks, playgrounds and schools, and

of protecting property values by preventing the intrusion of non-conforming uses into various areas. In addition, the planning must provide for a proper inter-relationship of land uses, not only in terms of the quantity of different purposes, but also in assuring that land uses are related in such a manner that traffic congestion, and other wastes, do not occur.

Bringing these generalizations to a specific problem it is apparent that the situation applies fully to the Phoenix region. There is ample land to satisfy the needs of any projected population increase in the next few decades. The question is simply "where should the population increase?" Since our previous analysis indicates that the increased population will be supported by industrial expansion, and that such expansion should be directed towards Deer Valley, it would seem that every effort should be made to encourage population growth in the Deer Valley area.

VI. The Implications of Population Forecasts for Paradise Valley

At some future time there is evidence that the entire Paradise Valley will be a part of the greater metropolitan area. However, within the next twenty-five years it is likely that only the southern portion of the Valley will be greatly influenced by potential population growth. This is true, only, if planning is such that industry is encouraged to go into Deer Valley rather than Paradise. If there are no controls and industry is allowed to locate at random throughtout the periphery of Phoenix then, of course, there might be some industrial development in Paradise Valley; but assuming that industry is more or less controlled and kept in the Deer Valley region, then only

the southern sections of Paradise Valley will fill up within the next twenty or twenty-five years, from increase generated primarily from other reasons than manufacturing. It is unlikely that there will be enough non-manufacturing induced population increase to occupy the entire area. Therefore, a major policy question becomes: "Should industry be allowed in the Paradise Valley." The answer is no because:

1. There is lots of room for industry in Deer Valley and good industrial sites are available.
2. Land in Deer Valley is appropriate for residential suburban development of the type which is necessary to supplement industrial development.
3. There is some opposition to industrial and general residential subdivision in Paradise Valley. Manufacturing firms are not interested in developing in areas where they are not wanted. There seems little reason to disturb the existing pattern of development, when there are alternative places for such development to take place.
4. It must be recognized that there is a need for protected, large residential developments, and since Paradise Valley south has started in such a manner there is little reason to discontinue the pattern of growth.

It is recommended, therefore, that the present large residential pattern of planning which has been started in Paradise Valley be continued.

While there is evidence of a strong desire on the part of some land owners to develop the southern portion of Paradise

Valley into a middle-or-lower income type subdivision, there is no present or immediately forseeable reason for encouraging or permitting such a development. The Deer Valley Area is the appropriate region in which to encourage such development, and one of the most important ways of facilitating and encouraging the appropriate development of the region is to plan effectively for it now. An integral part of this planning involves keeping industry, and therefore, most small residential subdivisions out of the bulk of Paradise Valley.

Given this analysis and the above mentioned goals for Paradise Valley it follows that the area should be planned for a maximum population approximately of 102,000. This represents about 10.0 per cent of the total population increase which is forecast for the Greater Phoenix Area. Obviously, Paradise Valley could easily absorb a much greater proportion, but there are many reasons as outlined above why it should not. Consequently, the physical planning for Paradise Valley is based on the assumption that a maximum saturation capacity in the planning will provide for a population of 102,000.

VII. Physical Planning for Paradise Valley

A general analysis of the growth and development of the Greater Phoenix Area indicates that there is little reason to encourage industrial expansion in Paradise Valley. Indeed, it would seem to be a poor use of the physical resources in the region to do so. This does not mean, however, that Paradise Valley should not be planned to assure that there will be an orderly development of the Valley. Proposed preliminary planning is presented in this section of the report.

Physical Planning Characteristics:

Although Paradise Valley consists of an area of over 210 square miles it is assumed that a 58 square mile area (See map 1) in the south section of the Valley is the appropriate region for broad physical planning since there is little likelihood of the entire Valley being densely populated before 1975.

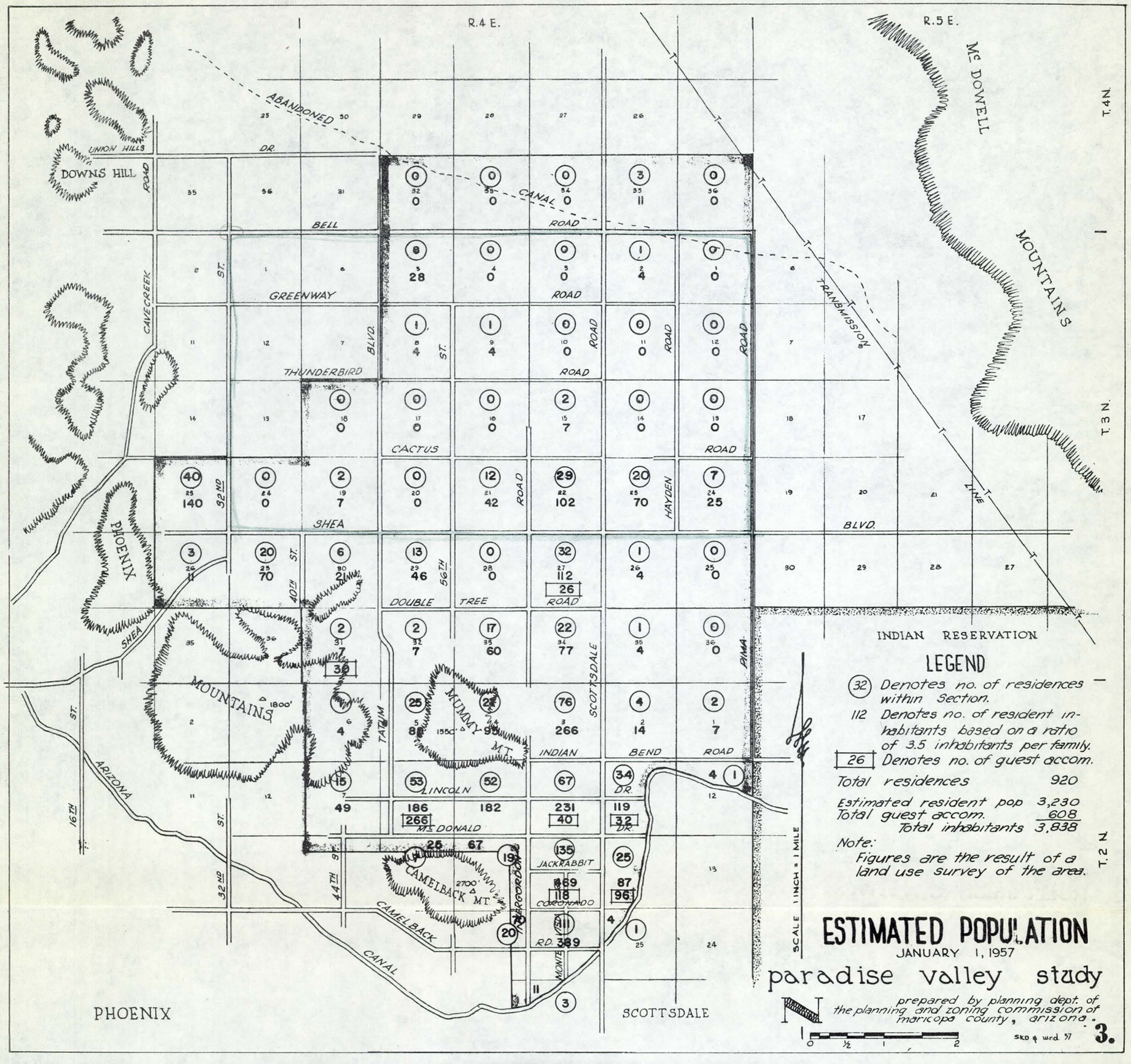
At the present time the above mentioned 210 square miles are zoned as follows:

30 square miles	R-2 D-190 (5 acre parcels)
104 square miles	R-2 D-R (1 acre parcels)
2 square miles	Detail zoning (parcels 1 ac & less)
74 square miles	Unclassified (parcels of all sizes)
210 square miles	

and is developed most extensively in the southern and western sections close to Scottsdale and metropolitan area of Phoenix. The area considered for study is bounded by Pima Road on the east, the Arizona Canal on the south, 40th and 16th Streets on the west and by Cactus Road, 40th Street extension and Union Hill Road extension on the north. The altitude of the region varies from 1290 feet at the canal to 1520 feet at the intersection of Pima and Union Hill Roads. These 58 square miles are zoned more specifically as follows: (See map6).

R-1	711 acres
R-2	31,430 acres
R-3	14 acres
C-2	141 acres
C-3	32 acres
Unclassified	4,520 acres

Since it has been shown that this area is expected to undergo considerable expansion with a population of approximately 102,000 (see map 4) it is important to begin planning for this number of people. It is also important to recognize



LEGEND

(32) Denotes no. of residences within Section.

112 Denotes no. of resident inhabitants based on a ratio of 3.5 inhabitants per family.

[26] Denotes no. of guest accom.

Total residences	920
Estimated resident pop	3,230
Total guest accom.	608
Total inhabitants	3,838

Note:
Figures are the result of a land use survey of the area.

SCALE 1 INCH = 1 MILE

ESTIMATED POPULATION

JANUARY 1, 1957

paradise valley study

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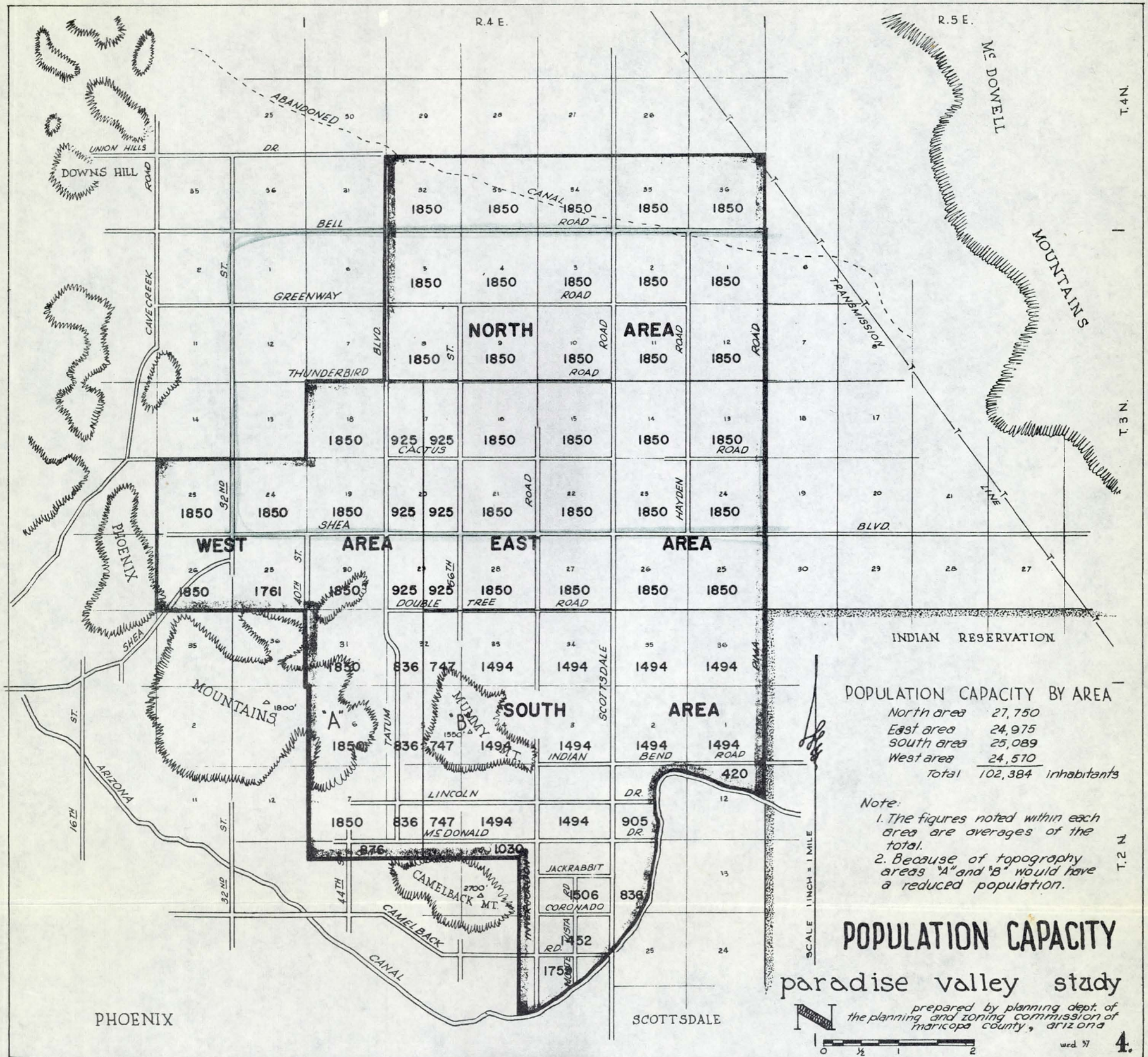

POPULATION CAPACITY BY AREA

North area	27,750
East area	24,975
South area	25,089
West area	24,570
Total	102,384 inhabitants

Note:

1. The figures noted within each area are averages of the total.
2. Because of topography areas "A" and "B" would have a reduced population.

POPULATION CAPACITY

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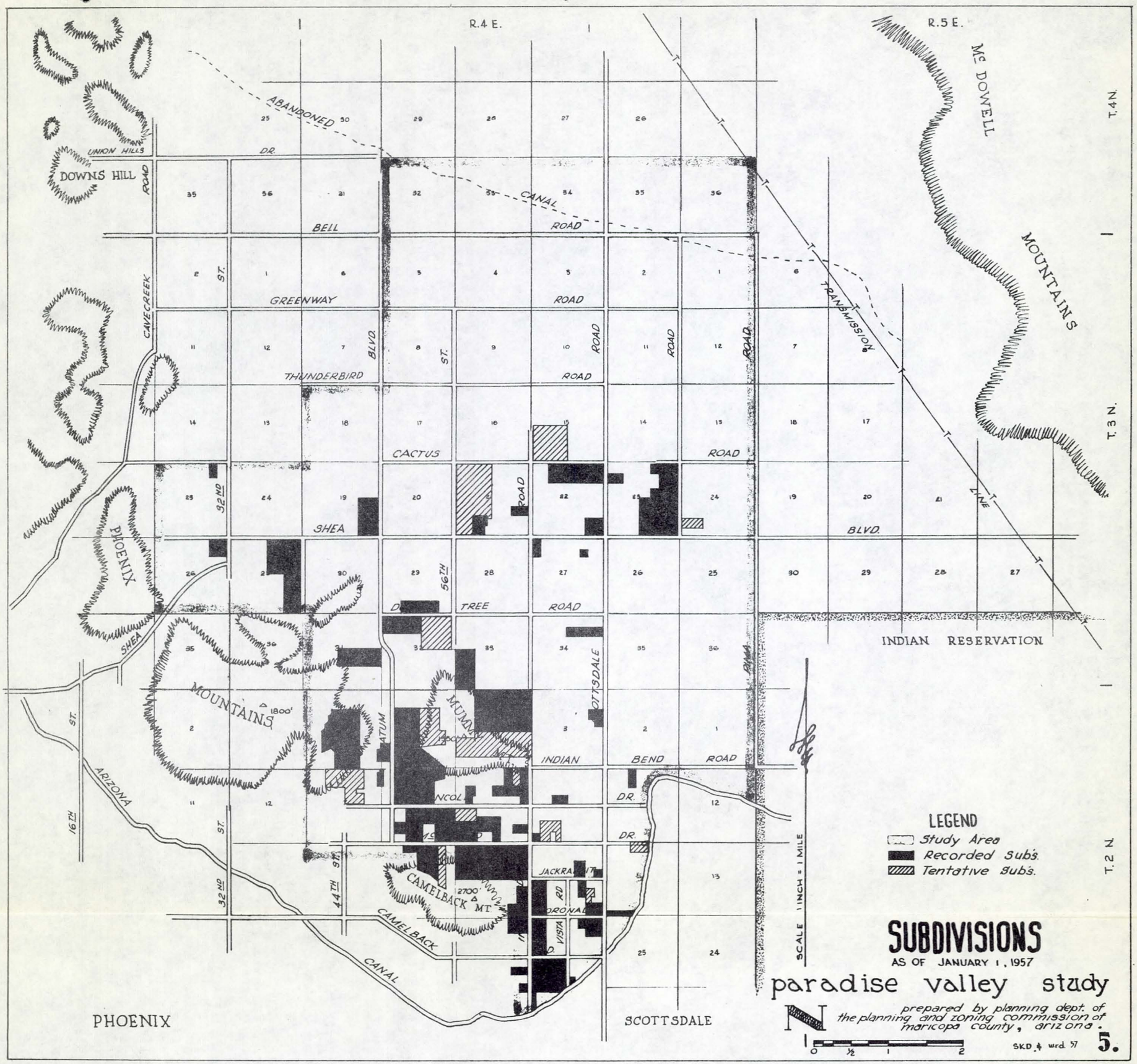
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GREENWAY ROAD
THUNDERBIRD ROAD
CACTUS ROAD
SHEA BLVD.
TREE ROAD
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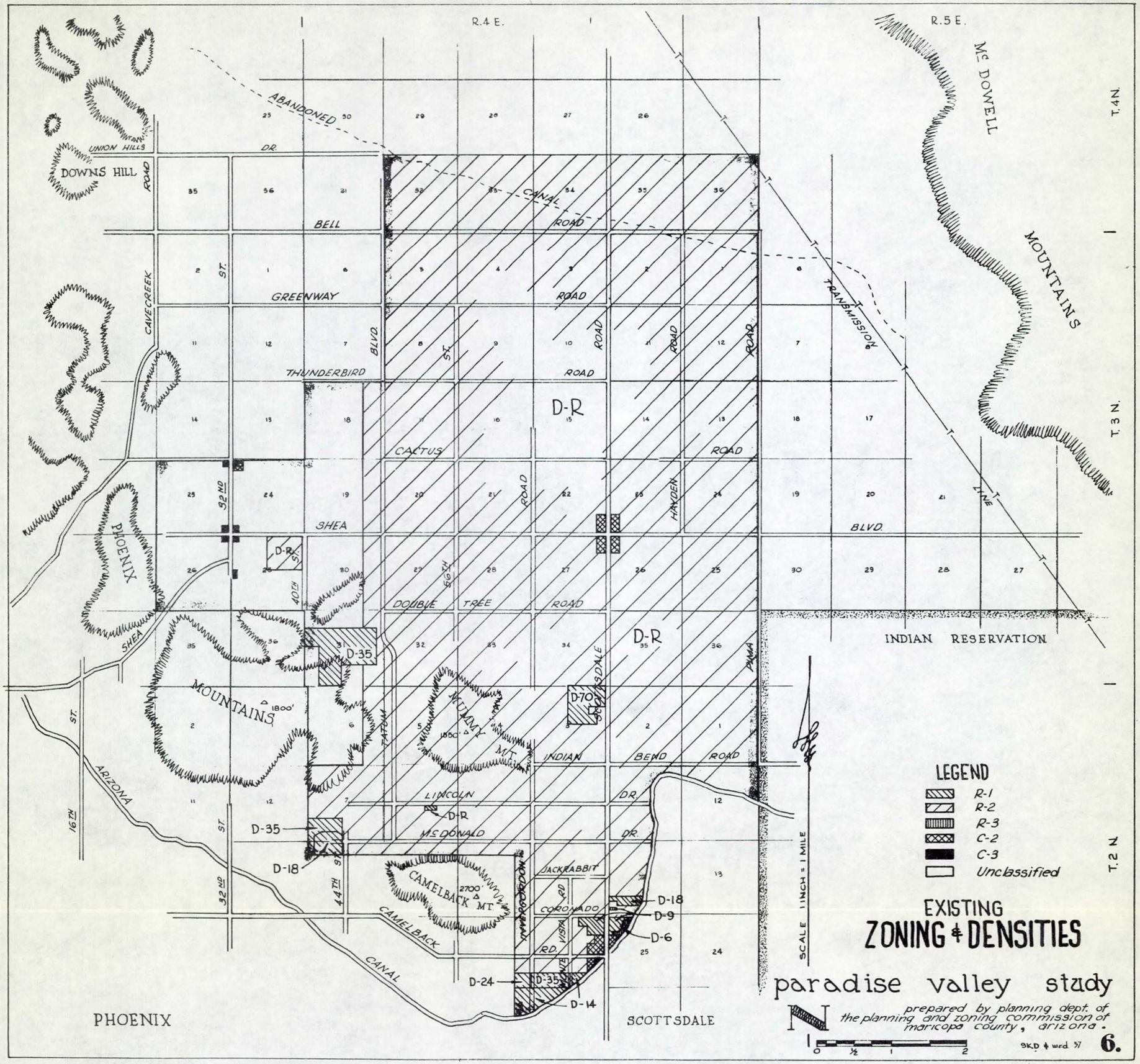
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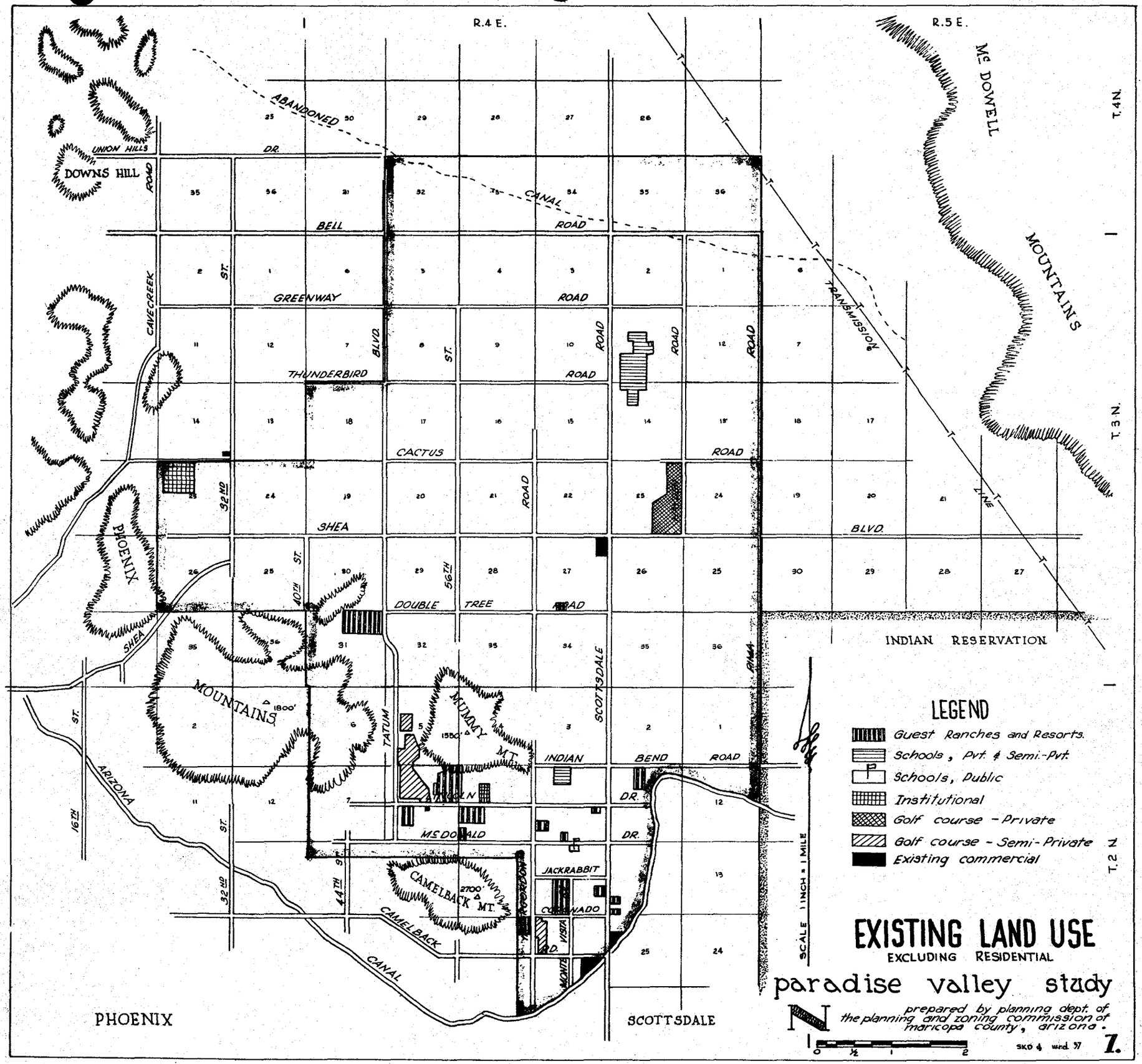
R-1
R-2
R-3
C-2
C-3
Unclassified
SCALE 1 INCH = 1 MILE
EXISTING
ZONING & DENSITIES
paradise valley study
prepared by planning dept. of the planning and zoning commission of maricopa county, arizona.
SKD & wrd 57
6.

that the population potential for 1975 in the area is much beyond 102,000 but that it will be controlled through effective zoning and, therefore, effective planning is possible. If the population is not controlled to a planned size, then, of course, long range general overall planning is almost impossible.

VIII. Physical Land-Use Patterns in Paradise Valley

Although the 58 square mile area selected for intensive study is not at presently completely built-up (see maps 5 & 7) and is held under diverse ownerships it is reasonable to expect that when there are 102,000 people living in the Valley that the land area will be completely utilized. It is the function of the long-range comprehensive plan to indicate how the land in the area may be utilized to provide the highest values and an appropriate pattern of community living. The plan, of course, is based upon two fundamental factors: (1) the analysis of the economic potential of the region which provides a basis for population projections and general indications of the relationship of the planning area to general economic development in the district, and (2) an understanding of the basic type of community which the people who presently live, and who will potentially live in Paradise Valley, actually want. Planning is for the people and must have as one of its major functions the translation of legitimate desires into reality.

The physical manner in which land is used gives a distinctive character to the region. At the present time land in Paradise Valley study area is distributed in the following uses:



EXISTING LAND USE
EXCLUDING RESIDENTIAL

paradise valley study

prepared by planning dept. of the planning and zoning commission of maricopa county, arizona.

1.

Land Use	Acres	Percent
Residential		
R-1	1632	4.5
R-2	370	1.0
Commercial	52	0.1
Industrial	-----	---
Public	5	0.0
Streets	1040	2.8
Vacant	33,749	91.6
Total	36,848	100.0

The inter-relationship of these various types of uses is illustrated on maps 5 and 7. It will be noted that the great bulk of the area is still vacant. Actually, this is very advantageous for planning, since it permits the development of effective plans without the restriction which existing buildings usually cause.[1]

The figures underestimate the proportion of vacant land, because much, and indeed most of the area zoned for residential purposes is vacant.

In planning the future growth of Paradise Valley certain basic principles have been accepted:

1. It should be maintained as a prime residential area. There is no need for industrial development in Paradise Valley within the proposed planning period.
2. Schools, parks and shopping areas must be integrated effectively with residential development to prowide the citizens of the region with the necessary facilities to lead a complete community life.

1. A famous example of a potentially great planning area where there was rapid growth is the San Fernando Valley of Los Angeles. For a discussion of the methods used to plan it and the reasons for the breakdown in planning see Fred Case and James Gillies', "Land Planning in Rapidly Developing Areas: The San Fernando Valley Case", in the Appraisal Journal, January, 1955.

3. A transportation system effectively linking Paradise Valley to the Greater Phoenix Area and inter-linking the various areas within Paradise Valley must be developed.

4. Water and flood problems are of prime concern in the Valley and it is assumed that they will be solved in order that the proposed physical plan may be implemented.[1]

5. The population of Paradise Valley will reach 102,000.

Given these for consideration it is proposed that the following pattern of land-use be established for Paradise Valley:

Residential		
R-1	17,467.0	
R-2	7,572.4	
R-3	18.6	25,058.0
Commercial		
1 District Shopping center	@ 80 ac. = 80 ac	
3 Community center	@ 40 ac. = 120 ac	
25 Neighborhood center	@ 8 ac. = 200 ac	400.0
Streets and Washes		7,548.0
Public Uses		
Schools		
29 Elementary 1-6	@ 10 ac. = 290	
10 Elementary 7-8	@ 20 ac. = 200	
2 High School	@ 40 ac. = 80	570.0
Parks and other (3)		3,098.0
		36,674.0
Existing Commercial acreage		174
		36,848

1. See appendix.
2. For a discussion of the problem of guest ranches, see appendix.
3. Hospitals, community buildings, churches, sports facilities, small aircraft landing fields, etc.

TABLE NO. 1

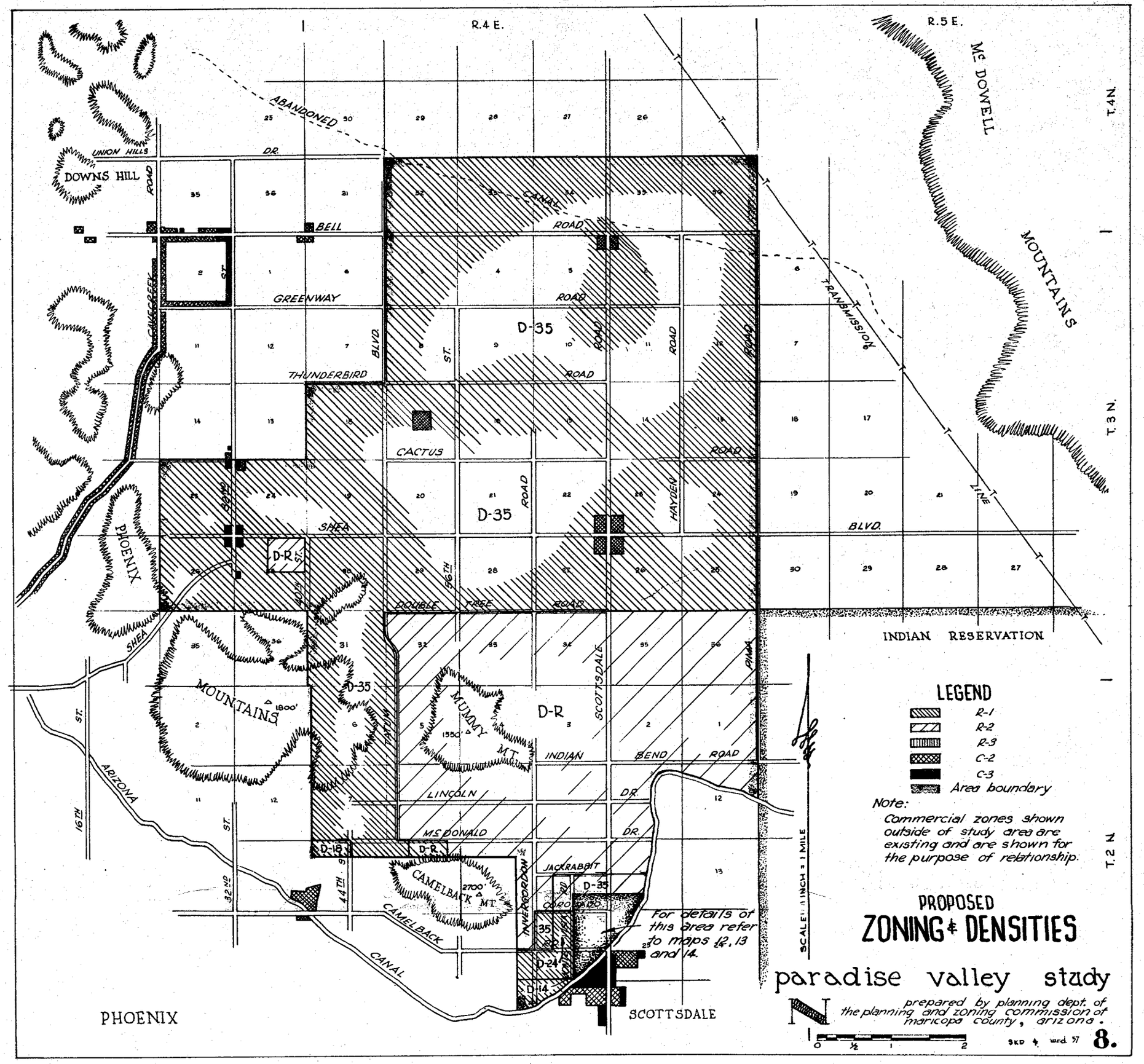
PROPOSED LAND USE AND POPULATION ANALYSIS

(1.)	TOTAL AREA UNDER STUDY	57.6 SQ.MI.	36,848 ACRES

(2.)	(3.)				(4.)		(5.)		(6.)		(7.)		(8.)		(9.)		(10.)		(11.)		
	DENSITIES				USES														*** INHABITANTS		
ZONE	DEN.	GROSS TOTAL OF DEN. AREA		% OF GRAND TOTAL	STREETS AND HIGHWAYS		* CANALS AND DITCHES		** PUBLIC AND SEMI-PUBLIC		INDUSTRIAL		COMMERCIAL AND PARKING		TOTAL OF USES (4-8)		RESIDENTIAL		PER ACRE	AVERAGE PER. SQ. MI.	TOTAL POP. IN DENSITY AREA
		IN ACRES	IN SQ. MI.		ACRES	% OF D. TOT.	ACRES	% OF D. TOT.	ACRES	% OF D. TOT.	ACRES	% OF D. TOT.	ACRES	% OF D. TOT.	ACRES	% OF D. TOT.	ACRES	% OF D. TOT.			
R-1	D-R	80	.13	.22	12.8	16.0	–	–	8.0	10.0	–	–	1	1.3	21.8	27.2	58.2	72.8	3.33	1552	194
	D-35	25,024	39.1	67.9	4,536.7	18.0	756	3.0	2,502.4	10.0	–	–	288	1.2	8,083.2	32.3	16,940.8	67.7	4.27	1,850	72,337
	D-24	240	.38	.65	55.2	23.0	–	–	24.0	10.0	–	–	2	.83	81.2	33.8	158.8	66.2	6.13	2,596	973
	D-18	214	.33	.60	49.2	23.0	–	–	21.4	10.0	–	–	2	.93	72.6	33.9	141.4	66.1	8.16	3,452	1,154
	D-14	129	.20	.35	34.8	27.0	–	–	12.9	10.0	–	–	2.6	1.6	50.3	38.5	78.7	61.5	10.61	4,143	835
	D-10	102	.16	.28	27.5	27.0	–	–	10.2	10.0	–	–	2	2.0	39.7	42.9	60.3	59.1	14.46	5,466	620
	D-9	10	.02	.03	2.7	27.0	–	–	1.0	10.0	–	–	1	10.0	4.7	47.0	5.3	53.0	16.38	5,553	87
	D-8	36	.06	.10	11.5	32.0	–	–	3.6	10.0	–	–	1	2.8	16.1	44.7	19.9	55.3	18.03	6,383	359
R-2	D-R	10,554	16.5	28.6	1,688.6	16.0	316.6	3.0	1,055.4	10.0	–	–	100	.95	3,160.6	29.9	7,393.4	70.1	3.33	1,494	24,620
	D-35	250	.39	.70	45.0	18.0	–	–	25.0	10.0	–	–	2	.80	72.0	28.8	178.0	71.2	4.27	1,945	760
R-3	D-9	6	.01	.02	1.6	27.0	–	–	0.6	10.0	–	–	.4	6.7	2.8	46.7	3.2	53.3	16.38	5,553	52
	D-6	29	.05	.08	9.3	32.0	–	–	2.9	10.0	–	–	1	3.4	13.2	45.5	15.8	54.5	24.9	8,685	393
Commercial		174	.27	.47		32.0															
		36,848	57.60	100.0	6,474.9	17.6	1,072.7	2.9	3,667.4	10.0			403	1.1	11,618.0	32.3	25,056.0	67.7			102,384

* INCLUDES FLOOD CONTROL EASEMENTS AND OTHER BARRIERS NOT PERMITTING HUMAN HABITATION
** INCLUDES PARKS, SCHOOLS, CHURCHES, ETC.
*** FIGURES BASED ON THE AVERAGE OF 3.5 INHABITANTS PER FAMILY

prepared by planning department, maricopa county planning & zoning commission


R.4 E.
R.5 E.
T.4 N.
T.3 N.
T.2 N.
Mc DOWELL MOUNTAINS
ABANDONED
UNION HILLS DR.
DOWNS HILL ROAD
BELL
GREENWAY
THUNDERBIRD BLVD.
CACTUS
SHEA
PHOENIX
D-35
D-R
D-14
D-24
CANAL ROAD
TRANSMISSION LINE
HAYDEN ROAD
SCOTTSDALE ROAD
PIMA
BLVD.
DOUBLE TREE ROAD
INDIAN RESERVATION
MOUNTAINS 1800'
MUMMY MT. 1550'
INDIAN BEND ROAD
LINCOLN DR.
McDONALD DR.
JACKRABBIT
CAMELBACK MT. 2700'
CAMELBACK CANAL
ARIZONA CANAL
INVERCARGILL
PHOENIX
SCOTTSDALE
For details of this area refer to maps 12, 13 and 14.
LEGEND
R-1
R-2
R-3
C-2
C-3
Area boundary
Note:
Commercial zones shown outside of study area are existing and are shown for the purpose of relationship.
SCALE: 1 INCH = 1 MILE
PROPOSED
ZONING & DENSITIES
paradise valley study
prepared by planning dept. of the planning and zoning commission of maricopa county, arizona.
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IX. Residential

The most significant or unique point in the proposed plan for Paradise Valley is the large amount of land held for single-family residential homes. As argued previously, it appears that there is ample room in the Greater Phoenix Area to build homes of a medium price class close to the industrial areas. Since there is no plan for industry in the area of Paradise Valley presently being considered there is no need for low-priced homes. In addition, the area has already begun development as a somewhat exclusive residential region and it seems appropriate to plan the region to continue such development. Therefore, there is an inordinately large proportion of the land held for single-family homes on acre or larger sites. This does not mean, that in the future, as other areas of the Valley develop, that there may not be a shading of zoning in such a manner that on the western side of the Valley - in the area closest to Deer Valley - that there could not appropriately be some lower priced type of development. The present plan is merely for the 58 designated square miles and in this area it is appropriate to zone for the more expensive homes.

An interesting question arises, however, and that is whether or not there will be a sufficient demand for such homes during the next twenty-five years to make such a proposal feasible. Although predictions of absolute sizes of income are always difficult to make relative levels if income does not change much through time. Since in 1955 it was estimated that approximately 11 per cent of the residents of Maricopa County had

incomes in the brackets, that is over $7,000, it is fair to assume that there will always be about this proportion at an income level which can support the purchase of housing of the type to be sold in Paradise Valley. Since the projected increase in the number of families is 300,000 if the 11 per cent figure hold, then 33,000 families will be able to buy homes in Paradise Valley. Since planning is based on only about 29,000 families it is apparent that there will be a demand for housing of the type contemplated in Paradise Valley.

In January, 1957 there were 3,230 inhabitants living in the region and 608 guest accomodations. (See map 3) Land subdivision was such that densities varied from D-6 or approximately 24.9 people per acre to D-70 or 2.07 persons per acre. (map 5) The average population density for the developed parts of the study area was approximately 3.3 inhabitants per acre.

With the proposed development densities will range from D-6 to D-43. (See map 8). It is also expected that zoning for guest ranches will be held to a minimum in the study area. Indeed, there is much to be said for maintaining the zoning of such developments at their present level.

Although the plans for Paradise Valley call for an ultimate population of 102,000 it is unlikely that the population will reach that size by 1975. Rather it is expected that it will approximate 50,000. This does not mean, however, that planning for the entire area is unnecessary. On the contrary, it is absolutely essential to develop and maintain controls which will permit the development to occur in an orderly fashion.

Since there will be a sufficient demand for higher-priced homes to absorb the amount of land zoned for such a development it appears not only to be sound planning but good economics to protect Paradise Valley home values by zoning for a continuation of relatively expensive type development. The map shows this proposed residential land-use.

X. Land-Use: Commercial Purposes

The function of planning commercial uses of land is to assure citizens that they can obtain the maximum services possible from commercial establishments within an area, at the same time the commercial areas are permitted to earn effective returns. In well developed areas there are three types of commercial operations: a central business district for the planning area of Paradise Valley is Scottsdale, and although it is located at the southern end of the Valley, there seems little doubt but that it will continue to be the major shopping region located in the Valley area. Of course, citizens in Paradise Valley will continue to patronize stores in the Greater Phoenix Area for major shopping. It is evident, therefore, that there is no economic reason for creating a new central business in the planned segment of Paradise Valley. This should not be inferred to mean that there cannot be improvements in Scottsdale since the area is presently plagued with narrow streets, inadequate parking and general traffic problems. Indeed, as the population of the Valley increases there is no doubt that the town of Scottsdale will have to face these problems and solve them, if it is to adequately serve the needs of Paradise Valley.

Since Paradise Valley is to be developed with large homesites it is apparent that the automobile is going to be a necessity in every home. The widespread use of the automobile with the concommittant difficulties of parking has already done much to make ribbon type developments practically obsolete. The few parking spaces in front of a store along a busy street are inadequate to sustain a high volume of business for the enterprise and at the same time the congestion caused by constant parking at the curb hinders the free flow of traffic. Fortunately, there is no ribbon-type commercial development in Paradise Valley at the present time and none is contemplated in the plans for the area. Every effort will be made to prevent the development of an ribbon-commercial operations in the area.

Since Scottsdale, which is located south of the Valley, is at present the central business area, and since there will be no ribbon-type development, it is apparent that commercial operations in the Valley will be conducted from shopping centers. The advantages of well-planned and well-located centers cannot be overemphasized. The grouping of stores facilitates shopping and permits the development of adequate offstreet parking spaces. Shoppers need make only one trip when shopping and they are able to complete their purchases in pleasant surroundings with adequate parking. There is no obstruction of the free flow of traffic along major streets by parking.

In order to adequately serve a population of 102,000 people (29,143 families) 1 District shopping center, 3 community centers and 25 neighborhood centers, must be located

throughout the study area. District shopping centers are designed to serve from 30,000 to 40,000 families. Normally such centers have a junior Department store as its major tenant in addition to convenience goods and personal services. Generally speaking it takes 80 or more acres for the successful development of such a center. The community shopping center will need 10,000 to 20,000 families for its support with a variety store as its focal point, complemented by from 20 to 40 other stores in the clothing, hardware, household and appliances line. An excepted standard of 4 acres per 1000 families would mean that community centers be 40 or more acres for each site.

Supplementing the services of the District and community centers must also be neighborhood centers. Again all the arguments favoring center development over ribbon type operations apply. The neighborhood center is much smaller than the community center and their major tenant is normally a supermarket. Primarily these centers " . . . provide for sale of convenience goods - the daily living needs in foods, drugs, sundries, personal services; include 10 to 15 stores; require at least 1,000 families for support and need 5 to 10 acres for a site."[1] On this basis it is proposed that approximately 25 such centers would be developed in the Paradise Valley area.

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1. The Community Builders Handbook, pages 122, 154, 157 and 169.

At the present time in the southern section of the study area there is 174 acres zoned for commercial use. Adjacent to this area, but outside the study area (immediately south of the Canal) there is an additional 190 acres zoned commercial 3 and commercial 2. It is apparent that this is more than enough commercial land for the surrounding vicinity, so it is strongly recommended that no further commercial zoning take place within a radius of at least 2 miles north of the existing commercial regions.

In summary, therefore, it is apparent that approximately 400 acres of land or an additional 226 acres in the Paradise Valley study area should be zoned for commercial uses in the general areas indicated. The distribution of commercial areas is based on three assumptions (1) that the population of Paradise Valley will grow to 102,000; (2) that the City of Phoenix and Scottsdale will continue to be the major shopping centers for the Paradise Valley region, and (3) that the bulk of all shoppers in Paradise Valley will travel to stores by automobile. Essentially many of the problems associated with Planning commercial operations are absent from the Paradise Valley situation. There is no problem of existing ribbon development, of redeveloping a worn-out downtown district, or of planning a rapid transit system. There is every opportunity of developing a carefully integrated plan of residential development and commercial operations which should work extremely effectively to maintain property values in Paradise Valley.

XI. Public Uses of Land

1. Schools

Education and recreation are important elements in any plan. Consequently, it is essential to plan early for appropriate school and park sites, not only in order that land may be acquired before improvements are built on the most appropriate sites; but most importantly in order that general areas may be selected for schools and parks which fit most effectively into the over-all development scheme for the Valley.

There are two types of schools which will be necessary to serve the educational needs of the families in Paradise Valley. They are, of course, elementary schools and senior high schools.

The Arizona school system operates on an 8-4 basis with grades 1-6 as Elementary (lower), and grades 7 and 8 as Elementary (upper) which are included in the elementary school. It is recognized, however, that not all elementary schools in a district will have these two grades, but provision should be made that approximately one out of three be considered for such additional facilities.

Each type of school has different requirements in terms of space needed, just as each type of school performs separate and different educational functions. For this reason adequate standards[1] should be considered at this time.

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1. These standards are based on national figures, Maricopa County Superintendent of Schools Office data, Phoenix Union High School survey of 1954, and individual school districts in the immediate area.

Table No. 2
CAPACITY AND SIZE

Item	Elementary (lower)	Elementary (upper)	Upper & Lower Combined	Senior High
Grades	1-6	7-8	1-8	9-12
Age group	5-12	12-14	5-14	15-19
No. of pupils	600-800	600-1200	600-1200	1200-2500
Amount of land(1)	10 acres	20 acres	30 acres	40 acres
Dist. Traveled	½-3/4 mi.	1½ mi.	½-1½ mi.	2 miles
No. of rooms(2)	26	40	66	83
% of tot. Inhab.	20.5	5.5	26.0	5.0

Actually these standards are reasonably appropriate for Paradise Valley with the exception of distance traveled. In a sparsely populated, or in other words, in an area where the density of population is low, students can travel much further distances. However, it is important to try to locate elementary schools reasonable close to the residential areas they are expected to serve.

In locating schools it is important to remember that schools should serve a threefold function--they are educational centers, they should serve as recreational areas and they should be centers for community operations. School facilities should be so designed and located that they can be effectively utilized by the entire community throughout the entire year.

With a population of 102,000 people in the Valley the following distribution of population may be expected.[3]

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1. Includes playgrounds.
2. Based on 30 pupils per room. (See Union High Survey, pg 286)
3. This is at best a crude estimate which must be adjusted as more exact information on the composition of families and rate of family growth becomes available.

Table No. 3
POPULATION DISTRIBUTION

Range	Age	Population	% of 102,000
Elementary (1-6)	5-12	20,910	20.5
Elementary (7-8)	12-14	5,610	5.5
Senior High (9-12)	15-19	5,100	5.0
Adults		70,380	69.0
Total		102,000	100.0%

On the basis of the proposed zoning densities as shown on Map No. 8 and described on page 30, there will be the need for the following types of schools:

Type	Area
29 Elementary schools (1-6)	290 acres
10 Elementary schools (7-8)	200 acres
2 Senior High schools (9-12)	80 acres
Total	570 acres

NOTE: The eight upper-grade (7-8) elementary schools are included in the 29, (referred to table No. 2).

These estimates include an area for play and recreation equal to the amount provided actual school needs. Consequently, a total of 570 acres of land must be kept for school sites. Proposed sites for the schools are shown on Map 9. The sites which are suggested were selected in relation to the residential development proposed for the Valley as well as in relation to their appropriateness for school development.

This is born out by the following table which shows the area required to support an elementary or senior high school based on the standards of table No. 2.

Table No. 4
School Service Area

Density	Average Inhab. Per Sq Mi	% Inhab. 5-14 yrs	Tot Per Sq Mi	No. Sq Mi Per 900 Students		% Inhab 15-19	Tot Per Sq Mi	No. Sq Mi Per 2000 Students	
				Sq Mi	Students			Sq Mi	Students
D-R	1,552	26.0	403	2.2	887	5.0	78	26	2028
D-35	1,850	26.0	481	2.0	962	5.0	93	21	1998
D-24	2,596	26.0	675	1.4	945	5.0	130	16	2080
D-18	3,452	26.0	898	1.0	898	5.0	173	12	2076
D-14	4,175	26.0	1,086	.8	869	5.0	209	10	2090
D-10	5,466	26.0	1,421	.6	853	5.0	273	7	1911
D-9	5,553	26.0	1,444	.6	866	5.0	278	7	1946
D-8	6,383	26.0	1,660	.6	996	5.0	319	6	1914
D-6	8,685	26.0	2,258	.4	903	5.0	434	4.6	1996

It is absolutely essential that long-range planning be undertaken to secure adequate school sites to serve the population which is bound to come to the Paradise Valley area. One of the major problems facing many cities to-day is the lack of schools, and the difficulty and expense of acquiring school sites in newly developing residential districts.

An important function of a long-range comprehensive plan is to point out what future school needs are going to be and to indicate areas in which efforts should be made to obtain appropriate locations for the future construction of schools.

2. Recreation

One of the more interesting developments of the last fifty years has been the tremendous increase in leisure time. The

40 hour, five day week is a reality for most working people and signs indicate that the working week will be even less in the future. As a direct result people have more spare time and it is incumbent upon the community to provide facilities whereby this time can be used effectively. In most urban communities space for outdoor activity is sadly lacking and in few communities is the recognized correct standard of 10 acres of space for every 1000[1] persons attained.

The provision of open spaces in Paradise Valley is not a complex problem. There is still a great amount of undeveloped land in the district and it is merely a question of selecting the most appropriate for park sites. Because of the general open nature of the area the amount of prepared park space needed is somewhat less than would be the case in a more densely developed area.

On the basis of 10 acres per 1000 inhabitants the following table of standards suggest the numbered types of properties that might be involved in a well-rounded recreational system for a community of 100,000 people.

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1. Municipal Recreation Administration (page 79 & 80) (International City Manager's Association)

Table No. 5
RECREATIONAL STANDARDS

Type	Number	Average Size (in acres)	Total Area (in acres)
Neighborhood Playgrounds	20	5	100
Playfields	4	25	100
Playfields - Parks	2	40	80
Special Recreation Areas			
Athletic Field	1	20	20
Golf Course			
Neighborhood Parks	6	15	90
Large Recreation Parks	2	120	240
Reservation	1	250	250
	36		1000

XII. Street Patterns

It is an often neglected fact that streets represent as much as 25 per cent of the total area of some urban centers. In the development of Paradise Valley, because of the low density of housing, it should be possible to cut down this proportion very substantially. On the other hand, it will be necessary, because of the flood conditions, to leave considerable open space for washes. Both these factors were taken into consideration when developing the street system shown on Map 11. Considerable flexibility was possible because at the present time only a limited number of streets are in final developed condition in the Valley. Basically the street system was designed to do three things: (1) facilitate the movement of traffic which wishes to avoid entering into the City of Phoenix proper; (2) provide maximum roads, that is roads which permit fastest travel with minimum accidents, for the citizens of Paradise Valley to use in entering Scottsdale and the Greater Phoenix Area, and

(3) to provide a transportation system which will effectively link various areas of Paradise Valley to assure maximum ease of circulation throughout the Valley. It goes without saying, of course, that every effort possible has been made to eliminate the causes of congestion and traffic jams. The basic road system should be as follows:

1. Expressway: The purpose of the expressway is to bypass the Metropolitan Area on the north side. It permits east-west travel to skirt the urbanized areas of Mesa, Scottsdale, Phoenix, Adobe and Glendale and in doing so it cuts through the northeast corner of the study area. This expressway is, of course, part of the general transportation needs of the entire region and is only incidental to the planning of Paradise Valley. However, since such a highway is absolutely essential it is important to plan for it now.
   The expressway is planned with limited access and therefore interchanges will have to be built at 2-3 mile intervals. Since such interchanges require large amounts of land positive steps should be taken to bring acquiring the right-of-way for the expressway as soon as possible. It should definitely be included as part of the long-run capital improvement program of the Greater Phoenix Area.
2. Major Highways: Highways of 130-160 feet in width are designed to carry the bulk of the traffic throughout the Paradise Valley region. They are located to connect effectively with the major highways leading

into Phoenix, Scottsdale and Deer Valley and their routes have been selected with reference to existing roads, subdivisions and topographical features.

3. Primary Roads: These carry traffic from a particular neighborhood to the highway. They should be adequate to serve this function but they do not have to be designed to carry heavy through traffic. Indeed, if they begin to be heavily utilized by traffic not terminating in a subdivision immediate adjacent to the road, then the road is not serving its function. Such roads should be 80 feet in width.

4. Secondary Streets: These are not considered in an overall study such as this. It is expected, however, that subdivision regulations will require that all subdivision streets tie in effectively with the overall highway and street design.

XIII. Means and Methods of Putting a Long Range Comprehensive Plan for Paradise Valley into Operation.

One of the basic problems in planning rapidly developing areas on the edge of cities is usually the fact that there is no legal powers for such planning to be done. Fortunately, this problem does not arise in the case of Paradise Valley. Since the Valley is an integral part of Maricopa County responsibility for planning is directly in the hands of the County Planning and Zoning Commission, and there is no legal question as to the powers of the Commission to make long range comprehensive plans, and to pass zoning ordinances. In fact, much of the Valley is zoned at the present time. The basic

questions which arise are "To what extent should the Valley be zoned now and in what detail?" "Should specific sites for schools and parks and playgrounds be selected and so zoned as much as twenty years in advance of the time when the land will be actually needed?" "How much commercial land should be zoned now?"

The answer to these questions depends considerably upon the speed at which the Valley actually develops. Clearly it is unnecessary to lay out specific details of development if the development is two decades away. Indeed, in general it is best to use long-range comprehensive plans merely as guides on which to base detailed decisions. It is inappropriate for an over-all plan to specify specific sites for different types of land-use but this does not mean that certain preliminary decisions cannot be made on the basis of a long-range plan.

Basically, the comprehensive plan which is presented here should be adopted as part of the official plan for Maricopa County. By adopting this plan the general pattern for development of the Paradise Valley area is determined and all decisions which must be made affecting the region must then be made in relation to the plan. For example, if a request for industrial zoning was received by the Commission on the basis of this study the Commission could automatically reject it. Similarly, decisions with respect to subdivision of land could be made in relation to the overall growth possibilities for the Valley. When commercial zoning is requested the Commission can appraise the feasibility of the request in relation to the plans for the

development of the region. For example, if a request for commercial zoning in the southern portion of the study were received the Commission on the basis of the study could decide whether or not such zoning was necessary. In general, therefore, the plan provides a framework within which the Planning and Zoning Commission can make informed decisions about the growth and development of the Paradise Valley region.

Other elements within the community should be able to make effective use of the report - particularly park and playground departments and school officials. Although specific sites for parks and/or schools are not established the planned growth pattern indicates the general areas where such facilities should be located, and should provide such agencies with evidence as to where they should select future sites. Similarly, the highway department should be able to use the plan to help design effective street systems in the Valley area.

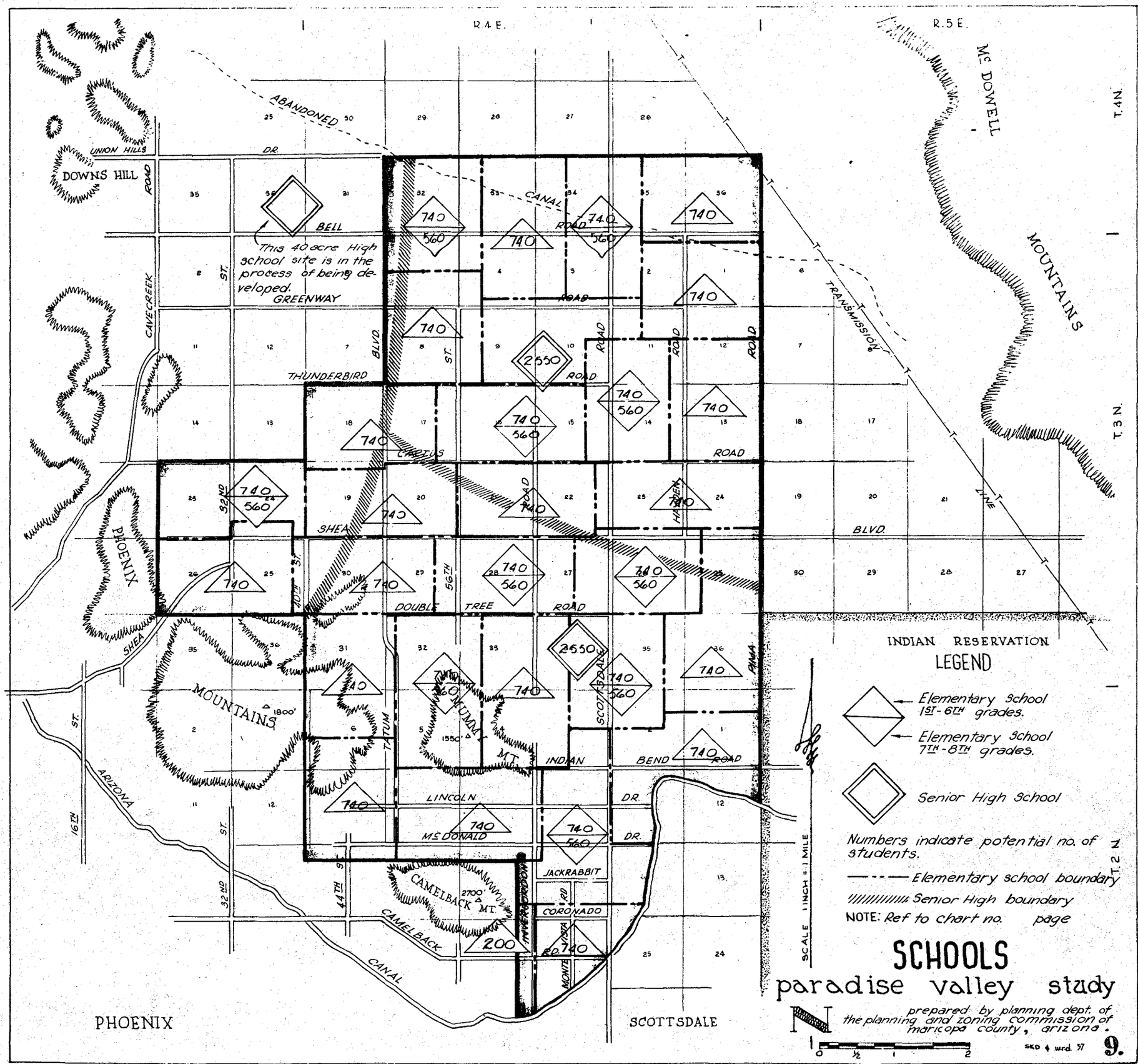
Finally, the report should be useful to citizens and potential home-owners. If the proposed plan is adopted investors in real property will have a firm understanding of the manner in which Paradise Valley is expected to grow and of the proposals of the County Planning and Zoning Commission to prepare and direct such growth. Consequently they can make decisions with confidence and assurance that development will be protected.

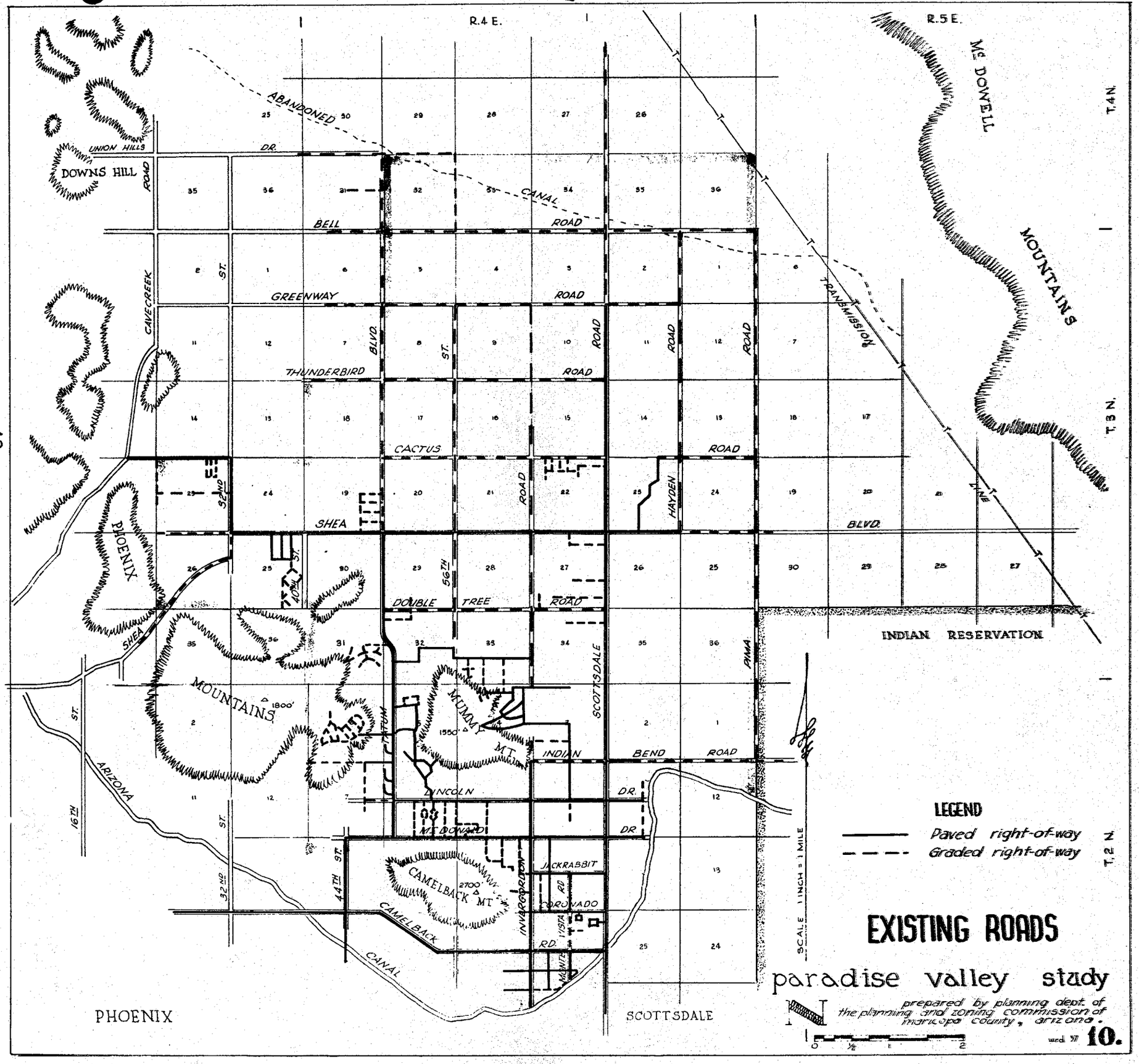
For these many reasons it is strongly recommended that the proposed plan, be adopted as the official plan for the development of a portion of Paradise Valley.

XIV. Plan of Action

1. The Maricopa County Planning and Zoning Commission should adopt this plan for the study area of Paradise Valley as the general overall plan within which specific decisions concerning land-use within Paradise Valley will be made.
2. Copies of this report should be widely disseminated among present and potential home-owners, investors and citizens of Paradise Valley, in order that they may be fully informed of the type of development which is going to occur in the Valley.
3. Copies of the report should be sent to all agencies of Government in the City of Phoenix, the County of Maricopa, and the State of Arizona, that in any way are associated with land development, for their comments and support.
4. The appropriate school officials should be encouraged to consider potential sites for schools in the suggested Areas.
5. The parks and recreation officials should be encouraged to consider means and methods of acquiring land for the open-spaces which will be needed in the not-to-distant future.
6. Street and highway officials should be encouraged to incorporate this report as part of their plans for future highways and streets in the Paradise Valley region.

7. The Director of Planning should be instructed to develop appropriate zoning ordinances and to hold hearings so that they may be adopted in order that the plan may be implemented as soon as possible. It is suggested that no areas be specifically zoned for commercial use, but rather that a general zoning ordinance be enacted, so that the entire region is protected. When requests for special types of land-use (such as commercial) are received, then a variance can be granted, <u>if</u> the commercial use is requested in the general area recommended by the plan for commercial development.


R.4 E.
R.5 E.
T.4 N.
T.3 N.
T.2 N.
Mc DOWELL MOUNTAINS
ABANDONED CANAL
UNION HILLS DR.
DOWNS HILL ROAD
BELL
This 40 acre High school site is in the process of being developed.
GREENWAY
CAVECREEK
THUNDERBIRD
CACTUS
SHEA
PHOENIX
DOUBLE TREE ROAD
TATUM
MOUNTAINS
1800'
SUMMIT MT.
1550'
INDIAN BEND ROAD
LINCOLN DR.
McDONALD
JACKRABBIT
CORONADO
CAMELBACK MT.
2700'
CAMELBACK CANAL
ARIZONA
INVERCARGILL
MONTE VISTA
SCOTTSDALE
PARADISE
TRANSMISSION LINE
740
560
2550
200
PHOENIX
SCOTTSDALE
INDIAN RESERVATION
LEGEND
Elementary School 1ST - 6TH grades.
Elementary School 7TH - 8TH grades.
Senior High School
Numbers indicate potential no. of students.
Elementary school boundary
Senior High boundary
NOTE: Ref to chart no. page
SCALE 1 INCH = 1 MILE
SCHOOLS
paradise valley study
prepared by planning dept. of the planning and zoning commission of maricopa county, arizona.
SKD & wrd. 57
9.
47



EXISTING ROADS

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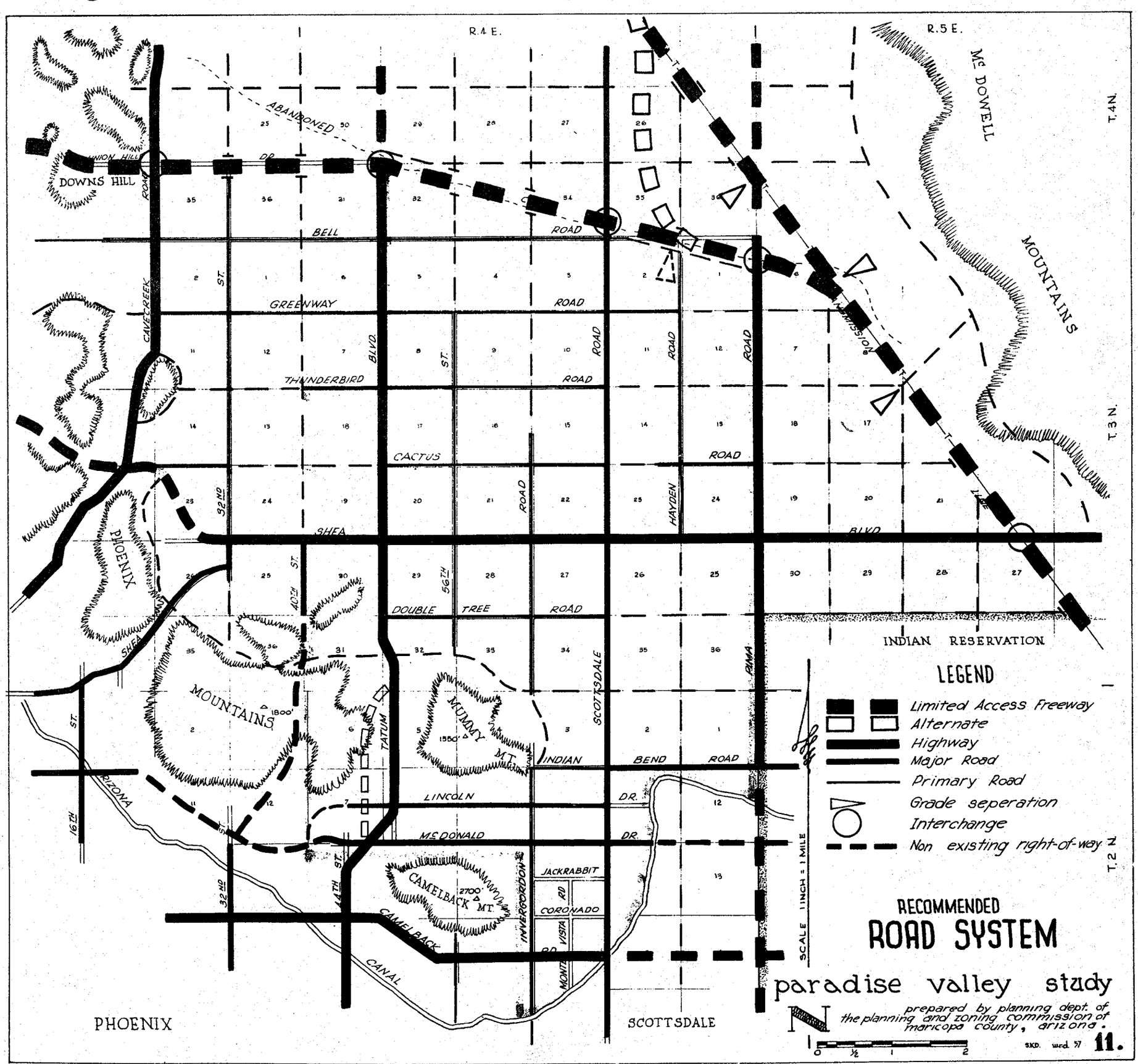
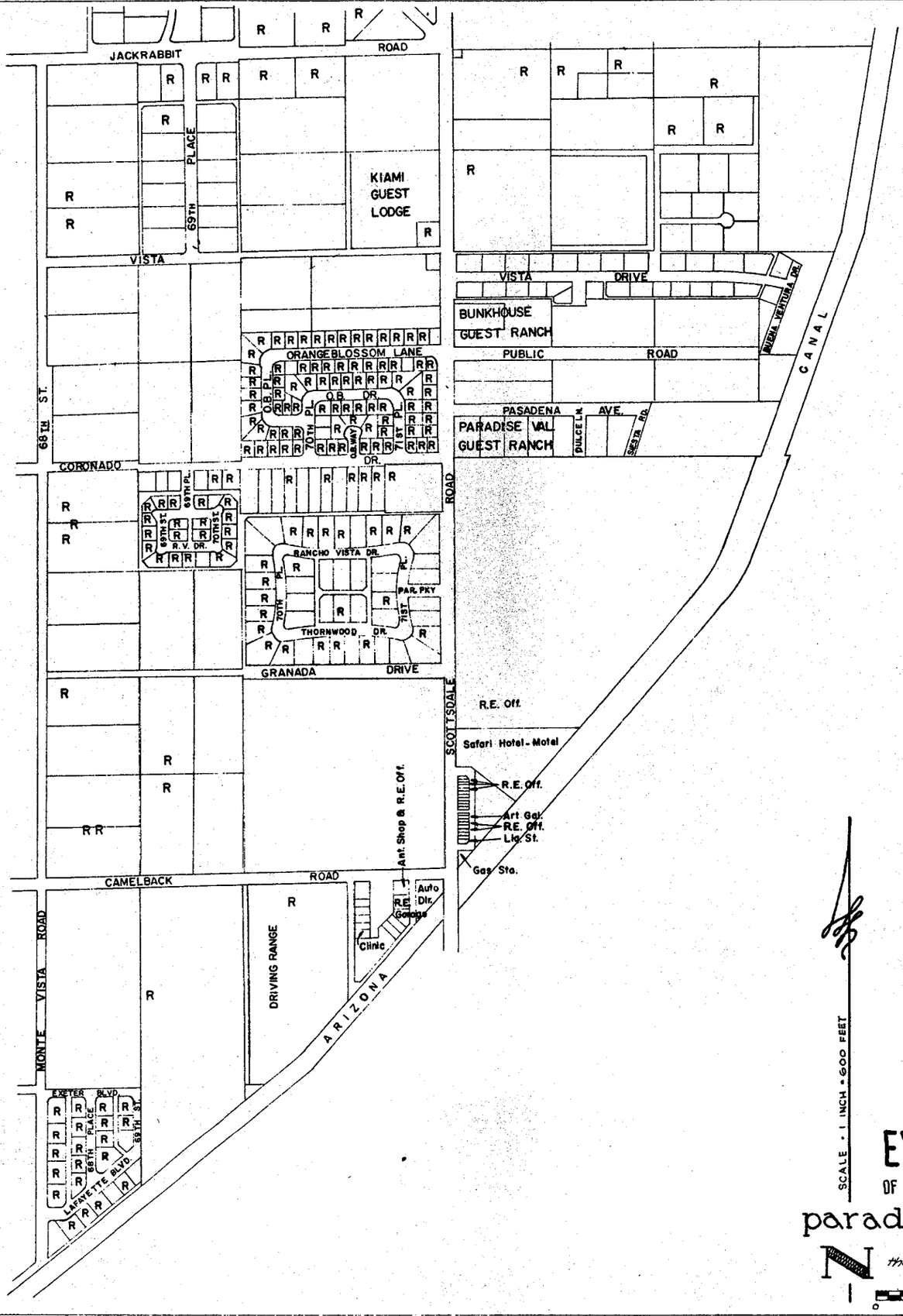
10.

48


R.4 E.
R.5 E.
T.4 N.
T.3 N.
T.2 N.
McDOWELL MOUNTAINS
ABANDONED
UNION HILLS DR.
DOWNS HILL ROAD
BELL ROAD
GREENWAY ROAD
THUNDERBIRD ROAD
CACTUS ROAD
SHEA BLVD.
DOUBLE TREE ROAD
INDIAN BEND ROAD
LINCOLN DR.
McDONALD DR.
JACKRABBIT RD.
CORONADO
VISTA
MONTE
CAVE CREEK
32ND ST.
40TH ST.
56TH ST.
64TH ST.
16TH ST.
TATUM
SCOTTSDALE
HAYDEN
INVERGORDON
CAMELBACK
ARIZONA CANAL
PHOENIX
MOUNTAINS 1800'
MUMMY MT. 1550'
CAMELBACK MT. 2700'
INDIAN RESERVATION
PHOENIX
SCOTTSDALE
LEGEND
Limited Access Freeway
Alternate
Highway
Major Road
Primary Road
Grade seperation
Interchange
Non existing right-of-way
SCALE 1 INCH = 1 MILE
RECOMMENDED
ROAD SYSTEM
paradise valley study
prepared by planning dept. of the planning and zoning commission of maricopa county, arizona.
SKD. wrd. 57
11.



R.E. *Real estate office*

R *Denotes one single family residence.*

SCALE - 1 INCH = 600 FEET

0 300 600 1200

EXISTING LAND USE

OF SOUTHERN PORTION OF THE

paradise valley study

N

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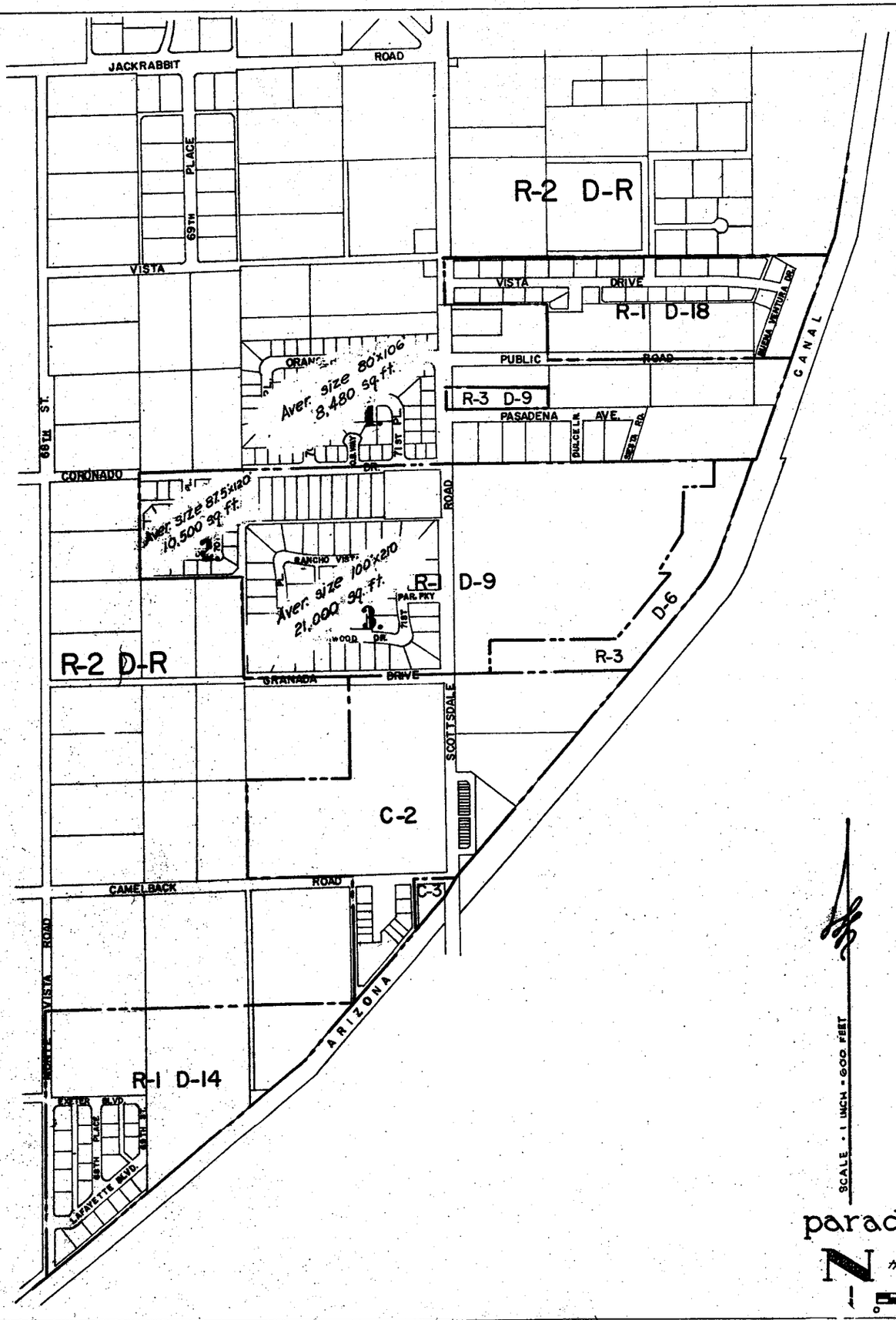
12.



SCALE - 1 INCH = 600 FEET

EXISTING ZONING

OF SOUTHERN PORTION OF THE

paradise valley study

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13.

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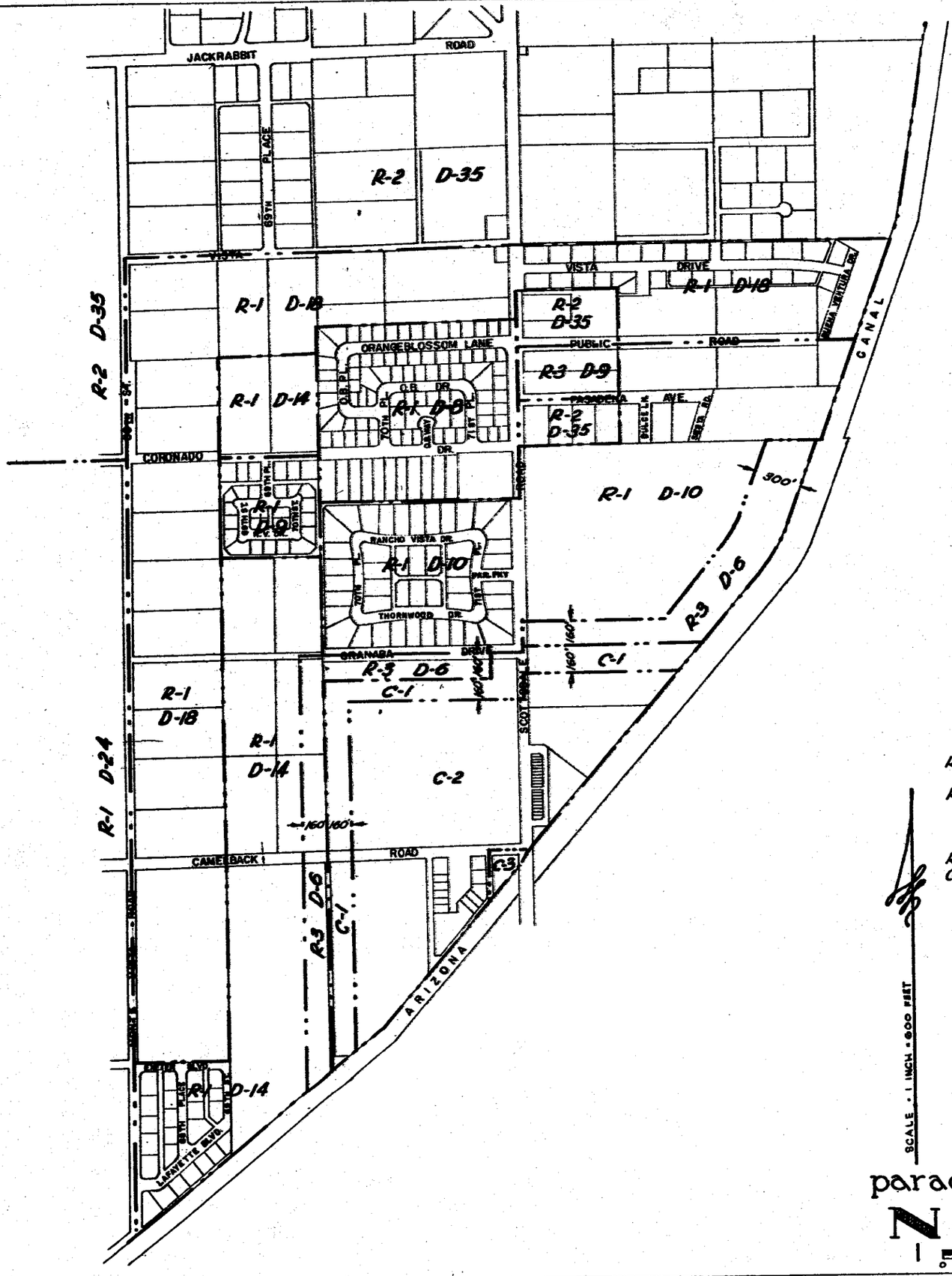

R-1 One single family residence per parcel.
R-2 One single family residence plus provision for guest resort, ranch and lodge with special use permit.
R-3 Multiple residence.
C-1,2,3 Commercial zones

DENSITY REQUIREMENTS

Den.	Sq. ft. per parcel	Lot Width	Lot Depth
35	35,000	150'	175'
24	24,000	130'	120'
18	18,000	120'	120'
14	14,000	110'	120
10	9,400	100'	94
9	8,460	90'	94
8	7,990	80'	94
6	6,000	60'	94

SCALE - 1 INCH = 600 FEET

PROPOSED ZONING

OF SOUTHERN PORTION OF THE

paradise valley study

N

prepared by planning dept. of the planning and zoning commission of maricopa county, arizona...

0 300 600 1200

14.

52

A P P E N D I X

Methods of Population Projections

Forecasting of population growth and change is at best a risky undertaking. Since the future is based on the past practically all forecasting reflects the immediate happenings of recent years. Many times too little emphasis is placed on the factors which have determined past events and projections are merely extrapolations of past figures, rather than analysis of past conditions. As a result it is usually found that projections made for example in the 1920's during the prosperous conditions of that period are too optimistic, and those made in the 1930's were too pessimistic. Today in the midst of the greatest population increase and redistribution which the country has ever had it is important to remember that future developments in population will continue only to the extent that conditions which have led to the population changes in the past few years continue.

There are various methods of predicting population changes. The most important are briefly noted:

1. Mathematical Projections
   a. Compute the average numerical population change per decade in the past and then project his numerical increase in the future.
   b. Compute the average rate of pc pulation change per decade in the past and project future population changes on the basis of this rate of change.
   c. Fit a mathematical curve to the curve of past population growth and then determine the size of the

future population from the extrapolation of the curve. This is essentially the method of Pearl and Reed and is known as the logistic curve.

Practically all forecasts based on mathematical projections are modified according to the judgement of the forecaster about changes which are likely to occur in the factors influencing population growth and change. Such projections must be used with care because they implicitly assume that the forces which caused population to change in the past will continue to operate in the future.

2. Relationship Projections

a. Compute the percentages that the population of a particular area represented of a county, state and nation and then project these percentages in one of the methods described on page 2.

b. Compute changing long-term trends of population such as movements of population to the west, and on the basis of these long term trends make forecasts of continued changes.

c. Occasionally projections of large areas can be made on the basis of projections of several smaller areas.

One particular advantage of using these methods is that usually the forces which are causing changes in the entire region are the same as those affecting changes in smaller sections of the region, but they are much more clearly identified when large areas are considered.

3. Vital Statistics

a. On the base of past and current statistics of birth and death compute the probable changes in population. This requires exact information on age distribution of the female population and requires projections of changes in birth-rates.

b. All forecasts based on vital statistics have to be modified to consider the importance of migration. In the past decade migratory movements have been the most significant factor influencing population growth in the West.

The particular difficulty of this method of forecasting is that it is very laborious and time consuming and probably is not more accurate than some of the other methods. If changes in birth and death rates did not occur then the method could be practically perfect, but changes in these rates do occur, and therefore, predictions about such imponderable things as marriage rates, divorce rates, and death rates have to be made.

4. Forecasts Based on Estimates of Future Employment

People move where there are economic opportunities and, therefore, forcasts of the economic potential of a region, and of the number of job opportunities which will be available may be important indicators of population growth. One of the remarkable features of the twentieth century is the very high volume of mobility of population. As a result more than ever before analysis of the economic potentials of an area is a very good indicator of possible changes in population.

There are difficulties with this method, however, just as there are difficulties with others. First, it is sometimes very difficult to predict accurately economic changes which are likely to occur in an area in a given period of time. Often it is perhaps as easy and as accurate to forecast population changes on the basis of past experiences. Second, the method more or less assumes that economic change is independent of the size of the population, whereas they may be very closely interrelated. However, it is clear that economic change will be related to population change and vice-versa and, therefore, all forecasts should be checked against the economic potential of the region.

It has become common practice among demographers to consider all methods of forecasting before arriving at an exact estimate of population change. Each method checks the other. In the following forecast for Paradise Valley various techniques have been used in order to obtain as great accuracy as possible in the projections. It should be remembered, however, that any projection of events into the future is subject to wide error, if there are major changes in the assumptions upon which the forecast is based.

MARICOPA COUNTY ZONING ORDINANCE --- ARTICLE VI-3 DENSITY REG. MIN. & MAX. REQUIREMENTS

DENSITY DISTRICT		LOT AREA (SQ FT) PER DWG. UNIT REQUIRED IN MULTIPLE ZONE	LOT AREA & DIMENSIONS				YARD DIMENSIONS FEET (MIN)				BUILDING REQUIREMENTS		
			AREA SQ. FT. MIN.	WIDTH FEET MIN.	DEPTH-FEET		FRONT	REAR	SIDE		COVERAGE % OF LOT MAX.	BETWEEN BLDGS. MIN.	HEIGHTS STORIES MAX.
					MIN.	MAX.	(1)		INTERIOR	EXTERIOR			
NO DENSITY ESTABLISHED		3,000	6,000	60	94	280	20 "	18 (2)	7 (4)	10	50	15	2 (5)
D 1	Multiple Unit Districts Only	1000-800 (3)	6,000	60	94	280	20 "	18 (2)	5 (4)	10	50	6	8 (6)
D 2	Multiple Unit Districts Only	2,000	6,000	60	94	280	20 "	18 (2)	5 (4)	10	50	10	4
D 3	Multiple Unit Districts Only	3,000	6,000	60	94	280	20 "	18 (2)	5 (4)	10	50	10	4
D 4	Multiple Unit Districts Only	4,000	6,000	60	94	280	20 "	25	5 (4)	10	50	10	3
D 5	Multiple Unit Districts Only	5,000	6,000	60	94	280	20 "	25	5 (4)	10	50	10	3
D 6	Min. Lot Width Resembles Dist. No.	6,000	6,000	60	94	280	20 "	25	5 (4)	10	40	15	2 (5)
D 6.5	Min. Lot Width Resembles Dist. No.	6,110	6,110	65	94	280	20 "	25	5 (4)	10	40	15	2 (5)
D 7	Min. Lot Width Resembles Dist. No.	6,580	6,580	70	94	280	20 "	25	5 (4)	10	40	15	2 (5)
D 7.5	Min. Lot Width Resembles Dist. No.	7,050	7,050	75	94	280	20 "	25	5 (4)	10	40	15	2 (5)
D 8	Min. Lot Width Resembles Dist. No.	7,520	7,520	80	94	280	20 "	25	7 (4)	10	40	15	2 (5)
D 8.5	Min. Lot Width Resembles Dist. No.	7,990	7,990	85	94	280	20 "	25	7 (4)	10	35	15	2 (5)
D 9	Min. Lot Width Resembles Dist. No.	8,460	8,460	90	94	280	20 "	25	7 (4)	10	30	15	2 (5)
D 10	Min. Lot Width Resembles Dist. No.	9,400	9,400	100	94	280	20 "	25	7 (4)	10	30	15	2 (5)
D 14		14,000	14,000	110	120	350	30 "	30 (7)	10	15	25	20	2 (5)
D 18 (Com. Half Ac.)		18,000	18,000	120	120	350	30 "	30 (7)	10	15	25	20	2 (5)
D 24		24,000	24,000	130	120	350	30 "	30 (7)	10	15	20	20	2 (5)
D 35 (Com. Ac.)		35,000	35,000	150	175	350	40 "	40 (8)	20	20	15	20	2 (5)
RURAL (Full Ac.)		43,560	43,560	165	175	650	40 "	40 (8)	30	30	15	30 (9)	2 (5)
D 70 (Com. 2 Ac.)		70,000	70,000	250	280	650	60 "	60	30	30	10	30	2 (5)
D 190 (Com. 5 Ac.)		190,000	190,000	300	300	650	60 "	60	30	30	5	30	2 (5)

(1) Requires average alignment of dwellings in block within 100 feet, but not less than minimum depth, nor need be greater than 150% of minimum depth.

(2) 18 feet from common property line or 10 feet from alley.

(3) Efficiency apartments (one room in addition to kitchen and bathroom) require only 800 square feet.

(4) 9 feet required on one side for vehicular access to rear without alley or attached garage or carport. An interior side yard to alley may be reduced 50%.

(5) Two stories or 30 feet maximum.

(6) Use permit required to exceed 8 stories.

(7) Lots deeper than 280 feet all buildings require 50 foot setback from common rear line or from center line of rear alley.

(8) Lots deeper than 280 feet all buildings require 55 foot setback from common rear line or from center line of rear alley.

(9) 60 feet from any building on adjoining property.