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I. INTRODUCTION

PURPOSE

CONTENT AND ORGANIZATION

EFFECT OF THE COMPREHESIVE PLAN

A. PURPOSE

This Comprehensive Plan is a guide for decision makers. It is a statement of community values, ideals and aspirations about the natural and built environments. In addition to defining the community's view of its future, the Comprehensive Plan describes actions to take to achieve the desired future. The plan uses text and diagrams to establish policies and programs to address the many issues facing the Town. The plan is thus a tool for managing community change to achieve the desired quality of life.

B. CONTENT AND ORGANIZATION

The Comprehensive Plan includes nine major sections. They introduce the Plan; define the Town's vision for its future; summarize the Town's history; describe existing and anticipated conditions affecting the Town; describe the process used to prepare this plan; establish goals, policies and implementation measures for six functional plan elements; describe plan implementation tools; and provide background information.

The first four sections of the Comprehensive Plan provide useful background for the reader of this document. Section I introduces the Plan, describing its purpose and organization. Section II defines the Town's vision of what it should be in the year 2010. Section III summarizes existing conditions and trends that are examined in greater detail in two Baseline Analysis reports. Section IV provides an overview of the process used to prepare this plan, one with the involvement of a broad cross-section of the Town's population.

Sections V, VI and VII are the backbone of the Plan. They contain six functional Plan Elements establishing goals, policies and implementation measures that will guide Town actions relating to:

- Natural Resources
- Land Use
- Housing and Economic Development
- Transportation and Public Facilities
- Growth Management and
- Urban Design

Each Plan Element begins with a statement summarizing the most important information gleaned from the base study research, workshops and other sources. Next, the key planning issues relating to the topic are described. These issues have been identified based on public and Sunnyvale Town staff input; they are also influenced by the baseline study and alternatives analysis prepared for this Comprehensive Plan. These two sections give the reader an understanding of the basis for goals and policies. Following the statement of issues, the Town's goals, policies and implementation measures are listed. The goals and policies are the most

important part of the Comprehensive Plan. They establish the policy direction the Town will follow in making decisions on development approvals, public infrastructure financing and other issues. The implementation measures are suggested strategies for achieving the Town's adopted goals and policies.

Section VIII provides a brief overview of the key tools that Sunnyvale can use to implement this Comprehensive Plan. This section is intended to give citizens and officials a single reference source for information about the tools available to the Town in carrying out its Plan.

Section IX is the Comprehensive Plan appendix. It includes a glossary of the key terms used throughout the Plan and an annotated list of background documents generated during the planning process.

C. EFFECT OF THE COMPREHENSIVE PLAN

Planning is not a single event -- the adoption of a particular document. Rather, it is an ongoing process involving actions by the Town, the private sector, other public and quasi-public agencies, and the community-at-large. As conditions change, the Town's Plan should be amended to take advantage of new opportunities and respond to new needs. Thus, the Comprehensive Plan is not intended to be a static document; it is intended to be a dynamic guide to help citizens shape the Town's future.

Standard definitions of goals, policies and implementation measures are used in all elements of the Comprehensive Plan. Goals describe a desired state of affairs in the future. They are the broad public purposes toward which policies and programs are directed. They need not be fixed in time or quantity. Since goals are general statements, more than one set of actions could be taken to achieve each goal. In this Comprehensive Plan, goals are phrased to express the desired results of the Plan; they complete the sentence "Our goal is ..."

Policies are statements of government intent against which individual actions and decisions are evaluated. Policies are phrased as sentences, with the agency responsible for implementing the policy clearly identified. The wording of policies conveys the intended level of commitment to action.

Implementation measures are actions recommended to carry out the policies. They aren't the only possible actions which would achieve these goals. They are intended to set an initial agenda for adopting regulatory and other programs that implement the Plan. The Town will select measures for implementation in the next few years by considering the cost, urgency and benefit of each suggested measure. As a result, some projects may begin shortly after Plan adoption, while others may not begin for five or more years.

Including a program or project on the list of implementation measures does not automatically create that program. The Town will need to adopt budgets, consider new ordinances and provide staff resources before new programs begin. Each of these implementation decisions will require public input and specific action by the Town Council.

II. VISION FOR THE FUTURE

What should Sunnyvale be like in the year 2010? This Comprehensive Plan establishes goals and policies that will shape growth and development for the next twenty years and beyond. The Plan is based on a shared vision of what Sunnyvale can and should become, a vision in which the Town:

- Retains its valuable natural features, including its creeks and lakes, major tree stands, open spaces and views along country lanes;
- Offers a variety of living environments through flexible development standards and community design guidelines that ensure compatibility with existing neighborhoods and the Town's rural, small town character;
- Provides residents with choice in housing types, lot sizes, affordability and neighborhood character;
- Supports a vibrant local economy, with clean, high quality employment centers and well-designed commercial centers;
- Provides for cost-effective delivery of high-quality public services (such as fire protection, public safety, library, water and wastewater services) to support the needs of businesses and residents;
- Establishes a system of neighborhood parks, open space linkages and public facilities that foster a sense of community among the Town's residents; and
- Encourages design of public and private improvements that is sensitive to the natural environment and existing development - design that enhances the character of the community.

The goals and policies of the Comprehensive Plan Elements reinforce these statements of community vision. They establish a framework for specific actions that will help the citizens of Sunnyvale achieve their vision for the Town's future.

III. CONTEXT FOR PLANNING

INTRODUCTION

COMMUNITY HISTORY

SUNNYVALE TODAY

DEVELOPMENT TRENDS

POPULATION PROJECTIONS

A. INTRODUCTION

The Town of Sunnyvale, Texas is located on the eastern edge of Dallas County. It is a rural community with gently rolling hills, scenic creeks, native trees and special home sites where people can keep horses and tend gardens within 15 miles of the center of Dallas. Sunnyvale is not "suburbia". As this Context for Planning section shows, it presents a special character, a unique personality, to residents and visitors. Residents are proud of their community and want to retain its unique characteristics. To do this and provide opportunities for growth, Sunnyvale must plan for the most appropriate types of growth.

The community is bordered by the cities of Garland and Mesquite, Lake Ray Hubbard and the Dallas-Kaufman County line. Sunnyvale and Dallas County are part of the sixteen-County North Central Texas region. Exhibit III.1 illustrates the relationship between Sunnyvale, Dallas County, surrounding communities and Lake Ray Hubbard. The following sections describe the existing character of the community and identify key trends that will impact the community's future. A more detailed analysis is provided in the background reports for this Plan.

B. COMMUNITY HISTORY

Dallas County was originally home to the Comanche Indians. It was Spanish territory until 1821 and became part of the Republic of Texas in 1836. Sunnyvale was once the site of four communities: New Hope, at Belt Line Road and Town East Boulevard; Tripp, located at Collins Road and Tripp Road; Long Creek, located at Long Creek Road and Paschall and Hattersville located at Town East Boulevard and Polly Road. Each of these communities had a school, a church, stores and several residences in the early 1900's.¹ In 1953, these towns merged and incorporated as the Town of Sunnyvale.

¹ "Dallas County Historic Resource Survey", Dallas County Historical Commission, December 1982.

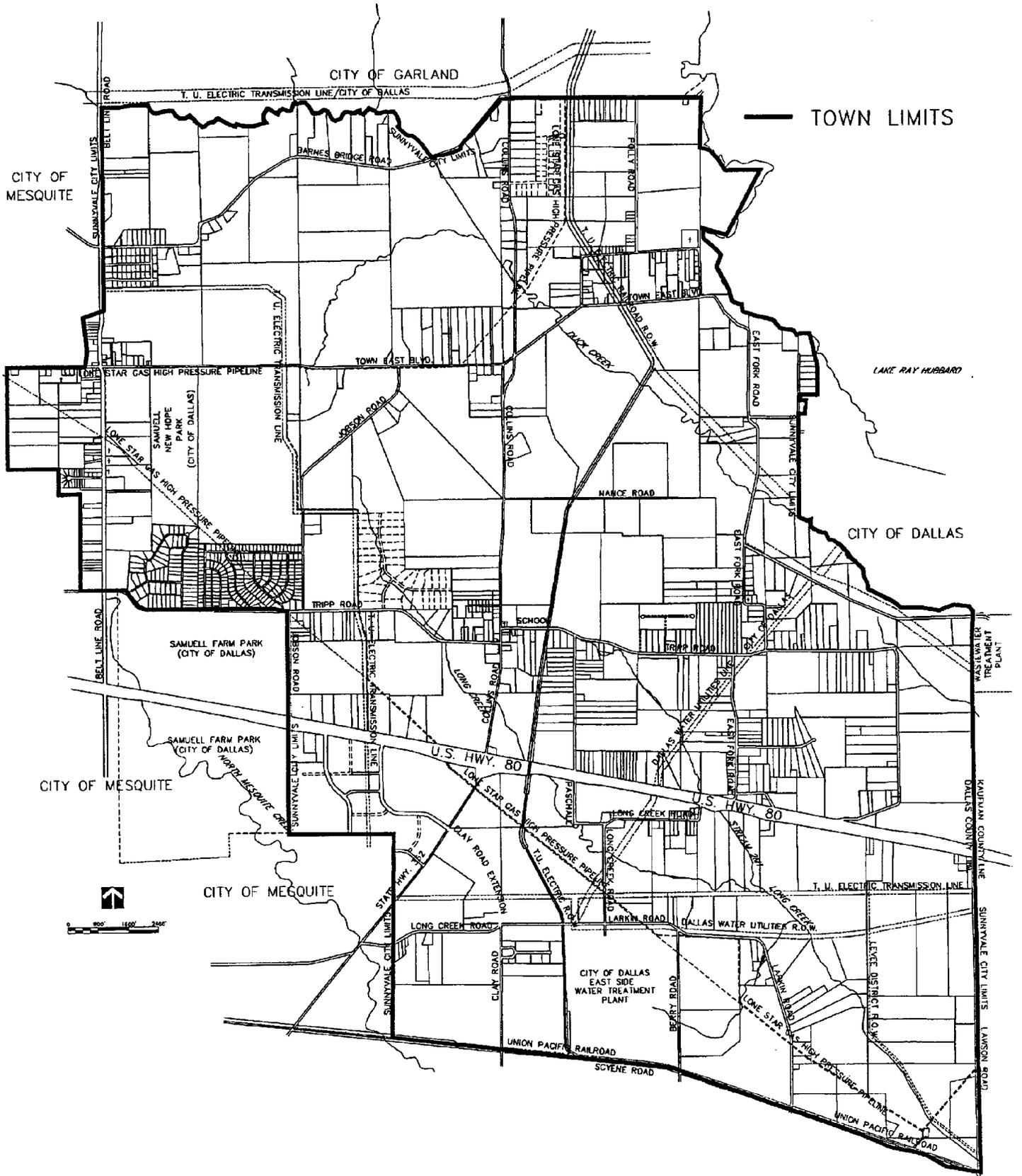


Exhibit III.1: Town Limits, Sunnyvale, Texas

C. SUNNYVALE TODAY

Overview

Sunnyvale is a town of 2,650 people, encompassing 10,720 acres of land. As the following sections on land use and demographics show, Sunnyvale is primarily a rural community. It is a community with a character that is distinct from other communities in the Dallas/Fort Worth metropolitan area. Sunnyvale is not an urban or suburban community; it is a community that has retained its agricultural base and long views of open, gently rolling hills. Retention of the existing community character will contribute to the local and regional quality of life. Locally, residents have chosen to live in the Town because of its distinctive rural town character. At the regional level, it contributes to the network of open space corridors, serves as a transition zone between the urban and rural development areas of Dallas County, provides a particular housing mix that serves regional market needs, and offers the alternative of living in a small community with a distinctive character and town government. Each of these important roles is discussed in the Master Plan background report entitled "*Context for Planning: Analysis of Regional Setting, Part Two*".

Land Use

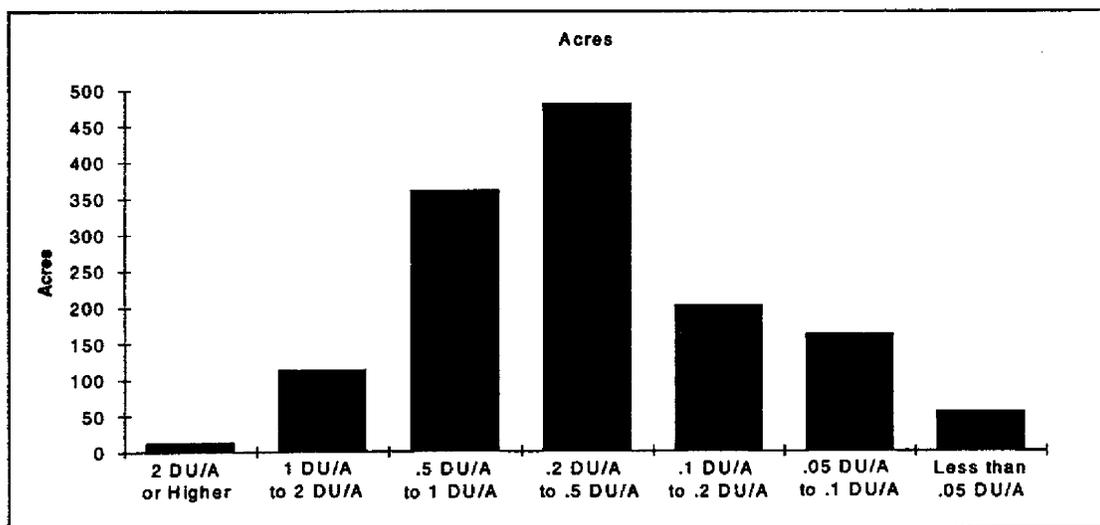
Exhibit III.2 lists the acreage of land in each of 13 land use categories in the Town in March, 1992. The Master Plan baseline report entitled "*Context for Planning: Background Information and Analysis, Part One*" provides detailed descriptions of each land use. The exhibit shows that uncultivated pasture is the prevalent land use. In fact the combined total of uncultivated pasture, cultivated pasture, cultivated crop land and vacant land comprises nearly two-thirds of the community. This land is an important element of Sunnyvale's unique character and contributes to both local and regional open space needs. As the exhibit shows, less than one-fourth of Sunnyvale is devoted to urban land uses. Most of the land with urban land uses is devoted to single-family residential development. The character of this single-family development is discussed in more detail below. Approximately 3 percent of the total land in the Town is used for retail, commercial or industrial purposes.

Exhibit III.3 illustrates distribution of land uses in Sunnyvale as of March 1992. Single-family development is scattered throughout the community, but most is located to the north of U.S. Hwy. 80. All of the Town's industrial development is located to the south of this highway. Commercial development can be found in several locations, but the greatest concentration is located along the north side of U.S. Hwy 80. In addition to illustrating the distribution of land uses, this exhibit shows where key utility corridors are located. Some of these corridors, particularly the major electrical and high pressure gas transmissions lines, are incompatible with some urban development. All of the existing urban land uses will impact long-term land use patterns.

EXHIBIT III.2: EXISTING LAND USE, MARCH 1992

Land Use	Acreage	Percentages
Single Family	1,690	16%
Office	5	<1%
Retail	38	<1%
Commercial	77	<1%
Parks	124	1.2%
Public	312	3%
Light Industry	178	2%
Heavy Industry	5	<1%
Total Urban Uses	2,429	23%
Uncultivated Pasture	4,702	44%
Cultivated Pasture	909	8.4%
Cultivated Crop Land	634	6%
Vacant Land	668	6.2%
Total Non-Urban Uses	6,913	64%
Rights of Way & Waterways	1,361	13%
Grand Total	10,703	

Exhibit III.4: Residential Development, by Density Range



Sunnyvale's residential development has occurred at a variety of densities. Exhibit III.4 shows the number of residential acres in each of seven density ranges. Each range is expressed in terms of Dwelling Units per Acre (DU/A). A small share of the Town's residential land is developed at densities of two DU/A or more. The range of 0.2 to 0.5 DU/A (equivalent to 2 to 5 acre lots) has the greatest amount of residentially developed land (approximately 480 acres), while the range of .5 to 1.0 DU/A (one to two acre lots) has the second highest amount of land. The lowest density range, less than 0.05 DU/A, reflects residential development on lots that are more than 20 acres in size. Each of these types of residential development is distinct in its character and the type of services it requires. When considered as a whole, the residential land use mix provides market choice while retaining a rural atmosphere that is unique to this community.

Existing Zoning (Prior to 1993)

Existing zoning designations in Sunnyvale are not an obstacle to growth. The Town of Sunnyvale's Zoning Ordinance creates the twelve zoning districts listed in Exhibit III.5. Excluding land in floodplains, there are approximately 5,632 acres of agricultural and vacant land in Sunnyvale. Of this land 4,959 acres is currently zoned in a residential category. Using the minimum lot size allowed under the current zoning code of one acre, 4,959 new dwelling units could be built in Sunnyvale. If development occurs at this density, the fully developed community could be home to almost 19,000 residents. Existing zoning, it should be noted, allows increased density where the applicant meets the performance standards of the PD District.

EXHIBIT III.5: SUNNYVALE ZONING DISTRICTS

AG	Agricultural District
SF-1	Single-Family Dwelling District
SF-2	Single-Family Dwelling District
SF-3	Single-Family Dwelling District
SF-4	Single-Family Dwelling District
AH	Duplex and Apartment Dwelling District
LC	Lakeside Commercial District
LR	Local Retail
GB	General Business (mixed use district) District
HC	Highway Commercial District
I	Industrial
FP	Floodplain
PRO	Planned Residential Overlay Development

An ample supply of developable land also exists in the non-residential zoning districts. There are 384 acres of developable land in the Highway Commercial district, 88 acres of land in the Local Retail district, 177 acres in Industry and Manufacturing, 25 acres in Local Business and 172 acres in the General Business district. Clearly, the community's existing zoning is not limiting short-term residential or non-residential growth and development.

Demographics

Age, Race and Ethnicity. An examination of the characteristics of the Town's population provides a good basis for evaluating current and future service needs. With a median age of 35.8, the population of Sunnyvale is older than that of the state (32 years). The age distribution suggests a community with a high proportion of families with school age children, and relatively few young adults.

Over 6 percent of Sunnyvale's population is hispanic or belongs to a racial minority group. Exhibit III.6 shows the Town's racial and ethnic distribution in 1980 and 1990. As the exhibit shows, there has been a slight (less than 3 percent) increase in the percentage of minority people living in Sunnyvale.

EXHIBIT III.6: CHANGE IN RACE AND ETHNICITY

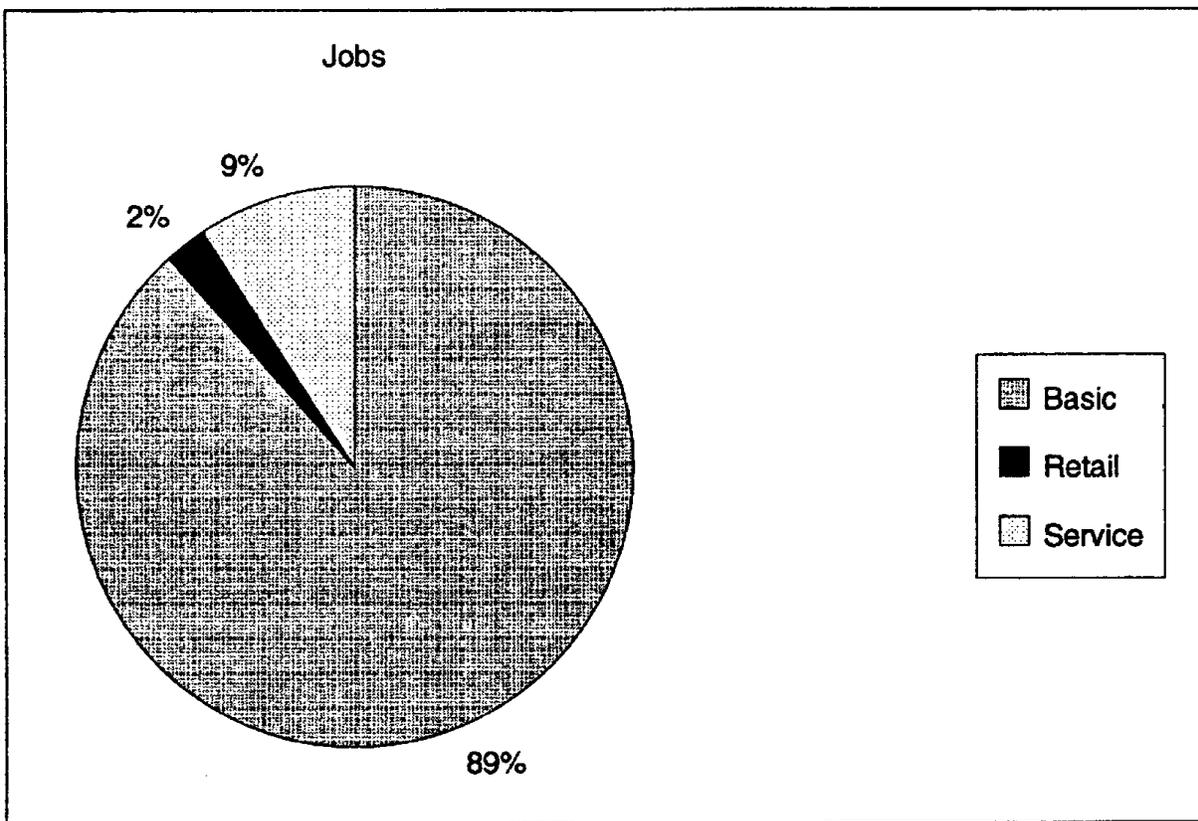
	1980		1990		Change	
	#	%	#	%	#	%
I. White	1360	96.87%	2094	93.99%	734	-2.88%
African American	4	0.28%	16	0.72%	12	0.43%
Native American	6	0.43%	15	0.67%	9	0.25%
Asian	0	0.00%	20	0.90%	20	0.90%
Hispanic	34	2.42%	82	3.68%	48	1.26%
Other	0	0.00%	1	0.04%	1	0.04%
Total	1404	100.00%	2228	100.00%	824	0.00%

Household Characteristics. The number of households in Sunnyvale increased from 454 in 1980 to 740 in 1990. The 62.99 percent increase in the number of households in the last decade exceeded the rate of population increase. The more rapid growth in the number of households is reflected in the decline of household size from 3.4 in 1980, to 3.19 in 1990. Approximately 90 percent of the people in Sunnyvale reside in family households.

Employment, Labor Force and Unemployment. Information on the number and type of jobs in an area is collected at the Countywide or regional level. As noted in the discussion of land uses in the Town, Sunnyvale's principal non-residential, non-agricultural land use is industrial, with a smaller amount of commercial land. Most public employment in the Town is associated with Town and Fire District offices with the Dallas East Side Water Treatment Plant, and with the school.

The North Central Texas Council of Governments (NCTCOG) estimates the number of jobs, by type, located within the region. These job estimates are distributed geographically for use in transportation planning and other analysis. Based on these estimates, the Town of Sunnyvale had approximately 800 jobs in 1990.² Of these jobs, an estimated 88% were in the basic employment sectors (mining, construction, manufacturing, wholesale trade, transportation, communications and utilities). Exhibit III.7 depicts the number and types of jobs located in the Town.

Exhibit III.7: Sunnyvale Jobs by Type



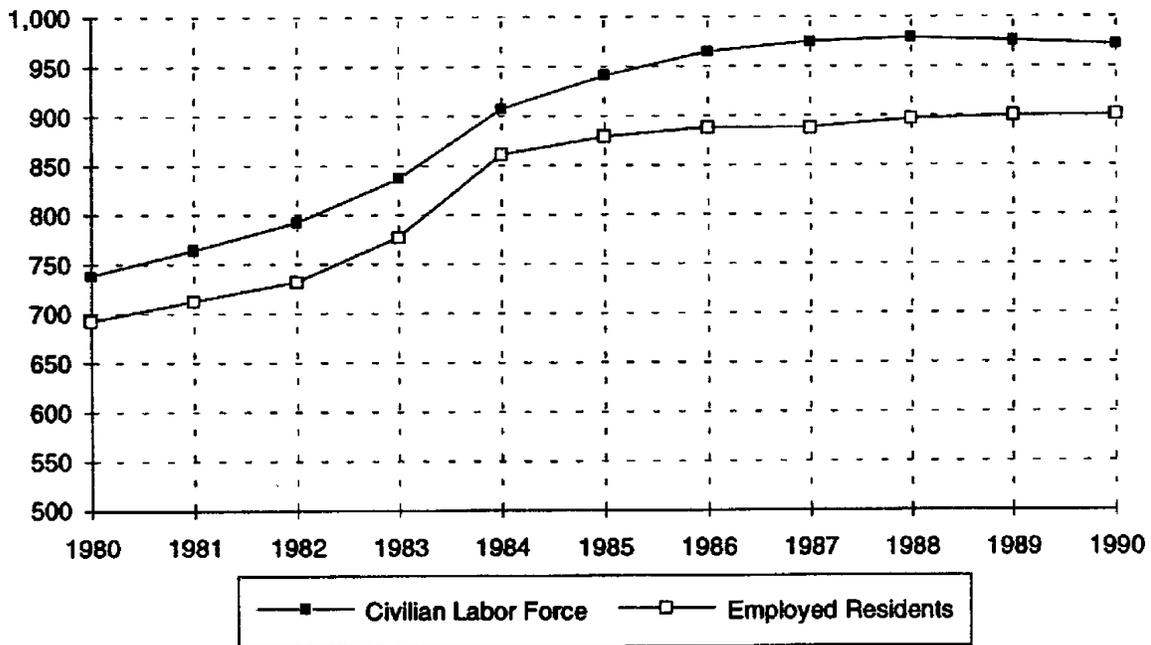
² These employment estimates were developed through review of NCTCOG data for census tracts 178.03 and 181.04, and estimation of the Town's share of existing population and employment.

In 1990, Sunnyvale had an average of 972 residents in the civilian labor force. Exhibit III.8 shows the average number of labor force participants in the Town for each year from 1980 to 1990. From 1980 to 1990, the labor force in the Town increased by 31.7%. The increase in labor force participants was slower than the increase in Town population during this period (58.7%). This difference suggests that new residents included proportionately more children and retired persons.

Exhibit III.8 also shows the number of employed residents in the Town from 1980 to 1990. These are persons who lived in Sunnyvale and were employed (in civilian jobs), regardless of whether the jobs are located in Sunnyvale or elsewhere. In 1990, an average of 901 Town residents were employed. The number of employed residents increased during the decade from 1980 to 1990, but at a slightly slower pace than the labor force. As a result, the unemployment rate³ was higher in 1990 than it was in 1980.

The Town of Sunnyvale's unemployment rate was higher than that for Dallas County throughout the decade from 1980 to 1990. During this decade, the average annual unemployment rate for the Town was 1.5 to 2.4 percentage points higher each year than the Countywide unemployment rate.

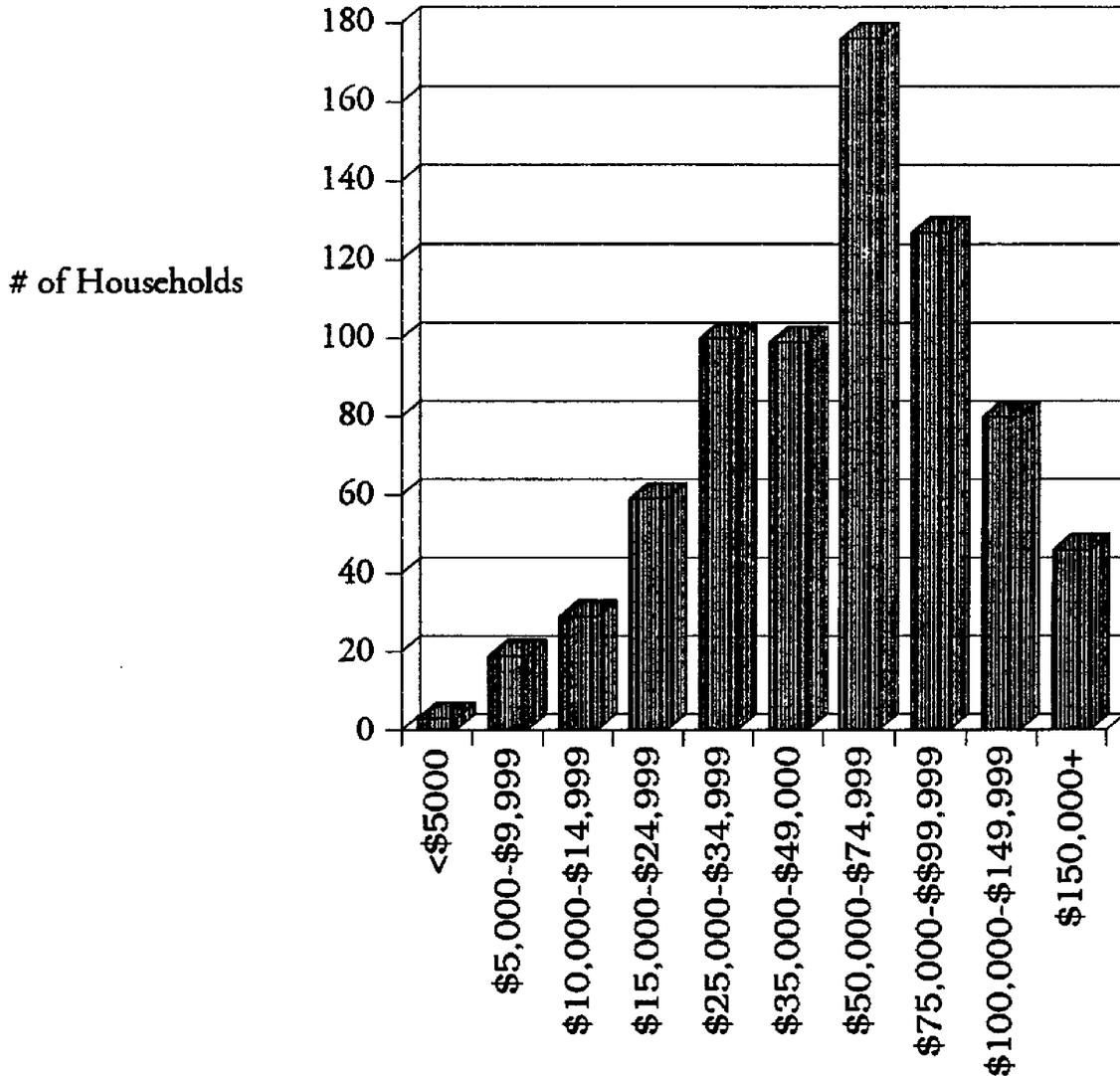
Exhibit III.8: Employment and Labor Force



³ The percentage of persons in the civilian labor force who are not employed.

Income. The Census Bureau reports that Sunnyvale's median household income was \$55,622 in 1989. This exceeds the median household income for Dallas County (\$31,605) and the State of Texas (\$27,016). Exhibit III.9 shows that the annual income distribution within Sunnyvale ranges from below the poverty level, as defined by the U.S. Department of Health and Human Services,⁴ to in excess of \$150,000. Approximately 41 percent of the Town's households have incomes between \$50,000 and \$100,000.

Exhibit III.9: Sunnyvale Income Distribution



⁴ \$12,100 for a family of four.

D. DEVELOPMENT TRENDS

Population Growth

In preparing for Sunnyvale's future it is important to examine growth trends. Exhibit III.9 lists the population and rate of growth, by decade, for Sunnyvale, Dallas County, the Dallas PMSA,⁵ and the State of Texas. Sunnyvale has grown rapidly over the past 30 years, more than doubling its population and achieving a higher rate of population growth than the region, the County and the State. In 1960 the U.S. Census population for the Town was 969 and in 1990 the U.S. Census population was 2,228, an increase of 1,259. The State of Texas increased its population during the same time, from 9,579,677 in 1960 to 16,986,510 in 1990. The population growth rates of the region, 30-32 percent and the County, 19.04 percent, for the past decade was far below that of the Town, 58.68 percent.

Exhibit III.10 shows that the fastest growth period for Sunnyvale was the decade of the 1980's, both in terms of the absolute number of new residents and the percentage growth rate. This trend differs from the State of Texas, which enjoyed its highest growth during the 1970's, and Dallas County, with the largest increase in population during the 1960's. Like Sunnyvale, the Dallas PMSA added more people in the 1980's than in either of the two previous decades, yet grew at approximately half of Sunnyvale's rate.

EXHIBIT III.10: POPULATION GROWTH, 1960 TO 1990

Year	Texas			Dallas PMSA		
	Population	Increase	% Change	Population	Increase	% Change
1960	9,579,677	--	--	1,119,810	--	--
1970	11,196,730	1,617,053	16.88	1,634,908	515,098	45.99
1980	14,229,191	3,032,461	27.08	1,959,198	324,290	19.83
1990	16,986,510	2,757,319	19.37	2,553,362	594,164	30.32

Year	Dallas County			Sunnyvale		
	Population	Increase	% Change	Population	Increase	% Change
1960	951,527	--	--	969	--	--
1970	1,327,695	376,168	39.53	995	26	2.68
1980	1,556,385	228,690	17.22	1,404	409	41.10
1990	1,852,810	296,425	19.04	2,228	824	58.68

⁵ The Dallas PMSA includes Collin, Dallas, Denton, Ellis, Kaufman and Rockwall Counties.

Development Trends

The rate of growth in the number of housing units has matched the rate of population growth for the last decade. The increase in population over the past 10 years was 58.68 percent and, as Exhibit III.11 depicts, the number of housing units increased by 59.4 percent.

EXHIBIT III.11: HOUSING UNITS IN SUNNYVALE

Year	Housing Units	Increase	Percent Change
1980	486		
1990	775	289	59.4

While the population and number of households in Sunnyvale have grown rapidly over the last three decades, most of the development has been consistent with the rural character of the community. Floodplains have remained undeveloped, offering significant open space corridors through the Town. Residential development has been at rural densities, except in the western part of the Town where sewer service is readily available. The large size of many of the remaining undeveloped areas in Sunnyvale provide the opportunity to maintain the Town's rural character and development of a variety of housing alternatives.

E. POPULATION PROJECTIONS

Methodology

The Town of Sunnyvale has grown at an increasing pace since 1960. This section examines the growth of the Town from 1960 to the present, and then uses several methods to project the amount of population growth that reasonably should occur between 1990 and the year 2019. Each method is based on a different set of assumptions about the continuation of past trends. The success of any method in projecting future population depends on how closely these assumptions match actual future conditions. Changes in national, regional or local economic conditions; levels of services; cost of living; local environmental conditions; regional and local government policy; and other factors affecting the quality of life can dramatically affect the number of people moving into or out of an area. For these reasons, projections should be considered useful planning tools, important for assessing facility needs and community impacts. They should not be viewed as absolute statements of the community's future character.

Population Projections

Five population projections were developed for Sunnyvale. Each projection makes different assumptions about Sunnyvale's growth between 1990 and the year 2010. These projections are summarized in Exhibit III.12 below.

The *Linear Growth Projection* assumes that the Town will continue to add the same number of new residents each year as it did, on average, from 1980 to 1990. This projection produces a

straight-line graph of total population and results in the lowest 2010 projected population for the Town, 3,876 persons. While the absolute increase in population remains constant, the annual growth rate⁶ declines from 3.7% in 1991 to 2.2% in 2010. Historically, Sunnyvale’s rate of growth has been increasing not decreasing.

The **Exponential Growth Projection** assumes that growth will occur at the same annual rate as it did during the 1980's. With a constant growth rate, the number of new residents increases each year. Using this method, the Town's 2010 population would be 5,613 persons. This method would have underestimated recent population growth trends.

Sunnyvale grew at an annual growth rate of 3.5% from 1970 to 1980 and a rate of 4.7% from 1980 to 1990. Not only did the absolute number of new residents increase from one decade to the next; the rate increased as well. The growth rate for the 1980's was approximately 1.4 times the rate of the 1970's. If this pattern were to continue during the planning time period, the rate for the 1990's would be 1.4 times higher than that for the 1980's. From 2000 to 2010, the rate would be 1.4 times higher than during the 1990's. The **Increasing Exponential Projection** reflects this pattern of accelerating growth rates over time. Under this projection, the Town's 2010 population would be 10,260.

EXHIBIT III.12: SUMMARY OF POPULATION PROJECTIONS

Year	Linear Growth Projection	Exponential Growth Projection	Increasing Exponential Projection	Regional Projection	High Growth Projection
1990	2,228	2,228	2,228	2,228	2,228
2010	3,876	5,613	10,260	11,444	28,044
New Residents	1,648	3,385	8,032	9,216	25,816
% Increase, 1990-2010	74.0%	151.9%	360.5%	413.6%	1158.7%
Average Annual Growth Rate	2.8%	4.7%	7.9%	8.6%	13.5%

The fourth projection is based on the NCTCOG projections for the entire metropolitan region. These projections were based on regional growth trends, as well as major development proposals and national and regional economic trends. The projections were disaggregated to counties and smaller areas (“traffic zones”) within the region based on computer analyses of relative “attractiveness” to population and employment growth. The NCTCOG projections for traffic zones including the Town of Sunnyvale were examined, and the Town's share of the tracts was estimated. The **Regional Projection** is the result of this examination. It projects 11,444 residents

⁶ All annual growth rates are calculated as compound average annual growth rates

in Sunnyvale in 2010. As Exhibit III.12 shows, this growth results in an average annual growth rate of 8.6% during these twenty years.

The final projection is included to provide continuity in the evaluation of Sunnyvale's desired growth and character. In the comprehensive plan adopted by the Town in 1986, a "moderate" growth projection was used for purposes of land use and transportation planning. This projection assumed that growth would occur at an annual rate of 13.5%, with a population in 2006 of 25,000. The **High Growth Projection** reflects population growth, through 2010, at the same annual rate of 13.5%. This projection anticipates 28,044 persons in 2010⁷. The historic growth of the Town and anticipated future growth of the metropolitan region indicate that lower growth is more realistic

Projection Selection

Pursuit of the goals and policies of the Comprehensive Plan will make Sunnyvale a highly desirable community in which to live, work, and play. Implementation of the Plan will promote economic and population growth at increased rates. Assuming that demand and infrastructure meet expectations, the annual population growth rate is projected to average 6% through the year 2019. Employment growth is projected to increase at a similar rate of 7% annually. Actual growth rates are likely to be somewhat lower until wastewater facilities are extended to major residential, industrial and commercial areas. Exhibit III.13 illustrates these population and employment projections, as well as the expected increase in Sunnyvale's labor force. These projections should be used for planning purposes; internal and external conditions will affect actual growth rates.

The Land Use Element of this Plan establishes an overall pattern of development that will affect the distribution of residents and jobs. Location, accessibility, utilities, existing development and ownership patterns will affect the rate of development, causing parts of the community to develop at different rates. Exhibits III.14 and III.15 illustrate the percentage of maximum development potential that each traffic zone⁸ is projected to be developed in 2010. The projected absorption for residential and non-residential development is shown on separate exhibits because these markets are shaped by different factors. No part of the Town is anticipated to reach 75 percent of its maximum development potential by the year 2010. The suggested growth rate for planning purposes will require issuance of an average of approximately 112 residential building permits per year.

⁷ This projection assumes a 13.5% annual growth rate for each year after 1990. It uses the 1990 Census population as the initial Town population. Since the Town was smaller in 1990 than had been projected, this 2010 population projection is lower than the extension of the 1986 plan's projection from 2006 to 2010. Simply extending the 2006 projection, at an average annual rate of 13.5%, would result in a 2010 population of 42,141

⁸ Traffic zone boundaries correspond with those used by NCTCOG for regional growth projections.

EXHIBIT III.13: POPULATION AND EMPLOYMENT PROJECTIONS

Year	Population	Labor Force	Jobs	Jobs/Labor Force
1990	2,228	972	800	0.82
1991	2,434	1,062	881	0.83
1992	2,660	1,160	969	0.84
1993	2,906	1,268	1,067	0.84
1994	3,175	1,385	1,174	0.85
1995	3,469	1,514	1,293	0.85
1996	3,791	1,654	1,423	0.86
1997	4,142	1,807	1,566	0.87
1998	4,526	1,974	1,724	0.87
1999	4,945	2,157	1,898	0.88
2000	5,403	2,357	2,089	0.89
2001	5,903	2,575	2,300	0.89
2002	6,450	2,814	2,531	0.90
2003	7,047	3,074	2,786	0.91
2004	7,700	3,359	3,067	0.91
2005	8,413	3,670	3,376	0.92
2006	9,192	4,010	3,716	0.93
2007	10,044	4,382	4,091	0.93
2008	10,974	4,788	4,503	0.94
2009	11,990	5,231	4,957	0.95
2010	13,101	5,716	5,456	0.95

Residential development will absorb less than 58 percent of the potential shown in the Land Use Diagram. Exhibit III.14 shows that development will occur at the greatest percentage of capacity to the north of U.S. Highway 80, particularly in areas where large parcels are available for development and utilities are readily available. Existing ownership patterns and development could constrain development in several areas, such as along Tripp Road and along parts of the East Fork Road. Medium density residential development south of U.S. Highway 80 will not occur until wastewater facilities are available.

SUNNYVALE COMPREHENSIVE PLAN SEPTEMBER 13, 1993

311 TRAFFIC ZONE NUMBER
0 - 24 PERCENT
25 - 49 PERCENT
50 - 74 PERCENT
75 - 100 PERCENT

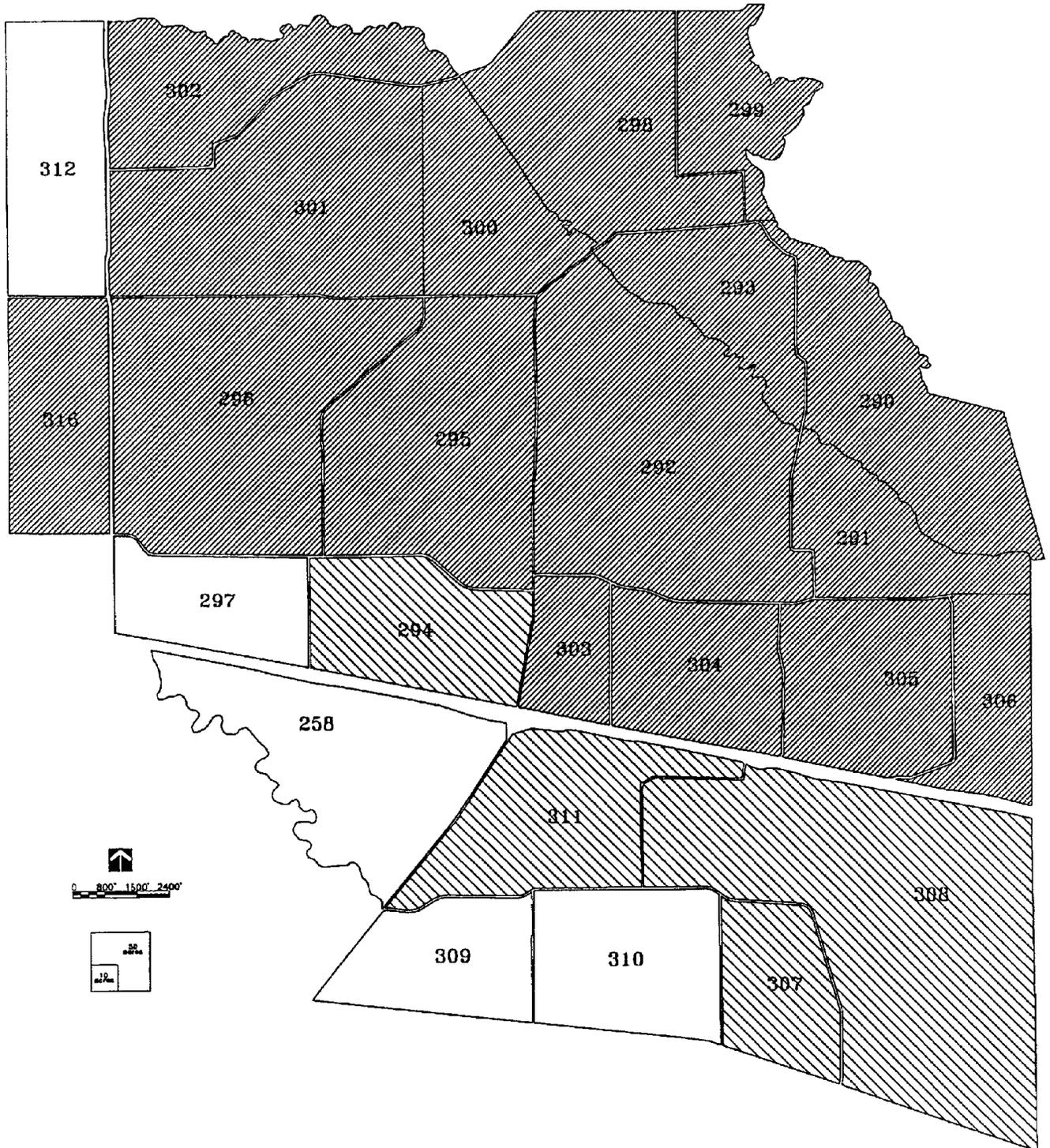


Exhibit III.14: Projected Residential Absorption

311 TRAFFIC ZONE NUMBER
0 - 19 PERCENT
20 - 49 PERCENT
50 - 74 PERCENT
75 - 100 PERCENT

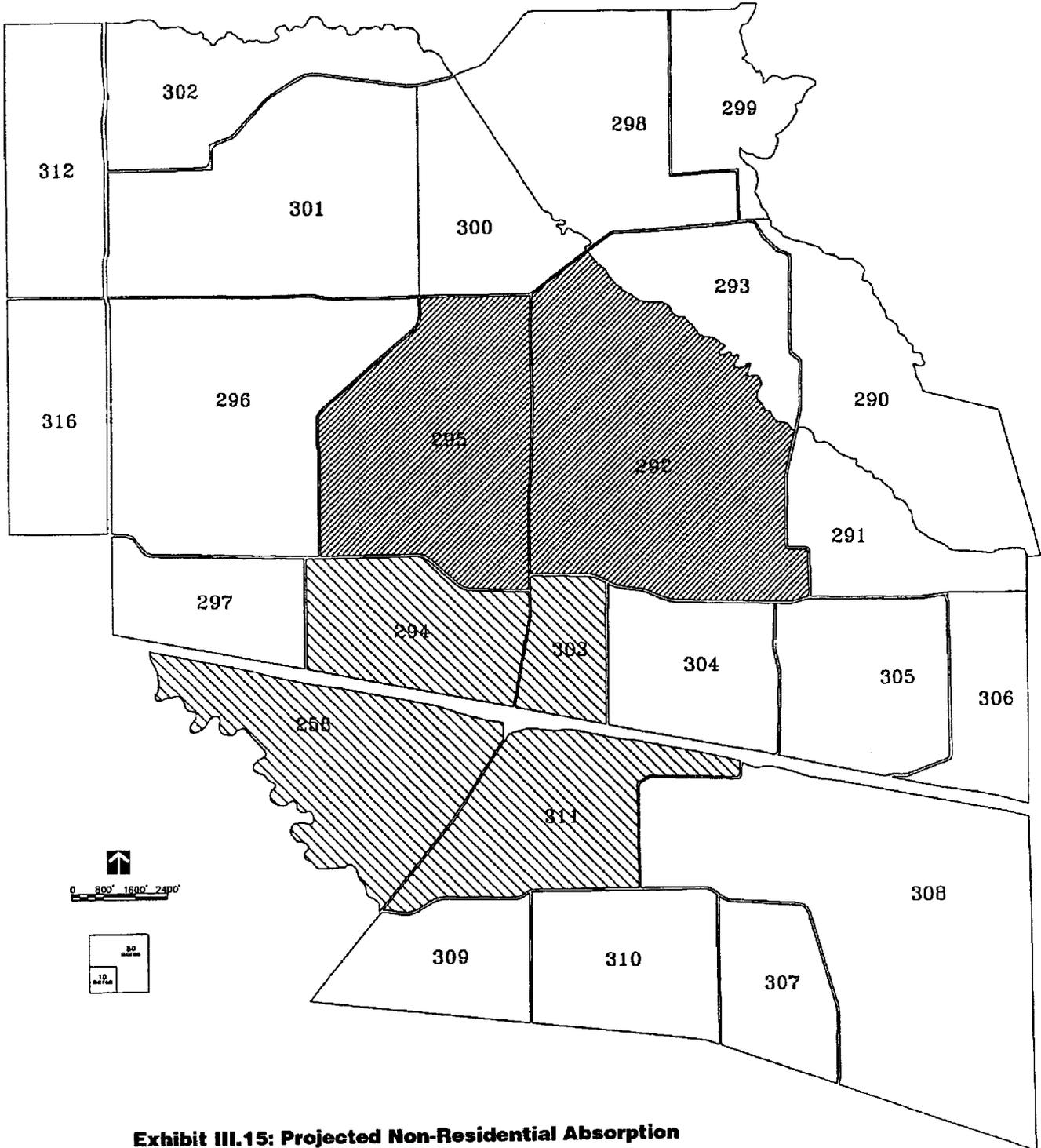


Exhibit III.15: Projected Non-Residential Absorption

Nonresidential development will absorb development capacity at a lower rate than residential development, with an overall absorption of only 19 percent of capacity. This is due to the large surplus of non-residential land and the lack of market demand. Institutional, public service and retail employment will develop commensurate with surrounding residential growth. The traffic zones around the intersection of U.S. Highway 80, Collins Road and State Highway 352 also will experience non-residential growth, providing centralized wastewater service is made available. While demand for commercial development along Belt Line Road will be strong, existing ownership and development patterns will limit the development potential of adjacent traffic zones. Development of nonresidential land along U.S. Highway 80 to the east of State Highway 352 will be limited until wastewater service is provided and market demand creates a need for such uses.

While many factors will affect the timing and absorption of residential and non-residential development potential, Sunnyvale can anticipate that development pressures and service demands will occur first in the most darkly shaded areas of Exhibits III.14 and III.15. The Town should prioritize its capital improvements plan accordingly.

Using Growth Projections

Long-range population projections are used for a variety of purposes. The "best" projection depends *upon* its intended purpose. Mid-range projections are often used to estimate the needs for "soft" services and to provide a benchmark for monitoring actual growth over time. Higher projections are sometimes used to project ultimate demands for utility capacity, to ensure that major capital facilities (e.g., power plants or treatment plants) or resources (e.g., water supplies) can be expanded efficiently to serve the higher potential population. The mid-range population projection is discussed in the previous section. The Land Use Element discusses the maximum development potential under Sunnyvale's Master Plan. Exhibit III.16 demonstrates the ranges of population growth that Sunnyvale could experience based on its growth history.

The planning time period of twenty years is an appropriate time span for a community's comprehensive plan. However, this planning horizon should not suggest that all planning or growth in the community would be completed at that time. As stated in the previous section, this plan can accommodate more population than is expected by 2019. This provides market choice and flexibility in project location and anticipates the community's needs for areas to accommodate growth beyond the planning period.

The community should not necessarily build facilities to support the ultimate growth potential. If facilities are sized for substantially more residents than will live in the community, over the twenty year plan period, the costs for construction and debt service will be higher for each resident than if the systems were sized to serve expected growth. Timing and phasing of public infrastructure become more important to assure that public investments will be cost-effective. Facilities should be planned so that the ultimate population can be served, but constructed in phases that will accommodate future demands without resulting in unused capital investment.

F. POPULATION PROJECTION UPDATE.

Need For Update

In this year 2000 update of the Comprehensive Plan, it is appropriate to re-examine potential growth rates for population. Exhibit III.16 sets forth potential ranges of population growth based upon various projections updated from the data analyzed in the 1993 Comprehensive Plan.

EXHIBIT III.16: POPULATION GROWTH PROJECTIONS

1998 Average Annual Compounded Growth Rate:	8.16 percent
Average Annual Compounded Growth Rate Since 1992:	2 percent
1998 Building Permits:	54
Average Building Permits Since 1992:	25 per year

Year	Scenario AA@ (2 %)	Scenario AB@ (3 %)	Scenario AC@ (4 %)	Scenario AD@ (6 %)	Scenario AE @ (8 %)
1990	2,228	2,228	2,228	2,228	2,228
1999	2,650	2,650	2,650	2,650	2,650
2004	2,925	3,070	3,225	3,545	3,895
2009	3,230	3,560	3,925	4,745	5,725
2014	3,565	4,125	4,775	6,350	8,400
2019	3,950	4,780	5,800	8,500	12,350
Required Number of Building Permits Per Year	23/yr	40/yr	55/yr	112/yr	170/yr

PROJECTION SELECTION YEAR 2000

Scenario D with an annual population growth averaging 6% through the year 2019 appears to be the most likely to occur. Employment growth is projected to increase at a similar average rate of 7% annually. These projections are illustrated in Exhibit III.17.

EXHIBIT III.17: POPULATION AND EMPLOYMENT PROJECTIONS

Year	Population	Labor Force	Jobs	Jobs/Labor Force
1990	2,228	972	800	0.82
1999	2,650	2,157	1,470	0.88
2004	3,545	3,359	2,061	0.91
2009	4,745	5,231	2,890	0.95
2014	6,350	4,266	4,053	0.98
2019	8,500	5,983	5,684	0.95

IV. THE PLANNING PROCESS

INTRODUCTION

PUBLIC PARTICIPATION

BASELINE ANALYSIS

EVALUATION OF PLAN ALTERNATIVES

PLAN ADOPTION

A. INTRODUCTION

Effective planning is an ongoing process. Planning in Sunnyvale did not begin with the preparation of this Plan, nor will it end with the community's adoption of the Plan. The planning process gives Sunnyvale's residents the opportunity to consider its existing policies, the needs of its residents and its goals for the future. The process is Illustrated in Exhibit IV.1 and described in more detail below. Throughout the process, the Town has relied on the active participation of the Plan Update Committee, the Planning and Zoning Commission, the Town Council and Sunnyvale's residents and property owners to ensure that this Comprehensive Plan reflects the needs and desires of the community.

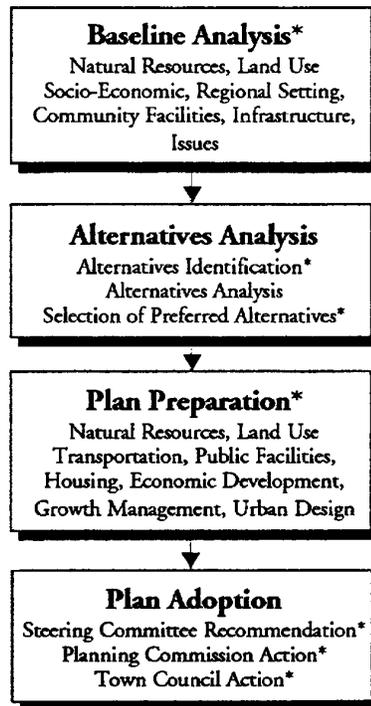
B. PUBLIC PARTICIPATION

Public participation has been a fundamental part of this planning process. This participation has been solicited in a variety of ways - through public workshops and hearings, through Plan Update Committee meetings, through Planning and Zoning Commission meetings and Town Council meetings. Below is an overview of the Town's effort to ensure that the planning process was open and accessible to as many people as possible.

Plan Update Committee. The Sunnyvale Town Council appointed a Plan Update Committee of 12 members to represent the diverse views and concerns of Town residents and property owners. This committee included Town Council and Planning and Zoning Commission members, representatives of landowners with large and smaller holdings, the School District, the business community, building and development interests, and resident homeowners. The Committee's process began with a Scoping Workshop to provide information about the planning process and to gather initial concerns. The Committee met extensively to review the Baseline Analysis, to develop and evaluate the Alternatives Analysis and to review Comprehensive Plan drafts.

Public Workshops. Interested citizens and property owners were provided the opportunity to express their views and concerns at a workshop conducted after completion of the Baseline Analysis. The comments by workshop participants assisted the Plan Update Committee, Planning and Zoning Commission and Town Council in revising and refining the preferred plan alternative, the flexible planning concepts, and design guidelines upon which this updated Comprehensive Plan is based.

Exhibit IV.1: Overview of Sunnyvale Planning Process



* Input obtained from the public, Plan Update committee, Planning Commission and /or Town council at each of these steps in the planning process.

A second workshop was conducted after the first public review draft of the Comprehensive Plan was available. Both workshops provided additional information and community perspectives on the proposals developed by the Town. Comments at these workshops were considered by the Town Council in its decisions on plan alternatives and the Plan itself.

Additional opportunities for public input were provided at the public hearings for adoption of the Comprehensive Plan. These hearings are described in more detail below.

C. BASELINE ANALYSIS

The first step in updating the Comprehensive Plan was an assessment of existing conditions in Sunnyvale and the region as a whole. The Town's planning consultants compiled and analyzed information on natural resources, land use, socioeconomic conditions, Sunnyvale's regional role, community facilities and public infrastructure. Also included within the scope of this baseline analysis was the identification of key issues facing the community that should be addressed through its Comprehensive Plan. This information is presented in two "Context for Planning" reports that are summarized in Section III of this Comprehensive Plan.

The Town's Plan Update Committee reviewed the information contained in the two baseline reports and the comments received during the initial scoping session. The Committee developed a set of preliminary community objectives, shown in Exhibit IV.2. These objectives describe the Town's initial expectations about its future character. This set of objectives was evaluated through analysis of plan alternatives (described below) and was refined to create the goals and policies found in the six Plan Elements.

D. EVALUATION OF PLAN ALTERNATIVES

The Plan Alternatives phase of the planning process gave the community a way to objectively compare the impacts of different policy choices for Sunnyvale. Three major policy alternatives were developed by the community the rural alternative, the traditional alternative, and the clusters and centers alternative. These alternatives and their impacts are summarized below. The "Analysis of Plan Alternatives" provides a more detailed discussion. The three alternatives differ primarily in the type and intensity of planned development, including the locations, densities and types of housing anticipated. Exhibit 1V.3 describes the key features of each alternative, showing the impact on agricultural uses, minimum lot sizes, residential and non-residential development potential, floodplains, open space and vegetation. Exhibits IV.4 through IV.6 illustrate the general distribution of land use proposed in each alternative. All exhibits reference the same list of land use categories. These are defined in Exhibit 1V.7. The plan alternatives also share a common set of assumptions that are listed in Exhibit 1V.8.

After the consultant analyzed the potential impacts of each alternative, Sunnyvale conducted a workshop to gain public input. This input led to the Plan Update Committee's recommended alternative that combined features of each alternative. The Committee's recommended alternative is shown in Exhibit 1V.9.

The Planning and Zoning Commission and Town Council reviewed this recommendation and made further refinements before adopting a preferred alternative. This preferred alternative is shown in Exhibit IV.10. As part of this discussion process, the Town Council discussed flexible planning concepts to provide development incentives while enhancing community character. A set of alternative design guidelines were discussed extensively to define the particular design issues of greatest importance to Sunnyvale and the guidelines and standards which can be used to ensure high quality design in future developments. The preferred plan alternative, the Council's direction regarding flexible planning approaches and these discussions of design options formed the basis for drafting of this updated comprehensive plan.

EXHIBIT IV.2: INITIAL COMMUNITY OBJECTIVES

A. Natural Resources

1. Preserve the natural character of floodplain areas (in terms of wildlife habitat, vegetative and scenic values)
2. Preserve major stands of trees and enhance tree-lined lanes.
3. Preserve other vegetation and the floodplains.
4. Retain open space corridors along creeks.
5. Provide public access and/or trails in open space along creeks.
6. Retain areas for agricultural and agricultural residential uses.
7. Retain views of Lake Ray Hubbard from public roads/lands.
8. Retain "long views" of rural areas within the Town.
9. Provide incentives and design flexibility to projects that make valuable contributions to preservation of these natural resources.
10. Manage development characteristics to minimize impacts on the Town's natural resources.
11. Maintain high standards for groundwater quality.
12. Maintain high standards for air quality.
13. Provide permanent open space, on and off-site, as part of development projects.
14. Retain or create stock tanks/ponds/lakes.

B. Land Use, Housing, Economic Development, Design

1. Determine appropriate locations for non-residential development.
 2. Meet resident's needs for "neighborhood shopping" at key locations in the Town.
 3. Provide some locations for professional, medical and service commercial uses.
 4. Encourage nonpolluting industries (such as research and development) to locate here.
 5. Concentrate new commercial and industrial development within identified areas of the Town.
 6. Identify areas for varying forms of housing (unit type, ownership options and density).
 7. Plan housing to meet special needs (i.e., senior housing, housing for young families).
 8. Provide areas for residential development on lots large enough to keep horses and provide for diverse agricultural and rural uses.
 9. Retain the unique character of existing neighborhoods.
 10. Promote new development that creates unique neighborhoods or residential areas within the Town.
 11. Retain the beauty and rural atmosphere of the Town while providing opportunities for new development
 12. Provide transition areas (open spaces, parks, lower intensity uses) and buffers (set backs, landscaping, screening, berms) between areas planned for different type or intensity of use.
 13. Plan for a community center (school, park, recreation center, gym, library, etc.).
 14. Use performance standards and criteria to achieve goals.
-

C. Transportation

1. Define standards for "adequacy" of transportation system.
2. Plan roadways that are adequate to carry traffic generated by planned development in the Town.
3. Identify different roadway types, based on function and expected traffic volumes, and designate planned roadways by type.
4. Preserve the character along Sunnyvale's "country lanes".
5. Establish different roadway design standards for urban and rural parts of the community ("urban standards" could include curbs and gutters, while "rural standards" might use drainage swales).
6. Minimize disruption of the community resulting from new roadway locations and designs.
7. Establish policies for alleys in new development

D. Public Facilities

1. Define standards for "adequate" service levels for basic public services:
 - a. Potable water supply
 - b. Sewage treatment
 - c. Police/sheriff protections
 - d. Fire protection
 - e. Community facilities and libraries
2. Plan facilities that provide adequate service to the planned land uses in the community.
3. Maintain a high quality school system.
4. Provide enhanced public services in the futures, such as:
 - a. Community center
 - b. Community parks (with ball fields, swimming pools, and other facilities for active recreation)
 - c. Bike, hiking equestrian trails.
5. Plan land uses and public services that are realistic in terms of the Town's anticipated fiscal resources.
6. Consider joint school-park facilities.

E. Growth Management and Regional Role

1. Plan for continuing growth and development that retains the existing quality of life.
 2. Plan for future development that is compatible with the Town's natural resources.
 3. Phase new development at a pace that can be adequately served by available community facilities and services.
 4. Provide a distinctive development character and diverse housing options in the northeastern Dallas region.
 5. Implement the regional open space objective of defining an "edge" of transition between the areas for long term urban and rural development.
 6. Contribute essential linkages to the open space system for Dallas County.
 7. Use design, land use and "gateways" to emphasize Sunnyvale's distinctive character.
-

Exhibit IV.3: Plan Alternatives Selected for Study

Alternative 1: Rural Development Patterns	Alternative 2: Traditional Development Patterns	Alternative 3: Clusters and Centers
Agricultural and rural residential areas are retained.	Agricultural, rural residential and large ranches are not retained	Large ranches are not retained. Agricultural or rural residential are located in some areas and around some clusters
Residential development is primarily rural residential, with lots of two acres or more.	Residential development is primarily in standard subdivisions (one to two acre lots)	Residential occurs in clusters surrounded by low density or open space. Clusters may have single family or townhouse units.
Approximate “build-out” population is an estimated 11,200. Overall residential density = approx. 0.6 DU/Ac.	Approximate “build-out” population is an estimated 24,300. Overall residential density = approx. 1.5 DU/Ac.	Approximate “build-out” population is an estimated 28,7000. Overall residential density = approx. 1.6 DU/Ac.
Commercial development is in “strips” along highways and major roads.	Commercial development is in “strips” along highways and major roads, Highway 80	Commercial development is in centers at major roadway intersections and along Highway 80.
There are two possible locations for public uses north of Highway 80.	There are two possible locations for public uses north of Highway 80.	There are two possible locations for public uses north of Highway 80.
Industrial/employment uses are located south of Highway 80	Most industrial/employment uses are still located south of Highway 80	Most industrial/employment uses are still located south of Highway 80
Floodplains are preserved as under current regulations.	Floodplains are preserved as under current regulations.	Floodplains are preserved; additional open space and trail system is created
No special effort is made to retain trees or “country lanes”; large residential lots will retain some.	No special effort is made to retain trees or “country lanes”	Country lanes and groves of trees are retained and enhanced.

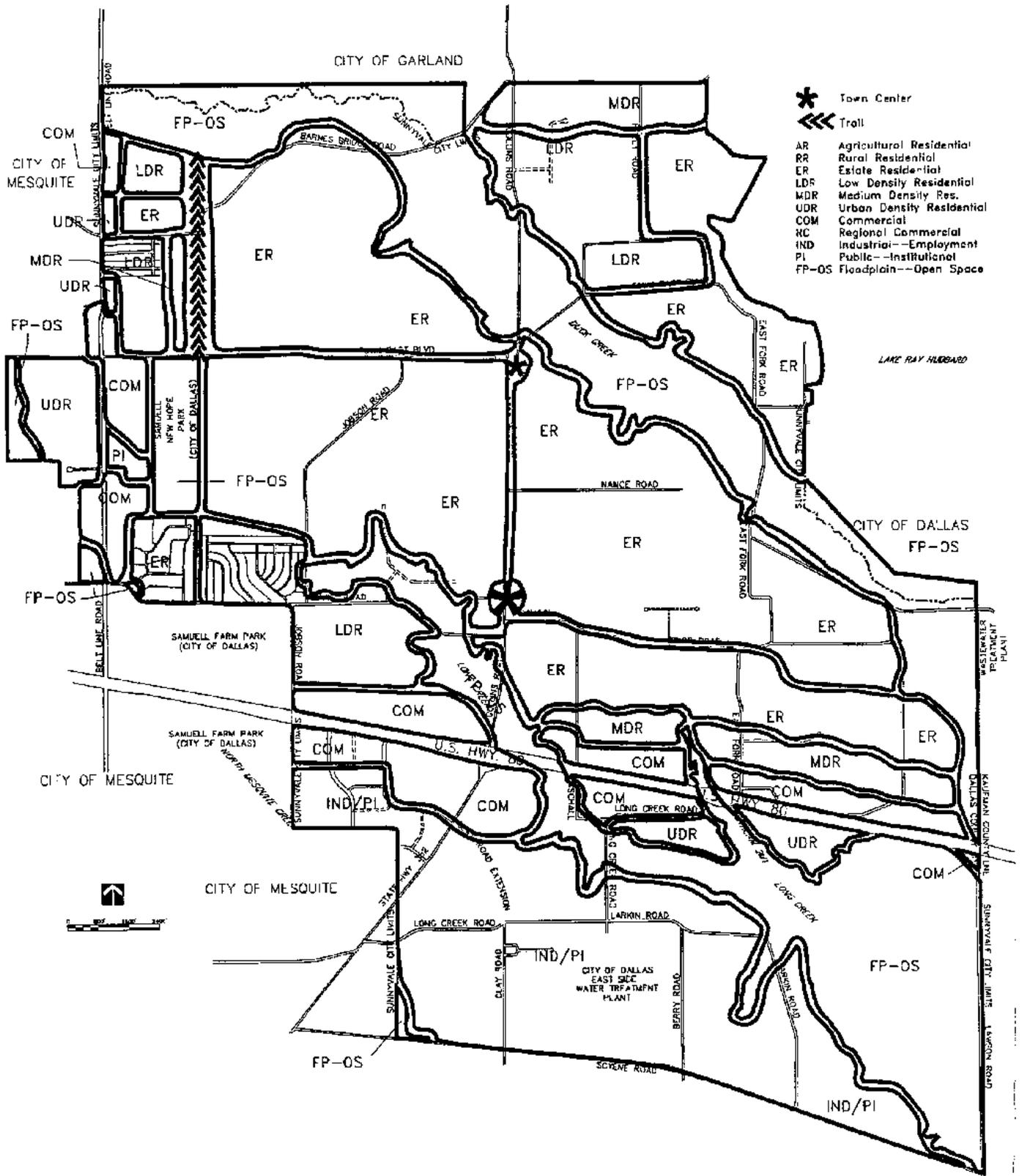


Exhibit IV.5: Conceptual Land Use Diagram: Alternative 2 Traditional

Exhibit IV.7: General Development Types

Residential Type / General Features

Agricultural Residential

- Homes with a small grove, fields or other small commercial agriculture operation.
- Typical lots could be appropriately 10 acres
- Centralized services wouldn't be needed.

Rural Residential

- Homes on large acreage.
- Typical lots could be approximately 2 to 5 acres.
- Horses and other livestock could be kept for family use.
- Centralized services are not needed.

Estate Residential

- Estate style development with large lots; lots might range from 1 to 2 acres.
- Another option is smaller lots clustered with open space surrounding homes; the overall density is the same. This option is shown on Alternative 3 Centralized water and sewer might be needed, depending on site conditions.

Low Density Residential

- Single family residential development with typically 1 to 2 units per acre.
- Another option is smaller lots dustered with open space surrounding homes: the overall density is the same. This option is shown on Alternative 3.
- Centralized water and sewer are needed.

Medium Density Residential

- Single family residential development, typically 2 to 5 units per acre.
- Centralized water and sewer are needed.

Urban Density Residential

- Residential development with more than 5 units per acre.
- Typical development could be patio homes, townhouses or apartments.
- Centralized water and sewer are needed.

Commercial

- Office and Retail uses serving the local community.

Regional Commercial

- Retail establishments serving residents and businesses throughout the region.

Industrial-Employment

- Light industrial development and offices providing employment opportunities.

Public- Institutional

- Schools, libraries and other public service uses.

Floodplain – Open Space

- FEMA designated 100-year floodplain and public or private lands reserved for open space.

Exhibit IV.8: Assumptions Common to All Alternatives

- Existing development will remain.
- Sunnyvale will continue to grow.
- Household sizes will decline over time.
- Patterns of public service demand will be unchanged.
- The Town will use its existing public sites~
- New town centers will be planned.
- The Town will implement its Plan.
- Technology will not change dramatically.

Preparation of the Comprehensive Plan

Refining the Town's preferred alternative was an integral part of developing the Comprehensive Plan Elements. The goals and policies of the Elements were developed and refined during several working sessions with Town officials and citizens. Development of the land use policies and application of those policies to all areas within the Town were critical parts of the process of refining community goals and policies. The Plan's Land Use Element includes a Land Use Diagram, which graphically illustrates appropriate future land use patterns for Sunnyvale.

Other Plan Elements, dealing with natural resources, housing, economic development, community services and facility provision, are related to the policies of the Land Use Element to ensure a complete integration and coordination of Town policies. Each of these elements includes goals and policies to address particular issues of concern to the Town in a manner that is coordinated with policies in other Plan Elements.

In addition to the goals and policies, each Plan Element includes recommendations for action by the Town to accomplish its goals. Development of these measures also involved input from the Committee, the Commission and the Council.

E. PLAN ADOPTION

The Town held a public workshop on March 9, 1993 at the Sunnyvale School gymnasium to obtain public comments on the draft Comprehensive Plan. That input, and other comments, were considered by the Planning and Zoning Commission at a public hearing on April 1, 1993. At that hearing the Planning and Zoning Commission recommended approval of the Comprehensive Plan, with some revisions. The Town Council conducted a public hearing on April 12, 1993 to consider the draft plan and the recommendations of the Planning and Zoning Commission. After making further modifications, the Council adopted the Comprehensive Plan unanimously on that date.

V. NATURAL RESOURCES ELEMENT

OVERVIEW

NATURAL RESOURCES

A. OVERVIEW

The purpose of the Natural Resources Element of the Comprehensive Plan is to address the critical environmental features that were considered in the formulation of the Plan. The Element identifies key issues, establishes a series of goals and policies, and includes recommendations for implementation of these policies. The basis for the formulation of the key issues, goals and policies, and implementation measures was the research undertaken for the prior phases of the Comprehensive Plan preparation, specifically the Context For Planning: Background Information & Analysis Part One (Section II), Context for Planning: Analysis of Regional Setting, and the Analysis of Plan Alternatives.

B. NATURAL RESOURCES

Key Natural Resources Issues

The natural character of Sunnyvale is comprised principally of gently rolling terrain dissected by stream and floodplain corridors containing stands of trees which provide a variation from the predominant grassland coverage of the Town. At the initial Scoping Workshop held in April 1992, the participants identified natural resource issues to be addressed by the Comprehensive Plan. Subsequently, a set of initial objectives was prepared which contained natural resource issues that need to be addressed in the Comprehensive Plan. The key natural resource issues can be related to a series of natural factors as follows: hydrology, vegetation, soils/geology, topography/slopes, and climate. The following is a brief description of each of the key issues related to these natural factors.

Hydrology. Hydrology is comprised of floodplains, wetlands, surface drainage, and groundwater resources. Floodplain areas, as currently identified, comprise 20 percent of the total land area of the Town, most of which are located along the Duck and Long Creeks. Wetlands serve as key locations for groundwater recharge, offer natural flood protection and provide unique habitats for a wide variety of plant and animal species. The majority of wetland areas within the Town, as identified by the U.S. Fish and Wildlife Service National Wetland Inventory Maps, occur within 100-year floodplains and along the edges of ponds and lakes. Surface drainage is divided into three drainage areas, and the groundwater is contained within three sand aquifers that underlie Dallas County. The various hydrological components give rise to issues such as:

- How should development be regulated in floodplain and wetland areas?
- Should the extent of stream corridors be identified and mapped?
- Should development be regulated in the stream corridors, and if so, how?
- Should groundwater resources be protected, and if so, how?

Vegetation. Tree stands, which generally follow the stream corridors, areas of native grassland, and the presence of Sunnyvale's pasture and cropland provide varied vegetative cover and natural wildlife habitats. The location and diversity of vegetative types gives rise to issues such as:

- Should the vegetative communities which affect the Town's diversity of wildlife species be protected, and if so, how?
- Should the location and extent of different types of vegetation be identified and protected, and if so, how?
- Should the Plan encourage the establishment of additional vegetative areas, and if so, how?

Soils/Geology. Sunnyvale's soils are predominantly dark, thick, plastic clay soils and contain areas "for urban development"⁹ and areas which have been classified as having a medium or high potential for use as cropland or pasture. The stable geologic conditions underlying the Town contain no constraints in the development of the Plan. The soil conditions, however, raise issues such as:

- Should the Plan direct development to areas according to the soils' ability to accommodate it, and if so, how?
- Should development be regulated in areas of soils which are defined as "unsuitable for urban development," and if so, how?
- Should the Plan preserve areas of prime agricultural soils for agricultural or agricultural related uses, and if so, how?

Topography/Slopes. The topography of Sunnyvale is characterized by gentle rolling hills and prairie, with limited areas of steep slopes. The topographic characteristics of the Town raise issues such as:

- Should the Plan identify and map slopes greater than 15%?
- If so, should development on these slopes be regulated, and if so, how?
- Should the Plan consider areas of rolling terrain with slopes less than 15%, and if so, how?

Climate. The section on climate addresses the solar energy and air quality aspects of the Town. The opportunity to use solar energy within the Town is high because the sun shines 75% of summer daylight hours and 55% of winter daylight hours. The Town's impact on the regional air quality is limited due to its small size. However, solar energy and air quality do give rise to issues such as:

- Should the Plan encourage the use of both passive and active solar systems in future developments, and if so, how?

⁹ United States Department of Agriculture, Soil Conservation Service, Soil Survey of Dallas County, February, 1980.

- What role can the Town play in aiding the region to meet and exceed all air quality standards as set by the National Ambient Air Quality Standards (NAAQS)?

Goals and Policies

When studied together in a group, the key natural resource issues identified above all relate to a single overall environmental goal when developing the Comprehensive Plan. That goal is:

Goal 1: To respect and enhance the Town's existing natural environment.

Furthermore, this goal is supported by a series of community objectives that were identified during the public meetings held as part of the comprehensive planning process. These objectives include:

- To preserve the natural character of floodplain areas (in terms of wildlife habitat, vegetative, and scenic values).
- To preserve major stands of trees and enhance tree-lined lanes.
- To preserve other vegetation along the floodplains.
- To maintain high standards for groundwater quality.
- To maintain high standards for air quality.
- To provide incentives and design flexibility to projects that make valuable contributions to preservation of these natural resources.
- To manage development characteristics to minimize impacts on the Town's natural resources.
- To plan for future development which is compatible with the Town's natural resources.

The overall environmental goal, and the underlying objectives, can be accomplished through the following policies that relate to the five key natural resource categories previously discussed. A discussion of recommended implementation measures for each of the policies follows.

Hydrology Policies

Policy 1.1 Sunnyvale should preserve and protect the 100-year floodplain and wetland areas within the Town, consistent with reclamation policies set forth in the development regulations, from alteration or destruction due to development in, adjacent to, or near these areas. Land Use Element policies and the Town's development regulations should establish the procedures and criteria for addressing modification of existing floodplain areas.

Policy 1.2 Existing stream corridors should be identified, mapped and protected from development that would alter or destroy the natural stream environments.

Policy 1.3 The Equality of groundwater resources should be protected from infiltration of pollutants and degradation as a result of construction.

Vegetation Policies

Policy 1.4 Significant stands of native trees, areas of native grasses, and any other areas of substantial vegetation should be preserved and protected from alteration or destruction. Exhibit V.1 shows the general location of areas of significant stands of trees and wetlands for which protection is recommended. Should additional areas of significant vegetation be identified in the future, they should be included in this exhibit.

Policy 1.5 The establishment of new vegetative communities of trees, shrubs, and grasslands should be encouraged, in order to:

- provide additional plant and animal communities to compensate for habitat areas being eliminated in other urbanizing areas,
- ensure the continued presence of a variety of vegetative types within the Town as the current stands age and succumb to development and natural processes,
- maintain and enhance the rural character of the Town.

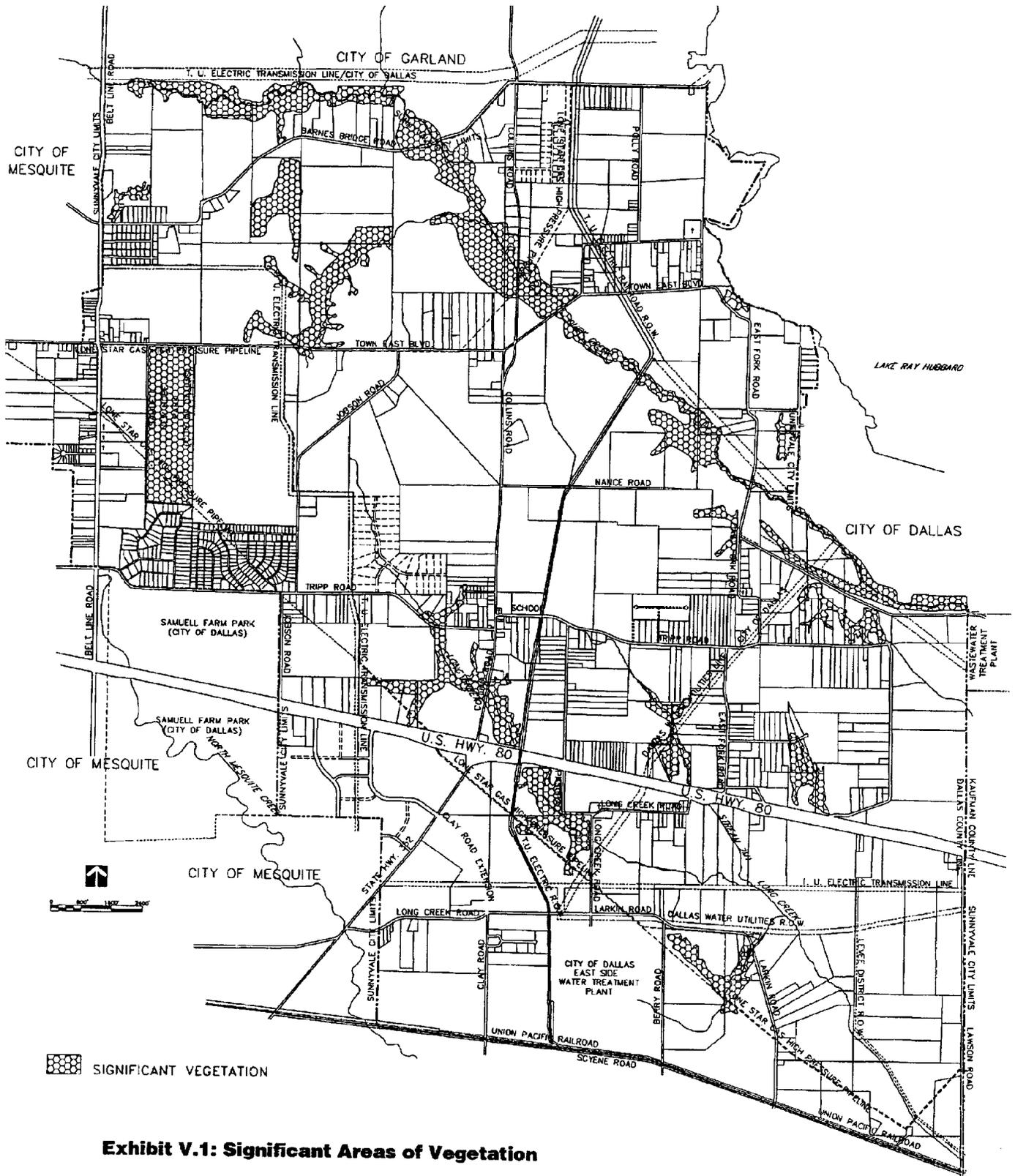


Exhibit V.1: Significant Areas of Vegetation

Soils/Geology Policies

- Policy 1.6 Sunnyvale should direct growth to areas that are comprised of soil types that have the ability to accommodate the proposed development.
- Policy 1.7 The Town should review development proposed in areas “unsuitable for urban development” to ensure that the density, method of sewage treatment and other aspects of the development are appropriate to the area.

Topography/Slopes Policies

- Policy 1.8 Development on slopes greater than 15% within the Town should be regulated.

Climate Policies

- Policy 1.9 The use of non-polluting energy systems in future development should be encouraged.
- Policy 1.10 The Town should maintain high standards of air quality.
- Policy 1.11 Sunnyvale should participate in a coordinated regional effort to exceed the air quality levels established by the National Ambient Air Quality Standards (NAAQS).
- Policy 1.12 The establishment of new vegetative communities is encouraged in order to moderate the existing climate.

Implementation Measures - Natural Resources (NR)

NR1 Include environmental protection measures in the Sunnyvale Zoning and Subdivision Ordinances.

Discussion: Measures that protect the 100-year floodplain, significant wooded areas, wetlands, and other environmental features should be integrated into the zoning and subdivision regulations concerning development incentives and bonuses.

NR2 Develop a Design and Development Manual that includes standards and guidelines designed to protect the Town's natural resources.

Discussion: Suggested standards and guidelines are included as an appendix to this Comprehensive Plan.

VI. LAND USE ELEMENT

OVERVIEW

LAND USE

A. OVERVIEW

The Land Use Element designates the proposed general distribution of land uses to meet Sunnyvale's needs for housing, business, industry, open space and public purposes. Sunnyvale is a small community on the fringe of the Dallas metropolitan area that provides a valuable transition between urban communities to the west and the rural farms and ranches to the east. Residents strongly value the small town feel of their community and wish to provide for future growth without sacrificing this existing character¹⁰. By planning for the types, locations and densities of development, the Land Use Element establishes appropriate guidelines for the growth of the Town.

The Land Use Element identifies key land use issues, establishes land use goals and policies, and recommends specific actions to implement those goals and policies. The Element incorporates a land use diagram that shows the planned distribution of land use categories, as well as descriptions of the types of development that are appropriate in each category. It also describes the maximum development potential provided by the Plan. The land use goals, policies and implementation measures will be a valuable guide for Sunnyvale leaders as they make decisions affecting future development.

B. LAND USE

Key Land Use Issues

Accommodating Expected Future Growth. The Land Use Element establishes a planned pattern for development for the next twenty years, and beyond. It plans land for more residential development than would be needed to accommodate population growth projected through the year 2010; it also provides more area for future commercial and industrial development than will be needed. In this way, the Town is anticipating continued growth and is planning development areas, public services and facilities to support it.

Preserving Community Character. The goals and policies of the Comprehensive Plan define a long-range vision of Sunnyvale's future development. This plan provides areas for various types of residential and non-residential development in a way that preserves Sunnyvale's community character and the rural ambience of the Town. The plan reflects the Town's unique role in the Dallas region -- providing larger residential lots and a transition from urban to rural development. The Town's support for the County's Open Space Plan and its major landscape framework is reflected in the Town's plans for lower density development in the eastern part of the community¹¹.

¹⁰ See the Context for Planning for a description of existing land use patterns.

¹¹ Dallas County Open Space Plan, 1991. Albert H. Halff Associates, Inc. and Roy Mann Associates, Inc.

Ensuring Land Use Compatibility. The pattern of development described by the Land Use Diagram reduces the potential for locating incompatible land uses adjacent to one another. The goals, policies and implementation measures of the plan provide additional guidance for ensuring compatibility between dissimilar land uses.

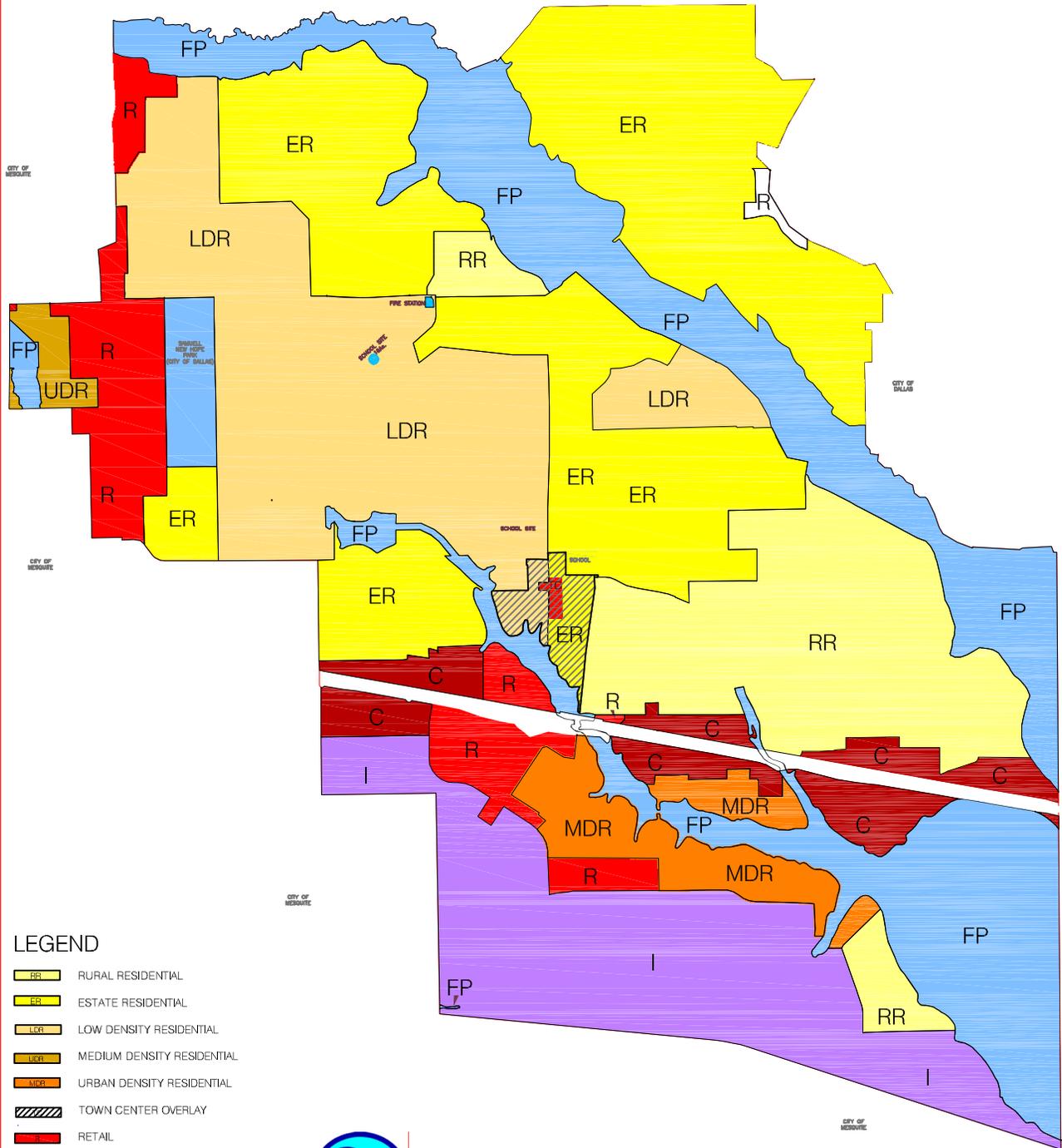
Providing Development Guidance and Flexibility. The Land Use Element serves as a guide for informed decision-making in development matters. It provides direction for developing individual properties according to the Town's vision for its future. As a result, these individual developments should fit into the overall development pattern described in this Plan.

At the same time, this Comprehensive Plan is designed to provide flexibility in the application of its policies. Performance standards, particularly those related to residential development, give a property owner flexibility in designing development proposals that meet the Town's goals. The Town's design guidelines provide additional illustration of the development anticipated by the Town, and the zoning and subdivision regulations implement these policies.

Land Use Diagram

The Land Use Diagram, found in Exhibit VI.1, shows the planned land uses for the Town. Policies that refer to a "Land Use Diagram" apply to this diagram, as adopted and subsequently amended by the Town. The Town's official copy of the Land Use Diagram, available at the Sunnyvale Town Hall, provides the definitive reference for use in determining the intended boundaries of each land use area. The Land Use Diagram, together with the goals and policies contained in the Comprehensive Plan text, establishes the Town's policy direction and acts as a guide for decisions affecting the Town's future development.

The Land Use Diagram is not the Town's official zoning map. It is a guide to future land use patterns. The Land Use Element, and all other aspects of the Comprehensive Plan, are implemented primarily through development regulations (zoning ordinance and subdivision ordinance), or through programs which fulfill other policy objectives, such as programs that raise revenues to finance public facilities and services. The zoning ordinance text and map determine which specific development requirements apply to a particular property.



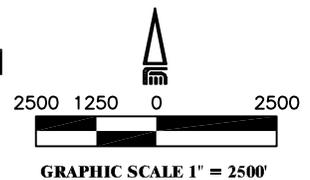
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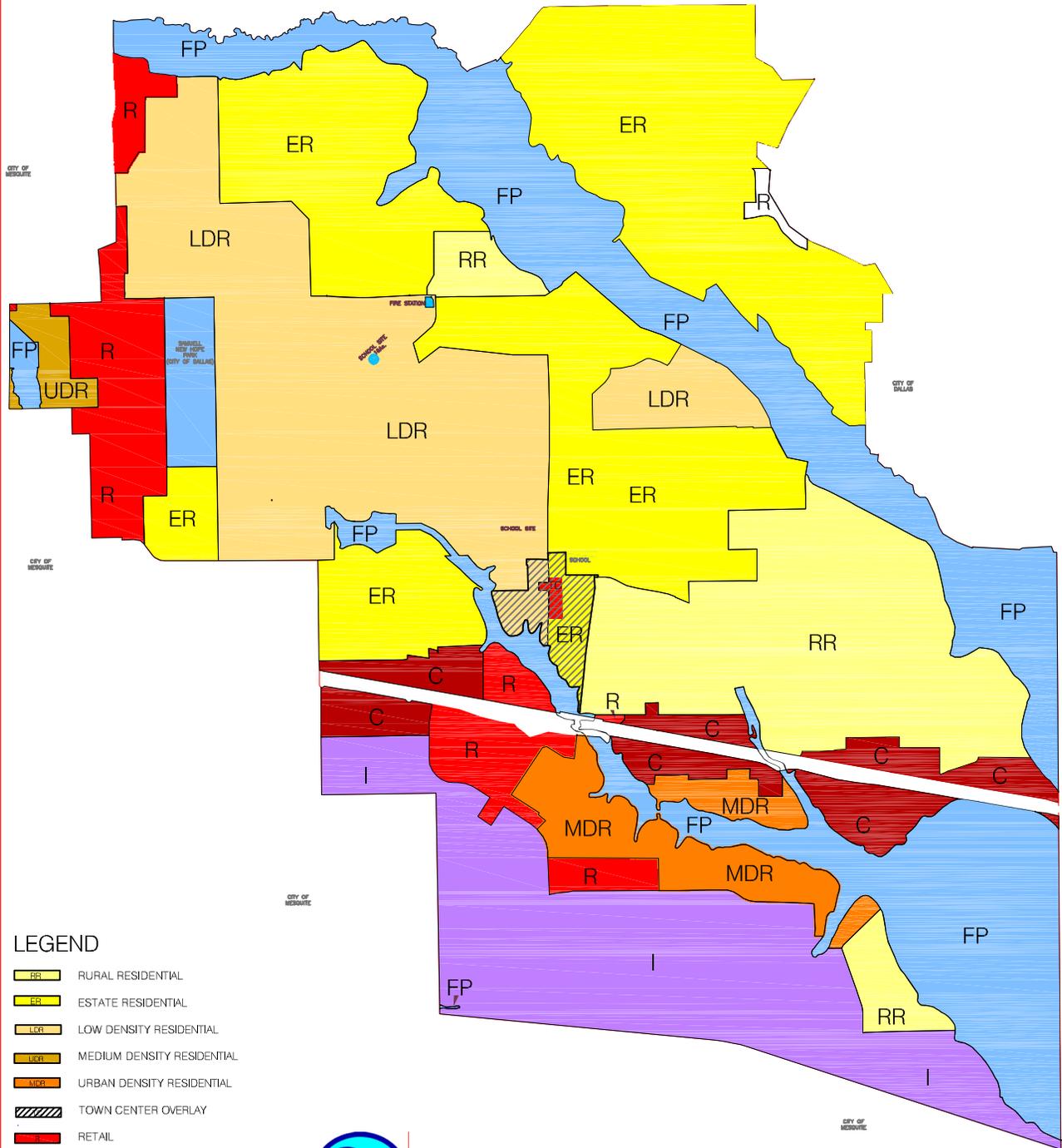
- RR RURAL RESIDENTIAL
- ER ESTATE RESIDENTIAL
- LDR LOW DENSITY RESIDENTIAL
- MDR MEDIUM DENSITY RESIDENTIAL
- UDR URBAN DENSITY RESIDENTIAL
- TOWN CENTER OVERLAY
- R RETAIL
- P PUBLIC / INSTITUTIONAL
- C COMMERCIAL
- I INDUSTRIAL
- FP OPEN SPACE / FLOOD PLAIN



TOWN OF SUNNYVALE, TEXAS

EXHIBIT VI.1 (NEW): LAND USE DIAGRAM





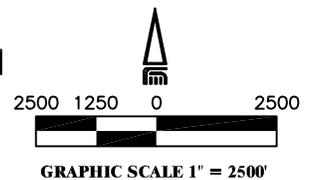
LEGEND

- RR RURAL RESIDENTIAL
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TOWN OF SUNNYVALE, TEXAS

EXHIBIT VI.1 (NEW): LAND USE DIAGRAM



**Exhibit V1.2: Comprehensive Plan Land Use Categories
Residential Land Uses**

Code	Designation	Maximum Density			Policy Intent (1)
		Base	Incentive	Bonus	
RR	Rural Residential	0.4 DU/A	NA	NA	Single family dwellings on large parcels in rural setting. Lots are at least 2 acres in size and at least 250 feet wide. Livestock may be kept and agricultural activities may continue. On-site wastewater systems may be used.
ER	Estate Residential	0.8 DU/A	0.9 DU/A	NA	Single family dwellings on large parcels. Lots at base density are at least 1 acre in size and 170 feet wide. Incentive density permits some smaller lots if larger lots also are included and/or open space is preserved. Connection to sanitary sewer system may be required.
LDR	Low Density Residential	1.0 DU/A	1.3 DU/A	1.6 DU/A	Low density single family dwellings on large and medium sized lots that typically are at least 170 feet wide. Narrower lot widths and higher densities may be approved at incentive or bonus densities, open space is preserved, and other amenities are provided. Connection to a centralized sanitary sewer system required.
MDR	Medium Density Residential	1.4 DU/A	2.3 DU/A	NA	Single family detached homes on medium sized lots. Higher densities may be approved at incentive density if, open space is preserved, and project design is superior.
UDR	Urban Density Residential	2.5 DU/A	4.0 DU/A	6.0 DU/A	Detached single family homes, duplexes, town homes and multi-family dwellings (2-story limit). Developments may be approved at incentive or bonus densities if larger lots also are included, open space is preserved, trees are preserved, special amenities are provided, and/or senior or assisted housing are provided.
	Non-Residential				
TC	Town Center		NA		Small scale light retail and public and community oriented uses which are compatible in design and performance with adjacent residential uses.
R	Retail		NA		Office, retail and service establishments with little or no outside storage or displays are permitted in this category. Design review is required for all development. Urban services are required.
C	Commercial		NA		Higher intensity office, retail and commercial establishments are permitted in this category. Design review is required for all development. Urban services are required.
I	Industrial		NA		Industrial development permitted, subject to design review and compatibility with surrounding land uses. Urban services are required.
P	Public/Institutional		NA		All public facilities, such as schools, libraries, major utility structures, other public buildings, churches and other quasi-public institutions.
FP	Open Space/Floodplain		NA		FEMA designated floodplain, parks and any other public or private land reserved for open space purposes.

Notes: DU/A: Dwelling units per gross usable acre

NA: Not Applicable

(1) This chart highlights primary uses anticipated in each category; the detailed descriptions of land use categories on this page provide detailed explanations.

Land Use Categories

A set of land use categories is used in the Land Use Diagram to describe the type and intensity of anticipated development. Exhibit VI.2 lists these categories and briefly summarizes their policy intent. In each case, the exhibit gives a name and abbreviation for the land use category. The land use categories listed in Exhibit VI.2 are described in more detail below.

The Land Use Diagram uses 10 categories to describe the future residential and non-residential land uses in Sunnyvale. Land use categories are more general than zoning districts -- there may be several zoning districts that are consistent with a particular land use category. In addition, the zoning districts contain the detailed specifications of development requirements (such as lot dimensions, setbacks and parking) and the definition of the particular uses allowed in the zoning district as of right or subject to special approvals.

C. RESIDENTIAL LAND USES

For residential uses, the exhibit shows the maximum base densities consistent with each category. Density is expressed as the number of Dwelling Units per Acre (DU/A).¹² For example, the category “Medium Density Residential” permits development at a maximum base density of 1.4 DU/A. The method for calculating a development project's density is described in Exhibit VI.3. The goals and policies of the Land Use Element define this method and other factors to be considered in evaluating a project's consistency with the Land Use Diagram.

In addition to the residential density range, Exhibit VI.2 also indicates the typical uses found in each land use category. This list is not comprehensive, and does not address the accessory uses that a zoning district might permit. It simply describes the primary uses typically found in this category, so residents and property owners can understand the Town's general policy intent for a certain area.

¹² For planning purposes, these densities are expressed in terms of gross usable acreage, wherein the term usable excludes from the number of acres in the development site acreage which is: floodway or any other 75% of any acreage encumbered by a reservation of record such as a power line easement. The Zoning Ordinance establishes provisions for reclamation of floodplain and partial open space for land in the flood fringe under limited circumstances.

Exhibit VI.3: Calculation of Residential Development Density

Residential Density Measured as Dwelling Units per Acre (DU/A):		
DU/A =	$\frac{\text{Number of Dwelling Units}}{\text{Number of Gross Usable Acres in Site}}$	
For example:		
DU/A =	$\frac{140 \text{ Dwelling Units}}{100 \text{ Gross Usable Acres}} =$	1.4 DU/A

Residential development may be permitted at densities that exceed the maximum base density under certain conditions. Exhibit VI.2 lists the maximum base density for each residential category. For some residential categories, it also indicates the maximum density permitted through the use of incentive and bonus provisions. The use of these provisions is summarized in Exhibits VI.4 and VI.5. Incentive densities that are higher than the base density are allowed if certain design criteria are satisfied; bonus densities may be granted as part of a development that meets certain performance standards related to project size, additional facilities, higher quality design or the inclusion of additional open space or large lot development in the project design. For instance, the maximum base density for Low Density Residential development is 1.0 DU/A. However, a density of 1.3 DU/A may be permitted in a Low Density Residential area if project design and open space requirements for the incentive density are satisfied. This density may be increased further to 1.6 DU/A if acceptable amenities are provided, as set forth in the Sunnyvale Zoning Ordinance. Larger projects can more effectively provide the necessary design and amenity features required for incentive and bonus densities. For this reason, the ability to use incentive and bonus densities varies depending on the size of the project being proposed. Smaller projects may propose incentive or bonus densities but must meet the same standards as larger projects. The goals and policies of the Land Use Element set the policy for approval of development at incentive or bonus densities; the Town's Zoning Ordinance establishes the procedures for using these flexible planning approaches.

EXHIBIT VI.4 : BASE, INCENTIVE AND BONUS DENSITIES

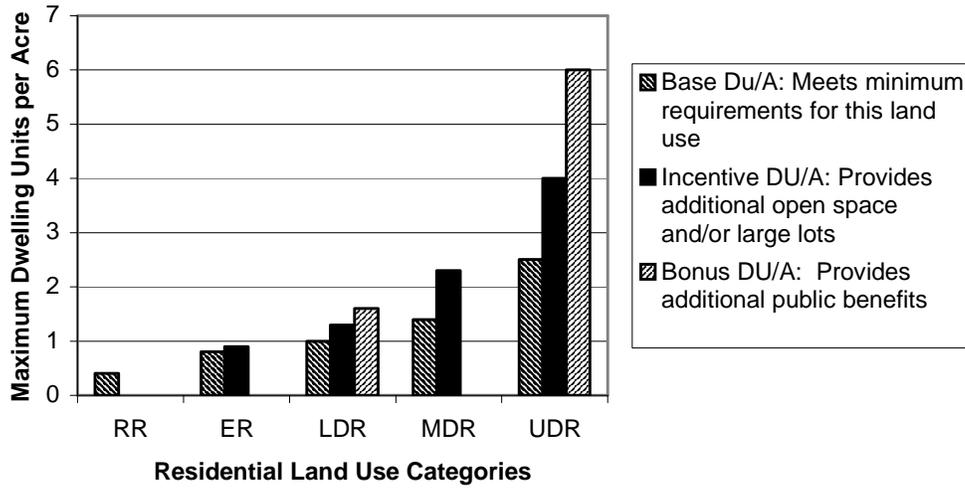


EXHIBIT VI.5: Amenities For Bonus Density Provision

Bonus densities may be achieved by providing additional public amenities or benefits as part of a development proposal. Approval of densities within the bonus range will be determined by the Town Council as part of action on a particular development project. Amenities may include items listed below. Exhibits VI.6 through VI.9 detail the bonus packages for each land use category.

- ✓ **Additional improvements to designated country lanes, parkways or trails**
- ✓ **Construction of improvements within open space areas**
- ✓ **Dedication of land (or payments in lieu) for public facility sites (fire station, school, etc.)**
- ✓ **Construction of major and minor facilities on public sites**
- ✓ **Provision of major recreational amenities, i.e. golf course, equestrian center**
- ✓ **Preservation of open space in addition to that required for Incentive Density**
- ✓ **Improvements to major and minor facilities on public sites**
- ✓ **Provision of housing units for seniors or persons with special needs**
- ✓ **Other amenities as proposed by the developer and accepted by the Town**

Residential land use categories are used to identify places where the principal planned land use is for residential purposes.¹³ There are six residential land use categories. The Agricultural Residential category is the least intensive land use. The Rural Residential, Estate Residential, Low Density Residential, Medium Density Residential and Urban Density Residential permit increasingly dense development. As density increases, so do the required levels of service.

Agricultural Residential (AR). Agricultural Residential development provides for single family residential homes on lots large enough to retain rural characteristics, including the keeping of horses and livestock. Agricultural operations (such as grazing and cultivation of orchards) may continue in these areas. The maximum density for Agricultural Residential development is 0.3 DU/A. Lots are typically at least three acres in size, with a minimum lot width of 250 feet. The zoning and subdivision regulations may provide flexibility regarding lot width and similar development details, if the result is to retain larger areas of a property in agricultural use or as rural open space. Rural service levels and improvement standards are appropriate for most rural development. Connection to the public water supply is required, but wastewater may be handled

¹³ Zoning district regulations determine what additional uses may be allowed within a primarily residential area.

by on-site systems in most cases. All Agricultural Residential lots must have direct access to a public street.

Rural Residential (RR). Rural Residential development provides for single family residential homes on lots large enough to retain rural characteristics, including the keeping of horses and livestock. Agricultural operations (such as grazing and cultivation of orchards) may continue in these areas. The maximum density for Rural Residential development is 0.4 DU/A. Lots are typically at least two acres in size, with a minimum lot width of 250 feet. The zoning and subdivision regulations may provide flexibility regarding lot width and similar development details, if the result is to retain larger areas of a property in agricultural use or as rural open space. Rural service levels and improvement standards are appropriate for most rural development. Connection to the public water supply is required, but wastewater may be handled by on-site systems in most cases. All Rural Residential lots must have direct access to a public street.

Estate Residential (ER). This land use is characterized by single-family detached homes on large lots. The maximum base density for this land use category is 0.8 DU/A, with a minimum lot size of one acre. In order to retain the rural character of the Town, particularly the views along the major roadways, Estate Residential development should be designed with wide lots, providing some separation between homes on adjacent properties. For this reason, development at base densities should maintain a minimum lot width of 170 feet and a lot depth greater than the lot width. An incentive density of 0.9 DU/A may be permitted if the development project is at least 20 acres, fifteen (15) percent of the subdivision is preserved as open space and project design is superior. All Estate Residential lots must have direct public roadway access and be connected to a public water system. Connection to a centralized wastewater system may be required for development in this land use category. Site-specific soils analysis will be needed to determine the appropriate method for providing adequate sewage treatment. Exhibit VI.6 lists these provisions.

Low Density Residential (LDR). This residential category permits residential subdivisions with a maximum base density of 1.0 dwelling unit per acre. Typical housing types in this land use category include single family detached homes on large and medium-sized lots. Projects from 20 to 175 acres may achieve incentive densities as well, although the specific requirements for smaller projects vary. A minimum lot width of 170 feet is required unless a subdivision is developed at the incentive or bonus density.

A maximum incentive density of 1.3 DU/A may be permitted for projects over 50 acres in size, if 15 percent of the subdivision is preserved as common open space. At least 35 percent of the lots must be a minimum of 30,000 square feet and other lot sizes are also limited by percentage. Lots as small as 16,000 square feet may be permitted in incentive density subdivisions provided other larger lot sizes are also included in the rations set forth in the zoning ordinance. All Low Density Residential lots must have direct access to a public road and be serviced by public water

and wastewater systems. Other site design provisions applicable to incentive density projects are described in the zoning ordinance and design guidelines.

Two bonus density options are available with varying allowances for lot sizes, open space dedications, project size, and design elements. Development permitted at bonus densities may include lots of at least 12,000 under the following conditions from 13,000 square feet to 24,000 square feet depending on the option, however certain minimum and maximum percentages apply to the number of lot sizes that may be platted. At least 15 to 25 percent of the land in the project must be preserved as open space. The maximum density of the entire development may not exceed 1.6 DU/A and the required project size is a minimum of 200 acres. Smaller lots should be located to minimize their impact on long views. The Zoning Ordinance describes the amenity and performance standard features, which should be included in a bonus density, project, including, but not limited to, the provision of open space/landscaping buffers. LDR bonus densities are possible for projects over 200 acres in size.

In addition to these design standards, proposals to develop at bonus densities must include appropriate amenities. The Town will have the discretion to determine the most appropriate combination of amenities and densities for these projects. Exhibit VI.7 lists the major features of these bonus density amenity packages. Within the range of density permitted through the use of bonus density provisions, the Town will determine the appropriate density for a particular project through its discretionary review of a particular development proposal. The Zoning Ordinance provides specific direction regarding the use of these provisions.

Exhibit VI.6: Flexible Planning Policies - Agricultural Rural and Estate Residential Land Use Categories

Category Density	(DU/AC)	Requirements	Incentive Performance Measures
Rural Residential (RR)			
Base Density	0.4	<ol style="list-style-type: none"> 1. Minimum lot size is 2 acres; minimum lot width is 250'; views across open areas. 2. Parcels must have roadway access. 3. Rural service levels & Improvements standards are used. 	
Estate Residential (ER)			
Base Density	0.8	<ol style="list-style-type: none"> 1. Minimum lot size is 1 acre; minimum lot width is 170'; lot depth is greater than the lot width. 2. Basic facility & access requirements. 	
Incentive Density	0.9	<ol style="list-style-type: none"> 1. Basic facility & access requirements. 2. Minimum 20-acre project development and preservation of 15% of area as common open space. 3. Lot depth is greater than the lot width. 	<ol style="list-style-type: none"> 1. Flexibility at subdivision for homes planned residential development near road and to retain long views across open areas.

Medium Density Residential (MDR). This residential land use category permits a maximum base density of 1.4 DU/A. Typical housing types in this land use category include single family detached homes on medium-sized lots. With the incentive density, single family detached or attached units, patio homes, duplexes and townhomes could be proposed. All MDR lots must have direct access to a public road and be serviced by public water and wastewater systems.

Development in the MDR land use category may be permitted with incentive densities up to 2.3 DU/A. A project must be over 20 acres in size to propose incentive densities. Incentive density development must retain at least 15% of the land in open space within a minimum 20-acre development. Exhibit VI.8 lists these provisions.

A bonus density of 4.0 DU/A may be permitted for developments of projects over 50 acres satisfying all of the conditions for incentive density and providing amenities that are acceptable to the Town. The Town will have the discretion to determine the most appropriate combination of amenities and densities for these projects, as provided in the Zoning Ordinance.

Urban Density Residential (UDR). This residential category is used to show the highest residential density planned in Sunnyvale. The maximum base density for Urban Density Residential development is 2.5 DU/A. Incentive density development can occur at a maximum density of 4.0 DU/A, if at least 15% of the land is retained in open space. As many as 6.0 DU/A may be permitted in this category's bonus density range. Exhibit VI.9 lists these provisions. Typical housing types in this land use category include single family attached and detached units, townhomes, duplexes and other multi-family units. All developments in this category must satisfy the minimum facility, access and service requirements of the Transportation and Public Facilities Element and Sunnyvale development regulations. These include access from individual parcels to a public street and connection to the public water and wastewater systems. Major stands of trees located outside the floodplain should be preserved as open space. Site plan approval is required to show compliance with design standards.

Exhibit VI.7: Flexible Planning Policies - Low Density Residential Land Use Category

Category	Density (DU/AC)	Requirements	Bonus Performance Measures
Low Density Residential (LDR)			
Base Density	1.0	<ol style="list-style-type: none"> 1. Minimum lot width is 170'. 2. Basic facility & access requirements. 	
Incentive Density	1.3	<ol style="list-style-type: none"> 1. Basic facility & access requirements. 2. Minimum lot size of 16,000 square feet. 3. Minimum 15% of land in open space. 	
Bonus Density	1.6	<ol style="list-style-type: none"> 1. Basic facility & access requirements. 2. Two bonus options are available with varied open space and development standards. Lot sizes range from 13,000 to 24,000 square feet.. 3. Minimum 15 - 25 % of land must be devoted to in open space depending on the option selected. 4. Minimum size of the development is 200 acres. Smaller lots are located to minimize their impact on long views. 4. Smaller lots are located to minimize their impact on long views. Smaller lot areas and should be separated from existing single family neighborhoods by open space/landscaping buffer. 6. Preservation of any stands of trees outside the floodplain as common open space. 	<ol style="list-style-type: none"> 1. Additional amenities must be provided as part of these projects. 2. Developers may must propose one or more amenities as generally listed in Exhibit VI.5. and the project must be of superior design. 3. The Town will have the discretion to determine the appropriate combination of amenities and densities for individual projects within the Bonus Density range. 4. The Sunnyvale Zoning Ordinance contains the specific requirements and procedures for use of these bonus density provisions.

Exhibit VI.8: Flexible Planning Policies - Medium Density Residential Land Use Category

Category	Density (DU/AC)	Requirements
Medium Density Residential (MDR)		
Base Density	1.4	1. Basic facility & access requirements.
Incentive Density	2.3	<ol style="list-style-type: none"> 1. Basic facility & access requirements. 2. Preservation of 15% of area as common open space. 3. Minimum development size is 20 acres. Clusters located to minimize their impact on long views. 4. Planned residential development must be located to minimize their impact on long views. Clusters must be separated from existing single family neighborhoods by an open space/landscaping buffer. 4. Fencing must be of split-rail or other rural designs. 6. Building designs and materials compatible with rural character.

Exhibit VI.9: Flexible Planning Policies - Urban Density Residential Land Use Category

Category	Density (DU/AC)	Requirements	Bonus Performance Measures
Urban Density Residential (UDR)			
Base Density	2.5	<ol style="list-style-type: none"> 1. Facility, access and phasing requirements must be met. 2. Preservation of any stands of trees outside the floodplain as common open space. 3. Site plan and design requirements must be met. 4. Building sites located to minimize their impact on long views. 5. Planned residential developments must be separated from existing single family neighborhoods by a landscaping buffer. 	
Incentive Density	4.0	<ol style="list-style-type: none"> 1. All requirements of base density must be met. 2. Preservation of 15% of area as common open space. 	
Bonus Density	6.0	<ol style="list-style-type: none"> 1. All requirements of incentive density must be met. 	<ol style="list-style-type: none"> 1. Additional amenities must be provided as part of these projects. Developers may propose one or more amenities as generally listed in Exhibit VI.5. 2. The Town will have the discretion to determine the appropriate combination of amenities and densities for individual projects within the Bonus Density range. 3. The Sunnyvale Zoning Ordinance contains the specific requirements and procedures for use of these bonus density provisions.

D. NON-RESIDENTIAL LAND USES

Non-residential land use categories are used to identify places where the principal uses are for non-residential purposes, such as office, retail, resorts, manufacturing, public institutions and others. There are four non-residential land use categories. The categories are listed in Exhibit VI.2 and are described in more detail below. Exhibit VI.2 lists the typical uses expected in each of these categories. The uses shown here are intended to describe the general character of development. Zoning districts, consistent with these general categories, will establish the specific uses and development standards for a particular non-residential property.

Non-residential uses permitted within a residential district must comply with zoning standards applicable to the most restrictive of the commercial zoning districts.

Town Center (TC) The Town Center category is located generally at Tripp Road and Collins Road. This area is centrally located and ideal for light retail, public and other community oriented uses. The parcels in this area are smaller and should be consolidated to create a more unified plan for uses, which may locate there. Design and development standards requiring a building theme, scale and setbacks that are compatible with adjacent residential uses should be established for this area. Precise boundaries of this category have not been determined.

Retail (R) This land use category is intended to include various types of retail and personal service uses, as well as low intensity office and professional uses, typically in a neighborhood-oriented or shopping center setting. These uses may also be appropriate along major thoroughfares (e.g., Belt Line Road) and freeway frontages (e.g., U.S. Highway 80), as shown on the Future Land Use Plan.

Retail uses that would be included within this category would include grocery stores, pharmacies, convenience stores, restaurants/cafes, discount/general merchandise stores, hardware/home improvement stores with little or no outside storage, appliance and furniture stores, computer and electronics sales, gardening shops, collectibles/antique sales, and other similar establishments where goods are sold.

Service uses would include apparel laundering (e.g., dry cleaners) or repair (e.g., tailor, shoe or jewelry repair), floral shops, day care centers, hair/nail salons, locksmiths, health/fitness and dance/gymnastics studios, small printing shops, gas stations which offer only limited automotive services (such as oil/lube, state inspections, tires and wheels, car stereo and alarm system installation, and other similar services which do not generally require overnight or long-term storage of vehicles), travel and auto rental agencies, car wash facilities (either automated or self-serve), and other similar businesses where the primary enterprise is to provide a service.

Office uses would include professional offices for architects and engineers, lawyers, physicians, financial advisors, insurance and real estate agents, banking/financial institutions, telemarketing call centers, and other similar establishments.

Most retail, service and office uses within this category should conduct all business activities indoors or within an enclosed area (i.e., not outside the building), and outside storage of goods and/or equipment should be minimal. Design review should be required for all retail, service and office buildings to ensure safe and efficient site design as well as compatibility with adjacent land uses.

Retail/Office areas adjacent to Lake Ray Hubbard are intended for retail and entertainment uses that relate to, and benefit from, location on or near the Lake.

Commercial (C). This land use category is intended to include various types of higher intensity retail and commercial uses, typically within areas that are more conducive to these types of business activities. Appropriate locations for commercial uses include areas along freeway frontages (e.g., U.S. Highway 80), as well as near the community's industrial area as shown on the Future Land Use Plan.

Land uses that would be appropriate within this category would include various retail and service uses as described for the Retail/Office category above, but would also include higher intensity sales and service uses such as car dealerships (both new and pre-owned) which may also offer vehicle repairs and service, motorcycle and personal watercraft sales and leasing, gas stations, trailer sales and leasing (e.g., U-Haul, horse trailers, etc.), machinery and equipment rentals and sales (e.g., lawn mowers, tractors, etc.), feed and grain stores, hotels/motels, office/showroom facilities, swimming pool/spa sales, portable building and manufactured home sales, contractors' shops and associated equipment storage yards, hardware/home improvement stores with outside storage, appliance and furniture repair and refurbishing, plant nurseries and growing operations, travel service centers, self-storage facilities, larger printing operations, and other similar commercial businesses. Automobile repair and service operations may be permitted under special circumstances.

Some or all business activities of uses allowed within the Commercial classification may occur outside of the building, and outside storage of goods and/or equipment is typically allowed if properly screened. Design review should be required for all commercial buildings to ensure safe and efficient site design as well as compatibility with adjacent land uses.

This broad category also includes retail, service and office uses. Retail uses include grocery stores, convenience stores, restaurants and various stores where goods are sold. Service uses include service stations, repair shops, dry cleaners and various other businesses where the primary enterprise is to provide a service. Office uses include professional and medical offices. Most commercial activities will be conducted inside or within an enclosed area. Design review will be required for all commercial uses to ensure compatibility with adjacent land uses.

Industrial (I). This category includes all industrial uses from small-scale manufacturers to large assembly facilities. Because of the potential impacts of industrial uses on adjacent properties, all industrial uses will be subject to design review. This process is intended to ensure compatibility between industrial developments and adjacent land uses.

Public/Institutional (P). This category is used for all public facilities, including schools, major utility structures and public buildings. It also includes institutional uses such as churches and cemeteries.

Floodplain/Open Space (FP). This category includes all public park land within the Town. In addition, it includes the general areas of land located within the 100-year floodplain as identified by the Federal Emergency Management Agency (FEMA). It may include land that has been

reserved as open space by either a public agency or a private landowner. Development of private lands in this category is limited due to public safety concerns. The opportunities for development of land within the 100-year floodplain are described in the Town's zoning and subdivision ordinances. The Town recognizes that modification of floodplain areas, in accordance with federal regulations, may remove some land from floodplain designation. Such floodplain modification should be consistent with the policies of the Natural Resources Element. After land has been removed from the floodplain, development can be proposed at the same density provided for adjacent, non-floodplain land. The Town's development regulations should establish the procedures for adjusting the comprehensive plan to reflect changes in floodplain delineation.

Development Potential

The discussion in this section of the text and the residential development potential depicted in Exhibit VI.10 are based upon population projections contained in the 1993 Comprehensive Plan Update, Chapter III, section E. The population projections for this 2000 update of the Comprehensive Plan are contained in subsection F, and control over the estimates contained in subsection E. The text of this section and Exhibit VI.10 have not been revised to reflect the 2000 update of population projections and should be regarded as historical material based on outdated projections.

The Land Use Diagram provides more than enough land for anticipated population growth. NCTCOG projects a population of 11,400 for Sunnyvale in the year 2010. Depending on the set of assumptions used, the diagram includes sufficient residential land to provide homes for 13,000 to 22,600 people. This section describes the development potential under three scenarios -- development at base densities, development at incentive densities and development at bonus densities. Each of these scenarios represents full development, an event that is not anticipated within the year 2010 planning horizon. Under each scenario, the existing vacancy rate of 5 percent is maintained and average household size is assumed to decrease to 2.89 people per household. Exhibit VI.10 summarizes the residential development potential under each scenario. The exhibit lists the amount of acreage in each land use, the potential number of dwelling units, the potential population and assumptions for density, vacancy rate and household size.

If all the residential acreage in Sunnyvale is developed at the maximum base density permitted under each of the six residential land categories, 4,700 dwelling units would be expected, including existing units. Assuming a uniform vacancy rate and occupancy rate for each type of dwelling unit, 13,000 people would live in Sunnyvale. At incentive densities, 6,500 dwelling units and 17,900 residents would be expected. If all development takes advantage of the opportunity to develop at the maximum bonus densities, then 8,200 dwelling units and 22,600 people could be accommodated, over 1.7 times the projected 2010 population of 13,100.

In all likelihood, there will be a mix of developments that result in a development potential somewhere between 10,000 to 20,000 people. This wide range results from the Plan's flexibility. Some developers may take advantage of opportunities for higher densities, while others may

develop at lower densities than permitted under the Plan. Some properties are likely to remain undeveloped or partially developed. The Land Use Diagram provides ample land for anticipated population growth and a sufficient flexibility to respond to a variety of market decisions.

The Land Use Diagram provides enough non-residential acreage to accommodate 26,400 jobs, over five times the anticipated needs for Sunnyvale's labor force in 2010. The projections are based on an overall intensity¹⁴ of development and an average number of employees per square foot of building area. Industrial development is assumed to have an average FAR of 0.1 and one employee per 1,000 square feet of building area. Commercial development is assumed to have an average FAR of 0.2 and one employee per 400 square feet of building. The contribution of public and institutional employment was based on the specific types of land uses.¹⁵

¹⁴ Intensity is based on anticipated floor-to-area ratios (FAR's). For instance, a 1,000 sq. ft. building on a 10,000 sq. ft. lot would have a FAR of 1,000:10,000 or 0.1.

¹⁵ Estimates do not include employment from future school sites not shown on the Land Use Diagram.

Exhibit VI.10: Sunnyvale Development Potential [This chart will be updated at a later date]

Land Use	Acreage	Percent of Town	Base Potential Dwellings	Potential Population	Incentive Potential Dwellings	Potential Population	Bonus Potential Dwellings	Potential Population
IND	769	7.18%						
COM	1,059	9.89%						
PI	385	3.60%						
UDR	54	0.51%	136	376	218	601	327	902
MDR	349	3.26%	488	1,347	871	2,405	1,394	3,848
LDR	2,697	25.20%	2,697	7,442	3,775	10,418	4,854	13,395
ER	1,032	9.64%	826	2,278	1,032	2,848	1,032	2,848
RR	1,467	13.71%	587	1,619	587	1,619	587	1,619
FP/OS	2,397	22.39%						
ROW	495	4.63%						
TOTAL	10,703	100.00%	4,733	13,062	6,484	17,892	8,194	22,612
ASSUMPTIONS								
Density Factors	Base	Incentive	Bonus					
UDR	2.50	4.00	6.00					
MDR	1.40	2.50	4.00					
LDR	1.00	1.40	1.80					
ER	0.80	1.00	1.00					
RR	0.40	0.40	0.40					
Occupancy Rate	95%							
Household Size	2.89 people per dwelling unit							

Land Use Goals and Policies
Community Balance

Goal 2: To retain the beauty, the natural setting and resources, and the rural character of the Town while providing opportunities for coordinated growth and development.

- Policy 2.1. Sunnyvale should maintain its land use plan to provide areas for different types of future land uses and intensities, and should plan for public services and facilities appropriate to the planned land uses.
- Policy 2.2. Sunnyvale should support the creation and maintenance of the Dallas County's major landscape frame and rural buffer area by providing for a transition from higher density uses in the west to lower density, rural uses in the eastern part of the community.
- Policy 2.3. Sunnyvale should identify sufficient locations for residential and non-residential development to accommodate projected growth, with provision of additional land use capacity for market choice and flexibility.

- Policy 2.4. Sunnyvale should plan areas for a variety of residential housing types and densities, as described in the Housing Element.
- Policy 2.5. Planned commercial and industrial areas should be sufficient and located appropriately to support the Town's economic development goals and policies.
- Policy 2.6. Sunnyvale should use its planning and development regulations to protect residential neighborhoods from encroachment of incompatible activities or land uses that may have a negative impact on the residential living environment.
- Policy 2.7. Design of residential developments adjacent to major rail lines should provide for buffers between these activities and residential uses.
- Policy 2.8. Development adjacent to a park or public open space should be designed to facilitate public access to, and use of, the park while minimizing potential conflicts between park users and residents of the development.
- Policy 2.9. In reviewing development proposals, Sunnyvale should consider issues of community character, compatibility of use, environmental impact, resident security and safety, and efficient service provision, as these are detailed in the Town's design guidelines and zoning and subdivision ordinances.
- Policy 2.10. The Town should encourage future patterns of development and land use that reduce infrastructure construction costs and make efficient use of existing and planned public facilities.

Designation of Planned Land Uses

Goal 3: To use the Comprehensive Plan Future Land Use Diagram to graphically depict the Town's desired community form and character.

- Policy 3.1. The Sunnyvale Comprehensive Plan Future Land Use Diagram, illustrated in Exhibit VI.1, depicts planned land uses for the Town. The diagram establishes the general pattern of future land use appropriate to achieve the Town's goals.
- Policy 3.2. The official copy of the Future Land Use Diagram is on file at the Sunnyvale Town Hall. The boundaries of land use categories, as depicted on the official diagram, should be used to determine the appropriate land use category for areas that are not clearly delineated on the Future Land Use Diagram contained in the Comprehensive Plan document. The Future Land Use Diagram reproduced in the Comprehensive Plan document does reflect the official copy, except as to scale.

- Policy 3.3. Sunnyvale should use the Future Land Use Diagram and the policies in this Land Use Element to establish the general pattern of development in the Town. This pattern of development is implemented through the Town's development regulations. An individual development proposal is consistent with the Comprehensive Plan if it is consistent with the conforming zoning, subdivision and other development regulations.
- Policy 3.4. Exhibit VI.2 provides the general description of the land use categories used in the Town's Future Land Use Diagram. This exhibit, along with the descriptions of these categories found in the Land Use Element text, explain the purpose and intent of the land use categories shown on the Future Land Use Diagram.
- Policy 3.5. A rezoning proposal's residential density, as computed in Exhibited VI.3, should be considered consistent with the Future Land Use Diagram if the average gross density is consistent with Exhibits VI.2 and VI.4. The actual density approved will take into consideration the parcel's zoning, adjacent land uses, the nature of proposed development and the policies of the Comprehensive Plan.
- Policy 3.6. Non-residential development proposals should be evaluated according to the types of uses proposed, their compatibility with surrounding uses and the ability of existing or planned infrastructure to provide adequate service to the uses. These factors should be incorporated and applied through the Town's development regulations and design guidelines.
- Policy 3.7. In instances where land uses or densities have been established or approved under prior plans or development regulations, but which are not consistent with the land use category shown on the Future Land Use Diagram, the Plan should not be interpreted to prevent development or continuation of such uses, except as may be authorized under the Town's development regulations.
- Policy 3.8. The Town should use incentive and bonus density provisions to encourage high quality design, provision of large lots, retention of open space and provision of amenities in new developments. Larger projects should have the opportunity to achieve higher incentive and bonus densities because such design in large projects creates a substantial benefit to the community. Exceptional smaller projects should be allowed to propose such design, and should be evaluated according to the same criteria as a larger project. The Zoning Ordinance should provide the specific provisions for the use of incentive and bonus densities.

Goal 4: To provide for commercial and industrial development that is consistent with the Town's economic development goals and character.

- Policy 4.1. Proposed non-residential structures adjacent to residential neighborhoods should be designed and located to protect the privacy of residences.
- Policy 4.2. Sunnyvale should use design standards and guidelines to ensure that commercial centers located adjacent to residential land include appropriate setbacks, parking and loading facilities, access provisions, screening and landscaping to minimize impacts on the surrounding neighborhood, as set forth in the development regulations.
- Policy 4.3. Sunnyvale should establish design standards and guidelines for development in areas planned for commercial and industrial uses, to ensure that these areas develop with high quality, compatible design. Standards and guidelines should address elements including, but not limited to, minimum lot sizes, building scale, setbacks, lighting, landscaping, screening and fencing, signage, internal circulation and building materials.
- Policy 4.4. Sunnyvale should develop a design review process for non-residential development to ensure its compatibility with adjacent land uses and the community character as a whole.

Development Review and Plan Amendment

Goal 5: To provide a development review process that is open to the public, consistent, predictable and designed to achieve the goals of the Comprehensive Plan.

- Policy 5.1. Sunnyvale should periodically evaluate its development review and approval process and revise as needed to ensure:
- adequate opportunity for public input at appropriate development phases;
 - that consistency and predictability are maximized for all parties involved in the process; and
 - that the process helps to achieve the goals and implement the policies of the Comprehensive Plan.
- Policy 5.2. Sunnyvale should ensure that adequate public notice is provided at appropriate phases of the development process and that hearings provide the public with the opportunity for meaningful input on public decisions.

Goal 6: To provide a process to consider changes in the Town's Future Land Use Diagram.

Policy 6.1. Rezoning or other development approvals for land uses, except prior established or approved uses, should not be considered until the Comprehensive Plan has been amended, if necessary to provide for such land uses.

Policy 6.2. Sunnyvale should only approve amendments to the Future Land Use Diagram that meet the established standards for services and facilities, as described in the Transportation and Public Facilities Element of the Comprehensive Plan and the Town's development regulations.

Implementation Measures - Land Use (LU)

LU 1: Modify the subdivision and zoning regulations to:

- a) require consistency between development approvals and the comprehensive plan;
- b) link development approvals with the availability of adequate public facilities and services; and
- c) establish a design and site plan approval processes

LU 2: Adopt and apply design guidelines and compatibility standards to minimize potential incompatibilities between adjacent land uses, through the use of setbacks, landscaping and other buffers. These should be implemented through the Town's subdivision and zoning regulations.

LU 3: Consider existing and projected land use supplies and demands when evaluating proposed changes to the Land Use Diagram. Require the following findings for any proposed amendment:

- a) the proposed amendment would not unnecessarily constrain market choices within any residential or non-residential land use category; and
- b) the type and intensity of land uses permitted in the proposed land use category is consistent with existing and planned land uses in the area.

VII. HOUSING AND ECONOMIC DEVELOPMENT ELEMENT

OVERVIEW

HOUSING

ECONOMIC DEVELOPMENT

A. OVERVIEW

Shelter and a livelihood are two key components of the quality of life for Sunnyvale residents. This Housing and Economic Development Element addresses both of these topics, identifying key issues, setting goals, establishing Town policies and recommending specific actions to ensure that residents have access to safe, affordable housing and the kinds of jobs required to support residents desired standard of living.

The Plan provides for a mix of housing types to meet the diverse needs of Sunnyvale's residents. Higher density housing permitted under the plan will provide the opportunity for the development of affordable housing and housing that is targeted to populations with special needs, such as the elderly or handicapped.

The Plan also seeks to enhance Sunnyvale's economy by improving local employment opportunities and bolstering the tax base with appropriate non-residential development. Increased local employment can reduce the time and money spent by residents who currently commute to work. However, the Town should be careful to attract the kinds of commercial and industrial development that are consistent with the community's character and employment needs.

B. HOUSING

Key Housing Issues

Housing Types and Densities. A mix of residential densities and housing types is important to give residents choice in their selection of housing types. The Comprehensive Plan provides locations for various types and densities of residential development in order to create opportunities for varied housing types while retaining the desired character of each neighborhood. Medium and urban densities are planned only in areas along major thoroughfares and in locations where public facilities and services will be able to meet the needs of a larger population. Rural residential development is planned in those parts of Sunnyvale where rural neighborhoods exist today and where new development should continue this character.

The Comprehensive Plan provides flexibility in the type of housing built. Within a planned residential density range, several types of housing can be developed. For example, an area planned for medium density residential uses (up to 4.0 units per acre) might be developed with single family detached homes, attached dwelling units or zero lot line homes. In this way, a property owner can choose to develop a particular housing type and different housing types may be made available to Town residents.

Affordable Housing. Affordability is a key housing issue in the Dallas region and nationwide. As noted above, Sunnyvale's existing housing units are generally affordable to its residents. As new development occurs, affordability should be maintained. The Comprehensive Plan supports

continued provision of affordable housing by identifying locations for housing types and densities that are affordable.

While the Sunnyvale household with a median income may be able to afford the median-priced home, there are still other households in the Dallas region for whom affordability is a significant concern. Households with very low or low incomes are extremely limited in housing choices in Sunnyvale and in the greater Dallas region. Housing for single working parents and lower income workers is a concern for businesses that rely on this segment of the labor force. In addition, seniors and others on fixed incomes are affected by increasing housing costs. Housing for such households is supported through Comprehensive Plan policies for moderate density residential development and through other actions designed to create incentives for private provision of affordable housing. The Plan supports Sunnyvale's contribution to meeting the regional need for assisted housing by planning sufficient locations for medium and urban density housing to meet the Town's share of the regional assisted housing demand.

Housing for Persons with Special Needs. For many residents, the choice of a particular housing type or location is based on personal preference. Residents with special needs, however, may be limited to units with particular design features or locations. Seniors with limited mobility, the physically disabled and others with special needs may require housing units designed for easy access and safety. On the other hand, persons with special needs may place fewer demands on some public facilities. Senior households, for example, typically generate fewer automobile trips than other households of a similar size. The Comprehensive Plan addresses these special housing needs through policies that provide appropriate housing densities in locations with necessary services; incentives are also used to support private development of housing for these special residents.

Housing Goals and Policies

Goal 7: To meet the housing needs of Sunnyvale's residents by retaining existing dwellings and constructing new housing units.

Policy 7.1 The Comprehensive Plan's Land Use Element should designate sufficient land for residential uses to meet the needs of the Town's projected population, including provision for vacant units. Enough additional land should be designated for residential development to ensure sufficient market flexibility.

Policy 7.2 The Comprehensive Plan should designate sufficient land for residential use, in areas where adequate services are presently available, to meet the needs of population growth projected for at least the next five (5) years. The availability of sufficient serviced land should be examined as part of Comprehensive Plan reviews and service areas should be re-evaluated as necessary to provide for continuing residential development.

Policy 7.3 The Town of Sunnyvale should identify existing substandard housing units and encourage the revitalization and rehabilitation of these structures.

Policy 7.4 The Town of Sunnyvale should recognize the unique characteristics of senior households and should encourage provision of housing designed to meet their special needs.

Policy 7.5 The Town of Sunnyvale should encourage provision of housing designed for residents with disabilities or other special needs.

Policy 7.6 The Town should encourage the development of housing for seniors and residents with special needs by providing bonus densities for projects including such housing.

Goal 8: To provide locations for a wide variety of housing types, compatible with the character of existing neighborhoods.

Policy 8.1 The Town of Sunnyvale should plan locations appropriate for a diverse range of housing types, including conventional single family homes, patio homes, townhomes, manufactured housing and multi-family units, to provide a range of housing alternatives for future residents.

Policy 8.2 The Town of Sunnyvale should plan areas for residential development on lots large enough to keep horses, thereby retaining the choice of a rural residence for Town residents.

Policy 8.3 The Town of Sunnyvale's zoning regulations should include zoning districts appropriate to implement the residential density classifications identified in the Land Use Element and to permit housing types consistent with these densities.

Policy 8.4 The Town of Sunnyvale's development regulations should provide mechanisms to permit flexibility and innovation in residential project design, to promote land use efficiency and environmental protection.

Policy 8.5 The Town of Sunnyvale should ensure that development within existing neighborhoods is compatible with the character of these existing neighborhoods in terms of general housing types and densities.

Policy 8.6 The Town of Sunnyvale should promote compatibility between adjacent residential areas developed at different residential densities or with different unit types, and should encourage the use of design techniques to minimize impacts between these areas. Design techniques are described in the Town's design guidelines and are implemented through the zoning and subdivision regulations.

Goal 9: To provide for housing affordable to persons of all income levels.

- Policy 9.1 The Town of Sunnyvale should participate in regional efforts to provide affordable housing.
- Policy 9.2 The Town of Sunnyvale should support the development of low and moderate income housing to meet the Town's share of the regional responsibility for such housing.
- Policy 9.3 The Town of Sunnyvale should support the development of sufficient assisted housing units within the Town to meet the Town's share of the regional responsibility for such housing.
- Policy 9.4 The Town of Sunnyvale should identify sites sufficient for the development of subsidized housing units within the Town in a number equal to or greater than the number that could be produced in accordance with the Town's fair share allocation of Dallas Housing Authority housing trust fund monies.

Implementation Measures - Housing (H)

- H1: Monitor the construction of residential units, by housing type, residential density and price. Review the mix of newly-constructed housing units as part of Comprehensive Plan reviews and modify policies or programs as necessary to achieve a full range of housing types.
- H2: As part of Comprehensive Plan reviews, evaluate the amount of "available residential land" -- undeveloped land that is planned for residential development and is currently provided with adequate public services and facilities.
- H3: When U.S. Census data on age and condition of housing become available, review the information and identify any additional actions the Town should consider to support revitalization or rehabilitation of these structures.
- H4: Periodically review and revise Town regulations to ensure that they continue to provide for reasonable design flexibility. Guidelines and performance criteria should be adjusted periodically to accommodate design innovations that will further the goals and policies of the Comprehensive Plan.
- H6: Periodically review and revise Town regulations to ensure that project design guidelines and site plan standards promote design compatibility between higher

density residential projects and neighboring lower density areas in a cost effective manner.

- H7: As part of ordinance revision, establish specific criteria and procedures for use of density bonuses for development projects that include housing for seniors; housing affordable to very low or low income households; or housing for persons with special needs.

C. ECONOMIC DEVELOPMENT

KEY ECONOMIC DEVELOPMENT ISSUES

Jobs for Residents. Sunnyvale supports the increase of local employment opportunities to enhance the quality of life for its residents. Local jobs can reduce the amount of time that residents spend commuting to work and can supplement household incomes by providing jobs that are accessible to teens and other residents who are unable to pursue jobs outside of the community.

Enhancing the Local Tax Base. The appropriate amount and type of non-residential development can increase the local tax base without significantly increasing public expenditures. Such growth can reduce the cost of local government for residents by shifting the burden from residential property tax to non-residential property tax and sales tax.

Attracting Appropriate Economic Growth. Sunnyvale's rural character is important to its residents and should be preserved. The Town can be selective in its efforts to attract new businesses to the community. By providing appropriate locations for non-residential development and ensuring that such development is designed to be compatible with existing land uses in the community, Sunnyvale can enjoy the benefits of economic growth without sacrificing the community's character.

ECONOMIC DEVELOPMENT GOALS AND POLICIES

GOAL 10: PROVIDE LOCAL EMPLOYMENT OPPORTUNITIES FOR SUNNYVALE'S RESIDENTS.

Policy 10.1 Sunnyvale should support economic growth that keeps pace with population growth and provides opportunities for the Town's resident workers to work in the Town. As one indication of this balance, the Town should plan for non-residential land uses to balance the number of jobs in the Town with the number of Town residents in the labor force.

Policy 10.2 The Town of Sunnyvale should designate sufficient land for commercial and industrial development through its Future Land Use Diagram and zoning ordinance.

Policy 10.3 Sunnyvale should give high priority to the processing of non-residential development projects that may lead to significant long-term increases in Town employment.

Policy 10.4 The Town should work with developers of non-residential areas to ensure that adequate facilities and services are available to meet the needs of new and existing businesses. Economic benefit should be considered when establishing priorities for capital improvements.

Policy 10.5 Sunnyvale should coordinate with local and regional economic development agencies to help attract appropriate businesses to the Town.

GOAL 11: ENSURE THAT ECONOMIC GROWTH IS CONSISTENT WITH THE EXISTING CHARACTER OF THE COMMUNITY.

Policy 11.1 The Town should encourage the development of clean businesses and industries that will enhance the local tax base without creating excessive burdens on the environment, local services and facilities, or utility systems.

Policy 11.2 Sunnyvale should use development regulations and design guidelines to ensure that commercial and industrial development are compatible with the Town's character, as described in this Element and the Land Use Element.

Policy 11.3 Sunnyvale should encourage commercial growth and development along the U.S. Hwy. 80 and Belt Line Road corridors.

Policy 11.4 Sunnyvale should encourage industrial development in the areas south of U.S. Hwy 80 planned for industrial activity.

Policy 11.5 Development regulations, design guidelines and a design review process should be used to ensure the quality and compatibility of non-residential development in the Town.

IMPLEMENTATION MEASURES - ECONOMIC DEVELOPMENT (ED)

ED1: Consider the economic impacts when evaluating requests for changes to the boundaries of commercial and industrial areas. These areas generally should be protected from residential encroachment that could limit their development potential.

ED2: Conduct a survey of local businesses and residents to identify particular goods and services desired by local residents and businesses. Use the survey results to determine which businesses would be most appropriate in the community.

- ED3: Schedule regular meetings between Town representatives and representatives of regional economic development agencies to communicate and coordinate on issues such as recent economic trends, cooperative programs and economic development prospects.

- ED4: Include economic development benefit as one of the criteria in ranking proposed capital improvement projects within the Town's Capital Improvements Program (CIP).

- ED5: Periodically identify ways to streamline the review of projects with significant economic development benefits, while providing for appropriate public review and input.

VIII. TRANSPORTATION AND PUBLIC FACILITIES ELEMENT

OVERVIEW

TRANSPORTATION

WATER, WASTEWATER AND DRAINAGE SERVICE

PARKS AND RECREATION

PUBLIC SAFETY

OTHER PUBLIC SERVICES

A. OVERVIEW

This element of the Comprehensive Plan focuses on service provision. It addresses issues relating to the transportation network, the water and wastewater systems, parks and recreation services, public safety and other public services. Sunnyvale's intent is to supply residents and businesses with cost-effective, high quality services. The following paragraphs provide an overview of each service. A more thorough discussion may be found in the background report entitled "Context for Planning: Background Information and Analysis, Part One."

Transportation. Sunnyvale's transportation needs are served primarily by automobiles. The Town is not a participant in the Dallas Area Rapid Transit District. Two key roadways pass through Sunnyvale - U.S. Hwy. 80 and Belt Line Road. These multi-lane arterials carry the bulk of traffic through the Town. The remainder of the existing network consists of collector and local streets. This element classifies streets in Sunnyvale's future transportation system and establishes standards for each street classification.

Water System. The Town of Sunnyvale purchases all of its water from the North Texas Municipal Water District (NTMWD). The Town's current contract with NTMWD will permit service to a population of up to 7,000 (2,350 connections). The NTMWD indicates they could provide water to Sunnyvale during the planning period for a population as high as 20,000. If all the other communities in the service area develop at that same rate, the system's capacity would be strained.

Equally as important as supply is the ability of a city to distribute water to its citizens. The existing distribution system in Sunnyvale consists of a 300,000 gallon elevated storage tank, a 500,000 gallon ground storage reservoir, pump station and a series of water distribution lines ranging from 2¼" through 30" in diameter. The majority of the Town is adequately served by 6" or 8" lines. All existing residents and businesses are connected to the Town's water system. Three areas, along Nance Road, Michael Lane, and a portion of Jobson Road, are served by lines smaller than 4" in diameter that should be upsized. The remainder of the present storage and distribution system is adequate for current needs, but additional facilities will be required to support any large, new developments.

Wastewater System. Much of the Town is currently served by a gravity sewer system. About 35% of the existing dwelling units are served by septic tanks. The Town has contracted with the City of Garland to meet Sunnyvale's existing and future wastewater treatment needs within the Duck Creek and Long Creek drainage basins. There is an existing 48-inch main trunk wastewater treatment line along Duck Creek. This line connects to the Duck Creek Wastewater treatment plant east of Sunnyvale in Kaufman County.

The Duck Creek plant has been recently improved to exceed EPA discharge standards. This plant has sufficient capacity to serve all of the wastewater that will be coming from Garland, as well as

that which would be generated by Sunnyvale. Approximately 85% of the Town can be connected and served by the Duck Creek line.

A small portion of the Town is in the North Mesquite Creek drainage basin. The Town also has an agreement with the City of Mesquite to serve existing development or future growth in this area. The wastewater service contracts have been recently revised and are considered adequate to accommodate projections of Sunnyvale's future growth.

Since most existing lots are not adjacent to an existing wastewater treatment line, virtually any connection to either the Mesquite or Garland Systems will require the construction of collection lines to connect to the respective interceptors. Although capacity exists in the major interceptors and treatment plants, no system of collection lines exists to serve much of the community. Sunnyvale's utility policies and investment strategies will directly affect the cost and rate of growth of the wastewater system in Sunnyvale.

Drainage. Most of the surface and storm drainage in Sunnyvale is now accommodated by open ditches along streets and thoroughfares. Storm drainage systems do exist in the more recently constructed subdivisions. Since Sunnyvale is relatively low density and undeveloped, storm drainage and runoff problems have been generally minor. Duck Creek experiences severe flooding conditions in Garland and Sunnyvale and is considered Sunnyvale's primary drainage concern. Some of the major street crossings (Barnes Bridge Road, East Fork Road) are not adequate to accommodate drainage needs; they will need improvement as urbanization occurs. Improvements now planned for Duck Creek in Garland will also increase runoff conditions downstream in Sunnyvale. The EPA is increasing its standards for non-point stormwater runoff. Although Sunnyvale is not presently bound by these guidelines (due to its population size), future development should anticipate the need to address surface runoff quality issues.

Parks. The Town presently owns one park site, sharing a 5.5 acre parcel on the north side of Town East Boulevard with the library, sheriff's substation, a fire station and an elevated water storage tank. This existing park contains playground equipment, picnic and informal active play areas. This land provides adequate neighborhood park acreage for the Town's existing residents. However, additional park land will be necessary to provide for the long term recreational needs of its residents in accordance with the Plan's goals and policies.

Sunnyvale has several options available for future expansion of its park system. Duck Creek offers an excellent opportunity for establishing a linear greenbelt linkage park. The Samuell New Hope Park, owned by the City of Dallas, is located south of Town East Boulevard within Sunnyvale's City Limits. This park is situated on 124 acres and presently is undeveloped. Any development of this site for park purposes would have to be approved by the City of Dallas and Samuell family trust. Additional neighborhood park sites can be identified as development occurs and as the school district develops new facilities.

Sheriff. Police protection is currently provided by the Dallas County Sheriff's Department on a contract basis. As part of the contract agreement, the Town provides office space (a Sheriff's substation) at the Town East Boulevard site. As the community grows, establishment of a local police force should be evaluated.

Fire. Fire protection is provided on a volunteer basis with backup provided by the City of Mesquite and mutual aid agreements with other jurisdictions. Presently, two trucks are located at the Long Creek Road station and one truck at the Town East Boulevard station. Based on guidelines established by the State Board of Insurance, the total capacity of Sunnyvale's water storage system is slightly below the desirable capacity to provide adequate peak-use protection.

Additionally, acceptable response times generally require stations to be located within 1.5 miles of any site in the community. There are areas in northeast and central Sunnyvale which are over a mile and one-half from either fire station. Sunnyvale may need another fire station or may need to relocate the Town East Boulevard site at some future date. Also, if the Town's population and development intensity increase, a volunteer department may not be able to provide adequate service. Future service needs will depend on the community's future growth rate.

Other Public Services and Facilities. Sunnyvale provides several additional services to its residents, including library service, utility administration, building inspection and other administrative services.

The library is located on the Town East Boulevard site and contains approximately 4500 square feet. The "*Texas Library Association Standards and Guidelines for Texas Public Libraries*", 1983 sets forth library staffing and space requirements. According to these standards, an allocation of 0.75 square feet per city resident would provide Sunnyvale with a library of adequate size to serve its population. Based on these standards, Sunnyvale's present library exceeds the accepted standards. The present building will be sufficient to accommodate the Town's needs until it reaches a population of 6,000 or 7,000. Ongoing monitoring of residents use of the facility and requests will help identify demand for additional volumes or library services.

The Town Hall is located on approximately one acre on Long Creek Road and contains all administrative offices including utilities, building inspection and the City Clerk's office. It also houses the Town Council meeting chamber and fire fighting equipment. Presently, the Town of Sunnyvale employs seven staff personnel, four of which are administrative (the fire department is volunteer). New or additional office space should be considered as Sunnyvale increases in population in order to adequately serve the new demand for services. The Plan recommends the construction of a community center to provide services and to offer residents a facility for meetings and other community activities.

B. TRANSPORTATION

Key Transportation Issues⁴

Maintaining an Adequate, Appropriate and Efficient Road Network. Increased population will increase traffic on Sunnyvale's roads. A carefully planned network of streets can help maintain adequate circulation without sacrificing the community's unique character. The network should include a hierarchy of streets, with each class of street being designed to serve its appropriate function. Standards for each class of streets must balance the volume and speed of traffic, public safety roadway construction and maintenance costs, and impacts on adjacent development.

Coordinating Roadways and Adjacent Development. Land use and roadway planning are closely linked. Just as inappropriate land uses can dramatically reduce the effectiveness of adjacent roads, poorly planned roadways can reduce the viability of adjacent land uses. By coordinating land use and roadway decisions, Sunnyvale can minimize future compatibility problems between roads and adjacent land uses.

Cost-effective Infrastructure Investment. Building and maintaining an efficient street network requires significant investment of local resources. Careful planning is needed to ensure that Sunnyvale makes the most cost-effective investments in its street network. Funding based on a Capital Improvements Plan can ensure that the Town addresses its highest priority roads first.

Network for Non-Automotive Transportation. America's heavy reliance on automobiles has led many communities to ignore other modes of transportation. Through appropriate design and planning, Sunnyvale can develop a low cost system of trails and paths that encourage residents to travel by foot, bike or horseback through the community. Increased use of these other modes will improve the health of Sunnyvale's residents and have positive impacts on the environment and community character.

Transportation Goals and Policies

Goal 12: To plan, construct and maintain an efficient roadway system that is adequate to meet the mobility needs of Town residents and businesses.

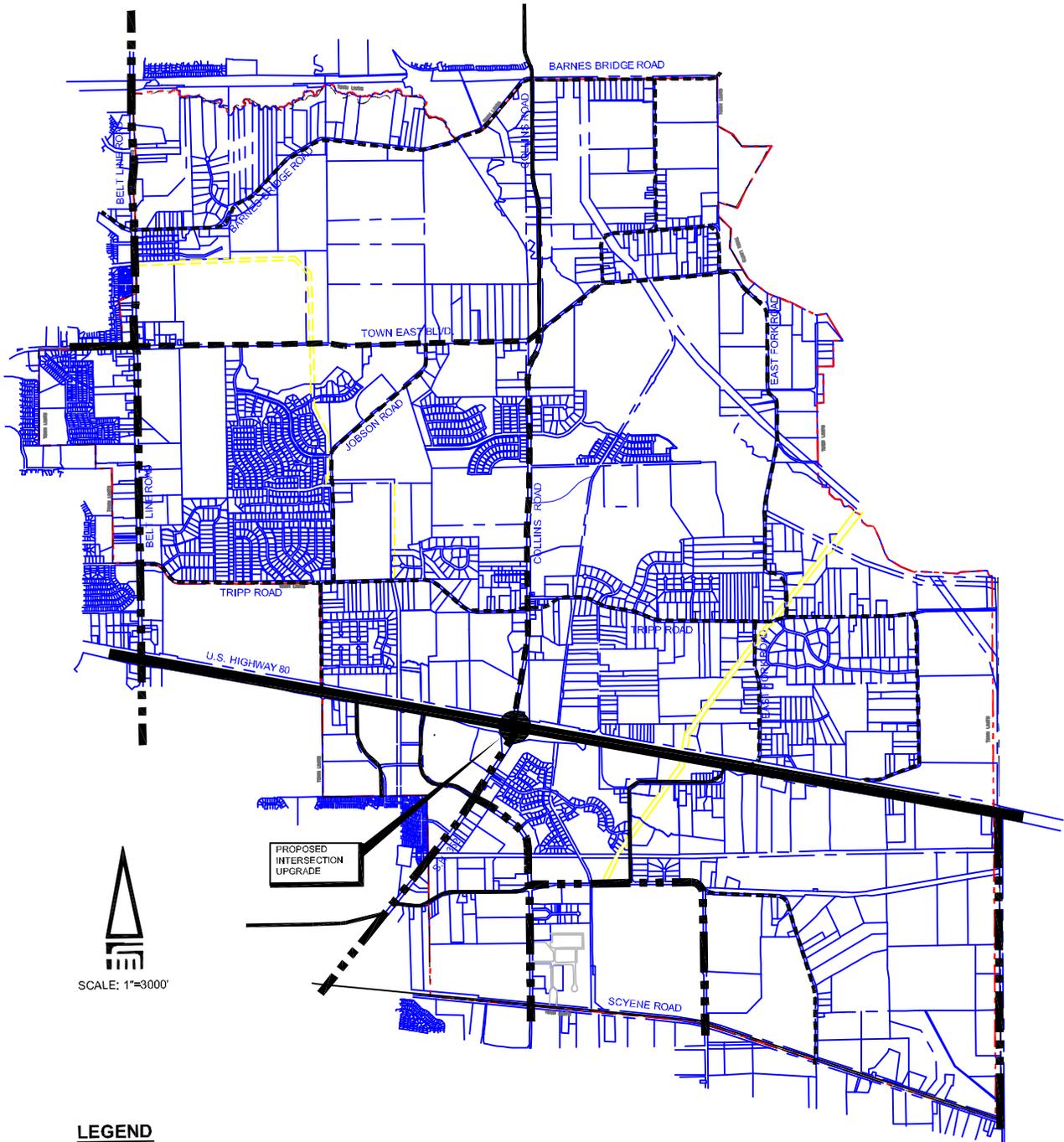
Policy 12.1. The Town of Sunnyvale should plan a roadway network and other transportation facilities to adequately convey traffic generated by planned land uses, according to the service levels described in this Comprehensive Plan.

Policy 12.2. Exhibit VIII.1 identifies the different types of roadways planned in Sunnyvale, the function of each type and key design characteristics. Sunnyvale should use this table, in conjunction with the design guidelines in the Plan's Community Design Element and the detailed specifications found in the subdivision ordinance, to determine appropriate design standards for planned roadway improvements.

- Policy 12.3. Exhibit VIII.2 is the Transportation System Diagram for the Town of Sunnyvale. It shows the location of existing or planned roadways other than local streets. The Town should use this exhibit to determine the general alignment and classification of planned road segments. Additional collector streets maybe needed to serve traffic within new developments. The alignment and capacity of these streets should be determined as part of any action on a preliminary plat or concept plan. The Town's construction standards, design guidelines and subdivision regulations provide the detailed standards for roadway design and construction: Exhibit VIII.2: Transportation System Diagram.
- Policy 12.4. Sunnyvale should seek to maintain a minimum Level of Service (LOS) C, as described in Exhibit VIII.3. This standard should be used in reviewing the transportation needs of development proposals.
- Policy 12.5. The Town should develop a Ten-Year Capital Improvements Program (CIP) for use in establishing funding priorities and schedules for construction, operation and maintenance of transportation facilities identified in this Transportation Element.
- Policy 12.6. The Town should prioritize, phase, and schedule transportation system improvements in accordance with Comprehensive Plan policies and the Town's ability to fund such improvements. The Town should evaluate alternative funding sources, such as impact fees, to provide for construction of needed roadways.
- Policy 12.7. On-site local and collector streets should be constructed by developers in accordance with Town regulations. The Town may also require the construction of off-site streets or street improvements needed to provide adequate access to a development. This policy should be implemented through specific provisions of Sunnyvale's subdivision and zoning ordinances.
- Policy 12.8. Sunnyvale should require traffic impact analyses for major development projects, especially in areas experiencing or projected to experience congestion. This policy should be implemented through specific provisions of Sunnyvale's subdivision and zoning ordinances.
- Policy 12.9. Sunnyvale should coordinate with TXDOT, NCTCOG and other local jurisdictions when planning transportation system improvements.

Exhibit VIII.1: Functional Classifications

Classification	Physical Characteristics	Primary Function	Approximate Capacity (vehicles per day)
Freeways Expressways	Vary with traffic volume	Limited access, high speed, and continuous travel between communities of urban centers	varies
Arterial Streets	4 or more 12 ft. wide lanes, minimum ROW of 100 feet. The need for additional lanes and ROW depends on traffic.	Continuous travel between communities and urban centers	6,000
Collector Streets	2 lanes, with additional pavement to accommodate emergency parking. Minimum ROW of 80 feet.	Continuous for distances up to 1 mile through parts of residential or nonresidential neighborhoods. Collectors provide low speed links between local and arterial streets.	1,000 to 6,000
Local Streets	2 lanes, minimum ROW of 50 feet in residential areas and 60 feet in non-residential areas.	Low speed, low volume roads that provide access to individual parcels.	under 1,000
Alleys	1 lane, 10 to 20 feet wide, minimum 15 ft. ROW. Pavement and ROW width depend on location and function.	Public streets for secondary/service access to individual parcels. Does not carry through traffic.	N.A.
Parkways	4 lane divided arterial, minimum 100 ft ROW with additional landscape buffer in the median and outer zones. See community design section for more details.	Arterial streets with heavy emphasis on landscaping in the median and outer right-of-way.	varies
Country Lanes	2 lane, minimum 60 ft. ROW with additional landscape buffer zones. See community design section for more details	Rural collector streets	1,000 to 6,000
Notes	1. Capacities are based on daily two-way traffic as indicated in the Highway Capacity Manual, Special Report 209, prepared by the Transportation Research Board, National Research Council, 1985 2. Roadway capacities can vary significantly depending upon a multitude of roadway features and conditions.		




 SCALE: 1"=3000'

LEGEND

-  FREEWAY
-  ARTERIAL
-  PARKWAY
-  COLLECTOR
-  COUNTRY LANE
-  TOWN LIMITS



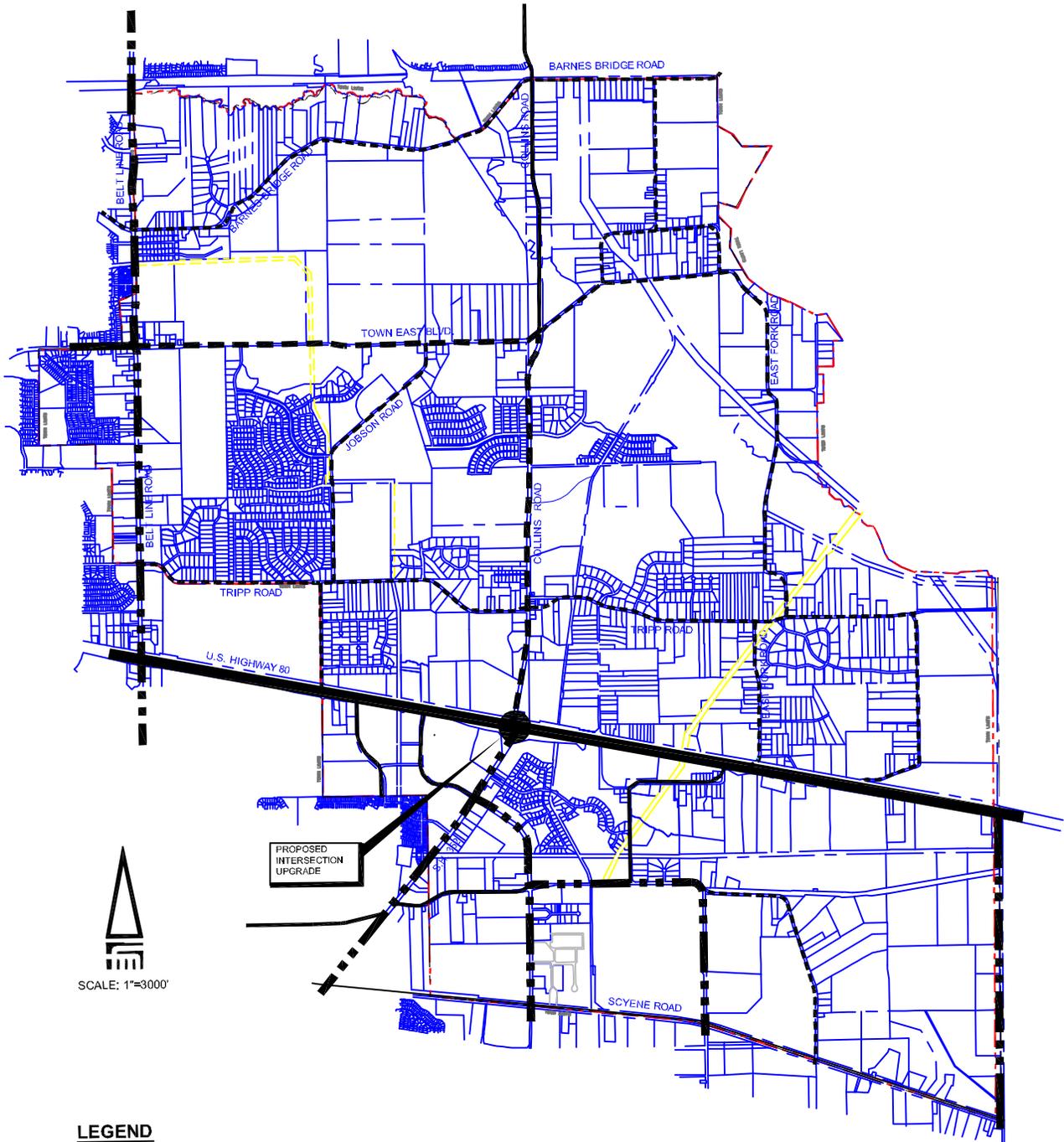
TOWN OF SUNNYVALE, TEXAS

EXHIBIT VIII.2 (NEW): TRANSPORTATION SYSTEM DIAGRAM

JUNE 2004



FREEMAN-MILLIGAN, Inc.
 CONSULTING ENGINEERS
 6500 FOREST LANE, SUITE 801
 DALLAS, TEXAS 75243




 SCALE: 1"=3000'

LEGEND

-  FREEWAY
-  ARTERIAL
-  PARKWAY
-  COLLECTOR
-  COUNTRY LANE
-  TOWN LIMITS



TOWN OF SUNNYVALE, TEXAS

EXHIBIT VIII.2 (NEW): TRANSPORTATION SYSTEM DIAGRAM

JUNE 2004



FREEMAN-MILLIGAN, Inc.
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Goal 13: To promote compatibility between roadway improvements, land use patterns, community character and natural environment.

Policy 13.1. The Town should design streets in a comprehensive fashion, considering street trees, pedestrian walkways, bicycle lanes, equestrian pathways, signage, lighting, noise and air quality wherever any of these factors are applicable. Citizen involvement in major street widening projects should be sought.

Exhibit VIII.3: Level of Service Standards - Roadways

Level of Service	Quality of Traffic Operation
A	Free flow and minimal delay. Most vehicles arrive during the green phase and do not stop at all.
B	More vehicles stop than for LOS A, resulting in some delay at intersections. Queues develop occasionally that may not be cleared during the first green light phase (some drivers must wait through a red light).
C	This is the typical design level for roadways. Traffic flows are stable; traffic queues are not cleared during approximately 30 percent of the green light phases. Backups may develop behind turning vehicles.
D	The influence of congestion becomes more noticeable. Traffic volumes are approaching unstable flow; approximately 70 percent of the green light phases do not clear waiting queues. Delays may be substantial (waiting through two cycles of the traffic signal), but the queues occasionally clear during peak hour.
E	Unstable flow; roadway is operating at capacity with long queues the entire peak hour.
F	Forced flow; jammed intersections; long delays are expected, with most drivers having to wait through more than two cycles of the traffic signal.
Source:	Adapted from Highway Capacity Manual, 1965, in Froda Greenberg, with Jim Hecimovich, Traffic Impact Analysis (Chicago: American Planning Association, 1964) and Highway Capacity Manual, Special Report 209 Transportation Research Board, National Research Council, 1985.

Policy 13.2. The Town should establish design guidelines and development regulations to ensure that new street improvements are compatible with the character of the Town's existing "country lanes". Streets which are designated as "country lanes" or "parkways" in the Transportation Element should be constructed in accordance with the special design requirements set forth in the development regulations and design guidelines.

Policy 13.3. The Town should consider all alternatives for increasing roadway capacity before physical road widening is recommended for roadways within existing neighborhoods. Roadway improvement projects should be designed to minimize disruption of the community resulting from new roadway locations and designs.

Policy 13.4. The Town should limit commercial and other uses that generate high volumes of traffic to locations where collector or arterial streets provide access for non-local traffic.

- Policy 13.5. Residential neighborhoods should be designed to minimize through traffic on local streets.
- Policy 13.6. The Town should develop buffering standards for residential projects that abut arterial streets to minimize the impacts of traffic on project residents. This policy should be implemented through specific provisions of Sunnyvale’s subdivision and zoning ordinances.
- Policy 13.7. Except as specifically approved by the Town, all development should provide adequate on-site parking for normal operations. This policy should be implemented through specific provisions of Sunnyvale’s subdivision and zoning ordinances.
- Policy 13.8. The Town should develop access spacing standards for lots located on arterial and collector streets to promote the smooth flow of traffic and minimize the impacts of individual developments on the safe and efficient function of these roads.
- Policy 13.9. The Town's development regulations should promote the use of local street access for lots located along arterial and collector streets wherever feasible. Driveway spacing standards for projects located on arterial streets should be consistent with spacing standards for local street intersections. This policy should be implemented through specific provisions of Sunnyvale’s subdivision and zoning ordinances.

Goal 14: To provide a system of routes and facilities for non-automobile travel within the Town of Sunnyvale.

- Policy 14.1. Sunnyvale should support car and van pooling by assisting in the development of a ride-sharing information system and paved, lighted parking sites for car pools.
- Policy 14.2. Sunnyvale should include provisions for pedestrians and bicyclists when planning and designing streets and roadways.
- Policy 14.3. Sunnyvale should establish a system of trails and pathways for travel in the Town by pedestrian, bicycle, equestrian and other non-motorized modes of travel. Exhibit VIII.4 depicts the general system of trails and pathways for the Town. The specific location and design of trails should be established through coordination with Dallas County and through land use incentives and bonuses for developments including trails.
- Policy 14.4. Sunnyvale should participate with NCTCOG and local jurisdictions in establishing regional transportation management programs, as long as such programs do not contain expansion or extension of new state highways through Sunnyvale.

Implementation Measures – Transportation (T)

- T1: Use the Transportation Diagram, the Town's roadway improvement standards and other appropriate development regulations to secure adequate rights-of-way and improvements through development review and approval processes.
- T2: Assist the NCTCOG in monitoring development trends and participate in the development of an appropriate regional transportation improvement plan, as long as such regional plan does not contain expansion or extension of new state highways through Sunnyvale.
- T3: Develop and adopt a ten-year capital improvements plan that prioritizes roadway improvement plans based on existing and projected traffic demands.
- T4: As developments occur, evaluate opportunities for realigning roadways, installing signs and modifying intersection designs to improve safety and accommodate anticipated travel demands.
- T5: Evaluate engineering designs to eliminate the sharp curves on East Fork Road, south of Town East Boulevard.

C. WATER, WASTEWATER AND DRAINAGE SERVICE

Key Water, Wastewater and Drainage Issues

Providing an Adequate, Cost Effective Water System. The Town's water system provides water for normal, daily use by residents and businesses. It also provides water for fire suppression. To ensure that Sunnyvale's water system continues to adequately serve both of these functions as the community grows, the water system must be expanded. By carefully planning expansions and coordinating water system growth with community growth, Sunnyvale can provide a safe, adequate and cost-effective water system.

Expanding the Centralized Wastewater Service. The Master Plan anticipates an increase in residential and non-residential development that requires centralized wastewater service. Sunnyvale should endeavor to coordinate the orderly extension of wastewater service to non-rural areas with proposed development to ensure that adequate service is provided in a cost-effective manner. The Town will continue to rely on Mesquite and Garland for service. Sunnyvale may evaluate other alternatives for service over the long term.

This section describes overall needs for water and wastewater service. Detailed engineering analysis will occur through the public capital improvements process and through review of private development proposals pursuant to the Town's zoning and subdivision regulations and Engineering Design Manual.

Water, Wastewater and Drainage System Goals and Policies

Goal 15: To ensure provision of a water supply system that adequately serves Sunnyvale's present and future residents and businesses.

Policy 15.1. The Town should work with the North Texas Municipal Water District (NTMWD) or other suppliers, if they become available, to provide potable water supplies adequate to meet the needs of the land uses identified in the Land Use Element of this Comprehensive Plan. Firm contracts for water service should be secured to meet the water service needs of growth anticipated during the next five-year period, according to the service levels described in this Comprehensive Plan.

Policy 15.2. The water system should be designed to provide adequate storage distribution capacity to meet State Board of Insurance standards for fire flows, water mains, fire hydrants and water storage.

Policy 15.3. Exhibit VIII.5 shows the water demands resulting from full development of the land uses shown in the Future Land Use Diagram. Water improvements should be planned and designed to serve projected demands. The sizing of improvements to serve particular developments will depend upon the intensity of use and the

phasing of development for the project and other development projects utilizing the improvements

Exhibit VIII.5 Future Water Demands

Water Demands (1)	Maximum Day (MGD)	Peak Hour (MGD)	Maximum Annual Demand (acre-feet)
Rural Residential	1.111	2.222	1,152
Estate Residential	2.275	4.550	2,359
Low Density Residential	9.482	18.964	9,831
Urban Density Residential	0.254	0.508	263
Retail & Commercial	1.798	2.248	1,165
Industrial	1.320	1.651	856
Total	16.240	30.143	15,626

Needed Storage Capacity (2)

Ground Storage (gallons)	3,120,000
Elevated Storage (gallons)	1,296,000

Needed Fire Flow (3)

Residential (g.p.m.)	750
Commercial (g.p.m.)	2,000
Industrial (g.p.m.)	2,000

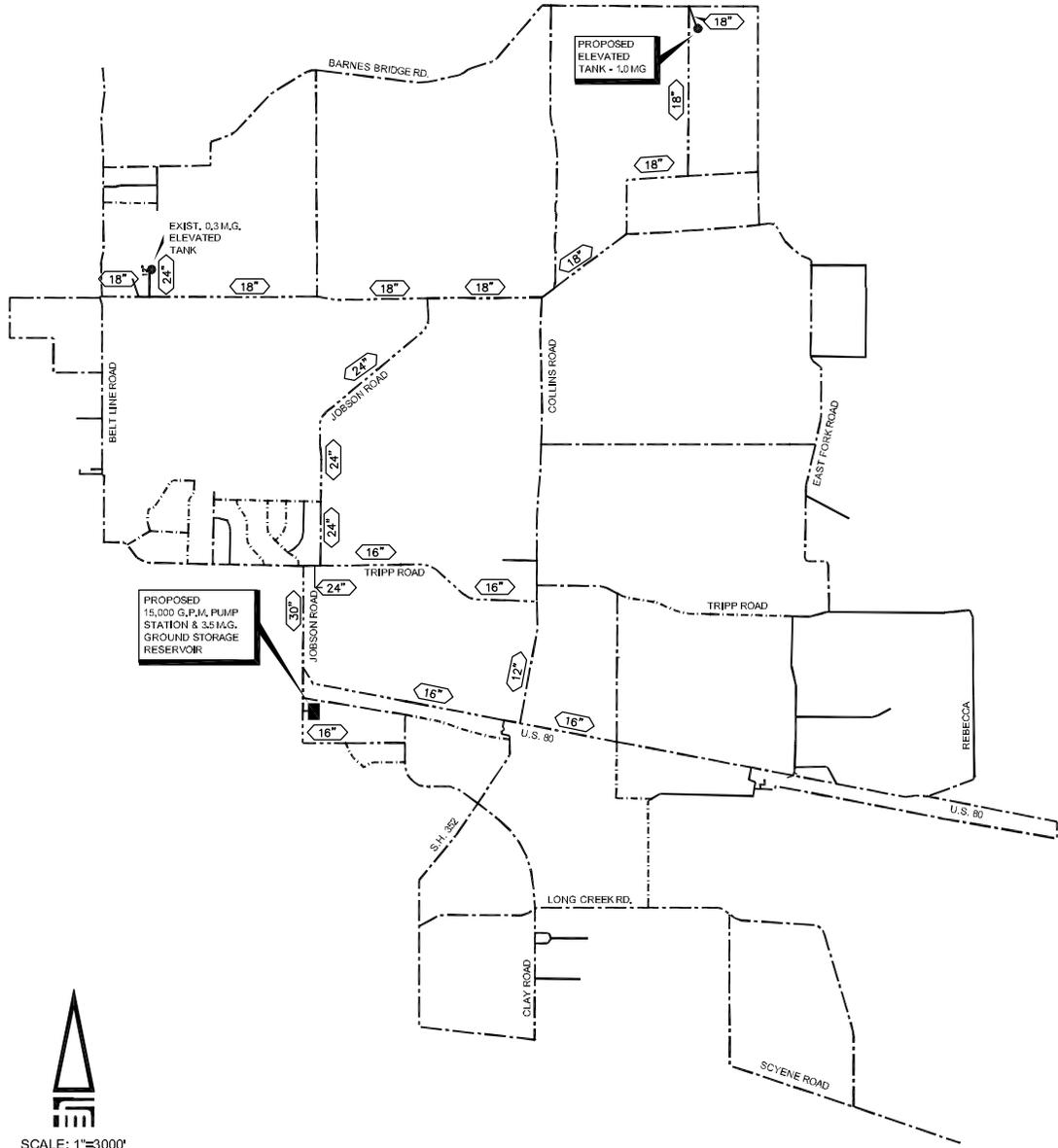
Water Use Assumptions (4)	Maximum Day Use per Connection (g.p.d.)
Rural Residential	2,020
Estate Residential	2,452
Low Density Residential	1,471
Urban Density Residential	914
Retail & Commercial	3,532
Industrial	88,000

Notes

- (1) Estimates based on development potential and assumptions below.
- (2) Storage capacity based on prior recommendations by the State Board of Insurance. The Board has recently adopted ISO standards.
- (3) Fire flows shown are estimates and will vary based on building size, building construction and whether automatic fire suppression is provided.
- (4) Water use assumptions are based on limited historical records.

LEGEND

	6" WATER LINE
	8" WATER LINE
	12" WATER LINE
	16" WATER LINE & LARGER
	6" EXISTING WATER LINE SIZE
	18" PROPOSED WATER LINE SIZE
	PUMP STATION EXISTING FACILITY
	PUMP STATION PROPOSED FACILITY



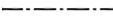
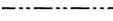
TOWN OF SUNNYVALE, TEXAS

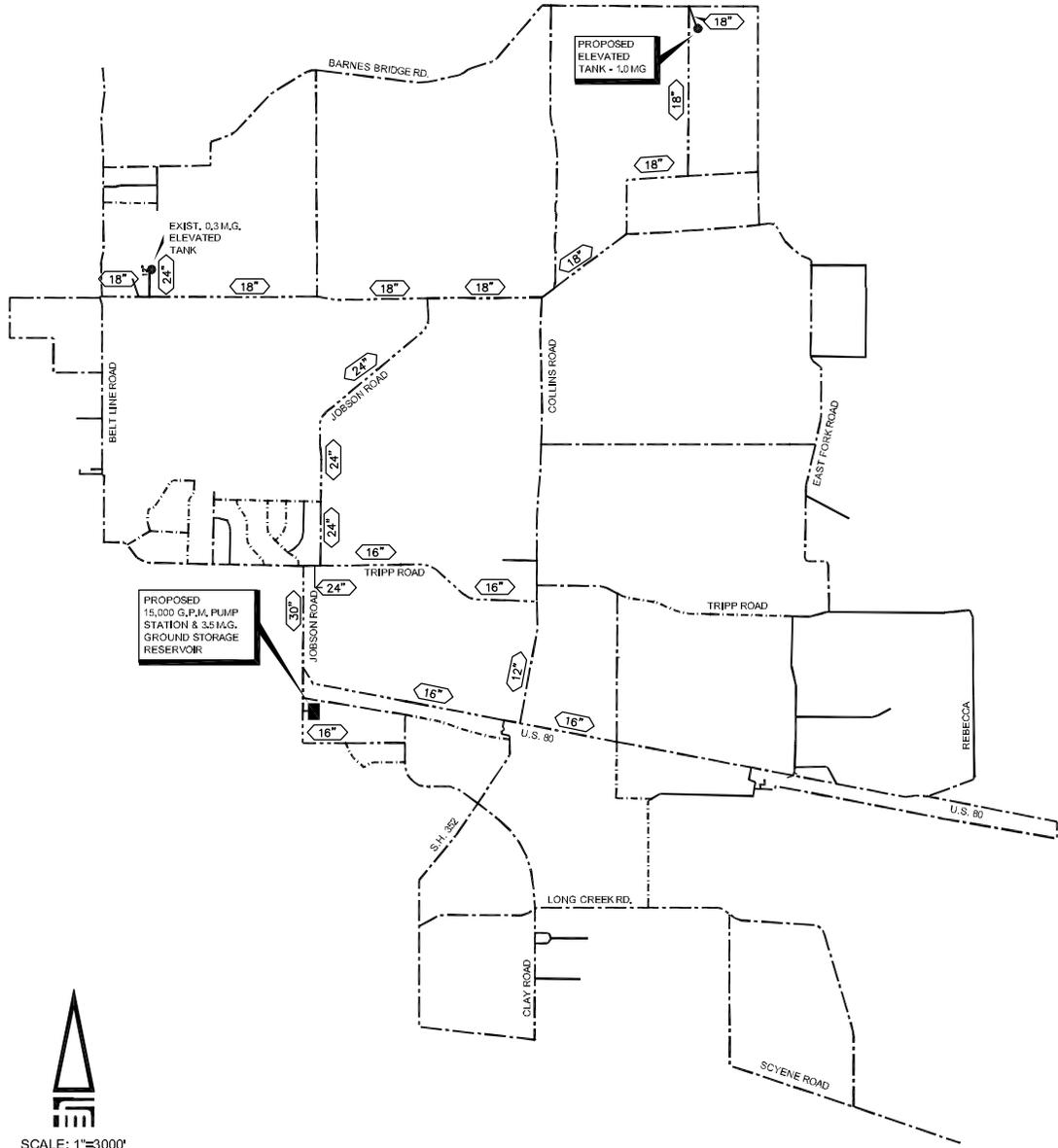
EXHIBIT VIII.6:(NEW) WATER SYSTEM SYSTEM MASTER PLAN

AUGUST 1999

FREEMAN - MILLICAN, Inc.
 CONSULTING ENGINEERS
 9500 FOREST LANE, SUITE 501
 DALLAS, TEXAS 75243

LEGEND

-  6" WATER LINE
-  8" WATER LINE
-  12" WATER LINE
-  16" WATER LINE & LARGER
-  6" EXISTING WATER LINE SIZE
-  18" PROPOSED WATER LINE SIZE
-  PUMP STATION EXISTING FACILITY
-  PUMP STATION PROPOSED FACILITY



TOWN OF SUNNYVALE, TEXAS

EXHIBIT VIII.6:(NEW) WATER SYSTEM SYSTEM MASTER PLAN

AUGUST 1999



FREEMAN - MILLICAN, Inc.
 CONSULTING ENGINEERS
 9500 FOREST LANE, SUITE 501
 DALLAS, TEXAS 75243

- Policy 15.4. Exhibit VIII.6 illustrates the general locations of water mains needed to serve future development. Sunnyvale should use this exhibit to ensure that adequate easements are reserved for future water mains. The Town should maintain a water system master plan that identifies line sizes and system facilities required to meet projected demands.
- Policy 15.5. The Town should update, every three years, the Ten-Year Capital Improvements Program (CIP) for use in identifying necessary water system facility improvements, defining funding priorities and establishing schedules for construction, operation and maintenance of water storage, treatment and major distribution lines, and other system-level facilities to meet the needs of planned land uses.
- Policy 15.6. Connection to a centralized water system should be required for all new development. This policy should be implemented through specific provisions of Sunnyvale’s subdivision and zoning ordinances.
- Policy 15.7. The Town should require developers to provide on-site water facilities and any necessary extensions from existing centralized facilities to serve proposed developments at approved levels of service.
- Policy 15.8. The Town may participate in the oversizing of water facilities for development projects if the projects support Comprehensive Plan goals and policies and sufficient funding is available.
- Policy 15.9. The Town should evaluate and revise impact fee provisions and other infrastructure funding programs and modify them as necessary to fully implement the Comprehensive Plan.
- Policy 15.10. The Town should encourage participation in water conservation programs aimed at reducing demands from new and existing development.

Goal 16: To ensure provision of wastewater collection and treatment system that adequately serves Sunnyvale’s present and future residents and businesses.

- Policy 16.1. The Town should work with the Cities of Garland and Mesquite, or other sewage treatment providers, to provide wastewater collection and treatment services adequate to meet the needs of the land uses identified in the Land Use Element of this Comprehensive Plan. Firm contracts for wastewater treatment capacity should be secured to meet the needs of growth anticipated during the next five-year period according to the service levels described in this Comprehensive Plan.

Policy 16.2. Wastewater collection and treatment systems should be designed to provide adequate sewage treatment service for land uses anticipated in the Comprehensive Plan's Land Use Element:

Exhibit VIII.7 shows the wastewater system demands resulting from the full development of these land uses shown in the Future Land Use Diagram. Wastewater improvements should be planned and designed to serve projected demands. The sizing of improvements to serve particular developments will depend upon the intensity of use and the phasing of development for the project and other development projects utilizing the improvements.

Policy 16.3. Wastewater improvements should be designed as a gravity flow system to the greatest extent practical. The use of lift stations and force mains should be avoided whenever other practical design alternatives exist.

Policy 16.4. Exhibit VIII.8 illustrates the general locations of wastewater basin boundaries and the major interceptors required to serve these basins. This exhibit should be used to determine wastewater service areas. The Town should maintain a wastewater system master plan that identifies line sites and system facilities required to meet projected demands.

Policy 16.5. Connection to a centralized wastewater system should be required for all non-residential projects, all residential development on lots that are less than one acre in size, and all residential development (regardless of lot size) located within 300 feet of available wastewater facilities, unless site-specific engineering analysis demonstrates that on-site systems can adequately treat sewage generated by the project's planned use. This policy should be implemented through specific provisions of Sunnyvale's subdivision and zoning ordinances.

Exhibit VIII.7: Future Wastewater Demands (at full build-out)

	Long Creek Basin	Duck Creek Basin
Residential Units	2535	5029
Non-Residential Acreage	781	20
Average Residential Flow (MGD)	0.760	1.508
Average Non-Residential Flow (MGD)	0.780	0.020
Total Average Flow (MGD)	1.540	1.528
Peak Residential Flow (MGD)	3.628	7.806
Peak Non-Residential Flow (MGD)	0.780	0.020
Total Peak Flow (MGD)	4.408	7.826

The above table was derived from the "Water and Wastewater Capital Improvement Plan" dated November 1995 as prepared by Freeman-Millican, Inc.

Policy 16.6. The Town should develop a Ten-year Capital Improvements Program (CIP) for use in identifying sewage treatment system facility improvements, defining funding priorities and establishing schedules for construction, operation and maintenance of system-level wastewater collection and treatment facilities to meet the needs of planned land uses.

Policy 16.7. Sunnyvale should require developers to provide on-site and off-site wastewater collection facilities and treatment capacity needed to serve development at approved levels of service.

Policy 16.8. The Town may participate in the oversizing of wastewater facilities for development projects if the projects support Comprehensive Plan goals and policies and sufficient funding is available.

Policy 16.9. The Town should evaluate and revise infrastructure funding programs to fully implement the Comprehensive Plan. The use of impact fees and other funding mechanisms should be evaluated.

Policy 16.10: The Town should support efforts to reuse effluent for irrigation, wetlands production, groundwater recharge, or other activities consistent with public health and water quality objectives.

Goal 17: To establish and maintain a system of natural and manmade drainageways that is effective in carrying stormwater and is compatible with the character of the Town's community and its natural resources.

Policy 17.1. The Town should consider public safety, appearance, recreational use, retention of significant vegetation and wetland areas, and economical maintenance and operations in the design of flood control and drainage facilities.

Policy 17.2. Drainage studies maybe required for proposed development projects with the potential to substantially alter existing drainage patterns. This policy should be implemented through specific provisions of the Town's development regulations.

Policy 17.3. Developments should not increase runoff from the site during peak flood periods. Developers should be required to manage projected increases in runoff through approved methods, designed in accordance with acceptable engineering standards.

Implementation Measures - Water, Wastewater and Drainage (WWD)

WWD1: Regularly monitor water system demands and fire flow capacity to evaluate the system's ability to meet service standards and assess the need for water system improvements. The Town's fire department should regularly check hydrants to evaluate water pressure, water capacity and hydrant function. This ongoing monitoring should be used to prioritize the repair or replacement of existing hydrants and line segments, or the installation of new facilities.

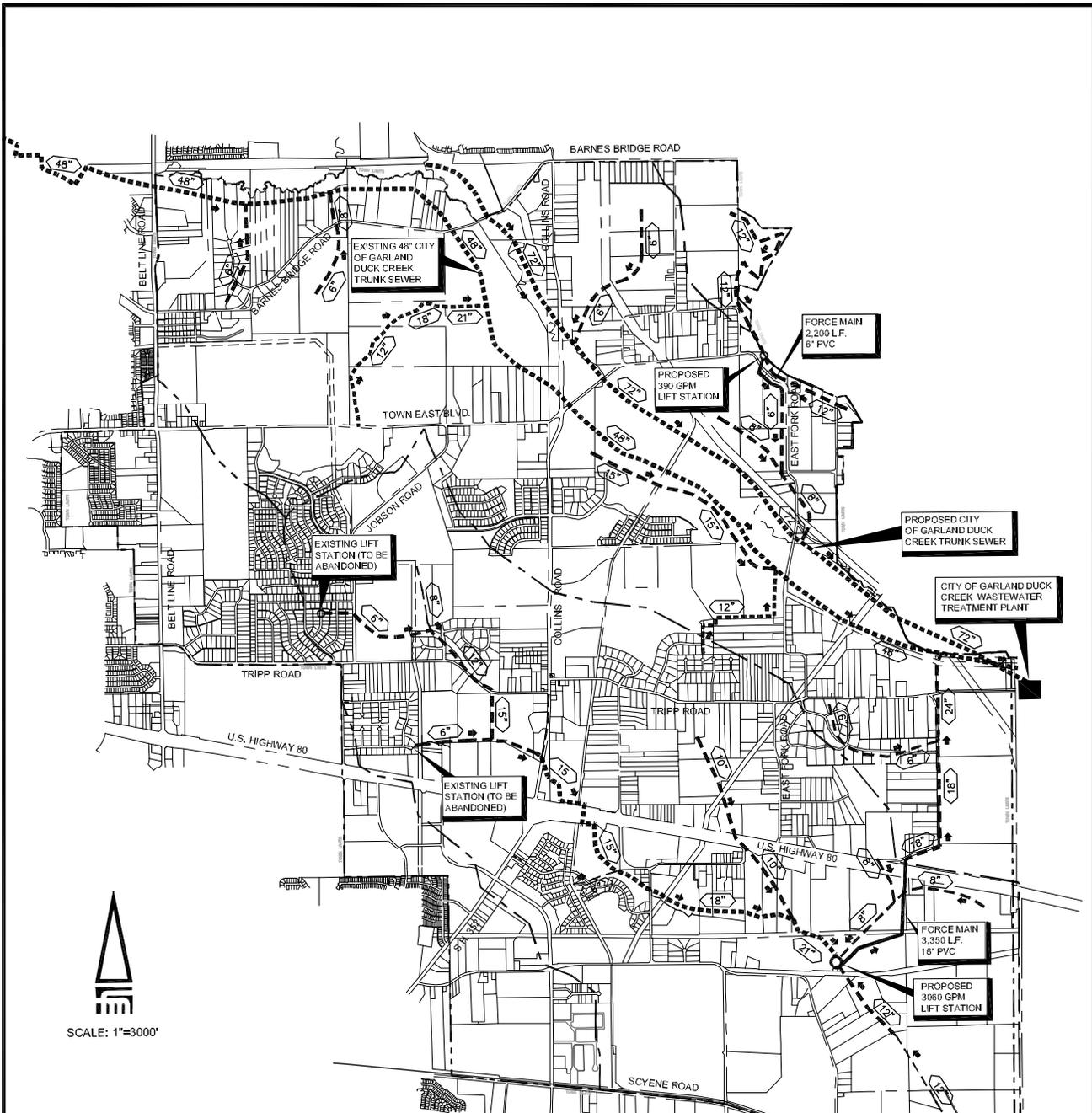
WWD2: Maintain a ten-year capital improvements plan that prioritizes water and wastewater system improvements on the basis of existing and short-term demands. Use the development review and approval process to ensure that adequate water and wastewater facilities are provided for proposed new developments.

WWD3: Continue to work with the City of Mesquite for adequate wastewater system capacity to serve the North Mesquite Creek basin.

WWD4: Continue to work with the City of Garland to secure adequate wastewater capacity to serve development in the Duck Creek basin.

WWD5: Monitor development trends and wastewater demands to evaluate the impact of new development on wastewater system capacities and to determine the need for additional capacity.

WWD6: Evaluate the Town's development regulations and modify as necessary to address stormwater management as provided by Policies 17.1 through 17.3.




 SCALE: 1"=3000'

LEGEND

-  EXISTING TRUNK SEWER
-  PROPOSED TRUNK SEWER
-  PROPOSED COLLECTOR SEWER
-  FORCE MAIN
-  DRAINAGE BASIN LIMIT
-  TOWN LIMITS
-  PROPOSED SEWER LINE SIZE
-  LIFT STATION
-  PROPOSED FACILITY



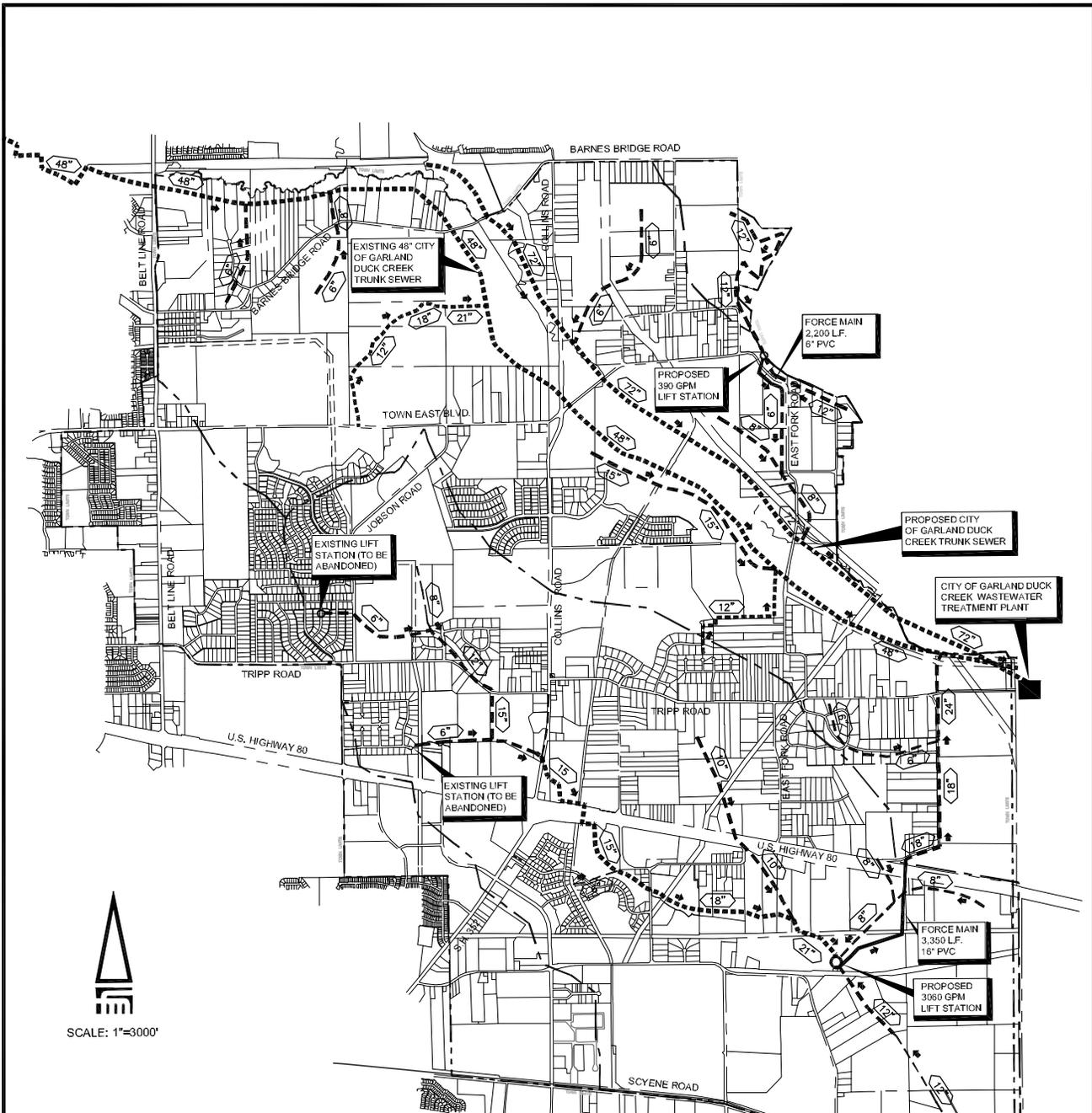
TOWN OF SUNNYVALE, TEXAS

EXHIBIT VIII.8 (NEW): SEWER SYSTEM MASTER PLAN

JUNE 2003



FREEMAN - MILLICAN, Inc.
 CONSULTING ENGINEERS
 9500 FOREST LANE, SUITE 501
 DALLAS, TEXAS 75243




 SCALE: 1"=3000'

LEGEND

-  EXISTING TRUNK SEWER
-  PROPOSED TRUNK SEWER
-  PROPOSED COLLECTOR SEWER
-  FORCE MAIN
-  DRAINAGE BASIN LIMIT
-  TOWN LIMITS
-  PROPOSED SEWER LINE SIZE
-  LIFT STATION
-  PROPOSED FACILITY



TOWN OF SUNNYVALE, TEXAS

EXHIBIT VIII.8 (NEW): SEWER SYSTEM MASTER PLAN

JUNE 2003



FREEMAN - MILLICAN, Inc.
 CONSULTING ENGINEERS
 9500 FOREST LANE, SUITE 501
 DALLAS, TEXAS 75243

D. PARKS AND RECREATION

Key Parks and Recreation Issues

Providing Adequate Parks and Recreation Services for the Diverse Needs of the Community.

Demands for neighborhood and community parks will increase as Sunnyvale's population increases. Children, seniors and other segments of the population will demand park facilities for active and passive recreation. The Town will need to acquire park land, install appropriate facilities and maintain those facilities. Development of neighborhood facilities can be coordinated with the development of neighborhoods. When developing community park facilities, Sunnyvale must balance demand and available resources.

Linking Facilities and Neighborhoods. Linkages between public spaces and neighborhoods can enhance Sunnyvale's sense of community. Pedestrian and bicycle paths that connect parks, schools, other public facilities and individual neighborhoods provide a means for residents to move throughout the community and meet their neighbors. They also can provide a safe and healthy way to increase children's mobility. A functional network of trails will help Sunnyvale retain its unique small town atmosphere as the community grows in size.

Parks and Recreation Goals and Policies

GOAL 18: TO PROVIDE A PARKS SYSTEM THAT MEETS THE DIVERSE RECREATIONAL NEEDS OF SUNNYVALE'S RESIDENTS.

- Policy 18.1. Sunnyvale should endeavor to provide a system of parks that provides 2.5 acres of neighborhood parks for every 1,000 residents. This service level should be used in planning parks facilities to meet the needs of the Town's planned population.
- Policy 18.2. Sunnyvale should establish a system of community parks and community-wide recreational facilities to meet residents' needs for fields for organized sports, community recreation centers, passive open space areas and trails. A general estimate of 7.5 acres of parkland for every 1,000 residents (in addition to the 2.5 acres of neighborhood parks discussed in Policy 17.1) should be used in evaluating the need for community parks and recreational facilities.
- Policy 18.3. Sunnyvale should obtain land for parks and recreational facility sites through public investment, private contributions, or the approval of new planned residential overlay developments, as provided in the Land Use Element and implemented through the Town's design guidelines and zoning ordinance. Appropriate locations for new neighborhood parks should be identified through the development review process.

- Policy 18.4. Sunnyvale should consider the location of a community recreational facility, including softball fields, a swimming pool and/other recreational amenities as part of a new town center.
- Policy 18.5. The Town should design affordable recreational facilities that will have strong aesthetic qualities, create a positive recreational environment, facilitate operation and maintenance, and complement the surrounding area.
- Policy 18.6. Sunnyvale should endeavor to provide adequate playgrounds for the recreational needs of its young children. The Town should work with the Sunnyvale Independent School District in the development, maintenance and joint operation of local school park sites where it is economically and functionally desirable to do so.
- Policy 18.7. The Town's standards for park design should address the needs of special populations such as the elderly and the handicapped.
- Policy 18.8. Neighborhood and community parks should be included as destinations in the Town's system of pedestrian and bicycle routes.

Implementation Measures - Parks and Recreation (PR)

- PR1. Explore options for securing additional neighborhood park land and trails through developer dedication of land, or fees
- PR2. Encourage developers to dedicate floodplain land for drainage and recreational facilities. Develop handout information explaining the planned residential overlay district for developments dedicating parkland and open space.
- PR3. Develop and regularly update a parks improvements plan that identifies existing and proposed park and trail acquisitions, planned improvements to parks and trails, estimated costs and proposed funding. Include plans for the acquisition and improvement of a town center community facility in the initial parks improvements plan.
- PR4: Coordinate park facility provision with the Sunnyvale Independent School District (SISD) and explore opportunities for developing joint Town/School District recreational facilities.

E. PUBLIC SAFETY

Key Public Safety Issues

Ensuring Adequate and Cost Effective Police Service. As Sunnyvale's population increases, there will be increased demand for a local police force. The Town must continue to compare the costs and benefits of a local police force versus reliance on the County Sheriff's Department. By monitoring patrol activity, response times and crime reports, the Town can evaluate the existing level of service. This will help the Town balance the costs and benefits of a local police force.

Ensuring Adequate and Cost Effective Fire Protection. A responsive fire department is essential to ensure the public safety. Failure to maintain an effective fire department will increase the risks to life and property, and result in higher insurance rates throughout the community. Appropriate equipment, trained firefighters and access are the key elements of an effective fire department. As the community grows, Sunnyvale will need to maintain its effectiveness by adding equipment and firefighters. As the community increases in size, the need for full time, paid firefighters will increase. Community growth also will increase traffic which will lengthen fire department response times. Potential increases in response times can be avoided through the addition or relocation of fire stations and the proper design of new roadways. Continued coordination with adjacent communities through mutual aid agreements should continue to benefit Sunnyvale.

Public Safety Goals and Policies

Goal 19: TO PROVIDE FOR COST EFFECTIVE, RESPONSIVE PUBLIC SAFETY SERVICES THAT MEET THE NEEDS OF THE COMMUNITY.

Policy 19.1. The Town should continue to coordinate with the Dallas County Sheriff's Department to provide public safety services that meet the needs of businesses and residents, present and future.

Policy 19.2. Sunnyvale should evaluate the need for creation of a Town police department as part of periodic Comprehensive Plan reviews.

GOAL 20: TO PROVIDE COST EFFECTIVE, RESPONSIVE FIRE PROTECTION SERVICES FOR SUNNYVALE'S RESIDENTS AND BUSINESSES.

Policy 20.1. The Town should provide adequate levels of fire protection through a combination of fire prevention and suppression activities.

Policy 20.2. Sunnyvale should endeavor to maintain adequate emergency fire flows to comply with State Insurance Board Standards. New developments should be required to provide facilities that meet these standards. The Town should upgrade substandard fire flows in existing areas as capital funding permits.

- Policy 20.3. Non-residential development and residential development on lots smaller than one acre should be served by a fire station within 1.5 miles of the project.
- Policy 20.4. Sunnyvale should obtain land for fire station sites through public investment, private contributions, or the approval of new developments using the planned overlay district, as provided in the Land Use Element and implemented through the Town's design guidelines and zoning ordinance.
- Policy 20.5. Sunnyvale should consider the inclusion of a new fire station as part of a future Town Center north of U.S. Highway 80.
- Policy 20.6. Sunnyvale should maintain mutual response agreements with adjacent fire departments to provide reciprocal benefits and increase local fire protection.
- Policy 20.7. The Town should maintain development ordinances, regulations and codes that are consistent with generally accepted fire safety standards.
- Policy 20.8. The Town should consider the needs for fire prevention and suppression in its review of development projects. These needs include, but are not limited to, providing adequate emergency access to buildings and adequate separation between buildings.
- Policy 20.9. Sunnyvale should promote and support actions that serve to reduce fire insurance rates for properties in the Town.
- Policy 20.10. The Town should evaluate existing structures and uses to identify existing fire hazards and should reduce or eliminate these hazards as resources permit.
- Policy 20.11. Sunnyvale should evaluate the need for creation of a full-time Town fire department as part of periodic Comprehensive Plan reviews.

Goal 21: Provide residents with cost-effective protection from natural and man-made hazards.

- Policy 21.2. Sunnyvale should maintain an emergency preparedness plan appropriate to meet the needs of existing residents and to provide increased service to meet the needs of new development.
- Policy 21.2. The Town's emergency preparedness plan should define the appropriate levels of medical first response of public agencies to medical and other emergencies in urban and rural areas. Mutual response agreements among public service agencies

should support interagency cooperation in response to medical and other emergencies.

Policy 21.3. Sunnyvale should support 911 services, providing regular updates of address information for new developments.

Implementation Measures - Public Safety (PS)

- PS1: Monitor response times and crime rates to evaluate the level of service being provided by the Dallas County Sheriff's Department and to determine the need for a local police force.
- PS2: Acquire property for a new fire station located in, or near the proposed town center. Begin budgeting for constructing and equipping the new station(s).
- PS3: Modify development regulations to require new development to comply with State Board of Insurance Standards for fire hydrant spacing, access and, wherever feasible, fire flows. Address existing system deficiencies as budgets permit, to minimize local fire insurance rates.
- PS4: Evaluate the costs and benefits of hiring paid firefighters in conjunction with comprehensive plan reviews and whenever the population of the Town reaches 6,000 residents.

F. OTHER PUBLIC SERVICES

Key Public Service Issues

Establishing a Community Center. Sunnyvale needs a centrally located focal point. The development of a town center that includes public administrative offices, as well as cultural and recreational facilities would provide a focus for many community activities and reinforce a sense of community. Such a town center should be pedestrian oriented and in close proximity to commercial and residential uses.

Coordinating with Other Service Providers. Many public services are provided by county or state agencies. Sunnyvale and these other agencies can benefit from improved coordination. Minimizing redundant activities and sharing resources can enable service providers to improve the quality and cost effectiveness of public services.

Providing other Public Services at Appropriate Levels. Demands for services tend to exceed most jurisdictions' resources. By adopting realistic service standards, monitoring services to ensure that those standards are met and listening to public comments, Sunnyvale's leaders can make better service decisions. Service standards will facilitate capital improvements planning and annual budgetary decisions.

Other Public Services Goals and Policies

Goal 22: To provide other public services to meet the needs of the Town's residents, at levels appropriate to the community's size and character.

- Policy 22.1. Sunnyvale should coordinate the provision of senior recreation programs with other senior facilities and services provided by public and quasi-public entities.
- Policy 22.2. Sunnyvale should develop a Town Center facility in the central area of Town to create a community focal point and to provide an additional, centrally located site for Town administrative, recreational, and cultural activities. The Town should establish siting criteria, identify alternative sites and determine an appropriate means of acquiring land and constructing facilities. The use of public-private partnerships should be encouraged.
- Policy 22.3. Sunnyvale should encourage the location of private health care facilities in areas of the Town planned for non-residential development.
- Policy 22.4. The Town should encourage the location of social services such as child care, vocational training, and group living facilities in areas of the Town planned for non-residential development.
- Policy 22.5. Sunnyvale should cooperate with the Sunnyvale Independent School District to identify and reserve sufficient school sites, at appropriate locations, to meet the needs of the Town's planned population. Future school sites should be depicted on the Future Land Use Diagram after designation by SISD.
- Policy 22.6. The Town should endeavor to provide adequate library services and facilities to meet the needs of its planned population. The Town should use the Texas Library Association's guideline of 0.75 square feet of library floor space per resident as a measure of library service adequacy.
- Policy 22.7. Sunnyvale should identify potential Town actions to encourage reuse of recycled materials, and to otherwise reduce the volume of materials requiring disposal.
- Policy 22.8. Sunnyvale should participate in regional efforts to reduce solid waste generation and provide for adequate solid waste disposal.

Implementation Measures Other Public Services (OPS)

- OPS1: Plan for a new Town Hall to be located in the proposed town center. Conduct a facilities study to ensure that the Town Hall and surrounding facilities provide sufficient space for the cultural and recreational activities for Sunnyvale residents.
- OPS2: Assist the Sunnyvale Independent School District (SISD) in locating appropriate sites for new facilities. Amend the Land Use Diagram to reflect selected sites.
- OPS3: As Sunnyvale's population approaches 6,000 people, plan for expanded library facilities in accordance with the "Texas Library Association Standards and Guidelines for Texas 44Public Libraries". Evaluate the costs and benefits of sharing facilities with SISD.

IX. GROWTH MANAGEMENT ELEMENT

OVERVIEW

GROWTH MANAGEMENT

A. OVERVIEW

Effective growth management balances growth with a community's ability to meet the demands from that growth. Public and private investment in infrastructure must keep up with development to ensure that adequate levels of service are maintained. This requires ongoing monitoring of growth trends and system demands. It also requires a regulatory framework that enables the community to link development approvals with the provision of adequate public facilities.

Timing, funding and coordination are keys to successful growth management. This element establishes goals and policies intended to guide Sunnyvale's decision-makers in critical development and investment issues. Through implementation of this element, the Town will provide for growth, while retaining adequate levels of public services at a cost that is affordable to new and existing residents.

Key Growth Management Issues

Development Phasing. The Town and the development community must know when and where development will occur to make sound investment decisions. Timing new development to match demand and the availability of adequate public facilities and services can improve private sector returns on investments and public sector efficiency. It can facilitate the orderly expansion of communities, where this is planned, and can help discourage unplanned development by reducing the economic viability of urban expansion in other areas. The Growth Management Element provides policies to support phasing of development over time.

Facility Extension and Financing. Facilities and services must be extended in an orderly manner to make the most efficient use of public resources. Sound fiscal management relies on the establishment of rational policies for the extension of facilities and services. While specific service levels and facility needs are discussed in other Plan Elements, the Growth Management Element defines when extensions should be made and how they should be funded.

Growth Monitoring. Sunnyvale's planning and development policies are based on the community's goals and on the conditions existing during Comprehensive Plan preparation. As the Plan is implemented, growth must be monitored to assess the effectiveness of these policies and to determine whether actual growth follows the trends described when the Plan was developed. Changes in fiscal, economic or demographic trends may warrant refinements in Town policies. Monitoring of development activity (subdivisions and building permits), demographic, economic, fiscal and "quality of life" trends will give the Town a sound basis to consider changes to the policies established in this Master Plan.

Providing Facilities and Services As They Are Needed. Adequate facilities and services should be available concurrently with demands. This requires the planning and installation of public facilities so that demand never exceeds capacity. Sunnyvale can ensure this "concurrency" by

linking development approvals with service capabilities. Through effective capital improvements planning and development phasing, Sunnyvale can ensure that adequate public facilities and services are available as they are needed.

Funding Public Infrastructure Improvements. Funding public infrastructure requires the Town to balance resources, costs and benefits. The Town must identify the costs of construction and maintenance and then determine how to equitably finance those costs. Town decision-makers will have to evaluate who receives the benefits of a capital improvement to determine how to allocate its costs.

Promoting Intergovernmental Coordination. Many entities provide services to Sunnyvale's residents and are directly affected by development decisions. By involving affected agencies in growth and development decision-making processes, Sunnyvale can help these agencies plan and provide more efficient services.

GROWTH MANAGEMENT GOALS AND POLICIES

Goal 23: To manage Sunnyvale's growth through monitoring of actual growth and development.

Policy 23.1 Sunnyvale should monitor building and development permits and subdivision approvals, and record the types and locations of development projects.

Policy 232 Sunnyvale should monitor and evaluate trends in population, employment, labor force characteristics, property values, sales and other fiscal factors. This information should be evaluated to assess the need to modify projections, regulations, plans or policies.

Goal 24: To plan facilities that provide adequate service to Sunnyvale's planned land uses concurrent with demand for particular services.

Policy 24.1 Sunnyvale should use its regulatory powers and its programs for funding public improvements to ensure that all necessary public services and facilities are available by the time development activity creates a demand for these services and facilities.

Policy 24.2 Sunnyvale should require public facilities in new developments to be designed to accommodate demands resulting from planned land uses. Construction of facilities sized to meet demands of planned land uses may be deferred if:

- proposed interim facilities are adequate to serve anticipated growth for at least five years;
- proposed rights-of-way and easements are sufficient to meet demands from planned land uses; and

- the Town finds that incremental provision of facilities is the most efficient use of public resources.

Policy 24.3 The Town should establish a standard formula for allocating the costs of facilities built with joint public-private funding, and should amend its development regulations as necessary to reflect this allocation. Project-specific development agreements, where appropriate, should be considered to record these allocations.

Policy 24.4 Required on-site improvements should be in place at the time project occupancy creates demands for those improvements.

Policy 24.5 Required off-site improvements to adequately serve proposed development should be constructed or funded as a condition of development approval.

Policy 24.6 Required off-site improvements should be installed prior to the creation of demands for those facilities. If off-site improvements are not in place at the time of a development request, then a Town-approved development phasing plan should be required to ensure that improvements will be in place at the time of project occupancy. Where public facilities are not adequate to serve an entire development project, the Town should use phasing to ensure that adequate facilities will be available concurrently with demands for those facilities.

Policy 24.7 Sunnyvale may use development agreements, where appropriate, to phase construction of required improvements concurrent with development creating demand for those improvements.

Policy 24.8 Sunnyvale may require the provision of facility capacity in excess of that required by a proposed development if such oversizing is necessary to serve planned development in the facility's service area. Sunnyvale should develop a process to reimburse developers providing excess facility capacity. Funding for such reimbursements should be based on fees from subsequent developments that benefit from the oversized facilities.

Goal 25: To establish an equitable system for funding the costs of new public infrastructure.

Policy 25.1 New development should be required to fund its fair share of the costs for public facilities needed to serve it.

Policy 25.2 The costs of expanding existing facilities and services should be borne by those creating the need for expansion, unless the Town determines that a portion of the expansion's cost benefits existing development, in which case costs should be equitably apportioned between new and existing development.

- Policy 25.3 The developer of a tract should be responsible for installation of all on-site improvements, as well as the provision of on-site and off-site easements and rights-of-way. This policy should be implemented through specific provisions of Sunnyvale's subdivision and zoning ordinances.
- Policy 25.4 The Town may enter into joint facility financing agreements, create special assessment areas, establish Town Improvement and Sanitary Districts, levy taxes, or establish user or impact fees to finance system improvements. Any joint financing of facilities with private landowners should be based on a development agreement with specific allocations of capacity and cost.
- Policy 25.5 When improvements are a condition of development approval, Sunnyvale should require security for those improvements at the time of approval. Security may include cash escrow, letters of credit, performance bonds, or other alternatives specifically approved by the Town. This policy should be implemented through specific provisions of Sunnyvale's subdivision and zoning ordinances.
- Policy 25.6 The Town may adopt development fees or require developer contributions through development agreements to finance system improvements.

Goal 26: To promote improved coordination between the Town and other governmental entities.

- Policy 26.1 Sunnyvale should coordinate with other jurisdictions (including neighboring cities, counties, school districts, special districts, and State and Federal agencies) to identify opportunities for joint service provision that will improve the quality and/or efficiency of public service provision. These efforts should explore options for sharing facilities and consolidating service provision.

Implementation Measures - Growth Management (GM)

- GM1: Establish and maintain a system for monitoring and tracking building permits, utility connections and development decisions by address and by NCTCOG defined traffic zone. Use this system to monitor trends in population, employment, and demands for public infrastructure.
- GM2: Adopt development regulations that require the availability of adequate public facilities and services concurrently with demand for those services and facilities. Include specific minimum standards for the timing and levels of service for water, wastewater and transportation facilities that are consistent with comprehensive plan policies.
- GM3: Develop a standard format for development agreements, as well as a system for monitoring the terms of those agreements.

X. COMMUNITY DESIGN ELEMENT

OVERVIEW

COMMUNITY DESIGN

A. OVERVIEW

The purpose of the Community Design Element of the Comprehensive Plan is to recommend design standards and guidelines which will help to meet the goals related to the quality of the Town's physical environment as it develops.

KEY COMMUNITY DESIGN ISSUES

Analysis of Sunnyvale's environment suggests that the Town's existing visual character is dominated by an open, rural landscape interspersed with large lot or estate development. By and large, Sunnyvale's image today is related to views of the landscape, primarily from roads. As the Town's open areas are developed, this existing image will, even if development is strictly regulated, change. This gives rise to a series of issues, such as:

- What are the qualities of the existing environment which the citizens of the Town wish to retain?
- How can these qualities be incorporated into future development?
- What other development standards should be adopted to ensure the highest quality and the least impact on the Town?

COMMUNITY DESIGN GOALS AND POLICIES

During public meetings held as part of the comprehensive planning process, a variety of community objectives was discussed. These are summarized, by category, in the report titled Analysis of Plan Alternatives. A number of these objectives relate directly or by implication to urban design, and can be grouped under a series of four broad goals. These goals are:

Goal 27: To preserve what is best in Sunnyvale's existing environment.

Goal 28: To encourage high quality development compatible with the Town's visual and aesthetic features.

Goal 29: To provide a system of open space within the Town.

Goal 30: To develop streets which complement and reinforce the Town's community design goals.

Each of these goals, and the associated policy recommendations, are discussed in turn below. They form the basis for the Town's design standards and guidelines.

GOAL 27: To preserve what is best in Sunnyvale's existing environment

This goal is related to the assumption that development, at least in significant parts of the Town, is likely to occur in the future. There are two aspects of the existing environment of Sunnyvale which need to be addressed. One aspect, the protection of valuable natural resources, is discussed in the Natural Resources Element of the Plan. The second aspect relates to the Town's existing rural character, and the desire to retain references to this type of environment. The goal of preserving agriculture, which is also consistent with the desire to preserve rural character, is a related land use objective, but is more difficult to achieve.

What is meant by "rural character?" In other words, what are the elements which collectively suggest a rural environment? Based on the analysis of Sunnyvale's existing environment, these elements are:

Country lanes, or relatively narrow roads, without curbs, with naturalistic treelines, hedgerows, berms and other landscape features.

Extensive open areas, often used for agriculture or grazing.

Long views across an open, rolling landscape.

Ponds, often created by damming streams or swales, and used for agricultural purposes.

Low density development, either in the form of large ranches, or "estate" lots of six to ten acres, where houses and other buildings assume a secondary visual importance to the open land. Often the lots are fenced and contain horses.

Other Visual References. Fences, ranch gates, barns and allees of trees are visual features related to rural character.

Obviously, not all of the elements which contribute to Sunnyvale's existing rural character can be retained in the future as development occurs. Extensive open areas, long views of open landscape and low density development will be difficult to preserve. However, country lanes, ponds and other visual references to the Town's agricultural heritage might be retainable and incorporated into new development, as would a certain amount of open space.

The following policies are related to the goal of retaining references to Sunnyvale's existing rural character.

Policy 27.1 Sunnyvale should preserve the character along designated "country lanes" through required design standards.

- Policy 27.2 The Town should encourage retention of areas for agricultural and agricultural residential use through land use recommendations.
- Policy 27.3 Sunnyvale should encourage incorporation of "long views" of rural areas within the Town.
- Policy 27.4 The Town should develop a design vocabulary for streets, open spaces and other areas which incorporate visual elements related to Sunnyvale's rural character.
- Policy 27.5 Sunnyvale should retain the unique character of existing neighborhoods.

GOAL 28: To encourage the high quality development compatible with the Town's visual and aesthetic features.

This goal complements the goal to preserve what is best in Sunnyvale's existing environment and is related to recognition of the inherent conflict between the visual characteristics of existing development on large parcels of land and the possibility of future development on smaller lots or of greater intensity. Recommended policies related to this goal include:

- Policy 28.1 The Town should seek to minimize the visual impact of new development.
- Policy 28.2 Sunnyvale should encourage development of areas with visual coherence as well as areas of variety and distinct identity within the Town.
- Policy 28.3 The Town should limit the visual impact of buildings, garages and parked cars from public streets.

GOAL 29: To provide a system of open space in the Town.

Open spaces constitute an important part of the Town's existing character and image today. As the Town develops, open spaces will be converted to other uses. Open spaces, once developed, cannot be recovered. It is therefore important to have a goal which strives to preserve some open areas within the Town. Policies related to development of open space include:

- Policy 29.1 The Town should require provision of permanent open space, as part of development projects, through incentive programs. The Town should seek appropriate mechanisms to ensure the permanent maintenance of open spaces.
- Policy 29.2 Developers should be required to include essential linkages to the open space system within projects.
- Policy 29.3 Sunnyvale should create community parks with facilities such as ball fields, swimming pools and other facilities for active recreation.

Policy 29.4 Sunnyvale should encourage bike, hiking and equestrian trails as part of development projects. Public access and/or trails in open space along creeks should be encouraged.

GOAL 30: To develop streets which complement and reinforce the Town's community design goals

Streets play more than a functional role within the Town. Their design conveys an image and communicates to residents and visitors the type of environment the Town values. Policies recommended for the design of streets include:

Policy 30.1 Sunnyvale should establish different roadway design standards which reflect not only functional requirements but visual character as well.

Policy 30.2 Alleys should normally be provided for developments with residential lots smaller than 35,000 square feet, although the Town may elect to approve plans proposed without alleys.

Policy 30.3 The impact of traffic from new development on existing residential areas should be minimized.

Implementation Measures - Community Design (CD)

The community design goals and policies can be implemented through regulatory measures such as zoning and subdivision requirements or through non-regulatory devices such as construction of infrastructure or other public facilities by the Town. In all cases, design and development should be guided by the community design guidelines which are included as part of the Comprehensive Plan. Specific recommendations for implementation include the following:

CD1: Include standards for community design in the Sunnyvale Development Regulations.

Discussion: The Town of Sunnyvale's existing Zoning Ordinance, Subdivision Ordinance and Engineering Design Manual will need to be reviewed to determine whether they are consistent with the adopted Comprehensive Plan. Standards and guidelines relating to community design can be drafted for inclusion in these regulations based on the adopted Comprehensive Plan

CD2: Prepare a Design and Development Manual which includes standards and guidelines for community design.

Discussion: Suggested standards and guidelines are included as an appendix to this Comprehensive Plan. The Manual can serve as a basic reference for developers

and for the Town as it reviews design proposals put forward by landowners and developers.

CD3: Provide for several options for implementing any open space provisions in the zoning ordinance, including public ownership, common open space and privately owned preservation easements.

Discussion: If acceptable to the Town, a developer/owner could "dedicate" or transfer ownership of required open spaces to the Town. The Town of Sunnyvale would assume all responsibilities commensurate with ownership, such as maintenance, liability and so on. This is similar to the process used for public streets in a development, which the developer plans and builds according to municipal standards, and then dedicates to the Town. The streets are henceforth maintained using the annual real estate tax revenues. In the case of open space, ownership of the land could be transferred with or without improvements.

Alternately, open space could be provided in the form of Common Open Space, with ownership retained by a "homeowners' association" established by the developer. The association would be comprised of property owners within the development, who will be required to join the association when they purchase property. Mandatory dues can be used to maintain the open space, which is generally designated for the use and enjoyment of the association's members.

A third option is to provide permanent open space through a preservation easement. In this case, ownership of the open space would be retained by individual property owners, as part of their "lot." Through a deed restriction, areas to be retained as permanent open space can be designated.

In all of the examples above, design standards and guidelines can be applied to the Open Spaces affected, through the zoning and subdivision ordinances, the Design and Development Manual, and the policies included in the Comprehensive Plan.

XI. PLAN IMPLEMENTATION

INTRODUCTION

DEVELOPMENT REVIEW AND REGULATION

PUBLIC INVESTMENT AND PUBLIC FACILITIES FINANCING

INTERGOVERNMENTAL INVOLVEMENT

COMPREHENSIVE PLAN AMENDMENT AND REVIEW

A. INTRODUCTION

This Comprehensive Plan is a guide for Sunnyvale's decision-makers. The goals and policies establish a framework for making decisions. Under Texas law, a comprehensive plan can only be implemented through zoning, subdivision and other development regulations or programs. This section of the Comprehensive Plan describes and recommends many tools and techniques available to the Town of Sunnyvale to implement the goals and policies of the Comprehensive Plan. The recommendations, in many instances, refine existing Town processes and programs. New programs to assist in Plan implementation are also recommended.

B. DEVELOPMENT REVIEW AND REGULATION

The Comprehensive Plan serves as the policy direction for future development decisions. The Plan is implemented primarily through development regulations (zoning ordinance and subdivision ordinance), or through programs which fulfill other policy objectives, such as programs that raise revenues to finance public facilities and services. The development regulations that implement the Comprehensive Plan of their very nature are "consistent" with such plan. An individual development proposal is consistent with the Comprehensive Plan if it is consistent with the zoning, subdivision and other development regulations. The implementation measures described in this chapter include Town actions to provide public services and facilities at adequate levels to meet the needs of new development and to ensure that new development is consistent with the desired community character. The Town's development review processes -- subdivision, zoning and design review, and building permit issuance -- are discussed, as is the use of development agreements. All of these processes provide opportunities for the Town to grow and retain its unique character.

ZONING

Zoning is perhaps the single most powerful tool for implementing the goals and policies of the Comprehensive Plan. Key changes needed to make Sunnyvale's existing zoning ordinance consistent with the Plan's goals and policies are described below.

Zoning District Structure. The Town's zoning district regulations should be restructured to reflect the land use categories identified in the Plan. In some instances, both the uses and the intensity of uses within the district will be changed to correspond with the land use categories. In other instances, more than one zoning district may be used to implement a land use category.

Planned Residential Development Regulations. A principal change occasioned by the revised comprehensive plan will be the adoption of regulations concerning planned residential developments. The Town has selected a preferred alternative which allows planned residential developments in the low-density residential, medium density and urban density residential land use categories. The planned residential development requires property owners to meet higher standards and provide additional amenities to residential projects to obtain increased density for their property (incentive and bonus densities). The revised zoning ordinance must incorporate both the performance standards, which will be used to authorize increased densities, and the

procedures by which such authorization is given. The highest permissible densities can be achieved only by establishing an overlay zoning district. Such provisions will replace the current planned development district regulations.

Design Standards. The plan policies address physical design features that will enhance the rural character of the Town and assure compatibility between neighboring land uses. These standards, involving such matters as landscaping and providing of open space and buffers between certain uses, must be incorporated in the text of the zoning ordinance. Design standards also address parking, signs, outdoor lighting and other matters that are not peculiar to certain districts. Use of performance standards as opposed to absolute design standards can provide design flexibility while ensuring compatibility.

Zoning Map Amendment. The zoning map will undergo certain revision, in accordance with the new zoning district regulations, to conform to the revised comprehensive plan map. It is likely, however, that not all changes to the map will be instituted by the Town immediately. Changes in the zoning map will achieve the Plan's recommended land use pattern over time.

Site Plan Review. The site plan review process enables the Town to ensure that multi-family and non-residential development is designed appropriately to address issues such as neighborhood compatibility. It does not change the standards established in the zoning ordinance; instead, site plan review considers the application of those standards to a specific site.

SUBDIVISION

Subdivision regulations that provide for the orderly division and development of land are a key tool for implementing the Comprehensive Plan. Sunnyvale's subdivision regulations establish procedures for dividing parcels into developable lots. They also establish minimum design standards for lots and require assurances for completion and maintenance of public improvements serving the lots. The Plan calls for several refinements to the existing regulations that will help the Town achieve its goals.

Requirements for **adequate public facilities** are essential to ensure the orderly and efficient growth of the community. Such requirements define minimum service levels, establish minimum design standards for public improvements (e.g., street standards, utility system standards, etc.), assign responsibility for provision of facilities, provide for phasing, link the capital improvements program with development plans, and describe when in the development process improvements should be provided. Good regulations clarify the requirements for improvements and make the development process more predictable for both the development community and the Town.

Design and lot improvement standards are another important element of subdivision regulations. These standards relate to the improvement of individual lots, as well as the design of the subdivision as a whole. In addition to addressing general lot configuration and layout, the

standards should address landscaping provisions, regulations for alleys, curbs and sidewalks and floodplain development.

C. PUBLIC INVESTMENT AND PUBLIC FACILITIES FINANCING

Sunnyvale's use of public funds can provide effective support for the goals and policies of the Comprehensive Plan. The Town's annual operating budget, the capital improvements program, and other funding sources can effectively implement the Comprehensive Plan.

Capital Improvement Program

Public investment in infrastructure is a key factor in shaping a town. The Town's infrastructure includes its public buildings, as well as its street, water, wastewater, drainage and parks systems. Effective capital improvement programming balances the Town's needs for infrastructure against available resources. The capital improvement program (CIP) should plan capital expenditures ten years in advance, with priorities being updated annually. Much of Sunnyvale's planned growth depends on the provision of adequate infrastructure. By controlling the location and timing of new or upgraded facilities, the CIP is a key tool for Comprehensive Plan implementation.

Capital Improvement Funding

The methods used by a town for infrastructure financing also play important roles in shaping the community by affecting the availability of funds and by determining which groups must bear the costs of growth. Impact fees, fees, special assessments, user fees and benefit fees, can be used to ensure that those who generate the need for public facilities pay their fair share of the costs. Property taxes, sales taxes and certain utility rate structures spread the costs of service expansions to the community at large.

Sunnyvale's use of public funds will have a significant impact on the implementation of this Plan. Public investment decisions should be made in a business like manner. However, the Town must continue to rely on the goals of its Comprehensive Plan to ensure that its business continues to be the provision of services to the people of Sunnyvale.

D. INTERGOVERNMENTAL COORDINATION

Coordination with other governmental agencies is important to Sunnyvale. The Town relies on other agencies for water, wastewater service, highway improvements and other services. Expansion of its water and wastewater systems to serve projected growth will require coordination and negotiation with the North Texas Municipal Water District, as well as the cities of Garland and Mesquite. Sunnyvale should coordinate its transportation system improvements with these cities and the North Central Texas Council of Governments. NCTCOG also can provide valuable planning assistance. Good relationships with these agencies and State agencies, such as the Texas Department of Highways and Public Transportation, can help Sunnyvale

achieve its goals and provide services more efficiently. Sunnyvale should foster formal and informal channels of communication between Town officials and these agencies.

E. COMMUNITY INVOLVEMENT

As informed, involved citizenry is a vital element of a democratic society. The needs and desires of the public are an important consideration in Sunnyvale's decision-making process. Citizen participation takes many forms, from educational forums to testifying at public hearings or serving on city boards and commissions. A broad range of perspectives at public hearings helps boards, commissions and the Town Council to make better informed decisions. Sunnyvale should continue to encourage community involvement, in a variety of forms, as part of Comprehensive Plan implementation.

F. COMPREHENSIVE PLAN AMENDMENT AND REVIEW

The following sections describe the need for amendment and review of Sunnyvale's Comprehensive Plan. The specific procedures should be established in the Town's zoning ordinance.

Comprehensive Plan Amendment

Sunnyvale's Comprehensive Plan is intended to be a dynamic document -- one that responds to changing needs and conditions. Plan amendments should not be made lightly. Commission and Councilmembers should consider each proposed amendment carefully to determine whether or not it is consistent with the Plan's goals and policies. Specific procedures and conditions for plan amendments should be established in the Town's zoning ordinance.

Comprehensive Plan Review

To ensure that the Comprehensive Plan remains an effective guide for decision-makers, Sunnyvale should conduct evaluations of the Plan. These evaluations should be conducted every three to five years, depending on the rate of change in the community, and consider the following:

- The Town's progress in implementing the Plan;
- Changes in conditions that form the basis of the Plan;
- Community support for the Plan's goals and policies; and
- Changes in State laws.

The review process should encourage input from merchants, neighborhood groups, developers, and other citizens. Any Plan amendments that appear appropriate as a result of this review would be processed according to the Plan amendment process described in the zoning ordinance.

XII. APPENDIX

GLOSSARY OF TERMS

BACKGROUND REPORTS FROM PLAN PREPARATION

APPENDIX

A. GLOSSARY OF TERMS

Acres, Gross

The entire acreage of a site. Most communities calculate gross acreage to the centerline of proposed bounding streets and/or to the edge of the right-of-way of existing or dedicated streets.

Acres, Net

The portion of a site that can actually be built upon. The following generally are not included in the net acreage of a site: public or private road rights-of-way; public open space, and floodways.

Affordable Housing

Housing capable of being purchased or rented by a household with very low, low, or moderate income, based on a household's ability to make monthly payments necessary to obtain housing. Housing is considered affordable when a household pays less than 30 percent of its gross monthly income (GMI) for housing including utilities.

Annex

To incorporate a land area into an existing district or municipality, with a resulting change in the boundaries of the annexing jurisdiction.

Base Flood

In any given year, a 100-year flood that has a one percent likelihood of occurring, and is recognized as a standard for acceptable risk.

Clustered Development

Development in which a number of dwelling units are placed in closer proximity than usual, or are attached, with the purpose of retaining an open space area.

Community Design

The attempt to give form, in terms of both beauty and function, to communities. Community design is concerned with the location, mass, and design of various built and natural components and combines elements of planning, architecture, and landscape architecture.

Compatible

Capable of existing together without conflict or ill effects.

Conservation

The management of natural resources to prevent waste, destruction, or neglect.

Dedication

The turning over of private land for public use, and the acceptance of land for such use by the governmental agency having jurisdiction over the public function for which it will be used. Dedications for roads, parks, school sites, or other public uses often are made conditions for approval of a development by the Town.

Density, Residential

The number of permanent residential dwelling units per acre of land. Densities specified in the Comprehensive Plan are expressed in units per gross site acre. This includes all of the land that is part of a development site, including street rights-of-way.

Developer

An individual who or business that prepares raw land for the construction of buildings or causes to be built physical building space for use primarily by others, and in which the preparation of the land or the creation of the building space is in itself a business and is not incidental to another business or activity.

Development

The physical construction of buildings and the preparation of land for non-agricultural uses. Development activities include: subdivision of land; construction or alternation of structures, roads, utilities, and other facilities; installation of septic systems; grading; deposit of refuse, debris, or fill materials; and clearing of natural vegetative cover (with the exception of agricultural activities). Routine repair and maintenance activities are exempted.

Dwelling Unit

A room or group of rooms (including sleeping, eating, cooking, and sanitation facilities, but not more than one kitchen), that constitutes an independent housekeeping unit, occupied or intended for occupancy by one household on a long-term basis.

Easement

Usually the right to use property owned by another for specific purposes or to gain access to another property. For example, utility companies often have easements on the private property of individuals to be able to install and maintain utility facilities.

Erosion

(1) The loosening and transportation of rock and soil debris by wind, rain, or running water. (2) The gradual wearing away of the upper layers of earth.

Fees, in lieu of dedication

Cash payments that may be required of an owner or developer as a substitute for a dedication of land, usually calculated in dollars per lot, and referred to as in lieu fees or in lieu contributions.

Flood, 100-year

The magnitude of a flood expected to occur on the average every 100 years, based on historical data. The 100-year flood has a 1/100, or one percent chance of occurring in any given year.

Floodplain

The land area on either side of the banks of a stream subject to flooding. That part of the floodplain subject to a one percent chance of flooding in any given year is designated as an “area of special flood hazard” by the Federal Insurance Administration.

floodway

The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the "base flood" without cumulatively increasing the water surface elevation more than one foot. No development is allowed in floodways.

Goal

Description of a desired state of affairs for the community in the future. They are the broad public purposes toward which policies and programs are directed. Since goals are general statements, more than one set of actions could be taken to achieve each goal. In this Plan, goals are phrased to express the desired results of the Plan; they complete the sentence “Our goal is...”.

Guidelines

General statements of policy direction around which specific details may be later established.

Habitat

The physical location or type of environment in which an organism or biological population lives or occurs.

Hazardous Material

Any substance that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. The term includes, but is not limited to, hazardous substances and hazardous wastes.

Historic, Historical

An historic building or site is one that is noteworthy for its significance in local, state, or national history or culture, its architecture or design, or its works of art, memorabilia, or artifacts.

Historic Preservation

The preservation of historically significant structures sites, features or neighborhoods in order to facilitate, restoration and rehabilitation of the building(s) to a former condition.

Household

All those persons -- related or unrelated - who occupy a single housing unit.

Impact

The effect of any direct man-made actions or indirect repercussions of man-made actions on existing physical, social, or economic conditions.

Impact Fee

A fee, also called a development fee, levied on the developer of a project by the Town or other public agency as compensation for otherwise-unmitigated impacts the project will produce.

Impervious Surface

Surface through which water cannot penetrate, such as roof, road, sidewalk, and paved parking lot. The amount of impervious surface increases with development and establishes the need for drainage facilities to carry the increased runoff

Infrastructure

Public services and facilities, such as sewage-disposal systems, water-supply systems, other utility systems, and roads.

Issues

Important unsettled community matters or problems that are identified in a community's comprehensive plan and dealt with by the plan's goals, policies, and implementation programs.

Land Use Diagram

Graphic representation which designates the proposed general distribution and general location and extent of land use categories.

Landscaping

Planting - including trees, shrubs, and ground covers -- suitably designed, selected, installed, and maintained to enhance a site or roadway permanently.

Land Use

The occupation or utilization of land or water area for any human activity or any purpose defined in the Comprehensive Plan.

Mixed-Use

Properties on which various uses, such as office, commercial, institutional, and residential, are combined in a single building or on a single site in an integrated development project with significant functional interrelationships and a coherent physical design. A “single site” may include contiguous properties.

Open Space Land

Any parcel or area of land or water that is essentially unimproved and devoted to an open space use for the purposes of (1) the preservation of natural resources, (2) the managed production of resources, (3) outdoor recreation, or (4) public health and safety.

Ordinance

A law or regulation set forth and adopted by a governmental authority, usually the Town.

Parcel

A lot, tract or contiguous group of properties, in single ownership or under single control, usually considered a unit for purposes of development

Policy

Statements of government intent against which individual actions and decisions are evaluated. Policies are phrased as sentences, with the agency responsible for implementing the policy clearly identified. Where appropriate, these policies also include quantifiable objectives that will assist the Town in evaluating the effectiveness of implementation efforts.

Pollutant

Any introduced gas, liquid, or solid that, in sufficient concentrations, will make a resource unfit for its normal or usual purpose.

Pollution

The presence of matter or energy whose nature, location, or quantity produces undesired environmental effects.

Pro Rata

Refers to the proportionate distribution of something to something else or to some group, such as the cost of infrastructure improvements associated with new development apportioned to the users of the infrastructure on the basis of projected use.

Recognize

To officially (or by official action) identify or perceive a given situation.

Recycle

The process of extraction and reuse of materials from waste products.

Regional

Pertaining to activities or economies at a scale greater than that of a single jurisdiction, and affecting a broad geographic area.

Regulation

A rule or order prescribed for managing government.

Residential

Land designated for buildings consisting only of dwelling units. Maybe improved, vacant, or unimproved (see "Dwelling Unit.")

Restrict

To check, bound, or decrease the range, scope, or incidence of a particular condition.

Rezoning

An amendment to the map and/or that of a zoning ordinance to effect a change in the nature, density, or intensity of uses allowed in a zoning district and/or on a designated parcel or land area.

Right-of-way

A strip of land occupied or intended to be occupied by certain transportation and public use facilities, such as roadways, railroads, and utility lines.

Runoff

That portion of rain or snow that does not percolate into the ground and is discharged into streams instead.

Sign

Any representation (written or pictorial) used to convey information, or to identify, announce, or otherwise direct attention to a business, profession, commodity, service, or entertainment, and placed on, suspended from, or in anyway attached to, any structure, vehicle, or feature of the natural or man-made landscape

Site

A parcel of land used or intended for one use or a group of uses and having frontage on a public or an approved private street.

Slope

Land gradient described as the vertical rise divided by the horizontal run, and expressed in percent.

Soil

The unconsolidated material on the immediate surface of the earth created by natural forces that serves as natural medium for growing land plants.

Standards

(1) A rule or measure establishing a level of quality or quantity that must be complied with or satisfied (2) Requirements in an ordinance that govern building and development as distinguished from use restrictions - for example, site-design regulations such as lot area, height limit, frontage, landscaping, and floor area ratio.

Storm Runoff

Surplus surface water generated by precipitation that does not seep into the earth but flows overland to flowing or stagnant bodies of water.

Subdivision

The division of a tract of land into defined lots, either improved or unimproved, which can be separately conveyed by sale or lease, and which can be altered or developed.

Transit, Public

A system of regularly-scheduled buses and/or trains available to the public on a fee-per-ride basis Also called “Mass Transit.”

Transportation Demand Management (TDM)

A strategy for reducing demand on the road system by reducing the number of vehicles using the roadways and/or increasing the number of persons per vehicle. TDM attempts to reduce the

number of persons who drive alone on the roadway during the commute period and to increase the number in carpools, vanpools, buses and trains, walking, and biking.

Trees, Street

Trees strategically planted - usually in parkway strips, medians, or along streets - to enhance the visual quality of a street

Trip

A one-way journey that proceeds from an origin to a destination via a single mode of transportation; the smallest unit of movement considered in transportation studies. Each trip has one “production end,” (or origin - often from home, but not always), and one “attraction end,” (destination).

Trip Generation

The dynamics that account for people making trips in automobiles or by means of public transportation. Trip generation is the basis for estimating the level of use for a transportation system and the impact of additional development or transportation facilities on an existing, local transportation system. Trip generations of households are correlated with destinations that attract household members for specific purposes.

Undevelopable

Specific areas where hydrologic, topographic, geologic, and/or surficial soil conditions indicate a significant danger to future occupants and a liability to the Town.

Use

The purpose for which a lot or structure is or may be leased, occupied, maintained, arranged, designed, intended, constructed, erected, moved, altered, and/or enlarged in accordance with the zoning ordinance and Comprehensive Plan land use categories.

Vacant

Lands or buildings that are not actively used for any purpose.

Vehicle Work Trips

A vehicle trip generated by the need of individuals to travel to a common location. Vehicle work trips can be reduced by ridesharing, van pooling, and the use of public transportation, foot travel, or bicycles.

View Corridor

The line of sight - identified as to height, width, and distance - of an observer looking toward an object of significance to the community (e.g., ridgeline, river, historic building, etc.); the route that directs the viewers attention.

Watercourse

Natural or once natural flowing (perennially or intermittently) water including rivers, streams, and creeks. Includes natural waterways that have been channelized, but does not include man-made channels, ditches, and underground drainage and sewage systems.

Zoning

The division of the Town by legislative regulations into areas, or zones, that specify allowable uses for real property and sized restrictions for buildings within these areas; a program that implements policies of the Comprehensive Plan.

B. BACKGROUND REPORTS FROM PLAN PREPARATION

These background reports are available for review at Sunnyvale Town Hall.

Context for Planning: Background Information & Analysis Part One

Context for Planning: Analysis of Regional Setting Part Two

Analysis of Plan Alternatives

