SUNBOW

General Development Plan

Sectional Planning Area

- Site Utilization Plan
- Design Guidelines
- Public Facilities Financing Plan
- Environmental Impact Report

July 26, 1989

SUNBOW
GENERAL DEVELOPMENT PLAN

Prepared for:

City of Chula Vista, California
276 Fourth Avenue
Chula Vista, California

Property Owners:

Rancho Del Sur
California General Partnership
2643 Fourth Avenue
San Diego, CA 92103
Contact: Tim Kruer

Adopted:

CONSULTANT TEAM

Land Planner:

Tierra Planning & Design, Inc.
31882 Camino Capistrano, Ste. 108
San Juan Capistrano, CA 92675
Contact: Tom Davis

Civil Engineer:

BHA, Inc.
1615 Murray Canyon Road #910
San Diego, CA 92108
Contact: Rod Bradley

Landscape Architect:

Gillespie DeLorenzo
1615 Murray Canyon Road, #900
San Diego, CA 92108
Contact: Nick DeLorenzo

Traffic Engineer:

Basmaciyan-Darnell, Inc.
964 Fifth Avenue
San Diego, CA 92101
Contact: Patty Boekamp

SUNBOW
GENERAL DEVELOPMENT
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Introduction

I. INTRODUCTION

A. Background and Scope

This General Development Plan intends to define the basic development parameters for the Sunbow Planned Community, including the land use mix and density, primary circulation pattern, open space and recreation concept, and infrastructure requirements. Additionally, the character and form of the project will be defined through a series of guidelines and development standards in accordance with the Planned Community section of the Chula Vista Zoning Code.

The purpose of the plan is as follows:

1. Assure a high quality of development, consistent with Developer, City and Community objectives.

2. Create an economically viable plan that can realistically be implemented within current and projected economic conditions.

3. Provide for orderly planning and long-range development of the project to ensure community compatibility.

4. Facilitate adequate provision for community facilities, such as transportation, water, flood control, sewage disposal, schools and parks and provide adequate assurance to the Developer that approved development will be allowed in a timely and economically viable manner.

5. Preserve open space and natural amenities on the property where possible.

6. Establish a planning and development framework which will allow diverse land uses to exist in harmony within the community.

This General Development Plan (GDP) will serve as a supplement to existing City regulations. General Development Plan regulations supersede other regulations where there is a conflict; where a topic is not addressed by this General Development Plan, other City regulations apply.

The GDP, once approved, constitutes several steps in the development approval process. It establishes zoning for the site and defines precisely the type and amount of development permitted. It establishes the City's standards for that development including open space provisions and major improvements to be constructed by the developer. The Environmental Impact Report (EIR), prepared in conjunction with the General Development Plan, fulfills the environmental review requirements for any proposed development on the site, as long as that development is in substantial conformance with this GDP.

This GDP will be implemented through the adoption of a subsequent, more detailed Sectional Planning Area Plan, Tentative Tract Maps, and possibly annexation/Development Agreements. Therefore, the Sunbow GDP is designed to function as a policy bridge between the General Plan and Sectional Planning

Area Plan which will provide more detailed plans for the development within the project.

The Sunbow General Development Plan is established in accordance with Sections 65450 through 65553 of the State of California Government Code (Specific Plans) and Sections 19.07.010 through 19.07.030 of the City of Chula Vista Municipal Code, and applies to the property indicated on the Proposed Land Use Plan, Exhibit 1, herein.

II. PROJECT DESCRIPTION

COPY

A. Project Summary

The Sunbow General Development Plan proposes development of a 604.8 acre Planned Community in eastern Chula Vista. The proposed land use plan is illustrated following page 4. The Planned Community represents the continuing community building efforts of the comprehensive Sunbow Development program. The initial neighborhood, Rancho Del Sur, consisted of a 108 acres directly north of the Planned Community which contains 485 dwelling units. A Precise Plan, Tentative Map and Zone Change for Rancho Del Sur was approved by the City on July 8, 1987.

The principal objective of the Sunbow Planned Community is the creation of an efficient, self-contained village. Through its policies, guidelines . and conceptual graphics, the General Development Plan will set forth the framework for a socially, economically and environmentally sound urban community. Several primary objectives have been developed as part of the Sunbow planning process:

1. Through an interwoven system of community circulation, commercial, office, industrial, residential and recreational uses, achieve a compatible mix of uses surrounding an Urban Activity Center.

2. Provide an opportunity to live within a community that includes commercial, cultural and recreational uses essential to residential.

3. Provide a safe, convenient and efficient local circulation system which maximizes access between residential areas, and community facilities while minimizing travel distance and reliance on the automobile.

4. Promote a balanced open space system between active, usable recreation areas and the open space of the Poggi Canyon through the preservation of natural hillside, canyons and creeks. Further, through the provision of trails, paseos and parkways and by exceeding the requirement for active community recreation facilities.

5. Promote community diversity and interaction through the establishment of a Village Center which includes commercial, office, recreational, civic and residential uses.

6. Provide a sensitive land plan which accommodates shifts in residential density without exceeding stated unit totals or community goals.

Principal uses proposed within the Sunbow Planned Community are as follows:

1. Residential: A wide variety of housing type is provided, including single-family detached on approximately 4,000 S.F., 5,000 S.F., 6,000 S.F., 7,000 S.F. lots and a variety of multi-family housing.

2. Commercial: A Village Center Commercial Area occupying approximately 12.7 acres is located in the central portion of the Planned Community, south of the Medical Center. There will be

approximately 108,900 S.F. of retail/commercial and medical office space[1] which will generate approximately 272 employment opportunities[2]

3. Community Recreation: An approximately 10.7 acre Community Recreation Area, providing active and passive recreation facilities is located in the center of the Planned Community, along Palomar Road, and adjacent to the Village Center.

4. Industrial Park: An approximately 54.7 acre research/development and light industrial site is proposed in the southeast portion of the Planned Community On this site; there will approximately 700,000 S.F. of leasable area[3] generating approximately 2800 employment opportunities.[4]

5. Open Space/Trails: An integrated system of open space, trails and parkways will accommodate pedestrian and bicycle traffic within the Planned Community and further enhance the Sunbow Community character.

This GDP document will be processed concurrently with a Sphere of Influence Application, Pre-zoning Application, Annexation/Development Agreement, and E.I.R.

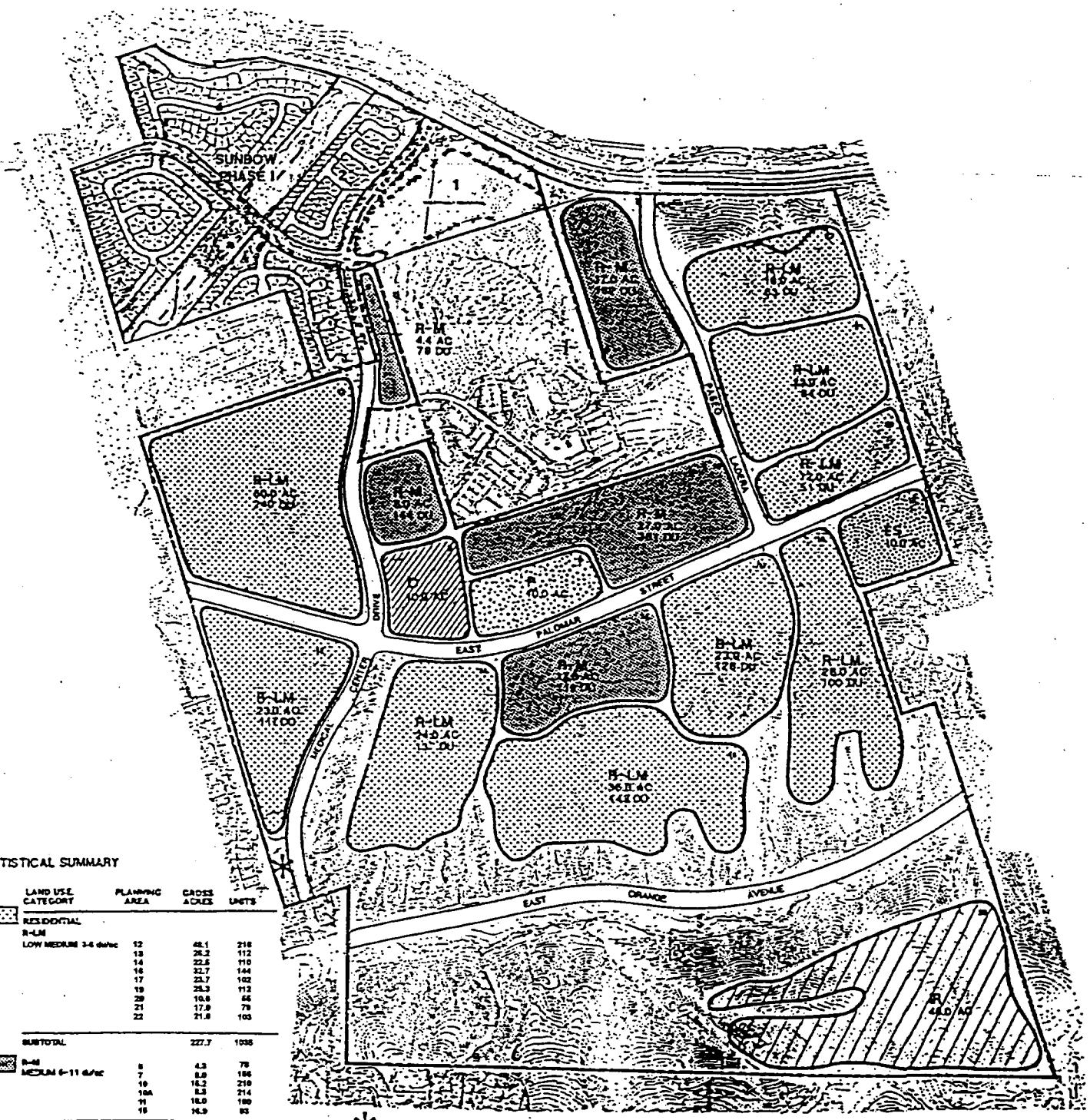
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[1]Based on .25 F.A.R

[2]Based on 2.5 +/- people/1000 s.f.

[3]Based on .35 F.A.R.

[4]Based on 4 +/- people/1000 s.f.



STATISTICAL SUMMARY

	LAND USE CATEGORY	PLANNING AREA	GROSS ACRES	UNITS
	RESIDENTIAL			
	R-LM			
	LOW MEDIUM 3-6 du/ac	12	48.1	216
		13	24.2	112
		14	22.6	110
		16	33.7	144
		17	33.7	192
		19	25.3	112
		20	19.8	86
		21	17.9	79
		22	21.8	165
	SUBTOTAL		227.7	1035
	R-M			
	MEDIUM 6-11 du/ac	6	4.3	78
		7	8.8	166
		10	16.2	226
		10A	8.8	214
		11	18.8	186
		15	14.9	83
	SUBTOTAL		70.7	911
C	VILLAGE CENTER	8	12.7	
IR	INDUSTRIAL PARK	23	84.7	
P	COMMUNITY RECREATION	9	19.7	
ES	ELEM. SCHOOL	18	10.8	
	OPEN SPACE		168.7	
	ROADS		49.9	
	GRAND TOTAL		804.8 AC	1946 DU

* POTENTIAL FIRE STATION SITE

GENERAL DEVELOPMENT PLAN
SUNBOW

BKI, INC.
TIERRA PLANNING & DESIGN
BASMACIYAN-DARNELL, INC.
GILLESPIE DELORENZO ASSOCIATES

(REV. 6-20-2000)

III. GENERAL PLAN CONSISTENCY

The City of Chula Vista in October, 1986 endeavored to update the existing General Plan to respond to current pressures of development throughout the City and corresponding sphere of influence. The Sunbow Planned Community-General Development Plan has been prepared concurrent to the development of the Draft General Plan over the same period of time. The purpose of this concurrent preparation is to yield a General Development Plan which is in total consistency with the Draft General Plan and, more importantly, to implement the intent and purpose of the General Plan Update within the Sunbow Planned Community project area in a timely fashion.

A. Goals and Objectives

The following briefly demonstrates this document's consistency with the Draft General Plan and stipulates the implementing action:

GOAL 1. ECONOMIC BASE OF THE CITY

...It is the goal of the city to have a large and diversified economic base.

Objective 5. Provide employment opportunities in large scale planned communities such as Eastlake, Rancho Del Rey, Sunbow, and Otay Ranch.

Sunbow Implementation: The Planned Community provides several employment generating uses, these uses include Retail Commercial in the Village Center, and Light Industrial in the Business Park as well as employment opportunities at the Elementary School. These provide the opportunity for over 3000 potential employees. (see section II of this document)

GOAL 2. RETAIL COMMERCIAL DEVELOPMENT

...The goal of the city is to improve and increase the retail base of the city, making the city an attractive place to shop for comparison and durable goods.

Objective 8. Provide for community and neighborhood commercial centers in developing areas convenient to new neighborhoods...

Sunbow Implementation: The Sunbow Planned Community will contain a Village Center with Neighborhood Commercial Uses at the core of the community and within easy access of all Sunbow residents.

GOAL 3. HOUSING AND COMMUNITY CHARACTER

...It is the goal of the city to accommodate a full diversity of housing types, while maintaining an orientation to detached single-family living.

Objective 10. Encourage the development of a diversity of housing types and prices.

Objective 11. Assure that new development meets or exceeds a standard of high quality planning and design.

Objective 12. Provide for the development of multiple-family housing in appropriate areas convenient to public services, facilities and circulation.

Objective 13. Encourage planned developments, with a coordinated mix of urban uses, open spaces, and amenities.

Objective 14. For new developments in Eastern Territories, the predominant character should be low medium density, single-family housing.

Sunbow Implementation: The Sunbow Planned Community provides a variety of housing types including 4,000 S.F., 5,000 S.F., 6,000 S.F. and larger single family lots; and a variety of multi-family residences clustered within the Community Activity Center. The Sunbow General Development Plan contains Development Standards, and Design Criteria which will assure the highest quality planning and design.

The Planned Community clusters the more intense community uses and multi-family housing within the Community Activity Center surrounding the Medical Center. Lower density single family housing radiates from the Activity Center diminishing in intensity to the South and East. The Planned Community intertwines these urban uses with natural, recontoured open space, paseos, trails and greenbelts.

GOAL 5. OPEN SPACE, RECREATION, AND VISUAL QUALITY

Objective 20. Preserve to the extent feasible natural open space areas and corridors, particularly the major canyons and valleys, as integral and functional parts of the urban pattern. Particular emphasis is placed on the canyons, stream valleys and other corridors that connect to the greenbelt system and can help to extend the greenbelt and trail system into the community.

Sunbow Implementation: The Sunbow Planned Community contains a significant visual and biological resource in Poggi Canyon. This Canyon feature has been sensitively preserved and enhanced while allowing for implementation of East Orange Avenue Transportation Corridor. Sensitive treatment of landforms and visual impacts further enhance this resource.

GOAL 9. GROWTH MANAGEMENT

Objective 27. Establish a growth management system to assure that private development is coordinated with the provision of adequate public facilities and services.

Sunbow Implementation: This Planned Community proponent has entered into numerous agreements to assure the proper provision of public services on a timely basis. In addition, further guarantees may be provided through the approval of an annexation - development agreement prior to project implementation.

B. LAND USE

The Draft General Plan Land Use Plan of Scenario Four depicts the following mix of Land Uses on the Sunbow project area:

	ACRES	UNIT RANGE	TARGET UNITS	
LOW MEDIUM (3.0-6.0 DU/AC)	275.5	827-1653	(1240)	4.5 du's/ac
MEDIUM (6.0-11.0 DU/AC)	83.0	498-913	706	8.5 du's/ac
SUBTOTAL	358.5	1325-2566	1946	
NEIGHBORHOOD COMMERCIAL	10.0	5.4 du's/ac		
INDUSTRIAL/ R & D	46.0			
OPEN SPACE AND TRANS. CORRIDORS	187.5			
TOTAL	602.0 AC	1325-2566 DU	1946 DU	

ESTIMATED POTENTIAL RESIDENTIAL DEVELOPMENT

The potential development area for Sunbow Planned Community has been the verified through the calculation as called for in the Draft General Plan figure 1-3, page 1-25 and is broken down as follows:

1.	Gross Property Area		604.8 ac.
2	Transportation Corridors	49.0	
	Open Space/Greenbelt	168.7	
		217.7	(217.7) ac.
3.	Urban Development		387.1 ac.
4.	Non-Residential Land Use		
	4.1 Retail Commercial	12.7	
	4.2 Industrial	54.7	
		67.4	(67.4) ac
5.	Residential Development Area		319.7 ac.
6.	Potential Residential Land Use		
	6.1 Elementary School	10.6	
	6.2 Recreation	10.7	
		21.3	
7.	Net Residential Development Area (as depicted on the Draft General Plan Land Use Plan)		319.7 ac.

The Sunbow General Development Plan calls for the following corresponding mix of Land Uses:

	ACRES	UNITS
LOW MEDIUM	227.7	1035
MEDIUM	70.7	911
ELEMENTARY SCHOOL	10.6	0
COMMUNITY RECREATION	10.7	0
SUBTOTAL	319.7	1946
NEIGHBORHOOD COMMERCIAL	12.7	
INDUSTRIAL R&D	54.7	
OPEN SPACE AND TRANS. CORRIDORS	217.7	
TOTAL	604.8 AC	1946 DU

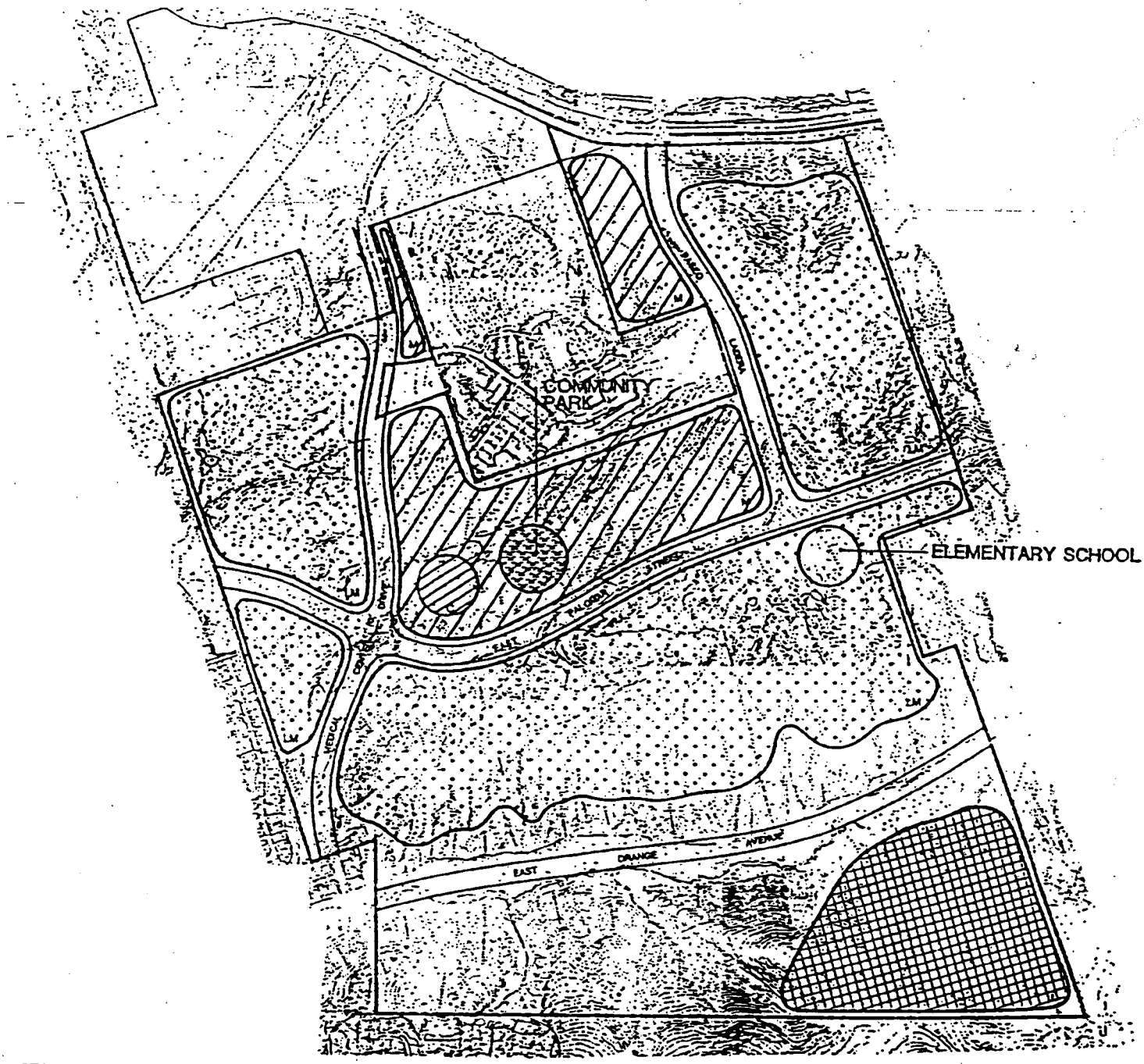
In summary, the SUNBOW General Development Plan is consistent with the Chula Vista Scenario Four General Plan Update in that it:

1. Meets the policy goals and objectives

2. Matches the Potential Development area depicted on the General Plan -Land Use Plan (Scenario Four)

3. Meets or exceeds criteria set forth for Potential Residential Development, Open Space, Parks and Schools.

4. Provides a Dwelling Unit total that is within the Target Density range as called for in the General Plan update (Scenario Four).



STATISTICAL SUMMARY

LAND USE CATEGORY	ACRES	TARGET UNITS
LOW MEDIUM RESIDENTIAL	238.3	1035
MEDIUM RESIDENTIAL	81.4	911
RETAIL COMMERCIAL	12.7	
LIGHT INDUSTRIAL	54.7	
OPEN SPACE AND TRANSPORTATION CORRIDORS	217.7	
TOTAL	604.8	1946

SCENARIO FOUR LAND USE PLAN

(AS APPROVED BY CITY COUNCIL NOVEMBER 1988)

SUNBOW

BHA, INC.
TIERRA PLANNING & DESIGN
BASMAJIAN-WARNELL, INC.
GILLESPIE DELORENZO ASSOCIATES

FEET

(REV. 6-20-2000)

IV. PLANNED COMMUNITY ZONING

A. Introduction

This section includes the Planned Community Zoning for the Sunbow General Development Plan. It is intended that these Zoning regulations provide an implementation framework for the Planned Community Land Use Plan.

1. Purpose and Intent:

   The Planned Community District Regulations for Sunbow are intended to;

   a. provide for the orderly planning and long term development of Sunbow so that the entire community and subsequent extensions of planning areas will provide an environment of stable and desirable character;

   b. provide reasonable assurance that the subsequent Sectional Planning Area (S.P.A.) Plan prepared in accordance with an approved General Development Plan will be acceptable to the City;

   c. enable the City to adopt measures providing for the development of the surrounding area compatible with the Planned Community Zone;

   d. enhance and implement the General Plan;

   e. secure for the citizens of the City the social and economic advantages resulting from an orderly planned use of it's urban resources;

   f. establish conditions which will allow proposed land uses to exist in harmony within the community;

   g. provide for community facilities, such as transportation, water, sewage, schools, parks and other public requirements;

   h. provide flexibility in development standards and permit planned diversification in the location of land uses and structures;

   i. recognize the inherent influence that economic conditions and consumer needs will have in the establishment of the Sunbow Planned Community;

   j. allow a diversity of uses, site relationships and heights of buildings and open space in planned building groups, while insuring substantial compliance with the spirit, intent, and provisions of the Municipal Code;

2. Authority and Scope:

These district regulations, are established pursuant to Title 19 of the Municipal Code, specifically chapter 19.48 P-C Planned Community zone, and are applicable to the area defined in Section B herein, and as hereinafter referred to as Sunbow.

B. Statistical Summary

1. Purpose and Intent:

The purpose of this section is to provide a statistical summary for all major land uses in the Planned Community.

2. General:

a. Refer to Section C, General Notes, herein, for definitions and methods of statistical computation.

b. The individual acreage indicated herein and on the proposed Land Use Plan for the General Development Plan are indicated to the nearest one-tenth acre based on planimeter readings. Slight modifications that may result from technical refinements such as land surveys performed during the development permit and subdivision process will not require an amendment to this document, providing the spirit and intent is maintained.

c. The General Development Plan has been divided up into 18 Planning Areas numbered from 6 to 23 for the general purpose of segregating land uses, identifying potential phasing areas, allocating incremental costs and responding to significant physical separations and may be used as the basis for describing any future phasing plans, sectional planning areas or precise plans.

3. Land Use Summary

LAND USE CATEGORY		PLANNING AREA	GROSS ACRES	DU/AC.	TOTAL UNITS
RESIDENTIAL					
R-LM	LOW MEDIUM	12	48.1	4.5	218
		13	26.2	4.3	112
		14	22.5	4.9	110
		16	32.7	4.4	144
		17	23.7	4.3	102
		19	25.3	4.4	112
		20	10.6	5.2	55
		21	17.0	4.6	79
		22	21.6	4.8	103
	ELEM. SCHOOL	18	10.6	0.0	0
LOW MEDIUM RESIDENTIAL SUBTOTAL			238.3	4.3	1035
R-M	MEDIUM	6	4.3	18.1	78
		7	8.0	19.5	156
		10	15.2	13.8	210
		10A	8.3	25.8	214
		11	18.0	8.9	160
		15	16.9	5.5	93
	COMMUNITY REC.	9	10.7	0.0	0
MEDIUM RESIDENTIAL SUBTOTAL			81.4	11.2	911
C	VILLAGE CENTER	8	12.7		
IR	INDUSTRIAL PARK	23	54.7		
	OPEN SPACE		168.7		
	ROADS		49.0		
GRAND TOTAL			604.8		

(Rev. 6-20-2000)

4. Residential Dwelling Unit and Density Summary:

The number of dwelling units shall be, as shown on the Chula Vista General Plan and in the Land Use Summary as approximately 1946 dwelling units.

5. Density Transfer:

In order to promote density flexibility and residential diversity, the transfer of dwelling units from one residential category to another within this GDP may be approved as a part of the SPA approval process provided for in Section D, herein. Transfers of density shall be based on evidence that the proposed transfer would substantially improve the spatial or functional relationships of the involved SPA, or would materially increase the quality of the land use, circulation or conservation pattern thereof. An increase in the number of dwellings must always be accompanied by a corresponding decrease in dwellings within a Planning Area in another area. Should such a transfer be approved, applicable statistics and exhibits shall be revised in an administrative manner without necessity of a Zone Change.

6. Population Projection:

The population projections included herein are based on the population generation factor data from the City of Chula Vista Draft General Plan. These projections are to be used for reference only and not as the sole basis for projecting service needs nor as a limitation on permitted dwelling units.

RESIDENTIAL CATEGORY		DWELLING UNITS	ESTIMATED POPULATION
Low-Med	3.0 - 6.0 du/ac	1035	3105
Med	6.0 - 11.0 du/ac	911	2278
TOTAL		1946	5383

C. General Notes

1. Purpose and Intent:

This section is included to provide definitions, methods of statistical computation, provision for services, relationship of this document to existing codes, and other miscellaneous notes required for clarification.

2. General Notes:

a. Any land use regulations not specifically covered by this plan and supplemental text, or included in subsequent approvals provided for in Section D herein, shall be subject to the regulations of Title 19, Zoning in the City of Chula Vista Municipal Code.

b. All construction within the boundaries of the Sunbow Planned Community shall comply with all provisions of the construction and building codes applicable in the City of Chula Vista.

c. Terms used in this ordinance shall have the same meaning as defined in the City of Chula Vista Municipal Code unless otherwise defined herein.

d. The terms "Sunbow," "the Planned Community of Sunbow," "this Planned Community," and "this P-C" as used herein are interchangeable and refer to the P-C Zoning on the land legally described in Chapter XI, herein.

e. Unless otherwise noted, references to section numbers and paragraphs are references to sections and paragraphs herein.

f. The Sunbow Planned Community District Regulations include this text together with all references to the Municipal Code.

g. Following are the definitions for abbreviations used within these Planned Community District Regulations:

Ac.	Acre (s)
Avg.	Average
D.U.	Dwelling Unit(s)
DU/AC	Dwelling Units per acre
Max.	Maximum
Min.	Minimum
No.	Number
P-C	Planning Community Zone
Res.	Residential
SPA	Sectional Planning Area

h. Circulation routes indicated on the General Development Plan/Land Use Plan show the general location of anticipated highways and collector streets. The addition, deletion, or other modification of circulation routes approved by the Planning

Commission as a result of a Circulation Element Amendment or the review process provided in Section D may occur without a revision to this P-C. The total dwelling units permitted cannot be increased as a result of a circulation route change without this P-C being amended.

i. Changes in the numbering of sections in the Municipal Code shall not require an amendment to this P-C.

j. Public services and utilities will be provided by the following, unless otherwise approved during the adoption of a Sectional Planning Area.

1) Water - Otay Water District

2) Sewer - Otay Water District and/or City of Chula vista

3) Flood control - City of Chula Vista

4) Electrical - San Diego Gas & Electric Company

5) Natural Gas - San Diego Gas & Electric Company

6) School Facilities - Chula Vista City School District and Sweetwater Union High School District

7) Public Parks - City of Chula Vista

8) Fire Protection - City of Chula Vista City Fire Department

9) Police Protection - City of Chula Vista Police Department

10) Telephone Service - Pacific Telephone Company

k. The provisions of modifying districts, Chapter 19.56 of the Municipal Code, applicable to this P-C have been incorporated into this P-C by specific reference. Application of modifying district provisions not so referenced shall require an amendment to this P-C.

l. Whenever the regulations contained herein conflict with the regulations of Chapter 19.48, Planned Community Zone of the Municipal Code, the regulations contained herein shall apply.

m. The terms "Sectional Planning Area Plan" and "SPA Plan" as used herein are interchangeable and refer to the Sectional Planning Area Plans described in Section D, herein.

n. Model homes and their garages and private recreation facilities may be used as offices for the first sale of homes within a recorded tract and subsequent similar tracts utilizing the same architectural designs, subject to the regulations of the City of

Chula Vista governing said uses and activities. A Conditional Use Permit shall be required for model home sites which may include time limits.

o. Grading shall be permitted within this P-C outside of an area of immediate development upon preparation of a grading plan and the securing of a grading permit.

p. Net Residential Area/Density is the area devoted to residential use including: local residential streets, private open spaces, and residential lots; and, excluding arterial highways, major easements, and public parks and facilities. Net residential densities may be used to describe plans required in Section D, herein. The net residential area as referred to in this P-C is not to be confused with the area of residential lots. It is essentially the residential area indicated on the land use diagram as residential use.

q. References to regulations in the Municipal Code are references to the provisions in effect at the time of adoption of this P-C.

D. Plan Review Requirements

1. Purpose and Intent:

This section is established to insure that the overall purpose and intent of this P-C is satisfied and implemented in an orderly manner. All development within the Sunbow Planned Community shall be subject to these regulations.

2. General Review Requirements:

REVIEW REQUIREMENTS

All development within this P-C shall be subject to Sectional Planning Area Plan, Tract Map and Architectural approval. These are in addition to approvals required for subdivision maps and required permits.

a. Sectional Planning Area (S.P.A.) Plans: A Sectional Planning Area Plan shall guide in the form of specific development concepts and proposals, the sequential implementation of the General Development Plan and the preparation of Site Plans. It is intended that one SPA Plan for the entire P-C be submitted immediately following or concurrent with the GDP-Zone Change approval process.

b. Site Plans: The Site Plan and Architectural Approval process shall provide delineation of specific features of a proposed project to insure that the development standards of this P-C are complied with.

3. Standards for Sectional Planning Area Plans:

a. General: Sectional Planning Area Plans shall include a series of exhibits and supplemental text which provides a specific framework within which individual project site plans can be considered. Following is a list of the basic components required of all Sectional Planning Area Plans.

These components may be combined or further broken down into sub-components as appropriate to the area being planned.

1) Site Utilization Plan

2) Development Standards

3) Phasing Plan

b. Standards for Site Utilization Plans: Site Utilization Plans shall include the following minimum information:

1) A plan at 1"=200' showing the sectional planning area boundaries and extending 300' beyond the boundary.

2) North arrow and scale

3) Preliminary grading

4) Existing and proposed streets (including their approximate grades and typical widths)

5) Existing easements

6) Existing and proposed pedestrian, bicycle, riding and hiking trails

7) Permanent physical features

8) Land Uses and the acreage for;

a) Parks and open space

b) Schools

c) Public and quasi-public facilities

d) Residential

1. Dwelling Unit type

2. Lot lines and lot size

3. Number of units (indicate density for each dwelling type)

4. Parking (open vs covered and the parking ratio)

5. Building elevations characteristic of each typical structure including a range of exterior colors and materials

e) Commercial

1. Location and proposed use of each structure

2. Building and proposed use of each structure including colors and materials

3. Retail floor area (square footage)

4. Landscaped areas

5. Circulation (vehicular and pedestrian)

6. Off-street parking (standards and ratio)

f) Industrial

1. Location and proposed use of each structure

2. Building elevations typical of prototypical structures including colors and materials

3. Retail floor area (square footage)

4. Landscaped areas

5. Circulation (vehicular and pedestrian)

6. Off-street parking (standards and ratio)

c. Development standards for each land use area and designation, i.e. permitted land uses, lot coverage, height and bulk requirements, signs.

d. Phasing plan if development should occur in phases. A skeletal plan will be prepared for development areas showing circulation, building location, preliminary grading, landscaping, density and parking.

4. Standards for Site Plans and Architectural Approval:

The standards and requirements for Site Plan and Architectural Approval shall be as provided for in the Municipal Code in Sections

19.14.581 through 19.14.589 inclusive. Single-family detached residential areas may use the tentative tract map with typical building elevations and typical building locations on building sites as substitution for elevations and siting of all buildings. Site Plans shall include:

a. Residential:

Typical floor plans, and site plans at a minimum scale of one inch equals twenty feet. (The site plan shall include sufficient detail of adjacent development to determine the relationship of driveways, landscaping walks, buildings, etc.)

The building elevations of each type of structure (including exterior colors and materials).

b. Commercial:

Location and proposed use of each structure

The building elevation and floor plans of each structure (include exterior colors and materials)

Retail floor area (square footage) - Landscaped areas

Circulation (vehicular and pedestrian) - Off-street parking (standards and ratio)

c. Office:

Location and proposed use of each structure. The building elevations and floor plans of each structure (include exterior colors and materials)

Office floor area (square footage) - Landscaped areas

Circulation (vehicular and pedestrian) - Off-street parking (standards and ratio)

d. Grading Plan: - SAME SCALE AS SITEPLAN

A plan showing existing and proposed grades at the same scale as the site plan. All man-made slope banks shall be clearly identified.

e. Additional Plans:

Additional plans including signing, fencing, lighting, landscaping, etc. as specified in the Standards for Sectional Development Plans shall be submitted for continuity and additional detail as necessary.

E. General Development Standards

1. Purpose and intent:

The purpose and intent of this section is to establish general overall standards for development in addition to those established for specific uses by other sections of this P-C.

2. Special Study Areas:

a. Geologic Study Area: Prior to or concurrently with the approval of the SPA, detailed geologic investigation reports shall be prepared by a registered engineering geologist to determine if geologic hazards exist. Those areas indicated as potential landslides and faults on the geologic analysis included in the EIR for this zoning shall require specific discussions regarding the geologic suitability for proposed land uses, and mitigation measures needed. These reports shall be submitted with the Sectional Planning Area Plan.

b. Archaeologic Study Area: An exhibit will be retained by the Chula Vista Planning Department which identifies sensitive archaeologic areas. A report, prepared by a qualified archaeologist, shall be submitted with the applicable Sectional Planning Area Plans indicating the significance of the archaeological area, the archaeologic suitability of proposed uses, and mitigation measures appropriate, including all required surface and mitigation measures appropriate, including all required surface collection of artifacts and subsurface excavation as specified in the EIR.

c. Schools: The Sweetwater Union High School District has determined that a Junior High School or Senior High School site is not warranted in the project area. Sunbow will participate in the establishment of a Mello-Roos district which will benefit the High School District and serve future student populations of Sunbow.

An Elementary School site of 10 acres will be set aside in the Sunbow Planned Community as depicted on the Land Use Plan. Sunbow has agreed to participate in and cooperate with Chula Vista Elementary School District in the establishment of a Mello-Roos District. The Mello-Roos District will provide the mechanism to establish the Elementary School facility serving the Sunbow Planned Community.

3. Circulation:

a. General: Streets are planned and classified according to their intended function. The design features of roadways (such as design, speed, width, alignment, etc.) are, in turn, related to their functional classification. The City of Chula Vista's Draft

updated General Plan Circulation Element identifies four functional classifications for City streets. It is the goal of the Sunbow Planned Community to design it's circulation using the criteria given in the Circulation Element. The intended function of each of these classifications of streets is described briefly in the following paragraphs, and typical cross-sections for each are included.

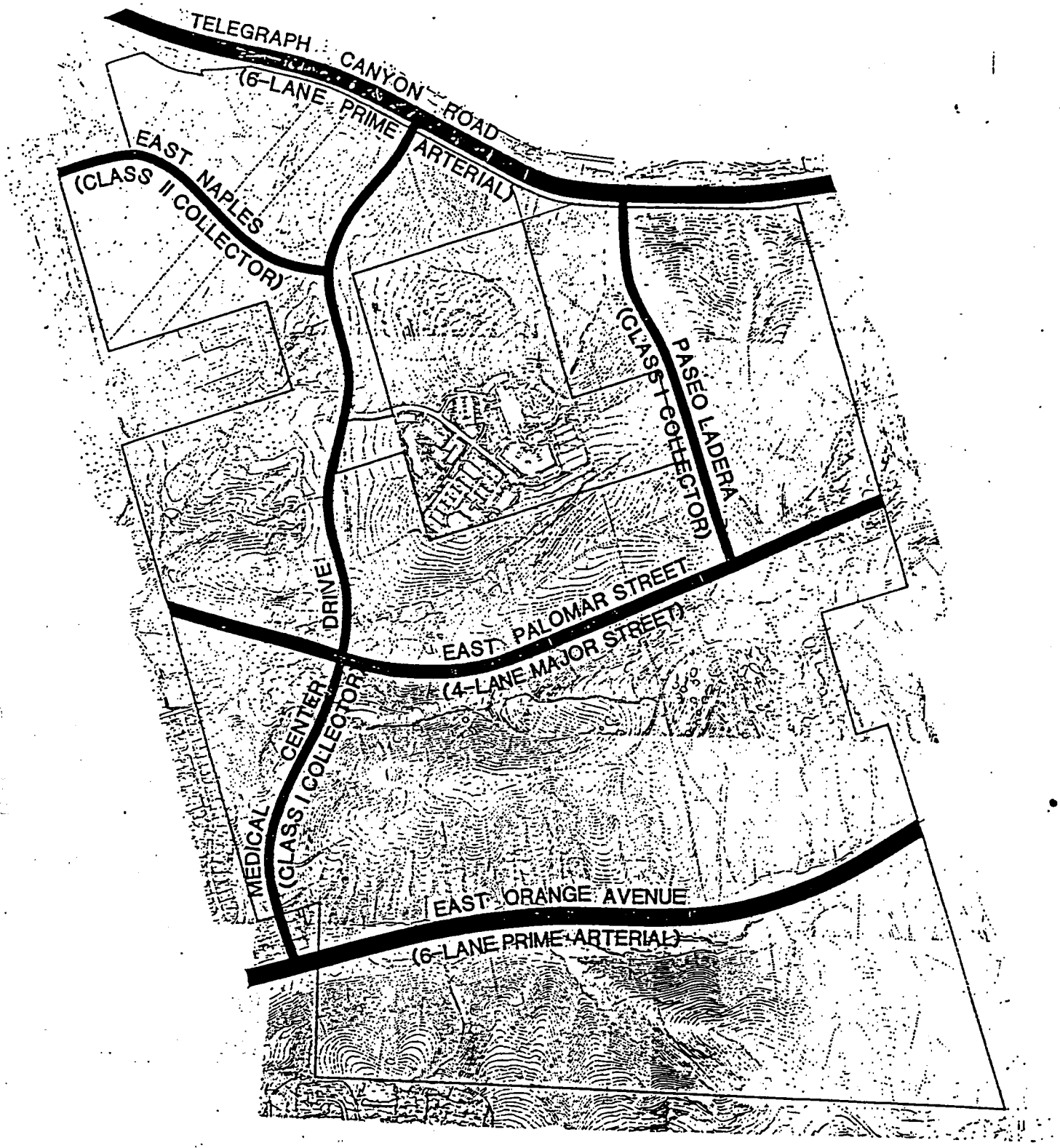
Expressway: A street whose purpose is to move large volumes of traffic, between major generators and the state highway system and provide inter-community access. Such streets would provide six travel lanes and may have grade separated interchanges at crossings with other high volume streets. Such interchanges would be spaced at one mile. No direct access to abutting property would be permitted unless all other feasible alternatives have been exhausted (at the discretion of the City Engineer). Pedestrian crossings would be well planned and controlled by the periodic placement of midblock overpasses to link major generators and attractors where appropriate.

Prime Arterials: A street whose primary purpose is to carry high volumes of traffic between major generators and to distribute traffic to and from the freeway system and expressways. Such streets provide six travel lanes with intersections spaced at 1/4 mile intervals where new planning permits such spacing. Access to abutting property would typically be restricted. At the discretion of the City Engineer, driveway access limited to right turns only into and out of the property may be granted where sole property frontage is along a prime arterial. Such driveways may require additional roadway width on the prime arterial to provide for acceleration deceleration lanes. Pedestrian crossings should be well planned and controlled with midblock overpasses to link major generators and attractors.

Major Street: A street whose major purpose is to carry through traffic and distribute traffic to and from the prime arterials, expressways and freeways. Major signalized intersections would be spaced at 1/4 mile interval. Such streets provide four or six travel lanes and abutting property access may be controlled by not restricted. Median openings would only be allowed at locations specified by the City Engineer. Parking would typically be allowed (except at critical locations) Extra right-of-way width would be required where bike lanes and parking are to be provided.

Collector Street: A street whose purpose is to provide for local traffic movement providing a network connecting to streets of higher classification. Such streets provide two or four travel lanes and are subdivided into three categories as follows:

- Class I - Collector Streets would provide four travel lanes with a center two way left turn lanes. Signalized

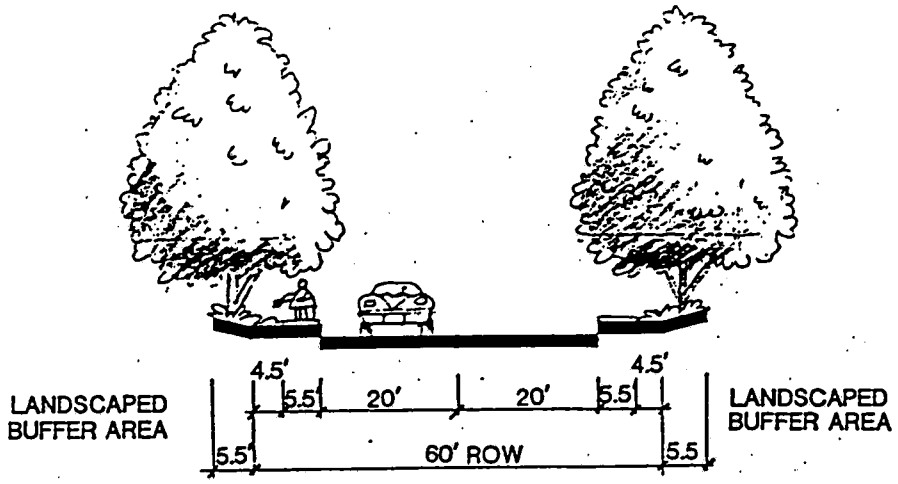


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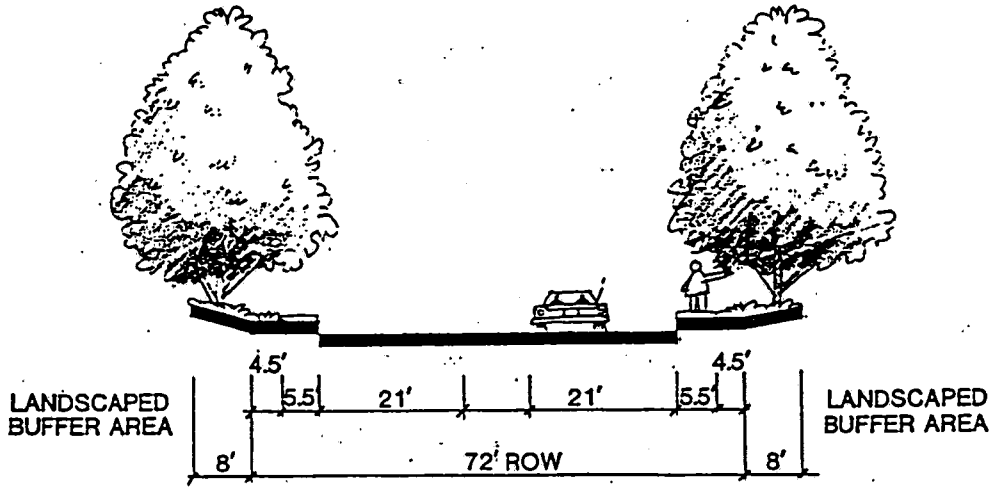
PRINCIPLE STREETS
SUNBOW

BHA, INC.
TIERRA PLANNING & DESIGN
BASMACIYAN-DARNELL, INC.
GILLESPIE DELORENZO ASSOCIATES

TIERRA

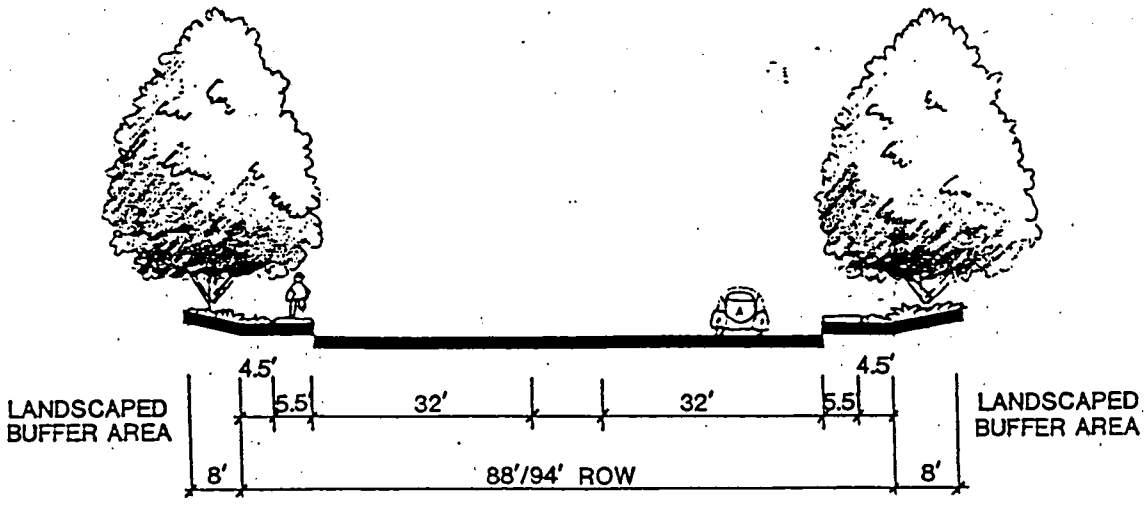


CLASS III COLLECTOR STREET



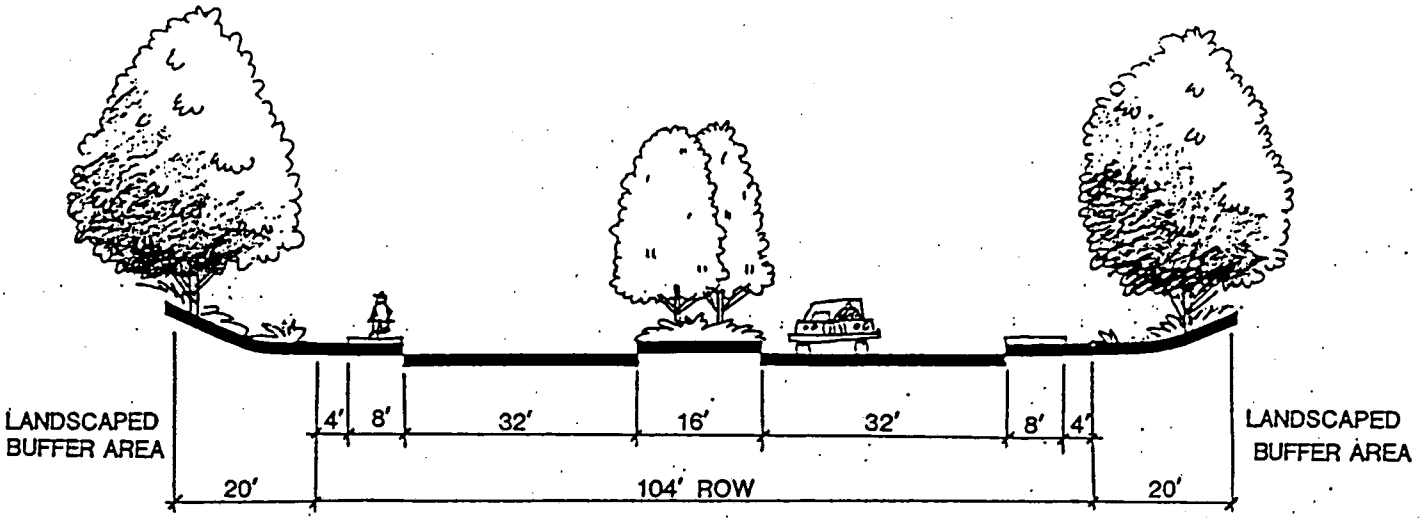
CLASS II COLLECTOR STREET

E. Naplet.



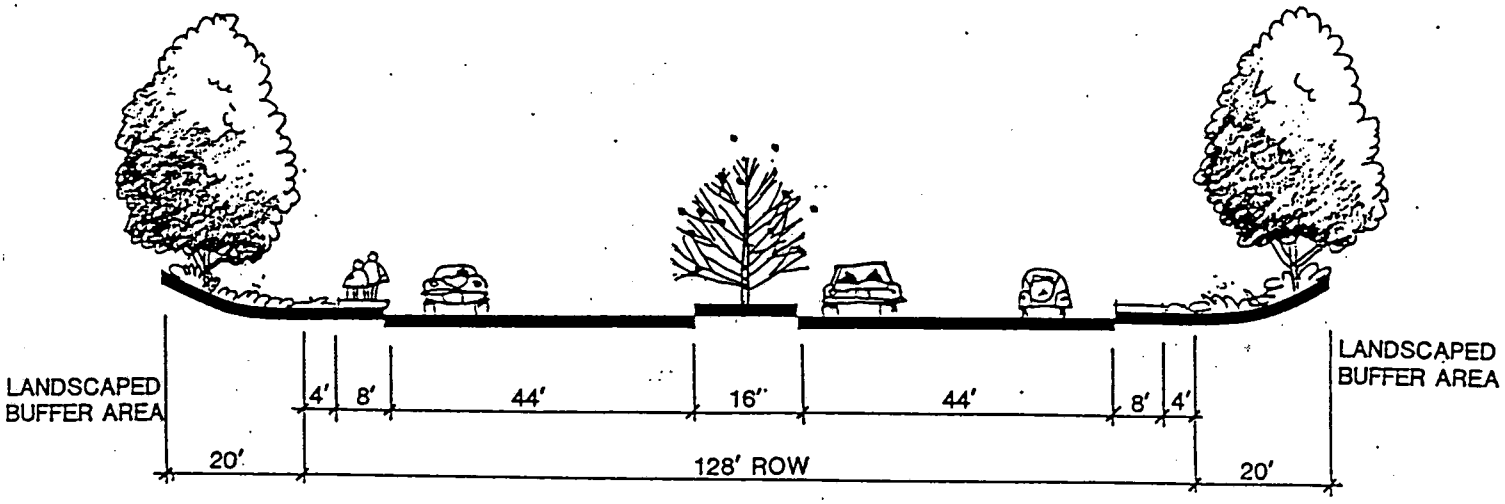
CLASS I COLLECTOR STREET

MEDICAL CENTER DRIVE
PASEO LADERA

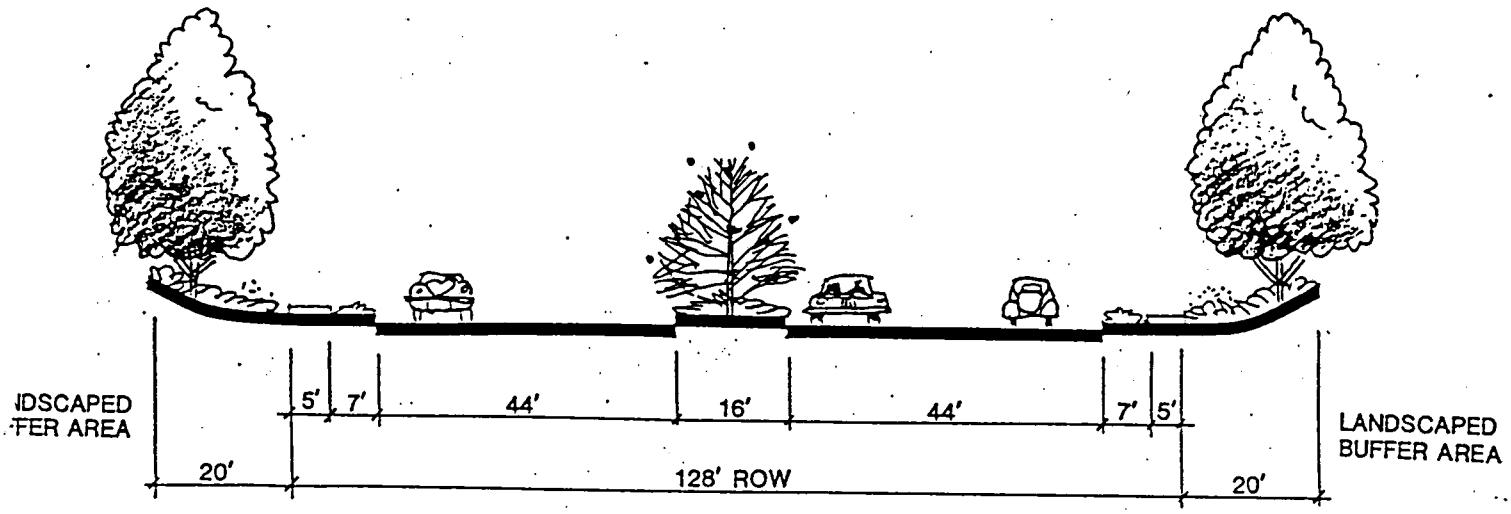


FOUR-LANE MAJOR STREET

EAST PALOMAR STREET



SIX-LANE MAJOR STREET



SIX-LANE PRIME ARTERIAL

EAST ORANGE AVENUE

intersections would be spaced no closer than 660 feet. Access to/from abutting properties typically be controlled but not restricted. Where lanes are to be provided, extra right-of-way width be required.

- o Class II - Collector Streets would provide two travel lanes with a center two-way left turn lane. These streets carry less traffic than Class I Collectors, but have similar requirements on intersections, parking, bike lanes and access.

- o Class III - Collector Streets provide two travel lanes and carry lower volumes of traffic than Class I and II Collectors, but similar requirements on intersections, parking, and bike lanes apply. Access is not restricted.

It should be noted that there are other classifications of roadways like the residential collector. These create an internal street system within neighborhoods that provide direct access to homes and consolidate the entry points to the connecting road system.

b. Private Driveways and Streets: Private driveways, streets, courts, and parking area standards shall be as approved on plans submitted as required in Section D, herein. Private streets should comply with the safety design criteria for public streets. The following general standards for private residential street widths are provided as generally acceptable subject to approval of plans as provided for in Section D, herein. The following standards do not include the area for sidewalks, which if provided adjacent to the private street would require an additional width.

1) Residential streets serving dwellings and having parking on both sides: Minimum width: 36 feet.

2) Residential streets with parking on one side only: Minimum width: 30 feet.

3) Residential streets with no on-street parallel parking: Minimum width: 24 feet.

4) Residential common driveways with no on street parking serving from 2 to 6 dwellings: Minimum width: 20 feet. Access driveways for a single dwelling may have a minimum width of 15 feet.

c. Scenic Highway: Highways shall be reviewed for conformance to the Scenic Highways Element of the General Plan during the plan review process for the applicable Sectional Planning Area Plans. This review should include: Architectural design of structures;

siting of structures; height of structures; landscaping; signs; and, utilities.

In connection with any tentative map submitted on properties abutting a scenic route, the applicant shall be required to submit a proposal for beautification of the portion of the scenic route adjacent to his development. Each proposal shall consider such factors as: the treatment given to the scenic route outside the boundaries of the particular tentative map area; creation of a pleasing streetscape through special landscaping techniques and varied building setbacks; and, creation of open areas adjacent to scenic routes through the use of clustering and innovative concepts.

4. Off-Street Parking:

a. Off-street parking shall be provided as specified in Chapter 19.62 Off-Street Parking and Loading of the Chula Vista Municipal Code except as otherwise modified herein.

b. Modifications to Off-Street Parking

These regulations are established to provide for the off-street parking of motor vehicles that are attracted by the use or uses on the premises. It shall be the responsibility of the developer, owner, or operator of any specific use to provide adequate off-street parking.

Modifications and exceptions to the off-street parking regulations may be considered as an element of the plan review process outlined in Section D to take advantage of the superior environment and efficient use of resources that will result from large scale comprehensive projects.

Following is a list of potential off-street parking modifications that may be considered:

1) Where, because of the nature of the use involved or other relevant circumstances, the requirements of Chapter 19.62 are considered excessive, exceptions and modifications to these provisions may be approved during the plan review process as provided for in Section D herein.

2) The developer, owner or operator of any specific use may, at their option, provide landscaped area in lieu of the area needed for parking, providing:

a) That the area be designed so that it may easily be converted to accommodate the full parking requirement; and

b) That the owner of the property warrant to the City of

Chula Vista that conversion of said landscaped area to parking use shall be accomplished within 90-days after written notification from the Director of Planning that such conversion is required. Such conversion shall be required only to the extent that the off-street parking of motor vehicles that are attracted by the use or uses on the premises exceeds available parking facilities.

3) A shared parking concept may be utilized subject to the approval of the Planning Director. It is the intent of the shared parking concept to establish standards for parking based on the differing demand and time use characteristics. The end result shall be a more efficient use of the surface area, less parking areas, and cost savings.

4) Parking spaces designed for use by compact cars may be permitted subject to site plan review. Compact car parking spaces shall have a minimum size of eight (8) feet in width and fifteen (15) feet in depth.

5) Off-street parking shall be provided in locations that are convenient to the use or uses it serves. The distance from the parking to any use shall be reasonable and customary as determined by plan review. (Note: A reasonable distance for a parking space serving a residential use would be much less than a reasonable distance for an employee parking space serving a major employment use.) The required parking spaces need not be located on the same building sites the use they serve to satisfy this requirement. Parking may be limited in some locations such as neighborhood parks to encourage use of pedestrian and bicycle trails.

6) An access driveway or private street may be used as a parking aisle with parking spaces taking direct access, providing the site planning design is otherwise adequate and no congestion of vehicular travel is likely to result.

7) Off-Street Parking for Special Residential Projects: To utilize land resources efficiently and to promote housing for a variety of income levels and age groups, off-street parking standards for residential projects intended to provide housing affordable to families with incomes equal to or less than 120% of the median income in the County of San Diego and housing for the elderly may be reduced from what would otherwise be required. The reduction shall be based on projected demographic and motor vehicle ownership analysis of the intended residents.

5. Grading:

a. Grading within the Sunbow Planned Community shall be subject to Chapter 15.04 - Excavation, Grading and Fills of the Municipal Code except as modified herein. Grading in areas shall be permitted subject to approval of a grading plan as provided for in Section D, herein, and in accordance with other provisions of this P-C.

b. Grading Designs: It is the intent of this P-C that graded areas will be contoured to blend with natural landform characteristics. Rounding both vertical and horizontal intersections of graded planes, obscuring slope drainage structures with a variety of plant material massing, incorporating the use of variable slope ratios for larger slope banks, use of landscape planting for erosion control and to obscure man-made banks, architectural solutions to topographic changes, and other similar techniques should be used. Artificially appearing slope banks with rigid angular characteristics shall not be permitted.

c. Grading Policies: General policies with regard to development within the P-C are as follows:

1) Visually significant slope banks within the General Plan open space areas should be preserved in their natural state by clustering development.

2) A variety of housing types, padding techniques, grading techniques, lot sizes, site design, density , arrangement, and spacing of homes and developments should be encouraged.

3) Innovative architectural, landscaping, circulation and site design should be encouraged.

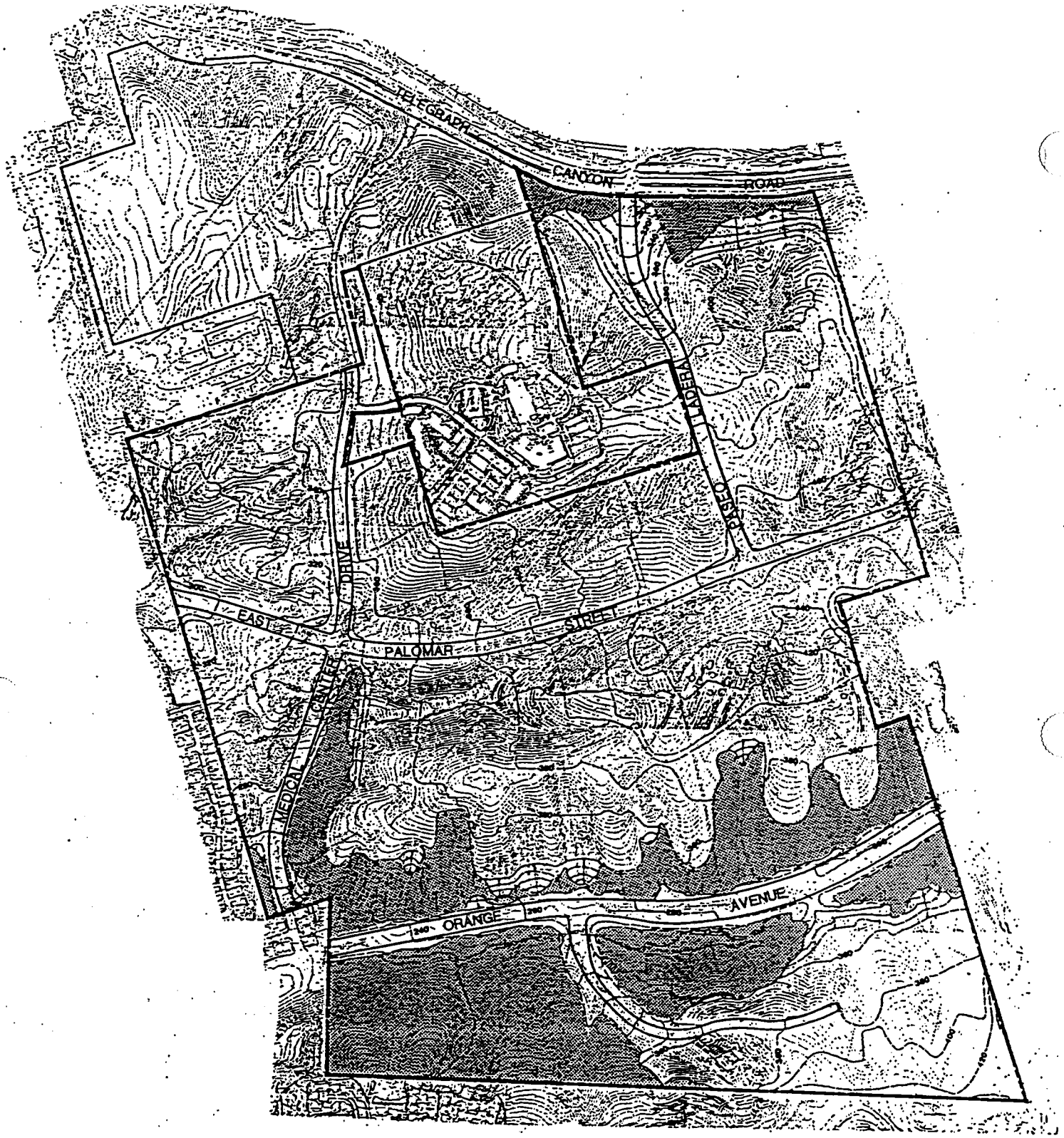
4) Safety against unstable slopes or slopes subject to erosion and deterioration should be provided.

5) Grading may be accomplished beyond the boundaries of an approved SPA where necessary to implement the SPA plan uses or infrastructure facilities.

6) Provide benches or terraces to provide for drainage and landscaping, as well as breaking up large slope surfaces.

7) Ridgeline cuts should daylight wherever possible to reduce visual impact of large fill slopes.

8) Reduce street widths when street grades exceed 10%.



GRADING PLAN
SUNBOW

BHA, INC.
TIERRA PLANNING & DESIGN
BASMACIYAN-DARNELL, INC.
GILLESPIE DELORENZO ASSOCIATES

TIERRA

6. Signing:

A Comprehensive Signing Program shall be submitted as an element of the Sectional Planning Area plan.

F. Residential Regulations

1. Purpose and Intent:

The Residential Regulations of the Sunbow Planned Community are established for all areas permitting residential development on the General Development Plan, herein and any subsequent Sectional Planning Area.

2. Residential Classifications:

Two residential classifications pertaining to residential net density are included in this P-C. Following is the general character of residential development related to each density category.

a. Low-Medium Residential: Land with this designation on the General Development Plan represents a density range from 3.0-6.0 dwelling units per gross acre as stated by the current Draft General Plan. This classification is intended for single family homes, patio homes, duplexes, townhouses, residential cluster developments and other arrangements where the residents' parking is generally in immediate proximity to the residential dwelling.

b. Medium Residential: Land with this designation on the General Development Plan represents a density of 6.0-11.0 dwelling units per gross acre as stated by the current Draft General Plan Update. This classification is intended for apartments and cluster developments in efficient spatial relationships, with residents' parking generally in group parking arrangements, and typically requiring two-story units arranged side-by-side, back-to-back, or vertically stacked.

3. Standards for Low-Medium Residential: 3.0-6.0 du/ac.

Unless otherwise approved on a Sectional Planning Area Plan, the following standards are applicable for Low Medium Residential Planning Areas 12, 13, 14, 16, 17, 19, 20, 21 and 22. (References to sections followed by "herein" are references to this P-C. All other references are to Sections in the Municipal Code):

a. Permitted Uses:

1) One duplex or two-family dwelling on any lot;

2) Single-family dwelling units, attached, detached, and cluster developments;

3) Dwellings, townhouses;

4) Dwellings, multiple, low-rise;

5) Public safety facilities, such as police or fire stations;

6) Uses permitted in Open Space, Section I herein;

b. Accessory uses and buildings: As allowed according to Section 19 of the Municipal Code.

1) Customary incidental home occupations

2) Other accessory uses and accessory buildings customarily appurtenant to a permitted use, of Section 19.58.020

3) Temporary tract offices and tract signs

Additional uses and or buildings set forth in subsequent sectional planning area plans.

c. Conditional Uses: As allowed according to Sections 19 of the Municipal code.

1) Places of worship, churches, temples and other typical religious institutions.

2) Group residences

3) Day nurseries;

4) Off-street parking lots

5) Electric substations and gas regulations

6) Family day care homes

Additional uses of buildings as set forth in subsequent SPA Plans.

d. Site Development Standards:

1) Building height: 30 feet max. or as set forth in the SPA Plan;

2) Front yard: 15 feet min. or as set forth in the SPA Plan;

3) Exterior side yards: 10 feet min. or as set forth in the SPA Plan;

4) One side yard: 5 feet min. or as set forth in the SPA Plan;

5) Rear yard: 15 feet min. or as set forth in the SPA Plan;

Additional development standards will be set forth in the SPA Plan.

e. Performance Standards:

All uses may be subject to initial and continued compliance with the performance standards of Chapter 19.66.

4. Standards for Medium Residential: 6.0-11.0 du/ac.

Unless otherwise stated in the SPA plan, the following standards are applicable for Medium Density Residential Planning Areas 6, 7, 10, 11 and 15.

a. Permitted Uses:

1) Single family homes

2) Multiple low-rise to medium-rise dwellings

3) Townhouses

4) Duplexes

5) Public safety facilities, such as police or fire stations

b. Accessory Uses and Buildings: As allowed according to Section 19 of the Municipal Code.

1) Customary incidental home occupations

2) Other accessory uses and accessory buildings customarily appurtenant to a permitted use, of Section 19.58.020;

3) Temporary tract offices and tract signs

Additional uses and or buildings set forth in subsequent sectional planning area plans.

c. Conditional Uses: As allowed according to Sections 19 of the Municipal code.

1) Group residences

2) Day nurseries;

3) Off-street parking lots

4) Electric substations and gas regulations

5) Family day care homes

6) Places of worship, churches, temples and other typical religious institutions.

Additional uses of buildings as set forth in the subsequent SPA Plan.

d. Site Development Standards:

1) Principal building height: 45 feet max.
Accessory building height: 25 feet max.

2) Front yard: 15 feet min.

3) Exterior side yard: 10 feet min.

4) Interior side yard: 5 feet min. (each)

5) Rear yard: 15 feet min.

Additional Development Standards as may be set forth in the SPA Plan.

e. Open Space Requirements:

1) Minimum open space per dwelling unit: 300 s.f.

2) Usable open space defined as any portion of a lot not less than sixty square feet with a minimum width dimension of six feet. Contributing to this requirement are private balconies & patios and recreation rooms.

5. Affordable Housing

Sunbow Planned Community shall provide for up to 10% of the dwelling unit total of the Planned Community in affordable housing. Said housing shall be provided on a for-rent or for-sale basis at the builders discretion and according to City adopted guidelines. Said housing may be provided in any of the following Planning Areas: 6, 7, 10 or 11.

The full provisions for density bonuses permitted by State and City policies and regulations shall be applicable to this P-C.

6. Churches

The Sunbow Planned Community shall, in its SPA Plan, provide one church site, with an area totaling 2-3 acres.

In locations where shared parking opportunities exist with neighboring uses, this acreage may be diminished, depending on the efficiency of the parking, per the determination of the Planning Director.

In addition, within the 46 acre light industrial area, south of Orange Avenue, "incubator" churches, with small memberships, and modest spatial requirements, are permitted, subject to conditional use permits.

Day care facilities are encouraged, whenever possible, for inclusion into any church planning program.

7. Fire Station

The Sunbow Planned Community shall provide a fire station site, approximately one (1) acre in size. Specifics of this facility shall be detailed in the SPA plan.

G. Village Center Standards

1. Purpose and Intent

The Sunbow Village is conceived as an upscale activity center which emphasizes commercial and recreational uses.

Belonging to one of several locations, in the Eastern Territories, identified in the proposed General Plan as being suitable for higher intensity activity, including an expanding Medical Center, the land uses which follow attempt to list those complimenting the concept of a vibrant center.

Unique in its way, the Village would permit mixed land uses, side by side, that are economically, socially, and physically compatible.

The concept may be further expanded to incorporate street uses, in appropriate locations, that lend additional flavor to a quaintness, or, design theme which envisage outdoor flower stands, musicians, newsstands and open-air cafes.

The Mixed use area is comprised of Planning Areas 6, 7, 8, 9, 10 and 11. This area allows a mix of neighborhood commercial, professional/medical office, residential, and recreational uses in areas generally suitable for high intensity development, adjacent to arterial highways and within areas as designated community activity centers in the Chula Vista General Plan. Residential units within this area shall be as depicted on the General Development Plan - Land Use Map of 766 dwelling units.

2. Permitted Uses

The Planning Commission may permit unlisted uses which appear to meet the spirit and intent of this section.

Antique shop
Art gallery
Auto accessory store (no installation)

Bakeries, retail
Barber shop
Beauty salon
Book store
Boutique
Business and Professional Office

Camera/Video sales and rental
Catalog sales
Child Care Center
Clothes cleaning (agency)
Clothing store
Coffee shop
Confectionery
Community Meeting Center
Community Park
Community Swim Facility

Dance/Art studio
Decorator and Home accessory shops
Delicatessen
Dressmaker or Millinery shop
Drug store

Financial institution
Florist, retail
Food/Grocery store
Furniture store

Gas station (no mini-mart or auto repair)
Gift and Novelty shop
Gymnasium

Hardware store
Health club
Health Education Center
Hobby store
Home appliance store
Home electronics store
Hotel/Motel

Ice cream parlor

Jewelry store

Laundromat (coin-operated)
Leather goods, retail
Library
Limited print shop
Liquor store
Locksmith

Medical/Dental office or clinic
Music store

Paint store
Parking lots and structures
Pet shop/grooming
Pharmacy
Photographic studio
Post office/box rentals

Residential
Restaurants (not live entertainment)
Realty office

Senior Citizen housing
Shoe store/repair
Sporting goods store
Stationers and card shops
Supermarket

Television sales/repair
Tennis courts
Toy shop
Travel agency

Veterinary clinic

Word-processing center

3. Conditional Uses (Subject to a Conditional Use Permit)

Bowling alley

Christmas tree sales lot
Churches
Cocktail lounge
Court reporting school

Driving school

Electrical distribution substation

Fast Food drive-in/drive-through restaurant

Gas station with mini-market

Nursery

Open-air restaurant
Outdoor flower stands, musicians, newsstands and vendors

Pool/Billiard hall

Recycling center
Religious Institution
Restaurant with live entertainment

Satellite dishes
Service station (with repairs)
Small pet hospital

Theater

Video/games arcade

4. Site Development Standards

All development standards are subject to refinement and/or amendment upon submittal of the applicable Sectional Planning Area Plan. The Mixed Use Center will contain a minimum of 10 acres of commercial uses. The following development standards shall apply to all non-residential uses within the Mixed Use Center.

(a) Minimum Lot Area: 10,000 s.f.

(b) Maximum Building Height: 45'

(c) Signs Permitted:

Signs shall be permitted according to City of Chula Vista Ordinance 19.60 or as provided for in the subsequent SPA Plan through a comprehensive Signing Program.

5. Parking Required

(a) Commercial Uses: One (1) space per 200 square feet of gross floor area.

(b) Restaurant Uses: One (1) parking space per 50 square feet of floor area.

(c) General Office Uses: One (1) space per three hundred (300) square feet of gross floor area.

(d) Medical and Dental Clinics or Offices: One (1) space per 200 square feet of gross floor area; minimum of five (5).

6. Design and Review

Mixed Use Planning Areas shall incorporate a consistent architectural, landscape, signage and lighting design to be reviewed during SPA Plan and Tentative Tract review.

H. Industrial Park Regulations

1. Purpose and Scope

This section is established to provide standards for development of uses indicated on the GDP as Industrial Park.

2. Standards for Industrial Park Uses

a. Permitted Uses:

1) Laboratories

2) Manufacturing & assembly of electronic instruments, office computing and accounting, machines

3) Electrical substations & gas regulator stations

4) Light manufacturing

5) Maintenance/storage yards

6) Community facilities and public safety facilities

7) Wholesale businesses, storage and warehousing

8) Automotive repair

9) Sales, rental and storage of vehicles, trucks, trailers, recreational vehicles, boats and tractors

10) Administrative office uses ancillary to and supportive of permitted principal uses

b. Conditional Uses:

1) Retail Commercial

2) Pharmaceutical manufacturing

3) Office uses

4) Roof mounted satellite dishes

5) Churches and places of worship

6) Day care centers

7) Schools and training institutes

8) Service stations

9) Restaurants, delicatessens and similar uses

c. Site Development Standards such as height, bulk, setbacks, lot width and lot area, shall be set forth in the subsequent SPA Plan.

I. Open Space, Parks, Schools, and Community Facilities Regulations

1. Purpose and Scope

This section is established to provide standards for uses indicated on the General Development Plan as Open Space/Community Recreation Areas, Schools, Community Facilities or as may otherwise be referenced in this P-C.

2. Open Space/Parks, Community Recreation Areas

a. Uses Permitted:

1) Active and Passive Open Spaces

2) Natural Open Space

3) Lakes and ponds

4) Public and private parks

5) Community facilities and public safety facilities

6) Public and private noncommercial recreation areas, uses, and facilities including country clubs, recreation facilities, swimming pools, gymnasiums and other uses of a similar nature

b. Conditional Uses:

1) Riding academies, public or private stables, and accessory uses necessary for an equestrian center

2) Commercial recreation uses

3) Places of worship

4) Electric substations and gas regulators subject to the provisions of Section 19.58.140 of the Municipal Code

5) Plant nurseries

6) Public and quasi-public uses

7) Marketing and sales complex information center for the P-C

8) Facilities for the care of children

9) Unclassified uses as specified in Sections 19.54.010 through 19.54.060 of the Municipal Code

c. Site Development Standards: Shall be designed and detailed in the pursuant SPA plan.

3. Schools

a. Uses Permitted:

1) Public and Private schools for education through the twelfth grade

2) Open Space uses as provided in paragraph 2 above

b. Alternate Uses Permitted:

1) Rancho del Sur has entered into an Agreement dated October [illegible], 1988, with the Chula Vista City School District to provide, among other things, for an elementary school site if required by the Chula Vista City School District. The Agreement also provides for the possibility that the School District will not require a site within Sunbow or will determine within ten years after the purchase of the school site that it does not need the school site.

2) If the School District should reject a school site indicated on the General Development Plan without indication of an alternate location, then the site may be used for residential uses of a type most directly adjacent with a density equivalent to the average residential density of the adjacent land.

3) If the School District should select an alternate site within Phase II, then the school site originally indicated on the General Development Plan may be developed with the type and density of use equivalent to the average residential density of the adjacent land.

4) Any dwelling permitted by this Paragraph 3b. shall not be subject to the maximum number of dwellings specified in Section B, but shall be otherwise subject to these District Regulations.

6) Day care centers

7) Schools and training institutes

8) Service stations

9) Restaurants, delicatessens and similar uses

c. Site Development Standards such as height, bulk, setbacks, lot width and lot area, shall be set forth in the subsequent SPA Plan.

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5) Community facilities and public safety facilities

6) Public and private noncommercial recreation areas, uses, and facilities including country clubs, recreation facilities, swimming pools, gymnasiums and other uses of a similar nature

b. Conditional Uses:

1) Riding academies, public or private stables, and accessory uses necessary for an equestrian center

2) Commercial recreation uses

3) Places of worship

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8) Facilities for the care of children

9) Unclassified uses as specified in Sections 19.54.010 through 19.54.060 of the Municipal Code

c. Site Development Standards: Shall be designed and detailed in the pursuant SPA plan.

3. Schools

a. Uses Permitted:

1) Public and Private schools for education through the twelfth grade

2) Open Space uses as provided in paragraph 2 above

b. Alternate Uses Permitted:

1) Rancho del Sur has entered into an Agreement dated October 18, 1988, with the Chula Vista City School District to provide, among other things, for an elementary school site if required by the Chula Vista City School District. The Agreement also provides for the possibility that the School District will not require a site within Sunbow or will determine within ten years after the purchase of the school site that it does not need the school site.

2) If the School District should reject a school site indicated on the General Development Plan without indication of an alternate location, then the site may be used for residential uses of a type most directly adjacent with a density equivalent to the average residential density of the adjacent land.

3) If the School District should select an alternate site within Phase II, then the school site originally indicated on the General Development Plan may be developed with the type and density of use equivalent to the average residential density of the adjacent land.

4) Any dwelling permitted by this Paragraph 3b. shall not be subject to the maximum number of dwellings specified in Section B, but shall be otherwise subject to these District Regulations.

4. Community Facilities

a. Uses Permitted:

1) Maintenance Yard

2) Community facilities and public safety facilities

b. Accessory Uses and Buildings:

1) To be determined by the City and School District pursuant to the subsequent SPA Plan

c. Conditional Uses:

1) To be determined by the City and School District pursuant to the subsequent SPA Plan(s)

d. Site Development Standards:

1) Shall be designed and detailed in the pursuant SPA plan

V. GENERAL LANDSCAPE GUIDELINES

A. Introduction

The purpose of the Master Landscape Development Plan is to define a general design concept that will enhance and compliment the unique community identity established in the first phase of the Sunbow Development. The Master Landscape Plan identifies a street tree pattern and specific plant palette for the community. This landscape concept is outlined in the following sections as a general guide for designers to create a landscape design which has a community-wide consistency but is not individual project areas.

B. Landscape Concept

The landscape concept for Sunbow defines major landscape districts and neighborhoods and links them together by a landscape passage system. This landscape passage system is characterized by it's adjacency to all major vehicular circulation routes and a generous amount of highly designed landscape area. In essence the parkways become a highly visible and functional open space amenity which criss-crosses the new Sunbow Community.

C. General Landscape Criteria

The concept of establishing landscape criteria at the General Development Plan level is to provide for the dominant elements, while preserving flexibility at the detail design level. Street trees form the dominant element of the landscape planting palette and are emphasized in the criteria.

The residential neighborhoods, commercial districts and community-wide elements have been assigned an overlay zone that defines the design parameters. The dominant theme trees, are indicated in the plant materials legend. A brief description of each landscape zone follows.

<u>Zone 1: Major Internal Intersection</u>

The major internal intersections are circulation pivot points within the community. They are spatial nodes characterized by a high volume of pedestrian and vehicular circulation. The landscape concept for these zones utilizes colorful and unusual specimen plant material to emphasize these areas uniformity of other areas of the streetscape, this concept combined with providing variety and special interest in the planned landscape. The plant materials list on Page 41 suggests several appropriate varieties for these zones.

<u>Zone 2: Major Project Entry</u>

The major entry zones form the gateways to the project and present the first impression of the community beyond. Thus, the landscape concept for this zone required a dramatic landscape statement to create a strong visual

impact. This landscape concept uses tall columnar trees, arranged in a formal pattern to formally create a powerful and inviting project entry.

Zone 3: East Palomar Street Community Center

This zone is central within the community and includes the major commercial and recreational facilities. The landscape concept for this area intends to distinguish this area as the focus of the Sunbow Community. The East Palomar Parkway comprises a large portion of this zone and will be planted with a row of canopy trees in the parkways and medians. Additionally, a single row of fan palms will occur along the outer limits of the parkway right-of-way, between Medical Center Drive and Paseo Ladera, to create a dramatic skyline and emphasize the importance of this area.

Zone 4: Medical Center Drive and Paseo Ladera

These zones serve as the main vehicular and pedestrian circulation routes through the community. The landscape design will clearly define these routes as primary circulation zones, and enforce the overall community design theme this is accomplished by lining the parkway edges with a formal planting of canopy trees and the outer edge of the parkway right-of-way with a single row of California fan palms, to form a project skyline.

Zone 5: Telegraph Canyon Road and East Orange Avenue

Telegraph Canyon Road and East Orange Avenue have been designated as scenic transportation corridors by the City of Chula Vista. These corridors from the north and south boundaries of the Community and abut natural open space and parkland areas. Thus the landscape concept for these zones provides a transition between the open space landscape and the more formal community landscape design. Drifting groves of indigenous and native-like species have been chosen to enhance and compliment the adjacent open space areas.

Zone 6: Local Streets

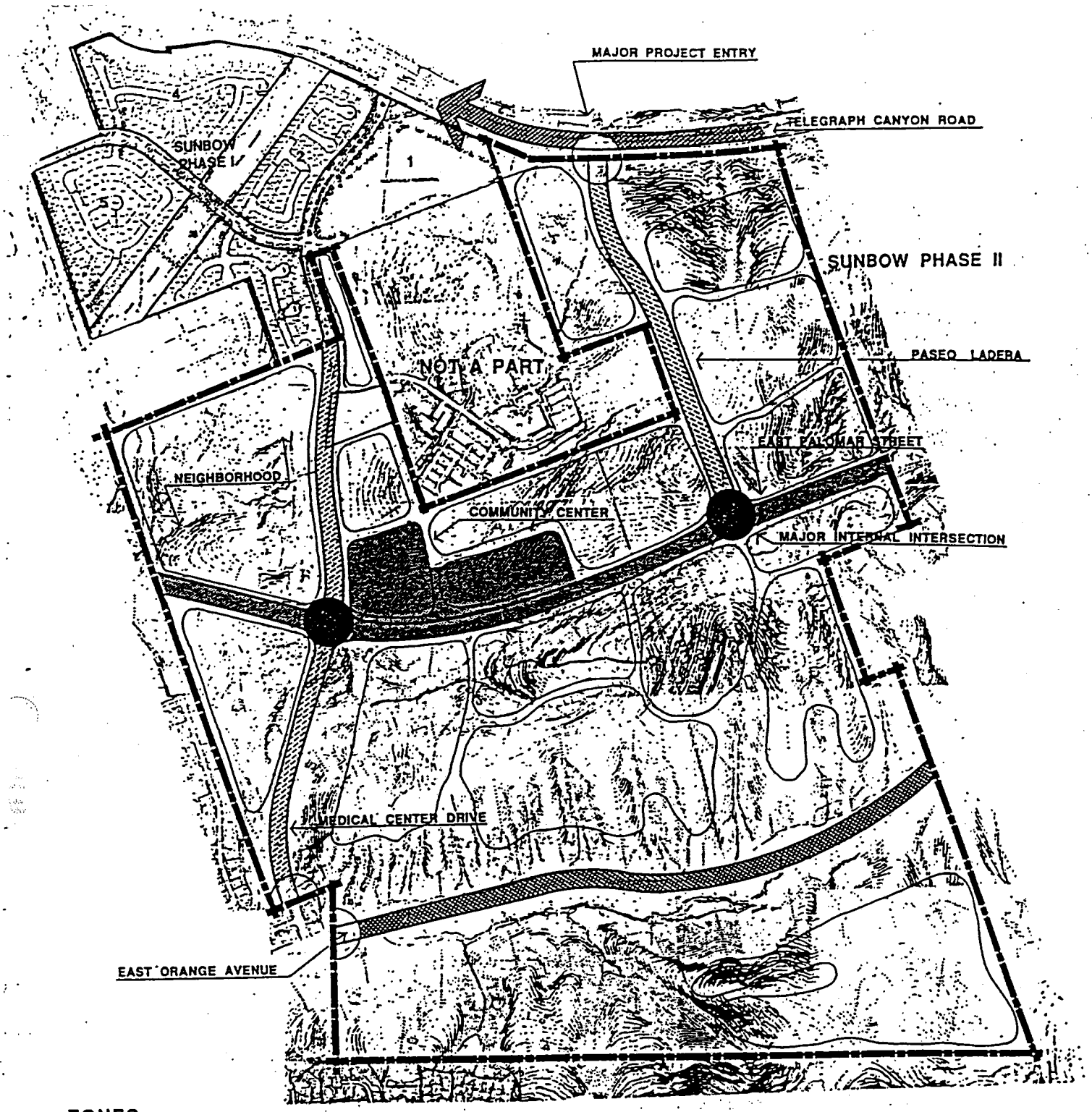
Local streets are zones located in the larger neighborhood districts. The intent of the landscape concept is to create a landscape element linking individual landscape districts to the overall community design fabric. Each local street shall utilize a formal planting of a dominant theme tree selected for it's specific district. The plant materials list on Page 36 suggests several appropriate varieties for these zones.

Zone 7: Neighborhood/District Zones

Special landscape criteria for individual neighborhood and district zones shall be discussed in subsequent sectional planning area documents.

D. Landscape Maintenance

Even though the developer shall be responsible for landscape maintenance during project implementation, the ultimate responsibility for maintenance



ZONES:

1	2	3	4	5
MAJOR INTERNAL INTERSECTION	MAJOR PROJECT ENTRY	EAST PALOMAR STREET COMMUNITY CENTER	MEDICAL CENTER DR AND PASEO LADERA	TELEGRAPH CANYON ROAD AND EAST ORANGE AVENUE

Gillespie • DeLorenzo

400 800
FEET

SUNBOW

will be with individual private property owners, and public agencies. Definition of these responsibilities will be an inherent element of the subdivision and site plan processes. Following is the concept of how these responsibilities are intended to be divided.

1. Individual Private Property Owner Maintenance: The individual property owners will be responsible for maintaining landscaping within their private yard areas. Where the lots extend into common area or open space, shall be maintained privately. These areas will be identified on each tract map with appropriate maintenance easements and use restrictions.

2. Public Agency Maintenance: Public agencies will be responsible for maintaining the landscaping on land which is publicly owned. These areas include streets and highways, public parks, schools, and other similar public lands. There may be some areas where public landscape and common open space lands interface, such as the parkway areas of streets. To permit efficient and clearly defined responsibilities in these areas individual maintenance agreements may need to be established at the tract map/site plan review phase. Generally the intended concept is that the area from the street to the outer edge of the sidewalk/trail will be maintained publicly, and the area from the edge of the sidewalk/trail up to the development will be maintained privately. This sidewalk to be a clear delineator of maintenance responsibility.

E. Irrigation Standards

All landscaping will have irrigation systems installed to supplement natural rainfall, to insure continued viability. The irrigation systems shall be consistent with adopted City standards, and shall include viable techniques for water conservation. Each landscape plan shall be reviewed by the City Landscape Architect and evaluated independently for specific irrigation design.

Sunbow Phase II Plant Materials List

Major Intersection

Bauhinia variegata - Purple Orchid Tree
Chorisia speciosa - Floss Silk Tree
Liquidambar styraciflua - Sweet Gun
Pittosporum undulatum - Victorian Box*
Podocarpus gracilior - Fern Pine*
Populus nigra 'italica' - Lombardy Poplar*

Major Internal Intersections

Bauhinia variegata - Purple Orchid Tree
Koelreutaria panniculata - Goldenrain Treet
Nerium oleander standard - Tree Oleander*
Pittosporum undulatum - Victorian Box*
Prunus ceras 'Thundercloud' - Purple Leaf Plum

East Palomar Street

Bauhinia variegata - Purple Orchid Treet
Magnolia grandiflora - Magnolia
Washington robusta - California Fan Palm

Medical Center Drive and Paseo Ladera

Pyrus calleryana "Aristocrat' - Ornamental Pear
Washingtonia robusta - Mexican Fan Palm

Telegraph Canyon Road and East Orange Avenue

Hymenosporum flavum - Sweetshade
Pinus halopensis - Aleppo Pine
Plantanus racemosa - California sycamore
Quercus agrifolia - Coast Live Oak
Quercus ilex - Holly Oak

Local Streets

Bauhinia variegata - Purple Orchid Tree
Jacaranda mimosifolia - Jacaranda
Koelreutaria bipinnata - Chinese Flame Tree
Rhus lancea - African Sumac
Pinus pinea - Italian Stone Pine

* Outside of public R.O.W.

LEGAL DESCRIPTION

THE LAND REFERRED TO HEREIN IS SITUATED IN THE STATE OF CALIFORNIA, COUNTY OF SAN DIEGO, AND IS DESCRIBED AS FOLLOWS:

PARCEL 1:

THE SOUTHEAST QUARTER OF THE NORTHEAST QUARTER AND THE EAST HALF OF THE SOUTHEAST QUARTER OF QUARTER SECTION 90 AND THE EAST HALF OF FRACTIONAL QUARTER SECTION 91, ALL OF RANCHO DE LA NACION, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 166, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, MAY 11, 1869.

PARCEL 2:

THE WEST HALF OF THE NORTHWEST QUARTER; THE SOUTHWEST QUARTER OF THE SOUTHWEST QUARTER, THE EAST HALF OF THE WEST HALF AND THE WEST HALF OF THE EAST HALF OF QUARTER SECTION 64 OF RANCHO DE LA NACION, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP NO. 166 MADE BY MORRILL ON FILE IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, LYING SOUTHERLY OF THE CENTER LINE OF TELEGRAPH CANYON ROAD 60.00 FEET WIDE, AS GRANTED TO THE COUNTY OF SAN DIEGO IN DEED RECORDED DECEMBER 8, 1961 AS FILE NO. 213092 OF OFFICIAL RECORDS.

EXCEPTING THEREFROM THAT PORTION LYING WITHIN TELEGRAPH CANYON ROAD AS DESCRIBED IN PARCEL NO. 66141-A IN DEED RECORDED APRIL 18, 1967 AS FILE NO. 53304 OF OFFICIAL RECORDS.

PARCEL 3:

LOT 2 OF THE NORTHWEST QUARTER OF THE NORTHEAST QUARTER OF SECTION 18, TOWNSHIP 18 SOUTH, RANGE 1 WEST, SAN BERNARDINO BASE AND MERIDIAN, ACCORDING TO UNITED STATES GOVERNMENT SURVEY.

PARCEL 4:

THE FOLLOWING DESCRIBED PROPERTY IN TOWNSHIP 18 SOUTH, RANGE 1 WEST, SAN BERNARDINO BASE AND MERIDIAN, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO UNITED STATES GOVERNMENT SURVEY THEREOF APPROVED SEPTEMBER 11, 1879:

FRACTIONAL LOTS 1 AND 2 IN SECTION 17, FRACTIONAL LOTS 1 AND 3 AND SOUTH HALF OF NORTHEAST QUARTER OF SECTION 18.

PARCEL 5:

THE SOUTH HALF OF SOUTHWEST QUARTER, THE NORTHEAST QUARTER OF SOUTHWEST QUARTER AND THE SOUTHWEST QUARTER OF SOUTHEAST QUARTER OF QUARTER SECTION 67, ALL BEING IN THE RANCHO DE LA NACION, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 166 BY MORRILL, ON FILE IN THE OFFICE OF THE COUNTY RECORDER OF SAID SAN DIEGO COUNTY.

PARCEL 6:

THAT PORTION OF QUARTER SECTION 65 OF THE RANCHO DE LA NACION, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 166 MADE BY MORRILL, ON FILE IN THE OFFICE OF THE COUNTY RECORDER OF SAID SAN DIEGO COUNTY,. MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHWEST CORNER OF SAID QUARTER SECTION 65, AND ON THE SOUTHERLY LINE OF THE RANCHO DE LA NACION; RUNNING THENCE NORTH 18°51' WEST 1568.7 FEET ALONG THE WESTERLY LINE OF SAID QUARTER SECTION 65 TO THE NORTHWEST CORNER THEREOF; THENCE NORTH 71°14' EAST 1320.7 FEET MORE OR LESS ALONG THE NORTHERLY LINE OF SAID QUARTER SECTION 65 TO THE NORTHEAST CORNER OF THE WEST HALF OF SAID QUARTER SECTION 65; THENCE SOUTH 18°57' EAST 1563.5 FEET ALONG THE EASTERLY LINE OF SAID WEST HALF OF QUARTER SECTION 65 TO THE SOUTHEAST CORNER OF SAID WEST HALF OF SAID QUARTER SECTION; THENCE SOUTH 71°00' WEST 1323.4 FEET ALONG THE SAID SOUTHERLY LINE OF RANCHO DE LA NACION TO THE PLACE OF BEGINNING.

TOGETHER WITH A PORTION OF QUARTER SECTION 65, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

BEGINNING AT THE NORTH QUARTER CORNER OF QUARTER SECTION 65 AND RUNNING; THENCE NORTH 71°14' EAST 660.65 FEET ALONG THE NORTH LINE OF SAID QUARTER SECTION 65; THENCE SOUTH 18°53'30" EAST 660 FEET; THENCE SOUTH 71°14' WEST 659.87 FEET TO THE WEST LINE OF THE EAST HALF OF SAID QUARTER SECTION 65; THENCE NORTH 18°57' WEST 660.00 FEET ALONG THE SAID WEST LINE OF THE EAST HALF OF QUARTER SECTION 65 TO THE PLACE OF BEGINNING.

PARCEL 7:

THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER; SOUTH HALF OF THE SOUTHWEST QUARTER OF NORTHWEST QUARTER; NORTHWEST QUARTER OF SOUTHWEST QUARTER OF QUARTER SECTION 67, BEING IN RANCHO DE LA NACION, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 166.

EXCEPTING THEREFROM THAT PORTION OF SAID SOUTHEAST QUARTER OF THE NORTHWEST QUARTER OF SAID QUARTER SECTION 67 LYING WITHIN THE LAND BEING DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT ON THE WESTERLY LINE OF THE EASTERLY HALF OF SAID QUARTER SECTION 67 DISTANT THEREON SOUTH 17°53'14" EAST 990.00 FEET FROM THE NORTHERLY LINE OF SAID QUARTER SECTION 67; THENCE SOUTH 72°10'46" WEST 44.82 FEET TO THE BEGINNING OF A TANGENT 472.50 FOOT RADIUS CURVE CONCAVE NORTHERLY; THENCE ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 26°35'43" 219.32 FEET TO THE BEGINNING OF A COMPOUND 22.50 FOOT RADIUS CURVE CONCAVE NORTHEASTERLY; THENCE ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 86°40'36" 34.04 FEET TO A POINT ON A 840.00 FOOT RADIUS CURVE CONCAVE WESTERLY, THE CENTER OF WHICH BEARS NORTH 84°32'55" WEST; THENCE ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 21°06'05" 309.36 FEET; THENCE TANGENT TO SAID CURVE NORTH 15°39'00" WEST 445.00 FEET TO THE BEGINNING OF A TANGENT 760.00 FOOT RADIUS CURVE CONCAVE SOUTHEASTERLY; THENCE ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 60°08'00" 797.64 FEET; THENCE TANGENT TO SAID CURVE NORTH 44°29'00" EAST 250.00 FEET TO THE BEGINNING OF A TANGENT 840.00 FOOT RADIUS CURVE CONCAVE NORTHWESTERLY; THENCE ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 18°13'06" 267.10 FEET; THENCE TANGENT TO SAID CURVE NORTH 26°15'54" EAST 98.00 FEET TO THE BEGINNING OF A TANGENT 22.00 FOOT RADIUS CURVE CONCAVE SOUTHEASTERLY; THENCE ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 90°00'00" 34.56 FEET TO A POINT ON THE SOUTHERLY RIGHT OF WAY LINE OF TELEGRAPH CANYON ROAD (R.S. 1086) SAID POINT BEARS SOUTH 26°15'54" WEST 30.00 FEET FROM STATION 117+84.77 ON SAID R. S. 1086; THENCE SAID SOUTHERLY RIGHT OF WAY LINE NORTH 63°44'06" WEST (SHOWN AS SOUTH 64°08'30" EAST ON SAID R.S. 1086), 124.00 FEET TO THE BEGINNING OF A NON-TANGENT 22.00 FOOT RADIUS CURVE CONCAVE SOUTHWESTERLY, THE CENTER OF WHICH BEARS SOUTH 26°15'54" WEST; THENCE ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 90°00'00" 34.56 FEET; THENCE TANGENT TO SAID CURVE SOUTH 26°15'54" WEST 98.00 FEET TO THE BEGINNING OF A TANGENT 760.00 FOOT RADIUS CURVE CONCAVE NORTHWESTERLY; THENCE ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 18°13'06" 241.66 FEET; THENCE TANGENT TO SAID CURVE SOUTH 44°29'00" WEST 250.00 FEET TO THE BEGINNING OF A TANGENT 840.00 FOOT RADIUS CURVE CONCAVE SOUTHEASTERLY; THENCE ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 60°08'00" 881.60 FEET; THENCE TANGENT TO SAID CURVE SOUTH 15°39'00" EAST 445.00 FEET TO THE BEGINNING OF A TANGENT 760.00 FOOT RADIUS CURVE CONCAVE WESTERLY; THENCE ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 27°44'53" 368.06 FEET; THENCE ALONG THE PROLONGATION OF A RADIAL LINE TO SAID CURVE SOUTH 77°54'07" EAST 80.00 FEET TO THE BEGINNING OF A NON-TANGENT 22.50 FOOT RADIUS CURVE CONCAVE SOUTHERLY, THE CENTER OF WHICH BEARS SOUTH 77°54'07" EAST; THENCE ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 86°40'36" 34.04 FEET TO THE BEGINNING OF A REVERSE 527.50 FOOT RADIUS CURVE; THENCE ALONG THE ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF

26°35'43" 244.85 FEET; THENCE TANGENT TO SAID CURVE NORTH 72°10'46" EAST 44.88 FEET TO SAID WESTERLY LINE OF THE EASTERLY HALF OF QUARTER SECTION 67; THENCE ALONG SAID WESTERLY LINE NORTH 17°53'14" WEST 55.00 FEET TO THE POINT OF BEGINNING.

ALSO EXCEPTING THEREFROM THAT PORTION OF THE SOUTHEAST QUARTER OF THE NORTHWEST QUARTER OF SAID QUARTER SECTION 67, LYING WITHIN THE LAND BEING DESCRIBED AS FOLLOWS:

COMMENCING AT A POINT ON THE WESTERLY LINE OF THE EAST HALF OF SAID QUARTER SECTION 67, DISTANT THEREON 990.00 FEET FROM THE NORTHERLY LINE OF SAID QUARTER SECTION 67; THENCE SOUTH 17°53'14" EAST 55.00 FEET ALONG SAID WESTERLY LINE TO THE SOUTHERLY RIGHT OF WAY BOUNDARY OF A ROAD KNOWN AS MEDICAL CENTER COURT (FORMERLY DORA LANE) AS SAID SOUTHERLY BOUNDARY IS DESCRIBED IN DEED TO THE CITY OF CHULA VISTA, RECORDED APRIL 16, 1973 AS FILE NO. 73-099786 OF OFFICIAL RECORDS, BEING THE TRUE POINT OF BEGINNING; THENCE PROCEEDING ALONG SAID SOUTHERLY BOUNDARY OF SAID RIGHT OF WAY, SOUTH 72°10'46" WEST 44.88 FEET TO THE BEGINNING OF A TANGENT 527.50 FOOT RADIUS CURVE CONCAVE NORTHERLY; THENCE CONTINUING ON SAID SOUTHERLY BOUNDARY OF SAID RIGHT OF WAY, WESTERLY ALONG AN ARC OF SAID CURVE THROUGH A CENTRAL ANGLE OF 26°35'43" A DISTANCE OF 244.85 FEET TO THE BEGINNING OF A REVERSE 22.50 FOOT RADIUS CURVE; THENCE WESTERLY AND SOUTHERLY ALONG AN ARC OF SAID REVERSE CURVE THROUGH A CENTRAL ANGLE OF 86°40'36" A DISTANCE OF 34.04 FEET; THENCE LEAVING SAID ARC OF SAID REVERSE CURVE IN A RADIAL DIRECTION, NORTH 77°54'07" WEST 40.66 FEET; THENCE SOUTH 8°46'29" WEST 379.93 FEET TO THE SOUTHERLY LINE OF THE NORTHWEST QUARTER OF SAID QUARTER SECTION 67, THE INSTANT COURSE BEING 2.00 FEET WESTERLY OF A LINE THAT IS TANGENT TO THE CENTER LINE OF A ROAD KNOWN AS MEDICAL CENTER DRIVE (FORMERLY BRANDYWINE AVENUE) AT THE INTERSECTION OF SAID CENTER LINE AND THE CENTER LINE OF SAID MEDICAL CENTER COURT; THENCE ALONG SAID SOUTHERLY LINE NORTH 72°10'24" EAST 516.25 FEET TO THE WESTERLY LINE OF THE EAST HALF OF SAID QUARTER SECTION 67; THENCE ALONG SAID WESTERLY LINE NORTH 17°53'14" WEST 272.48 FEET TO THE TRUE POINT OF BEGINNING. AS GRANTED TO VISTA HILL FOUNDATION, A CALIFORNIA NON-PROFIT CORPORATION, IN DEED RECORDED MAY 5, 1986 AS FILE NO. 86-176742 OF OFFICIAL RECORDS.

PARCEL 8:

ALL OF FRACTIONAL QUARTER SECTION 66 OF RANCHO DE LA NACION, IN THE COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP THEREOF NO. 166, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, MAY 11, 1869.

PARCEL 9:

THE SOUTHEAST QUARTER OF THE SOUTHEAST QUARTER OF QUARTER SECTION
OF RANCHO DE LA NACION, IN THE COUNTY OF SAN DIEGO, STATE
CALIFORNIA, ACCORDING TO THE OFFICIAL MAP THEREOF NO. 166 BY MORRILL
ON FILE IN THE OFFICE OF THE COUNTY RECORDER OF SAID SAN DIEG
COUNTY.

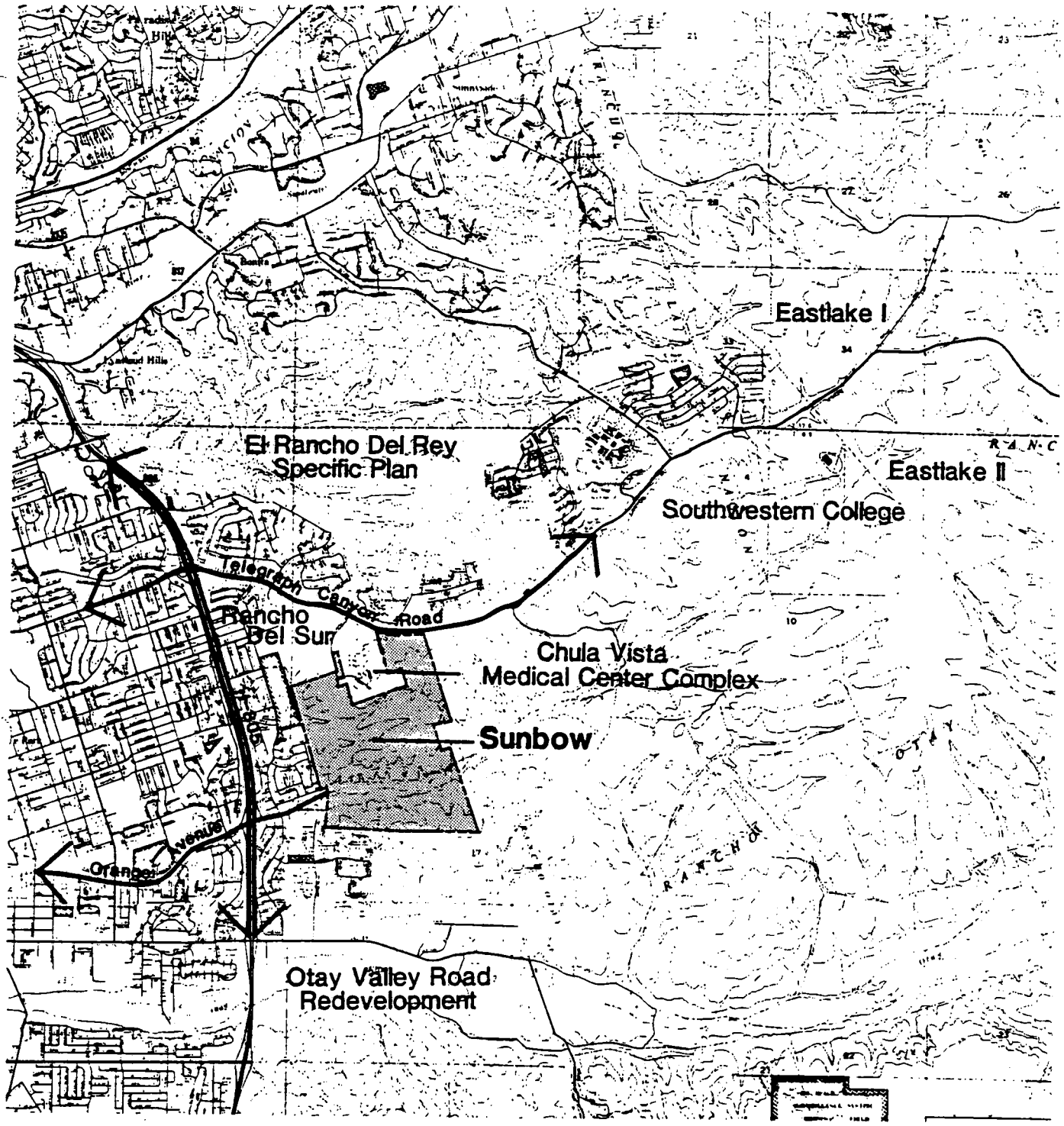
PARCEL 10:

THE NORTH ONE-HALF OF THE SOUTHWEST QUARTER OF THE NORTHWEST QUARTER
OF QUARTER SECTION 67 OF RANCHO DE LA NACION, IN THE COUNTY OF SAN
DIEGO, STATE OF CALIFORNIA, ACCORDING TO MAP NO. 166 BY MORRILL,
FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY.

SECTIONAL PLANNING AREA PLAN



SUNBOW



OCAL CONTEXT
SUNBOW

TERRA PLANNING & DESIGN
BHA ENGINEERING
GILLESPIE DELORENZO
BASMASCIYAN DARNELL

EXHIBIT 1

SUNBOW SPA PLAN - PC DISTRICT REGULATIONS

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INTRODUCTION

Background and Scope

This Sectional Planning Area (SPA) Plan intends to define in more detailed terms the development parameters for the **Sunbow Planned Community**, including the land use mix, design criteria, primary circulation pattern, open space and recreation concept, and infrastructure requirements. Additionally, the character and form of the project will be implemented through a series of guidelines and development standards in accordance with the Planned Community District Regulations of this **Sunbow** Sectional Planning Area Plan.

The purpose of the plan is as follows:

A. Assure a high quality of development, consistent with City and Community goals and objectives, and those of the developer and/or his designated representative.

B. Create an economically viable plan that can be realistically implemented within current and projected economic conditions.

C. Provide for orderly planning and long-range development of the project to ensure community compatibility.

D. Facilitate adequate provision for community facilities, such as transportation, water, flood control, sewage disposal, schools and parks and provide adequate assurance to the Developer that approved development will be allowed in a timely and economically viable manner.

E. Preserve open space and natural amenities on the property where possible.

F. Establish a planning and development framework which will allow diverse land uses to exist in harmony within the community.

This Sectional Planning Area (SPA) Plan provides the **Sunbow Planned Community** District Regulations as a supplement to other existing City regulations. The Sectional Planning Area Plan regulations supersede other regulations where there is a conflict; where a topic is not addressed by this SPA Plan, appropriate City regulations shall apply.

The SPA plan, once approved, is the implementation tool of the General Development Plan. It establishes design criteria for the site and defines precisely the type and amount of development permitted. It establishes the City's standards for that development including open space provisions and major improvements to be constructed by the developer.

The **Sunbow Planned Community** District Regulations serves as an important tool through which the City will review and evaluate schematic, preliminary and final drawings of each individual project to be built in the Planned Community. Such guidance is imperative to the design review function.

These Planned Community (PC) District Regulations are adopted pursuant to Title 19, Zoning, of the Chula Vista Municipal Code (CVMC) and are intended to implement and integrate the Chula Vista General Plan, the **Sunbow** General Development Plan, and the Sectional Planning Area Plan for the **Sunbow Planned Community.** These regulations set forth the development and use standards for all property within the SPA by establishing:

- Setbacks;
- Building heights;
- Parking requirements;
- Landscape requirements;
- Use restrictions;
- Animal regulations;
- Density of development;
- Lot size, width and depth;
- Fencing requirements; and
- Signing regulations.

The PC District Regulations are organized into five basic land use districts:

- Residential;
- Commercial;
- Industrial;
- Open Space; and
- Special Purpose.

Each of these five basic districts is further broken down into specific planning areas.

Planning Area - 6	Residential Single-family attached
Planning Area - 7	Residential Single-family attached
Planning Area - 8	Commercial Village Center
Planning Area - 9	Community Park/Recreation
Planning Area - 10	Residential Single-family attached
Planning Area - 10A	Residential Single-family attached
Planning Area - 11	Residential Single-family attached
Planning Area - 12	Residential Single-family detached
Planning Area - 13	Residential Single-family detached
Planning Area - 14	Residential Single-family detached
Planning Area - 15	Residential Single-family detached
Planning Area - 16	Residential Single-family detached
Planning Area - 17	Residential Single-family detached
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Planning Area - 21	Residential Single-family detached
Planning Area - 22	Residential Single-family detached
Planning Area - 23	Industrial Park

1.0 GENERAL PROVISIONS

1.1 Introduction

This section intends to define the District Regulations for the Planned Community Zoning setforth in the **Sunbow** General Development Plan.

A. Purpose and Intent:

The Planned Community District Regulations for **Sunbow** are intended to:

1. Provide for the orderly planning and long term development of **Sunbow** so that the entire community and subsequent extensions of planning areas will provide an environment of stable and desirable character;

2. Provide reasonable assurance that this Sectional Planning Area (SPA) Plan prepared in accordance with an approved General Development Plan will be acceptable to the City;

3. Enable the City to adopt measures providing for the development of the surrounding area compatible with the Planned Community Zone;

4. Enhance and implement the City of Chula Vista General Plan;

5. Secure for the citizens of the City the social and economic advantages resulting from an orderly planned use of it's urban resources;

6. Establish conditions which will allow proposed land uses to exist in harmony within the community;

7. Provide for community facilities, such as transportation, water, sewage, parks, schools and other public requirements;

8. Provide flexibility in development standards and permit planned diversification in the location of land uses and structures;

9. Recognize the inherent influence that economic conditions and consumer needs will have in the establishment of the **Sunbow Planned Community;**

10. Allow a diversity of uses, site relationships and heights of buildings and open space in planned building groups, while insuring compliance with the spirit, intent, and provisions of the Municipal Code;

B. Authority and Scope:

These district regulations, are established pursuant to Title 19 of the Municipal Code, specifically chapter 19.48 P-C Planned Community Zone, and are applicable

to the area defined in with Site Utilization Section within this SPA, and as hereinafter referred to as **Sunbow.**

C. General:

1. The individual acreage indicated on the Site Utilization Plan are indicated to the nearest one-tenth acre based on planimeter readings. Slight modifications that may result from technical refinements such as land surveys performed during the development permit and subdivision process will not require an amendment to this document, providing the spirit and intent is maintained.

2. **Sunbow** has been divided up into 18 Planning Areas numbered from 6 to 23 for the general purpose of segregating land uses, identifying potential phasing areas, allocating incremental costs and responding to significant physical separations and may be used as the basis for describing any future phasing plans, sectional planning areas or precise plans.

D. Residential Dwelling Unit and Density Summary:

The number of dwelling units shall be, as shown on the Chula Vista General Plan and in the Land Use Summary as approximately 1946 dwelling units.

E. Density Transfer:

In order to promote density flexibility and residential diversity, the transfer of dwelling units from one residential category to another within the General Development Plan may be approved as part of this SPA approval process or the Tentative Map approved process. Transfers of density shall be based on evidence that the proposed transfer would substantially improve spatial or functional relationships or would materially increase the quality of the land use, circulation or conservation pattern thereof. An increase in the number of dwellings must always be accompanied by a corresponding decrease in dwellings within a Planning Area in another area. Should such a transfer be approved, applicable statistics and exhibits shall be revised in an administrative manner by the Planning Director without necessity of a Zone Change.

1.2 Private Agreements

The provisions of this Ordinance are not intended to abrogate any easements, covenants, or other existing agreements which are more restrictive than the provisions of this Ordinance.

1.3 Repeal of Conflicting Ordinances

Whenever the provisions of this Ordinance impose more or less restrictive regulations upon construction or use of buildings or structures, or the use of lands or premises, than are imposed or required by other ordinances previously adopted, the provisions of this Ordinance or rules or regulations promulgated hereunder shall govern.

1.4 General Notes

A. Purpose and Intent:

This section is included to provide definitions, methods of statistical computation, provision for services, relationship of this document to existing codes, and other miscellaneous notes required for clarification.

B. General Notes:

1. Any land use regulations not specifically covered by this plan and supplemental text, or included in subsequent approvals provided for in Section 1.2 herein, shall be subject to the regulations of Title 19, Zoning in the City of Chula Vista Municipal Code.

2. Said several Land Use Districts and boundaries of said Districts and each of them hereby are established and adopted as shown, delineated any designated on the **Sunbow** Site Utilization Plan of the City of Chula Vista, San Diego County, which map, together with all notations, references, data, district boundaries, and other information thereon, is made a part hereof and is adopted concurrently herewith (see Exhibit 1 in the Site Utilization Section).

3. The original of the **Sunbow** Site Utilization Plan shall be kept on file with the City Clerk and shall constitute the original record. A copy of said map shall be also filed with the Planning Department.

4. All construction within the boundaries of the **Sunbow Planned Community** shall comply with all provisions of the construction and building codes applicable in the City of Chula Vista.

5. Terms used in this ordinance shall have the same meaning as defined in the City of Chula Vista Municipal Code unless otherwise defined herein.

6. The terms "**Sunbow,**" "**the Planned Community of Sunbow,**" "this Planned Community," and "this P-C" as used herein are interchangeable and refer to the P-C Zoning on the land legally described in the Appendices.

7. Unless otherwise noted, references to section numbers and paragraphs are references to sections and paragraphs herein.

8. The **Sunbow Planned Community** District Regulations include this text together with all references to the Municipal Code.

9. Following are the definitions for abbreviations used within these Planned Community District and Section Planning Area Regulations:

Ac.	Acre (s)
Avg.	Average
CC&R'S	Covenants, Conditions & Restrictions
CUP	Conditional Use Permit
CVMC	Chula Vista Municipal Code
D.U.	Dwelling Unit(s)
DU/AC	Dwelling Units per acre
FAR	Floor Area Ratio
GDP	General Development Plan
Max.	Maximum
Min.	Minimum
No.	Number
P-C	Planning Community Zone
PA	Planning Area
Res.	Residential
SPA	Sectional Planning Area
RS	Residential Single Family
RP	Residential Planned Community
RM	Residential Multi-Family
RC	Residential Condominium
VC	Village Center
IP	Industrial Park
OS	Open Space-Community Recreation
OS	Open Space and Roads

10. Circulation routes indicated on the General Development Plan/Land Use Plan show the general location of anticipated highways and collector streets. The addition, deletion, or other modification of circulation routes approved by the Planning Commission as a result of a Circulation Element Amendment or the review process provided in Section 1.6 may occur without a revision to this P-C. The total dwelling units permitted cannot be increased as a result of a circulation route change without this P-C being amended.

11. Changes in the numbering of sections in the Municipal Code shall not require an amendment to this P-C.

12. Public services and utilities will be provided by the following, unless otherwise approved during the adoption this Sectional Planning Area Plan.

    a. Water - Otay Water District

    b. Sewer - Otay Water District and/or City of Chula vista

    c. Flood control - City of Chula Vista

    d. Electrical - San Diego Gas & Electric Company

    e. Natural Gas - San Diego Gas & Electric Company

    f. School Facilities - Chula Vista City School District and Sweetwater Union High School District

    g. Public Parks - City of Chula Vista

    h. Fire Protection - City of Chula Vista City Fire Department

    i. Police Protection - City of Chula Vista Police Department

    j. Telephone Service - Pacific Telephone Company

13. The provisions of modifying districts, Chapter 19.56 of the Municipal Code, applicable to this P-C are hereby incorporated into this P-C by specific reference. Application of modifying district provisions not so referenced shall require an amendment to this P-C.

14. Whenever the regulations contained herein conflict with the regulations of Chapter 19.48, Planned Community Zone of the Municipal Code, the regulations contained herein shall apply.

15. The terms "Sectional Planning Area Plan" and "SPA Plan" as used herein are interchangeable and refer to this Sectional Planning Area Plan.

16. Grading shall be permitted within this P-C upon preparation of a grading plan and the securing of a grading permit. Any off-site grading shall be subject to the same approval process.

17. Net Residential Area/Density is the area devoted to residential use including: local residential streets, private open spaces, and residential lots; and, excluding arterial highways, major easements, and public parks and facilities. Net residential densities may be used to describe plans required in Section

1.6, herein. The net residential area as referred to in this P-C is not to be confused with the area of residential lots. It is essentially the residential area indicated on the land use diagram as residential use.

18. References to regulations in the Municipal Code are references to the provisions in effect at the time of adoption of this P-C.

1.5 Enforcement

A. Enforcement by City Officials:

All officials charged with the issuance of licenses, or permits, shall enforce the provisions of this Ordinance. Any permit, certificate, or license issued in conflict with provisions of this Ordinance shall be void.

B. Actions Deemed a Nuisance:

Any building or structure erected hereafter, or any use of property contrary to the provisions of a duly approved Design Review, Site Plan, Variance, Conditional Use Permit, Zoning Permit, or Administrative Review, and/or this Ordinance, shall be declared to be unlawful and a public nuisance, and be subject to abatement in accordance with local Ordinance.

C. Remedies:

All remedies concerning this Ordinance shall be cumulative and not exclusive. The conviction and punishment of any person hereunder shall not relieve such persons from the responsibility of correcting prohibited conditions or removing prohibited buildings, structures, signs, or improvements, and shall not prevent the enforced corrections or removal thereof.

D. Penalties:

Any person, partnership, organization, firm or corporation, whether as principal, agent, employee or otherwise, violating any provisions of this Ordinance or violating or failing to comply with any order or regulation made hereunder, shall be guilty of an infraction and, upon conviction thereof, shall be punishable as provided by local ordinance.

1.6 Definitions

For the purposes of this Ordinance, certain words, phrases, and terms used herein shall have the meaning assigned to them by Title 19 of the City of Chula Vista Municipal Code (CVMC).

When not inconsistent with the context, words used in the present tense include the future; words in the singular number include the plural; and those in the plural number include the singular. The word "shall" is mandatory; the word "may" is permissive. The word Ordinance refers to this Sectional Planning Area Plan.

Any aspect of land use regulation within **Sunbow** SPA not covered by these district regulations or subsequent plan approvals, shall be regulated by the applicable section of Chula Vista Municipal Code (CVMC).

2.3 Property Development Standards

A. General Standards:

The following Property Development Standards shall apply to all land and buildings, other than accessory buildings, permitted in their respective residential land use district. The use of the symbol "SP" indicates that the standard is established by the approval of a Site Plan. Dimensions and standards are minimums. Minor variations may be permitted subject to site plan or tract map approval providing that the depths are typical minimums but may vary slightly with irregular shaped lots and site specific conditions. The parking standards for a planned Senior Citizen or "affordable" residential development may be reduced from those specified herein for the district in which it is located at the discretion of the City Council through the C.U.P. procedure.

RESIDENTIAL PROPERTY DEVELOPMENT STANDARDS

		RS	RP	RM	RC	VC
1.	Lot area (in net 000's S.F.) Minimum	5.0	3.5	SP	SP	SP
	Minimum average	6.0	4.0	--	--	--
2.	Lot width (in feet) minimum	50	40	SP	SP	SP
	Minimum average	50	45	--	--	--
3.	Lot depth (in feet) minimum	90	70	SP	SP	SP
4.	Lot Coverage (percentage)	45/50*	.50	SP	SP	SP
5.	Floor Area Ratio	.50*****	.55	SP	SP	SP
6.	Front yard setback (from Public Street R.O.W.):					
	- To direct entry garage	15	15	SP	SP	SP
	- To side entry garage	10	10	SP	SP	SP

			RS	RP	RM	RC	VC
	-To main residence		15	10	SP	SP	SP
7.	Side yard setback:						
	a.	to adjacent residential lot (min. total/one side)	10/5	10/5	SP	SP	SP
	b.	distance between detached residential units	10	10	SP	SP	SP
	c.	to adjacent street (corner lot)	10	10	SP	SP	SP
8.	Rear yard setback		15	15***	SP	SP	SP
9.	Building height, maximum****		28	28	SP	SP	SP
	Accessory bldg., maximum		15	15	SP	SP	SP
10.	Parking spaces per unit		2 (gar.) + 1 guest on street	2 (gar.) + 1 guest on street	1.5 sp/ 1 bdrm unit, 2 sp/2 bdrm unit, 2.5 sp/3 bdrm unit +	1.5 sp/ 1 bdrm unit, 2 sp/2 bdrm unit, 2.5 sp/3 bdrm unit +	

* Lots with a gross area of less than 8,000 square feet shall have a lot coverage area of 50%, lots with a gross area greater than 8,000 square feet shall have a lot coverage area of 45%.

** Refer to Chula Vista Municipal Code 19.24.120.

*** May be modified with Site Plan approval.

**** May be increased to 35 feet with approval by the Planning Director.

***** May be increased to 55%, excepting those lots adjacent to existing R-1 zoned lots which have been developed with single family homes.

2.0 RESIDENTIAL DISTRICTS

2.1 Purpose

In addition to the objectives outlined in Chapter 2.0, the Residential Districts are included in the Planned Community District Regulations to achieve the following purposes:

A. To reserve appropriately located areas for family living at a broad range of dwelling unit densities consistent with the **Sunbow** General Development Plan and with sound standards of public health, safety and welfare;

B. To ensure adequate light, air, privacy, and open space for each dwelling;

C. To minimize traffic congestion and to avoid the overloading of public services and utilities by phasing the construction of buildings in relation to the land area around them and infrastructure available;

D. To protect residential properties from noise, illumination, unsightliness, odors, smoke and other objectionable influences; and

E. To facilitate the provision of utility services and other public facilities commensurate with anticipated population, dwelling unit densities, and service requirements.

2.2 Permitted and Conditional Uses

The following uses shall be permitted uses where the symbol "P" appears and shall be permitted subject to a Conditional Use Permit where the symbol "C" appears. Uses where the symbol "A" appears shall be permitted subject to an Administrative Review. Where the symbol "N" appears said use is not Permitted.

PERMITTED USE MATRIX - RESIDENTIAL DISTRICTS

LAND USE		DISTRICT				
		RS	RP	RM	RC	VC
A.	Residential Use:					
	1. Single-family dwelling	P	P	P	P	N
	2. Duplex dwellings	A	P	P	P	P

		RS	RP	RM	RC	VC
3.	Mobile homes on individual lots which are certified under the National Mobilehome Construction and Safety Standards Act of 1974	P	P	P	P	N
4.	Group residential, including but not limited to, boarding or rooming homes, dormitories, retirement homes	N	N	A	A	A
5.	Multiple dwellings	N	P	P	P	P
6.	Townhouse dwellings	N	P	P	P	P
B.	Agricultural Uses:					
1.	All types of horticulture	P	P	P	P	N
2.	Agriculture crops	N	N	A	A	N
3.	Keeping of three (3) dogs and/or three (3) cats (over the age of four months)	P	P	P	P	P
C.	Public and Semi-Public Uses:					
1.	Day nurseries, day care schools and nursery schools (over 6 children)*	C	C	C	C	C
2.	Convalescent homes	N	N	C	C	C

		RS	RP	RM	RC	VC
3.	Churches, convents, monasteries and other religious places of worship (subject to requirements of Section 19.58.110 CVMC)	C	C	C	C	C
4.	Essential public services, including but not limited to: schools, libraries, museums, parks, public works facilities and other civic uses	C	C	C	C	C
5.	Public safety facilities such as police or fire stations	P	P	P	P	P
6.	Public utility and public service sub-station, reservoirs, pumping plants, and similar installations	C	C	C	C	C
7.	Recreational facilities, including but not limited to, country clubs, tennis and swim clubs, golf courses, racquetball and are 2 acres or less in size, shall be subject to Administrative Review only.)	C	C	A	A	A
8.	Recreational courts, including but not limited to, tennis, basketball and similar uses	A	C	A	A	A

		RS	RP	RM	RC	VC
9.	Uses permitted in the open space district, here-in	P	P	P	P	P
*	Subject to City Ordinance Standards					
D.	Home Occupations:					
1.	Home occupations subject to the provisions of Section 19.14.490 of the CVMC.	A	A	A	A	A
E.	Accessory Uses and Buildings:					
1.	Customary incidental home occupations	A	A	A	A	A
2.	Other accessory uses and accessory buildings customarily appurtenant to a permitted use, subject to the provisions of Section 19.58.020 of the CVMC.	A	A	A	A	A
3.	Temporary tract offices and tract signs	A	A	A	A	A

B. Site Plan Review for RP District:

Notwithstanding the property development standards listed above, development within the RP District may be approved with reduced standards through approval of a Site Plan.

C. Group Parking Standards for RM and RC Land Use District:

The parking requirements include 0.3 spaces for guest parking. If more than one space per dwelling unit is assigned to the dwelling, then the required guest parking spaces shall be marked and clearly identified as guest parking. The guest parking spaces shall not be permitted to be assigned to individual dwelling units.

D. Candidate Church Site:

A minimum of 5 acres of land shall be set aside and held in reservation for religious institutions whose principal use shall be places of worship. The reservation shall carry with the land for a period of not-to-exceed five (5) years from the approval date of this Sectional Planning Area. If within such time said acreage is not secured on either site, these acres shall revert to the underlying adopted Zoning districts, and development shall be permitted thereon according to the provisions of this text.

2.5 acres within Planning Area 6 has been identified as one of the sites. Another potential site is south of Orange Avenue, in Planning Area 23, where the "Church Campus" concept may be approved. If situated in this Industrial Park location, additional acreage shall be added to the total, to be not less than 2.5 acres.

E. Affordable Housing and Age Restricted (Senior) Housing:

Sunbow Planned Community shall provide for up to 10% of the dwelling unit total of the Planned Community in Affordable Housing. Said housing shall be provided on a for-rent or for-sale basis at the builders discretion and according to City adotped guidelines. Said housing may be provided in any of the following Planning Areas: 6, 7, 10, 10A or 11.

The full provisions for density bonuses permitted by State and City policies and regulations shall be applicable to the P-C.

F. Parking Standards for Affordable and Age Restricted Housing:

Parking standards may be reduced from those specified for the RM District, for projects which are restricted to Affordable and Senior Citizens (age 62 and above)

above) housing. Such a reduction shall be at the discretion of the City Council through the CUP procedure (CVMC 19.14.080).

G. Special Requirements:

Model homes and their garages and private recreation facilities may be used as offices for the first sale of homes within a recorded tract and subsequent similar tracts utilizing the same architectural designs, subject to the regulations of the City of Chula Vista governing said uses and activities. A Conditional Use Permit shall be required for model home sites which may include time limits.

H. Floor Area Ratio (FAR) and Additions:

Floor area ratios shall be calculated according to Section 19.04.097 (CVMC). Floor area shall exclude the area of open lattice roofed (50% or more open) patios up to 300 square feet. Room additions may be permitted only when consistent with all property development standards, including building height and total floor area (FAR).

I. "Minimum Average" Standards:

A "minimum average" standard is provided for lot area and lot width criteria for single family detached products in order to provide flexibility in lot design. This standard is intended to allow for a reduced absolute standard to accommodate special circumstances while precluding a majority of lots at or near the minimum. The average shall be calculated using all lots within the designated Planning Area of the Site Utilization Plan (P.A. 6, P.A. 7, etc.). Lot width shall be measured 20 feet back from the street right-of-way.

J. Recreational Vehicles:

The parking or storage of recreational vehicles on streets or in areas visible from the street for periods greater than 72 hours in RS, districts shall be prohibited. RM district see Section 2.4 G.

K. Schools:

1. Rancho del Sur has entered into an Agreement dated October 18, 1988, with the Chula Vista City School District to provide, among other things, for an elementary school site if required by the Chula Vista City School District. The Agreement also provides for the possibility that the School District will not require a site within Sunbow or will determine within ten years after the purchase of the school site that it does not need the school site.

2. If the School District should reject the school site indicated on the General Development Plan then that site may be used for residential uses of a type and density equivalent to the average residential density of the adjacent land.

3. If the School District should select an alternate site within Phase II, then the school site originally indicated on the General Development Plan may be developed with residential uses of a type and density equivalent to the average residential density of the adjacent land within the **Sunbow** project.

4. Any dwelling permitted by this Paragraph 2 or 3, shall not be subject to the maximum number of dwellings specified in Site Utilization Section, but shall be otherwise subject to these District Regulations.

5. If the school district should reject the school site indicated on the General Development Plan, Developer, at its discretion, may transfer up to 50 units from an area designated as in the residential category as medium density to the candidate school site and shall be able to develop such candidate school site according to the residential category as low medium without any type of amendment to the SPA Plan and without any amendment to the General Development Plan.

2.4 Performance Standards

In all Residential Districts, the following performance standards shall be met:

A. Equipment:

Air conditioners, antennas, ham radio antennas, solar panels, heating, cooling, ventilating equipment and all other mechanical, lighting, or electrical devices shall be so operated and located so that they do not disturb the peace, quiet and comfort of neighboring residents and shall be screened, shielded and/or sound buffered from surrounding properties and streets. All equipment shall be installed and operated in accordance with all other applicable Ordinances. Heights of said equipment shall not exceed the required height of the zone in which they are located.

Private, individual satellite dish antennas are prohibited. Community or association operated satellite dish antennas may be allowed subject to a Conditional Use Permit.

B. Landscaping:

Required front and exterior side yards shall be landscaped and shall consist predominantly of trees, plant materials, ground cover and decorative rocks, except for necessary walks, drives and fences. All required landscaping shall be permanently maintained in a healthy and thriving condition, free from weeds, trash and debris. Landscaping requirements may be met by either installation by the builder or developer, or for single family development, by requiring through CC&R's that individual homeowners install their front yard landscaping within one year of occupancy.

C. Utilities:

All utility connections shall be designed to coordinate with the architectural elements of the site so as not to be exposed except where required by utility provider. Pad-mounted transformers and/or meter box locations shall be included in the site plan with any appropriate screening treatment as approved by each utility.

D. Exterior Noise:

The acceptable outdoor noise exposure level, measured at the property line, for each residential district is given in the table as follows. (See amended Chapter 19.66 CVMC for definitions and additional details.)

Exterior Noise Limits*

Receiving Land Use Districts	7 a.m. - 10 p.m.	10 p.m. - 7 a.m.
RS, RP	55 dbA	45 dbA
RM, RC	60 dbA	50 dbA

* Environmental Noise - Leq in any hour
* Nuisance Noise - not exceeded at any time

E. Interior Noise:

The maximum permissible dwelling unit interior noise levels are given in the table below.

Interior Noise Limits

Time Interval	Any Time	1 Min. in 1 hr.	5 Min. in 1 hr.
7 a.m.-10 p.m.	55 dbA	50 dbA	45 dbA
10 p.m.-7 a.m.	45 dbA	40 dbA	35 dbA

F. Energy Conservation:

Buildings shall be located on the site to provide adjacent buildings adequate sunlight for solar access when practical. Buildings should be designed to minimize energy consumption requirements, including, but not necessarily limited to, the following conservation considerations:

- Cogeneration;
- South facing windows;
- Eave coverage for windows;
- Double glazed windows;
- Earth berming against exterior walls;

- Greenhouses; and
- Deciduous shade trees.

G. Special Standards: RM and RC Districts

In the RM and RC Districts, including the conversion of apartments to condominiums where permitted, the following performance standards shall be met:

1. Masonry walls or fences six (6) feet in height, from the highest finished grade, shall be required where needed for noise attenuation and/or privacy.

2. Where a lot fronts on more than one street it shall be considered to have multiple frontages and shall be required to meet special side yard setbacks.

3. When an RM or RC lot is adjacent to any single family zone, a minimum of fifteen (15) feet of landscaping shall be provided on the RM and RC lot between such uses.

4. Conveniently located common laundry facilities shall be provided for units which do not have individual hook-ups.

5. Conveniently located and well screened trash enclosures shall be provided for all dwelling units.

6. Recreation vehicle (including campers, boats and trailers) parking areas shall be provided, fully screened from view or the development shall prohibit all parking of recreation vehicles.

2.5 Accessory Structures

Accessory building and structures, attached or detached, used either wholly or in part for living purposes, shall meet all of the requirements for location of the main structure as constructed or required by the District whichever is less restrictive; except as herein provided.

A. Enclosed accessory buildings or structures that are attached to the main building shall not be allowed to encroach into the required rear yard setback. Open structures may be allowed to encroach into the rear yard setback subject to approval by the Director of Planning.

B. A detached accessory structure shall meet the setback requirements of the main building for the front and street side yard areas.

C. A detached accessory structure may be located within an interior side yard or rear yard; provided, that such structure is located no closer than five (5) feet to an interior side or rear lot line and is at least six (6) feet from the main structure, and does not exceed one story in height.

D. Porches, steps, architectural features, such as eaves, awnings, and chimneys, and balconies, stairways, wing walls or bay windows may project not more than four (4) feet into any required front or rear yard area, and not into any required side yard more than one-half of said required side yard.

2.6 Walls and Fences

In any required front yard or side yard adjacent to a street, a wall, fence, or hedge shall not exceed forty-two (42) inches in height, except as provided herein.

A. A wall, fence, or hedge* not more than six (6) feet in height may be maintained along the interior side or rear lot lines, provided, that such wall, fence, or hedge does not extend into a required front yard or side yard adjacent to a street except for noise attenuation as required by the City and as herein provided.

B. A wall, fence or hedge adjacent to a driveway or street providing vehicular access to an abutting lot or street shall not exceed forty-two (42) inches in height within the front or sideyard setback area of the lot. Corner cut-offs may be required to maintain a reduced height in special circumstances for safety and visibility.

C. Fiberglass sheeting, bamboo sheeting or other similar temporary material shall not be permitted as a fencing material on street frontages.

* Unless restricted by wall and fencing plan/approved by the City.

2.7 Signs

No sign or outdoor advertising structure shall be permitted in any residential district except as provided in Section 7.0.

3.0 VILLAGE CENTER DISTRICT

3.1 Purpose

This district is intended as a mixed use area for commercial, residential, administrative and professional offices that can meet high performance and development standards.

The Village Center District is included to provide for an upscale Activity Center which emphasizes commercial uses and medical/dental professional offices. Activities are intended to be compatible and complementary to surrounding uses and consistent with the objectives of the approved General Plan Community Activity Centers. In addition, the Village Center District is structured to advance the following objectives:

A. To promote community diversity and interaction through the establishment of a Village Center which includes commercial, office , residential and civic uses.

B. To provide a setting of a mixture of land uses side by side, that are economically, socially and physically compatible.

C. To provide a community area which is generally suitable for higher intensity development adjacent to arterial highways, central to the planned community and within the area designated by the General Development Plan as a Community Activity Center.

D. To minimize traffic congestion by providing uses and services within closer proximity to the local residential population.

3.2 Permitted and Conditional Uses

A. Permitted Uses:

1. Commercial Uses

a. Antique Shop
Art Gallery
Auto accessory store (no installation)

Bakeries, retail
Barber Shop
Beauty Salon
Book Store
Boutique
Business and Professional Office

Camera/Video sales and rental
Catalog sales
Clothes cleaning (agency)

Clothing Store
Coffee Shop
Confectionery
Community Meeting Center
Community Park
Community Swim Facility

Dance/Art studio
Decorator and Home accessory shops
Delicatessen
Dressmaker or Millinery Shop
Drug Store

Financial Institution
Florist, Retail
Food/Grocery Store
Furniture Store

Gift and Novelty Shop

Hardware Store
Health Club
Health Education Club
Hobby Store
Home Appliance Store
Home Electronics Store
Hotel/Motel

Ice Cream Parlor

Jewelry Store

Leather Goods, Retail
Library
Limited Print Shop
Locksmith

Medical/Dental office or Clinic
Music Store

Paint Store
Parking lots and structures
Pet Shop/Grooming
Pharmacy
Photographic Studio
Post Office/Box Rentals

Residential
Restaurants (not live entertainment)
Realty Office

Senior Citizen housing
Shoe Store/Repair
Sporting Goods Store
Stationers and Card Shops
Supermarket

Television Sales/Repair
Tennis Courts
Toy Shop
Travel Agency

Word-processing Center

b. Commercial parking lots for passenger vehicles, subject to the requirements of Sections 19.62.010 through 19.62.130 of the CVMC;

c. Liquor store (package, off-sale only);

d. Coin-operated laundry, with maximum capacity washing units of twenty pounds and comparable drying equipment, and clothes cleaning agency;

e. Any other retail business or service establishment supplying commodities or performing services for residents of the neighborhood which is determined by the planning commission to be of the same general character as the above-mentioned retail business or service uses, and open during normal business hours of the above uses;

f. The Planning Commission may permit unlisted uses which appear to meet the spirit and intent of this section;

2. Administrative and Professional Office

a. Medical and dental offices and clinics, medical, optical and dental laboratories, not including the manufacture of pharmaceutical or other products for general sale or distribution;

b. Administrative and executive offices;

c. Professional offices, for lawyers, engineers, architects;

d. Financial offices, including banks, and real estate and other general business offices;

e. Any other office use which is determined by the commission to be of the same general character as the above permitted uses;

f. Agricultural uses as provided in Section 19.16.030 of the CVMC;

g. Prescription pharmacies, see Definitions, Section 19.04.188 of the CVMC;

3. Civic, Public and Quasi-Public

a. Community Park

b. Library

c. Post office/box rentals and post office terminals

d. Public safety facility such as fire station and/or police substation

4. Residential use

a. One story residential flats over commercial uses may be permitted subject to Site Plan Review

B. Accessory Uses:

1. Incidental services and incidental uses, such as restaurants, prescription pharmacies, and retail sales to serve occupants and patrons of the permitted uses, when conducted and entered from within the building; provided there is no display or advertising visible from the public street;

2. Accessory uses and buildings customarily appurtenant to a permitted use or conditional use. (See Section 19.58.020.CVMC);

3. A satellite dish antenna may be permitted when it complies with the provisions of standards 1 through 9 in Section 19.22.030F of the CVMC.

4. Any other uses, including accessory uses, which the Planning Director finds to be similar in character to the uses enumerated above.

C. Uses Requiring a Conditional Use Permit:

1. Public and quasi-public uses appropriate to the district, such professional, business and technical schools of a public service type, not including corporation yards and warehouses;

2. Day nurseries, schools and studios for arts and crafts, photography, music,

dance and art galleries, in accordance with the provisions of Section 19.58.220 of the CVMC;

3. Commercial parking lots and parking garages, in accordance with the provisions of Sections 19.62.010 through 19.62.130 of the CVMC;

4. Radio and television broadcasting, excluding towers;

5. Restaurants with live entertainment, dancing, drive-through or sale of alcoholic beverages for consumption on the premises or drive-in car service

6. Electric substations and gas regulators, subject to the provisions of Section 19.58.140 of the CVMC;

7. Plant nurseries and the sale of related hardware items; provided, they are clearly incidental and secondary to the plant nursery;

8. Roof-mounted satellite dishes subject to the following standards or conditions:

   a. These dishes shall be screened, using appropriate matching architectural materials or parapet walls

   b. Dishes shall be of a neutral color, match the building or as otherwise approved by the City

   c. A building permit shall be required

   d. No advertising material shall be allowed on the satellite dish antenna. Satellite dish antenna continuing advertising material should be considered a sign.

9. Automobile service stations, in accordance with the provisions of Section 19.58.280 of the CVMC;

10. Sale of beer or other alcoholic beverages for consumption on the premises which may include the sale of food;

11. Religious Institutions, Churches, and places of Worship;

12. Veterinary Clinic

13. Any other uses approved by the Planning Commission.

3.3 Property Development Standards

The following property development standards apply to all land and buildings other than accessory buildings authorized in this district. Any legal lot may be used as a building site,

except no building permit shall be issued for lot size less than 10,000 square feet.

A. General Requirements:

The following requirements are minimums for the Village Center use unless otherwise stated.

1.	Lot area, net square feet*	10,000
2.	Lot width (in feet)	100'
3.	Lot depth (in feet)	100'
4.	Front yard setback (in feet)	20'
5.	Side yard setback each side (in feet)	10'**
6.	Public street setback (in feet)	20'
7.	Rear yard setback (in feet)	10'**
8.	Building height, maximum***	45 feet or 3 stories, whichever is less
9.	Lot coverage (percent, net, maximum)	50%

* Map for condominium development does not need to meet lot area requirement. Minimum lot area may be reduced to 10,000 sf for master planned building complexes subject to approval of a Precise Plan. Such Precise Plan shall be for a total site of no less than 60,000 square feet.

** May be reduced to zero (0) with Site Plan approval.

*** Projects with building heights which vary from these standards may be approved through the Conditional Use Permit and Site Plan approval processes.

B. Special Requirements:

1. Along all street frontages situated across from any residentially zoned property, a minimum three foot high landscaped earthen berm shall be constructed. Along all other lot lines adjacent to residential districts, a maximum eight foot high wall may be constructed if required following Planning Director review. Fences should blend in with the site's architecture.

2. Streetscapes shall be enhanced to provide an easy transition from the street to the building. Patios, circulation and parking spaces can be included in

setback areas to help buffer adjoining parcels from one another.

3. Reciprocal ingress and egress, circulation and parking arrangements shall be required where possible and feasible to facilitate vehicular movement between adjoining properties and to limit superfluous driveways.

4. Commercial business operations occurring between the hours at 11:00 p.m. and 6:00 a.m., not covered in any C.U.P. shall be subject to approval by the Zoning Administrator.

3.4 General Performance Standards

The following performance standards are general guidelines intended to describe the overall minimum design standards for the Village Center. The design guidelines which occur on page 6 in the Site Utilization Section provide specific recommendations.

A. Landscaping:

The required front and exterior side (street side) yard setbacks shall be landscaped. Parking, driveways, and other decorative hardscape areas will be permitted within the required rear yard, and interior side yard. Landscaping shall consist predominantly of plant materials with special emphasis given to drought tolerant varieties and shall be irrigated by automatic sprinklers designed with water conserving mechanisms. All planting and irrigation shall be in accordance with the City's Landscape Manual and the Industrial Park Design Guidelines. All landscaping shall be permanently maintained in a clean, healthy and thriving condition, free of weeds, trash and debris.

B. Equipment:

All ground mounted mechanical equipment, including heating and air conditioning units and trash receptacle areas, shall be completely screened from surrounding properties.

C. Utilities:

All utility connections shall be designed to coordinate with the architectural elements of the site so as not to be exposed except where required by utility provider.

D. Lighting:

All light sources shall be shielded in such a manner that the light is directed away from streets and adjoining properties. Illuminators shall be integrated within the architecture of the building.

E. Electrical Disturbance, Heat and Cold, Glare:

No use except a temporary construction operation shall be permitted which creates changes in temperature or direct glare, detectable by the human senses without the aid of instruments, beyond the boundaries of the site. No use shall be permitted which creates electrical disturbances that affect the operation of any equipment beyond the boundaries of the lot.

F. Fire and Explosive Hazard:

All storage of and activities involving inflammable and explosive materials shall be provided with adequate safety and fire fighting devices to the specifications of the Uniform Fire Code. All incineration is prohibited. Adequate smoke detectors shall be installed in all new construction.

G. Noise:

The acceptable outdoor noise exposure level, measured at the property line, for the Employment Park districts are given in the table below. (See amended Chapter 19.66 CVMC for definitions and additional details.)

Exterior Noise Limits*

7 a.m. - 10 p.m.	10 p.m. - 7 a.m.
70 dbA	70 dbA

* Environmental Noise - Leq in any hour
* Nuisance Noise - not exceeded at any time

H. Odor:

No use shall be permitted which creates odor in such quantities as to be readily detectable beyond the boundaries of the site.

I. Vibration:

No use except a temporary construction operation shall be permitted which generates inherent and recurrent ground vibration perceptible, without instruments, at the boundary of the lot on which the use is located.

J. Condominium Conversion:

In Village Center district, the conversion of a project to condominium ownership shall meet all the requirements of the zone to the maximum extent possible. Specific City Council waiver shall be required where the zone requirements cannot be met.

K. Air Pollution:

There shall be no emission on any site, for more than one minute in any hour, of air contaminants which, at the emission point or within a reasonable distance of the emission point, which is as dark or darker in shade as that designed as No. 1 on the Ringelman Chart as published in the United States Bureau of Mines Information Circular 7718.

L. Outdoor Storage:

Outdoor storage areas shall be entirely enclosed by visual barriers to adequately screen views from the external boundaries of the property.

M. Energy Conservation:

Buildings shall be located on the site to provide adjacent buildings adequate sunlight for solar access when practical. Buildings should be designed to minimize energy consumption.

N. Toxic Materials:

No land or building shall be used or occupied in any manner which creates an unhealthful, dangerous, noxious or otherwise objectionable condition due to the use, storage or proximity to toxic materials.

O. Liquid or Solid Waste:

The discharge or deposit of liquid or solid wastes shall be subject to the provisions of Section 19.66.150 CVMC.

P. Aesthetic Standards:

1. All uses at the perimeter of an Commercial Village Center district shall be landscaped to provide a buffered transition to adjacent uses.

2. Visual appearance shall be a principal consideration in the approval of Conditional Use Permits, especially any uses involving outdoor storage or activity. Consideration should be given to all prospective vantage points, including residential areas at higher elevations.

3.5 Signs

No sign or outdoor advertising structure shall be permitted in the Village Center district except as provided in Section 7.3.

4.0 INDUSTRIAL PARK DISTRICT

4.1 Purpose

This district is intended as an area for light industrial uses, research and specialized manufacturing organizations, and administrative and professional offices that can meet high performance and development standards.

The objectives of the Industrial Park District are to provide for a quality working environment and to achieve a harmonious mixture of uses which might otherwise be considered incompatible when located in close proximity. Activities are intended to promote employment opportunities in manufacturing, service, research and development, engineering, wholesale and limited retail trade. In addition, the Industrial Park District is structured to advance the following objectives:

A. To reserve appropriately located areas for industrial and service uses and protect these areas from intrusion by dwellings and other inharmonious uses;

B. To protect residential uses from noise, odor, dust, smoke, light intrusion, truck traffic, and other objectionable influences and to prevent fire, explosion, radiation, and other hazards incidental to certain industrial activities;

C. To provide sufficient open space around industrial structures to protect them from hazard and to minimize the impact of industrial operations on nearby residential districts;

D. To minimize traffic congestion and to avoid the overloading of utilities by restricting the construction of buildings of excessive size in relation to the amount of land around them; and

E. To promote high standards of site planning, architecture and landscape design for light industrial and commercial developments within the City of Chula Vista.

4.2 Permitted and Conditional Uses

A. Permitted Uses:

1. Manufacturing

a. Manufacturing, compounding, assembly or treatment of articles or merchandise from the following previously prepared typical materials such as canvas, cellophane, cloth, cork, felt, fiber, fur, glass, leather, paper (no milling), precious or semi-precious stones or metals, plaster, plastics, shells, textiles, tobacco, wood, and yarns; novelty items (not including fireworks or other explosive type items)

b. Electrical and related parts; electrical appliances, motors, and devices; radio, television, phonograph and computers; electronic precision instruments; medical and dental instruments; timing and measuring instruments; audio machinery; visual machinery; cosmetics; drugs, perfumes, toiletries, and soap (not including refining or rendering of fat or oils)

c. Furniture upholstering

d. Laboratories; research, experimental, film, electronic testing, chemical and mechanical

e. Laboratories; dental, electrical, optical, mechanical, and medical

f. Research and Development consistent with the objectives noted above in 4.1 and consistent with uses identified in this subsection

2. Storage and Wholesale Trades

a. Mini-storage, public storage, and storage warehouses

b. Moving and storage firms

c. Wholesale goods and sales services

3. Services

a. Blueprinting and photocopying

b. Administrative and executive offices; and other general business offices where said offices do not occupy more than sixty percent (60%) of the gross floor area

c. Any other research, light manufacturing or office use which is determined by the commission to be of the same general character as the above permitted uses

d. Retail commercial when in support of a permitted or conditional use

e. Exterminating services

f. Clothes-cleaning pick-up agencies with incidental pressing

g. Any other retail business or service establishment supplying commodities or performing services for users of the Industrial Park which is determined by the Planning Commission to be of the same general character as the above-mentioned retail business or services

uses, and open during normal business hours of the above uses

h. Religious Institutions whose principal use is as a place of worship

4. Accessory Uses

a. Accessory structures and uses located on same lot as a permitted or conditional use

b. Incidental services for employees on a site occupied by a permitted or conditional use, including day care, recreational facilities, showers and locker rooms

c. Wholesale business storage or warehousing for products of the types permitted to be manufactured in the district

d. Accessory uses and buildings customarily appurtenant to a permitted use, such as incidental storage facilities

e. Any other uses, including accessory uses, which the planning director finds to be similar in character to the uses enumerated above.

B. Uses requiring a Conditional Use Permit

1. Manufacturing

a. Plastic and other synthetics manufacturing

b. Laboratories; chemical

c. Rubber and metal stamp manufacturing

d. Machine shop and sheet metal shop

2. Storage and Wholesale Trades

a. Building equipment sales, rentals

b. Public and private building material sales yards, service yards, storage yards, and equipment rental

3. Services

a. Animal hospital or veterinary clinic and/or office

b. Cleaning and dyeing plant

c. Coffee shops and full delicatessens

d. Furniture sales, new and used (no outdoor sales or display)

e. Gasoline dispensing and/or automobile service station

f. General commercial services

g. Newspaper publishing, printing, and distribution, general printing and lithography

h. Radio and television broadcasting, excluding towers

i. Roof-mounted satellite dishes subject to the following standards or conditions:

(1) These dishes shall be screened, and not visible from residential areas using appropriate matching architectural materials or parapet walls;

(2) Dishes shall be of a neutral color, match the building, or as otherwise approved by the City

(3) A building permit shall be required

(4) No advertising material shall be allowed on the satellite dish antenna. Satellite dish antenna. Satellite dish antenna containing advertising material shall be considered a sign

j. The retail of such bulky items as furniture, carpets and other similar items

k. Retail distribution centers and manufacture's outlets which require extensive floor areas for the storage and display of merchandise, and the high-volume, warehouse-type sale of goods and retail uses which are related to and supportive of existing, on-site retail distribution centers of manufacturer's outlets. Conditional use permit applications for the establishment of retail commercial uses, covered by the City Council subsequent to its receipt of recommendations thereon from the Planning Commission

l. Bakery

m. Eating and drinking establishments:

1) Refreshment stands, snack bars within a building as accessory to permitted use

n. Medical and dental offices and clinics, medical, optical and dental laboratories, not including the manufacture of pharmaceutical or other products for general sale or distribution

4. Public and Quasi-Public Uses

a. Day nurseries, day care schools and nursery schools

b. Education institutions, public or private including vocational schools

c. Post office and post office terminals

d. Public utility pumping stations, equipment building, and installation

e. Recreation, private, semi-private, or commercial

f. Public and quasi-public uses appropriate to the district, such as professional, business and technical schools of a public service type

g. School and studios for arts and crafts, photography, music, dance and art galleries, in accordance with the provisions of Section 19.58.220 of the CVMC.

h. Any other uses approved by the Planning Commission.

4.3 Property Development Standards

The following property development standards apply to all land and buildings other than accessory buildings authorized in this district. Any legal lot may be used as a building site, except no building permit shall be issued for any lot size less than 10,000 square feet.

A. General Requirements:

The following requirements are minimums for the Industrial Park use unless otherwise stated.

1.	Lot area, net square feet*	10,000
2.	Lot width (in feet)	100'
3.	Lot depth (in feet)	100'
4.	Front yard setback (in feet)	25'
5.	Side yard setback each side (in feet)	10'**

6.	Public street setback (in feet)	20'
7.	Rear yard setback (in feet)	10'**
8.	Building height, maximum***	45 feet or 3 stories, whichever is less
9.	Lot coverage (percent, net, maximum)	50%

* Map for condominium development does not need to meet lot area requirement. Minimum lot area may be reduced to 10,000 sf for master planned building complexes subject to approval of a Precise Plan. Such Precise Plan shall be for a total site of no less than 60,000 sf.

** May be reduced to zero (0) with Site Plan approval.

*** Projects with building heights which vary from these standards may be approved through the Conditional Use Permit and Site Plan approval processes.

B. Special Requirements:

1. Along all street frontages situated across from any residentially zoned property, a minimum three foot high landscaped earthen berm shall be constructed. Along all other lot lines adjacent to residential districts, a maximum eight foot high wall may be constructed if required following Planning Director review. Fences should blend in with the site's architecture.

2. Streetscapes shall be enhanced to provide an easy transition from the street to the building. Patios, circulation and parking spaces can be included in setback areas to help buffer adjoining parcels from one another.

3. Reciprocal ingress and egress, circulation and parking arrangements shall be required where possible and feasible to facilitate vehicular movement between adjoining properties and to limit superfluous driveways.

4.4 General Performance Standards

The following performance standards are general guidelines intended to describe the overall minimum design standards for the Industrial Park. The design guidelines which occur on page 22 of the Site Utilization Section provide specific recommendations.

A. Landscaping:

In all Industrial Park districts, the required front and exterior side (street side) yard setbacks shall be landscaped. Parking, driveways, and other decorative hardscape areas will be permitted within the required rear yard, and interior side yard.

Landscaping shall consist predominantly of plant materials and shall be irrigated by automatic sprinklers. All planting and irrigation shall be in accordance with the City's Landscape Manual and the Industrial Park Design Guidelines. All landscaping shall be permanently maintained in a clean, healthy and thriving condition, free of weeds, trash and debris.

B. Equipment:

All ground mounted mechanical equipment, including heating and air conditioning units and trash receptacle areas, shall be completely screened from surrounding properties.

C. Utilities:

All utility connections shall be designed to coordinate with the architectural elements of the site so as not to be exposed except where required by utility provider.

D. Lighting:

All light sources shall be shielded in such a manner that the light is directed away from streets and adjoining properties. Illuminators shall be integrated within the architecture of the building.

E. Electrical Disturbance, Heat and Cold, Glare:

No use except a temporary construction operation shall be permitted which creates changes in temperature or direct glare, detectable by the human senses without the aid of instruments, beyond the boundaries of the site. No use shall be permitted which creates electrical disturbances that affect the operation of any equipment beyond the boundaries of the lot.

F. Fire and Explosive Hazard:

All storage of and activities involving inflammable and explosive materials shall be provided with adequate safety and fire fighting devices to the specifications of the Uniform Fire Code. All incineration is prohibited. Adequate smoke detectors shall be installed in all new construction.

G. Noise:

The acceptable outdoor noise exposure level, measured at the property line, for the Employment Park districts are given in the table below. (See amended Chapter 19.66 CVMC for definitions and additional details.)

Exterior Noise Limits*

7 a.m. - 10 p.m.	10 p.m. - 7 a.m.
70 dbA	70 dbA

* Environmental Noise - Leq in any hour
* Nuisance Noise - not exceeded at any time

H. Odor:

No use shall be permitted which creates odor in such quantities as to be readily detectable beyond the boundaries of the site.

I. Radioactivity:

In all Industrial Park districts, the use of radioactive materials shall be limited to measuring, gauging and calibration devices, and medical x-ray diagnostic equipment.

J. Vibration:

No use except a temporary construction operation shall be permitted which generates inherent and recurrent ground vibration perceptible, without instruments, at the boundary of the lot on which the use is located.

K. Condominium Conversion:

In any Industrial Park district, the conversion of a project to condominium ownership shall meet all the requirements of the zone to the maximum extent possible. Specific City Council waiver shall be required where the zone requirements cannot be met.

L. Air Pollution:

There shall be no emission on any site, for more than one minute in any hour, of air contaminants which, at the emission point or within a reasonable distance of the emission point, which is as dark or darker in shade as that designed as No. 1 on the Ringelman Chart as published in the United States Bureau of Mines Information Circular 7718.

M. Outdoor Storage:

Outdoor storage areas shall be entirely enclosed by visual barriers to adequately screen views from the external boundaries of the property.

N. Energy Conservation:

Buildings shall be located on the site to provide adjacent buildings adequate sunlight for solar access when practical. Buildings should be designed to minimize energy consumption.

0. Toxic Materials:

No land or building shall be used or occupied in any manner which creates an unhealthful, dangerous, noxious or otherwise objectionable condition due to the use, storage or proximity to toxic materials.

P. Liquid or Solid Waste:

The discharge or deposit of liquid or solid wastes shall be subject to the provisions of Section 19.66.150 CVMC.

Q. Aesthetic Standards:

1. All uses along the perimeter of an Industrial Park district shall be landscaped to provide a buffered transition to adjacent uses as required by Director of Planning.

2. Visual appearance shall be a principal consideration in the approval of Conditional Use Permits, especially any uses involving outdoor storage or activity. Consideration should be given to all prospective vantage points, including residential areas at higher elevations.

4.5 Signs

No sign or outdoor advertising structure shall be permitted in any Industrial Park district except as provided in Section 7.3.

5.0 OPEN SPACE AND RECREATION DISTRICTS

5.1 Purpose

These districts are intended for open space, landscaping, recreation, and public uses. Only those additional uses which are complementary to, and can exist in harmony with, open space are permitted. There is no lot size limitation and it is intended that this district may be applied to a portion of a lot provided that the remainder of the lot meets the requirements for which it is zoned.

The Open Space and Recreation Districts are included in the Planned Community District Regulations to achieve the following purposes:

A. To preserve open space for the conservation of natural resources;

B. Maintain the natural character of the land;

C. Provide for public/quasi-public and recreational uses;

D. Conserve areas of historic and community significance for the enjoyment of future generations;

E. Provide for private use of land under limited development; and

F. Promote public health and safety.

5.2 Permitted and Conditional Uses

The following uses shall be permitted uses where the symbol "P" appears and shall be permitted subject to a Conditional Use Permit where the symbol "C" appears. Uses where the symbol "A" appears shall be subject to an Administrative Review.

A. Land Use

Arboreta - (Horticultural Garden)	P
Christmas tree sales	A
Commercial Recreation	A
Day Care Facilities*	A
Fruit and vegetable stands	A
Incidental Concessions	A
Parks	P
Places of Worship	C
Public and Quasi-public uses	P
Recreation Facilities	P
Tract signs and offices, temp.	A
Tree farming	A
Utilities (public and private)	A

* Subject to City Ordinance

5.3 Property Development Standards

The following regulations shall apply to the site of a Permitted or Conditional Use. The requirements are minimum unless otherwise stated.

A.	Density - Maximum Dwelling unit per legal lot	0
B.	Lot width, (in feet)	0
C.	Lot depth, (in feet)	0
D.	Front yard, setback (in feet)	20
E.	Rear yard, setback (in feet)	20
F.	Side yard setback (in feet), each side	20/10
G.	Building height	35 feet or two stories, whichever is less
H.	Height of poles, clock towers, or special features	Per Site Plan Approval

5.4 Recreational Courts

Construction of recreation courts including necessary fencing and lighting may be permitted subject to Administrative Review and a finding that adjacent properties will not be unduly affected.

Recreation courts shall meet the following minimum standards:

A. Fences:

A maximum 20-foot high fence (measured from the finished grade of the court) shall be allowed. Fences shall include a screening material which screens the court activity from off-site view and which improves the appearance of the fence.

B. Setbacks:

Setbacks for the court shall be:

Side yard: 10 feet
Rear yard: 10 feet

C. Lighting:

Maximum of eight (8) lights permitted, height not to exceed 22 feet. All lights and light fixtures shall be certified by a qualified lighting engineer to:

1. Be designed, constructed, mounted, and maintained such that, the light source is cut off when viewed from any point five (5) feet above the ground measured at the lot line.

2. Be designed, constructed, mounted, and maintained such that the maximum illumination intensity measured at the wall of any residential building on abutting property shall not exceed 1/2 foot candle above ambient levels.

3. Be used between 7:00 a.m. and 10:00 p.m.

D. Glare:

The surface area of any recreational court shall be designed, painted, colored, and/or textured to reduce the reflection from any light incident thereon.

E. Landscaping:

Landscaping shall be installed as required between the fence and the property line.

5.5 Signs

Signs approved as a component of the SPA Plan shall be permitted within open space and recreation districts included within the SPA. Other signs shall be permitted only as provided in Section 7.3 of these regulations.

6.0 SPECIAL USES AND CONDITIONS

6.1 Purpose

This chapter provides additional regulation for special uses and conditions which require special review standards beyond those of the basic land use districts. Temporary uses, home occupations, recreational courts, kennels, and arcades are addressed in this chapter. Where this chapter prescribes regulation which is more restrictive than that of the land use district in which one of these uses is allowed, the provisions of this section shall apply.

6.2 Temporary Uses

A. Purpose:

The provisions of this section shall be known as the Temporary Use Regulations and shall provide regulations for the uses hereinafter enumerated. Temporary uses are subject to approval by the Director of Planning, except as noted.

B. Temporary Uses Listed:

1. Circuses, rodeos, parades or similar outdoor entertainment or enterprises, subject to not more than (5) calendar days of operation in any calendar year. Requests exceeding these time limitations will require the submittal and approval of a conditional use permit.

2. Christmas tree sales lots. Halloween pumpkin sales, and other holiday sales subject to not more than forty (40) calendar days of site occupation and operation in any calendar year.

3. Subdivision sales offices, sales information centers, sale pavilions, and model home complexes located within the subdivision, subject to the following minimum requirements:

   a. Offices shall be no closer than one vacant lot to an existing dwelling unit not part of the subdivision, trailers may be used for no more than ninety (90) calendar days or until such time as the subdivision sales offices have been completed whichever is less;

   b. Trailers used as sales offices for lot sales without model homes may be used for a period greater than ninety days subject to site plan and architectural review approval, and the maximum use period listed below;

   c. An A.C. paved parking lot shall be provided with sufficient parking spaces to accommodate said use;

d. Faithful performance bonding in an amount appropriate to guarantee removal and/or conversion of the sales office and attendant facilities shall be required; and

e. Other conditions that the Director of Planning deems necessary to assure that the sales office will not constitute a nuisance or be objectionable to the residential uses in the neighborhood.

4. Outdoor art and craft shows and exhibits, subject to not more than three (3) calendar days of operation or exhibition in any sixty (60) calendar day period.

5. Contractors' offices and storage yards on the site of an active construction project.

6. Mobilehome residences for security purposes on the site of an active construction project.

7. Outdoor display and sales located within commercially zoned properties not to exceed more than five (5) calendar days in any sixty (60) calendar days and subject to appropriate conditions of the Planning Department.

8. Seasonal retail sales of agricultural products (fruit and vegetable stands) for periods of less than ninety days, if said products are raised on the premises.

9. Temporary use of properly-designed mobile trailer units for classrooms, offices, banks, etc., for periods not to exceed ninety days subject to Administrative Review. Requests for such uses of more than ninety days in duration shall require the approval of a Conditional Use Permit by the Planning Commission. Such units shall meet all necessary requirements of building, fire and health codes.

10. For any agricultural and animal husbandry activity or project (4-H, FFA, or similar) conducted for educational purposes or school credits, a permit may be granted in any district when the Planning Director determines that such use will not cause a public nuisance relative to sanitation and health conditions.

11. Charitable or school sponsored drop-off bins for recycling of cans, newspapers, or similar items, or for drop-off of clothes and small items. Bins shall be located in the parking lots of businesses or other public or semi-public property on a temporary basis when written permission is granted by the property owner or business owner. Said bins shall be kept in a neat and orderly manner. Collection of bottles, cans, and newspapers shall also be regulated by the "Bottle Ordinance".

12. Additional uses determined to be similar to the foregoing in the manner prescribed by Section 9.2 of these regulations.

C. Permits and Bonds:

All temporary uses shall be subject to the issuance of a Temporary Use Permit by the Planning Director and other necessary permits and licenses, including but not limited to building permits, sign permits, and solicitors or vending licenses. In the issuance of such a permit, the Planning Director shall indicate the permitted hours of operation and any other conditions, such as walls or fences and lighting, which are deemed necessary to reduce possible detrimental effects to surrounding developments and to protect the public health, safety and welfare. Prior to the issuance of a permit for a temporary use, except those listed under 3, 6, 7, 11, and 12 above, a cash deposit may be required to be deposited by the City. This cash deposit shall be used to defray the costs of cleanup of the property by the City in the event the permittee fails to do same.

D. Extension or Modification of Limits:

Upon written application, the Planning Director may extend the time within which temporary uses may be operated, or may modify the limitations under which such uses may be conducted if the Planning Director determines that such extension or modification is in accord with the purposes of the zoning regulations.

E. Condition of Site Following Temporary Usage:

Each site occupied by a temporary use shall be left free of debris, litter, or any other evidence of the temporary use upon completion or removal of the use, and shall thereafter be used only in accord with the provisions of the zoning regulations.

F. Fee:

The application shall be accompanied by a fee established by the Master Fee Schedule to cover the cost of processing the application prescribed in this section. This fee may be waived by the approving authority for charitable groups that do not need any public services.

6.3 Home Occupations

A. General Provisions:

Home occupations may be permitted only when in compliance with the conditions listed herein. A permit must be issued by the Planning Director prior to operation of such use. The fee shall be in accordance with the Master Fee Schedule.

1. There shall be no stock in trade or exterior storage of materials in the conduct of a home occupation.

2. A home occupation shall be conducted entirely within a dwelling; if in an attached or a detached garage, it shall not impede the use of said garage for vehicle storage.

3. Electrical or mechanical equipment which creates visible or audible interference in radio or television receivers, or causes fluctuations in line voltage outside the dwelling unit, shall be prohibited.

4. No one other than the residents of the dwelling unit may be engaged in the conduct of the home occupation.

5. There shall be no sale of goods on the premises.

6. The establishment and conduct of a home occupation shall not change the principal character or use of the dwelling unit involved.

7. There shall be no signs other than those permitted by this ordinance.

8. The required residential off-street parking shall be maintained.

9. A home occupation shall not create vehicular or pedestrian traffic in excess of that which is normal for the land use district in which it is located.

10. No vehicles or trailers (including pick-up trucks and vans) or construction or other equipment, except those normally incidental to residential use, shall be kept on the site.

6.4 Arcades

A. General Provisions:

In order to minimize adverse effects that arcades and electronic games may have on the neighborhood or area in which it is located, the following regulations are established. Arcades may be permitted only in the Industrial Park Manufacturing/Service land use district subject to a Conditional Use Permit and to the conditions listed herein:

1. All such facilities shall provide parking with ingress and egress designed so as to minimize traffic congestion; shall be not less than twenty feet away from any adjacent residential zone; and shall show that adequate controls or measures will be taken to prevent offensive noise and vibration. Should the Municipal Code be amended to provide additional regulation of these uses, such amendments shall apply to arcade or similar uses within **Sunbow** SPA.

2. The operation of four or fewer machines shall be permitted, provided their operation is ancillary to the use of the building and said use does not materially alter the principal use of such a building. The operation of four

or fewer machines where they are the principal use may be approved by the Planning Director where, in his judgment, the location does not constitute a traffic or safety hazard to the public or abrogate the intent of the regulations contained in this section.

7.0 COMPREHENSIVE SIGN REGULATIONS

7.1 Purpose

The provisions of this Section shall be known as the Comprehensive Sign Regulations. It is the purpose of these provisions to establish a comprehensive system for the regulation of on-site and off-site signs.

The City of Chula Vista recognizes the need for signs as a means to identify businesses within the community. However, the City also recognizes that signing is an important design element of the physical environment. Regulations consistent with the goals and objectives of the community are necessary to ensure that the character and image the community is striving for, can be attained.

It is the purpose of this chapter to make the **Sunbow Planned Community** SPA attractive to residents, visitors, and commercial, industrial and professional businesses while maintaining economic stability through an attractive signing program. Specifically, the purposes of this chapter are to:

A. Protect the general public health, safety and welfare of the community; reduce possible traffic and safety hazards through good signing;

B. Direct persons to various activities and uses, in order to provide for maximum public convenience;

C. Provide a reasonable system of sign regulations, to ensure the development of a high quality visual environment;

D. Encourage signs which are well designed and pleasing in appearance and to provide incentive and latitude for variety, good design relationship to the business or use it identifies, and spacing between signs and buildings;

E. Encourage a desirable urban character which has a minimum of clutter;

F. Enhance the economic value of the community and each area, business and use thereof, through the regulation of such elements as size, number, location, design and illumination of signs; and

G. Encourage signs which are well located, and take into account the service and usage of adjacent areas.

7.2 Permit Requirements and Review Procedures

No person except a public officer or employee in performance of a public duty shall post, paint, erect, place or otherwise fasten any sign, pennant or notice of any kind, visible from a public street except as provided herein. To ensure compliance with this section, a sign

permit shall be required for any sign, pursuant to Section 19.60.030 of the Municipal Code, except as provided below.

A. Sign Permit Exceptions:

The following signs shall be exempt from the sign permit requirements, however an electrical and/or building permit may be required. Any signage in excess of the specific exemptions listed below are prohibited:

1. Permanent window signage not exceeding twelve (12) square feet per business frontage and limited to the name of the business, service, or use, hours of operation, address and emergency information, except exposed neon tubing signs advertising products for sale on the premises, are permitted as permanent signs.

2. Temporary advertising signage painted on the window or constructed of paper, cloth, or similar expendable material affixed on the window, wall, or building surface, provided that all of the following conditions are met:

   a. The total area of such signs shall not exceed ten (10) percent of the window area, however, in all cases twelve (12) square feet per business frontage is permitted.

   b. Such signs shall be affixed to the surface for no more than thirty (30) continuous calendar days but for not more than sixty (60) days each calendar year, to promote a particular event or sale of product or merchandise.

   C. Administrative Sign Permit.

3. Real Estate Signs for Residential Sales: One (1) sign per street frontage not exceeding four (4) square feet in area and five (5) feet in height, provided it is unlit and is removed within fifteen (15) days after the close of escrow or the rental or lease has been accomplished. Signs placed on the rear street frontage are prohibited. Open House signs not exceeding four (4) square feet in area and five (5) feet in height are permitted for directing prospective buyers to property offered for sale.

4. Political signs: Political signs having to do with any issue, ballot measure, political statements and expressions, or candidate in any Municipal, County, State or Federal election shall be permitted subject to the following provisions and any other applicable provisions within this chapter.

   a. Any person, party, or group posting signs in the City shall abide by the Provisions herein set forth.

b. All political signs shall be placed, erected, constructed, painted or assembled, no earlier than thirty (30) calendar days prior to the election and shall be removed no later than ten (10) calendar days following the date of the election.

c. A political sign shall not exceed five (5) square feet in total area for one side in a residential district, and twelve (12) square feet in a commercial district. Double faced signs shall not exceed five (5) square feet per side in residential districts and twelve (12) square feet per side in commercial districts. No signs shall be placed in a manner that would obstruct visibility of or impede pedestrian or vehicular traffic, or to endanger the health, safety, or welfare of the community.

d. All political signs shall not exceed an overall height of six (6) feet from the finished grade immediately around the sign.

e. No political signs shall be lighted either directly or indirectly unless said sign is erected, painted, or constructed on an authorized structure already providing illumination.

f. No political sign shall be placed or affixed to a traffic signal, street light, tree, fence, utility pole or existing sign, nor shall be posted on any public property or in the public right-of-way, if in the opinion of the Director of Planning said sign impedes or renders dangerous public access to any public improvement, including but not limited to utility poles and fire hydrants; or obstructs the vision of any sign designed to regulate, control or assist public or private transportation or obstructs the vision of any user of a public right-of-way.

g. No political sign shall be posted in violation of any provisions of this section. Further, the Director of Planning or his designs shall have the right to remove all signs placed contrary to the provisions of this section. Any political sign placed on private property without the consent of said private property owner may be removed by said owner or representative of said owner.

5. Contractor or Construction Signs: For residential projects greater than four (4) dwelling units, commercial, and industrial projects, two (2) directory signs shall be permitted on the construction site for all contractors (may include financial institutions, real estate agents, subcontractors, etc.) not exceeding thirty-two (32) square feet each, unless legally required by government contracts to be larger. No sign shall exceed eight (8) feet in overall height and shall be located no closer than ten (10) feet to any property line. Such sign shall be removed upon the granting of occupancy by the City. For all other projects, a total of two (2) signs per development site may be installed with a maximum of four (4) square feet in area and five (5) feet in height for each sign. Such sign(s) shall be removed upon finalization of building permits.

6. Future Tenant Identification Sign: Future tenant identification signs may be placed on vacant or developing property to advertise the future use of an approved project on the property and where information may be obtained. Such signs shall be limited to one (1) per fronting street and to a maximum of ninety-six (96) square feet in area and twelve (12) feet in overall height each. Further, such signs shall be placed no closer than ten (10) feet to any property line. Any such sign shall be removed upon finalization of building permits. Where a project has in excess of 600 lineal feet of frontage, one additional sign for each 600 lineal feet is allowed.

7. Real Estate signs for Sale of Commercial or Industrial Property: One (1) sign per street frontage not to exceed thirty-two (32) square feet in area to advertise the availability of the property for sale, lease, or rent. No such sign shall exceed eight (8) feet in overall height and shall not be located within the public right-of-way. Where a property has in excess of 600 lineal feet of frontage, one additional sign for each 600 lineal feet is allowed.

8. Interior signs within a structure or building when not visible or readable, nor intended to be read from off-site or from outside of the structure or building.

9. Identification signs for a business, service or use no greater than four (4) square feet in area may be permitted. Said signs shall not be visible from the public right-of-way, shall be attached to the main building, shall be for pedestrian traffic, and shall not otherwise require a building permit.

10. Memorial tablets, plaques, or directional signs for community historical resources, installed by a City recognized Historical Society or civic organization.

11. Convenience signs and secondary directional signs not exceeding four (4) square feet in area.

12. Residential building identification signs used to identify individual residences and not exceeding four (4) square feet in area.

13. One name plate per parcel not exceeding four (4) square feet in area for single family residential uses and agricultural uses.

14. Official and legal notices issues by any court, public body, person, or officer or in furtherance of any nonjudicial process approved by state or local law.

15. Signs providing direction, warning, or informational signs or structures required or authorized by law or by Federal, State, County, or City authority.

16. A single official flag of the United States of America and/or two (2) flags of either the State of California, or other states of the United States, counties,

municipalities or official flags for nations, and flags of internationally or nationally recognized organizations or the company flag. Flags shall be a maximum of five (5) feet by eight (8) feet unless otherwise specifically approved on a Site Plan.

17. Signs of public utility companies, indicating danger or which serve as an aid to public safety, or which show locations of underground facilities or public telephones.

18. Safety signs on construction sites.

19. One (1) freestanding time and temperature sign that conveys time and temperature only and not exceeding twelve (12) square feet in area nor fifteen (15) feet in height, or not higher than the roofline, whichever is less, when combined with business identification in accordance with Section 7.3, and counted toward sign area for the freestanding sign.

20. One (1) wall mounted time and temperature sign that conveys time and temperature only not exceeding twelve (12) square feet in area shown when combined with business identification in accordance with Section 7.3, and counted toward sign area for the wall sign.

21. "No Trespassing", "no parking," and similar warning signs not exceeding four (4) square feet.

22. Signs on public transportation vehicles regulated by a political subdivision, including but not limited to buses and taxicabs.

23. Signs on licensed commercial vehicles, provided such vehicles are not used or intended for use as portable signs or as may be prohibited in Section 7.2.B.

24. A change of copy conforming to an approved Comprehensive Sign Program. All other changes of copy shall comply with this section.

25. Incidental signs for automobile repair stores, gasoline service stations, automobile dealers with service repairs, motels and hotels, showing notices of services provided or required by law, trade affiliations, credit cards accepted, and the like, attached to a freestanding sign, structure or building; provided that all of the following conditions exist:

    a. The signs number no more than four (4).

    b. No such sign projects beyond any property line.

    c. No such sign shall exceed an area per face of four (4) square feet.

26. Copy applied to fuel pumps or dispensers by the manufacturer such as fuel identification, station logo, and other signs required by the law.

27. Agricultural signs, either wall or freestanding types, non-illuminated, and not exceeding four (4) square feet for lots two (2) acres or less and sixteen (16) square feet for lots greater than two (2) acres, identifying only the agricultural products grown on the premises. The number of such signs shall be one (1) per street frontage or a maximum of two (2), with all signs to be located below the roofline and freestanding signs to be no higher than eight (8) feet.

B. Prohibited Signs and Lighting:

All signs and lighting not expressly permitted are prohibited in all zones, including but not limited to the following:

1. Roof signs.

2. Flashing lights or signs (except time and temperature signs).

3. Animated signs or lights (conveying the illusion of motion).

4. Revolving or rotating signs.

5. Vehicle signs (when parked or stored on property to identify a business or advertise a product).

6. Portable signs (except where permitted in this section).

7. Off-site signs (except temporary subdivision signs).

8. Signs within the public right-of-way (except those required by a governmental agency). No sign shall be so placed, erected or constructed on a utility pole, traffic device, traffic sign, warning sign, or so as to impede access to any public improvement, or to obstruct the vision of any such signs except as may be permitted in Section 7.2.A.4 of this section.

9. Signs located on public property except as may be permitted in by Section 7.2.A.4 of this section or those required by a governmental agency.

10. Signs within the public right-of-way prohibited by the Streets and Highways Code (Sec. 101 et. seq. and Sec. 1460 et. seq.), the Vehicle Code (Sec. 21400 et. seq.) and the Public Utilities Code (Sec. 7538 et. seq.).

11. Signs blocking doors or fire escapes.

12. Outside light bulb strings and exposed neon tubing outside of building (except

for temporary uses such as Christmas tree lots, carnival, and other similar events with prior approval of the City).

13. Inflatable advertising devices of a temporary nature, including hot air balloons (except for special events as provided for in this section.

14. Advertising structures (except as otherwise permitted in this section).

15. Statuary (statues or sculptures) advertising products or logos of the business that are located outside of the structure that houses the business.

16. The use of decals, stick-on or transfer letters, or tape on the walls or parapets of buildings, fences, walls or other structures.

17. Readerboard/changeable copy signs, either electric or non-electric except as permitted in this section.

18. Signs which purport to be or are an imitation of or resemble official traffic warning devices or signs, that by color, location or lighting may confuse or disorient vehicular or pedestrian traffic. This does not include traffic or directional signs installed on private property to control on-site traffic.

C. Signs Relating to Inoperative Activities:

Signs pertaining to activities or business which are no longer in operation, except for temporary closures for repairs, alteration or similar situations, shall be removed from the premises or the sign copy shall be removed within thirty (30) days after the premises has been vacated. Any such sign not removed within the specified time shall constitute a nuisance and shall be subject to removal under the provisions of this chapter and local ordinance.

D. Enforcement, Legal Procedures, and Penalties:

Enforcement, legal procedures and penalties shall be in accordance with the enforcement procedures established by the Municipal Code. Unauthorized illegal signs may be abated by the City in accordance with local ordinance. If said sign is stored by the City the owner may recover said sign from the City upon payment to the City of any storage and/or removal charge incurred by the City. The minimum charge shall be no less than three dollars ($3.00) per sign. All signs removed by the City may be destroyed thirty (30) calendar days following removal. If any sign, in the opinion of the Director of Planning, is an immediate threat to the public health and safety, said sign shall be immediately and summarily removed with the cost of said removal charged to the property owner in accordance with local ordinances.

E. Construction and Maintenance:

1. <u>Construction:</u> Every sign and all parts, portions, and materials shall be

manufactured, assembled, and erected in compliance with all applicable State, Federal, and City regulations and the Uniform Building Code.

2. Maintenance: Every sign and all parts, portions, and materials shall be maintained and kept in proper repair. The display surface of all signs shall be kept clean, neatly painted and free from rust and corrosion. Any cracked, or broken surfaces, and malfunctioning or damaged portions of a sign shall be repaired or replaced within thirty (30) calendar days following notification of the business by the City. Noncompliance with such a request will constitute a nuisance and will be abated. Any maintenance, except a change of copy, which does not involve structural changes is permitted.

7.3 Sign Regulations

Sign permits may be issued for signs included under this section provided the signs are in compliance with all other applicable laws and ordinances.

A. Signs Permitted in Any Land Use District:

The following signs may be permitted in any land use district. These signs are in addition to those signs expressly permitted in each land use district and are subject to the provisions listed:

1. Convenience Signs: On-site signs no greater than six (6) square feet necessary for public convenience or safety may be approved by the Director of Planning or his designee. Signs containing information such as "entrance," "exit," or directional arrows shall be designed to be viewed from on-site or from an area adjacent to the site by pedestrians or motorists. Signs that convey advertising or products shall not be considered a convenience sign.

2. Comprehensive Sign Program for Employment Park Districts: A Comprehensive Sign Program shall be developed for all commercial and industrial centers consisting of four (4) or more tenant spaces. The purpose of the program shall be to integrate signs with building and landscaping design into a unified architectural unit. This shall be achieved by:

   a. Using the same background color on all signs;

   b. Using not more than three (3) different colors for sign lettering.

   c. Using the same type of cabinet supports, or method of mounting for signs of the same type, or by using the same type of construction material for components, such as sign copy, cabinets and supports, or by using dissimilar signing determined compatible by the Director of Planning.

   d. Using the same form of illumination for all signs, or by using varied

forms of illumination determined compatible by the Director of Planning.

e. Allowing the use of different colors for logos.

3. Special Event Signs: Special event signs may be approved for a limited period of time as a means of publicizing special events such as grand opening, new management, inventory sales, Christmas tree lots, parades, rodeos, and fairs that are to take place within **Sunbow Planned Community** SPA.

a. Community Special Events such as a rodeo or community fair may be permitted the following signage:

(1) No more than four (4) off-site signs up to thirty-two (32) square feet and eight (8) feet in height to publicize the even indicated above.

(2) Temporary advertising signing consistent with the requirements set forth in Section 7.2.A.2.

b. Commercial Special Events such as grand openings, Christmas tree lots, painted seasonal holiday window displays, and notice of new management may be permitted the following signage:

(1) No more than four (4), thirty-two (32) square foot or smaller, eight (8) feet in height, on-site, freestanding, special event signs.

(2) All other on-site special event signs can be either wall and window signs, flags, banners and pennants. Inflatable advertising devices of a temporary nature may be permitted. In no case shall any signage, flag, pennant, inflatable device, or banner be placed above the roofline.

4. On-Site Subdivision Signs:

a. One (1) temporary, on-site subdivision sign not to exceed 64 square feet total area for two (2) sides or 32 square feet for one (1) side and total overall height of twelve (12) feet may be permitted on each Circulation Element street frontage of the property being subdivided, not to exceed two (2) such signs for all phases of any subdivision; otherwise a maximum of one (1) sign is permitted.

b. Such sign shall be for the identification of a subdivision, price information and the developers name, address, and telephone number.

c. Such signs shall be removed within ten (10) calendar days from the date of the final sale of the land and/or residences or within twenty-

four (24) months, whichever comes first. Extensions of twelve (12) months may be approved by the Director of Planning.

d. Signs shall be maintained in good repair at all times.

e. A cash deposit of three hundred dollars ($300) per sign shall be deposited with the sign application to ensure compliance with this chapter and removal of such sign. Said deposit shall be refunded to the applicant upon sign removal by the applicant. If the City is forced to remove any signs, then the cost of removal shall be deducted from the deposit.

5. Off-Site Subdivision Directional Sign:

a. A maximum of four (4) signs may be used to lead customers to the site.

b. Signs shall be made of panels which shall be no longer than seventy-two (72) inches by twelve (12) inches each and shall be grouped on a single, double or four-sided sign kiosk. Such structure shall contain no more than seven (7) panels per side nor exceed seven (7) feet in height.

c. A sign kiosk shall be located not less than three hundred (300) feet from an existing approved sign site. Further, each sign may only contain the name of the planned community, subdivision, developer or development logo and a directional arrow.

d. The placement of each sign structure and its copy shall be reviewed and approved by the Director of Planning prior to installation.

e. All kiosks that are to be placed on private property shall be with prior written consent of the property owner, to allow the City, in the event of noncompliance, to enter said property and remove the sign. A copy of said consent shall be filed with the Department of Planning prior to the acceptance of a sign permit application.

f. A kiosks location plan shall be prepared showing the site of each kiosk and shall be submitted to and approved by the Director of Planning prior to the acceptance of a sign permit application.

g. Any sign approved for a particular subdivision within **Sunbow Planned Community** SPA shall not be changed to another subdivision without prior approval of the Director of Planning.

h. There shall be no addition, tag signs, streamers, devices, display boards, or appurtenances added to the sign as originally approved. Further,

no other directional signing may be used as posters, portable signs, vehicle signs, trailer signs or temporary subdivision (bootleg) signs.

i. All off-site subdivision signs not conforming to this ordinance shall be deemed a public nuisance and removed.

j. A three hundred dollar ($300) cash deposit shall be placed with the City to ensure compliance with this chapter. Any sign placed contrary to the provisions of this chapter may be removed by the City and the cost of removal shall be deducted from said deposit. Additional costs incurred by the City resulting from the removal of illegal signs shall be charged to the developer.

k. Said sign shall be allowed until the units within the subdivision are sold out, or for a period of twenty-four (24) months, whichever occurs first. Extensions of twelve (12) months may be approved by the Director of Planning.

7.4 Design Standards

Each sign shall be designed with the intent and purpose of complementing the architectural style of the main building or buildings, or type of business on the site, and to the extent possible, signs located on commercial sites, but in a predominantly residential area, shall take into consideration compatibility with the residential area.

A. Relationship to Buildings:

Signs located upon a lot with only one main building housing the use which the sign identifies, shall be designed to be compatible with the predominant visual elements of the building, such as construction materials, color, or other design details. Each sign located upon a lot with more than one main building, such as a shopping center or other commercial or industrial area developed in accordance with a common development plan, shall be designed to be compatible with predominant visual design elements common or similar to all such buildings or the buildings occupied by the "main tenants" or principal uses.

The Planning Director may condition approval of any sign to require such visual elements to be incorporated into the design of the sign where such element(s) is necessary to achieve a significant visual relationship between the sign and building or buildings.

B. Relationship to other Signs:

Where there is more than one (1) freestanding sign located upon a lot, all such signs shall have designs which are complementary to each other by either similar treatment or incorporation of one (1) or more of the following five (5) design elements:

1. Type of construction materials (such as cabinet, sign copy, supports);

2. Letter style of sign copy;

3. Type or method used for supports, uprights or structure on which sign is supported;

4. Sign cabinet or other configuration of sign area; or

5. Shape of entire sign and its several components.

C. Landscaping:

Each freestanding sign shall be located in a landscaped area which is of a shape, design and size (equal to at least the maximum allowable sign area) that will provide a compatible setting and ground definition to the sign. The landscaped area shall be maintained in a neat, healthy, and thriving condition.

D. Illumination and Motion:

Signs shall be stationary structures (in all components) and illumination, if any, shall be maintained by artificial light which is stationary and constant in intensity and color at all times (non-flashing).

E. Sign Copy:

The name of the business, use, service and/or identifying logo shall be the dominant message on the sign. The inclusion of advertising information such as lists of products (more than one product), is prohibited.

F. Relationship to Streets:

Signs shall be designed so as not to obstruct any pedestrian, bicyclist, or driver's view of the street right-of-way.

8.0 OFF-STREET PARKING

8.1 Purpose

All regulations set forth in this section are for the purpose of providing convenient off-street parking space for vehicles. The parking requirements of this section are to be considered as the minimum necessary for such uses permitted by the respective zone.

The intent of these regulations is to provide adequately designed parking areas with sufficient capacity and adequate circulation to minimize traffic congestion and promote public safety. It shall be the responsibility of the developer, owner, or operator of the specific use to provide and maintain adequate off-street parking.

The provisions and standards set forth in this section apply primarily to non-residential uses. The standards for residential uses are included in Section 2.4, Property Development Standards for residential districts.

8.2 General Provisions

A. Off-street parking facilities, for both motor vehicles and bicycles, shall be provided for any new building constructed, for any new use established, for any addition or enlargement of an existing building or use, and for any change in the occupancy of an existing building.

B. For additions or enlargement of any existing building or use, or any change of occupancy or manner of operation that would increase the number of parking spaces required, the additional parking spaces shall be required only for such addition, enlargement, or change and not for the entire building or use, unless required as a condition of approval of a Conditional Use Permit.

C. The required parking facilities needed for any development shall be located on the same site or, if an irrevocable access and/or parking easement is obtained, the parking may be on an adjacent site. Property within the ultimate right-of-way of a street or highway shall not be used to provide required parking or loading or unloading facilities.

D. The requirements of this ordinance shall apply to temporary as well as permanent uses.

E. All required off-street parking spaces shall be designed, located, constructed, and maintained so as to be fully usable during workday periods or as needed by the use of the premises.

F. Where the application of these schedules results in a fractional parking space then the fraction shall be rounded to the higher whole number.

G. The parking requirement for uses not specifically listed in the matrix shall be determined by the approval body for the proposed use on the basis of requirements for similar uses, and on any traffic engineering and planning data that is appropriate to the establishment of a minimum requirement.

H. In the calculation of parking requirements for centers, off-peak hour uses from the normal operating hours of the center shall not be counted toward the parking requirement.

I. In situations where a combination of uses are developed on a site, parking shall be provided for each of the uses on the site according to the schedule given in this section.

J. A maximum of 25 percent (1/4) of the parking spaces required on any site may be provided as "compact" spaces for non-residential uses. Subject to approval of the Design Review Committee.

8.3 Schedule of Off-Street Parking Requirements

	Use	Minimum Off-Street Parking Required
A.	Administrative and Professional Services	1 space/300 square feet of gross floor area; minimum of 4 spaces.
B.	Shopping Centers and General Commercial Uses, except as noted below:	1 space/200 square feet of gross floor area.
1.	Eating & drinking establishments (not-fast food)	1 space/each 2-1/2 seats or 1 space/50 square feet of seating area where there are no fixed seats.
2.	Fast food restaurants with drive-in or drive through	1 space/each 7 seats plus one (1) space per employee, minimum 15 spaces and an on-site queue line for at least eight (8) vehicles when drive-through is included.
3.	Gasoline dispensing and/or automotive services stations	2 spaces plus four (4) for each service bay
4.	Appliance and/or furniture stores	1 space/600 square feet of gross floor area.
5.	Hotels and motels	1 space per unit plus 1 space for every 25 rooms or portion thereof provided on the same lot.

6.	Senior Citizen Housing/ Congregate Care	As required by CVMC
7.	Auto and/or truck sales	1/10 the car storage capacity of the facility.
8.	Medical and dental offices or clinics, veterinary offices or clinics	1 space/200 square feet of gross floor area; minimum of 5 spaces.
9.	Commercial recreation facilities	
	a. Bowling alleys, billiard halls	5 spaces/alley plus 2 for each billiard table plus required parking for other uses on the site.
	b. Commercial stables	1 space/5 horses boarded on site.
	c. Driving range (golf)	1 space/tee plus required parking for any other uses on the site.
	d. Golf course (regulation)	To be determined by the Director of Planning.
	e. Miniature golf	3 spaces/hole plus required parking for any other uses on the site.
	f. Parks (public or private)	To be determined by the Director of Planning.
	g. Skating rinks	1 space/100 square feet of gross floor area.
	h. Tennis, handball, and racquetball facilities	To be determined by the Director of Planning.
	i. Theaters	
	(1) Motion picture	1 space/3-1/2 seats.
	(2) Playhouse	1 space/3-1/2 seats.

C.	Public and semi-public uses	
1.	Day nurseries, day care schools	1 space/staff member plus 1 space/5 children or 1 space/10 children if adequate drop-off facilities are provided. Drop-off facilities mush be designed to accommodate a continuous flow of passenger vehicles to safely load and unload children. The adequacy of drop-off facilities proposed shall be determined by the Director of Planning.
2.	Convalescent and/or nursing homes	1 space/3 beds.
3.	Hospitals	1-1/2 space/bed.
4.	Educational institutions, public or private	
a.	Elementary and junior high school	1 space per employee plus 5 spaces.
b.	Senior high schools	1 space per 4 students
c.	Colleges and vocational schools	.5 spaces/faculty member and employee plus 1 space/3 students.
d.	Churches, convents, monasteries, other religious institutions, and other spaces of public assembly	1 space/3.5 seats within the main auditorium or 1 space/45 square feet of gross floor area within the main auditorium where there are no fixed seats.
5.	Public Utilities	To be determined by the Director of Planning.
D.	Manufacturing Uses	
1.	Manufacturing	1 space/800 square feet of gross floor area devoted to manufacturing plus the required parking for square footage devoted to other uses or 1 space per 1.5 employees, whichever is greater. Ten (10) percent of the spaces provided must be designated for use by carpools.

2.	Research and Development	1 space/300 square feet of gross floor area. Ten (10) percent of the spaces provided must be designed for use by carpools.
3.	Storage	1 space/1,000 square feet of gross area for the first 20,000 square feet devoted to storage plus the required parking for square footage devoted to other uses. 1 space/2,000 square feet for the second 20,000 square feet. 1 space/4,000 square feet for area in excess of 40,000 square feet.

E. Single Family Residential and Multiple Family Residential

1.	RS, RP	2 garage spaces per unit.
2.	RM, RC	1.5 spaces per 1 bdrm. unit* 2.0 spaces per 2 bdrm. unit* 2.5 spaces per 3+ bdrm. unit*

* May be combination of on and off-street parking on private streets only.

F. Handicapped Parking Requirements

Handicapped parking requirements are established by the Sate of California. The parking standards contained in this section are identical to those established by the State. Any future change in the State handicapped parking standards would preempt the requirements given in this section.

1. Handicapped parking for residential uses shall be provided at the rate of one space for each dwelling unit that is designed for occupancy by the handicapped.

2. Handicapped parking spaces shall be provided for all uses other than residential at the following rate:

Use	Minimum Off-Street Parking Required
Number of Automobile Spaces Provided	Number of Handicapped Spaces Required
1 - 40	1
41 - 80	2
81 - 120	3
121 - 160	4
161 - 300	5
301 - 400	6
401 - 500	7
Over 500	7 + 1 for each 200 additional automobile spaces provided

3. Handicapped parking spaces required by this section shall count toward fulfilling automobile parking requirements.

G. Bicycle Parking Requirements

The matrix below contains the minimum bicycle parking requirements. Only those use identified in the matrix are required to install bicycle parking. Bicycle parking facilities shall be stationary storage racks or devices designed to secure the frame and wheel of the bicycle.

Use		Minimum Bicycling Parking Required
1.	Administrative and Professional Services over 20,000 square feet of gross floor area	5 spaces
2.	Shopping centers with 50,000 square feet of gross floor area	1 space/33 automobile parking spaces required
3.	Eating and drinking establishments	2 spaces
4.	Medical and dental offices or clinics, veterinary offices or clinics	2 spaces
5.	Commercial Recreation	1 space/33 automobile spaces required
6.	Hospitals	4 spaces

7. Churches 4 spaces

H. Motorcycle Off-Street Parking Requirements

Motorcycle parking areas shall be provided for all uses, except residential, at the following rate:

1. Uses with 25 to 100 automobile parking spaces shall provided one designated area for use by motorcycles.

2. Uses with more than 100 automobile parking spaces shall provide motorcycle parking areas at the rate of one motorcycle parking area for every 100 automobile parking spaces provided.

8.4 Property Development Standards

The following property development standards shall apply to all parking areas required by the Planned Community District Regulations.

A. General Requirements:

The following are minimums unless otherwise stated:

1. Residential

   a. Covered in a garage or carport - 10' x 20' each space

   b. Uncovered - 9' x 19' each space

2. All others shall use Parking Table on the following page.

3. Motorcycle parking space: 4 feet by 8 feet.

4. Bicycle parking space: 2 feet by 6 feet.

5. Automobile, handicapped, motorcycle, and bicycle: All parking stalls and maneuvering areas shall be paved and permanently maintained with asphalt, concrete, or any other all-weather surfacing approved by the Director of Planning and subject to current city standards.

6. Striping and Identification

   a. Automobile: All parking stalls shall be clearly outlined with double lines on the surface of the parking facility.

b. Handicapped: All handicapped spaces shall be striped and marked according to the applicable State standards.

c. Motorcycle: All motorcycle spaces shall have bollards installed and appropriately spaced to prevent automobile usage of the motorcycle area. Motorcycle spaces shall be marked so that they can be clearly identified for motorcycle usage.

d. Bicycle: All bicycle spaces shall be clearly identified.

B. Special Requirements:

1. Any unused space resulting from the design of the parking area shall be used for landscaping purposes.

2. All parking lot landscaped islands shall have a minimum inside dimension of four (4) feet and shall contain a twelve (12) inch wide walk adjacent to parking stall and be separated from vehicular areas by a six (6) inch high, six (6) inch wide Portland concrete cement curbing.

3. All Landscaping areas shall be irrigated automatically and kept in a healthy and thriving condition free from weeds, debris, and trash.

4. All parking facilities shall have lighting in accordance with the current City standards. The lighting shall be designed and installed so as to confine direct rays to the site. Parking lot lights shall be a maximum height of eighteen (18) feet from the finished grade of the parking surface and directed away from the property lines.

5. All parking facilities shall be graded and drained so as to provide for the disposal of all surface water on the site.

6. In any R zone except RM, the parking of motorized and non-motorized vehicles shall be subject to the following requirements:

a. No motorized or non-motorized vehicle shall be parked, stored and kept in the front yard except on land adjacent to the driveway or in the driveway.

b. If motorized or non-motorized vehicles are to be parked, stored, or kept on the lot, other than as permitted above, they must be for the personal use of the resident.

8.5 Performance Standards

A. Maintenance

All parking facilities required by this ordinance shall be maintained in good operating condition for the duration of the use requiring such facilities. Such facilities shall be used exclusively for the parking of vehicles. The parking facilities shall not be used for the storage of merchandise, or for the storage or repair of vehicles or equipment. Parking facilities shall not be used for the sale of merchandise, except on a temporary basis pursuant to Section 6.2. (Temporary Uses).

B. Shopping Carts

All shopping centers that use shopping carts shall provide convenient and safe on-site storage areas for the shopping carts.

C. Special Requirements

Handicapped, motorcycle, and carpool parking areas, when required, shall be located within close proximity of the entrance to the facility.

9.0 ADMINISTRATION

9.1 Purpose

The Land Use District Map and these Planned Community District Regulations shall be administered as provided for herein.

9.2 Standard Procedures

A. General:

The Administrative Procedures, Conditional Uses, and Variances, Chapter 19.14 of the CVMC, shall be utilized as applicable to the administration of the **Sunbow** SPA.

B. Sectional Planning Areas (SPA):

The administration of the SPA Plan shall be as provided for in Section 19.48.090 through Section 19.48.130 inclusive of the CVMC, except that the Director of Planning may accept less detail or require additional detail to suit the scope of the SPA.

9.3 Administrative Review

A. Purpose:

Certain uses may vary greatly in their effect depending on the scope, location, or exact circumstances. In order to avoid the permitting of these uses without any formal review, and to relieve the Planning Commission and City Council of formally reviewing uses which have insignificant or compatible effects, an Administrative Review procedure is established.

B. Application:

Administrative Review is applicable to uses identified on the Permitted Use matrices herein with the symbol "A".

C. Procedures:

The procedures shall be as specified in Section 19.14.030, Zoning Administration - Actions authorized without public hearing, in the CVMC; except that in addition, the Zoning Administrator (Director of Planning) may determine after reviewing the scope, location, or exact circumstances of the proposed use that the formal hearing process of the Conditional Use Permit procedure is warranted. If the Zoning Administrator makes the determination that a Conditional Use Permit is warranted then the applicant shall be required to comply with the Conditional Use Permit procedures as specified in Sections 19.14.060 through 19.14.110 inclusive in the CVMC.

9.4 Site Plan and Architectural Approval

A. Purpose:

The purpose of site plan and architectural approval is to review proposed projects to determine compliance with the provisions of these regulations and to promote orderly and harmonious development with good design character.

B. Application:

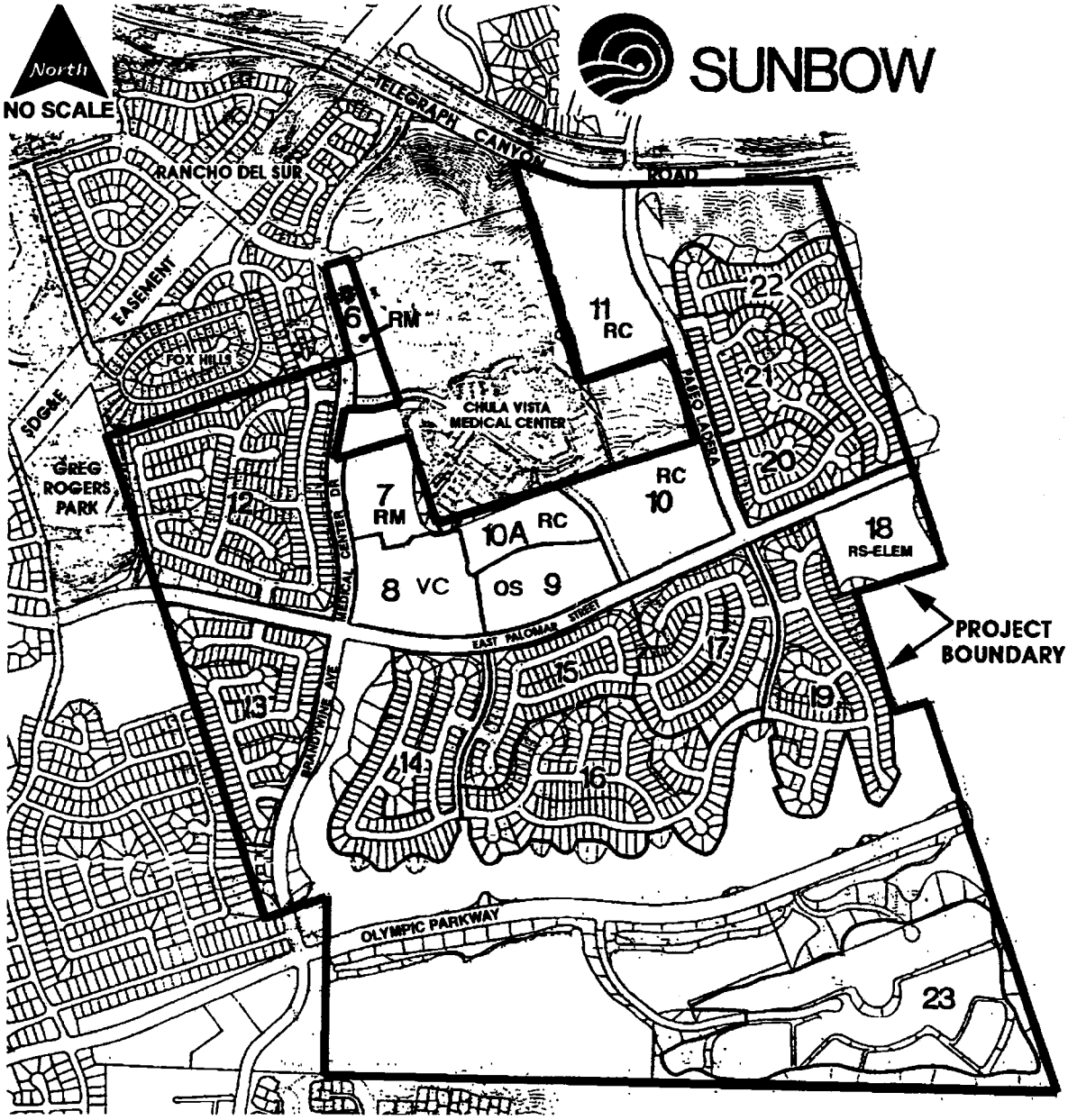
This approval process is applicable to projects within all districts except RS districts, where the Tentative Tract Map approval process may be used. Single family detached units on lots of/or exceeding 5,000 sf may use the Tentative Tract Map to satisfy the Site Plan Review requirement. Commercial and industrial projects shall be reviewed by the Design Review Committee as specified in Section 19.14.579 CVMC.

C. Procedures:

The procedures shall be as specified in Section 19.14.420 through Section 19.14.480 inclusive.

9.5 Other Provisions

In the event that these regulations do not address any particular matter relevant to the proper development and use of property within **Sunbow** SPA, the provisions of Title 19 of the CVMC shall apply.



STATISTICAL SUMMARY

PLANNING AREA	LAND USE DISTRICT	GROSS* ACRES	TOTAL* UNITS
6	RM	4.3	78
7	RM	8	156
10	RC	15.2	336
10A	RC	8.3	117
11	RC	18.0	131
12	RS	48.1	218
13	RS	26.2	112
14	RS	22.5	110
15	RP	16.9	93
16	RS	32.7	144
17	RS	23.7	102
19	RS	25.3	112
20	RS	10.6	55
21	RS	17.0	79
22	RS	21.6	103
Subtotal		298.4	1946

PLANNING AREA	LAND USE DISTRICT	GROSS* ACRES	TOTAL* UNITS
8	VC	12.7	0
23	IP	54.7	0
18	RS-ELEM SCHOOL	10.6	0
9	OS/COMM. REC	10.7	0
	OPEN SPACE & ROADS	217.7	0
GRAND TOTAL		604.8	1946

RS -RESIDENTIAL SINGLE FAMILY
RP -RESIDENTIAL PLANNED DEVELOPMENT
RM -RESIDENTIAL MULTI-FAMILY
RC -RESIDENTIAL CONDOMINIUM
VC -VILLAGE CENTER
IP -INDUSTRIAL PARK
OP -OPEN SPACE

CANDIDATE CHURCH SITE

* PER TENTATIVE MAP OR FINAL MAP CALCULATIONS PROVIDED BY LEASTAR 7/26/99

NOTE:
ALL GROSS ACREAGE NUMBERS FOR EACH PLANNING AREA ARE CALCULATIONS BASED ON THE PLANNING AREA BOUNDARY EXTENDED TO THE CENTERLINE OF THE ADJACENT ROAD

Site Utilization Plan

SITE UTILIZATION PLAN

Introduction

The Site Utilization Plan section of the **Sunbow** SPA is intended to establish the basic land use allocation and development standards to supplement and refine those established in the Planned Community District Regulations. It is not the intent of this plan to impose rigid and strict design controls on individual creativity. The purpose is to establish well defined design guidelines for a high quality development consistent with the Developer, City and Community objectives.

Implementation Process

This Sectional Planning Area shall be approved prior to or concurrently with the Tentative Tract Map for the entire project. There may be the need for subsequent Site Plan Review for portions of **Sunbow** within the Village Center area and Planning Area 15.

The following Site Utilization Plan summaries indicates which planning areas will be subdivided into lots and those which will be site planned for attached product. These areas will be subject to the Site Plan Review requirements of the Chula Vista Zoning Code.

General Standards

The following standards will apply to all development within **Sunbow.**

Off-Street Parking Standards: Shall be as specified in Planned Community District Regulations for **Sunbow.**

Performance Standards: All residential uses may be subject to the initial and continued compliance with the performance standards in Chapter 19.66 of the Chula Vista Zoning Code.

Fencing Requirements: All fencing in residential areas shall be subject to the provisions of Section 19.58.150 of the Chula Vista Zoning Code, except where alternative fencing standards are specified herein.

Panhandle lots, flag lots, or lots served by an easement: These shall be subject to the requirements and conditions of Section 19.22.150 of the Chula Vista Zoning Code.

CC&R's: All attached residential projects which include internal common open space, private recreation facilities, or private streets shall provide Covenants, /Conditions and Restrictions (CCRS) for repair or remodeling of the attached dwelling units or common properties within the project. Said deed restrictions shall be available for review during the Site Plan Review process and recorded concurrently with the recordation of the final tract map.

Floor Area Ratio (FAR): The residential, village commercial and industrial park planning areas refer to FAR. This is defined as the gross building area divided by the total residential lot or site planning area.

Lot Coverage: Refers to the first floor building coverage of the gross lot area.

RESIDENTIAL DESIGN CRITERIA

Introduction

The following criteria shall apply to each specified Planning Area as numbered on the Site Utilization Plan, Exhibit 1 herein.

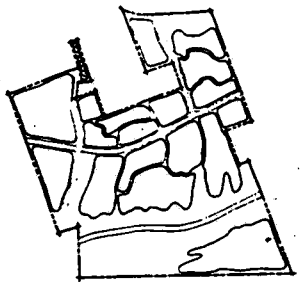
Principal uses of Planning Areas 12-17 and 19-22 residential uses shall be single family detached homes. Planning Areas 6, 7, 10, 10A and 11 shall contain residential uses of principally attached housing types. Other uses may occur in these areas as specified in the Planned Community District Regulations.

Where there is a conflict between these regulations and the Zoning Code these regulations shall prevail where there is a regulation or standard that is not addressed those of the Zoning Code shall apply.

Density Transfer

Transfers of density shall be based on evidence that the proposed transfer would substantially improve the spatial or functional relationships of the involved SPA, or would materially increase the quality of the land use, circulation or conservation pattern thereof. An increase in the number of dwellings must always be accompanied by a corresponding decrease in dwellings within a Planning Area in another area. Should such a transfer be approved, applicable statistics and exhibits shall be revised in an administrative manner without necessity of a Zone Change.

SITE DESIGN CRITERIA
PLANNING AREA 6
Principal Use:
RM-Apartments, Subject
To Site Plan Review



Height Regulations: 45' (3 stories) unless otherwise approved by a use permit

Front yard setback: 10' minimum

Side yard setback: Subject to Site Plan Review

Rear yard setback: Subject to Site Plan Review

Fencing setback: Side yard/front yard private fences exceeding 3' in height shall not encroach into the first story front yard setback and must conform to the Conceptual Fencing Section of this document or Section 19.58.150 of the Chula Vista Zoning Code.

Open Patio setback: 5' minimum front yard, 0' for side and rear yards

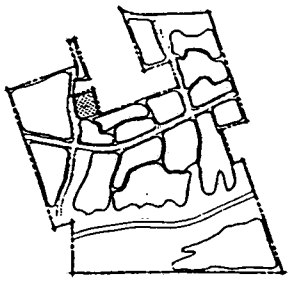
Maximum Floor Area Ratio: 1.25 FAR

Parking Standards: Must conform to Section 19.62 of the Chula Vista Zoning Code.

Planning Area Unit Total: 78 units

Special Conditions: This Planning Area will contain a reservation for a 2.5 acre candidate church site. See Section 3.2 in the P-C District Regulations for further criteria

SITE DESIGN CRITERIA
PLANNING AREA 7
Principal Use:
RM-Apartments, Subject
To Site Plan Review



Height Regulations: 45' (3 stories) unless otherwise approved by a use permit

Front yard setback: 10' minimum

Side yard setback: Subject to Site Plan Review

Rear yard setback: Subject to Site Plan Review

Fencing setback: Side yard/front yard private fences exceeding 3' in height shall not encroach into the first story front yard setback and must conform to the Conceptual Fencing Section of this document or Section 19.58.150 of the Chula Vista Zoning Code.

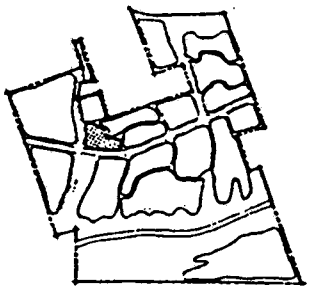
Open Patio setback: 5' minimum front yard, 0' for side and rear yards

Maximum Floor Area Ratio: 1.25 FAR

Parking Standards: Must conform to Section 19.62 of the Chula Vista Zoning Code.

Planning Area Unit Total: 160 units

SITE DESIGN CRITERIA
PLANNING AREA 8
Principal Use:
VC-Village Center Commercial



Height Regulations: 45' (2 stories) unless otherwise approved by a use permit

Front yard setback: 15' from Palomar Street and Medical Center Drive, 8' from curb of internal drive

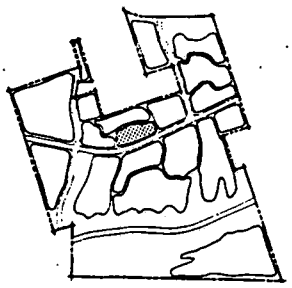
Side yard setback: 15' at exterior side yard, 0' at interior side yard except when adjacent to residential, then not less than 15'

Rear yard setback: 15' at exterior rear yard, 0' at interior rear yard except when adjacent to residential, then not less that 15'

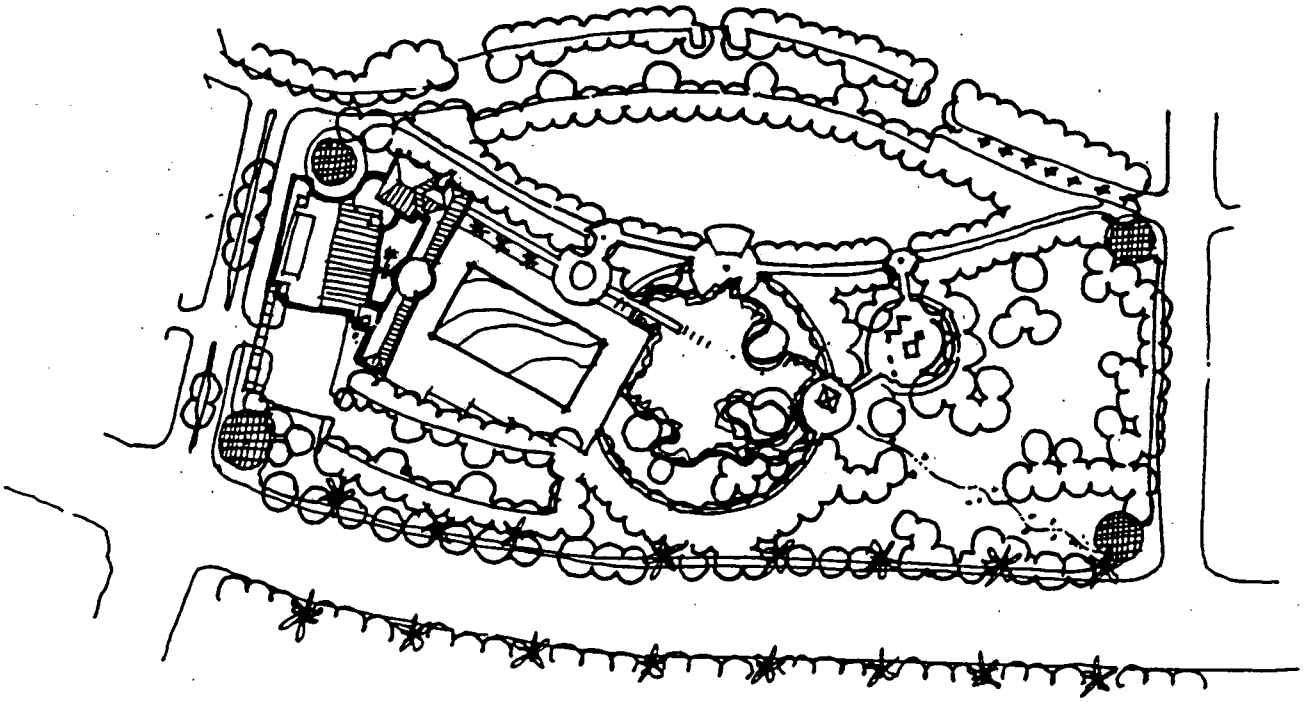
Fencing setback: Front yard private fences exceeding 3' in height shall not encroach into the first story front yard setback, 6' fence allowed at the interior side/rear yar lot line and must conform to the Conceptual Fenci Section of this document or Section 19.58.150 of Chula Vista Zoning Code.

Maximum Floor Area Ratio: Subject to Site Plan Review

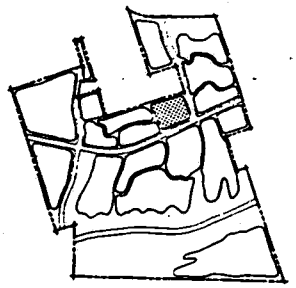
SITE DESIGN CRITERIA
PLANNING AREA 9
Principal Use:
OS-Community Recreation



The Design Criteria for this use will be in conformance with the City of Chula Vista Parks and Recreation Department and contain all the design elements as stated in the Recreation, Open Space Master Plan.



SITE DESIGN CRITERIA
PLANNING AREA 10
Principal Use:
RC-Condominiums, Subject
To Site Plan Review



Height Regulations: 45' (3 stories) unless otherwise approved by a use permit

Front yard setback: Subject to Site Plan Review

Side yard setback: Subject to Site Plan Review

Rear yard setback: Subject to Site Plan Review

Fencing setback: Side yard/front yard private fences exceeding 3' in height shall not encroach into the first story front yard setback and must conform to the Conceptual Fencing Section of this document or Section 19.58.150 of the Chula Vista Zoning Code.

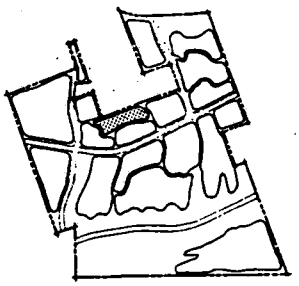
Open Patio setback: 5' for open patios in the front yard; 0' on side and rear yards

Maximum Floor Area Ratio: 1.25 FAR

Parking Standards: Must conform to Section 19.62 of the Chula Vista Zoning Code.

Planning Area Unit Total: 206 units subject to Site Plan Review

SITE DESIGN CRITERIA
PLANNING AREA 10A
Principal Use:
RC-Condominiums, Subject To Site Plan Review



Height Regulations: 45' (3 stories) unless otherwise approved by a use permit

Front yard setback: Subject to Site Plan Review

Side yard setback: Subject to Site Plan Review

Rear yard setback: Subject to Site Plan Review

Fencing setback: Side yard/front yard private fences exceeding 3' in height shall not encroach into the first story front yard setback and must conform to the Conceptual Fencing Section of this document or Section 19.58.150 of the Chula Vista Zoning Code.

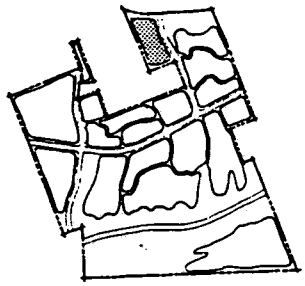
Open Patio setback: 5' for open patios in the front yard; 0' on side and rear yards

Maximum Floor Area Ratio: 1.25 FAR

Parking Standards: Must conform to Section 19.62 of the Chula Vista Zoning Code.

Planning Area Unit Total: 214 units subject to Site Plan Review

SITE DESIGN CRITERIA
PLANNING AREA 11
Principal Use:
RC-Apartments or Condominiums,
Subject to Site Plan Review



Height Regulations: 45' (3 stories) unless otherwise approved by a use permit

Front yard setback: Subject to Site Plan Review

Side yard setback: Subject to Site Plan Review

Rear yard setback: Subject to Site Plan Review

Fencing setback: Side yard/front yard private fences exceeding 3' in height shall not encroach into the first story front yard setback and must conform to the Conceptual Fencing Section of this document or Section 19.58.150 of the Chula Vista Zoning Code.

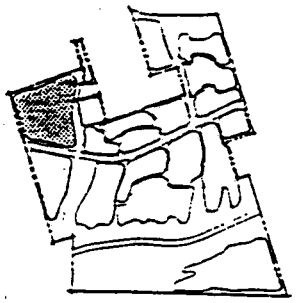
Open Patio setback: 5' minimum front yard, 0' for side and rear yards.

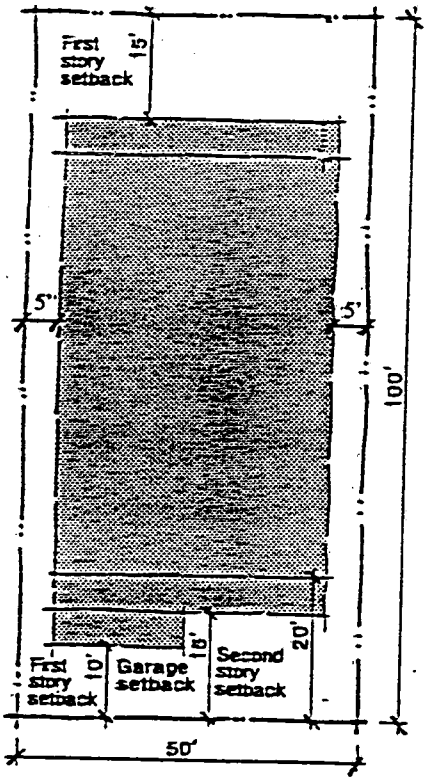
Maximum Floor Area Ratio: 1.25 FAR

Parking Standards: Must conform to Section 19.62 of the Chula Vista Zoning Code

Planning Unit Total: 160 units subject to Site Plan Review

SITE DESIGN CRITERIA
PLANNING AREA 12
Principal Use:
RS-Single Family Detached Homes





TYPICAL LOT LAYOUT
5000 s.f. lot

Average Lot Size: 6,225 S.F.

Height Regulations: 28'

Minimum Lot Area: 5000 s.f.

Minimum Lot Width: 50' at the 15' garage door setback

Minimum Lot Depth: 90'

Front yard setback: 15' at the garage door when the garage faces a public street; 20' at the second story; 10' at the side entry garage door; 15' to main residence

Side yard setback: 5', 10' total both sides

Rear yard setback: 15'

Fencing setback: Side yard/front yard private fences exceeding 3' in height shall not encroach into the first story front yard setback and must conform to the Conceptual Fencing Section of this document or Section 19.58.150 of the Chula Vista Zoning Code.

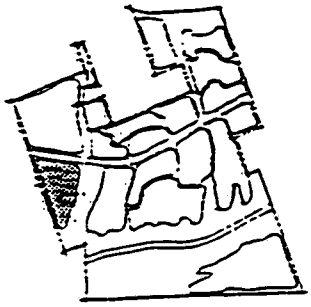
Open Patio setback: 5' for open patios

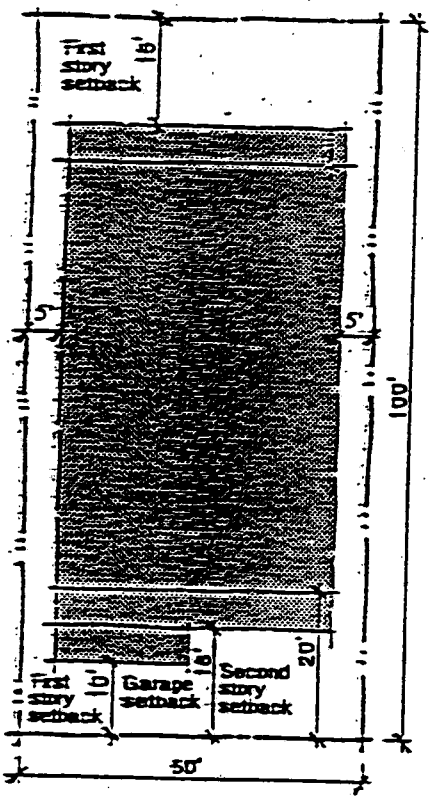
Maximum Floor Area Ratio: .50 FAR.*

Planning Area Unit Total: 215

*May be increased to .55.

SITE DESIGN CRITERIA
PLANNING AREA 13
Principal Use:
RS-Single Family Detached Homes





TYPICAL LOT LAYOUT
5000 s.f. lot

Average Lot Size: 6,575 S.F.

Height Regulations: 28'

Minimum Lot Area: 5000 s.f.

Minimum Lot Width: 50' at the 15' garage door setback

Minimum Lot Depth: 90'

Front yard setback: 15' at the garage door when the garage faces a public street; 20' at the second story; 10' at the side entry garage door; 15' to main residence

Side yard setback: 5', 10' total both sides

Rear yard setback: 15'

Fencing setback: Side yard/front yard private fence exceeding 3' in height shall not encroach into the first story front yard setback and must conform to the Conceptual Fencing Section of this document or Section 19.58.150 of the Chula Vista Zoning Code.

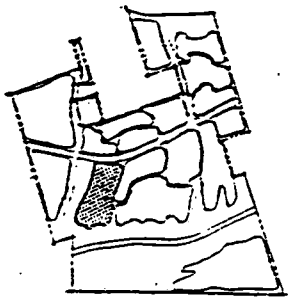
Open Patio setback: 5' for open patios

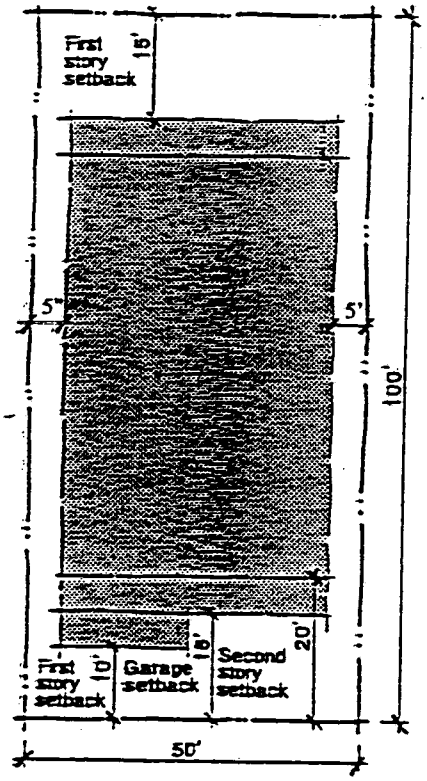
Maximum Floor Area Ratio: .50 FAR.*

Planning Area Unit Total: 112

*May be increased to .55 excepting those lots adjacent to existing R-1 zoned lots which have been developed with single-family homes (see graphic).

SITE DESIGN CRITERIA
PLANNING AREA 14
Principal Use:
RS-Single Family Detached Homes





TYPICAL LOT LAYOUT
5000 s.f. lot

Average Lot Size: 6,675 S.F.

Height Regulations: 28'

Minimum Lot Area: 5000 s.f.

Minimum Lot Width: 50' at the 15' garage door setback

Minimum Lot Depth: 90'

Front yard setback: 15' ~~-16.5~~ at the garage door when the garage faces a public street; 20' at the second story; 10' at the side entry garage door; 15' to main residence

Side yard setback: 5', 10' total both sides

Rear yard setback: 15'

Fencing setback: Side yard/front yard private fences exceeding 3' in height shall not encroach into the first story front yard setback and must conform to the Conceptual Fencing Section of this document or section 19.58.150 of the Chula Vista Zoning Code.

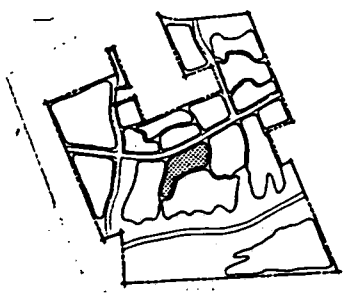
Open Patio setback: 5' for open patios

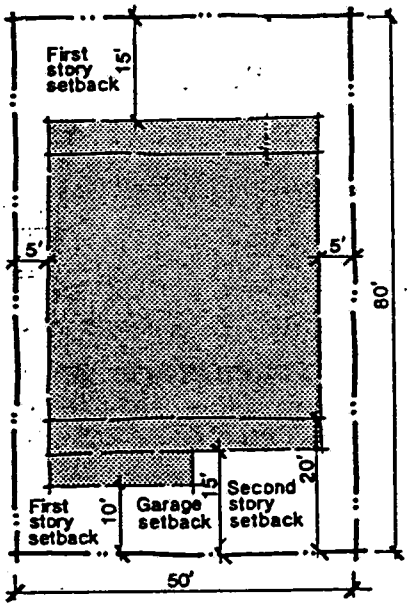
Maximum Floor Area Ratio: .50 FAR.*

Planning Area Unit Total: 110

*May be increased to .55.

SITE DESIGN CRITERIA
PLANNING AREA 15
Principal Use:
RS-Single Family Detached Homes,
Subject to Site Plan Review





TYPICAL LOT LAYOUT
4000 s.f. lot

Average Lot Size: 4,900 S.F.

Height Regulations: 28'

Minimum Lot Area: 3500 s.f.

Minimum Lot Width: 40'

Minimum Lot Depth: 70'

Front yard setback: 15' at the garage door when the garage faces a public street; 20' at the second story; 10' at the side entry garage; 10' to main residence

Side yard setback: 10' total; 5' min. one side

Rear yard setback: 15'

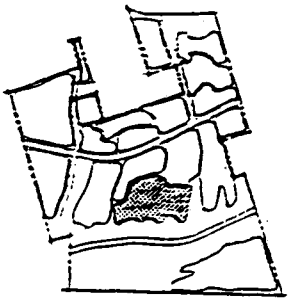
Fencing setback: Side yard/front yard private fences exceeding 3' in height shall not encroach into the first story front yard setback and must conform to the Conceptual Fencing Section of this document or Section 19.58.150 of the Chula Vista Zoning Code.

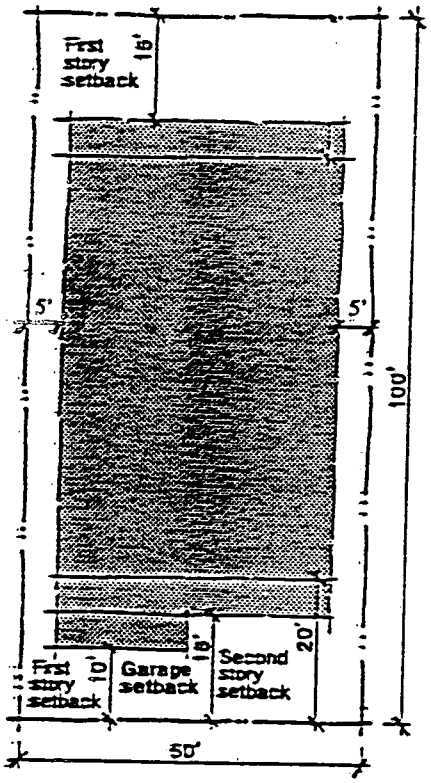
Open Patio setback: 5' for open patios

Maximum Floor Area Ratio: Subject to Site Plan Review

Planning Area Unit Total: 93

SITE DESIGN CRITERIA
PLANNING AREA 16
Principal Use:
RS-Single Family Detached Homes





TYPICAL LOT LAYOUT
6000 s.f. lot

Average Lot Size: 7,700 S.F.

Height Regulations: 28'

Minimum Lot Area: 5000 s.f.

Minimum Lot Width: 50' at the 15' garage door setback

Minimum Lot Depth: 90'

Front yard setback: 15' at the garage door when the garage faces a public street; 20' at the second story; 10' at the side entry garage; 15' to the main residence

Side yard setback: 5', 10' total both sides

Rear yard setback: 15'

Fencing setback: Side yard/front yard private fences exceeding 3' in height shall not encroach into the first story front yard setback and must conform to the Conceptual Fencing Section of this document or Section 19.58.150 of the Chula Vista Zoning Code.

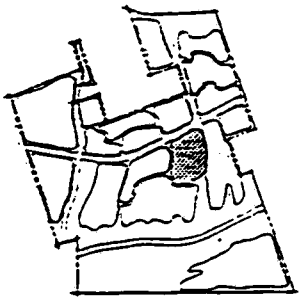
Open Patio setback: 5' for open patios

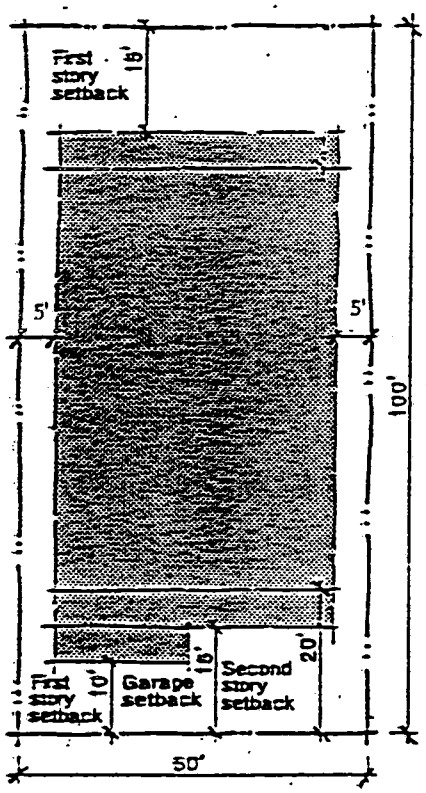
Maximum Floor Area Ratio: .50 FAR.*

Planning Area Unit Total: 145

*May be increased to .55.

SITE DESIGN CRITERIA
PLANNING AREA 17
Principal Use:
RS-Single Family Detached Homes





TYPICAL LOT LAYOUT
5000 s.f. lot

Average Lot Size: 6,750 S.F.

Height Regulations: 28'

Minimum Lot Area: 5000 s.f.

Minimum Lot Width: 50' at the 15' garage door setback

Minimum Lot Depth: 90'

Front yard setback: 15' at the garage door when the garage faces a public street; 20' at the second story; 10' at the side entry garage; 15' at the main residence

Side yard setback: 5', 10' total both sides

Rear yard setback: 15'

Fencing setback: Side yard/front yard private fences exceeding 3' in height shall not encroach into the first story front yard setback and must conform to the Conceptual Fencing Section of this document or Section 19.58.150 of the Chula Vista Zoning Code.

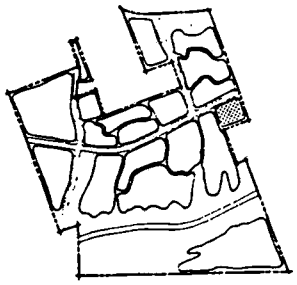
Open Patio setback: 5' for open patios

Maximum Floor Area Ratio: .50 FAR.*

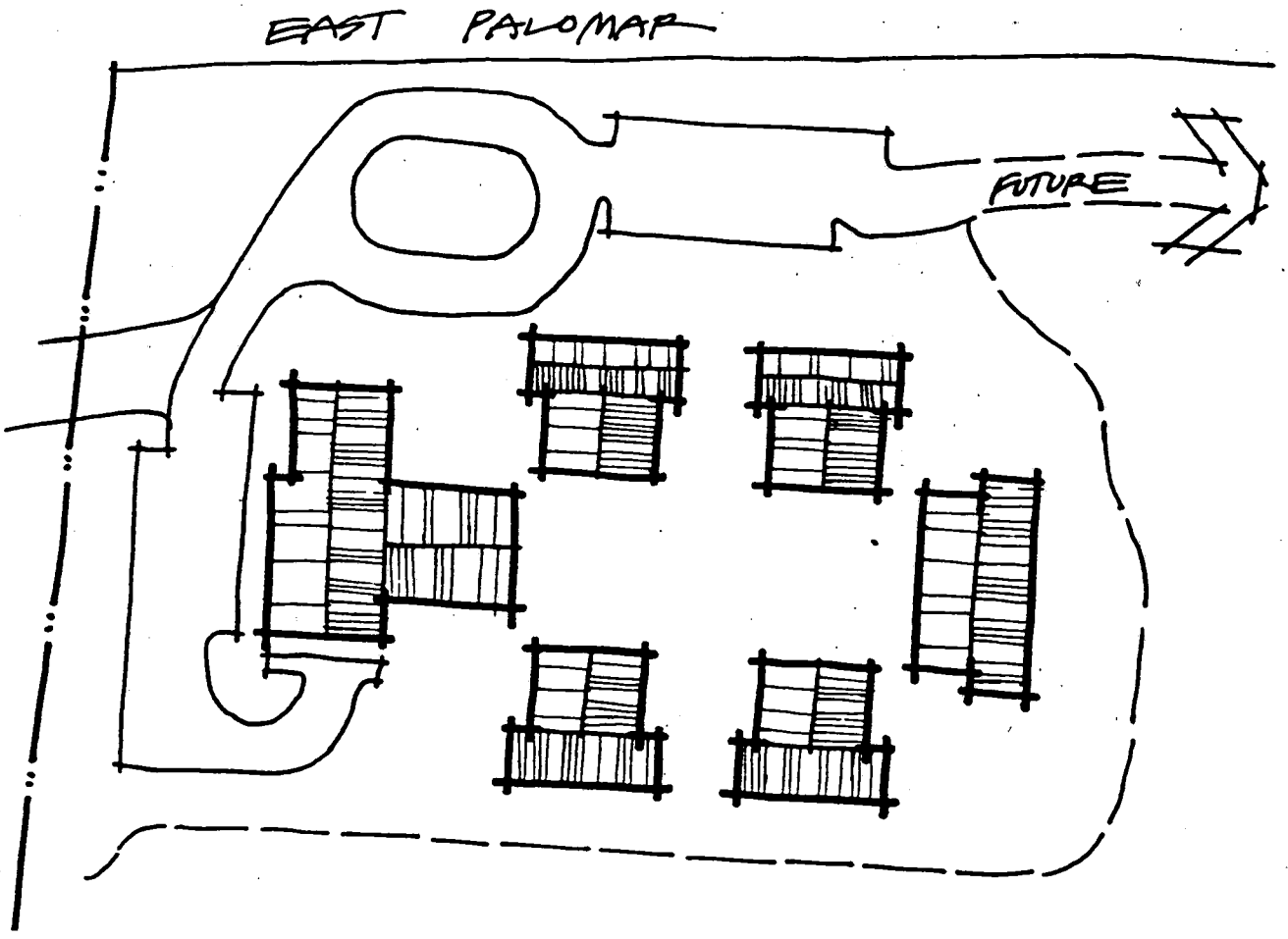
Planning Area Unit Total: 102

*May be increased to .55.

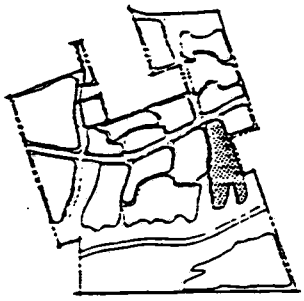
SITE DESIGN CRITERIA
PLANNING AREA 18
Principal Use:
RS-Elementary School



The Design Criteria will be in conformance with the Chula Vista City Elementary School District. In the event that such use is not implemented, the said planning area will revert to low medium density residential and be subject to the minimum criteria as set forth for Planning Area 19.



SITE DESIGN CRITERIA
PLANNING AREA 19
Principal Use:
RS-Single Family Detached Homes



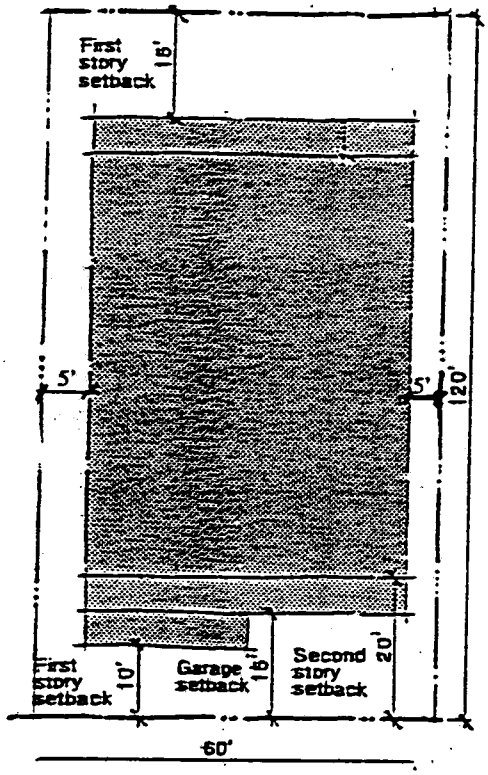
Average Lot Size: 7,700 S.F.

Height Regulations: 28'

Minimum Lot Area: 5000 s.f.

Minimum Lot Width: 60' at the 15' garage door setback

Minminum Lot Depth: 90'



TYPICAL LOT LAYOUT
6000 s.f. lot

Front yard setback: 15' at the garage door when the garage faces a public street; 20' at the second story; 10' side entry garage; 15' at the main residence

Side yard setback: 5', 10' total both sides

Rear yard setback: 15'

Fencing setback: Side yard/front yard private fence exceeding 3' in height shall not encroach into the first story front yard setback and must conform to the Conceptual Fencing Section of this document or Section 19.58.150 of the Chula Vista Zoning Code.

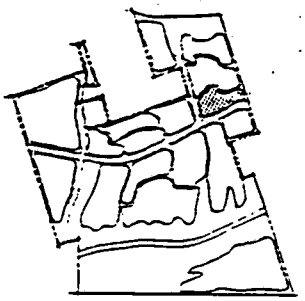
Open Patio setback: 5' for open patios

Maximum Floor Area Ratio: .50 FAR.*

Planning Area Unit Total: 112

*May be increased to .55.

SITE DESIGN CRITERIA
PLANNING AREA 20
Principal Use:
RS-Single Family Detached Homes



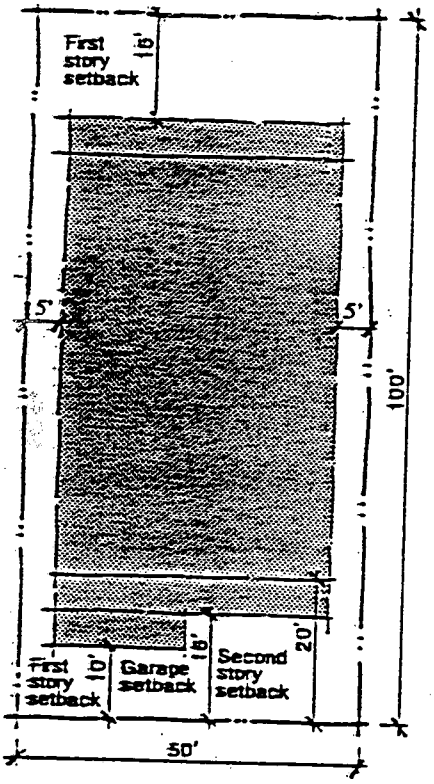
Average Lot Size: 7,375 S.F.

Height Regulations: 28'

Minimum Lot Area: 5000 s.f.

Minimum Lot Width: 50' at the 15' garage door setback

Minimum Lot Depth: 90'



TYPICAL LOT LAYOUT
5000 s.f. lot

Front yard setback: 15' at the garage door when the garage faces a public street; 20' at the second story; 10' side entry garage; 15' at the main residence

Side yard setback: 5', 10' total both sides

Rear yard setback: 15'

Fencing setback: Side yard/front yard private fences exceeding 3' in height shall not encroach into the first story front yard setback and must conform to the Conceptual Fencing Section of this document or Section 19.58.150 of the Chula Vista Zoning Code.

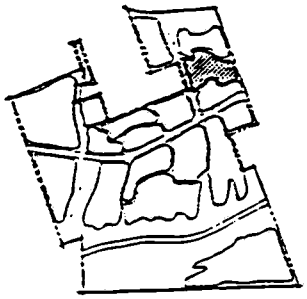
Open Patio setback: 5' for open patio

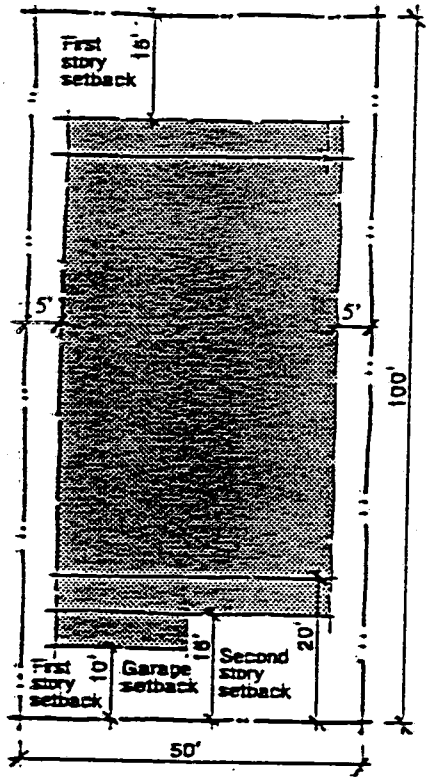
Maximum Floor Area Ratio: .50 FAR.*

Planning Area Unit Total: 57

*May be increased to .55.

SITE DESIGN CRITERIA
PLANNING AREA 21
Principal Use:
RS-Single Family Detached Homes





TYPICAL LOT LAYOUT
5000 s.f. lot

Average Lot Size: 7,175 S.F.

Height Regulations: 28'

Minimum Lot Area: 5000 s.f.

Minimum Lot Width: 50' at the 15' garage door setback

Minimum Lot Depth: 90'

Front yard setback: 15' at the garage door when the garage faces a public street; 20' at the second story; 10' at the side entry garage; 15' at the main residence

Side yard setback: 5', 10' total both sides

Rear yard setback: 15'

Fencing setback: Side yard/front yard private fences exceeding 3' in height shall not encroach into the first story front yard setback and must conform to the Conceptual Fencing Section of this document or Section 19.58.150 of the Chula Vista Zoning Code.

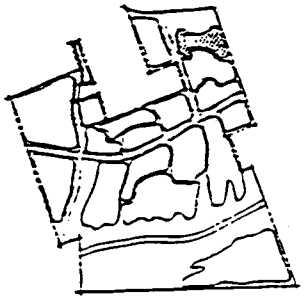
Open Patio setback: 5' for open patio

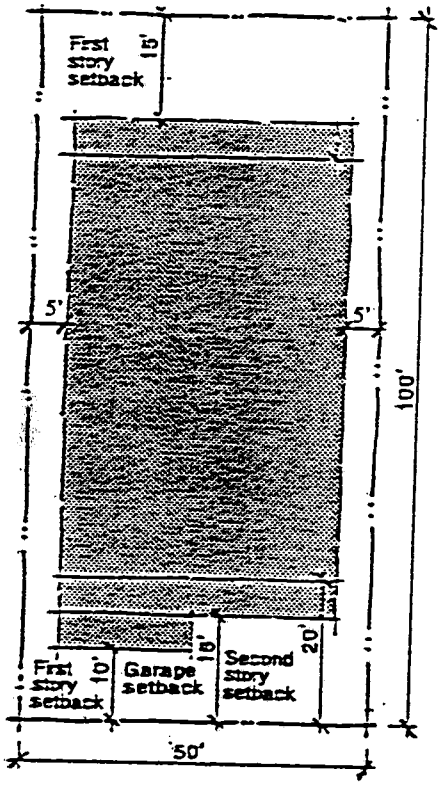
Maximum Floor Area Ratio: .50 FAR.*

Planning Area Unit Total: 81

*May be increased to .55.

SITE DESIGN CRITERIA
PLANNING AREA 22
Principal Use:
RS-Single Family Detached Homes





TYPICAL LOT LAYOUT
5000 s.f. lot

Average Lot Size: 7,200 S.F.

Height Regulations: 28'

Minimum Lot Area: 5,000 s.f.

Minimum Lot Width: 50' at the 15' garage door setback

Minimum Lot Depth: 90'

Front yard setback: 15' at the garage door when the garage faces a public street; 20' at the second story; 10' at the side entry garage; 15' at the main residence

Side yard setback: 5', 10' total both sides

Rear yard setback: 20' at the second story, 10' at the first story where Section 19.24.120 of the C.V.M.C. applies, 20' at the first story when the rear lot line adjoins another rear yard or public street. 15' minimum at the first story when the rear lot line adjoins an open space area.

Fencing setback: Side yard/front yard private fences exceeding 3' in height shall not encroach into the first story front yard setback and must conform to the Conceptual Fencing Section of this document or Section 19.58.150 of the Chula Vista Zoning Code.

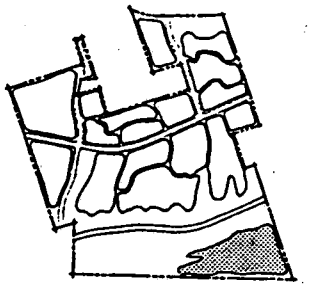
Open Patio setback: 5' for open patio

Maximum Floor Area Ratio: .50 FAR.*

Planning Area Unit Total: 101

*May be increased to .55.

SITE DESIGN CRITERIA
PLANNING AREA 23
Principal Use:
IP-Industrial Park



Height Regulations: 45' unless otherwise approved by a use permit

Front yard setback: 25'

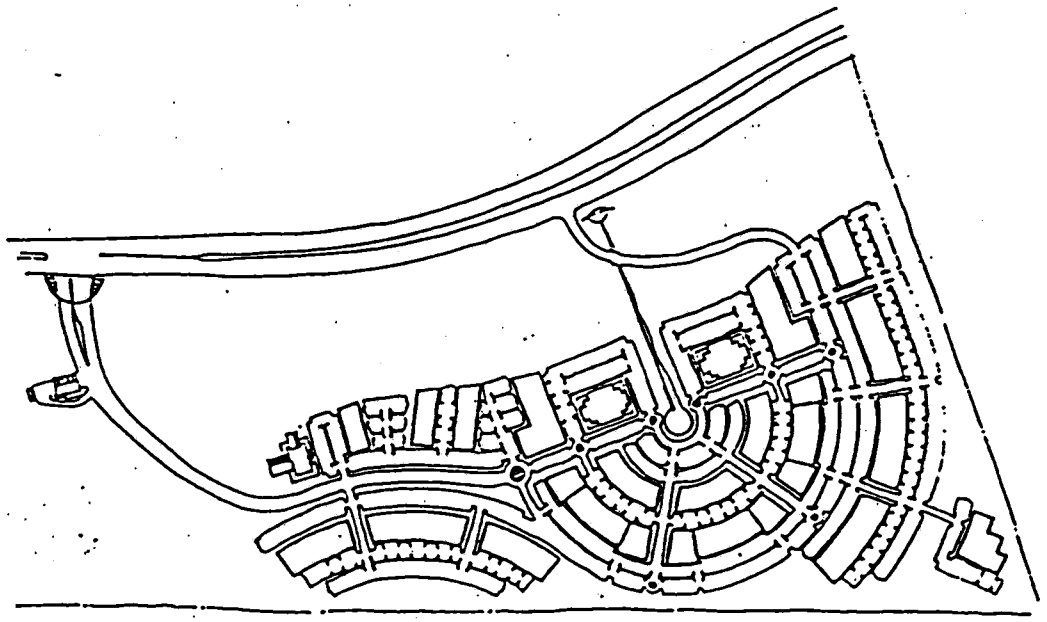
Side yard setback: 10'

Rear yard setback: 10'

Fencing Setback: Side yard/front yard private fences exceeding 3' in height shall not encroach into the first story front yard setback and must conform to the Conceptual Fencing Section of this document or Section 19.58.150 of the Chula Vista Zoning Code.

Maximum Floor Area Ratio: .50 FAR

Parking Standards: Must conform to Section 19.62 of the Chula Vista Zoning Code.



INTRODUCTION

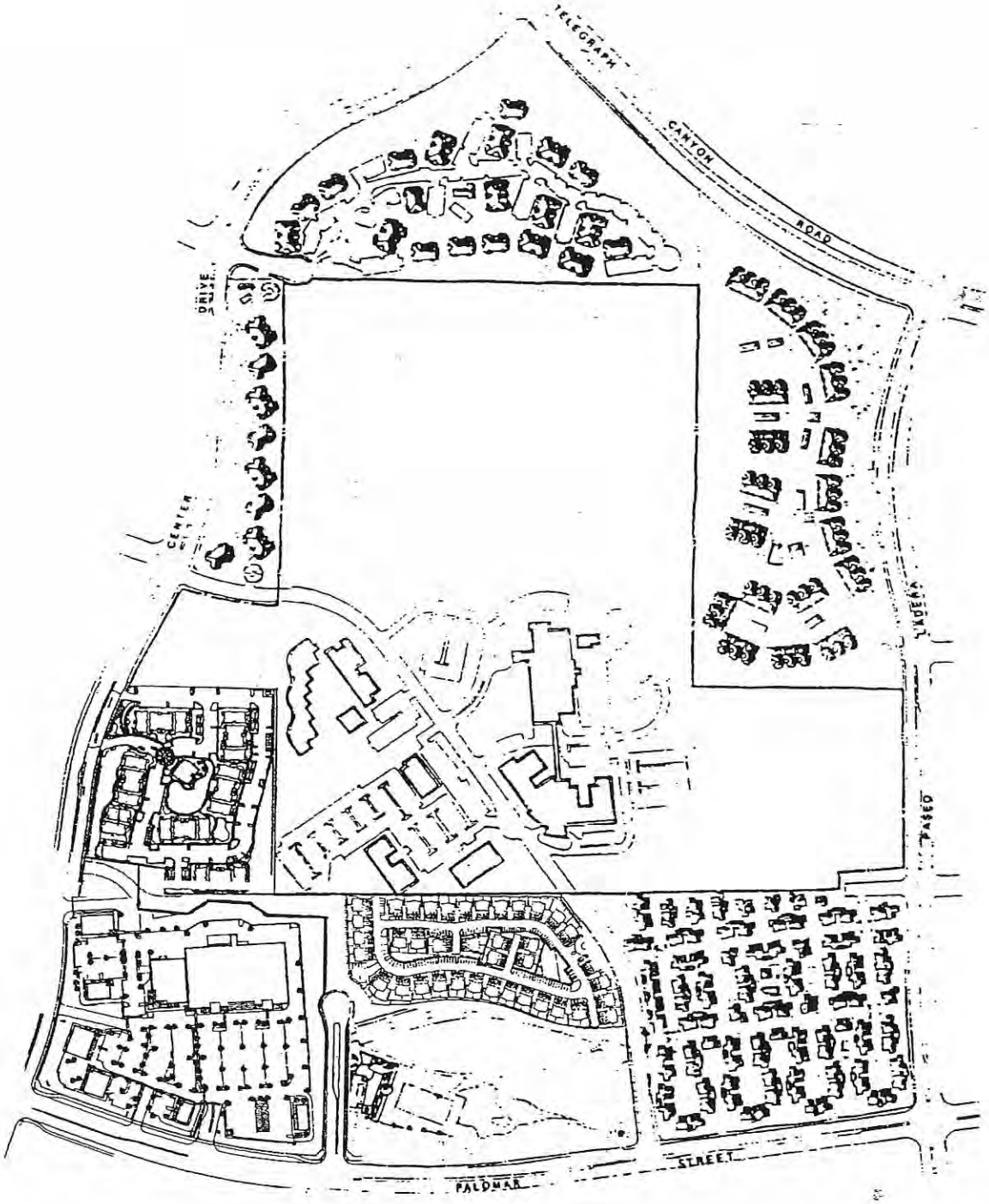
Purpose and Intent

The overall character of Sunbow is that of a California Spanish village composed of small identifiable enclaves of homes. These enclaves surround a village center designed as though it were the beginnings of the original settlement of Sunbow, if Sunbow had in fact begun and grown spontaneously as have other small towns and villages in Southern California.

To achieve this strong and consistent California Spanish architectural statement, which is vital in establishing the village character, Architectural Guidelines have been developed to further direct the specific architecture of Sunbow. These guidelines are general in nature and meant to establish only a minimum standard. It is fully expected that the end result will greatly exceed these guidelines.

The Design Guidelines for Sunbow. have been organized according to overall concerns and issues, and individual planning area concerns and issues. The urban design plans contained in these Guidelines identify the location and design of common infrastructure elements such as intersections, walkways and edge conditions, etc. The Individual Planning Area Guidelines establish site development and architectural guidelines applicable to those areas only.

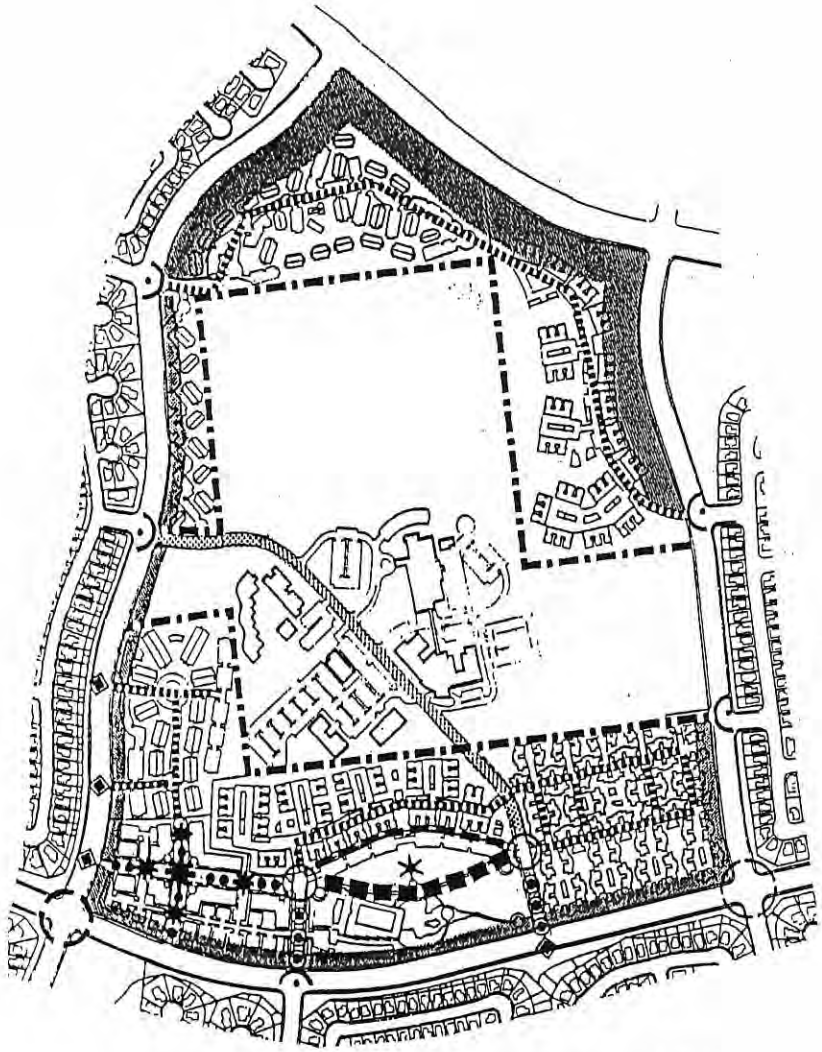
The goal of establishing Sunbow as a California Spanish village requires adherence to both the Overall and Planning Area Guidelines. This will create the clear and consistent design that sets this planned community apart providing an outstanding and livable neighborhood in the City of Chula Vista.



ILLUSTRATIVE PLAN FOR INNER CORE AREA

(Rev. 6-20-2000)

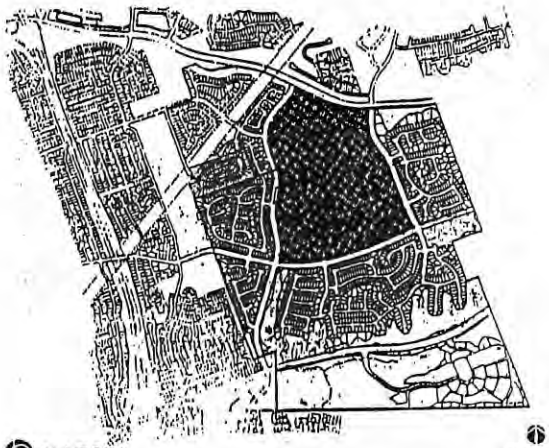
URBAN DESIGN:



URBAN DESIGN PLAN FOR INNER CORE AREA

LEGEND:

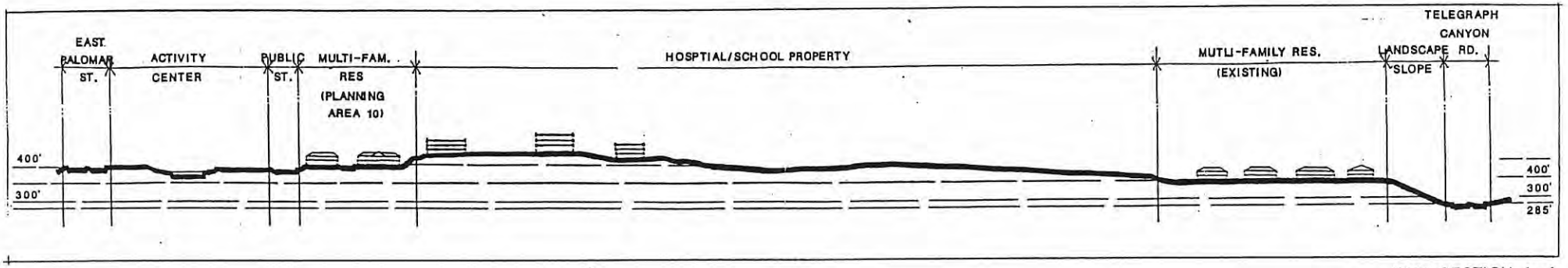
- SLOPE EDGE CONDITION
- ARTERIAL EDGE CONDITION
- HOSPITAL/SCHOOL EDGE CONDITION
- MAJOR COMMUNITY ENTRANCE
- VILLAGE CENTER INTERSECTION
- MAJOR INTERNAL INTERSECTION
- MAJOR ENTRANCE
- MINOR ENTRANCE
- SPECIAL INTERSECTION
- MAJOR VILLAGE CENTER INTERSECTION
- MINOR VILLAGE CENTER INTERSECTION
- ACTIVITY CENTER
- PUBLIC STREET:URBAN EDGE
- PRIVATE STREET: PARK EDGE
- URBAN VILLAGE CENTER WALKWAYS
- RESIDENTIAL WALKWAYS
- GARDEN WALKWAYS
- FUTURE PEDESTRIAN LINKAGE



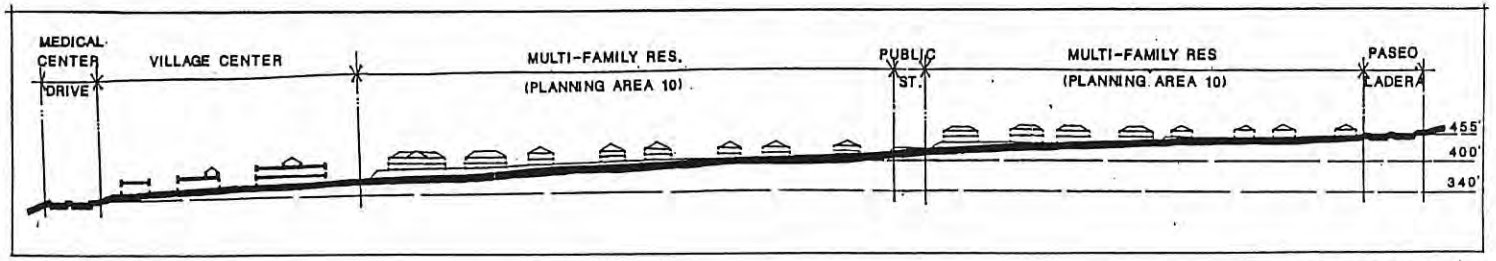
SUNBOW

KEY PLAN

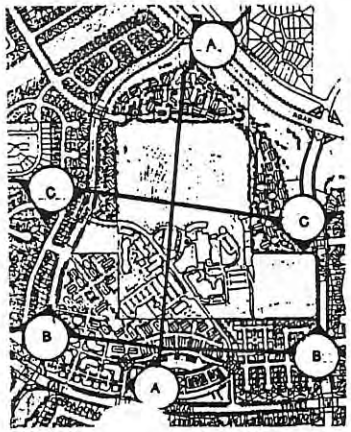
SITE SECTIONS:



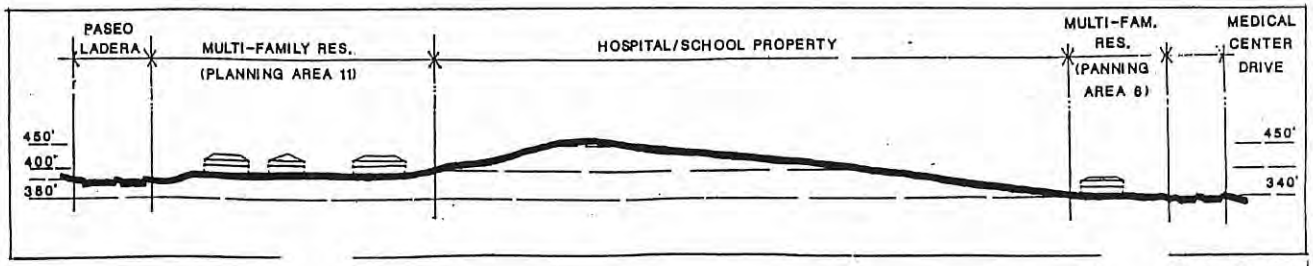
SITE SECTION A-A



SITE SECTION B-B

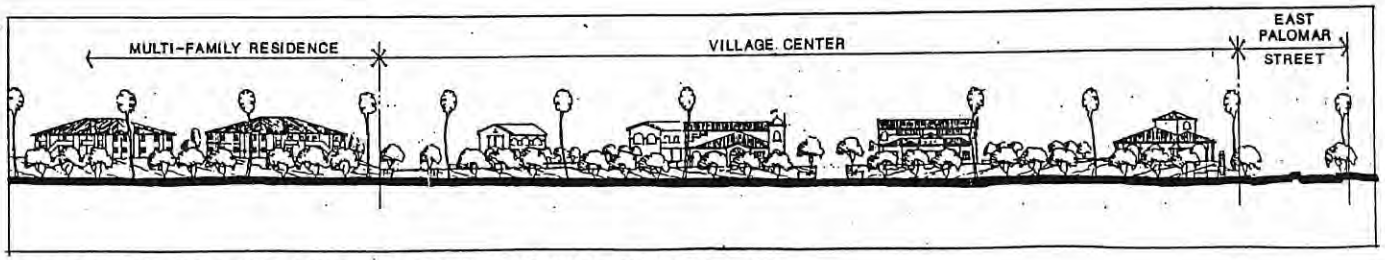


KEY PLAN

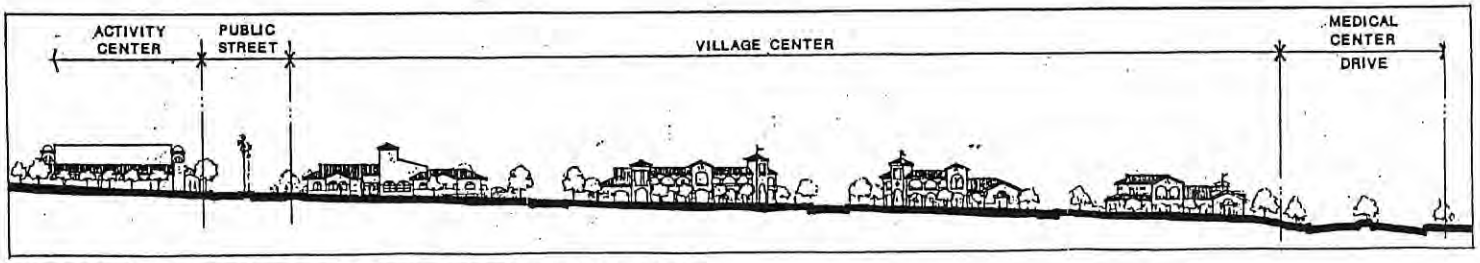


SECTION C-C

STREET ELEVATIONS:



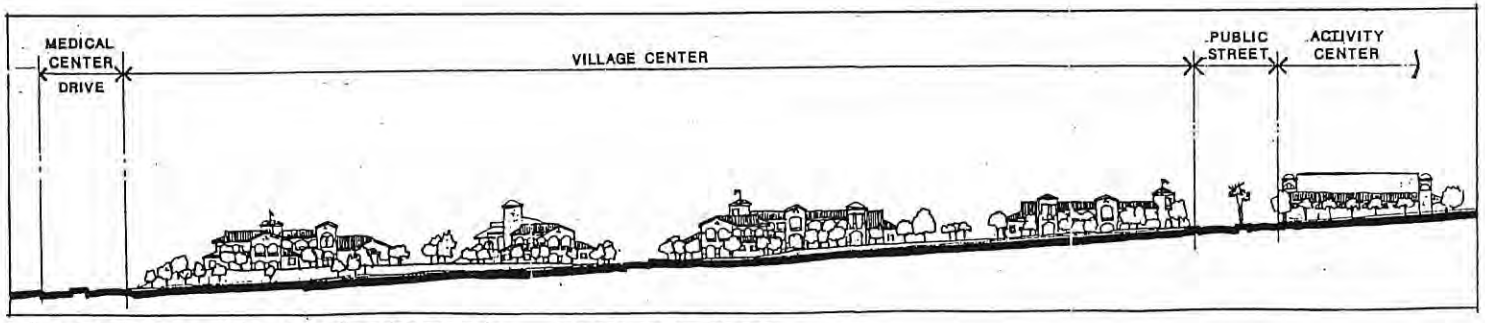
A. STREET ELEVATION LOOKING EAST FROM MEDICAL CENTER DRIVE



B. STREET ELEVATION LOOKING SOUTH FROM INTERIOR DRIVE

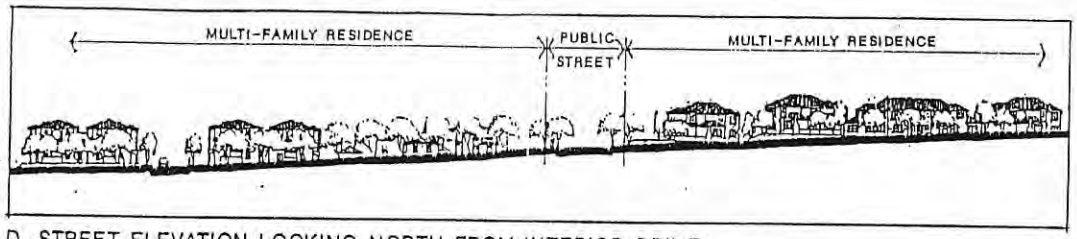


KEY PLAN

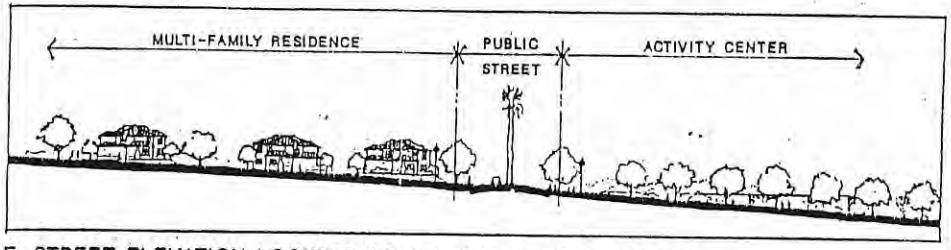


C. STREET ELEVATION LOOKING NORTH FRO \ST PALOMAR DRIVE

STREET ELEVATIONS:



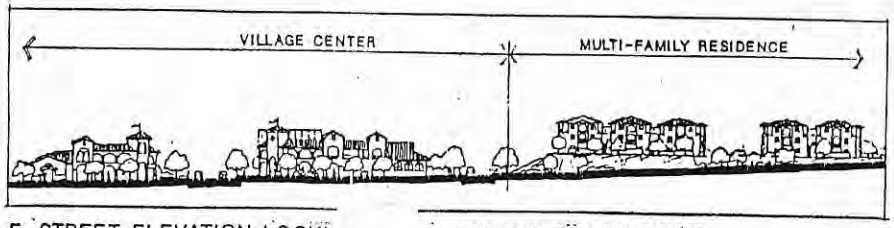
D. STREET ELEVATION LOOKING NORTH FROM INTERIOR DRIVE



E. STREET ELEVATION LOOKING SOUTH FROM INTERIOR DRIVE

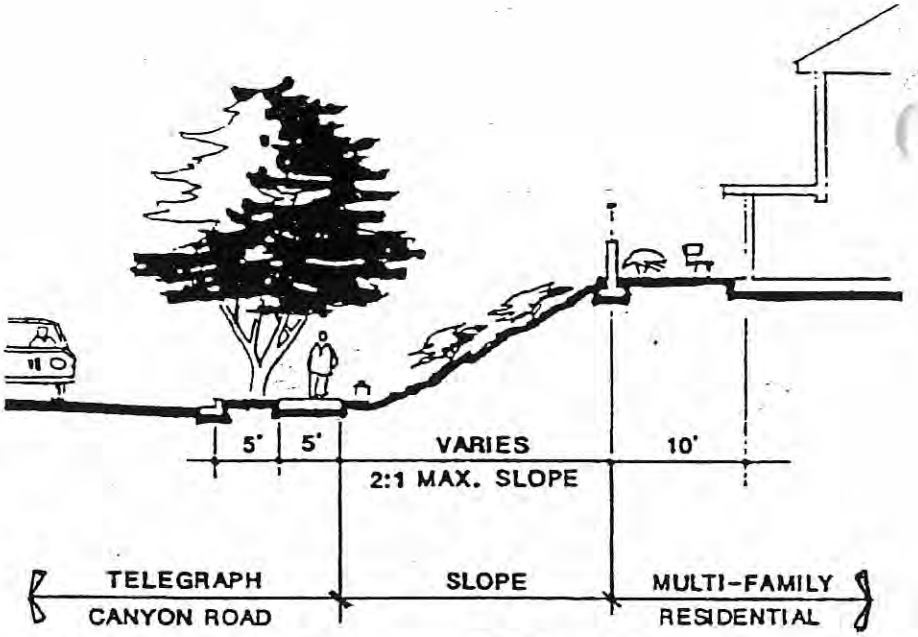


KEY PLAN



F. STREET ELEVATION LOOKIN H FROM INTERIOR DRIVE.

EDGE CONDITION:

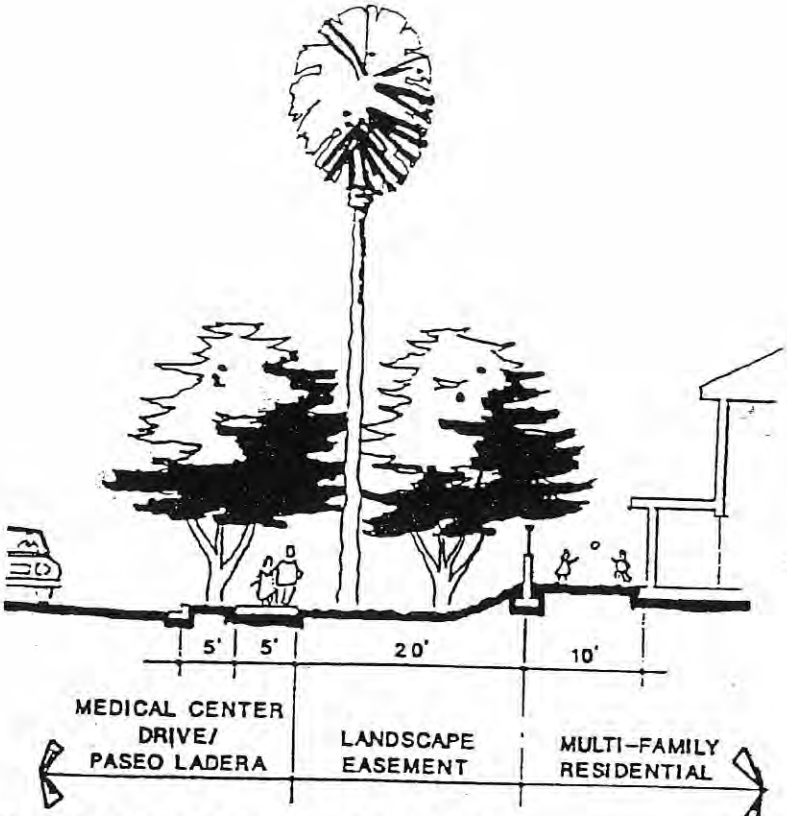




KEY PLAN

(Rev. 6-20-00)

EDGE CONDITION:

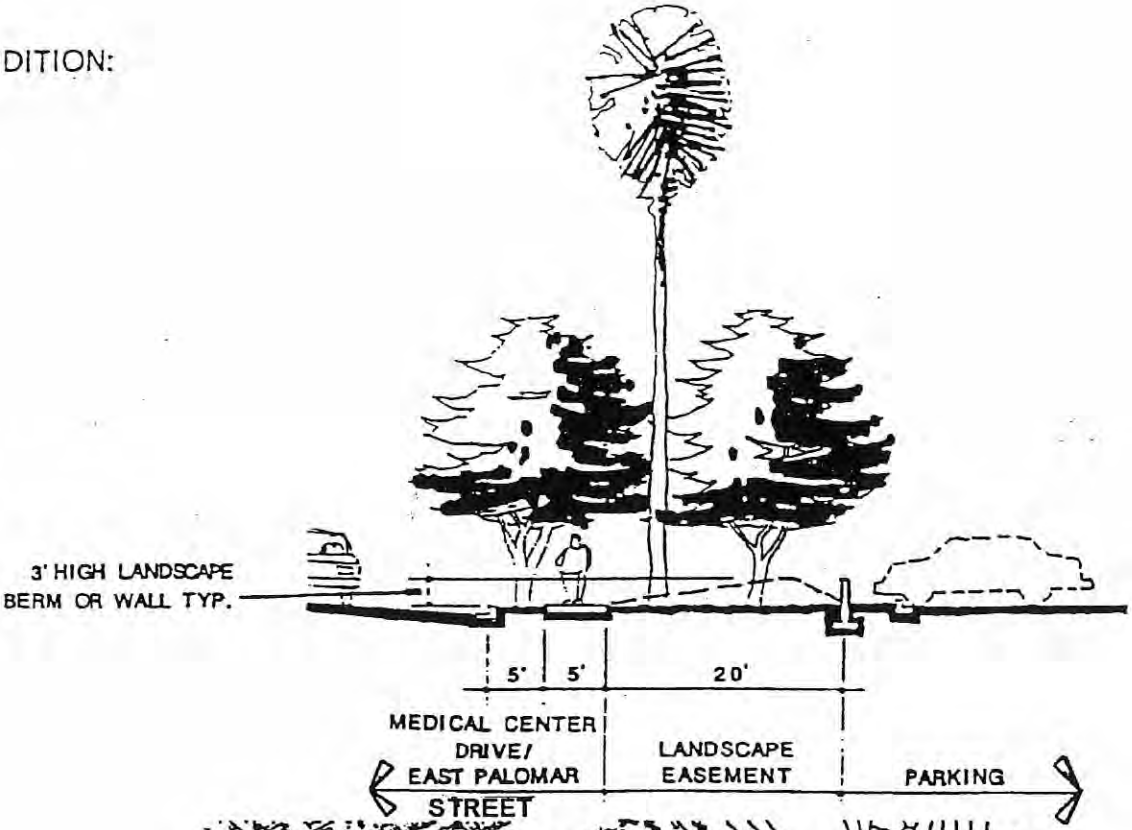




KEY PLAN

(REV. 6-20-2000)

EDGE CONDITION:

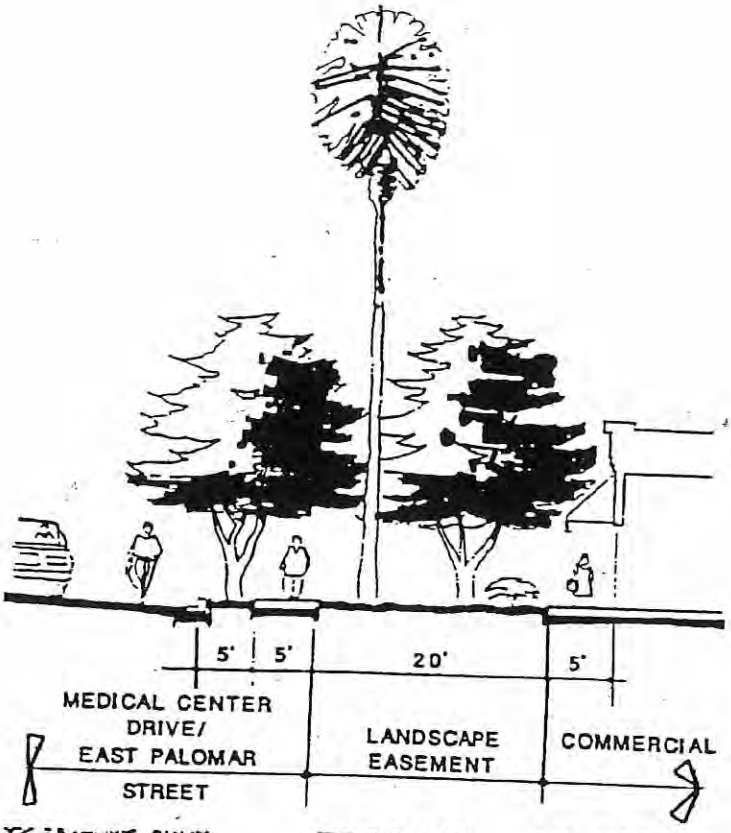




KEY PLAN

(REV. 6-20-2000)

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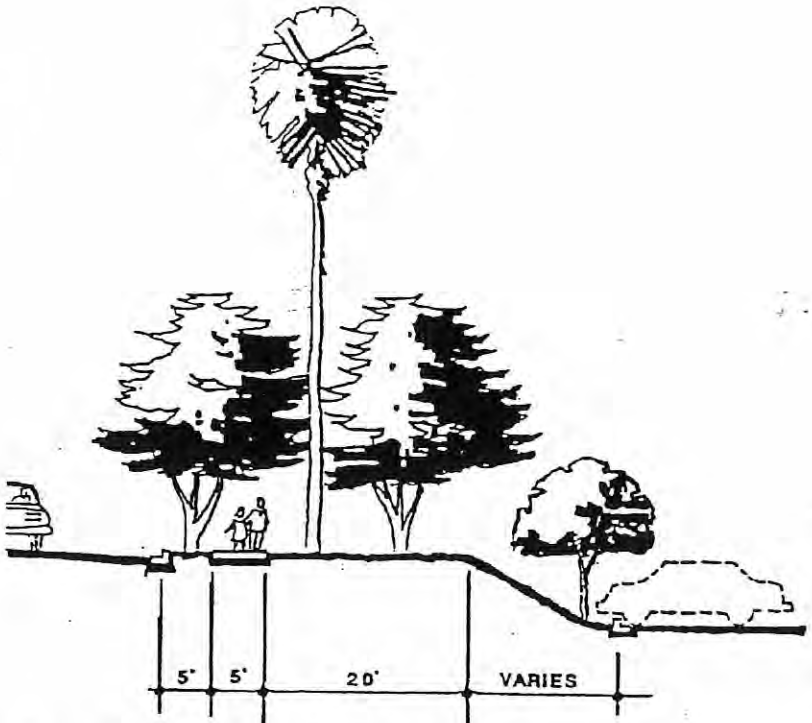




KEY PLAN

(REV. 6-20-2000)

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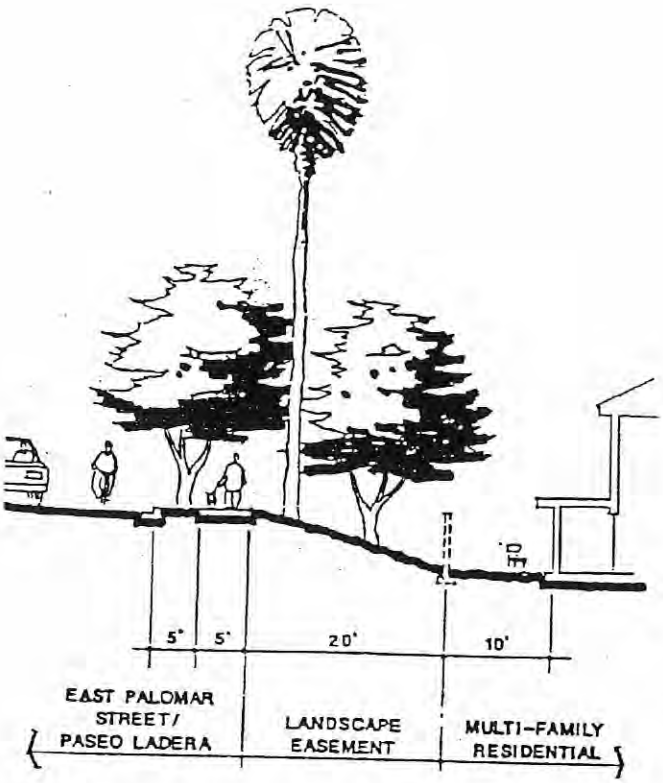




KEY MAP

(Rev. 6-20-00)

EDGE CONDITION:



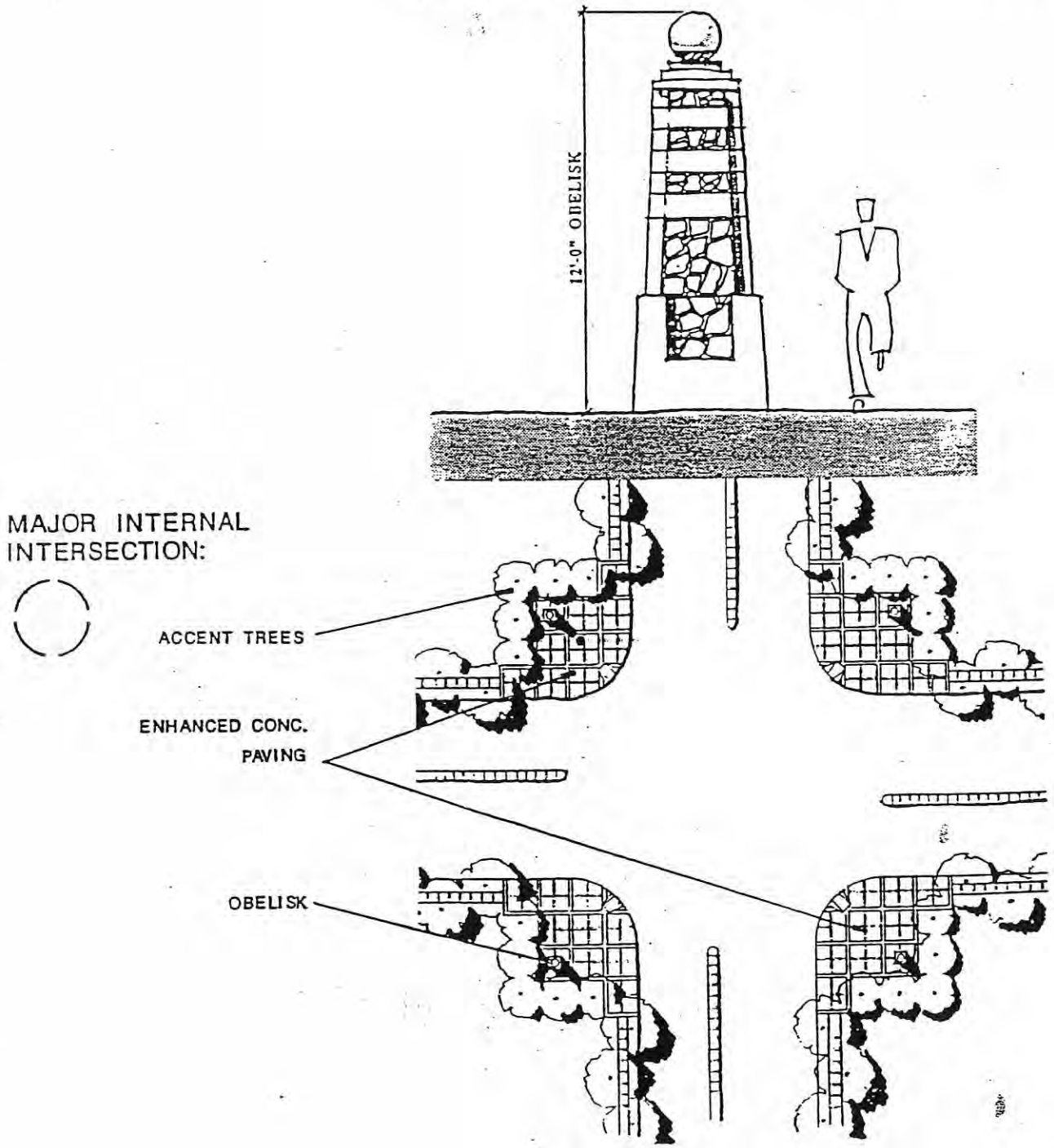


KEY MAP

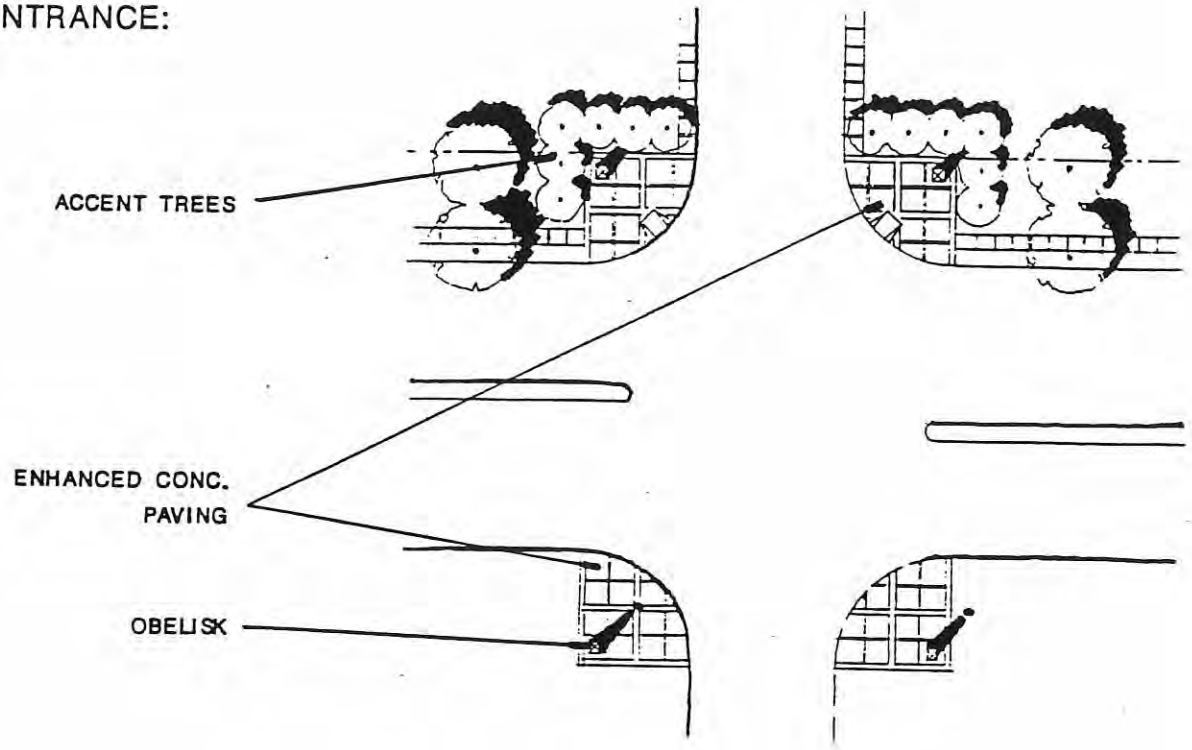
Obelisks

Obelisks will be used as monumentation at major intersections in Sunbow. These pillars will be 12'-0" in height with a geometric design. They may be suitable at a smaller scale for entry monuments into the residential and commercial projects, subject to review and approval of the Sunbow Design Review Committee.

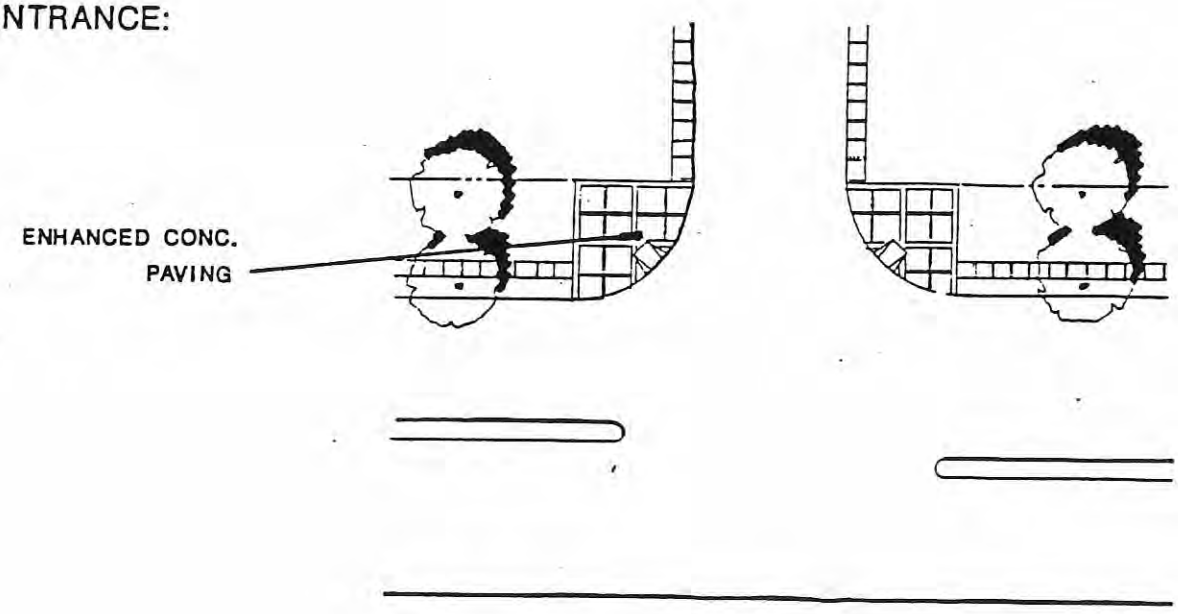
Flagstone will be used as the primary exterior material for the obelisks and the major entry monuments. Flagstone may also be used in paving and on the commercial and residential buildings within Sunbow, as applicable to the specified architectural style.



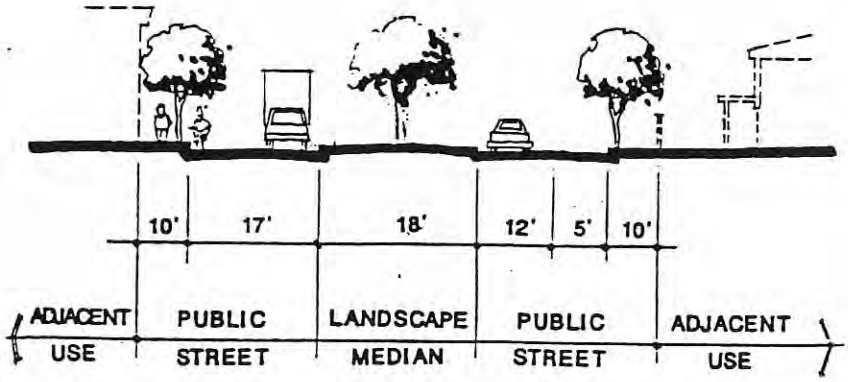
MAJOR ENTRANCE:



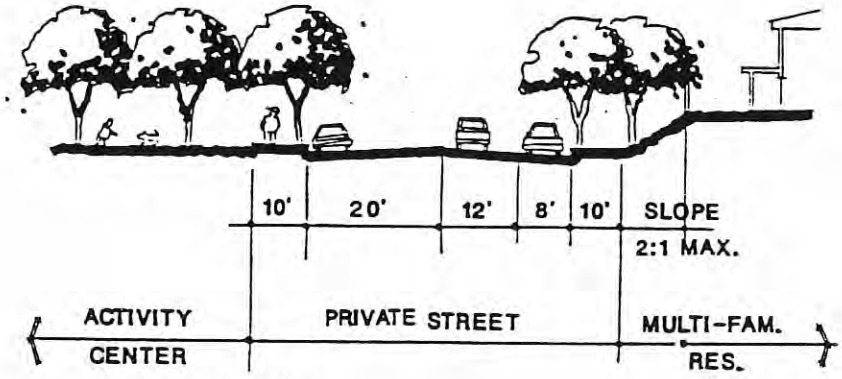
MINOR ENTRANCE:



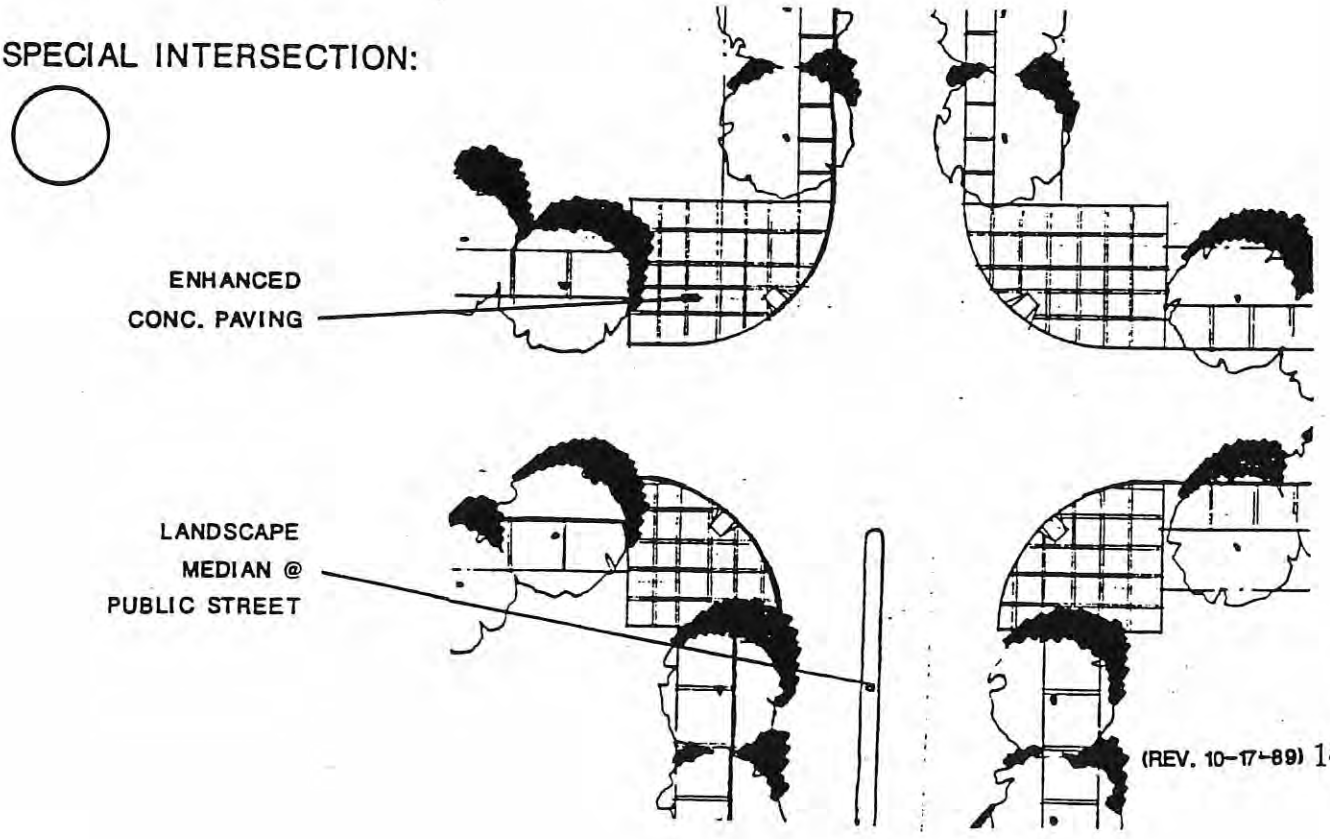
PUBLIC STREET
URBAN EDGE:



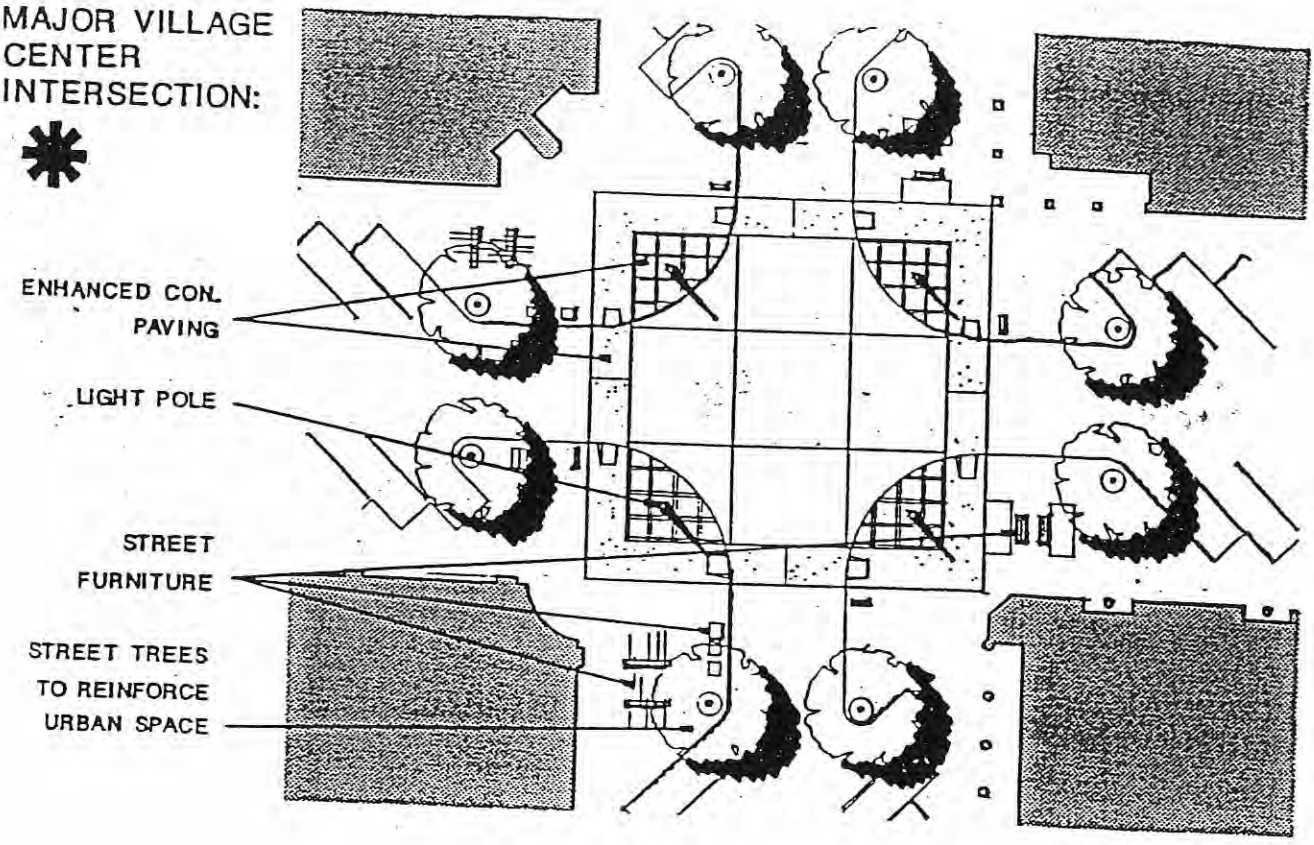
PRIVATE STREET
PARK EDGE:



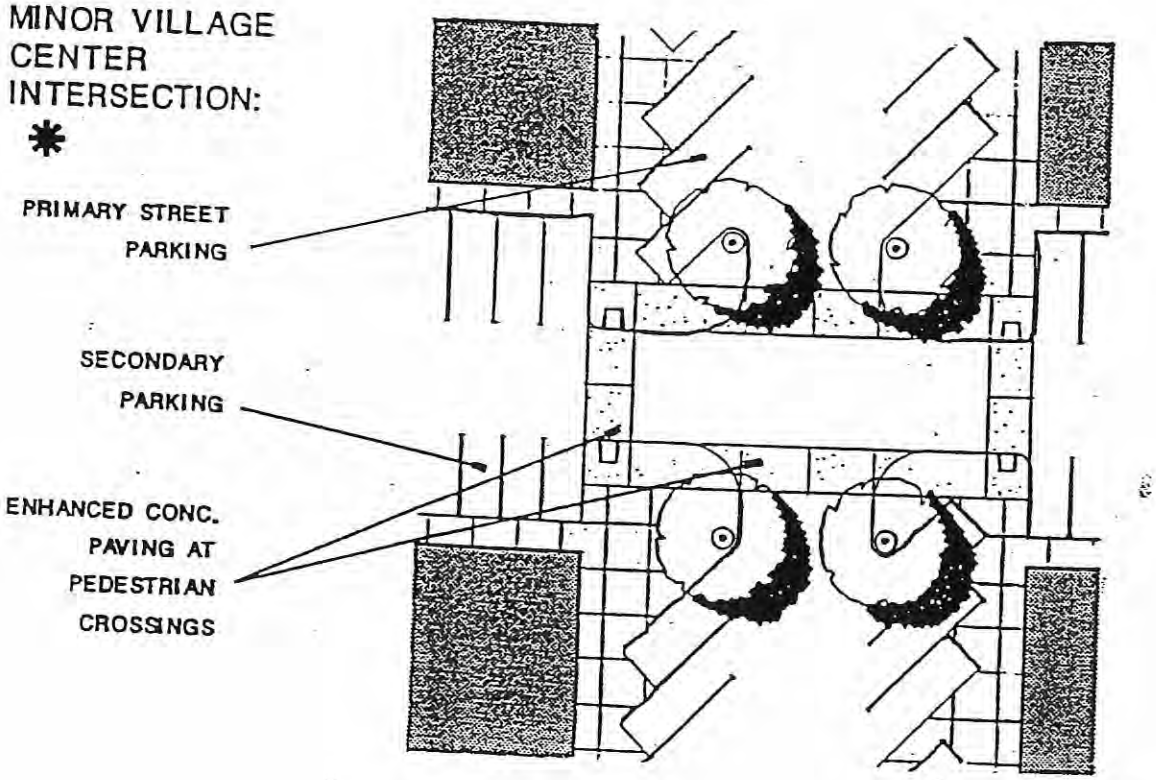
SPECIAL INTERSECTION:



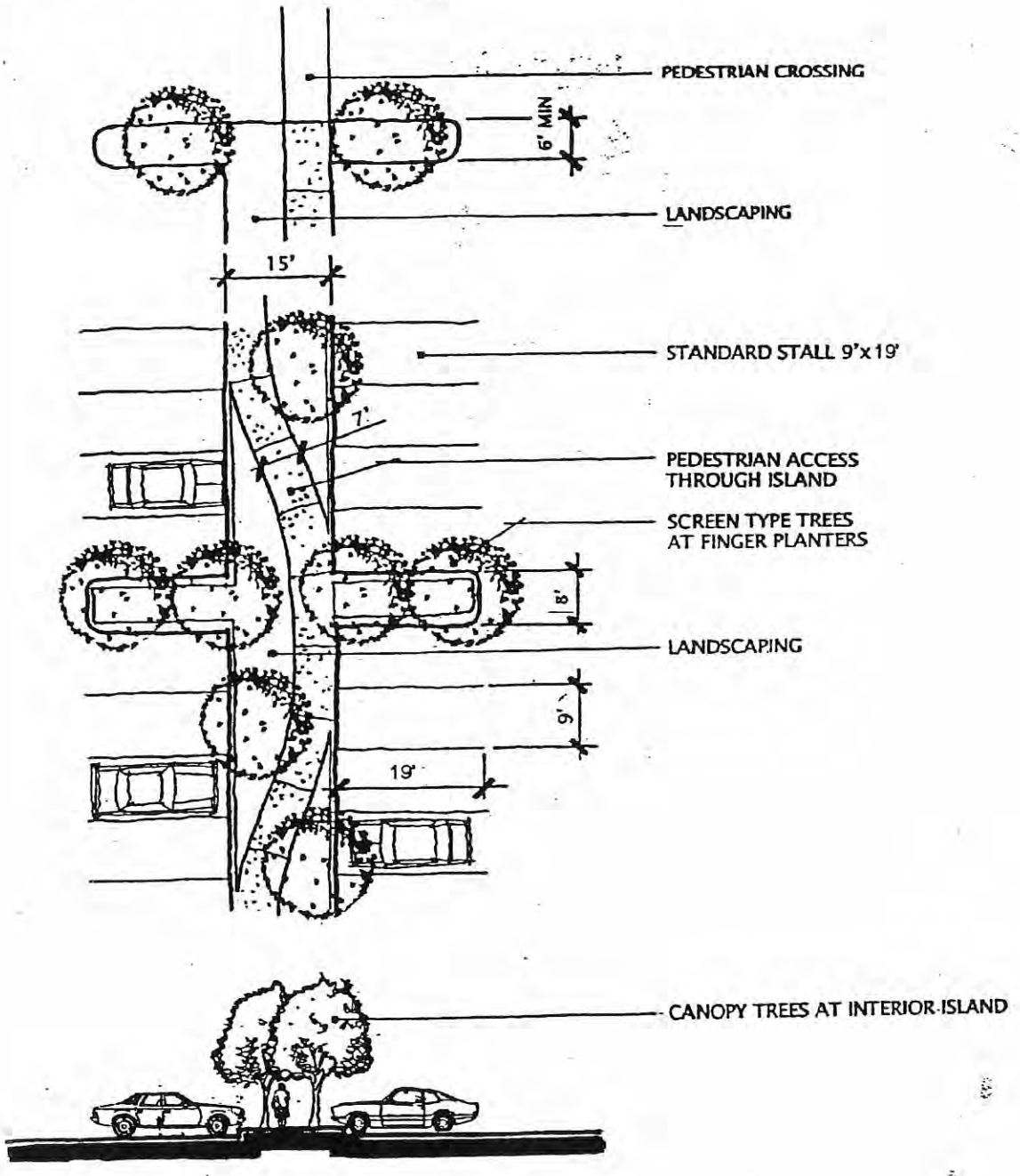
MAJOR VILLAGE CENTER INTERSECTION:



MINOR VILLAGE CENTER INTERSECTION:

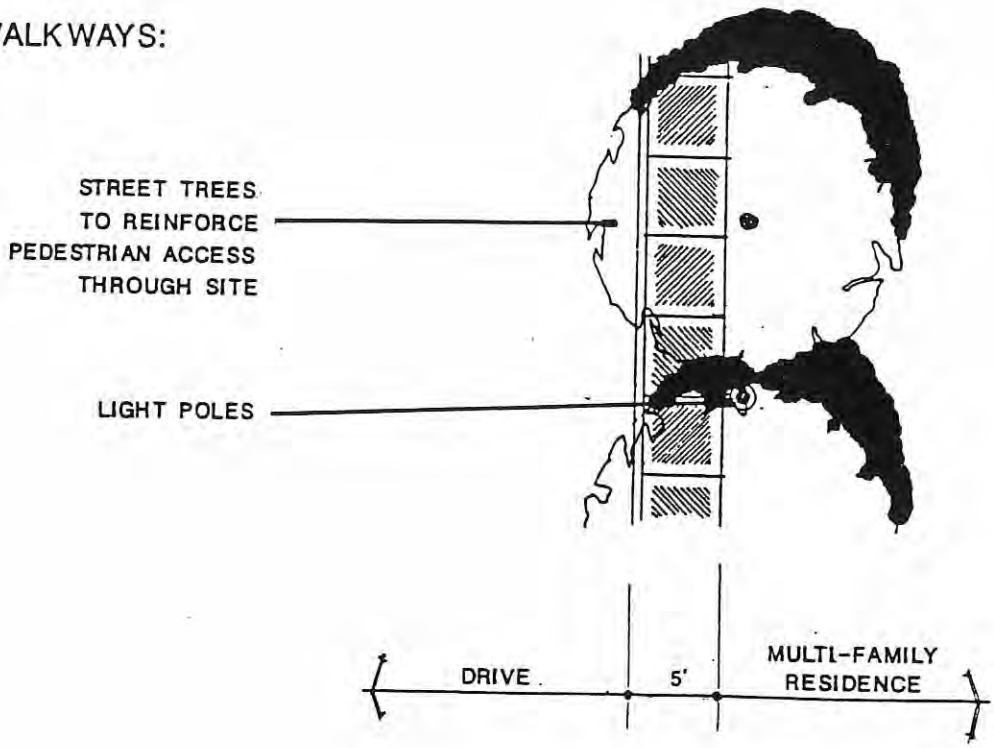


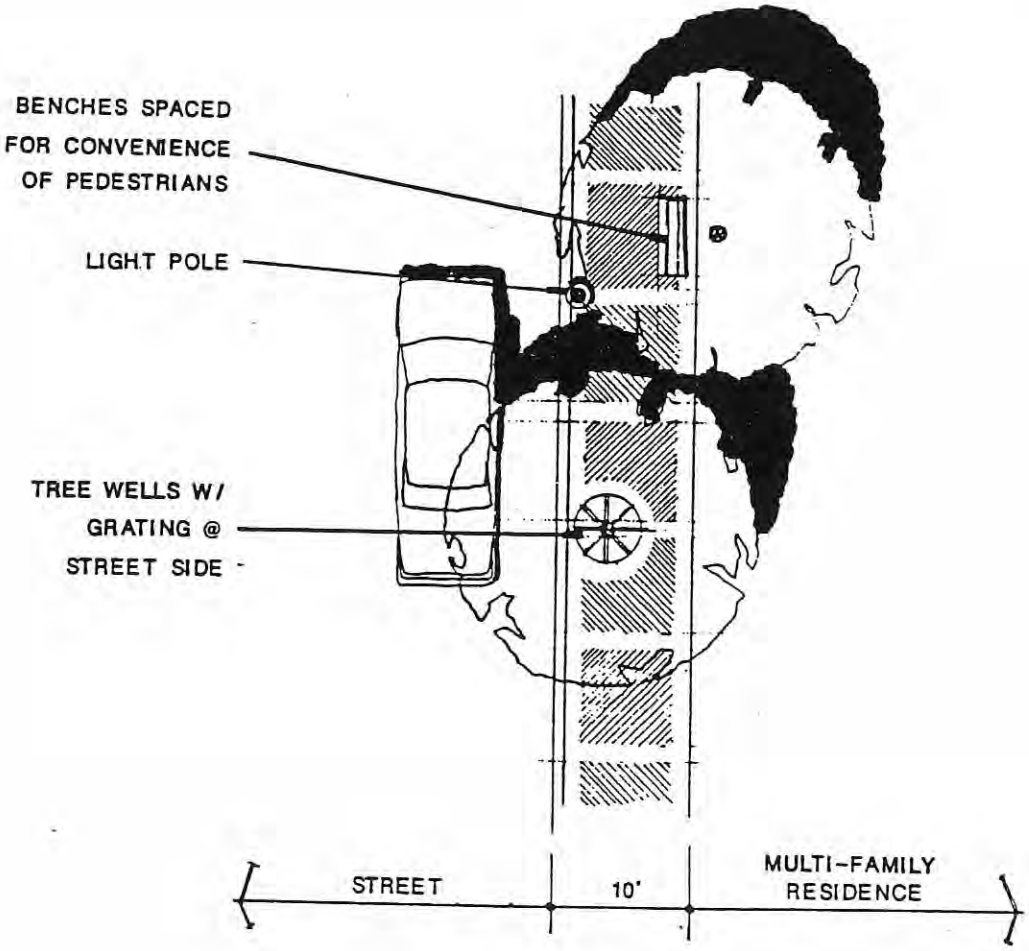
URBAN VILLAGE CENTER
WALKWAY:
●●●●



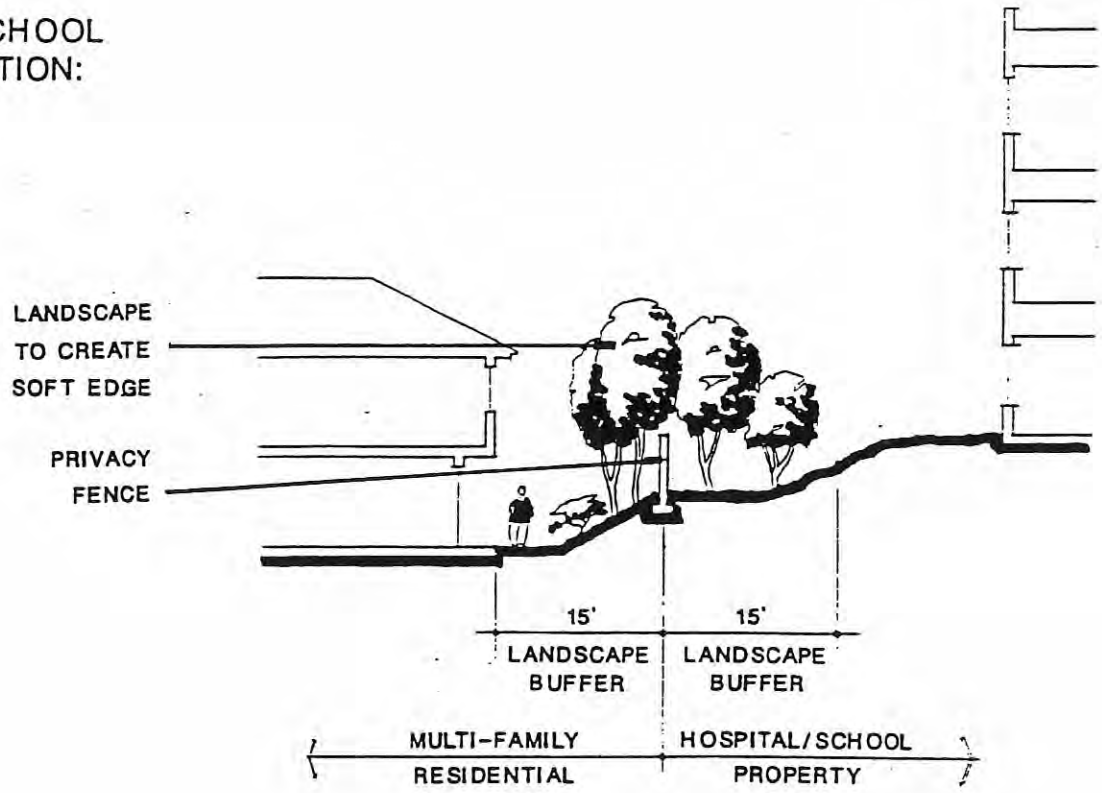
EXAMPLE: WALKWAY SECTION FOR VILLAGE CENTER

RESIDENTIAL WALKWAYS:

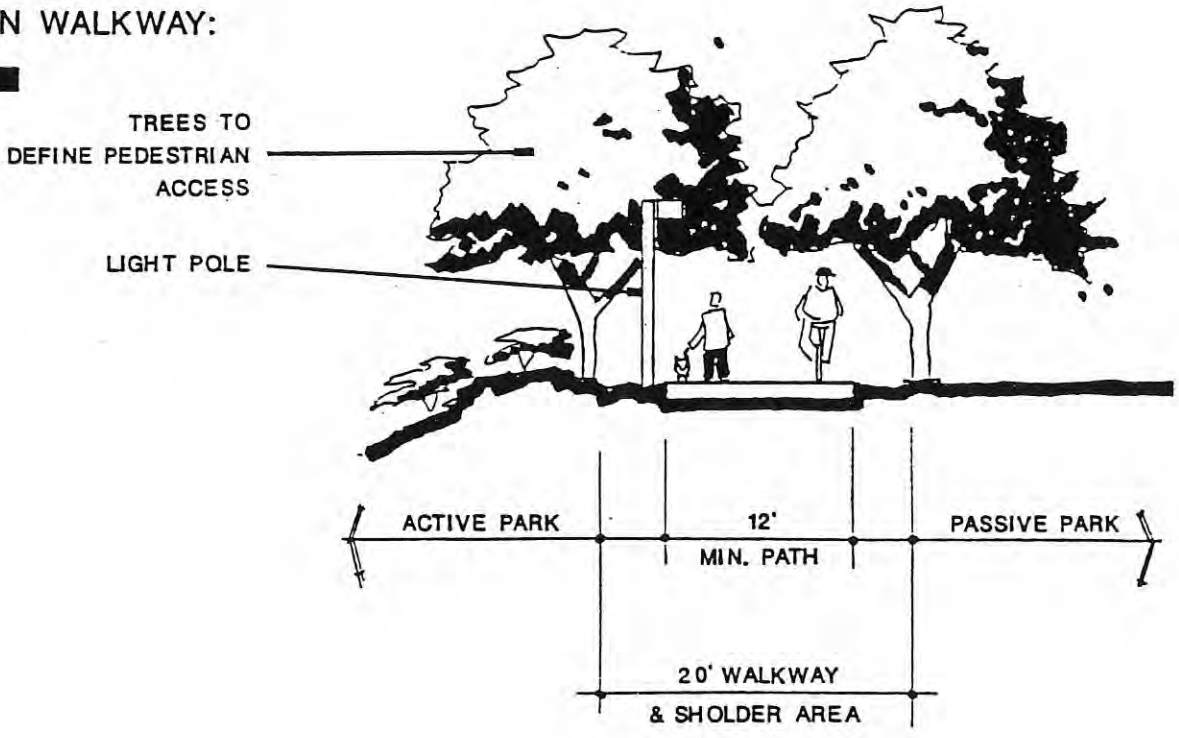


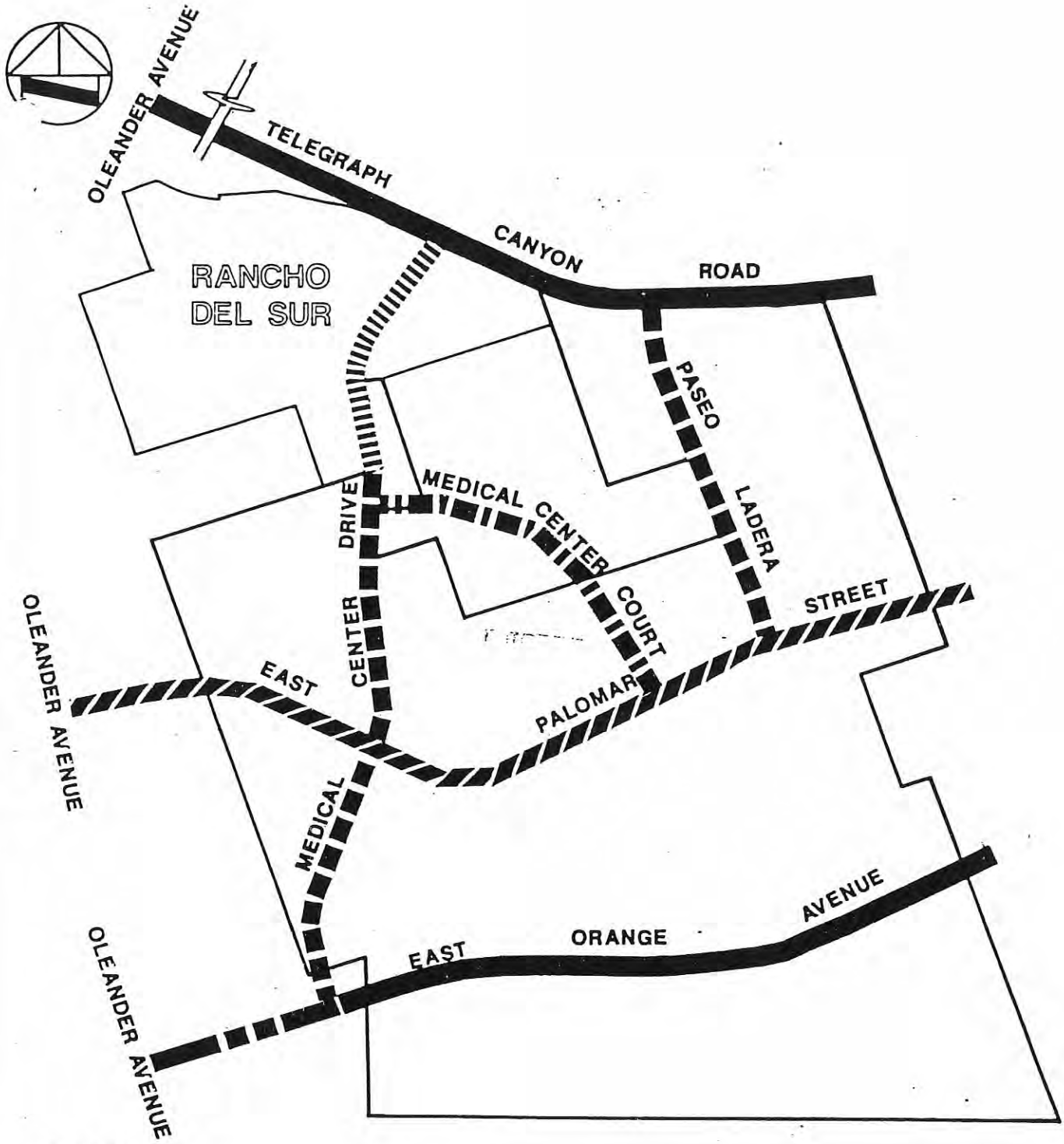


HOSPITAL/SCHOOL EDGE CONDITION:



GARDEN WALKWAY:





LEGEND

- SIX-LANE PRIME ARTERIAL
- SIX-LANE MAJOR STREET
- FOUR-LANE MAJOR STREET
- CLASS I COLLECTOR STREET
- CLASS III COLLECTOR STREET
- EXISTING CLASS I COLLECTOR STREET

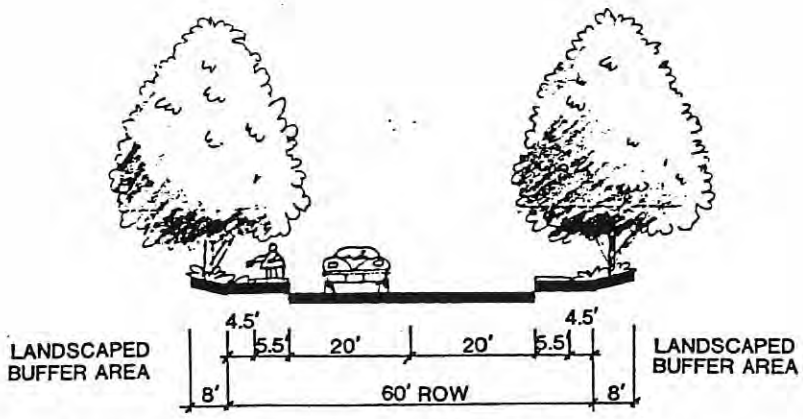
SUNBOW

CIRCULATION

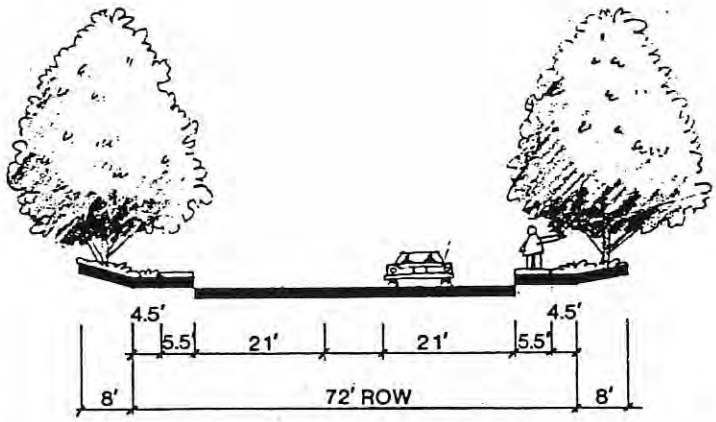
bHA, Inc.
land planning, civil engineering, surveying
(619) 298-8861
1615 Murray Canyon Road
Suite 910
San Diego, California 92108
(619) 941-1881
138 Escondido Avenue
Suite 209
Vista, California 92084

EXHIBIT 4

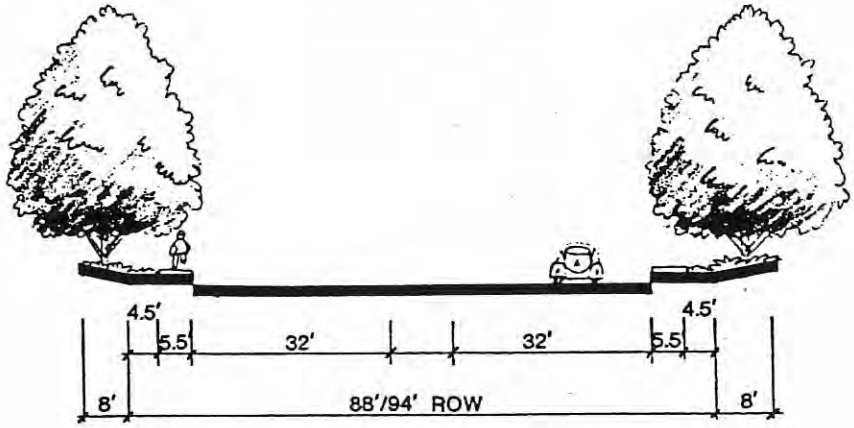
REV 1•5•90



CLASS III COLLECTOR STREET



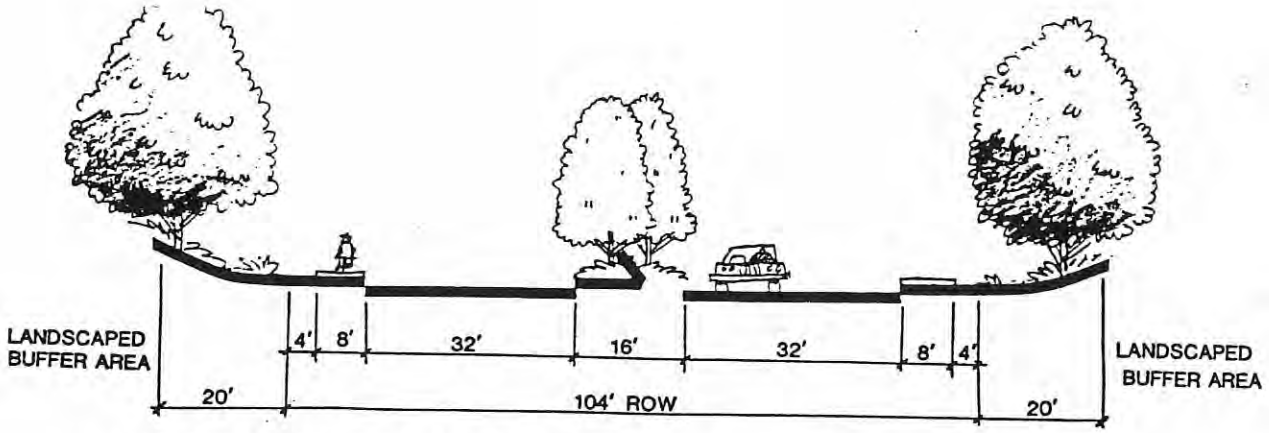
CLASS II COLLECTOR STREET



CLASS I COLLECTOR STREET

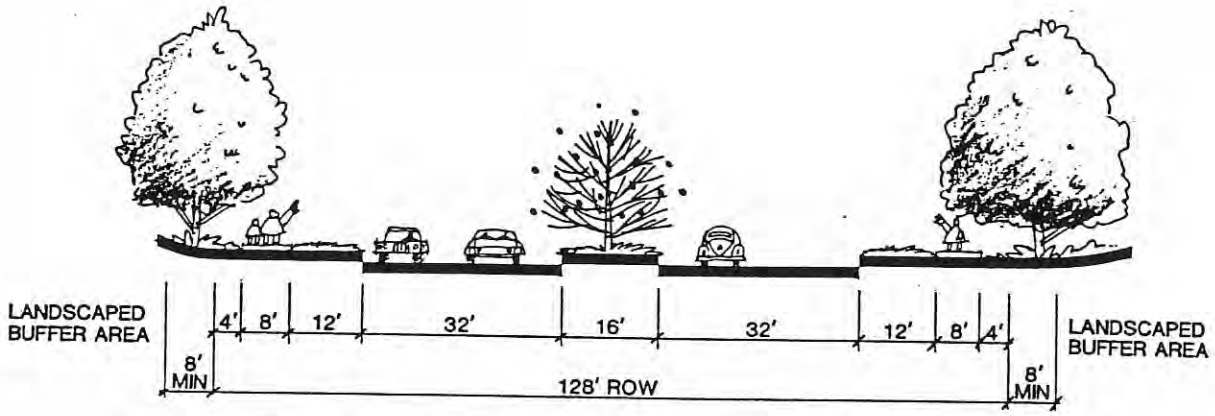
MEDICAL CENTER DRIVE (SOUTH OF EAST PALOMAR)

EXHIBIT 5
REV 1-12-90



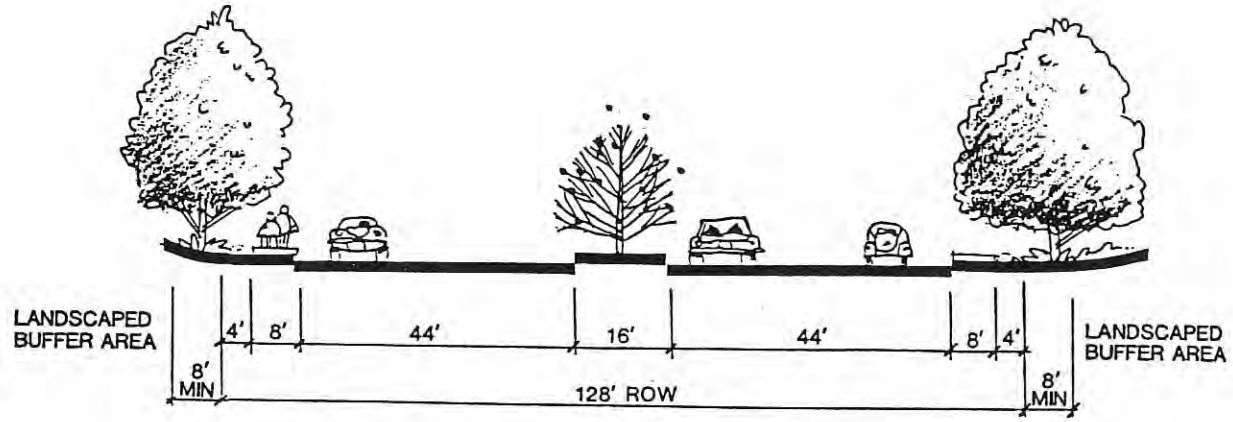
CLASS I COLLECTOR STREET (MODIFIED)

MEDICAL CENTER DRIVE (NORTH OF EAST PALOMAR)
PASEO LADERA (NORTH OF EAST PALOMAR)



FOUR-LANE MAJOR STREET (MODIFIED)

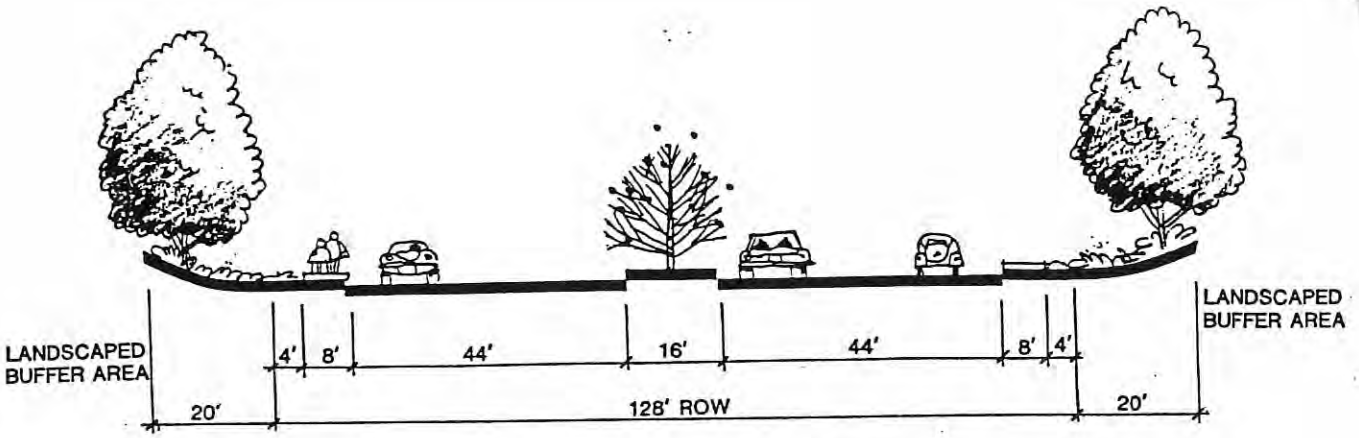
EAST PALOMAR STREET



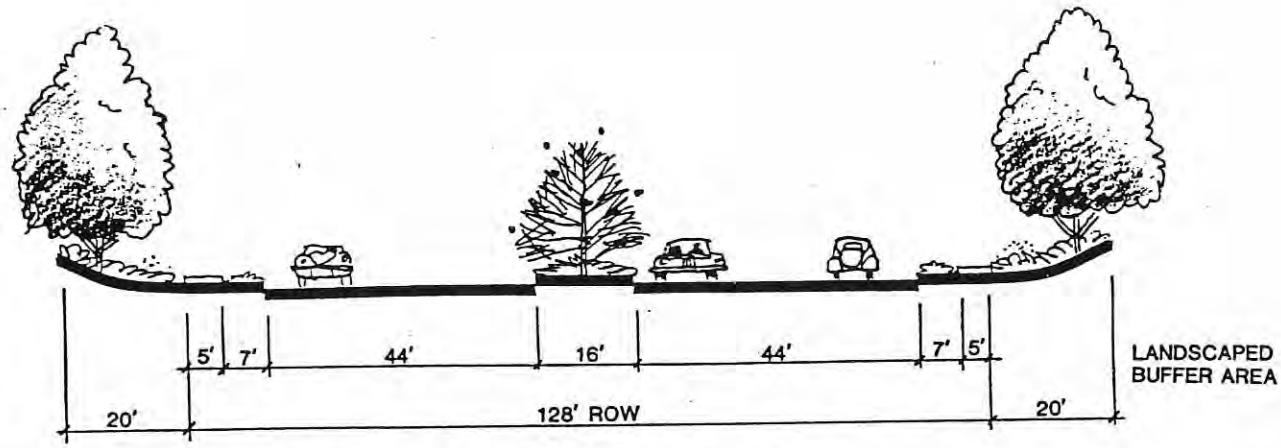
SIX-LANE MAJOR STREET

EAST PALOMAR STREET FUTURE ALT.

EXHIBIT 6
REV 1-12-90



SIX LANE–MAJOR STREET

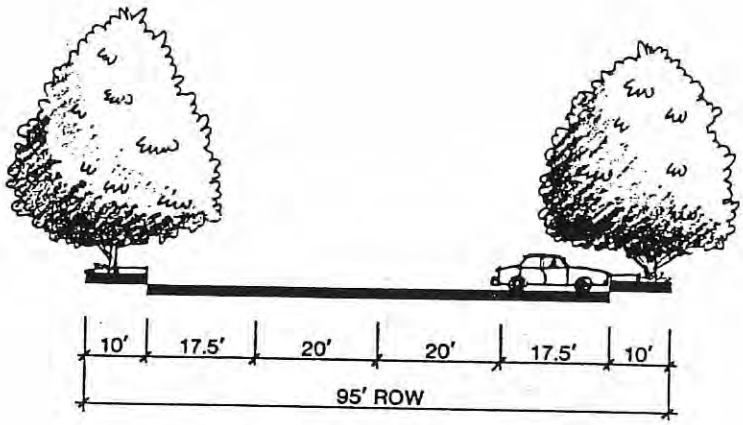


SIX–LANE PRIME ARTERIAL

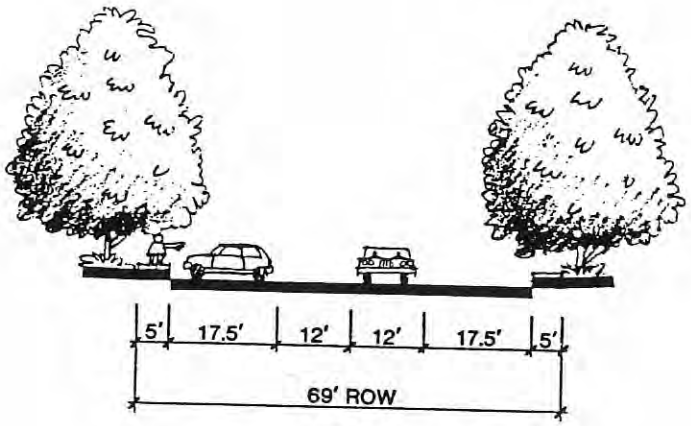
EAST ORANGE AVENUE

EXHIBIT 7

REV 1–12–90



PRIVATE STREET
VILLAGE CENTER AREA



PRIVATE STREET
VILLAGE CENTER AREA

EXHIBIT 8
REV 1-12-90

SINGLE FAMILY DETACHED HOMES

Neighborhood Entry

A perceivable entry should be provided for each neighborhood including special wall articulation with signage and accent landscaping.

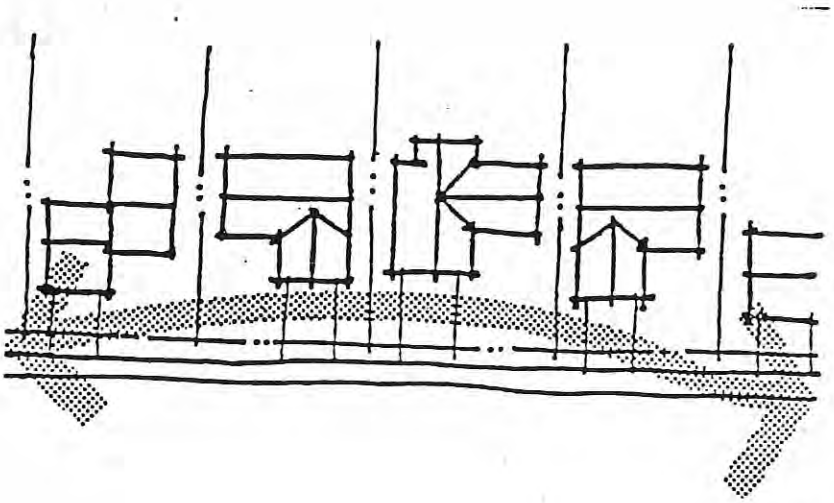
Houses across from neighborhood or project entry drives should be plotted such that driveways and garage doors are not in direct alignment and highly visible. Front and side yard landscaping should be the main visual feature from neighborhood entry drives.

Building Orientation

Location of unit entry and garages will vary, with side and rear entry garages encouraged.

A varied street setback is desired for community edges. Strict adherence to a prescribed setback does not always take advantage of a particular product's best "orientation." To encourage creative site planning, the concept of setback averaging should be employed.

Permitted encroachments into the "required" setback, include roof overhangs, balconies, fireplaces, and architectural projections (see City Code).



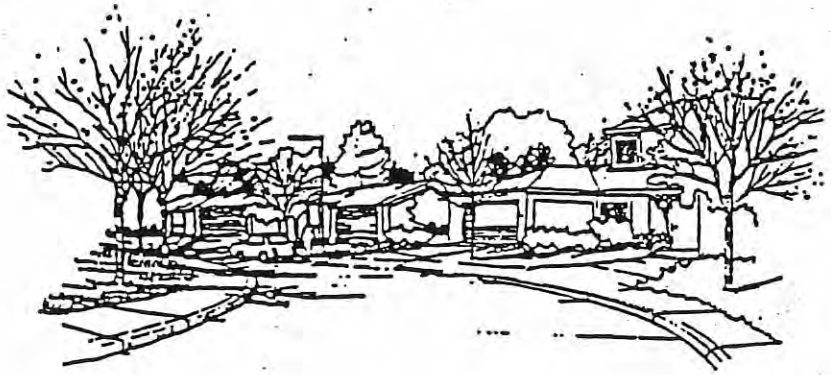
Purpose and Intent Homes

Sunbow will offer a variety of housing products ranging from single-family homes to attached houses reflecting Traditional Californian architectural character. The degree to which design controls will be restrictive depends upon the location and visibility of the particular project in relation to the general community. For example, view-oriented homes are highly visible from the surrounding community and require extra attention in the areas of all visible elevations and massing. Projects which are internalized within the neighborhoods shall comply with community design objectives, but should focus attention on local street elevations and project entries.

Massing and Form

Variety and interest within the community can be achieved through selectively combining one- and two-story elements within buildings and collections of buildings. The diversity of housing opportunities within Sunbow will also lead to an interesting combination of forms and building types.

One-story garage elements soften the impact of units on a residential street scene and create a feeling of light and openness within a neighborhood. Single-level floor plans within a product will further enhance the visual interest of the street scene by varying ridgelines and providing gradual massing elements at intersections and project entries. One-story elements should also be introduced to side and rear elevations in order to avoid bulky forms and improve privacy levels to second floor windows. If a project contains predominantly one-story plans, occasional clerestories, lofts, two-story elements and other vertical spaces will heighten the visual experience.



The articulation of two-story elements when visible from the greater community is extremely critical in blending the development with the natural environment. Unarticulated walls and two-story unbroken gables will be prohibited in such conditions. Wherever possible, one-story masses should be incorporated into rear elevations in order to create the illusion of building forms "stepping" up the hill.

Where two-story masses do occur on the view edge, the following measures should be employed to soften the visual impact:

- Introduction of trellises and shade structures.
- Use of second floor balconies.
- Cantilevering of second floor elements.
- Stepping back of plan elements to vary setback and create shadow patterns.

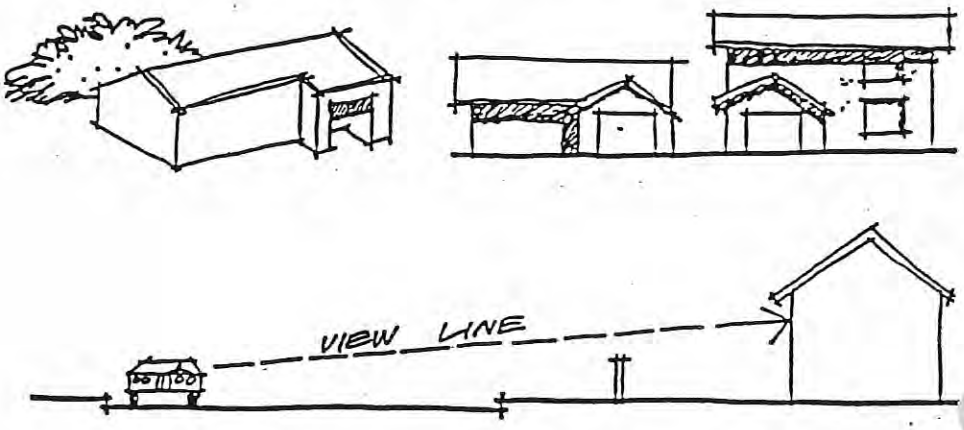
Attached housing shall incorporate the same elements as single-family detached housing. One-story elements are preferable within internal street elevations, end-unit conditions and in highly visible rear elevations. Attached dwelling units shall express individuality through careful massing, front and rear offsets, and clearly identifiable entries and private outdoor spaces.



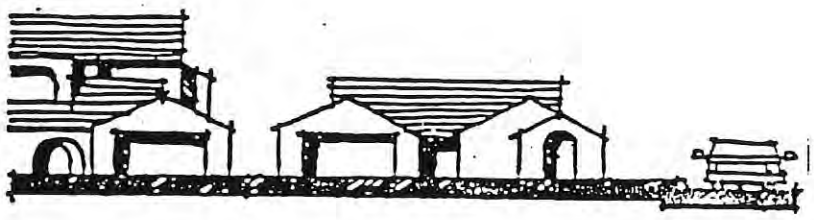
Recreation buildings, detached garages and ancillary structures shall incorporate the same materials and forms as the housing product.

Each building should relate in terms of mass and bulk to its neighbor but should not be identical. A two-story building can best relate to a neighboring one-story building if it contains a one-story element.

Shadow areas give buildings depth and substance. the visual effect of light and shadow on buildings is perhaps the most valuable design tool available to the designer. Every building should have shadow relief, offsets, pop-outs, overhangs and recesses, all may be used to provide effective shadow interest areas. Large buildings require more shadow relief than do smaller buildings. Larger unbroken expanses of wall should be avoided.

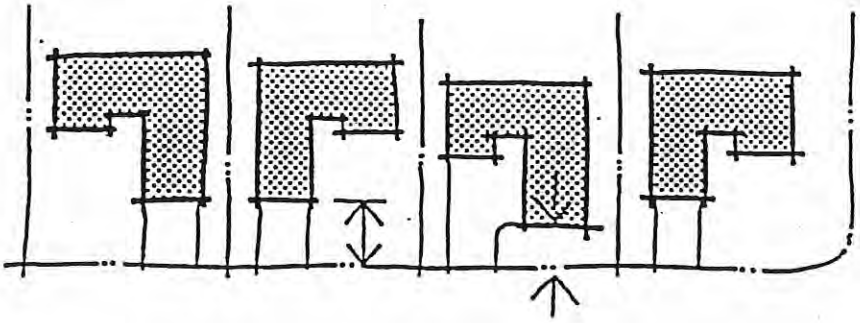


To reduce architectural massing, site the short and low side of a corner unit to the street. A two-story building can best relate to a neighboring one-story building if it contains a one-story element.



In the case of narrow lots, a zero lot line site design and product type are preferable to centering the unit in the middle of the lot.

On sloping streets, it is important to place the low and short side of the building at the street corner. Building form should respond to land form when and where feasible.

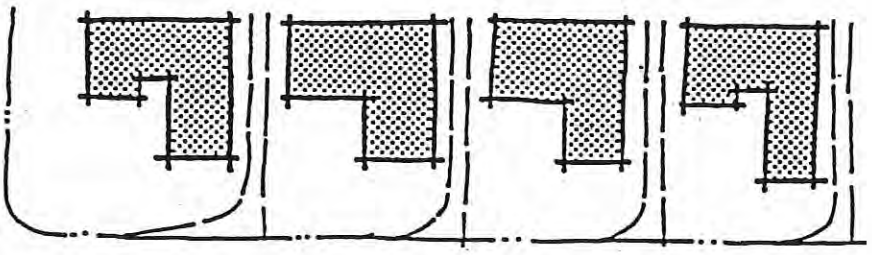


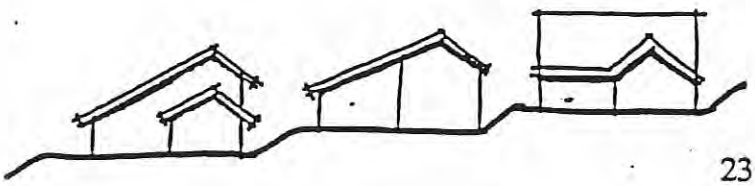
Plans

A minimum of three floor plans will be provided in all single-family projects.

Variations of the plan configuration will ensure that straight unbroken facades are avoided. Variety and interest can be developed in plans by varying dimensions and siting of the structures. Additional variety can be achieved through the introduction of a variety of compatible forms and textures, particularly in landscape elements.

The building plans should incorporate simple jogs so that long plain roofs and long wall elevations can be avoided. Avoid stereotype units which will produce monotonous elevations. Providing a variety of plans with differing setbacks fosters a variety of elevations. Rear sides of the houses or auto courts need to vary.

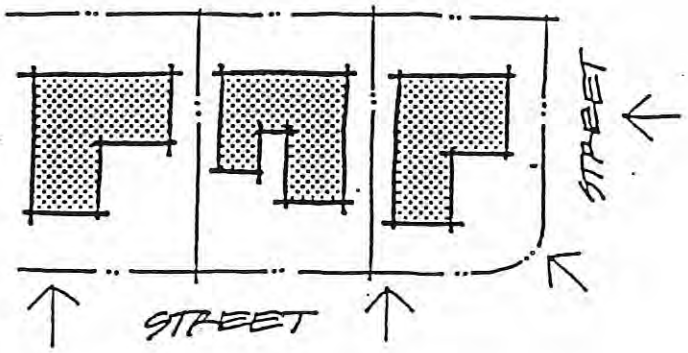


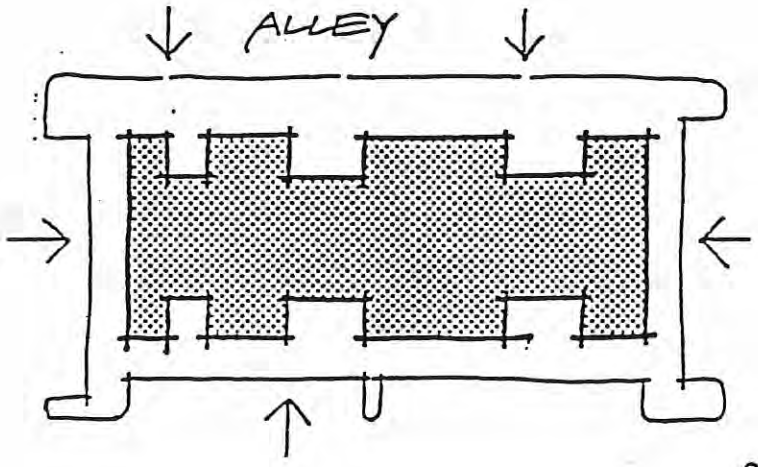


Primary Elevations

These guidelines are primarily concerned with the physical appearance of the community environment as perceived by residents and visitors. Therefore, it is the intent of these guidelines to apply to those frontages, boundaries, and perimeter edges that are visible to the public and hereinafter defined.

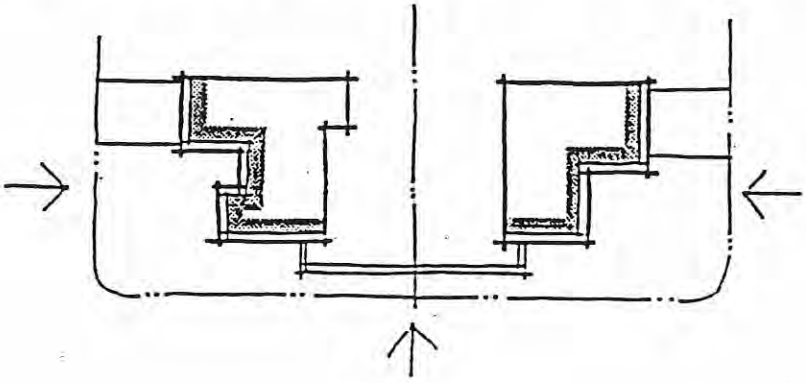
The term "Primary Elevation" means those surfaces of a building, structure or yard that can be viewed from an adjacent public accessway. In the case of single family products, this usually means the front and exterior side yards at corner lots. In multi-family projects it may mean all four elevations of a structure.





Rear sides of housing located adjacent to areas of high visibility should have treatment similar to the primary elevation. The fencing should be designed to be part of the architecture.

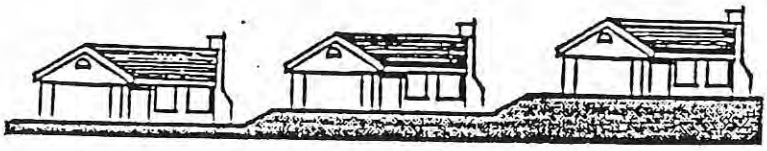
Fences or walls connecting two separate units should be of the same color and material and be compatible with the color and material of the architecture.



Ridgeline and major roof forms shall predominantly run parallel with manufactured slopes so that the buildings' roofing materials are visually pronounced. Gable Ends should be located on side elevations where they are less visually prominent as viewed from the community. Exposed gable ends, particularly in two-story configurations, should be de-emphasized through architectural detailing and vertical or screening landscape elements.



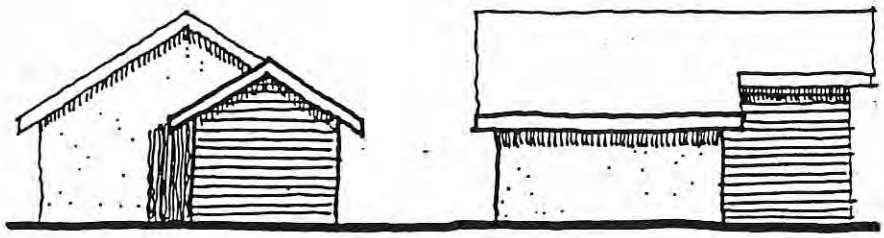
VARYING ROOF FORMS ENCOURAGED



REPETITIVE ROOF FORMS DISCOURAGED

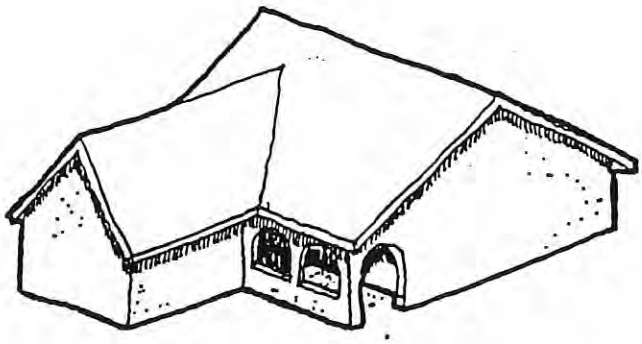
Facades

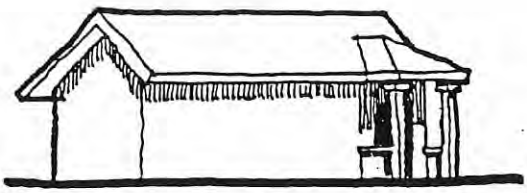
Material changes are more effective if they do not occur in the same plane and if they do not intersect with an architectural feature.



Front Entrances

A protected entrance is functional and produces a sense of privacy. Front entrances should be designed to be distinctive architectural features.

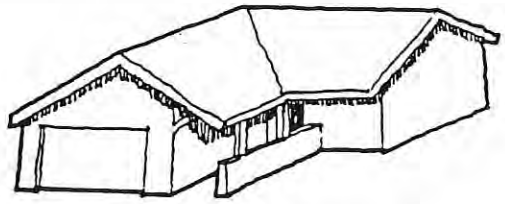


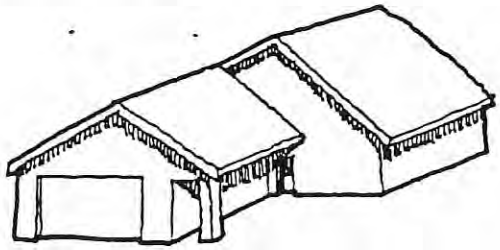


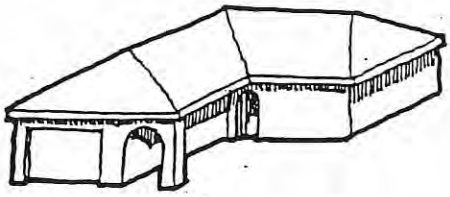
Similar floor plan shapes should be varied by roof and porch treatment when similar plans occur together.

Roof vents and appurtenances should be painted a color which will match the roof color. When natural wood is used, the color should match the ultimate weathered color of the material (shake or shingle). Stone surfaces should be left natural and unpainted. Brick or slump block may be painted. When masonry is painted, joints should match the color of the masonry. High contrasts are generally to be avoided.

Materials on sloping roofs of the same building should be the same on all roof surfaces, except for flat or nearly flat roofs. Avoid combining gabled and hip roofs.



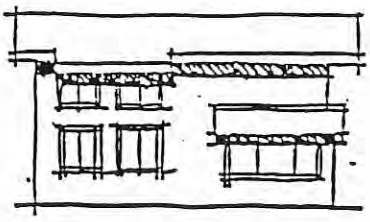




Two-Story Buildings

Two-story buildings need special attention to the design of the openings to produce a consistent appearance, and be brought into human scale.





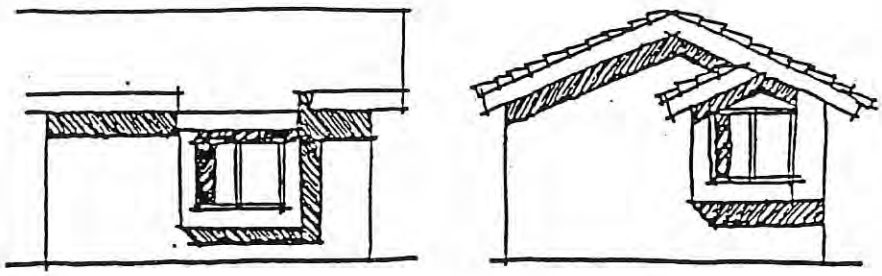
Openings

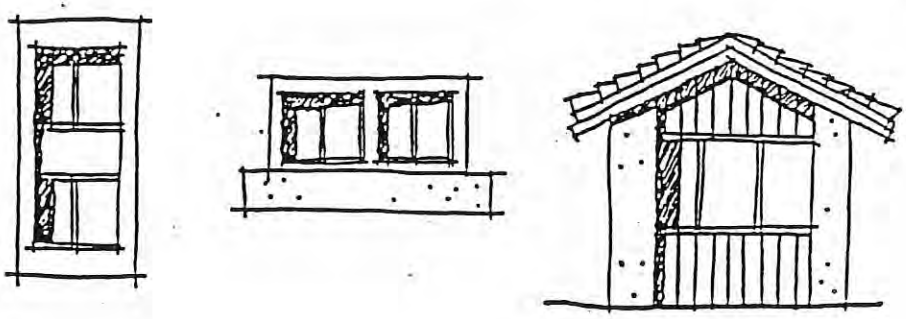
Generally, openings are determined by the plan layout, view opportunities, furniture placement and privacy constraints; however, it is desirable to "design" openings to develop a strong architectural character, particularly on primary elevations.

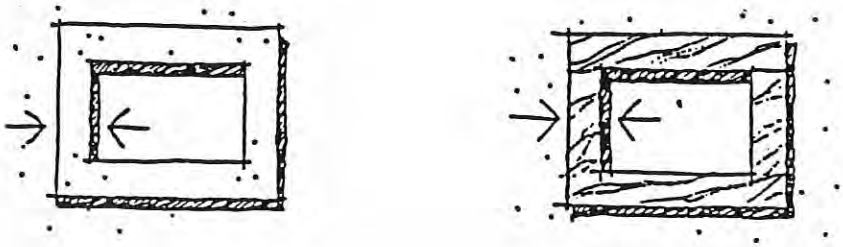
Openings may be accented by various roof overhang treatments.

Windows and Doors

Generally, aluminum windows without trim should be avoided on primary elevations. Wood and stucco trim should be in scale with the style of architecture and scale of the building.

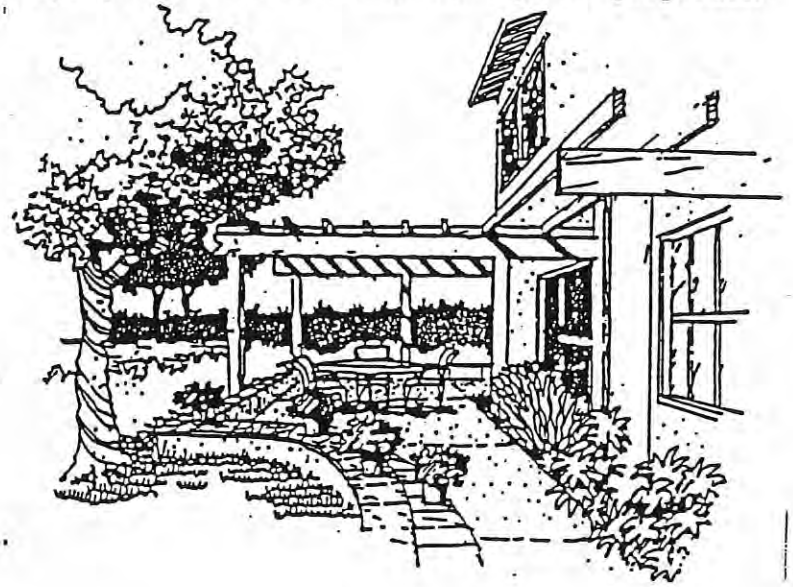






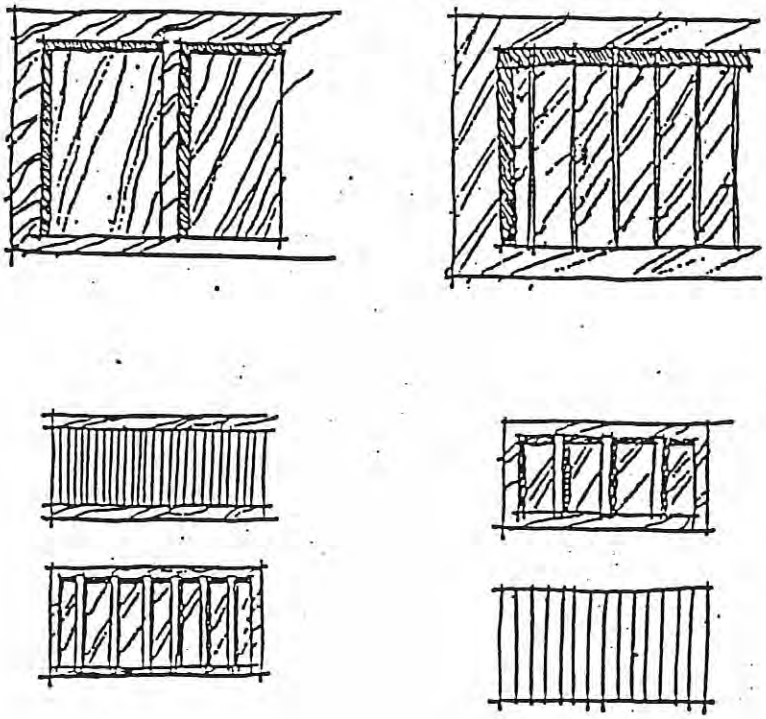
Patios, Trellises and Garden Structures

These structures should be designed as an integral part of each house. Freestanding trellises and garden structures should be compatible in scale and design to the project architecture, and should be setback from the edge of the property so as not to intrude on adjacent properties.



Garage Doors

Plywood is acceptable when three or more panels are used or when joints are sealed with trim. A variety of compatible designs should be used with subcommunities to insure variety. The design of the garage door should relate to the particular architectural style selected.



Materials and Color

Wall materials and colors of individual buildings should be compatible with neighboring buildings.

Encourage:

A. Natural materials of earth or soft tone colors.

B. Woods with transparent or heavy body stains.

C. Rough sawn and resawn wood finishes or painted smooth wood.

D. Large areas of color that are more natural.

E. Small surfaces and trim that may be accented with high contrast of compatible adjacent color or bright trim.

F. Roof materials that are to be either wood, tile, or concrete tile. Composition roof materials may be allowed which are identical to traditional wood or tile components.

Avoid:

A. Bright colored wall or roof materials.

B. Metal roofs.

C. Blue or green asphalt tile roofs.

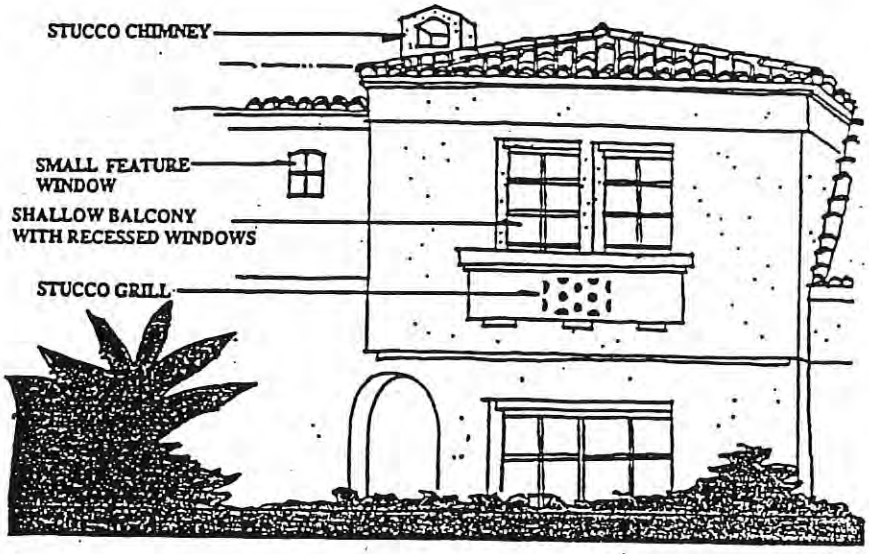
D. High contrast masonry.

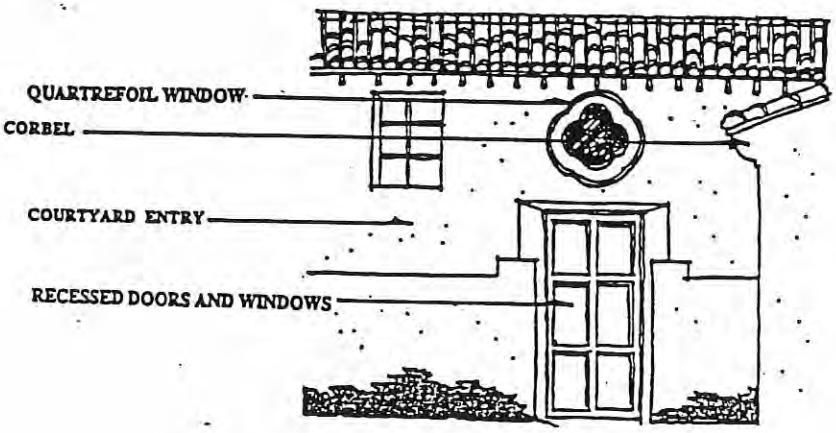
E. Highly reflective surface materials.

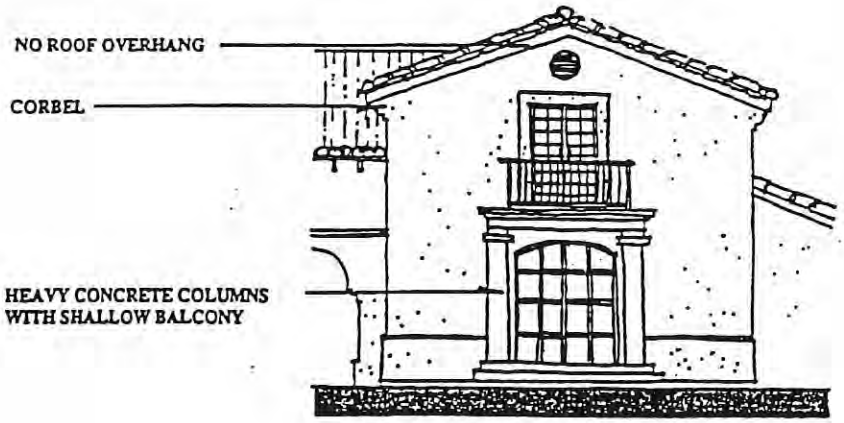
Elevation treatments that are duplicated should be of different color schemes in the same family. Darker trim with lighter body colors, and light trim with darker body colors are to be encouraged for variety.

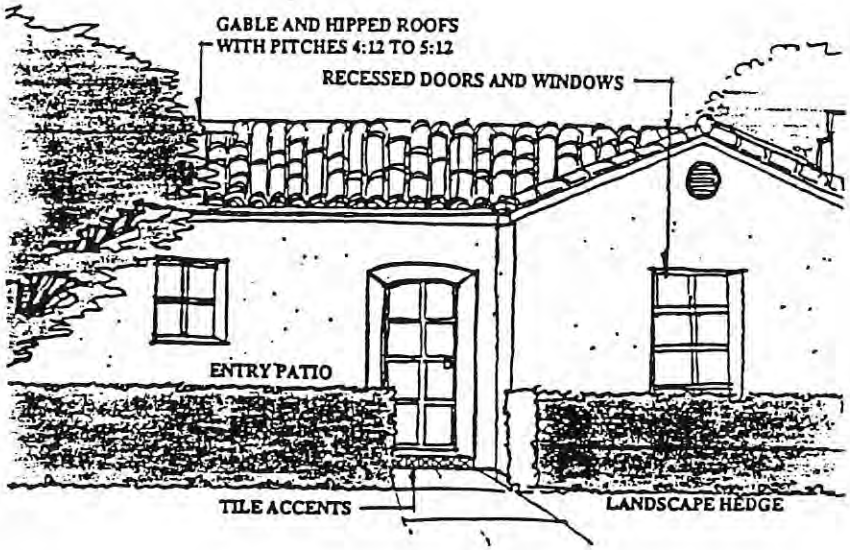
Architectural Style

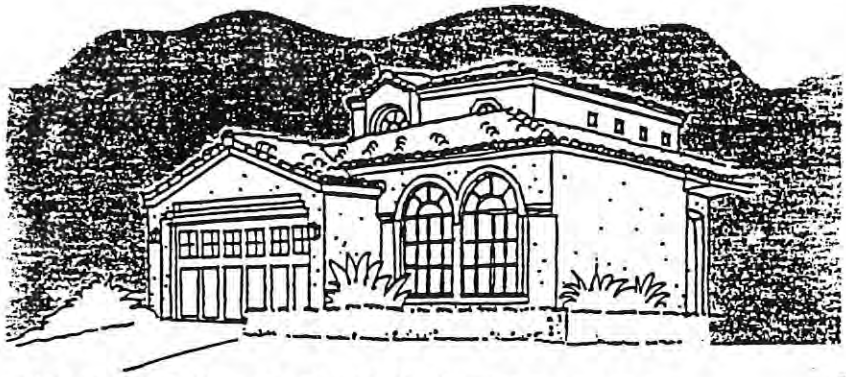
California Spanish is the preferred style for the single-family homes in Sunbow. The Monterey, Hacienda, or Southwest style may be employed for variety, although the overriding theme should be that of the California Spanish style. This style is characterized by simple building forms and materials. Details such as recessed doors and windows, gabled and hipped roofs with barrel tiles, balconies with iron and wood railings, stone columns and details and classic features such as arches, quatrefoil windows, vents and chimney caps should be incorporated into the design.



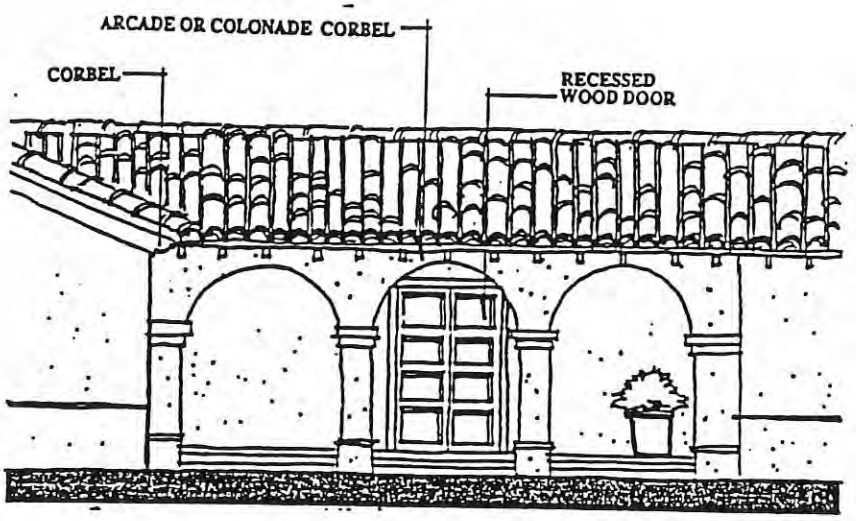






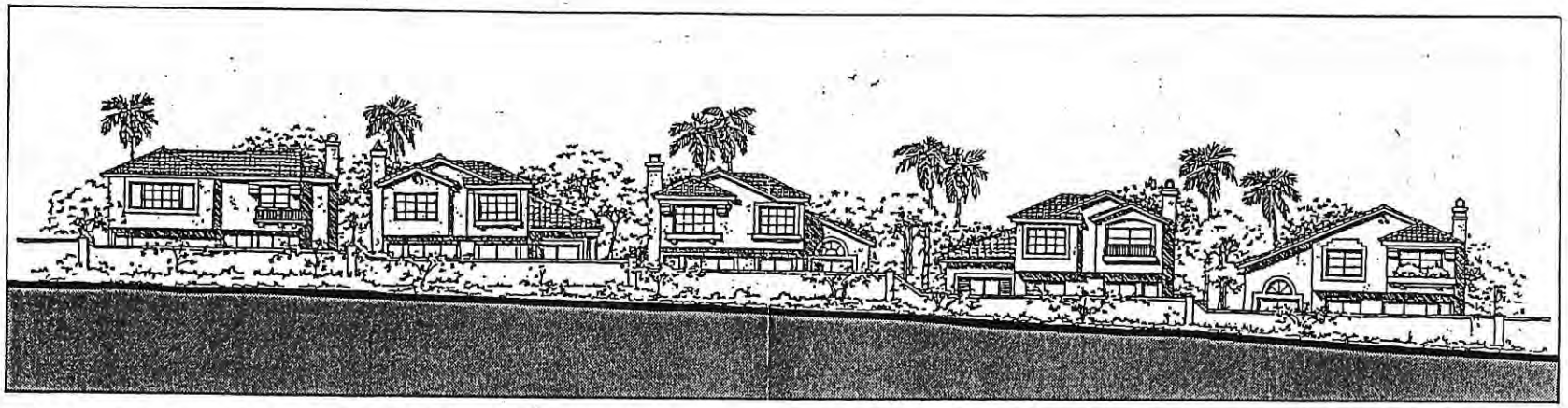


SHARP EDGE AND GEOMETRIC FEATURES FOR CONTEMPORARY LOOK



Major Street Scenes

Often the street scene is composed of the rear elevations of single-family detached houses. In this event, special care must be taken to design the rear elevation of the houses such that the view from the street is pleasing and continues the California Spanish motif as fully as the front elevations. This requires the incorporation of California Spanish details on the rear elevations of the houses and the incorporation of a variety of hip and gable roofs with particular emphasis on the hip roof which tends to reduce the mass of a two-story house. A variety in the street scene is important. The quality of design, materials and construction is equally important. This is an important consideration in the overall design of Sunbow in that this is the view that many visitors and residence will have of the entire development.



TYPICAL SINGLE FAMILY STREET ELEVATION FROM REAR OF UNITS.

MULTI-FAMILY RESIDENTIAL

Concept

The multi-family residential in the village center should further the concept of the village core being created for Sunbow. In creating the sense of a village core, all of the residential projects should be integrated with one another, as well as with the commercial and recreation facilities planned for the inner loop. Projects should not be isolated one from the other in a typical suburban fashion.

Site Planning

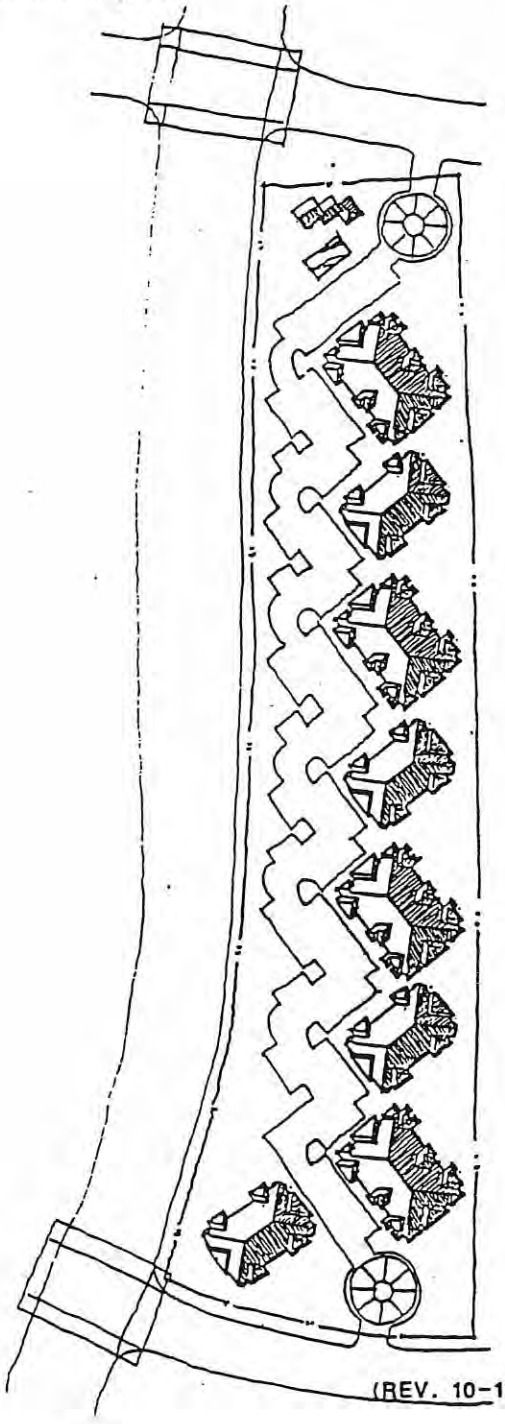
The site planning of the multi-family housing projects in the inner loop is an important element in the creation of the village character. Variety is an important element of site planning which can be best achieved by variations in orientation of units, as well as the inclusion of special end units, etc. While architectural variety is important to the success of the project, there are certain instances in which the site planning should incorporate a semi-regular alignment of buildings to create an architectural edge that reinforces the urban pedestrian walkways. Additionally, when fronting and forming the architectural backdrop of such a walkway, pedestrian access should be emphasized in the site planning.

In addition to pedestrian access from the primary pedestrian linkages of the village core, the multi-family projects should be planned carefully to maximize the feeling of open space within each development. Green belts, courtyards, gardens and plazas should all be incorporated into the overall design to provide opportunities for passive recreation and relaxation, as well as views of vistas. In addition, open parking areas can be treated as landscape plazas and courts by the introduction of canopy trees interspersed with the parking bays.

Organizing the site plan for trash collection stations that are convenient, serviceable and inconspicuous is important. Preferred locations are at the end run of a parking bay or mid-point of the parking area. The collection area should be completely enclosed and softened with landscaping, trellis work, etc. Long cul-de-sacs should have a minimum of 38 feet turn-around diameter for service vehicles.

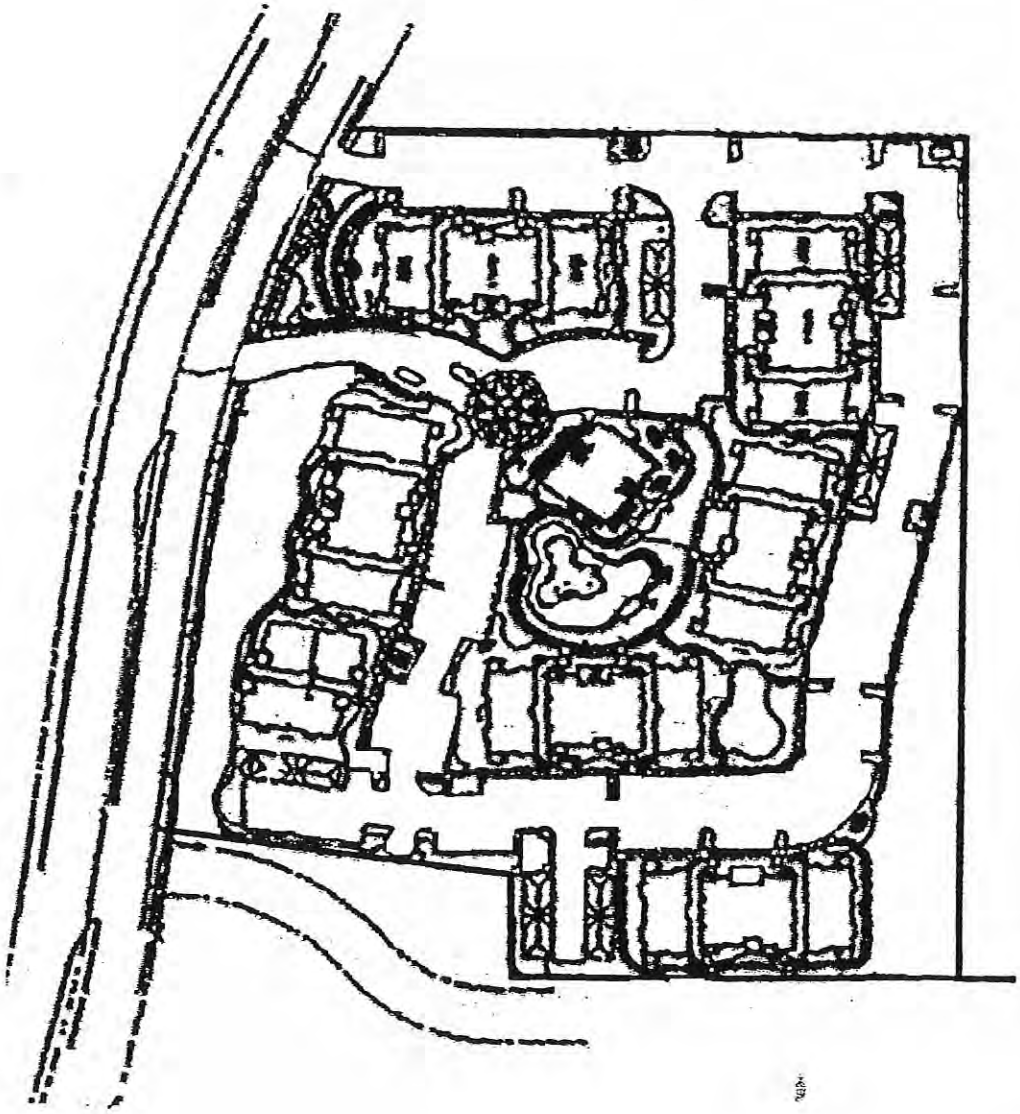
Planning Area 6

This planning area is characterized by a wide, shallow parcel fronting on Medical Center Drive. It is expected that a multi-family housing product will be developed on this site, which relies heavily on surface parking and some carports. Alternate plans incorporating church and/or medical office use may be considered. The overall plan should be developed with an overall sense of order, which also includes variety in building form and placement. The site planning for this project greatly impacts the street scene from Medical Center Drive and should be carefully considered from this aspect.



Planning Area 7

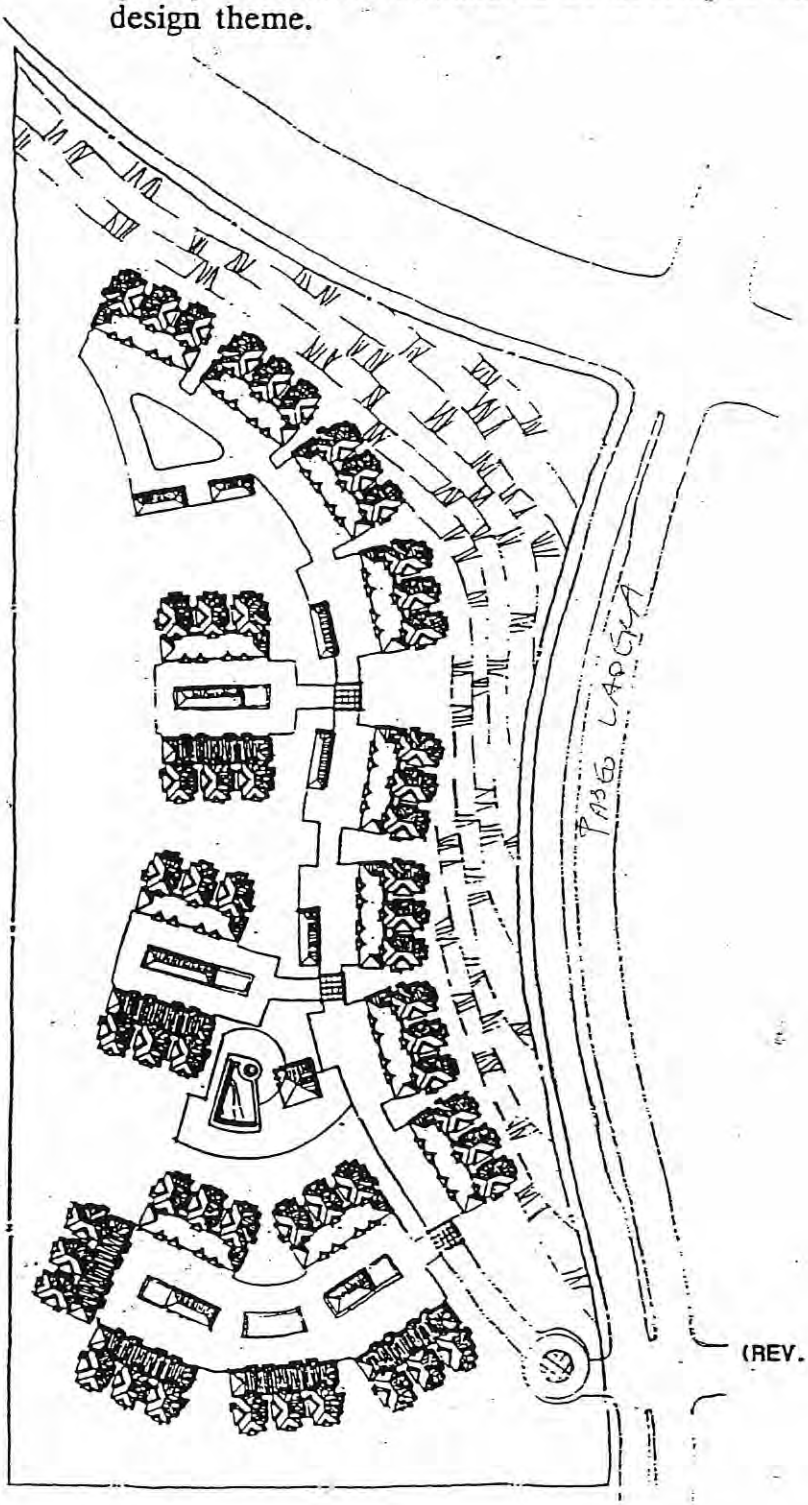
This site is roughly rectangular in shape and borders on the medical center site to the east and the retail site to the south. The site plan of this should be developed to include a buffer to the Medical Center site and direct pedestrian and vehicular connections to the retail site. It is expected that a multi-family housing product will be developed on this site that relies on surface parking with some carports. Following the concept established for the inner core of Sunbow is a traditional village center. This planning area should be developed with a highly organized and orderly site plan that relates well to the balance of the development adjacent. Architectural form and pedestrian and vehicular access relationships to the village center are equally important.



EXAMPLE: SITE PLAN

Planning Area 11

This site is characterized by a tapered building site flanked on the northeast by a slope to the intersection of Telegraph Canyon Road and Paseo Ladera. The shape of this site tends to indicate a development that follows the long, tapered form of the buildable area. Multi-family housing is expected to be developed on this site employing surface parking with some carports. A more random placement of buildings complimentary to the Planning Area 1 site plan of Phase 1 of Sunbow is anticipated. The single entrance to this site is important to the overall design quality of Sunbow and should be developed with a strong design theme.



MORGAN GROUP - THE MISSION

Planning Area 10 - APTS.

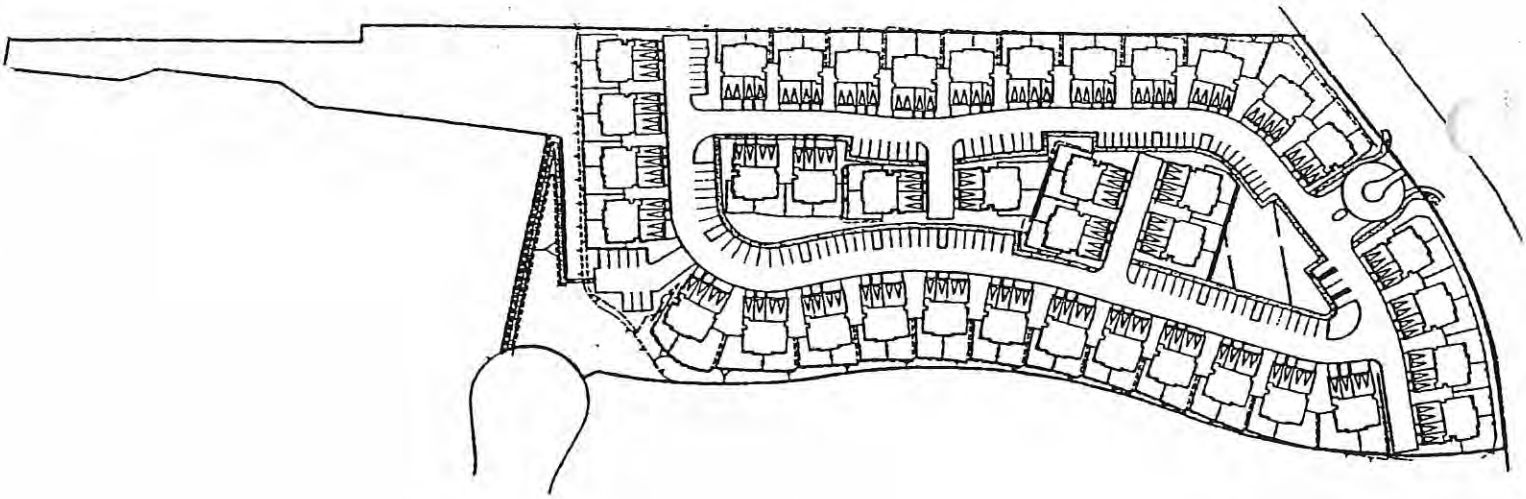
Planning Area 10 is a large, approximately square site which will be developed with a townhouse housing product. This type of housing product provides a good transition from the village core to the single-family housing on the east and south of Planning Area 10. This townhouse development should be characterized by clusters of townhouses incorporating individual garages surrounding visitor parking courts that are well landscaped and comfortable for pedestrian use. These clusters should be well organized in regard to the overall circulation system. Pedestrian and vehicular linkages to the village center and park activity center are vital to the overall concept of the inner core area. The vehicular entrance statement from Paseo Ladera and the connection to the west with the Activity Center to be given particular design attention. The townhouses should be arranged such that the street scene from Palomar and Paseo Ladera conveys the sense of village core. While this may result in a rather formal site plan, such an approach may be the best means to achieving the village character desired.



EXAMPLE: SITE PLAN

Planning Area 10A

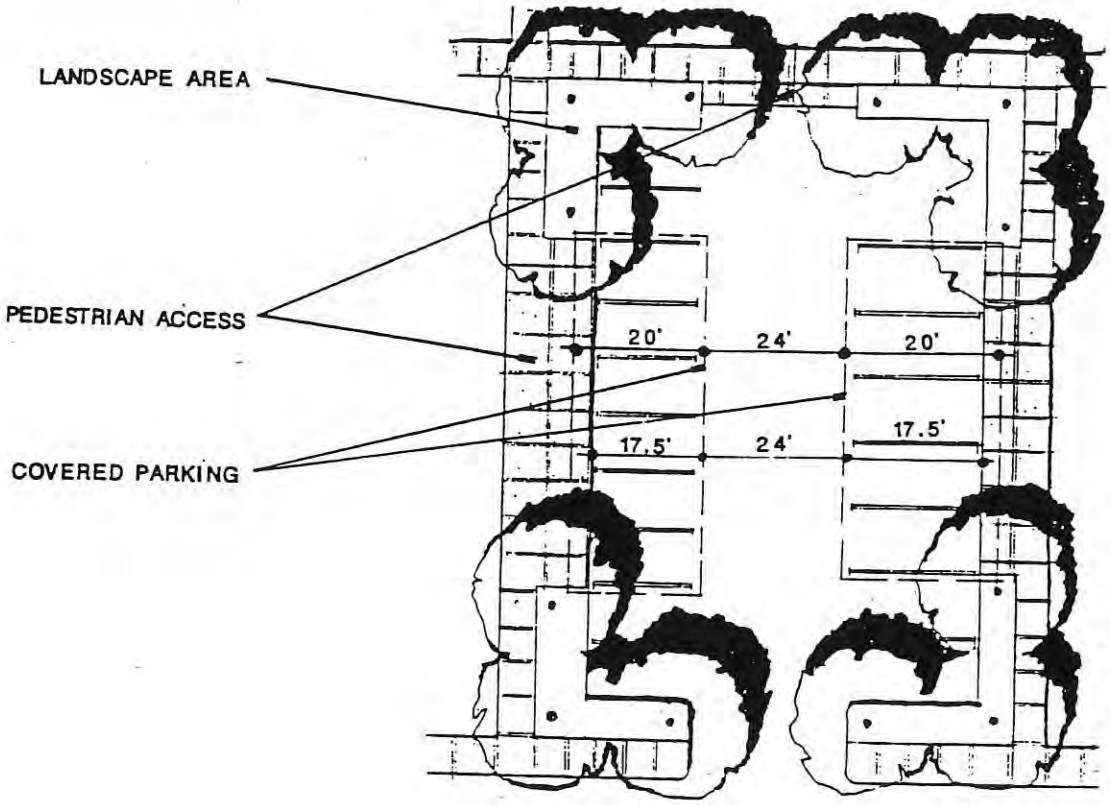
As a long narrow site located north of the Sunbow Village green and Activity Center, Planning Area 10A is expected to be developed with a multi-family housing product that is a combination of flats and townhouses with enclosed garages that are both incorporated in the structure and freestanding. The site plan for this area should be developed to reflect and reinforce the gentle curve of the road defining the northern edge of the park. This is an important design feature to further the concept for the area that this is a village center. This building edge will play an important role in forming the village green for Sunbow. Pedestrian linkages to the village green and Activity Center and the retail center are vitally important to this planning area. These linkages are crucial to the development of the village center concept.

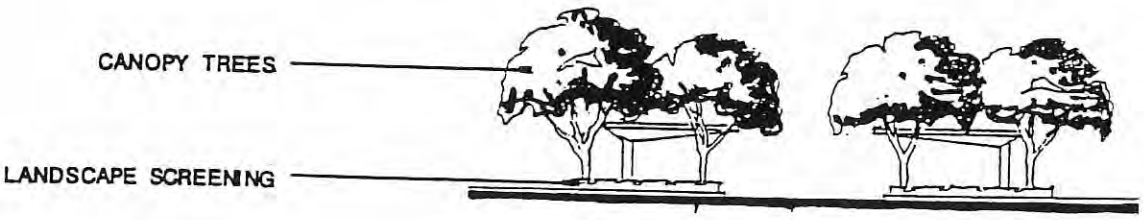


EXAMPLE: SITE PLAN

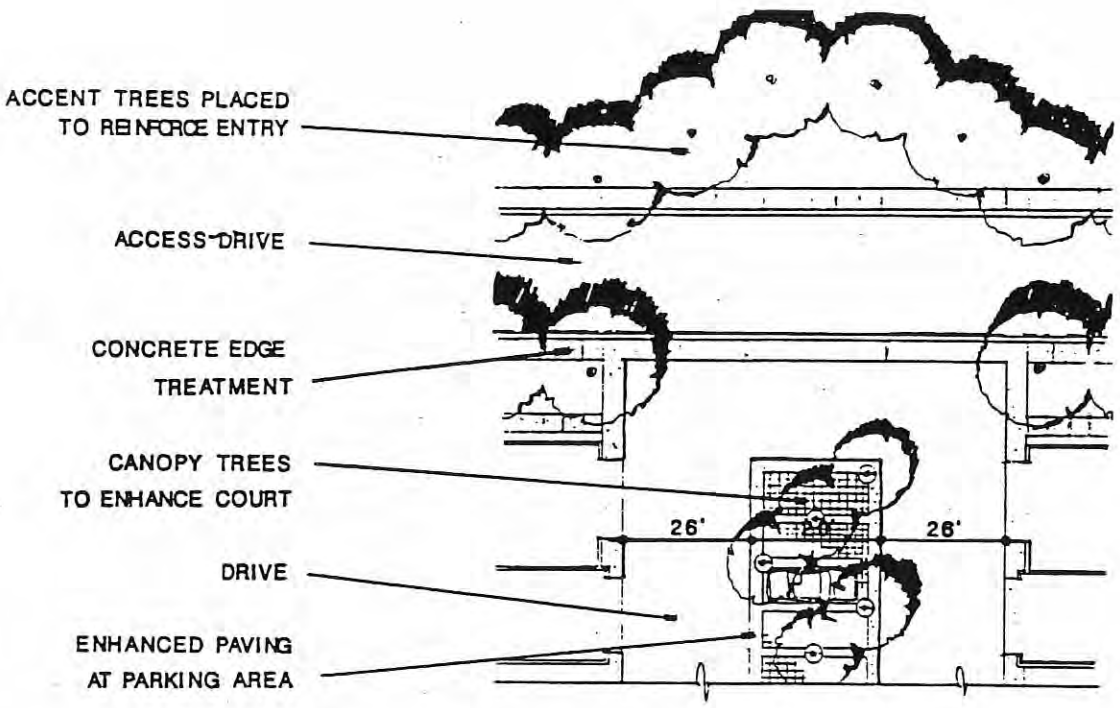
Parking Courts and Intersections

The multi-family products in Planning Areas 10, 10A and 11 should be organized around well defined parking courts which provide both entrances to the townhouses and flats, as well as an orderly and attractive method for visitor parking. This may be accomplished by grouping visitor parking in the center of a motor court area with canopy trees and enhanced paving defining the visitor parking area. When not used for visitor parking, these areas become pleasant courts and plazas. Incorporation of special intersections at the entrances to the various housing clusters will give the project a sense of orderliness and enhance the feeling of village character.

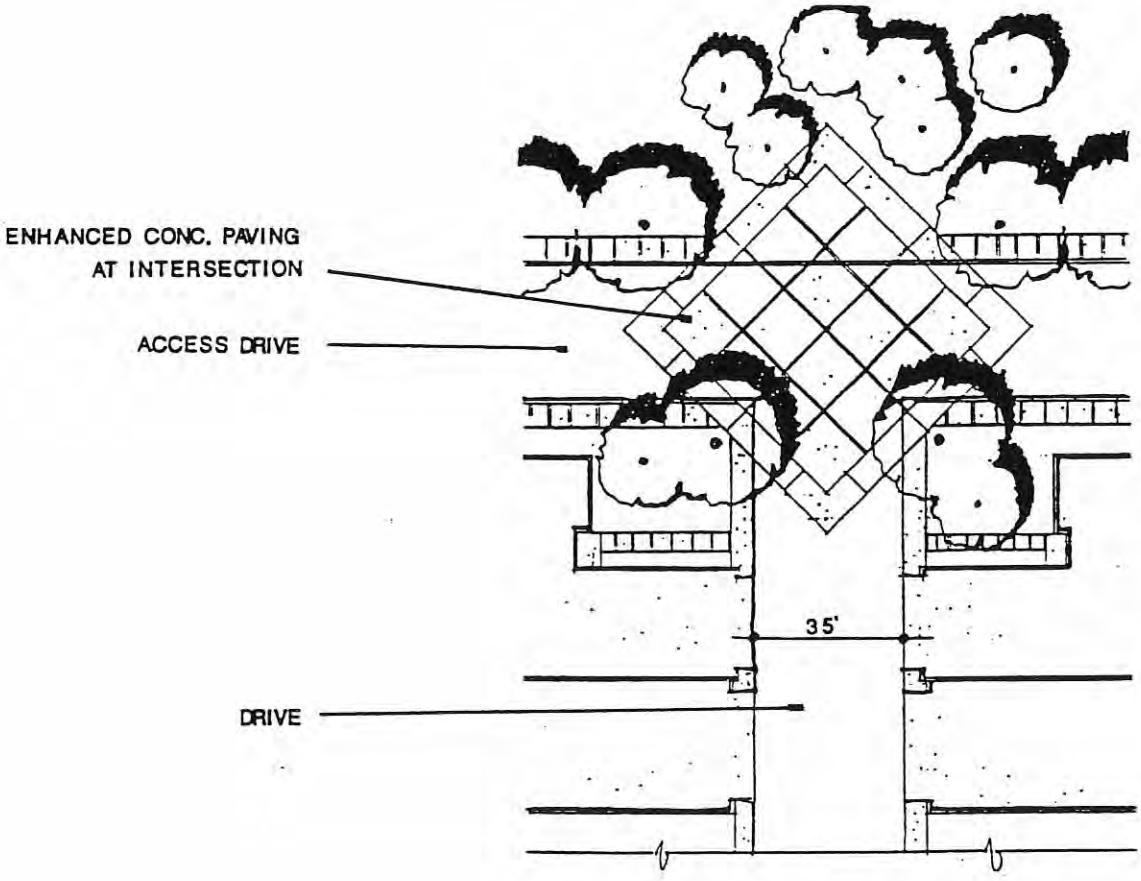




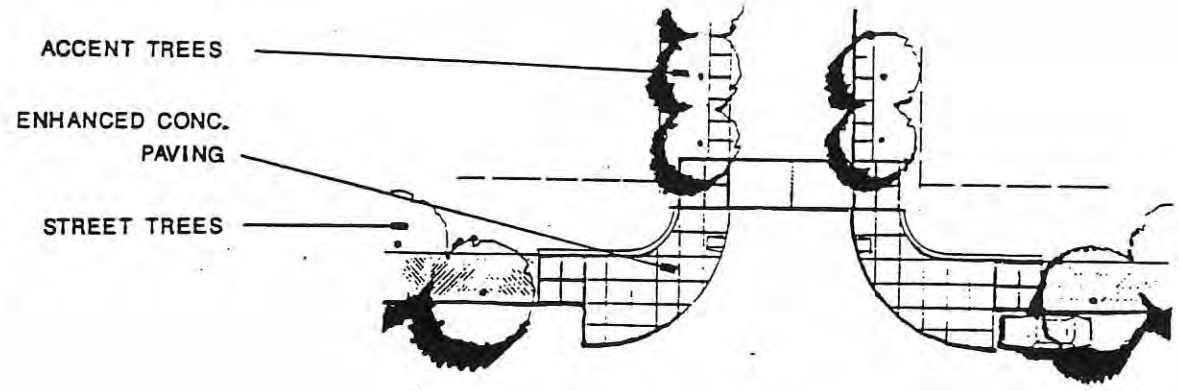
EXAMPLE: PARKING COURT



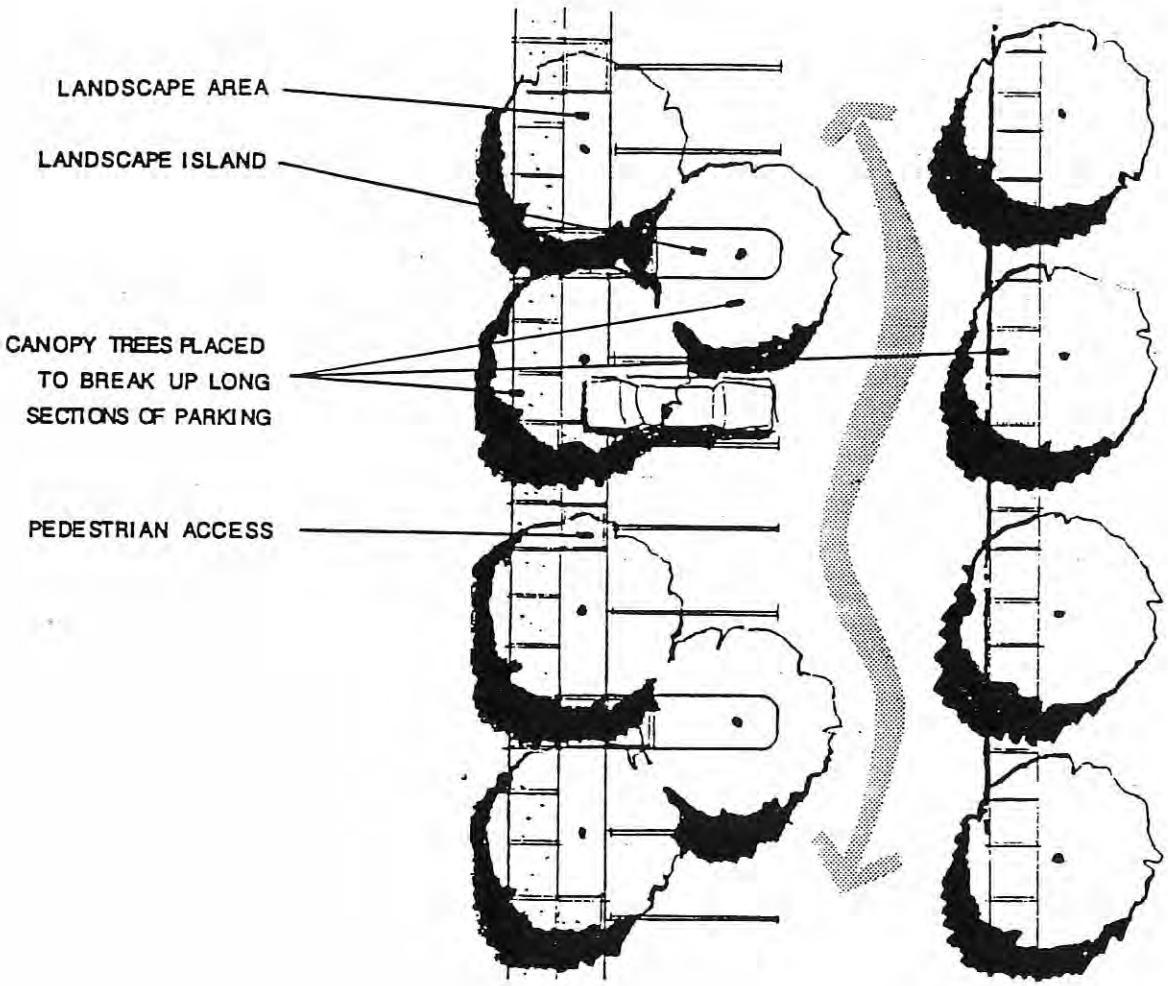
EXAMPLE: PARKING COURT



EXAMPLE: INTERSECTION



EXAMPLE: ENTRANCE



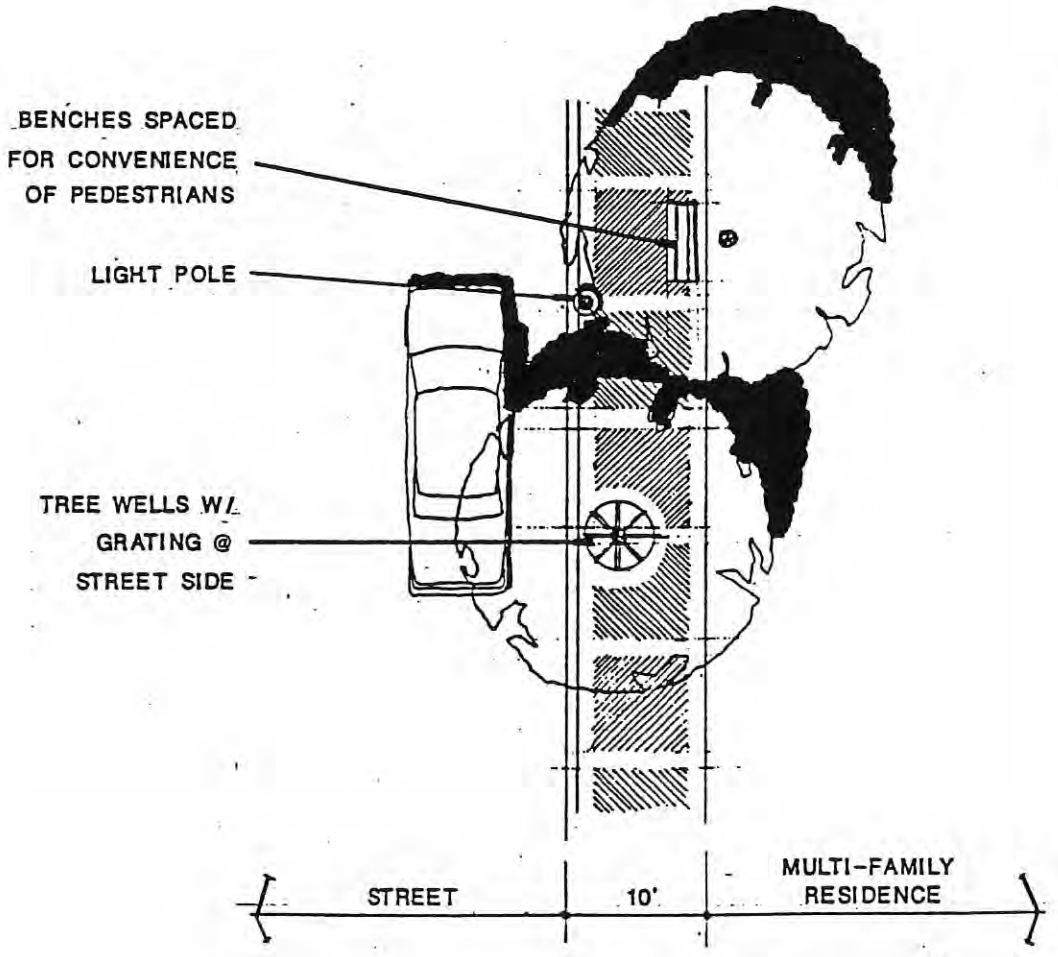
EXAMPLE: SURFACE PARKING

Screening

At locations where residential buildings are sited such that commercial parking, loading and service areas within 75 feet are visible from the interior of the units, windows, balcony enclosures and like architectural elements shall be designed to eliminate the direct view of these areas as much as practical. Consideration for noise should be made in the design of the residential units and balconies. Where possible, landscape buffers should take the place of these measures.

Pedestrian Access

Pedestrian access to the various residential buildings shall be provided along internal streets and drives. These pedestrian access points may include security measures, but shall be designed clearly as prominent pedestrian entrances.



Materials

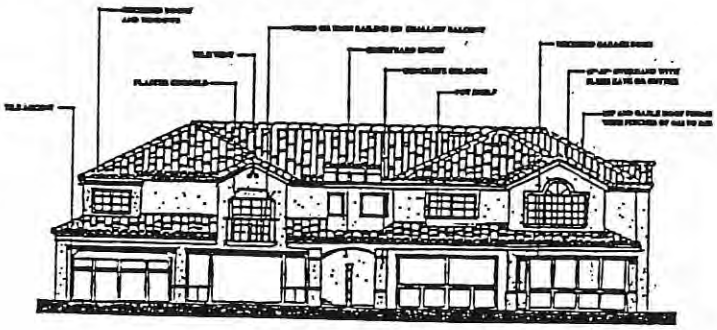
The materials used in the residential component shall convey a sense of timelessness and permanence. Materials that convey this sense include, but are not limited to concrete, stucco and masonry of many forms, including stone, tile, brick and block. Wood and metal should be used sparingly and as trim only. Roofs should be ceramic, clay or concrete tile.

Color

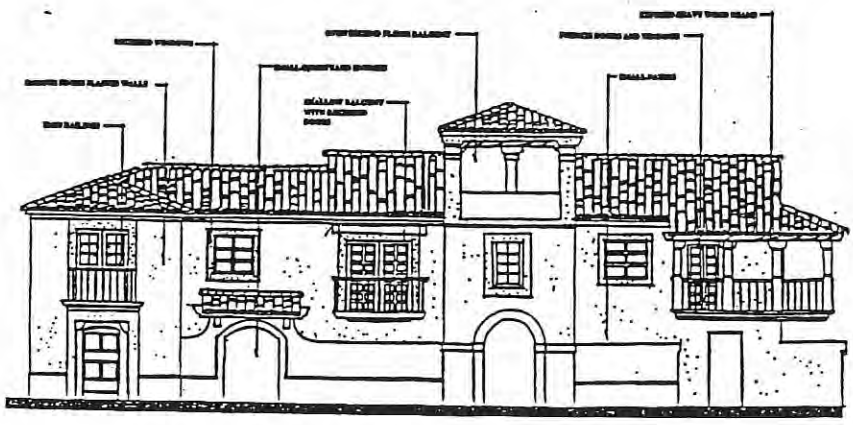
Color is an acceptable means to achieve the variety desired in the architectural expression. Whenever possible, this color should be integral with the material used. Earthtones and pastels are preferred for large areas with intense colors being limited to accent points and trim.

Architectural Style

A variety in architectural expressions is desirable. This variety, however, should be within a limited range of architectural styles. The styles preferred for the residential element are classic California Spanish, Hacienda, Monterey or other styles indigenous to the San Diego region that are compatible with those stated. Continuity of these styles and variations of styles shall be provided through coordinated entrance design and location, and consistent streetscape and landscape design.



CONTEMPORARY MEDITERRANEAN ARCHITECTURE: MULTI-FAMILY RESIDENTIAL



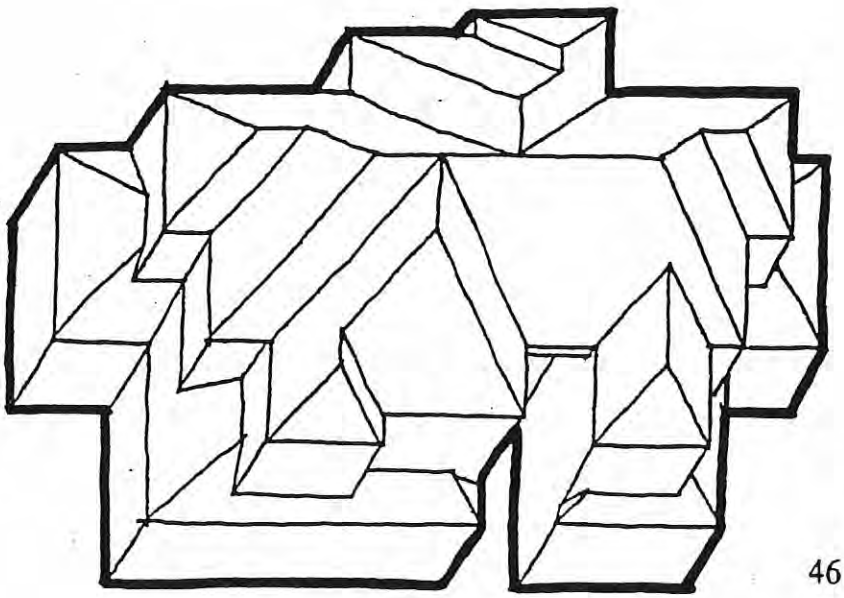
EXAMPLES: BUILDING ELEVATIONS

Massing and Form

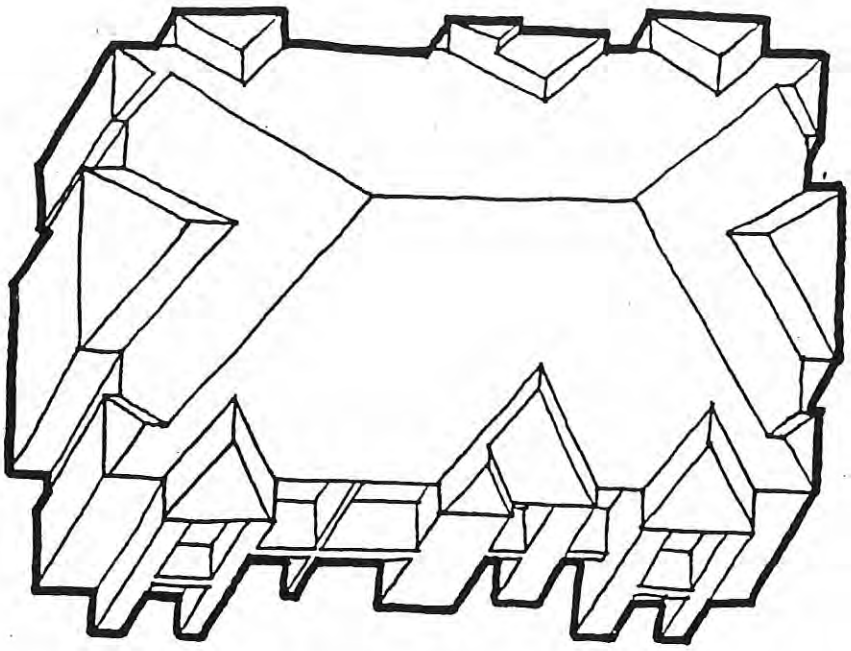
The multi-family residential should vary in height from one to four stories as required by the densities. Overall massing and form should vary in an attempt to create a residential scale that furthers the concept of "village". All four sides of each buildings should be considered relative to massing and scale. The massing of the building should be arranged in such a fashion as to emphasize pedestrian and vehicular circulation and allow ample sunlight into pedestrian areas.

Roofs

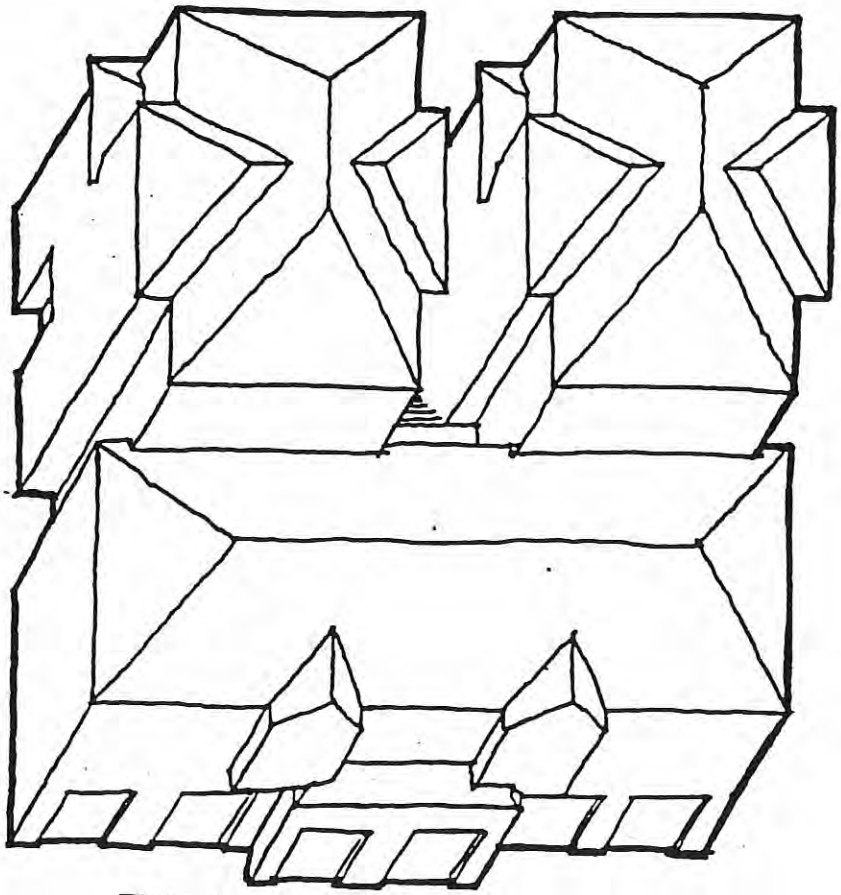
A minimum of 80 percent of each roof shall be pitched. Flat roofs that are incorporated in the buildings must be well integrated in form and be designed as an authentic California Spanish application of this type of roof. Hip roofs are encouraged, however, gabled roofs may be used if their application is consistent with California Spanish architecture. Dormers, chimneys, ramadas, cupolas, and other roof elements should be interspersed to further the California Spanish character and residential scale of the project. Various roof levels are also encouraged.



EXAMPLE: MASSING DIAGRAM
PLANNING AREA 10



EXAMPLE: MASSING DIAGRAM
PLANNING AREA 6 & 7

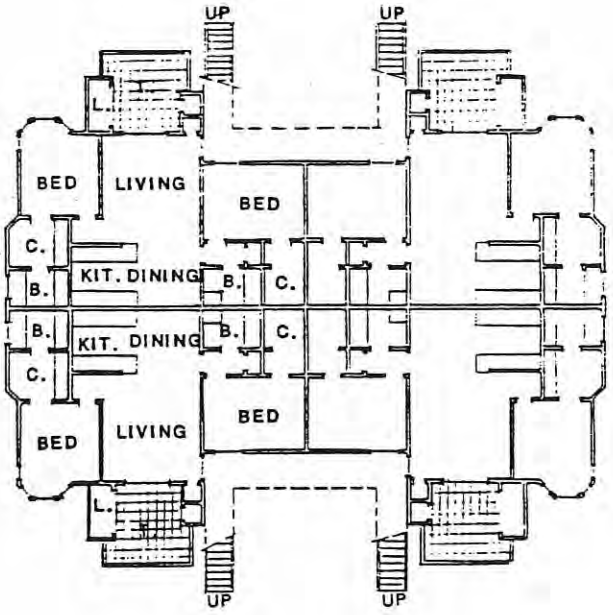


EXAMPLE: MASSING DIAGRAM
PLANNING AREA 10-A & 11

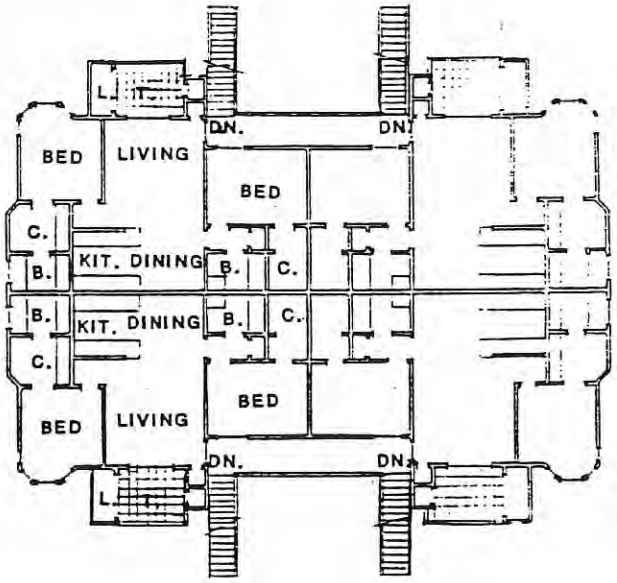
PLANNING AREA 6,7:



EXAMPLE: BUILDING ELEVATIONS



FIRST FLOOR: (4) 2-BDR. FLATS



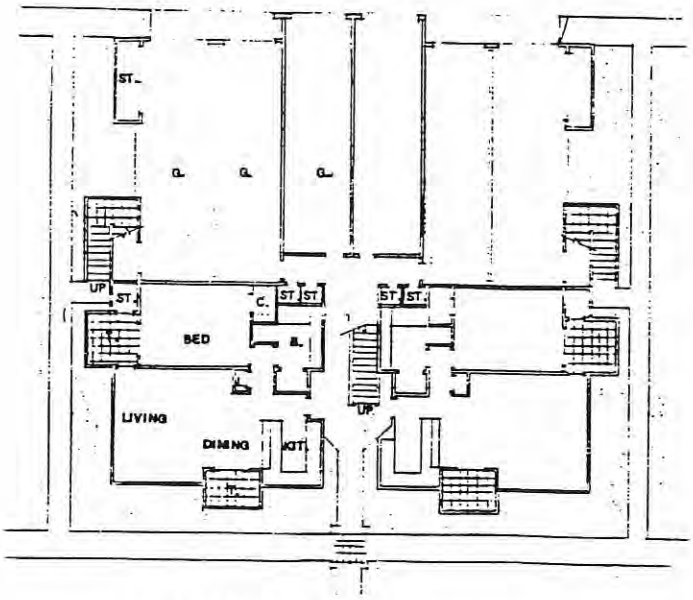
SECOND FLOOR: (4) 2-BDR. FLATS

EXAMPLE: FLOOR PLANS

PLANNING AREA 10A,11

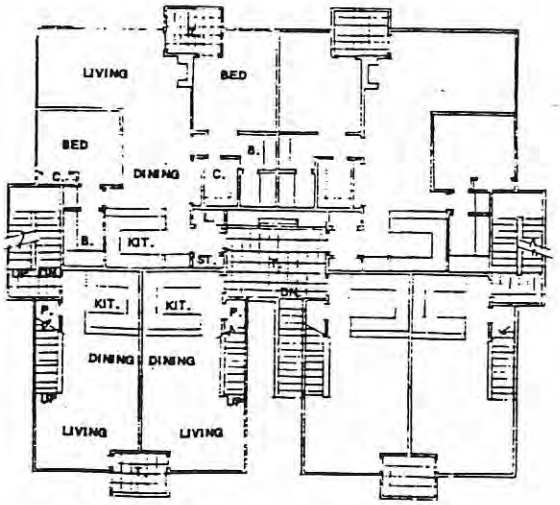


EXAMPLE: BUILDING ELEVATIONS



FIRST FLOOR / GARAGE

(2) 1-BDR. FLATS
6-CAR GARAGE

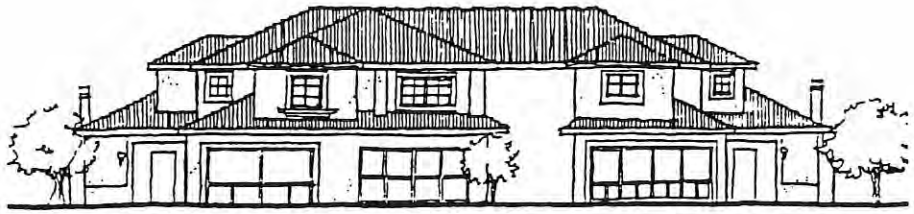


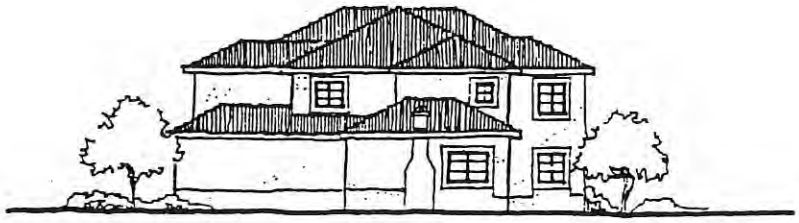
SECOND FLOOR

(4) 2-BDR. TOWNHOUSES
(2) 2-BDR. FLATS

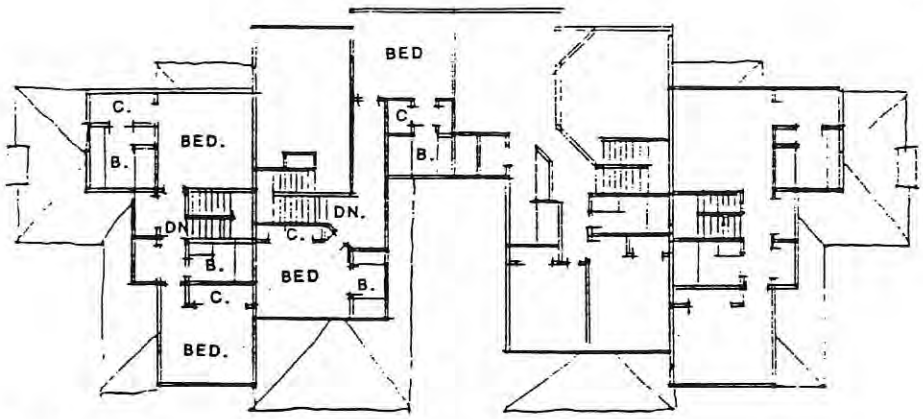
EXAMPLE: FLOOR PLANS

PLANNING AREA 10:

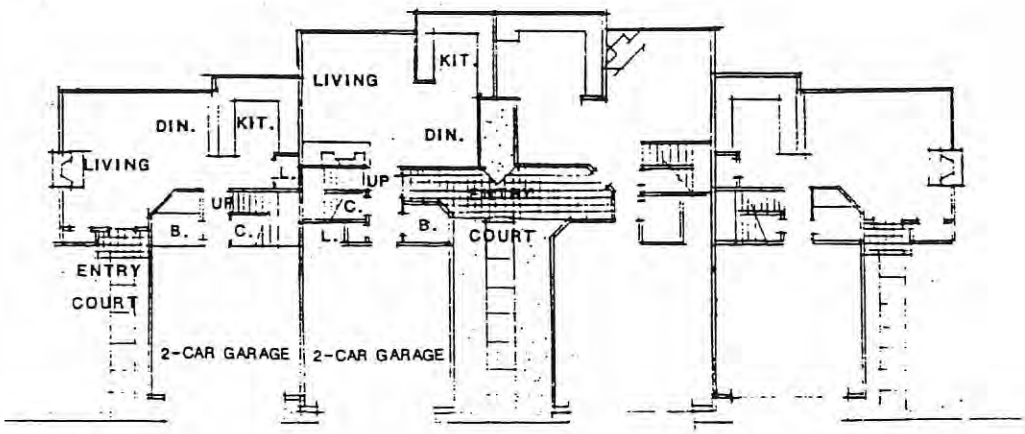




EXAMPLE: BUILDING ELEVATIONS



SECOND FLOOR



FIRST FLOOR

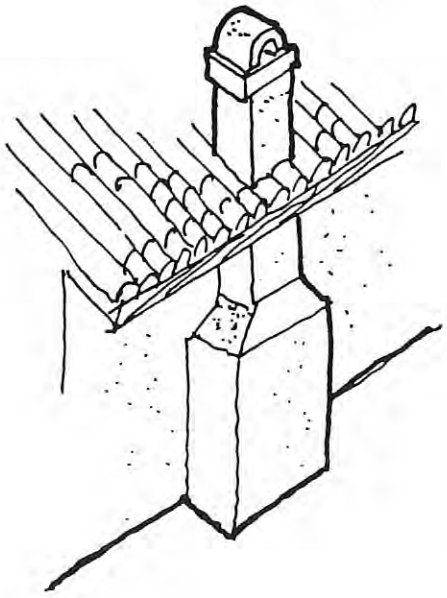
(3) 2-BEDROOM TOWNHOMES
(1) 3-BEDROOM TOWNHOME

EXAMPLE: FLOOR PLANS

ARCHITECTURAL DETAILS:







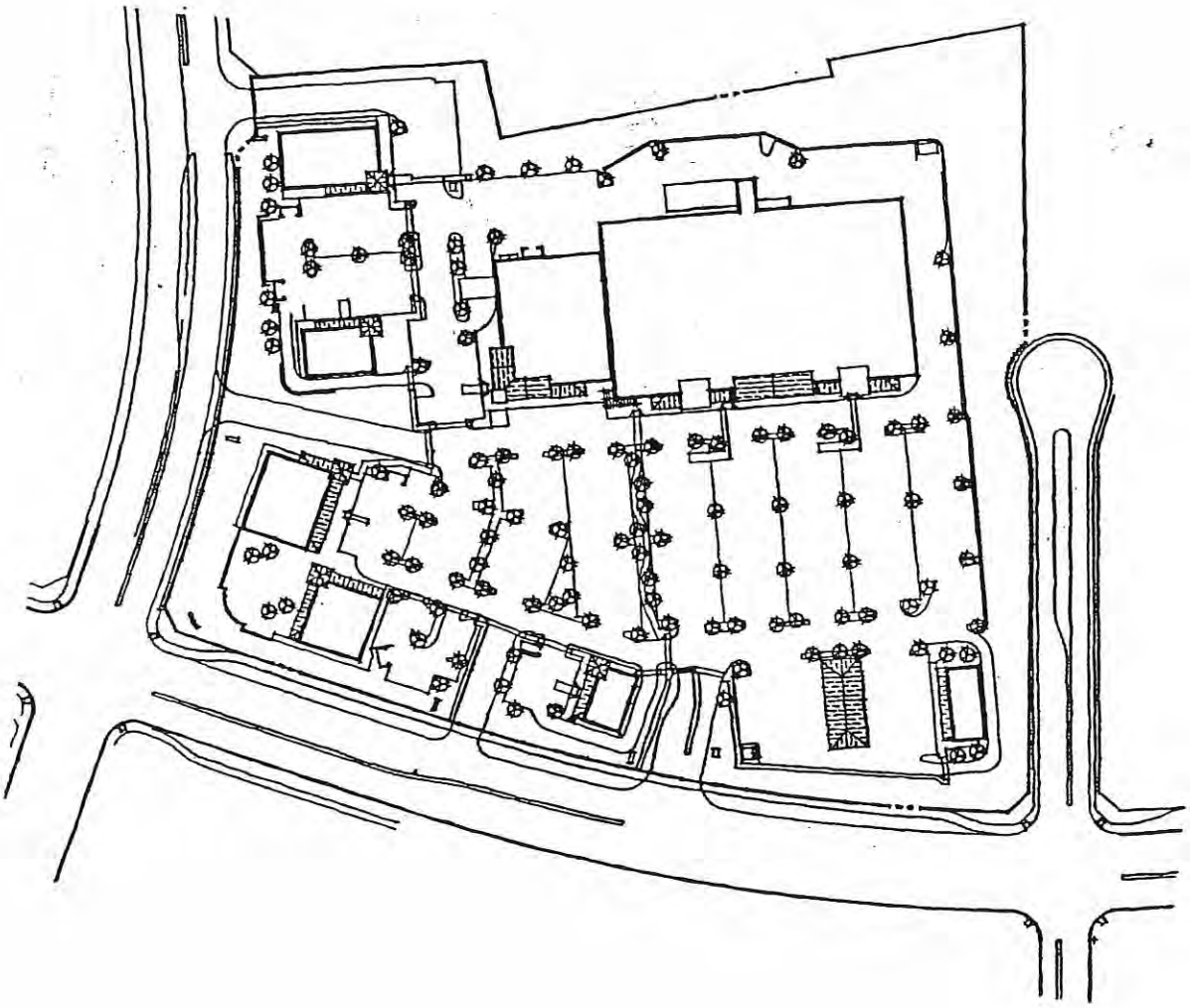
VILLAGE CENTER

Concept

The concept of the retail element for Sunbow is that of a community commercial center. The retail element should be reminiscent in site planning, architecture and amenities of a California Spanish village theme. In its establishment as a community commercial center , it is envisioned that the retail element be characterized by small office and professional service facilities as well as retail services commonly found in contemporary community commercial centers in California. The center shall be designed so as to provide a consistent architectural theme throughout. Furthermore, strong pedestrian linkages with and within the center will be created by integrating pedestrian access with a range of architectural amenities such as an outdoor plaza and outdoor seating, hardscape and landscaping. Design amenities will integrate retail and office/service uses. The retail component should be developed as the activity focus for the community commercial center.

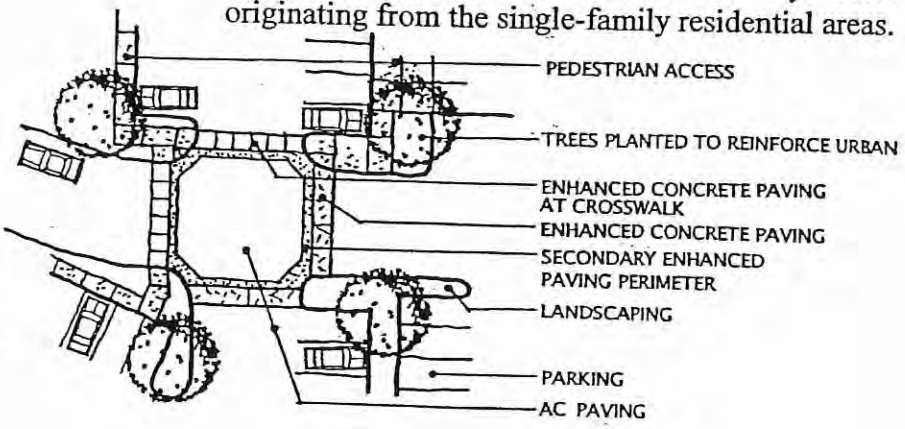
Site Planning

The retail buildings in the community commercial center should be site planned around a central parking plaza. The plaza should be enhanced with pedestrian walks, landscaping, and hardscape so as to reinforce the California Spanish village theme. The main entrance leading to the parking plaza should be enhanced with landscaping, paving, and streetscape to promote a sense of arrival to the commercial center. Where possible, pedestrian connections to surrounding neighborhoods shall be encouraged. Pedestrian access points should be integrated into the overall circulation pattern of the center, and pedestrian walks should be a prominent architectural feature of the center. Pad buildings should be sited so as to be an extension of the central plaza concept. They should allow for vehicular and pedestrian circulation that facilities community use of the center, while avoiding congestion. The drives and walkways around which the retail component is organized should extend both to the east and to the north, creating public or private right of way connections for both pedestrians and vehicles to the residential areas adjacent to the site.

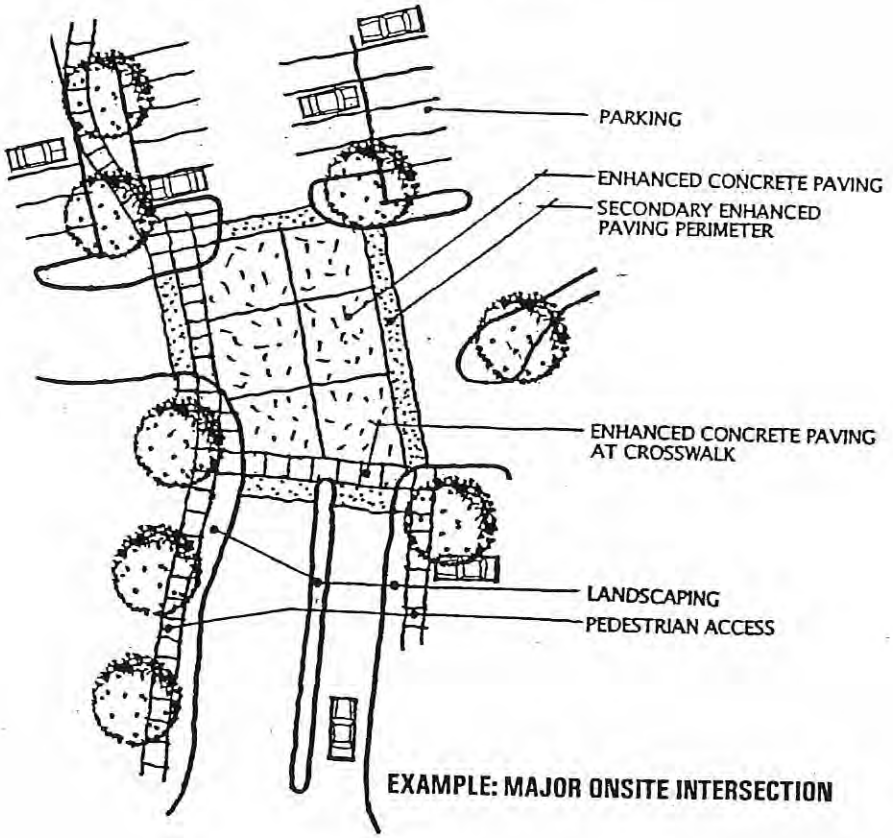


Intersections/ Pedestrian Access

Pedestrian access is vital for the success of the retail center in its role as the community commercial center. Pedestrian access to the surrounding residential and medical uses should be direct and clear within reason due to grade difference. Pedestrian access from the intersection of Medical Center Drive and East Palomar Street should also be direct and clear to allow for easy access by pedestrians originating from the single-family residential areas.



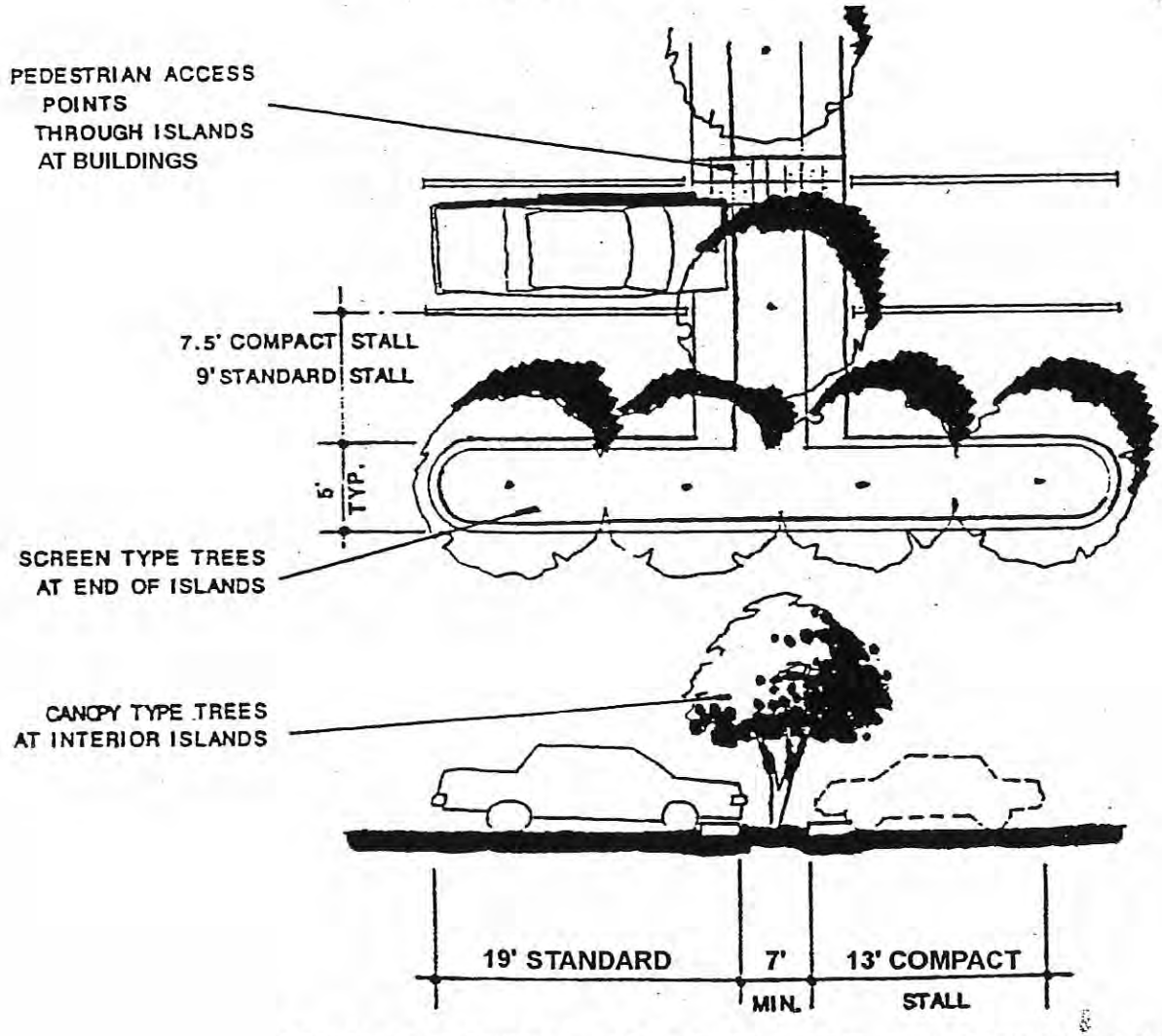
EXAMPLE: MINOR ONSITE INTERSECTION



EXAMPLE: MAJOR ONSITE INTERSECTION

Screening

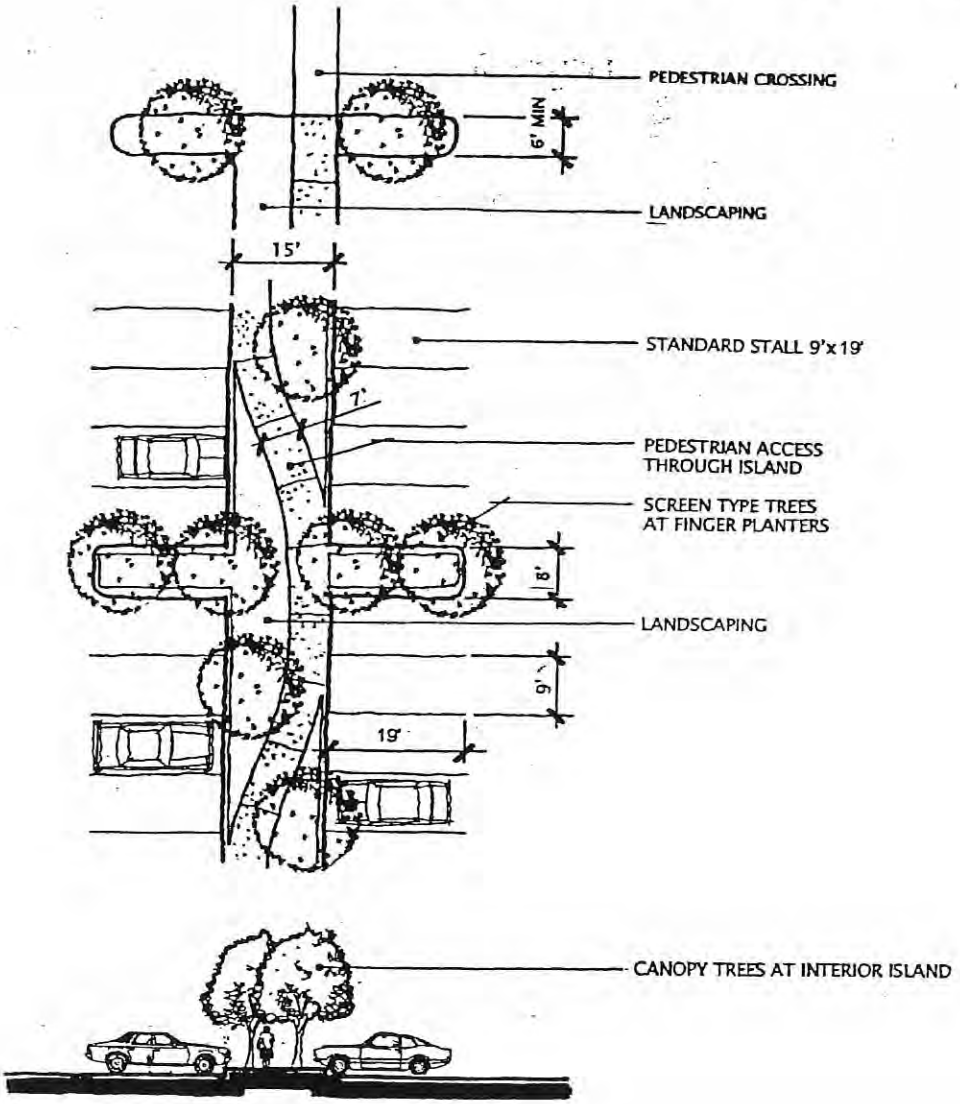
Loading areas should be screened from direct view from Palomar and Medical Center Drive to the extent possible. Parking areas should be screened and softened with extensive landscaping. Rooftops should be screened from direct views that look down on the site. Screening from the adjacent residential areas is particularly important to avoid the viewing of loading areas from the residential areas and the intrusion of headlamps, etc. into residential projects.



EXAMPLE: PARKING SCREENING AND PEDESTRIAN ACCESS

Primary Pedestrian Linkages

Pedestrian linkages shall compliment the overall architectural theme, while providing visual interest and variety. This shall be accomplished through the use of pathways along median islands in the parking plaza, meandering or staggered walkway paths, as well as landscaping/screening elements such as ground cover and trees.

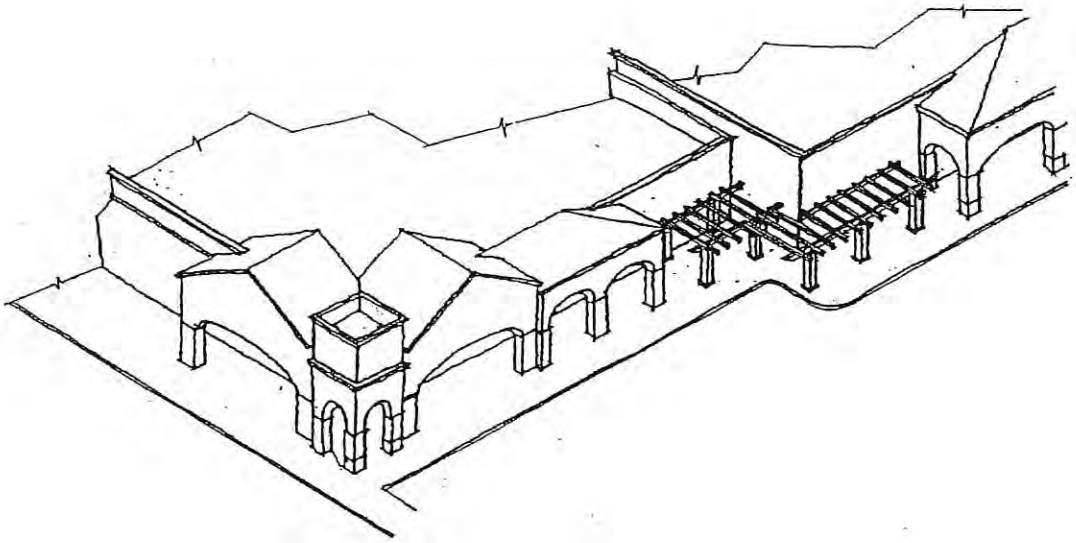


Mass and Form

It is envisioned that the community commercial center will have elevations with offsetting planes to avoid bulk massing of buildings. a mass varying. Variation in form is desired, if possible, which can be accomplished by architectural features such as a canopy trellis, cornices, towers, and arcade columns. Also, the massing can be greatly enhanced by the use of cupolas, ramadas, and other classic architectural features. The massing and form of the building should reinforce the pedestrian nature of the internal drives by accenting entrances, outdoor sitting areas, and points of interest.

Roofs

Roofs should be pitched at the perimeter of buildings wherever possible. Flat roof portions of buildings may be incorporated to allow for the practical inclusion of mechanical equipment, etc.



EXAMPLE: MASSING DIAGRAM
FOR VILLAGE CENTER COMMERCIAL BUILDINGS

Materials

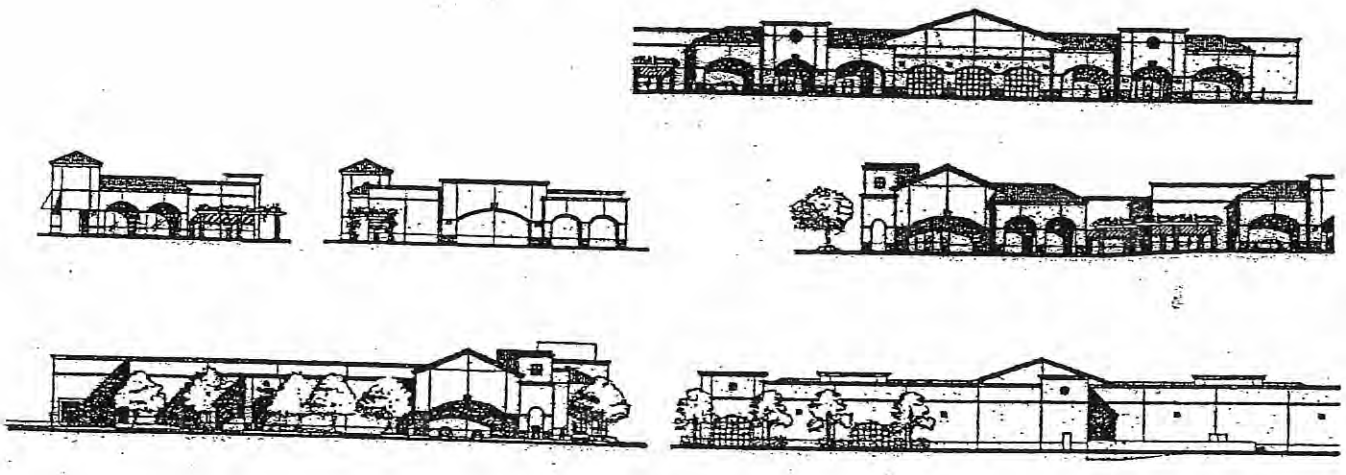
The materials used in the community commercial center should relate to those materials used elsewhere in Sunbow. These include stucco, tile, wood, stone, wrought iron and other materials generally indigenous to the style of architecture. Materials should be used in their natural form and in an authentic way avoiding any extreme applications that are the result of current styles or trends. Special materials should be used at entrances and other points of interest when possible. These materials include, but are not limited to stonework, cast concrete elements or wood treatments.

Color

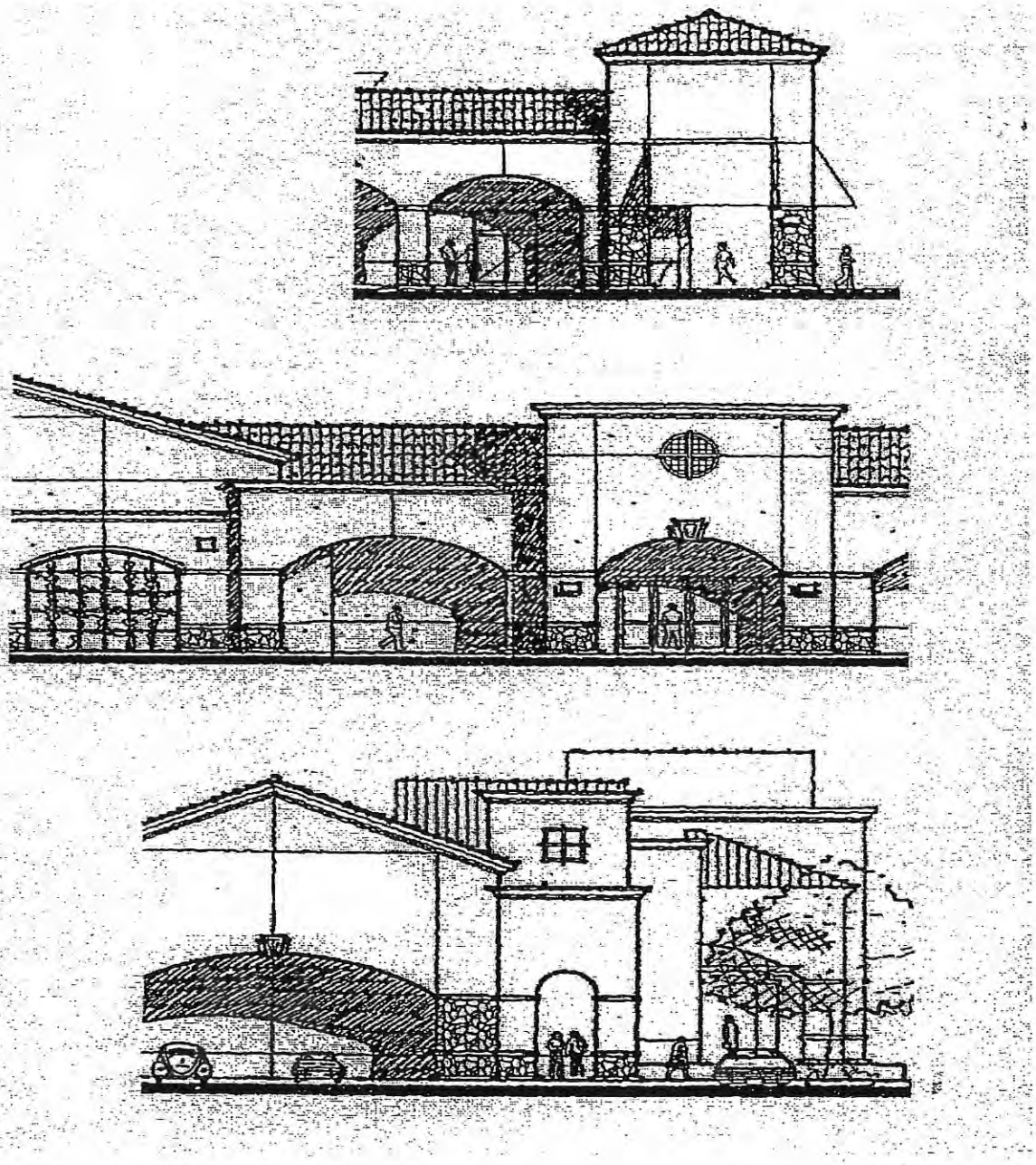
The colors used for the retail element should be those of the California Spanish style of architecture at Sunbow. These colors are generally soft tones with strong colors used only as accents.

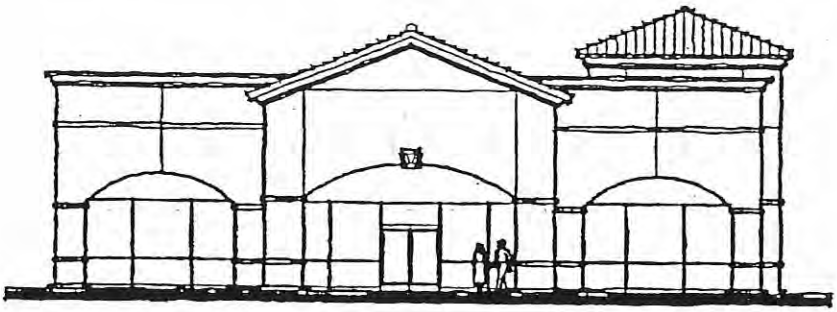
Architectural Style

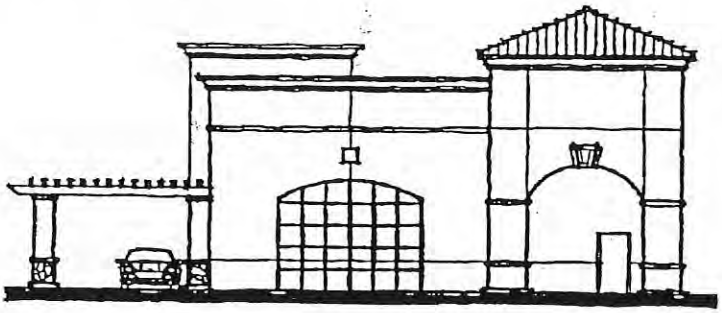
The architectural style of the community commercial center at Sunbow shall be classic California Spanish as illustrated by the examples included with this guideline. Primary sides of buildings will be treated equally insofar as the retail buildings will be exposed to public view on all sides. This full architectural treatment of primary sides of each building is important to create the character and quality of the Sunbow village core that is mandated by these guidelines. A sense of design and use of quality materials is important to the proper use of the California Spanish style of architecture. Simplicity in application of these materials is equally important to the success of California Spanish architecture. While sufficient detail must be included in the buildings to provide a sense of the style, overly decorated buildings are discouraged.

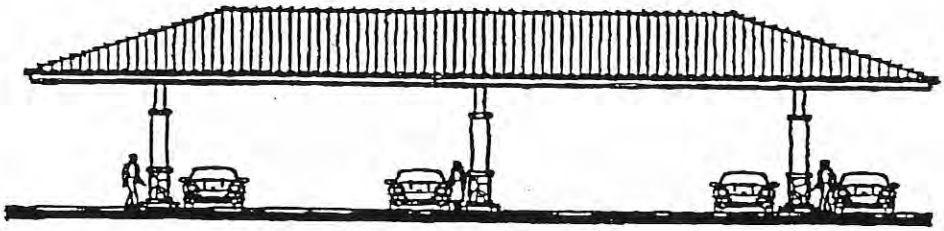


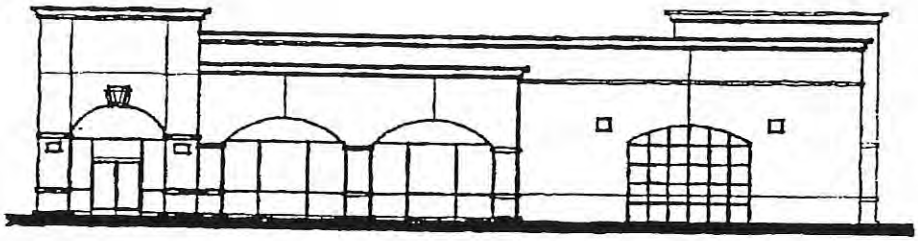
ARCHITECTURAL DETAIL:

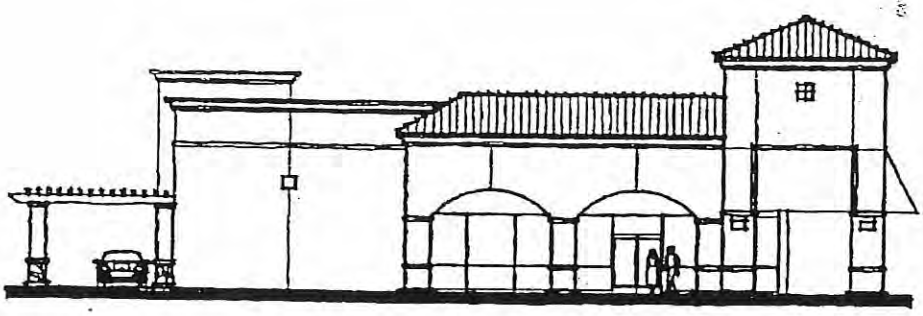


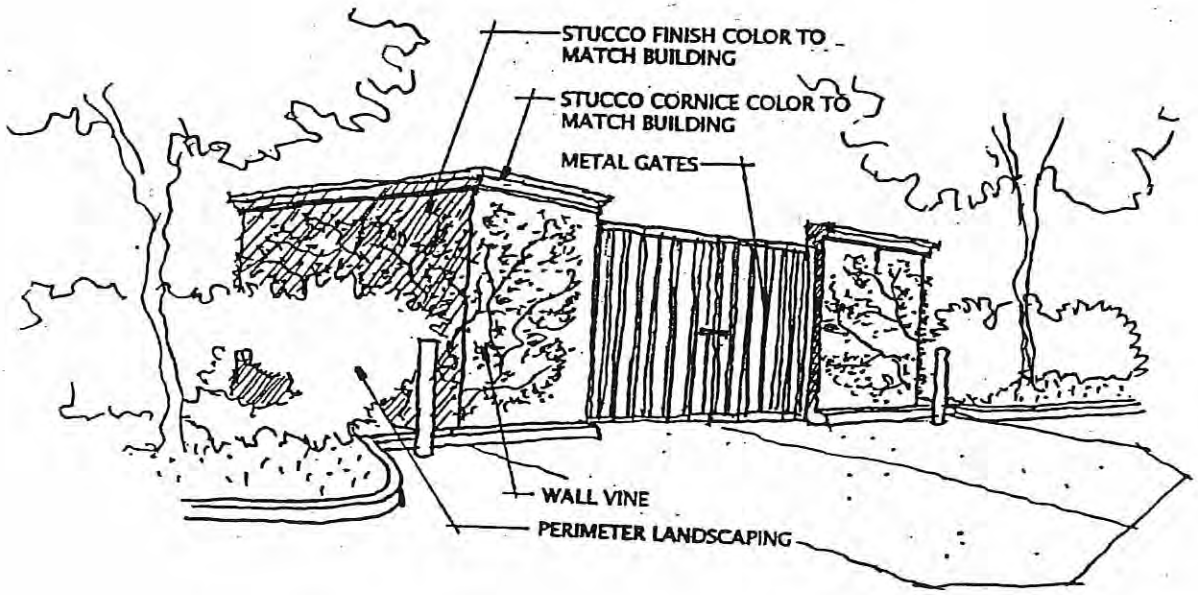











STUCCO FINISH COLOR TO MATCH BUILDING
STUCCO CORNICE COLOR TO MATCH BUILDING
METAL GATES
WALL VINE
PERIMETER LANDSCAPING

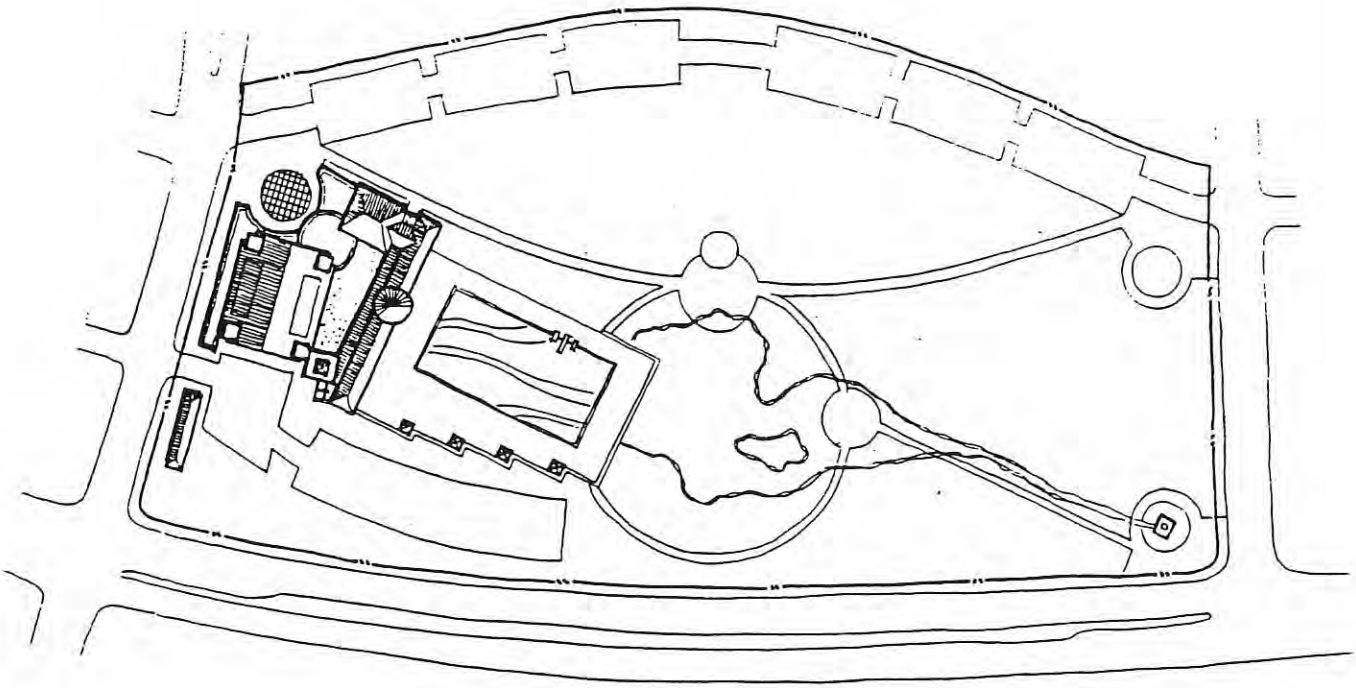
ACTIVITY CENTER

Concept

The Sunbow Activity Center is conceived of as a community focus both visually and functionally. In a predominant location within the village center, the Activity Center is surrounded by commercial and residential uses of varying types and densities. This component of the Sunbow plan will provide both passive and active recreation opportunities as well as provide a visual focus. The concept of the park is that of a village green surrounded by active recreation uses, housing and retail.

Site Planning

The site is located so that it has visual access from Palomar Road. This visual access should be considered in the site planning of the Activity Center. It is also located within the gentle curve of the internal drive connecting the residential and commercial office uses of the village core. The gentle curve of this drive suggests a site plan that is responsive to this form, creating a village green at this location. This village green then becomes the visual focus for the community. The green may then be defined at its southern edge by active uses such as swimming, tennis, basketball, volleyball, etc. Parking shall be distributed throughout the Activity Center, preferably around its perimeters.



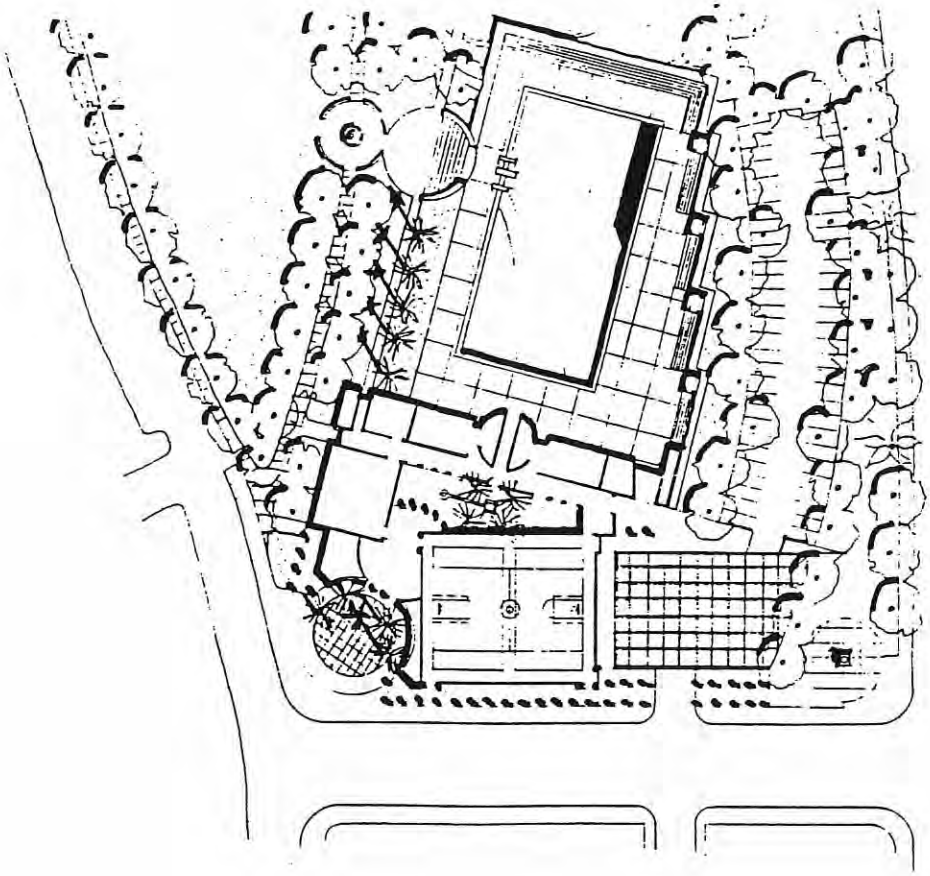
EXAMPLE: SITE PLAN OF ACTIVITY CENTER

Screening

The parking areas should be well landscaped to filter the view of them and the Activity Center from Palomar. While it is equally important to be able to see into the activity areas and the village green, it is likewise important to soften the view of the parking areas.

Pedestrian Access

Due to its location in the plan and its concept as a pedestrian activity, the Activity Center must be provided with ample pedestrian access from the balance of the community. Pedestrian access within the Activity Center itself from each of the activity areas and parking must be carefully thought out and integrated well within the overall site plan.



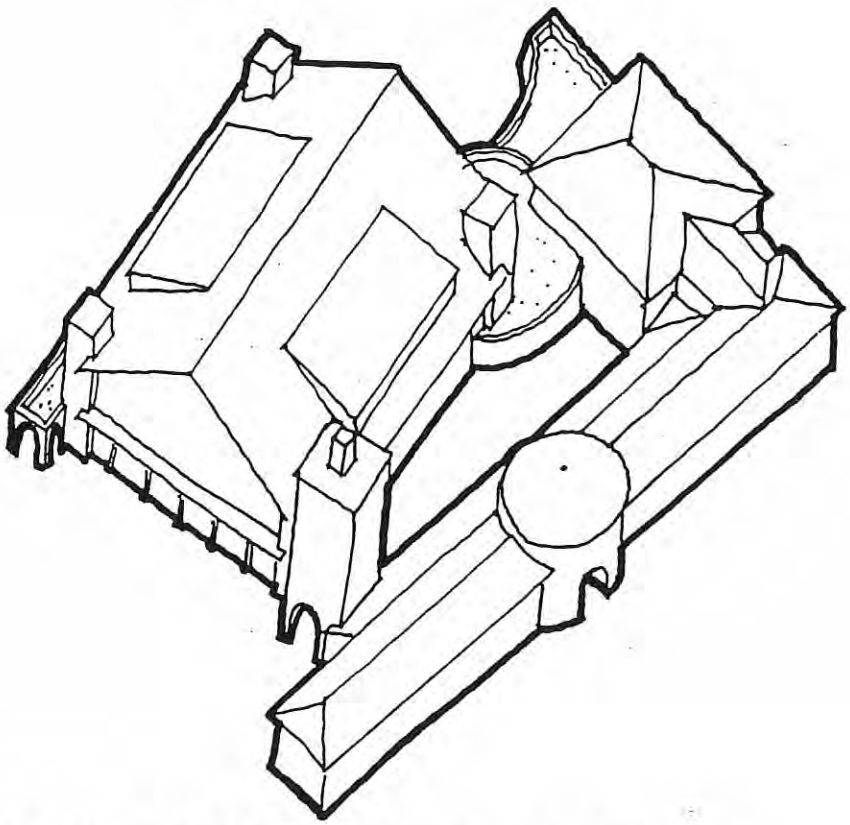
EXAMPLE: ACTIVITY CENTER HARDSCAPE PLAN

Mass and Form

The structures contemplated in the Activity Center include a gymnasium, tennis courts, tot-lot structures and miscellaneous seating at the swimming facility. The mass and form of the gymnasium must be carefully considered to avoid an overwhelming, box-like structure. The location of the gymnasium is established to provide a visual relationship with the village core commercial and office area. The purpose of this is to extend the concept of village core into the Activity Center. Therefore, the mass and form should be compatible with that of the village core. Care must be taken to recognized that this building will be viewed from all sides and the tendency to create a front and back must be avoided. The pedestrian linkages and patterns of the Activity Center should be reflected in welcoming and clearly identifiable pedestrian entrances into the gymnasium structure.

Roofs

A pitched roof should be considered in the design of the gymnasium structure. Composite roof forms implying both pitched and flat forms may also be considered. Mechanical equipment required for the facility, if placed on the roof, should be organized in such a fashion that it is screened from view.



EXAMPLE: MASSING DIAGRAM OF ACTIVITY CENTER GYMNASIUM

Materials

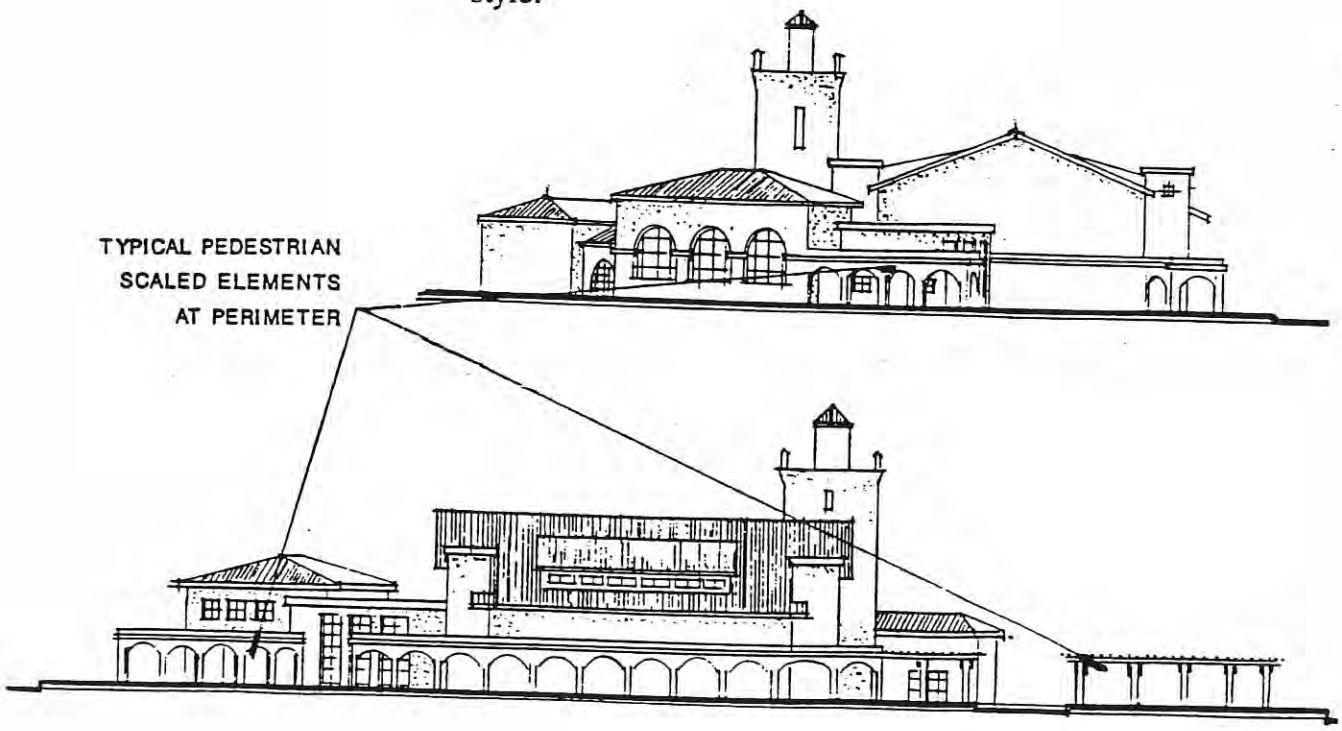
Materials employed in the Activity Center should be varied and appropriate for their use as both paving and building surfaces. The building materials and those materials of miscellaneous structures in the Activity Center should relate to the sense of timelessness and permanence achieved by the other planning areas of Sunbow. Stucco with masonry, stone and wood trim should be considered as the predominant materials for the gymnasium structure and its appurtenances. Miscellaneous structures may be constructed of various combinations of wood and masonry with stucco components as well. Paving material should include concrete, interlocking pavers, tile, and/or brick employed in a variety of patterns and motifs.

Color

Colors employed in the Activity Center should be neutral tones with strong colors used as accents when necessary.

Architectural Style

The architectural style employed with the structures of the Activity Center should reflect the California Spanish character of the Sunbow village core. The inclusion of details and components of that style with the major and secondary structures in the Activity Center is required to achieve the sense and character of the California Spanish style.



EXAMPLE: ACTIVITY CENTER BUILDING ELEVATIONS

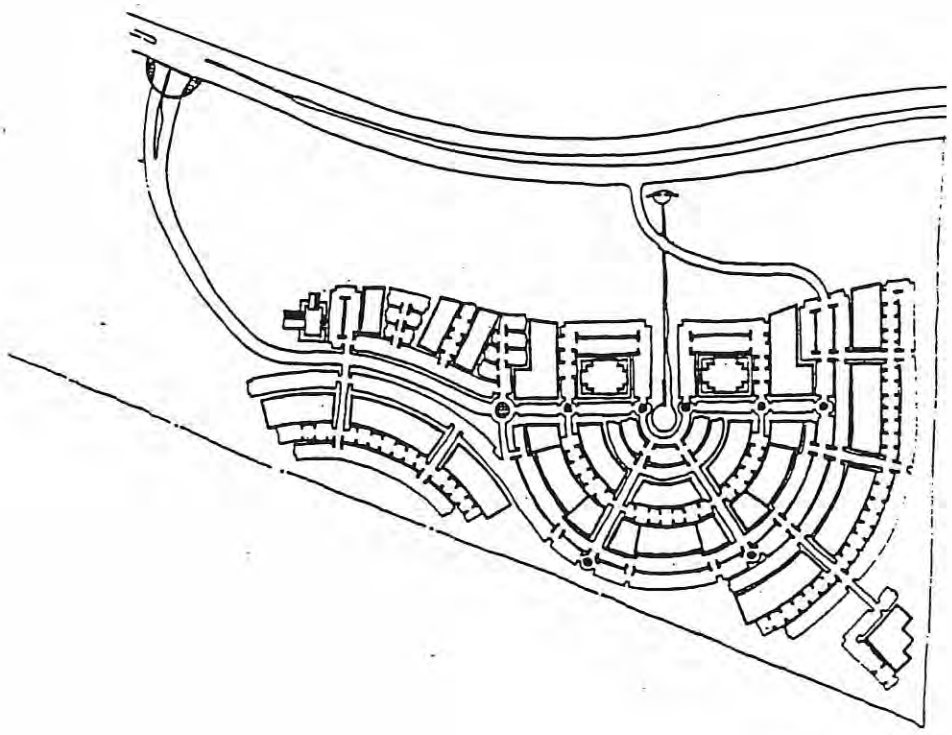
INDUSTRIAL/BUSINESS PARK

Concept

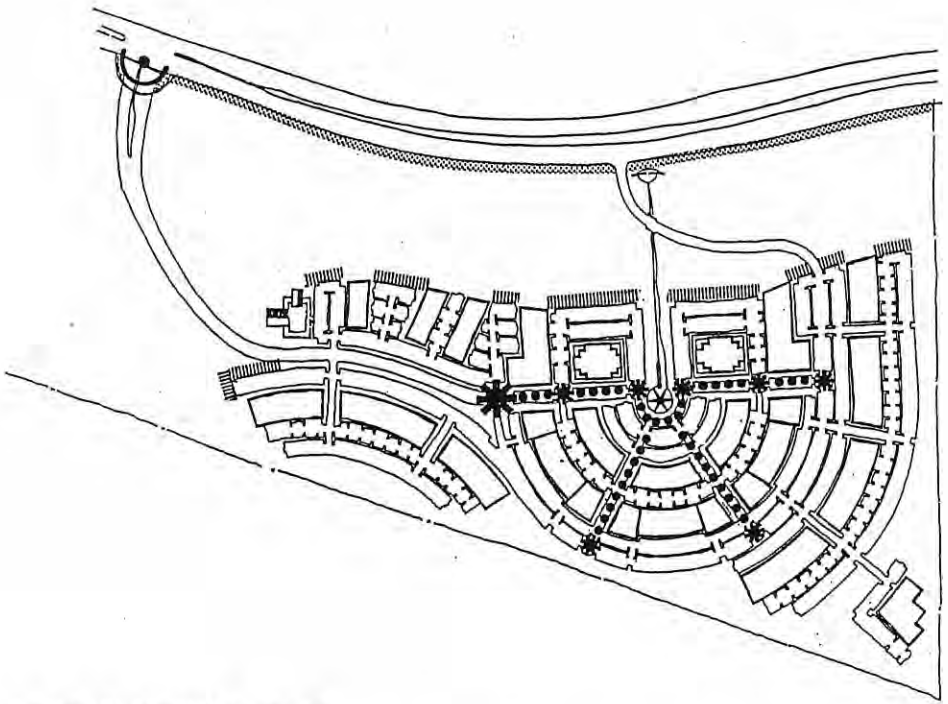
The Sunbow business/industrial component is conceived of as a well- integrated and coordinated development conforming to an overall master plan. Insofar as this component of Sunbow is separated from the primary residential areas by Poggi Canyon and Orange Avenue, strict architectural coordination with the other areas of Sunbow is not necessary. There will be a relationship, however, relative to view corridors, etc. and it is desired that the business/industrial park be of a quality that is compatible with the balance of the Sunbow community.

Site Planning

The site planning of the business/ industrial component should respond in an overall form to the surrounding land features, both in their existing and modified form. Vehicular access is of primary importance, as is vehicular organization of the site. A clear separation of loading and delivery areas from visitor parking is preferred. It is anticipated that the site plan of the business/industrial component will have a central feature providing organizations such as a water feature, landscape feature or sculptural element.



URBAN DESIGN:



URBAN DESIGN PLAN
FOR LIGH' 'NDUSTRIAL / BUSINESS PARK AREA

LEGEND:

ORANGE AVE. EDGE CONDITION

MAJOR ENTRANCE

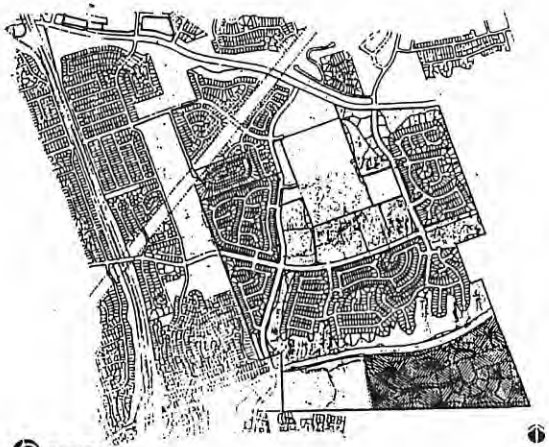
MAJOR INTERSECTION

MINOR INTERSECTION

PEDESTRIAN LINKAGE

LANDSCAPE SCREENING

FOCAL ELEMENT

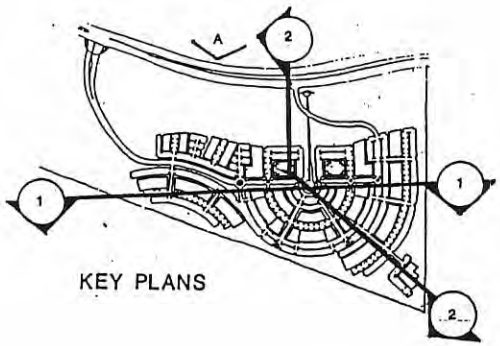


SUNBOW

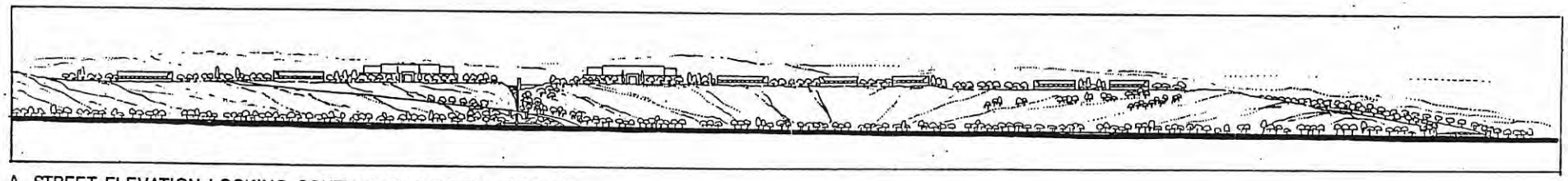
KEY PLAN

(REV 10-17-89) 63

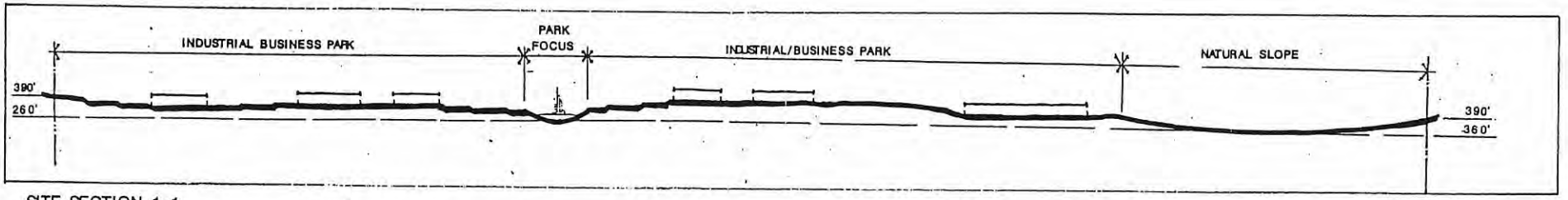
SITE SECTIONS/
STREET ELEVATIONS:



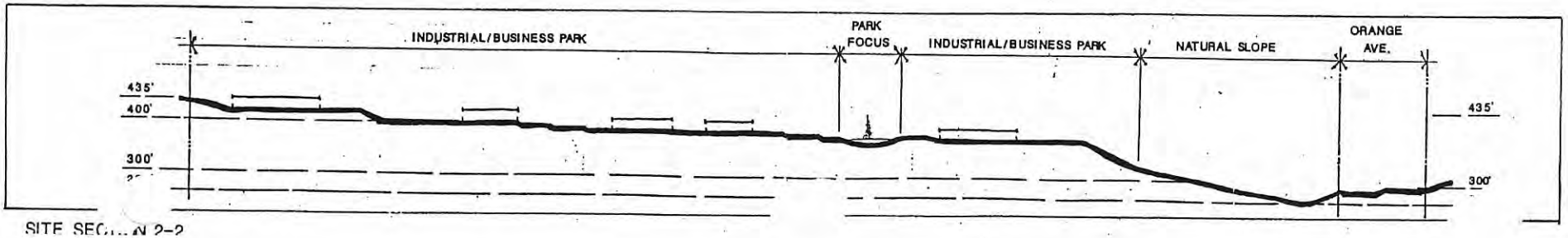
KEY PLANS



A. STREET ELEVATION LOOKING SOUTH FROM ORANGE AVENUE

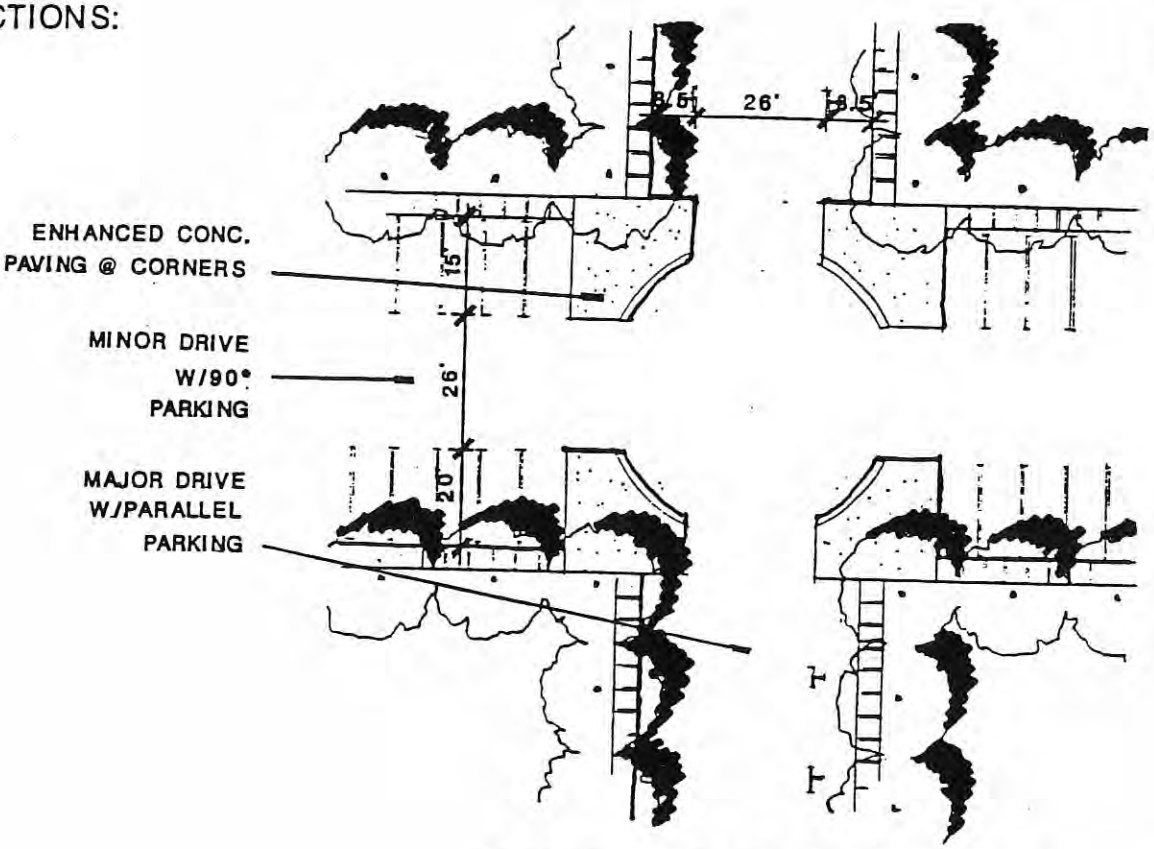


SITE SECTION 1-1

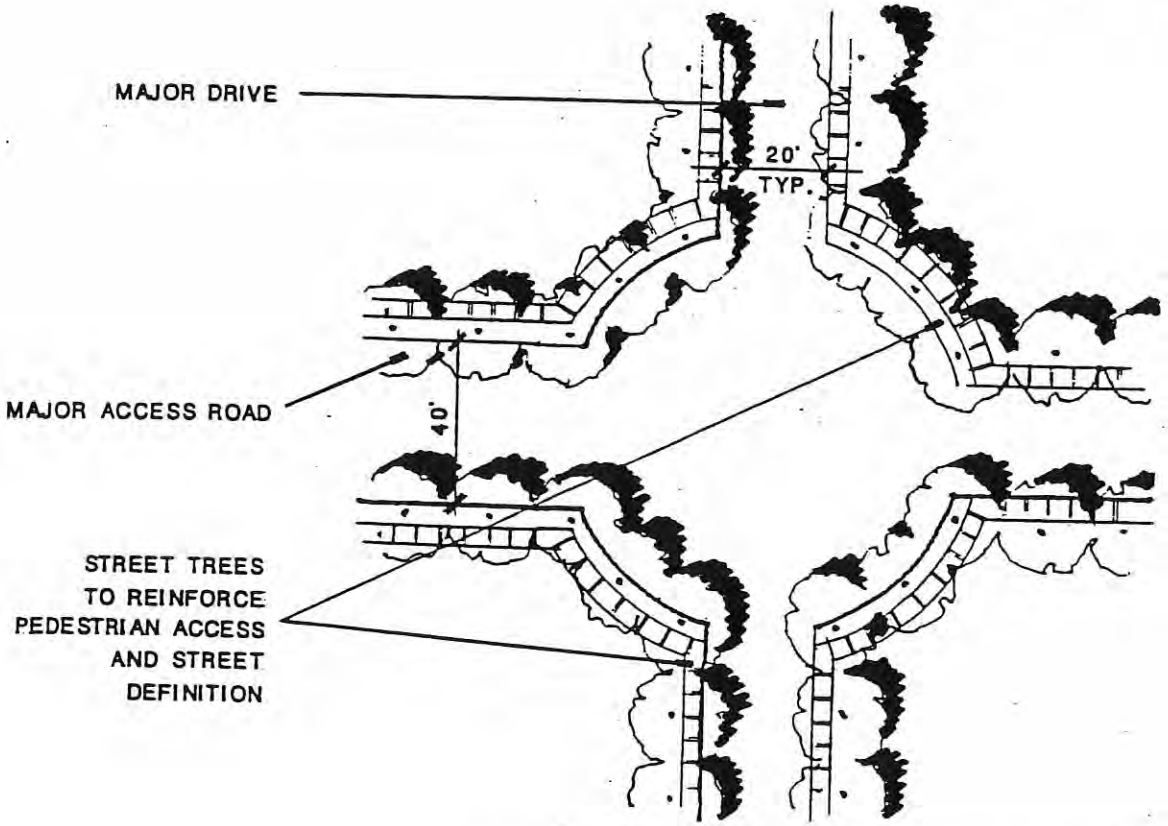


SITE SECTION 2-2

INTERSECTIONS:

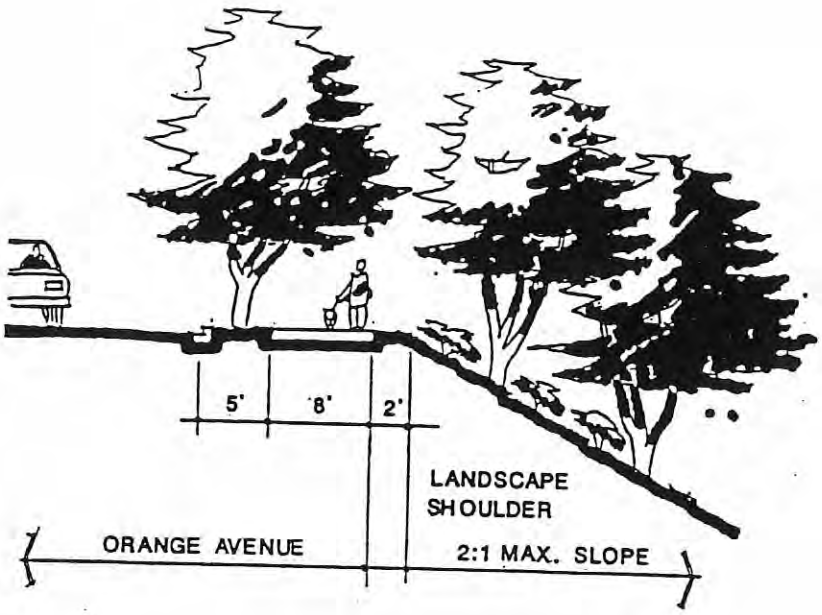


EXAMPLE: MINOR INTERSECTION

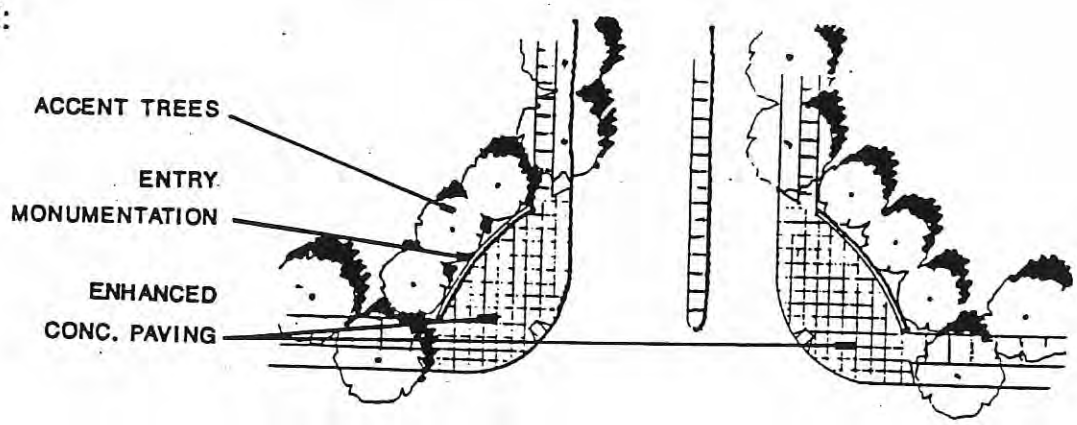


EXAMPLE: MAJOR INTERSECTION

EDGE CONDITION:



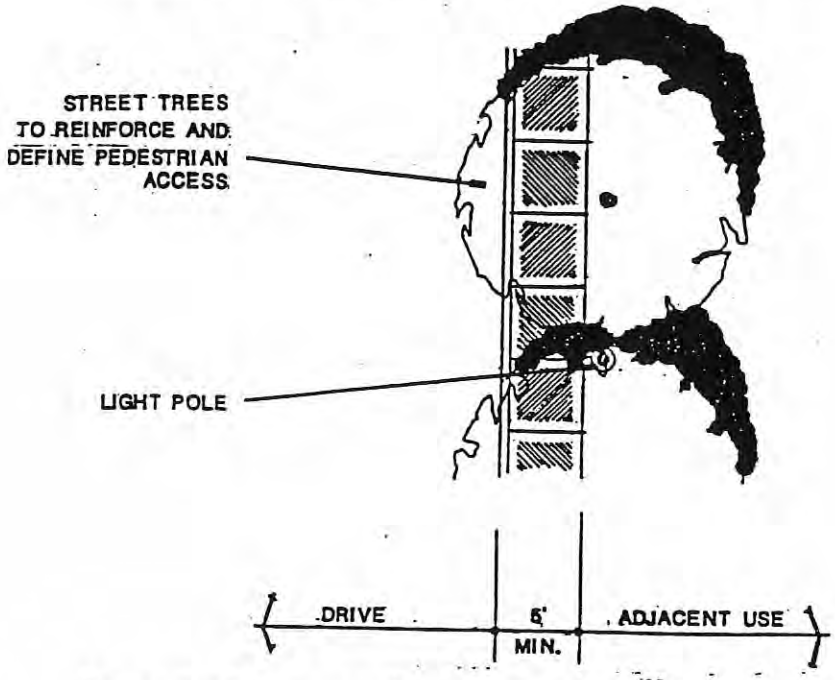
ENTRANCE:



EXAMPLE: ENTRANCE FOR
LIGHT INDUSTRIAL/BUISNESS PARK

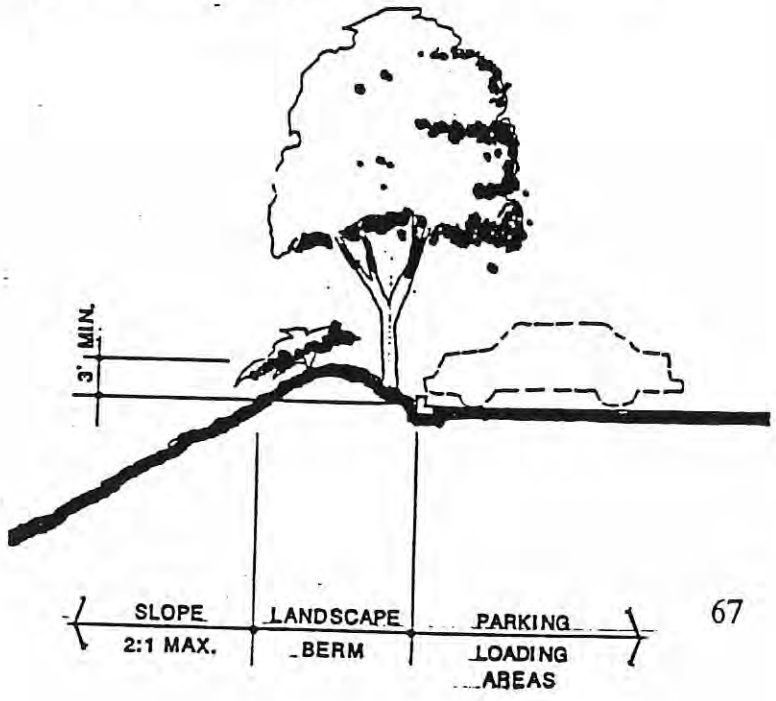
Pedestrian Access

While most everyone will arrive at the business/industrial facilities by vehicle, pedestrian access to the Sunbow Business/Industrial Guidelines central amenity is significant to allow for lunchtime relaxation. Pedestrian amenities should be provided for those who wish to stay on the property at lunchtime and after hours, but need some variation from the work environment.



Screening

Large loading areas should be screened from view by the adjacent residential areas. Parking areas should be well landscaped to provide screening from large parking areas and to provide a sense of small pockets of parking rather than large uninterrupted parking lots.



Mass and Form

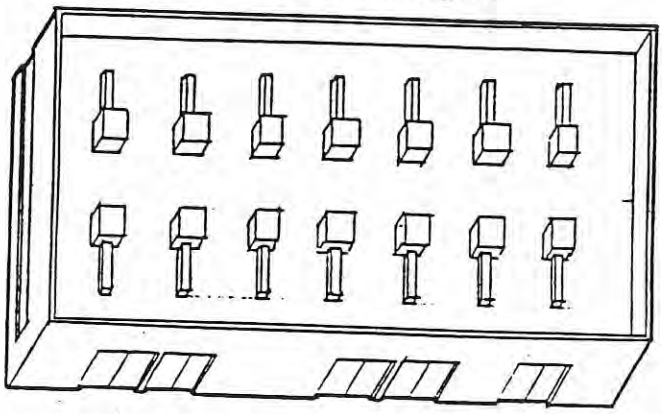
It is envisioned that the buildings in this component will be one to three stories with some limited variation in massing. The massing of the buildings should be developed in such a way as to reinforce a sense of entry and pedestrian scale.

Roofs

While it is impossible to avoid large expanses of flat roof with mechanical equipment in a facility such as this, it is imperative that the roofscapes be well organized with rooftop equipment either screened or located in such a way as to be unobtrusive when viewed from the surrounding residential areas. The roofscape of these buildings will be a primary design concern and must be adequately addressed.

Materials

While a variety of materials may be used in a business/industrial facility such as this, those that convey a sense of permanence and timelessness are preferred. These include stucco, concrete, masonry, stone, etc. Metal buildings and other buildings that convey a sense of temporary utilization will be discouraged.



EXAMPLE: MASSING DIAGRAM FOR
LIGHT INDUSTRIAL / R&D BUILDINGS

Color

Colors employed in the business/industrial park should be neutral tones with strong colors used only as accents where necessary.

Architectural Style

While the California Spanish style of architecture is not mandated for this component of Sunbow, simplicity in design with an emphasis on pedestrian features and landscape will provide a visual relationship to the California Spanish style in the residential areas. Inclusion of faddish and attention-getting design features is discouraged in favor of traditional understated and timeless approaches to architectural style, composition and massing.

LANDSCAPE MASTER PLAN

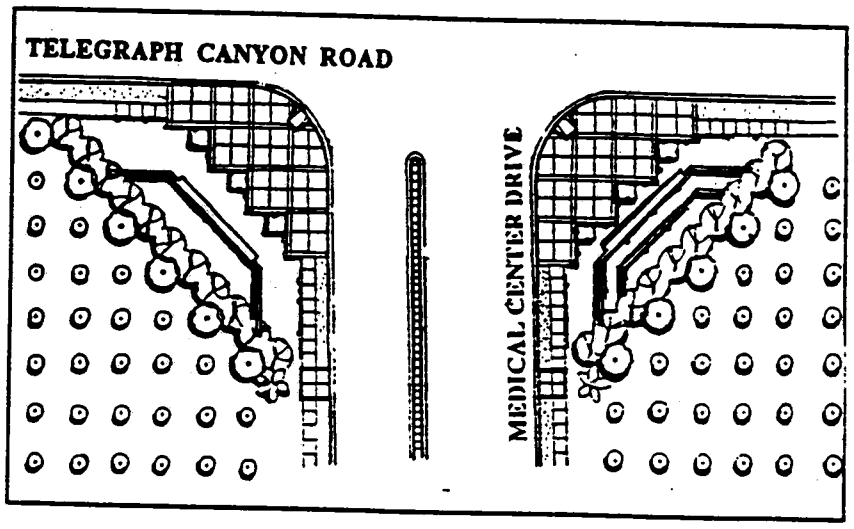
INTRODUCTION

The purpose of the Landscape Master Plan is intended to provide a trans ition between the landscape guidelines contained in the Sunbow General Development Plan (GDP) and the more specific landscape plans which will accompany the Tentative Map submittals for individual parcels. For this reason, these landscape concepts, while more specific than those in the GDP, will allow the needed flexibility to encourage creativity at the individual project area tentative maps (TM).

This plan also carries forward the landscape patterns which have been successfully implemented in Sunbow Phase I, formerly referred to as Rancho del Sur. The exhibits and discussions which follow show the entire Sunbow community including the Phase I area, although the Phase II area has been highlighted to insure clarity.

LANDSCAPE CONCEPT

The landscape concept for Sunbow defines major landscape districts and neighborhoods and links them together by a landscape corridor system. In essence, these corridors become a highly visible and functional open space amenity which crisscrosses the new Sunbow Community. The intersections or entry areas where these corridors crisscross create the focal points of the community of Sunbow. In addition, the edge buffer areas which occur on the perimeter of Sunbow, where existing development is adjacent to new land uses, is also an important category in the landscape concept.



Landscape Districts or Neighborhoods

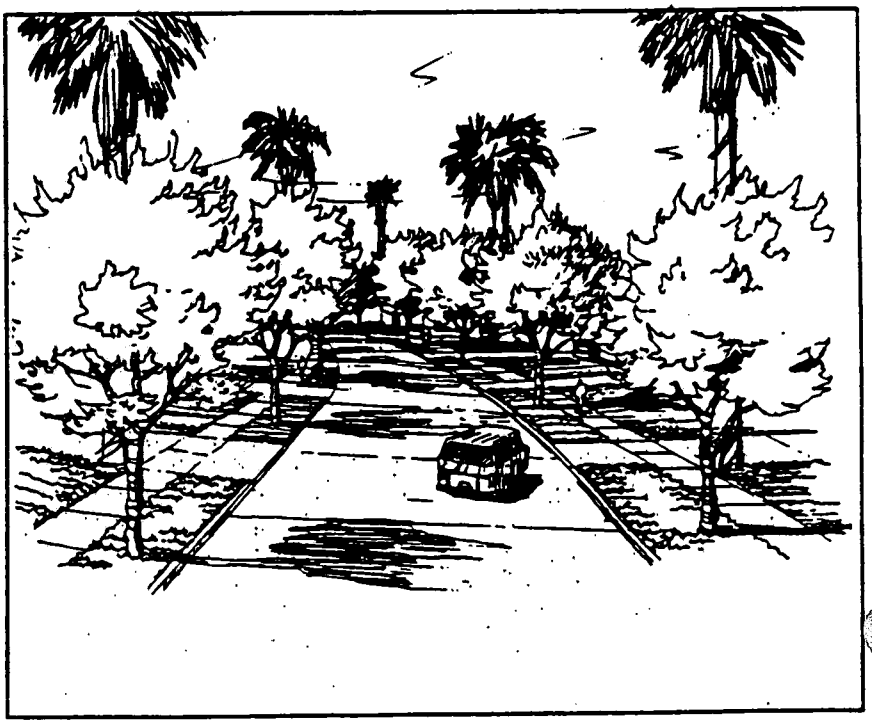
Sunbow consists of four Landscape Districts or neighborhoods. They are:

- The Village Center Commercial/Recreational District
- The Village Center Residential District
- The Industrial District
- The Residential Neighborhood Districts

These can be seen on Exhibit 1 herein. Each of these areas is intended to have a district character which relates to its design theme or function. Therefore, the landscape concept presents a separate criteria for each of these areas.

Landscape Corridors

There are five major corridors defined by each of the major streets in Sunbow including: Telegraph Canyon Road and Orange Avenue, which are both designated to be scenic open space corridors; Medical Center Drive and Paseo Ladera, both of which each provide north-south connections through the site; and the East Palomar Street corridor, which includes the community center uses as well as the pedestrian connections to Greg Rogers Park to the west and the elementary school to the east. Finally the SDG&E corridor created as a part of Sunbow Phase I also provides an important hiking trail linkage for the entire community including Greg Rogers Park, the Phase I Neighborhood Park and the future residents of Sunbow Phase II.



Entries and Intersection Zones

In addition to the major entry already constructed as a part of Phase I, one additional major entry and three minor entries to Sunbow will define this community's unique treatment of intersections. The two intersections at East Palomar and Medical Center and East Palomar and Paseo Ladera will set the theme for the Village Center area. Additional minor intersections will also occur along each of these corridors. Neighborhood entries will provide the final element in the design of intersections where the residential collectors merge with local residential streets.

Buffer and Edges

Where new land uses differ from adjacent existing developments, a buffer zone will be incorporated to provide an attractive separation between uses both visually and functionally independent of each other.

Exhibit 2 illustrates the landscape corridors, the entry and intersection areas in Sunbow.

LANDSCAPE DISTRICTS

Village Center Commercial and Recreation Districts

This is the activity center of Sunbow containing the commercial village center and the active community park with its aquatic center, gymnasium and village green. Tree planting in these two districts will be formal rows and bosque's of deciduous trees such as London Plane trees to provide summer shade for pedestrian plazas and parking areas. Carefully placed accent trees within the commercial center will add excitement and color to the plant palette.

Village Center Residential District

This residential neighborhood which is tied closely to the activity center will contain predominantly attached housing products with strong pedestrian and recreational linkages to the community park and village center. A variety of accent plantings will also be encouraged in this district to add diversity to the central district. However, in the parking areas, the London Plane Tree will be utilized as in the adjacent village center district to shade these areas.

Industrial District

This district which is located south of the Orange Avenue corridor will be planted with evergreen trees which will be compatible with this open space corridor and yet provide a fast growing screen of the industrial uses contained on this site. Eucalyptus species will dominate this plant palette along with California natives such as Heteromeles and Rhus.

Residential Neighborhood Districts

Each of the residential neighborhood districts will contain regularly spaced street trees with a minimum of one tree per 50 lineal feet of frontage selected from the Sunbow residential street tree list on Table 1. Slope areas within this district will be planted with ground cover, shrub planting and selective tree planting primarily at the bottom of the slopes. Undulations in the visual appearance will be enhanced through planting patterns on slopes as shown in Exhibit 3. Considerations for drought tolerance, fire retardance and erosion control should be the primary selection criteria for plant material to be issued for slope planting.

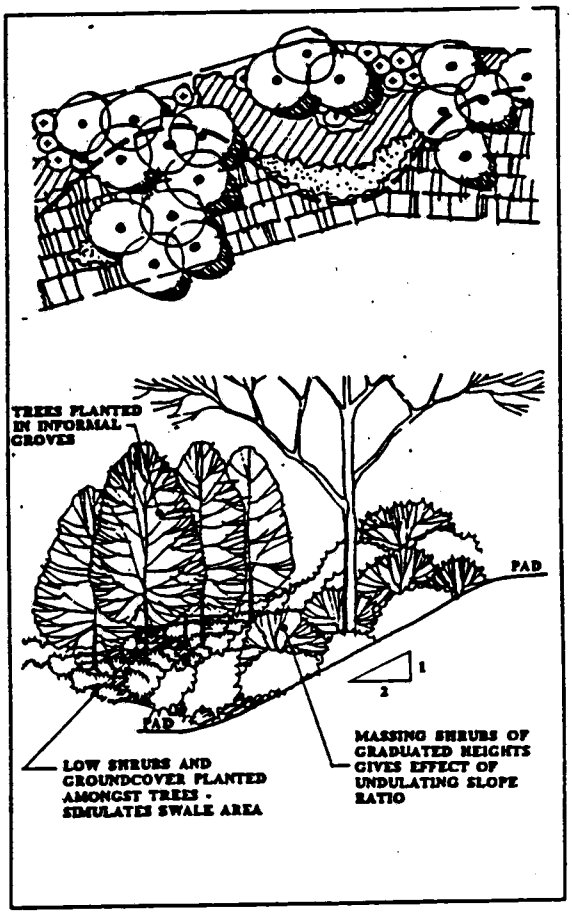


EXHIBIT 3

RECOMMENDED STREET TREES TABLE 1

BOTANICAL NAME	COMMON NAME
COMMUNITY STREETS	
Pyrus c. 'aristrocrat'	Ornamental Pear
Koelreuteria bipinnata	Chinese Flame Tree
Hymenosporum flavum	Sweetshade
Liquidambar styraciflua	American Sweet Gum
Pittosporum undulatum	Victorian Box
Washingtonia robusta	Mexican Fan Palm
NEIGHBORHOOD STREETS	
Betula pendula	European White Birch
Brachychiton populneus	Bottle Tree
Cinnamomum camphora	Camphor Tree
Cupaniopsis anacardioides	Carrotwood
Eucalyptus ficifolia	Red Flowering Gum
Eucalyptus polyanthemos	Silver Dollar Gum
Jacaranda mimosifolia	Jacaranda
Koelreuteria paniculata	Golden Rain Tree
Magnolia grandiflora	Southern Magnolia
Pinus halepensis	Aleppo Pine
Pittosporum undulatum	Victorian Box
Podocarpus gracilior	Fern Pine
Tristania conferta	Brisbane Box

LANDSCAPE CORRIDORS

Telegraph Canyon Road/ East Orange Avenue Corridors

Telegraph Canyon Road and East Orange Avenue have been designated as scenic transportation corridors by the City of Chula Vista. Thus the landscape concept for these zones provides a transition between the open space landscape and the more formal community landscape design. Drifting groves of drought tolerant and/or indigenous and native-like species have been chosen to enhance and compliment the adjacent open space areas.

Medical Center Drive and Paseo Ladera Corridor

These two corridors serve as the main north/south vehicular and pedestrian circulation routes through the community. The landscape design will clearly define these routes as primary circulation areas and will enforce the overall community design theme. This is accomplished by lining the parkway edges with a formal planting of canopy trees and the outer edge of the parkway right-of-way with a single row of California fan palms, to form a project skyline along the portions of these two roads north of East Palomar Drive.

East Palomar Street Community Center Corridor

This corridor is central within the community and includes the major commercial and recreational facilities. The landscape concept for this area intends to distinguish this area as the focus of the Sunbow Community. The East Palomar Parkway comprises a large portion of this zone and will be planted with a double row of canopy trees in the parkways and medians. Additionally, a single row of fan palms will occur along the outer limits of the parkway right-of-way between Medical Center Drive and Paseo Ladera to create a dramatic skyline and emphasize the importance of this valley center area.

ENTRY AND INTERSECTIONS

Major Community Entry

The major entry areas form the gateways to the project and present the first impression of the community beyond. Thus, the landscape statement should create a strong visual impact. This landscape concept uses tall, columnar deciduous trees arranged in a formal pattern behind a row of evergreen canopy trees and the dramatic stone entry walls to create a powerful and inviting project entry.

Village Center Intersection

This important intersection is the primary crossroads within the community. While the vehicular portion of the intersection will be designed for safe traffic movements, the landscape concept for the area adjacent to the road will reinforce the California Spanish Village theme. Formal rows of tall colorful trees on three sides with the Village Center on the fourth side (the northeast comer) will reinforce the activity of Sunbow.

Major Internal Intersection

There will be one additional major internal intersection similar to the intersection in Phase I at Medical Center and East Naples. It is also a spatial node characterized by a high volume of pedestrian and vehicular circulation. The landscape concept for these two areas utilizes colorful and unusual specimen plant material to emphasize their uniqueness.

Secondary Intersection

There are several secondary intersections along the landscape corridors which will be enhanced as a part of the landscape concept at Sunbow. Closely-spaced, small canopy trees and hedges will reinforce each corner.

Neighborhood Entry

Neighborhood entries usually occur at a tee intersection of a neighborhood collector and local streets. In addition to neighborhood signage as described in the Comprehensive Signage Program, these entry areas will include accent planting to differentiate these areas from the neighborhood street tree planting.

LANDSCAPE MAINTENANCE

Even though the developer shall be responsible for landscape maintenance during project implementation, the ultimate responsibility for maintenance will be with individual private property owners and public agencies. Definition of these responsibilities will be an inherent element of the subdivision and site plan processes. Following is the concept of how these responsibilities are intended to be divided.

Individual Private Property Owner Maintenance

The individual property owners will be responsible for maintaining landscaping within their private yard space and shall be maintained privately. These areas will be identified on each tract map with appropriate maintenance easements and use restrictions.

Public Agency Maintenance

Public agencies will be responsible for maintaining the landscaping on land which is publicly owned. These areas include streets and highways, public parks, schools and other similar public lands. There may be some areas where public landscape and common open space lands interface, such as the parkway areas of streets. To permit efficient and clearly defined responsibilities in these areas, individual maintenance agreements may need to be established at the tract map/site plan review phase. Generally, the intended concept is that the area from the street to the outer edge of the sidewalk/trail will be maintained publicly, and the area from the edge of the sidewalk/trail up to the development will be maintained privately. This sidewalk is to be a clear delineator of maintenance responsibility.

IRRIGATION STANDARDS

All landscaping will have irrigation systems installed to supplement natural rainfall and to insure continued viability. The irrigation systems shall be consistent with adopted City standards and shall include viable techniques for water conservation. Each landscape plan shall be reviewed by the City Landscape Architect and evaluated independently for specific irrigation design.

RECREATION AND OPEN SPACE MASTER PLAN

INTRODUCTION

Before determining the park locations in Sunbow, a recreation study was undertaken to assess the recreational facilities requirements for Sunbow Phase II. It began with an inventory of existing conditions, evaluated the recreation requirements, and summarized recommendations.

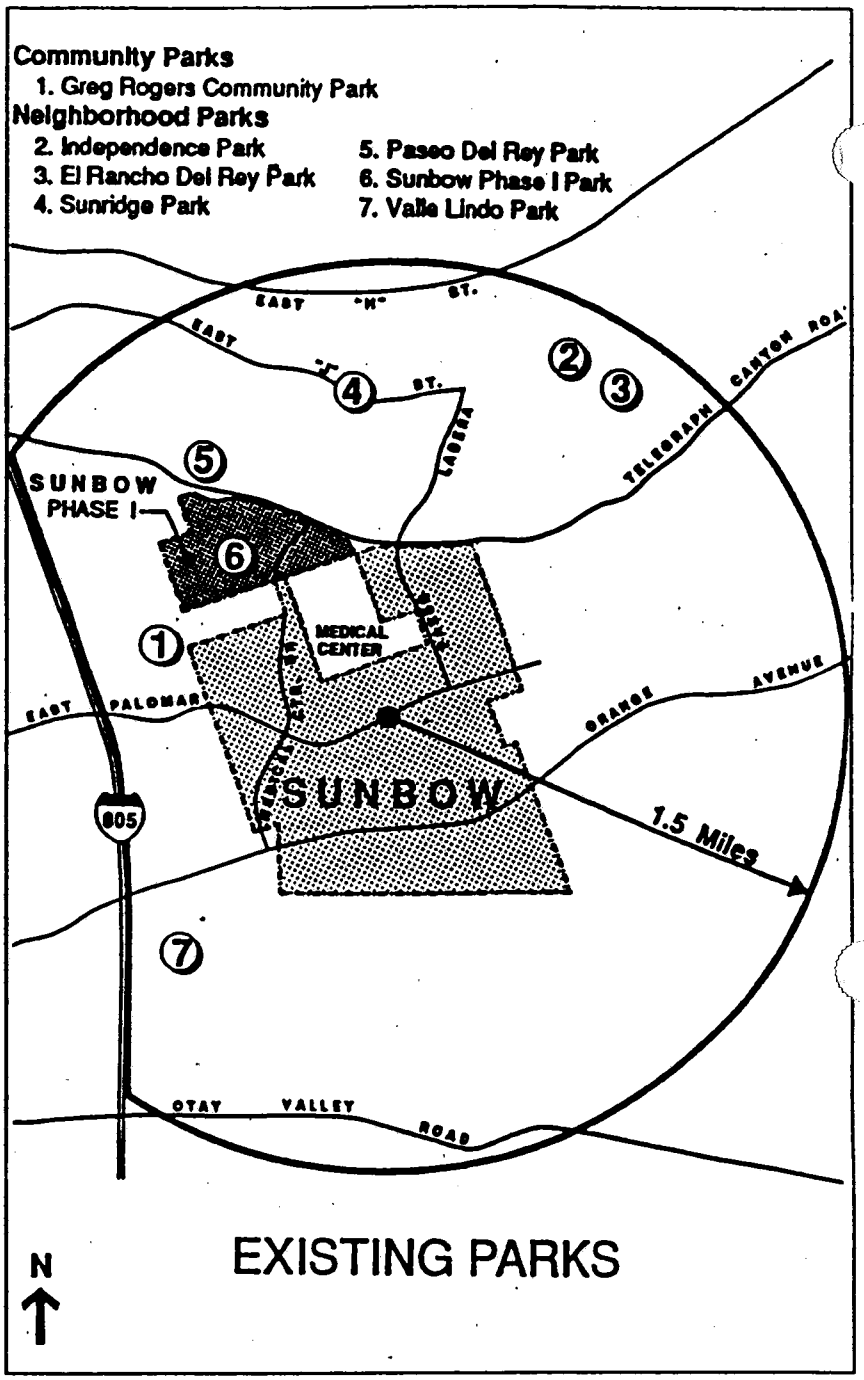
To determine recreation requirements, a supply and demand analysis of recreation facilities and needs in the area was conducted. The Chula Vista park acreage and facility requirements contained in the recently adopted municipal ordinance, as well as the draft General Plan currently being prepared by the City, were also reviewed. Recommendations are based on the results of this data as well as on recreational planning experience in other local developing communities.

EXISTING CONDITIONS

A study area which would reasonably use common park facilities was determined. This study area covers approximately a 1.5 mile radius from the center of the Sunbow community. The area includes the Sunbow development and two areas of existing residential development between Telegraph Canyon Road and East H Street and the area between Telegraph Canyon Road and Otay Valley Road (both east of Highway 805). In addition, the eastern portion of the study area will eventually include planned development at Rancho Del Rey and Otay Ranch.

The area within the 1.5 mile radius which falls to the west of Highway 805 was excluded from this study because it was felt that the freeway creates a significant neighborhood boundary. Residents in this area would relate and utilize the parks located on the west side of the highway.

The current population within the study area is 22,971 and will grow to 42,313 a build-out based on currently proposed plans for Sunbow and the surrounding planned developments. It should be noted that the Sunbow community will represent



5,400 people or 13% of the total population in the study area and the existing population represents 55%. The remaining 32% will be from other new developments primarily north and east of Sunbow and from in-fill in existing neighborhoods. Existing recreation facilities are primarily used for passive recreation which include landscaped open areas, picnicking facilities, and tot lots. Facilities for active uses are lacking although Greg Rogers Park, a 47-acre community park, contains some active uses.

RECREATION REQUIREMENTS EVALUATION

In evaluating the recreation requirements within the study area, three factors were considered: (1) the relative amount of acreage that exists as it relates to City acreage requirements; (2) current recreation facility standards utilized by the City; and (3) recreational trends for the future and how they should be accommodated within the study area.

Park Acreage Analysis

Within the study area there is 76.3 acres of park land currently available for an existing population of 22,971 people, which equates to a ratio of 3.3 acres per 1,000 people. Unlike most areas existing in Chula Vista, this is a higher ratio than the 3 acres per 1,000 currently required by the City for new development. This excess in acreage is due to the existence of Greg Rogers Park, a large community park of 47 acres. Therefore, from a park acreage perspective, the study area could be considered "park rich."

This excess in available park acreage was considered when considering park acreage requirements for the Sunbow community.

Recreation Facility Standards

Recreation facility standards for the Sunbow community were derived from a comparison of three sources:

- National Park Standards; including those contained in Outdoor Recreation Standards, Dept. of the Interior, Bureau of Outdoor Recreation, 1970; Recreation Park and Open Space Standards and Guidelines, National Recreation and Park Association, 1963, and Time Saver Standards for Residential Development, Joseph De Chiara, 1984.

- City Standards; including those contained in the existing park ordinance and a comparison of those contained in the parks and recreation element of the draft General Plan.

- Comparative Master Planned Communities; with which we have had experience, and therefore have available data. These include Scripps Ranch and Rancho Bernardo - communities where both public and private facilities are available to residents.

SUNBOW PARK ACREAGE/ FEE REQUIREMENTS

The City of Chula Vista park acreage and development fee criteria for parks is outlined in Chapter 17.10 of the Chula Vista Municipal Code Relating to Neighborhood Park and Community Park Requirements. Based on this criteria and the proposed 1,946 dwelling units at Sunbow, the following park acreage and fee requirements apply:

The requirement for dedication of acreage is based on a standard of 3 acres per 1000 persons. Dedicated land may be designated in either neighborhood or community parks. A total of 16.2 acres would be required for Sunbow Phase II. As an alternative to park land dedication a developer may pay acquisition fees to the City. These fees for the acreage required in Sunbow Phase II would be $673,350.

A development fee is also required in addition to the dedication of acreage as described above. For Sunbow Phase II the fee required is $2,318,250; which can be paid as fees or, in lieu of payment, the developer can construct turn-key facilities developed to city park standards. If both acquisition and development fees are payed by the developer, in lieu of parkland dedication and development, the total fee requirement would be $2,991,600.

RECREATIONAL TRENDS

Future trends in recreation will affect park land utilization and should, therefore, be evaluated along with the supply-and-demand analysis provided herein. Sunbow will represent a community of the 90's. Young families will be active and recreation oriented. Sports such as swimming, soccer and cycling will dominate as opposed to football and Little League. A well-designed community center with indoor courts for nighttime use and a potential day-care for working couples with children will be an important recreational focal point for this community. The residents of Sunbow will prefer a high degree of utilization of their park acreage so it is apparent where their park dollars are being spent by the City. It is with this future resident in mind that the recreation recommendations are made.

RECOMMENDATIONS

Recommendations were developed based on careful review of the supply and demand factors, which are tailored to meet the needs of the City of Chula Vista, the existing neighborhoods and Sunbow.

General Recommendations

The recreational facilities recommended for the Sunbow community will create a system of parks which will not only satisfy the recreational demand created by the future residents but will also accommodate the recreational trends of the 90's for high quality, active recreation. Passive recreation and nature study will be accommodated in over 100 acres of open space along Pogge Canyon where east Orange Avenue will traverse this area as a scenic parkway.

Sunbow Village Recreation Center

Create a focal point with a village recreation center and park (of approximately 10 acres) at the activity center of the project along East Palomar Street (Exhibit 2). This park, which is shown below, could contain a full Olympic pool, a community center/gym, a playground and some passive space.

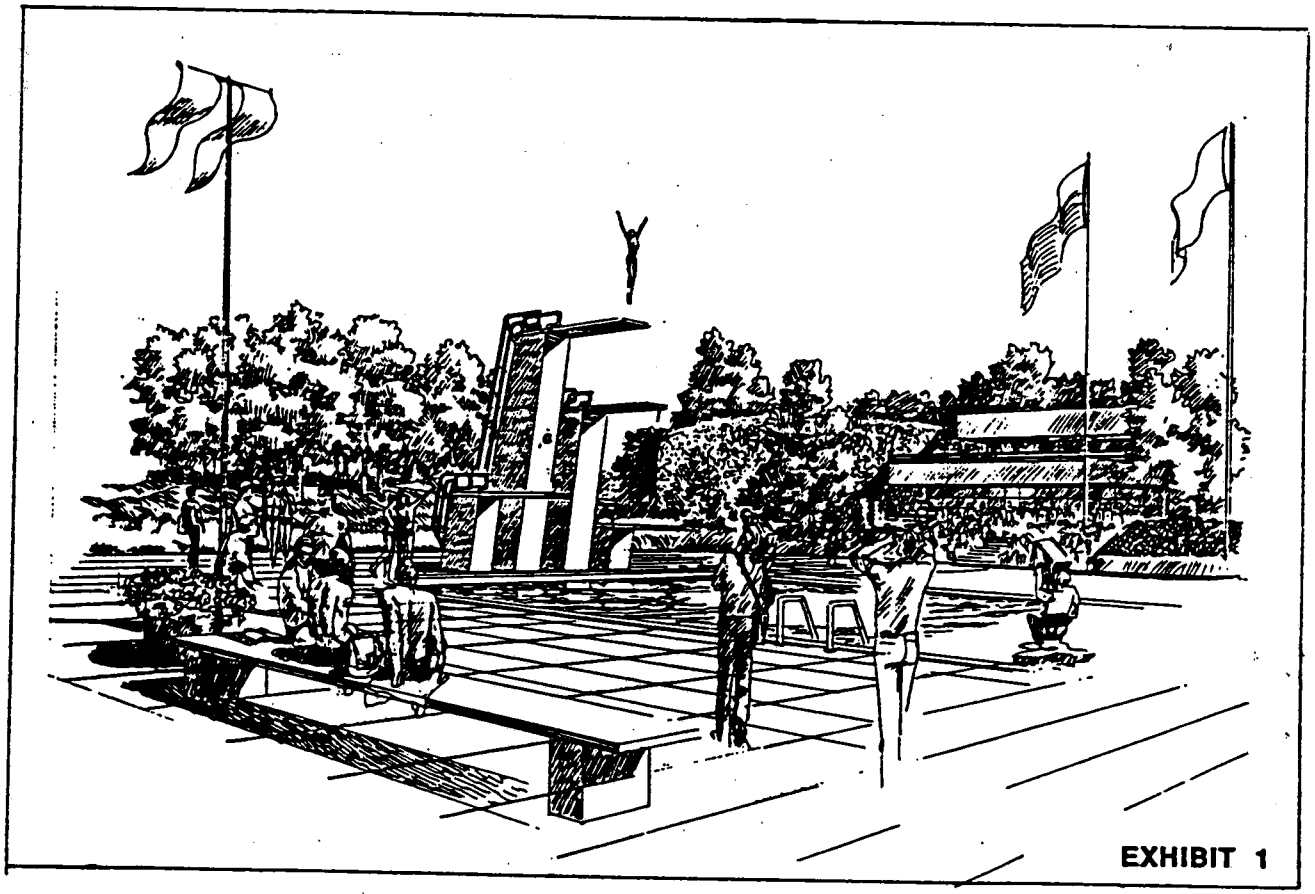
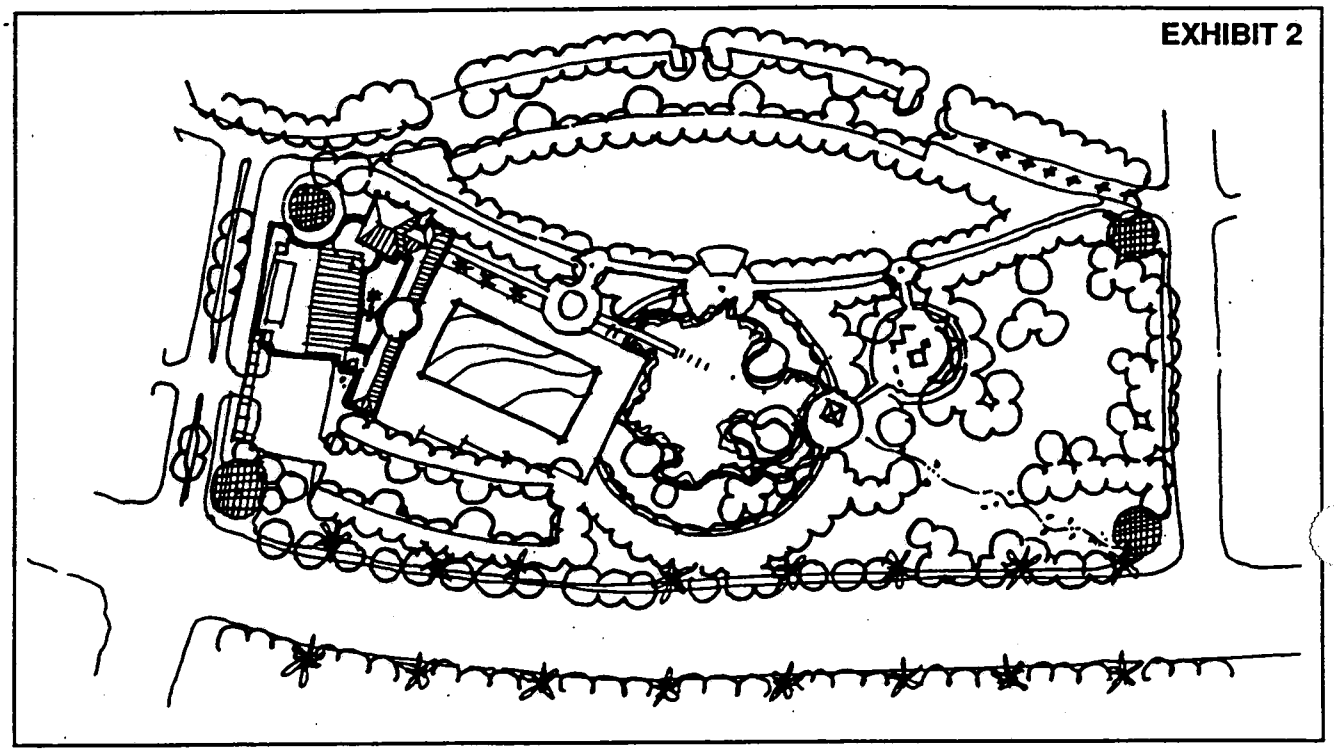


EXHIBIT 1

A large village green with a raised stage area perhaps set in a fountain or reflecting pool could provide the opportunity f outdoor theater or Sunday outdoor music in the park. This are also could provide an open grassy area for a multiple of uses from kite playing to ceremonies associated with the Olympic pool, the community center/gym or even a staging area for bicycle races and triathlons.

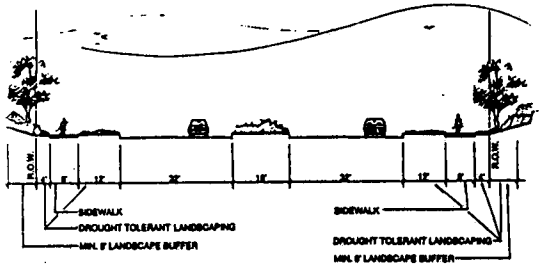


Greg Rogers Park

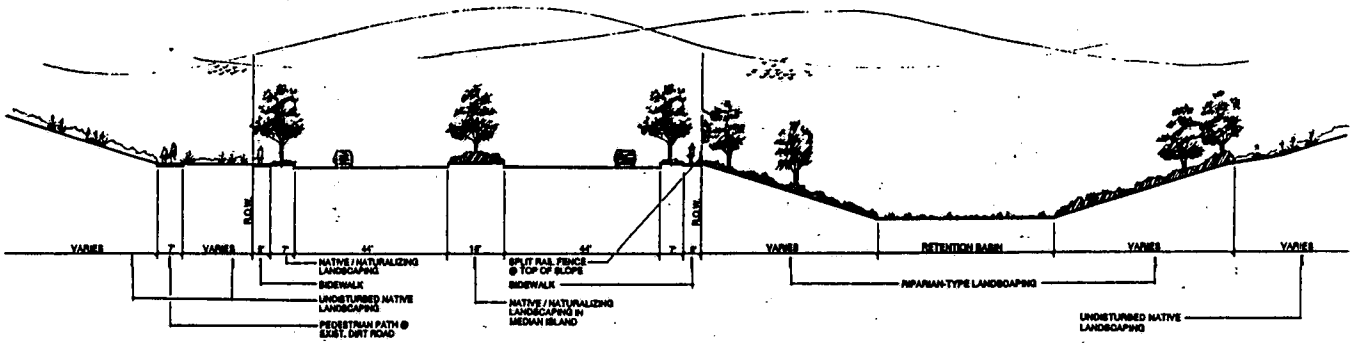
Make minor improvements to Greg Rogers Park, in lieu of dedication of additional acreage in this "park rich" area.

Poggi Canyon

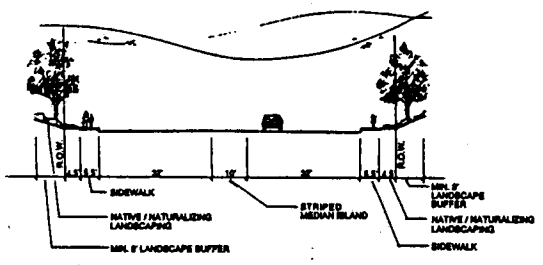
Maintain Poggi Canyon as a major open space preservation area with hiking trails and nature study (Exhibit 3). This area will provide a significant east-west trail link along the south side of Orange Avenue. The trail would include a revegetation program which would include riparian and wetland planting along the stream alignment in association with the desilting basins required for flood control purposes.



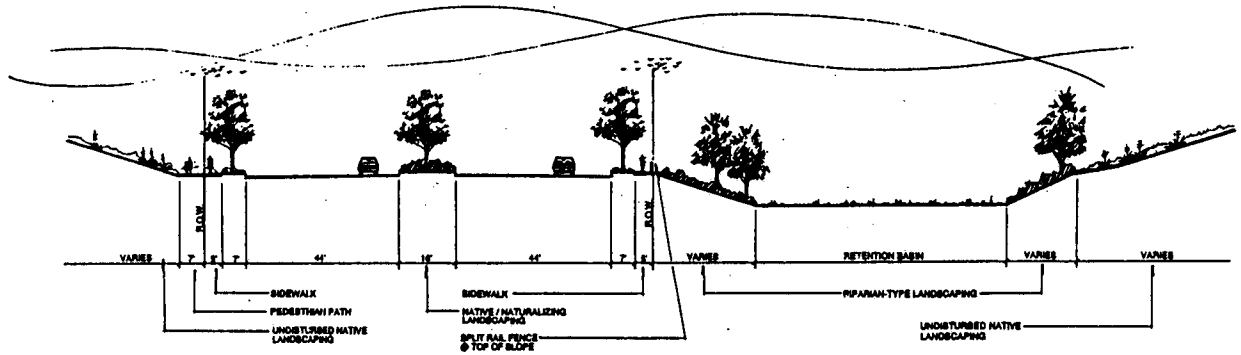
EAST PALOMAR STREET SECTION A-A NO SCALE



ORANGE AVENUE SECTION C-C NO SCALE



MEDICAL CENTER DRIVE SECTION B-B NO SCALE

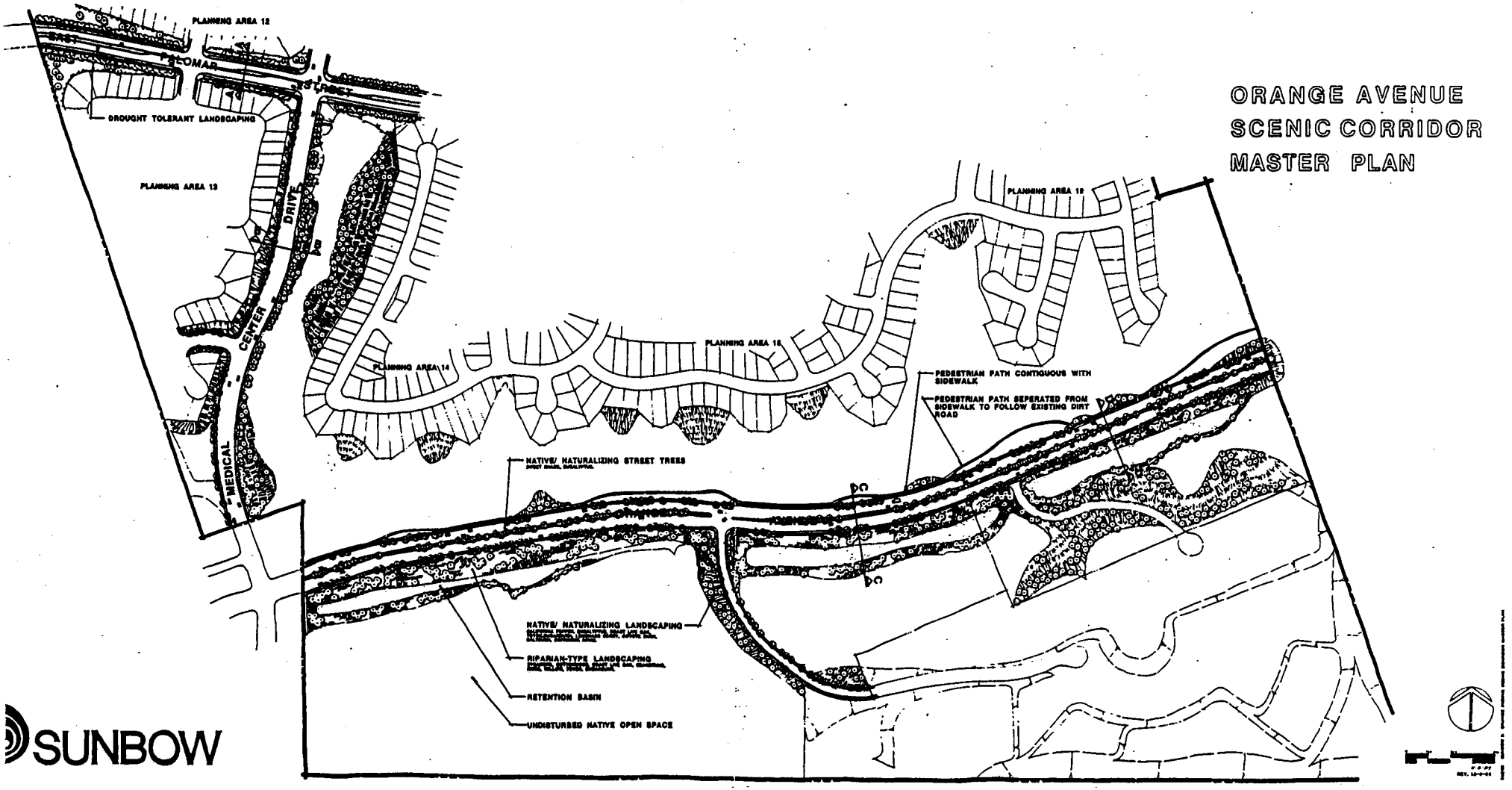


ORANGE AVENUE SECTION D-D NO SCALE

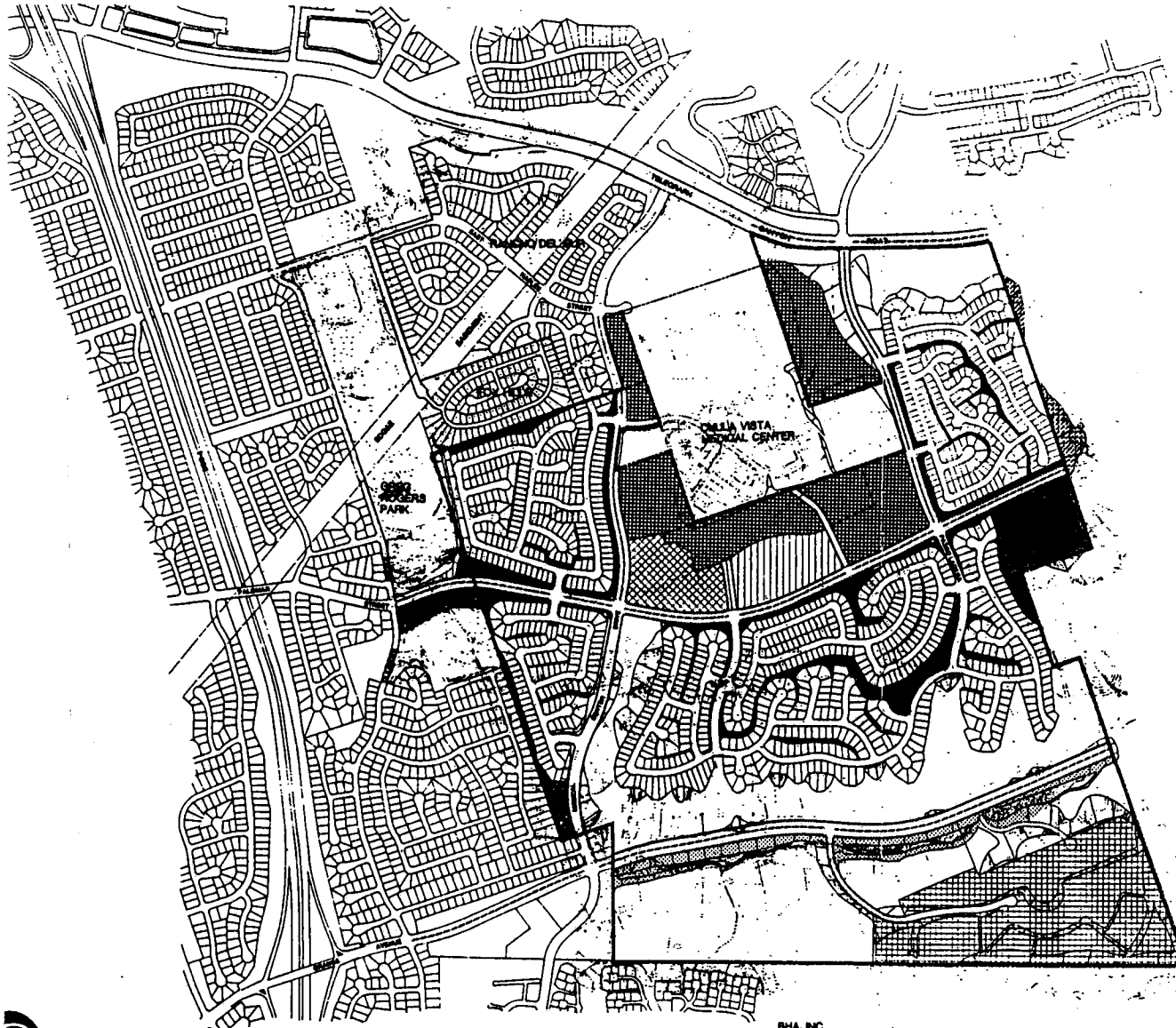
SUNBOW

EXHIBIT 4

ORANGE AVENUE SCENIC CORRIDOR MASTER PLAN



SUNBOW



LANDSCAPE MAINTENANCE RESPONSIBILITIES PLAN

OPEN SPACE DISTRICT 18 MAINTAINED AREAS

- UNDISTURBED OPEN SPACE
- NATIVE/NATURALIZING LANDSCAPE
- DROUGHT TOLERANT LANDSCAPE
- RIPARIAN TYPE LANDSCAPE
- PARKWAY LANDSCAPING
- MEDIAN ISLAND LANDSCAPING
- RETENTION BASIN LANDSCAPING

PUBLIC AGENCY MAINTAINED AREAS

- FIRE DEPARTMENT LANDSCAPING
- SCHOOL DISTRICT LANDSCAPING
- PARKS AND RECREATION DEPARTMENT LANDSCAPING

PRIVATELY MAINTAINED AREAS

- HOME OWNER MAINTAINED LANDSCAPING
- MULTI-FAMILY PROJECT MAINTAINED LANDSCAPING
- COMMERCIAL PROJECT MAINTAINED LANDSCAPING
- INDUSTRIAL PROJECT MAINTAINED LANDSCAPING
- NATIVE/ NATURALIZING LANDSCAPE
  (TEMPORARILY MAINTAINED BY THE DEVELOPER PRIOR TO ANNEXATION BY OPEN SPACE DISTRICT 18)

SUNBOW

BHA, INC.
M.W. STEELE GROUP, INC.
BASMACIYAN-DARNELL INC.
TIERRA PLANNING & DESIGN
GILLESPIE DELORENZO ASSOCIATES

EXHIBIT 5

SUNBOW II - MAINTENANCE RESPONSIBILITIES PLAN



LANDSCAPE CONCEPT PLAN

LEGEND

- MAJOR ENTRY
- VILLAGE CENTER INTERSECTION
- MAJOR INTERNAL INTERSECTION
- SECONDARY INTERSECTION
- NEIGHBORHOOD ENTRY
- SINGLE ROW CANOPY TREES
- DOUBLE ROW CANOPY TREES
- SKYLINE PALMS
- SCENIC CORRIDOR

SUNBOW



LANDSCAPE DISTRICTS

LEGEND

- VILLAGE RECREATION CENTER
- RECREATION / EDUCATION DISTRICT
- OPEN SPACE & CONSERVATION DISTRICT
- RESIDENTIAL NEIGHBORHOODS DISTRICT
- VILLAGE CENTER RESIDENTIAL NEIGHBORHOODS DISTRICT
- VILLAGE CENTER COMMERCIAL DISTRICT
- INDUSTRIAL DISTRICT

SUNBOW

SUNBOW SIGNAGE GUIDELINES

Introduction

A unified system of consistent signs that complements the environment and reflects a California contemporary design theme shall be consistently used throughout Sunbow. The various types of signage which will be included within the community are shown in the sign type list and examples on the following pages.

Designs and copy for all signage in the community shall be submitted to the Sunbow Design Review Committee and the City of Chula Vista for review and approval.

A comprehensive signage program is being developed for all aspects of the community plan which combines aesthetics and function to cohesively tie the intended Sunbow theme together as a whole. This program will incorporate many different types of signs to address various use, function, and longevity requirements and organizes them into an understandable system. The intent is to create a special sign district for the overall master planned community, that aligns with the City of Chula Vista's goals for master-planned communities.

Scope

Specific community designs and guest builder guideline criteria have been developed for signage components required for Sunbow which will be applied to all phases as they are put into effect. As well, general guidelines are included to show the proposed approach in applying future signage that will need to be included for the community as each phase is implemented.

Purpose

The purpose of the Sunbow Signage Guidelines is to create a consistent, unifying theme that visually complements the environment, while graphically enhancing Sunbow to reflect a high quality image. The unifying theme will be achieved by the use of similar forms, colors, materials and illumination techniques. Through sensitive programming, sign elements can relate harmoniously with their adjacent environment in terms of size, location, orientation, landscape integration and spacing. Reasonable controls will be incorporated to ensure continuity and traffic safety, while clearly directing to and identifying key

destinations inside Sunbow. The restrictive intent of the signage guidelines is to control the promotional and advertising content of the Sunbow environment.

Submittals

All sign plans must be submitted to the Sunbow Design Review Committee as prescribed in the Sunbow Design Guideline Manual, as part of both the Preliminary and Final Submittals of the Design Review Process. No temporary or permanent signs may be installed, added to, or changed without review and approval by the Sunbow Design Review Committee and the City of Chula Vista. For instructions on making submittals, see the section entitled "Submittals to the Sunbow Design Review Committee" at the end of the General Guidelines Section.

Definitions

BUILDING ENTRY- The primary access by a pedestrian to any building or structure.

COPY AREA- The area of a sign in which copy may be placed, exclusive of margins. The copy area of signs attached to walls or buildings may be identical to the sign face area in some cases.

FASCIA SIGN- A building wall sign, attached to and parallel to the fascia located above pedestrian level.

GROUND SIGN- A freestanding sign supported by poles or uprights in or upon the ground.

LONG RANGE TEMPORARY SIGN- A sign with a time period of approximately 3 years, tied to the sell-out or completion of a phase.

MONUMENT SIGN- A freestanding ground sign with a solid base and not having exposed poles, braces or uprights.

MULTI-USER SITE- A building or site with two or more users with identification signage requirements.

PERMANENT SIGN- A sign intended to have enduring life span as opposed to a temporary one.

POLE SIGN- A ground sign with exposed pole supports.

PROJECTING SIGN-A retail tenant sign which is mounted out from a store front perpendicular to the wall to be visible

to sidewalk traffic adjacent to the building.

SETBACK- The area of a building site between the property line and the area where habitable structures may be built (including required parking) as specified by the Zoning Ordinance.

SHORT TERM TEMPORARY SIGN- A sign installed for a limited period of time (approximately one year), tied to a percentage of sell-out or completion of a phase.

SIGN FACE AREA- The area of a sign available for copy and graphics, including margins. Signage attached to buildings, retaining or perimeter walls shall include only the area of the wall with the signage affixed to it.

SITE ENTRANCE- The primary vehicular access to a site intended for public use.

WALL SIGN- A sign attached to a building wall, perimeter wall, freestanding garden wall or retaining wall.

All signage within Sunbow shall conform to the Guidelines, and be built according to approved plans. Any sign found to be not in conformance with the Guideline provisions or the approved plans shall be removed within seven (7) days of receipt of written notice. If the removal is not taken care of within the specified period, a representative of Sunbow or the City of Chula Vista may enter on the property and remove the sign. Removal costs will be reimbursed prior to release of the sign or acceptance of new applications by the Sunbow Design Review Committee.

Ground signs may be placed a minimum of 2 feet from all streets and inside property lines, unless otherwise specified in these Guidelines. Temporary signs perpendicular to the street may be permitted up to and abutting the property line. Signs outside property lines shall be placed so safe sight distances are maintained at street intersections and from entrances to public rights-of-way. Encroachment permits are required for signs installed outside property lines.

Signs shall be in scale with the surrounding buildings and be integrated with the sign theme or building design concept. Sign structures, hardware and sign supports shall be concealed or integrated into the design of the sign. Screening around sign-posts shall not be calculated as part of the sign face area. Al dimensional letters shall be attached individually without visible means of attachment. No exposed conduits or raceways are permitted. Lettering and logos shall be accurately reproduced on all signage. All signs within a site shall relate to one another as a integrated group of signs by color and construction technique.

Overall Criteria for Permanent Signs

The unifying design elements as outlined in the General Design Guidelines (geometric designs, grid patterns, obelisks and flagstone material) shall be reflected in the permanent signage.

Rust inhibitive materials and finished, seamless construction for sign components shall be used.

Wall signs shall have ample room around them for margins on open wall surfaces. Ground or monument signs shall be allowed up to twelve (12) feet in height and fifty (50) sq. ft. in area, unless otherwise specified in these Guidelines.

Prohibited signs include: Roof signs; flashing signs (excep time and temperature); rotating signs; fascia signs on angled walls, mansard roofs, or on equipment screens; and wall signs

which cover windows or other architectural details; signs in public rights-of-way and off-site signs (except where permitted in these Guidelines). For further defiitions and regulations regarding prohibited signs, refer to the City of Chula Vista zoning ordinance.

Permanent Identification Signs

Permanent signs will identify the multi-family residential projects, the Village Center, the Business Park, the Medical Center, the park, the school, and the Community Recreation Center. The signs will be monument signs following the general sign design guidelines. Individual residential subdivisions will be identified only until they are sold out, at which time the temporary identification signs are to be removed by Sunbow. All other Identification signs will be permanent on one or both sides of a site entrances.

Flexibility in design will be permitted, using materials and colors that relate to the building or site. Signs shall be placed so safe sight distances are maintained at street intersections and from entrances to public rights-of-way.

Building Address and Unit Numbers

Address numbers for Public Facilities and Office sites shall be located on the building fascia facing the street frontage, with a maximum number size of 12 inches unless larger numbers are required by the fire department for readability. Address sequences may be displayed on identification monuments if appropriate. The materials and design shall reflect the building architecture. In multi-user buildings, tenant names may also be displayed if such signage is part of a comprehensive sign program submitted and approved by the Sunbow Design Review Committee.

In residential areas, address or unit numbers shall be uniform in design and location throughout the project, with use of the a single typeface, and provide illumination from external or internal light sources.

Multi-family or multi-tenant buildings shall be identified by a letter or numerals of a uniform design and placement on the buildings, relating to the street the address corresponds to. The address may be displayed on other facades if deemed neceassary. Use of a single typeface, and 12" characters are recommended. Addresses shall also be displayed on or near unit entries with minimum of 3" numbers or letters.

Village Center Signage

A sign program for all exterior signs shall be developed and submitted to the Sunbow Design Review Committee and the City of Chula Vista for any multi-tenant building or project.

One project identification sign per major site entrance will be allowed unless otherwise stated in these Guidelines, or approved as a part of a sign program.

Exterior tenant identification signs shall be of uniform materials, lighting, format, colors and placement on the building or site. They shall compliment the building architecture. Indirect lighting is recommended for tenant signs. For each tenant with a separate entry, individual letters not to exceed a copy area of 50% of the height of the field on which they are placed nor 75% of the width of the linear lease space shall be permitted, unless otherwise stated in these Guidelines. When logos with non-linear shapes are used, they may not exceed 80% of the height of the field. If appropriate a projecting sign will be allowed for visibility from adjacent sidewalk.

Buisiness Park Signage

A sign program for all exterior signs shall be developed and submitted to the Sunbow Design Review Committee and the City of Chula Vista for any multi-tenant building. All signs shall follow the general rules of the Sunbow Signage Design Guidelines. Signs for a project shall be consistent in color and construction technique. Wall signs (individual letters) for tenant identification shall be permitted, for one tenant per side only, not to exceed 50% of the height nor 70% of the width of the field on which they are placed, unless otherwise stated in these Guidelines. One or two flanking project identification monuments per site entrance is permitted, unless otherwise stated in these Guidelines or approved as a part of a sign program.

SUBMITTALS TO THE SUNBOW DESIGN REVIEW COMMITTEE

Permanent Signs

Three (3) copies of the following information shall be submitted to the Sunbow Design Review Committee for review and approval before filing an application with the City of Chula Vista.

Examples of permanent sign types that may be included (but not limited to) are:

Project Identification signs (ie: Business Park, Village Center)
Address signs
Directional/informational/regulatory signs
Tenant Identification signs, where applicable (Business Park, Village Center)

The documents for Preliminary Submittals shall include:

1. Project name, address and legal description.
2. Applicant's name, address and telephone.
3. Concept drawings for typical signs, including:
   - -Copy layout.
   - -Sign Elevations and location on the site plan or building elevation.
   - -Lighting information.
   - -Sizes, materials and colors.

The documents for Final Submittals shall include:

1. Project name, address and legal description.
2. Applicant's name, address and telephone.
3. Complete elevations and plans for each major sign type, including:
   - -Copy layout.
   - -Exact locations of signs on the site in relation to setbacks, driveway entrances, property lines, buildings and exact location on applicable building elevation .
   - -Lighting information.
   - -Exact sizes, materials and colors.

Temporary Signs

Three (3) copies of the following information shall be submitted to the Sunbow Design Review Committee for review and approval before filing an application with the City of Chula Vista:

1. Project name, address and legal description.
2. Applicant's name, address and telephone.
3. Proposed copy layout on the Sunbow temporary sign format for all signs outside of the Neighborhood.
4. For all signs within the Neighborhood, Concept drawings for typical signs, including:
   - -Copy layout.
   - -Lighting information.
   - -Sizes, materials and colors.
5. Site plan indicating exact location of sign in relation to setbacks, property lines, driveway entrances and structures.
6. Complete list of all temporary signs, sizes and types proposed, as well as a complete list of any temporary signs existing on the project.

Variances

Permanent or temporary sign types, sizes, locations or other cases that deviate from the guidelines must be submitted to the Sunbow Design Review Committee. If approved by the Committee, the requests for variances must then be submitted to the City of Chula Vista for their review and approval.

(Note: All signs require submittal to and approval from the Sunbow Design Review Committee. Refer to the City of Chula Vista zoning regulations for further definitions and regulations.)

Signs Not Requiring Permits

1. PERMANENT WINDOW SIGNAGE
   Hours of operation, credit information and emergency information not to exceed 2 square feet per business frontage.

2. TEMPORARY ADVERTISING SIGNS
   (Intended use- Commercial/Retail)
   Paper or cloth signs, or information painted on the window no larger than 25 % of the window area are permitted. Thirty continuous days for no more than sixty days per year for a sale or specific event will be allowed. No advertising signs shall be allowed on adjacent wall or building surfaces.

3. SAFETY SIGNS
On construction sites, as per OSHA/City standards.

4. SIGNS ISSUED BY PUBLIC UTILITIES
Signs indicating location of underground facilities, danger, or public telephones as per City of Chula Vista Standards..

5. NO TRESPASSING, NO PARKING
These and similar warning signs are permitted, not to exceed four (4) square feet or as per City of Chula Vista Standards.

Specific Use Signs Requiring Permits

For further definitions and regulations on the following signs, which do require permits, refer to the City of Chula Vista zoning regulations. These signs will also require submittal to and approval from the Sunbow Design Review Committee prior to submitting to the City.

1. RESIDENTIAL REAL ESTATE SIGNS
One per single family residence not exceeding four square feet and five feet in height. No illumination is permitted and the sign must be removed by the agent within 7 days of close of escrow. Open house signs meeting the same size and height restrictions are permitted, but not to exceed the need to direct to the property. Refer to the City of Chula Vista rules and regulations. Ref. z.o. 19.60.560 and 19.60.550.

2. POLITICAL SIGNS
Signs pertaining to elections (ballot measures, issues or candidates) may be installed no earlier than thirty days prior and removed ten days following the date of the election. The maximum size is 32 sq. ft., with a height from grade not to exceed eight feet, and no illumination is permitted. Signs shall not impede visibility, traffic lights or signs, or be in public rights-of-way or property. Any sign that the Director of Planning believes impedes access to public improvements or obstructs vision or access may be prohibited and will be removed at the expense of the political organization or as required by the City of Chula Vista. Ref. z.o. 19.60.290.

3. CONSTRUCTION SIGNS
For commercial and multi-unit residential projects, 2 signs on the construction site for all contractors of 32 sq. ft. and eight feet in height maximum, no closer than ten feet to the property line are allowed. Signs shall be removed upon granting of occupancy by the City. For all other projects, 2

signs per sit, four sq. ft. and five feet in height are permitted. Signs are to be removed upon granting of certificate of completion/occupancy.

4. FUTURE TENANT IDENTIFICATION SIGN
   To advertise the future use of an approved project, one per 600 lineal feet of street frontage, a maximum of ninety-six sq. ft. and twelve feet in height, no closer than ten feet to the property line are permitted. Such signs are to be removed at granting of occupancy or installation of permanent project signs .

5. COMMERCIAL PROPERTY REAL ESTATE SIGNS
   One per 600 lineal feet of street frontage is permitted, with a maximum of 32 sq. ft. and eight feet in height, and not located in the public right-of way.

6. BUILDING ENTRANCE/BUSINESS IDENTIFICATION
   No greater than 4 sq. ft., attached to the building and not intended to be read from the adjacent roadway.

7. SECONDARY DIRECTIONAL SIGNS
   No greater than 4 sq. ft.

Logo and Logotype

The logo and logotype designed for Sunbow has specific design guidelines as to how and where they are to be used on the sign program. A secondary typestyle will be used for information portions of the signs. The SUNBOW logo will only be used as shown in these guidelines. Individual builders shall not use the SUNBOW logo unless authorized.

SUNBOW

Secondary Typestyle

ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
1234567890 $&/,.:;

AVANT GARDE MEDIUM

SUNBOW SIGN TYPE LIST

	SIGN TYPE CATAGORY	SIGN TYPE NUMBER
Permanent Identification	Community Identification - Primary	1
	Community Identification - Secondary	2
	Muli-Family Residential Identification	4
	Directory-Map Identification	
	Community Recreation Center Identification	5
	Park Identification	6
	Street Name Identification	7
	Medical Center Directional and Identification	8
	Village Center Identification	20
	Individual Tenant Identification - Retail	
	Business Park Identification	21
	Elementary School Identification	
Permanent Directional	Medical Center Directional and Identification	8
	Medical Center Directional	9
	On-Site Project Directional	
Temporary Marketing Directional	Primary Subdivision Directional	10
	Secondary Subdivision Directional	11
	Tertiary Subdivision Directional	12
	Off-site Directional - Primary	14
Temporary Marketing Identification	Information Center Identification	16
	Subdivision Identification	17
	Real Estate - For Sale/Lease/Rent	23
	Future Amenities	18
	Sales OfficeModel Complex	
	Village Center Identification	21
	Business Park Identification	23
Temporary Graphic Enhancement	Sunbow Banners	19
	Builder's Promotional Flags	
	Special Event Banners	

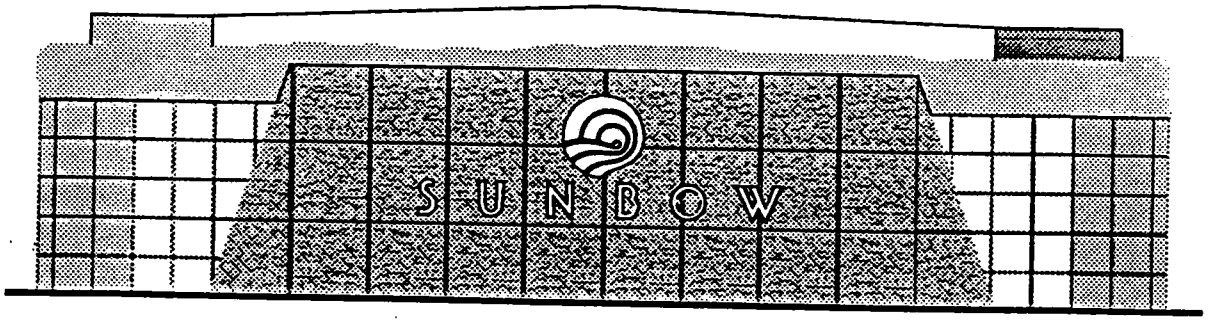
NOTE: All of the above sign categories listed with a Sign Type Number will be provided by Sunbow or the guest builder and will be uniform in design theme. The balance of the categories will be flexible in design depending on the character of that project, but are subject to the approval process spelled out in these guidelines.

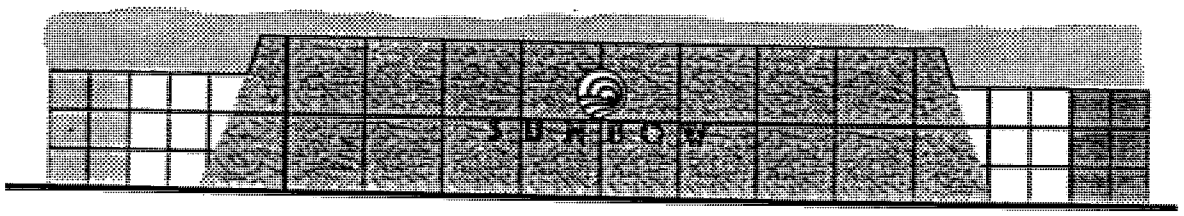
Sign Type 1

Sign Category:
PRIMARY COMMUNITY IDENTIFICATION

Longevity: Permanent
Design: Uniform-

These monument signs will be located at the principal entrances, facing Telegraph Canyon Road. They will be incorporated into the landscape and compatible with the perimeter wall treatment. All primary entry signs shall be large scale to create a major statement and be of uniform design. Letters and logos are reverse channel aluminum painted pearl white, applied to a flagstone wall which will act as the sign background. The copy area will be a maximum of 48 sq. ft. and 16 sq. ft. for the minimum. The entry sign shall be internally illuminated with concealed neon for a halo effect. The monument walls may be washed with ground lighting if sufficient ambient light does not exist.



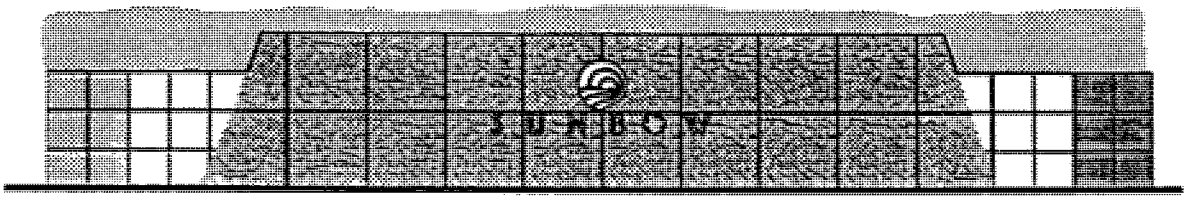


Sign Type 2

Sign Category:
SECONDARY COMMUNITY IDENTIFICATION

Longevity: Permanent
Design: Uniform

Secondary entrances to the community shall be treated with signs similar in appearance and illumination to the primary sign, but using the smaller monument with a copy area of 16 Square Feet. This sign type will only be used at the west perimeter of Sunbow flanking Palomar Street.



Sign Type 4

Sign Category:
MULTI-FAMILY RESIDENTIAL IDENTIFICATION

Longevity: Permanent
Design: Flexible

A sign to identify the multi-family residential development will be a monument sign associated with the site entrance. General Guidelines for permanent signs will apply. This permanent sign will replace the temporary neighborhood identification sign for the project.

Illustration to Follow

Sign Type 5

Sign Category:
COMMUNITY RECREATION CENTER IDENTIFICATION

Longevity: Permanent
Design: Uniform

As a part of the developer improvement package, a permanent sign to identify the Community Recreation Center similar in appearance, materials and illumination to the Community Identification.

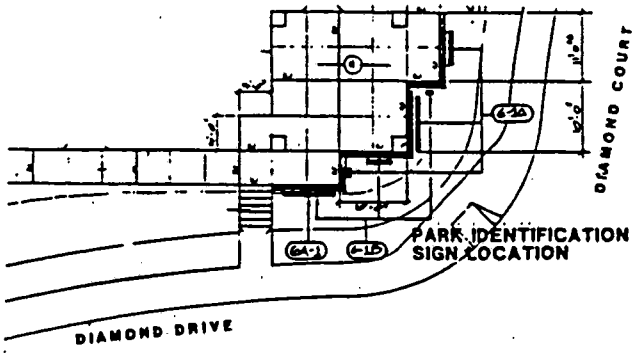
Illustration to follow

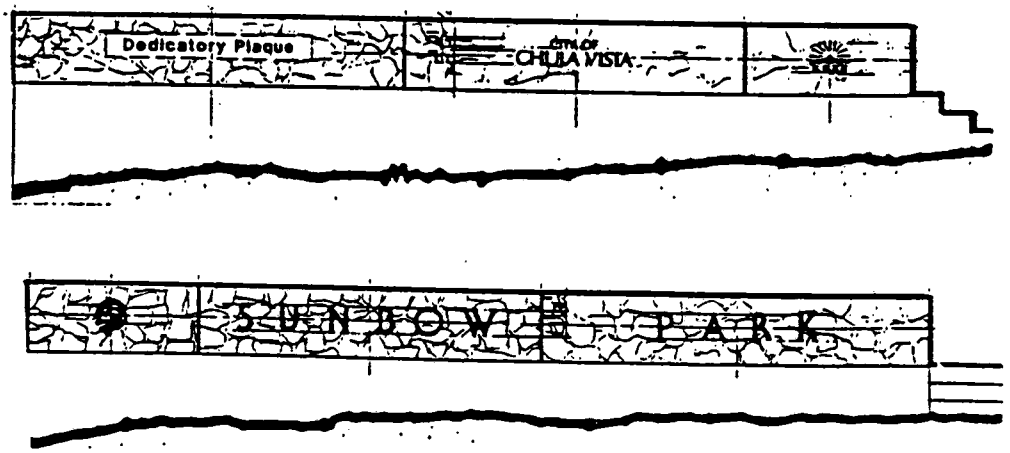
Sign Type 6

Sign Category:
PARK IDENTIFICATION

Longevity: Permanent
Design: Flexible

A permanent monument sign to identify the park facility will follow the uniform elements of the General Sign Guidelines. Other public amenities in subsequent phases will require identification signage, which shall follow the General Sign Guidelines, but may be of flexible design. The sign may be single or double-faced as site conditions require, with one sign allowable for each principal entrance. This design uses the existing hardscape at the corner of Diamond Court and Diamond Drive.

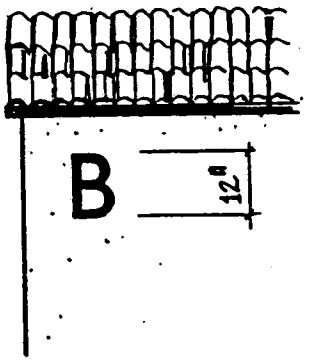




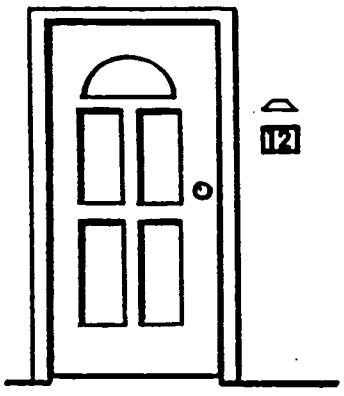
Sign Category:
MULTI-FAMILY BUILDING AND UNIT IDENTIFICATION

Longevity: Permanent
Design: Flexible

Multi-family buildings shall be identified by permanent building numbers not to exceed 12" and illuminated 3" unit numbers or letters, placed in consistent locations within a development.



BUILDING IDENTIFICATION

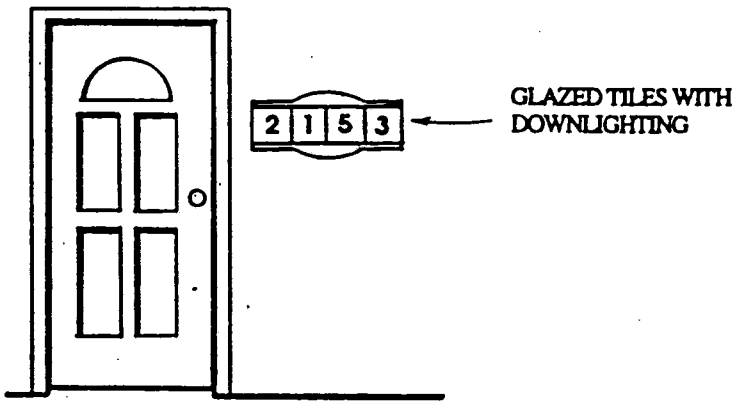


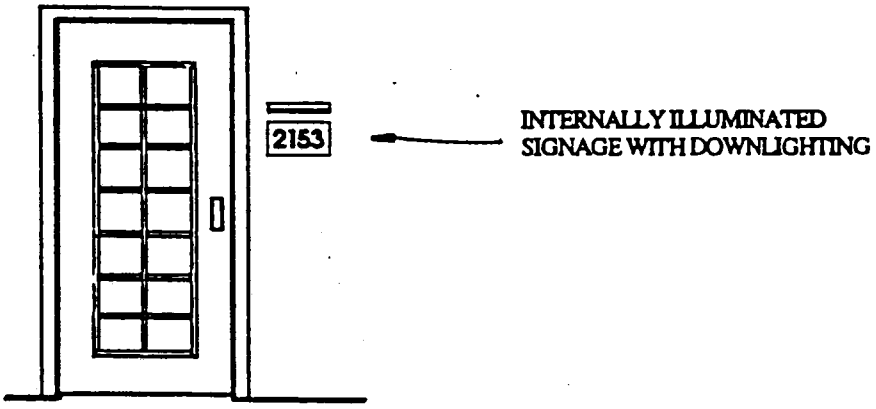
UNIT IDENTIFICATION

Sign Category:
SINGLE-FAMILY ADDRESS NUMBERS

Longevity: Permanent
Design: Flexible

In residential areas, house numbers will be identified with 3" individual numerals, illuminated by house lights. Within a subdivision, address numbers shall be located in a consistent manner.



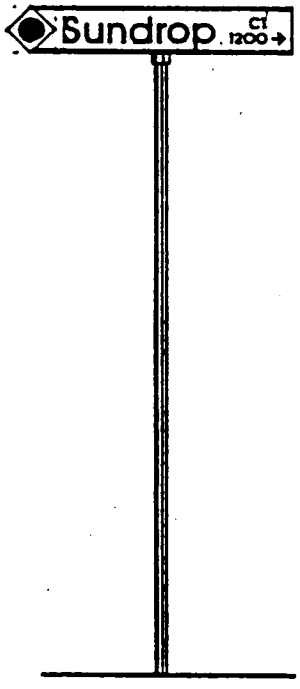


Sign Type 7

Sign Category:
STREET IDENTIFICATION

Longevity: Permanent
Design: Uniform

As an addition to City Standards, community streets could be identified with signs displaying the Sunbow logo in addition to street name and block number information. A maximum of two (2) sets per intersection would be allowed. The standard street sign would be used, with a the Sunbow logo applique fastened to it.

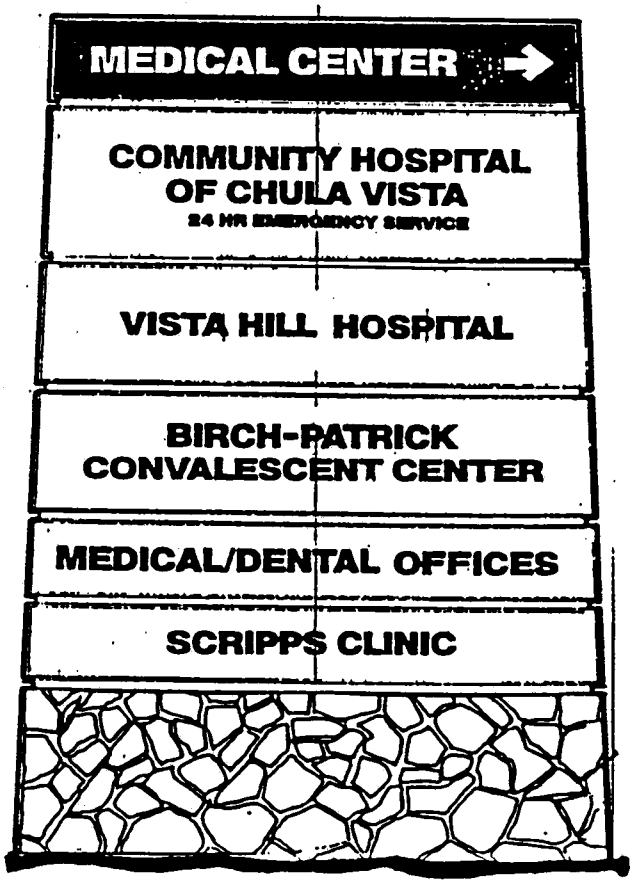


Sign Type 8

Sign Category:
PRIMARY MEDICAL CENTER IDENTIFICATION AND DIRECTIONAL

Longevity: Permanent
Design: Uniform

An internally illuminated, double-faced permanent sign will display a directional arrow and the names of the medical facilities. Materials will compliment that of the Sunbow signage, and will include a flagstone base. The overall height of the sign will be 18 feet and the total sign face area is 157 sq. ft. This sign is located at the southwest corner of Telegraph Canyon Road and Medical Center Drive. A future sign may be located at Orange Avenue and Medical Center Drive.

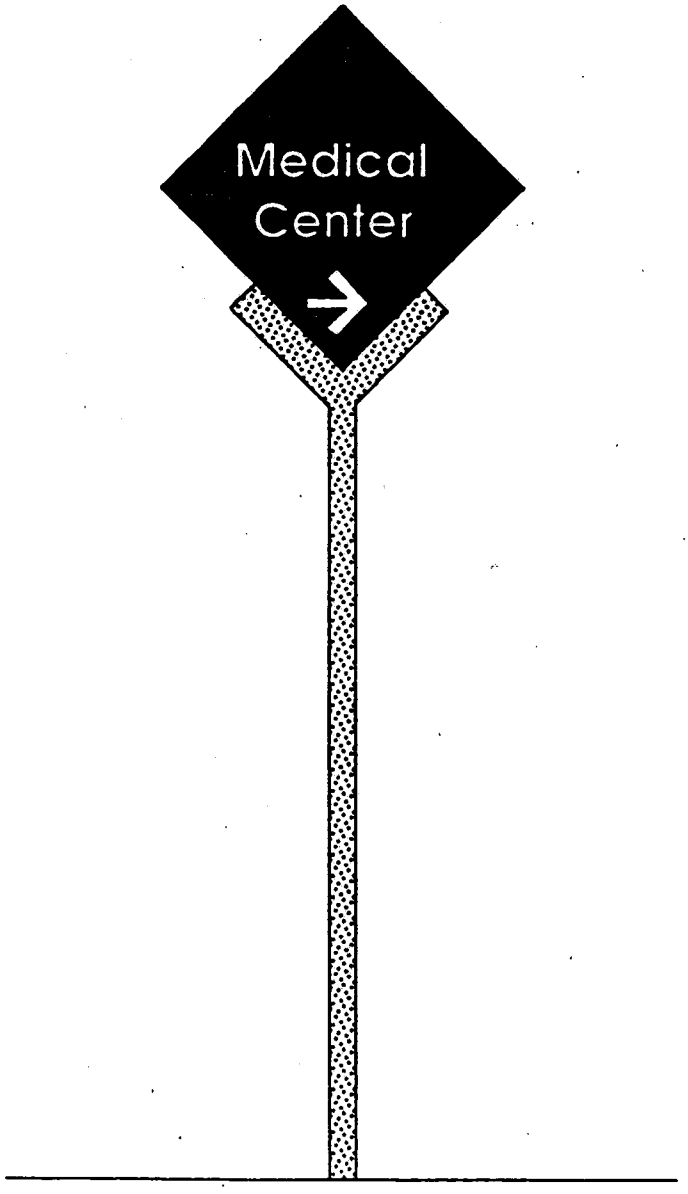


Sign Type 9

Sign Category:
MEDICAL CENTER DIRECTIONAL

Longevity: Permanent
Design: Uniform

This permanent directional will be located within the Sunbow community as needed, and be consistent with the Sunbow Signage Guidelines. The sign face area will not exceed 7 sq. ft. and 11 feet in height.

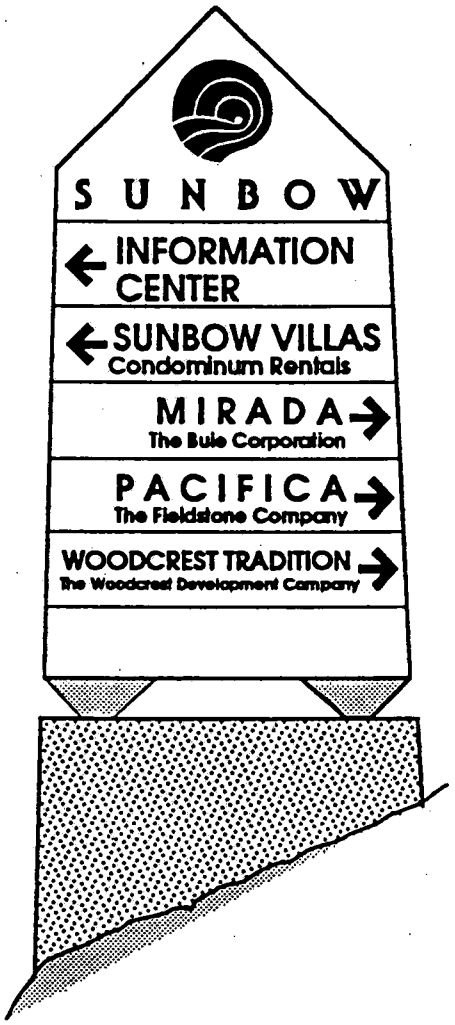


Sign Type 10

Sign Category:
PRIMARY SUBDIVISION DIRECTIONAL

Longevity: Long range temporary
Design: Uniform

Signs to direct visitors to neighborhoods by specific builders will follow the general guidelines for temporary signs, and will allow a maximum of five project listings, with information limited to the subdivision name, builder and a directional arrow. Direction to the Information Center and the Sunbow logo will also be displayed, as well as some marketing information. Each project will have a panel display area of approximately 10 sq. ft. The overall height of the sign will not exceed 20 feet, and the sign face area will be limited to 100 sq. ft. These signs will be removed by Sunbow when directional information is no longer needed at that location.

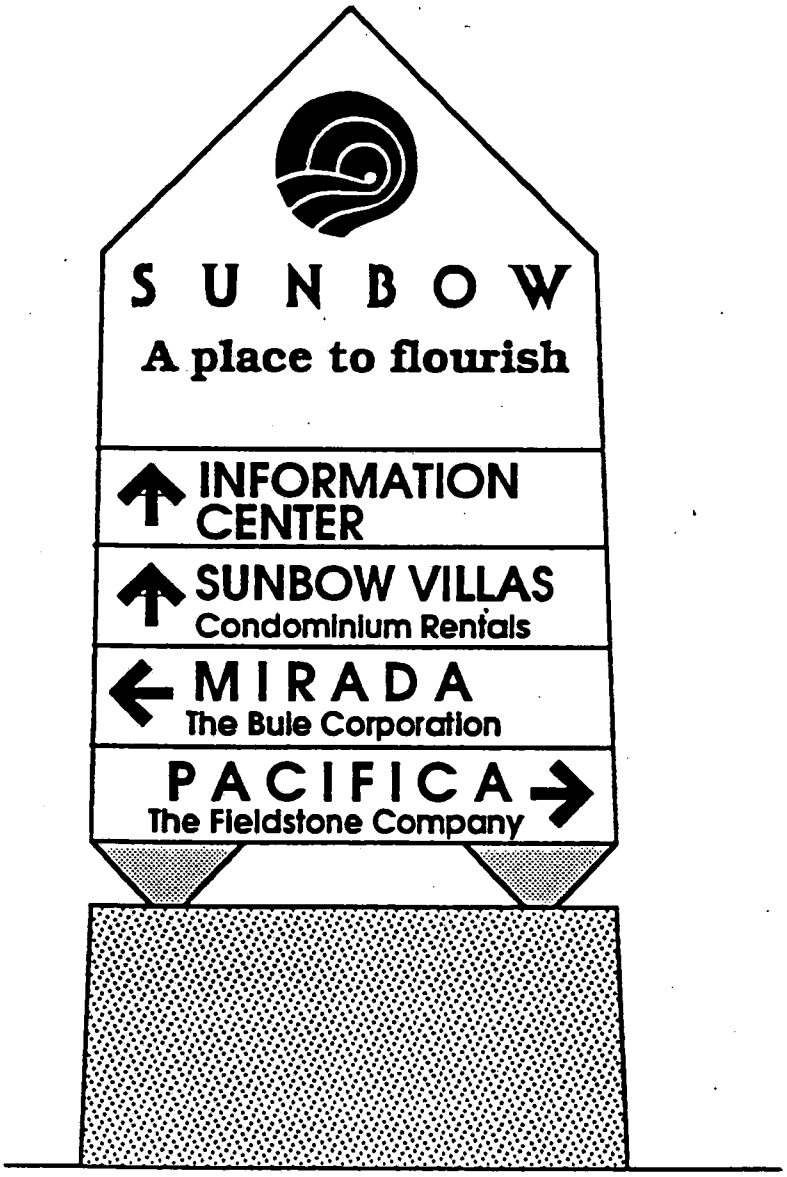


Sign Type 11

Sign Category:
SECONDARY SUBDIVISION DIRECTIONAL

Longevity: Long range temporary
Design: Uniform

These will be similar to the primary subdivision directionals but will require four project listings. The overall height shall not exceed 12 feet and the sign face area shall be not exceed 40 sq. ft. These signs will be removed by Sunbow when directional information is no longer needed at that location.

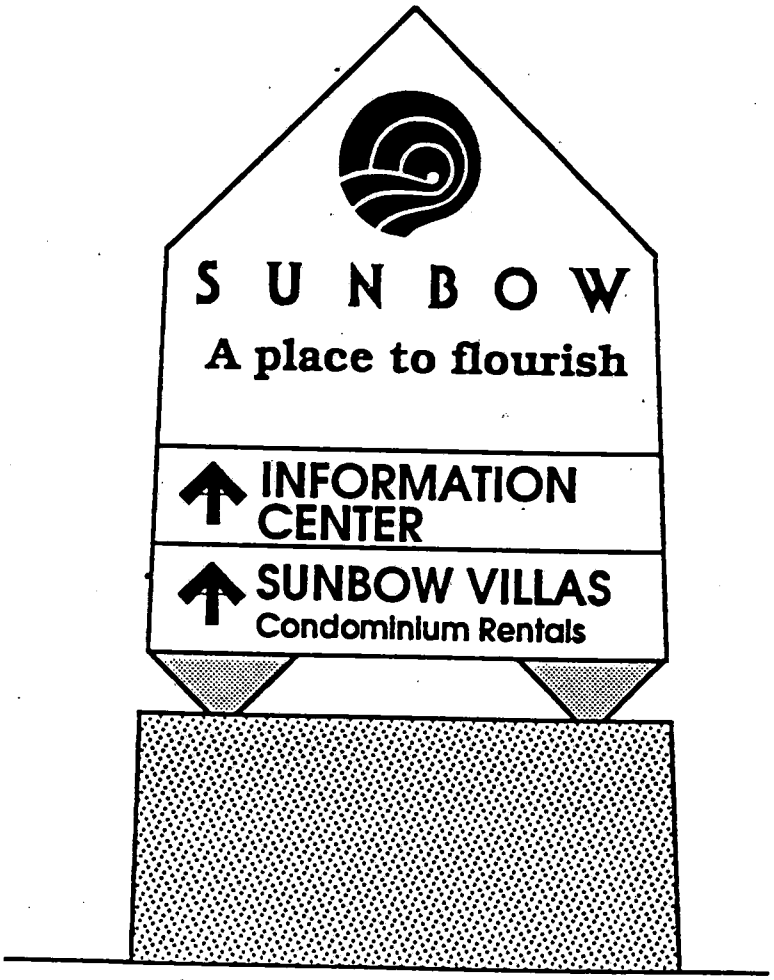


Sign Type 12

Sign Category:
TERTIARY SUBDIVISION DIRECTIONAL

Longevity: Long range temporary
Design: Uniform

These will be similar to the other subdivision directionals, but will display only two project listings. The overall height is limited to 10 feet and the sign face area to 20 sq. ft. These signs will be removed by Sunbow when directional information is no longer needed at that location.



Sign Category:
RESIDENTIAL GUEST BUILDER SIGNAGE
SALES OFFICE COMPLEX SIGNS

Longevity: Short term temporary
Design: Flexible

The temporary marketing signs within a guest builder's development shall compliment the architectural style, materials and colors of the buildings, as well as their own Marketing Program. They shall not be located on major corridor streets. Examples of suggested shapes and formats will follow. They are to be removed by the builder as soon as sell-out is completed. A program including the following signs shall be developed and submitted first to the Sunbow Design Review Committee and then to the City of Chula Vista as outlined in the Submittals section. Allowable signs are:

Sales Office Identification

To identify guest builder's sales offices, one temporary ground sign no greater than 16 sq. ft. or 5 feet in height will be permitted. The copy shall be limited to the subdivision name, builder, "sales office" and the Sunbow logo may also be displayed.

Model Complex Identification

At the entrance to the models, one single-faced monument sign 12 sq. ft. maximum is permitted, displaying the project name and logo.

Model Identification

Similar in appearance to the sales office sign, one per model will be allowed on a temporary basis, with an area of 7 sq. ft. as a maximum.

Sales Office/Model Directional

These signs will be located inside subdivisions and will not be permitted on major community streets. They shall be temporary and similar in appearance to the sales office/models signs. Size is limited to 12 sq. ft. and height to 5 feet.

Builder Promotional Flags

Flags will be permitted to assist the guest builders in marketing their products, to be located at the sales area only. The Sunbow "banner" displaying the Sunbow logo would be recommended, or the builder may chose from the optional banners as prescribed by these Guidelines.

Sign Category:
ON-SITE PROJECT DIRECTIONAL

Longevity: Permanent
Design: Flexible

These vehicular directionals are located within the property lines of multi-family projects, the Village Center, the Business Park and the Community Recreation Center. These signs shall be of appropriate material and theme for the project, and conform to the overall criteria for permanent signs. The overall sign area shall not exceed 12 sq. ft.

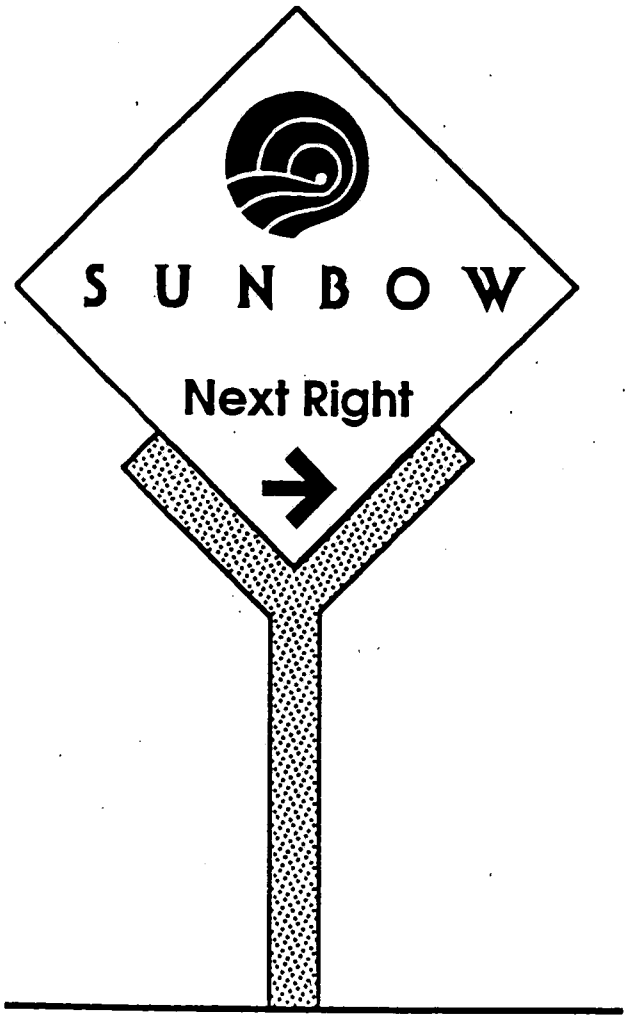
Illustration to follow

Sign Type 14

Sign Category:
OFF-SITE DIRECTIONAL

Longevity: Long range temporary
Design: Uniform

These signs will be located on Telegraph Canyon Road preparing approaching traffic for a turning decision at the community's primary entances. The sign face area shall not exceed 25 sq. ft. and the total height will not exceed 15 feet.

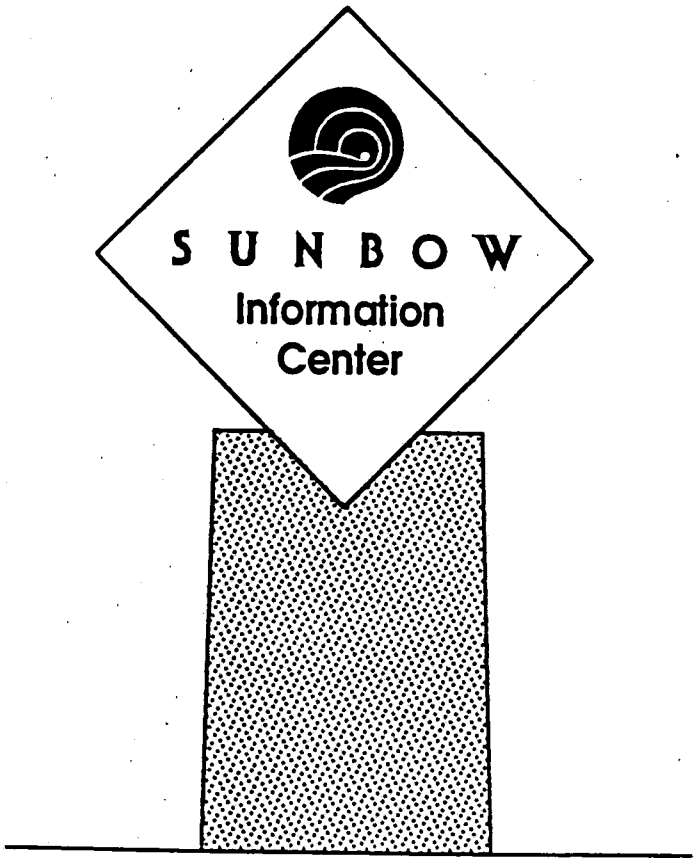


Sign Type 16

Sign Category:
INFORMATION CENTER IDENTIFICATION

Longevity: Long range temporary
Design: Uniform

These double-faced signs shall follow the Temporary Sign format, and identify the Information Center. The maximum sign face area will be 16 sq. ft., and they will be mounted on a base, with the overall height not to exceed 12 feet. They will be displayed until Sunbow is complete and sold out.

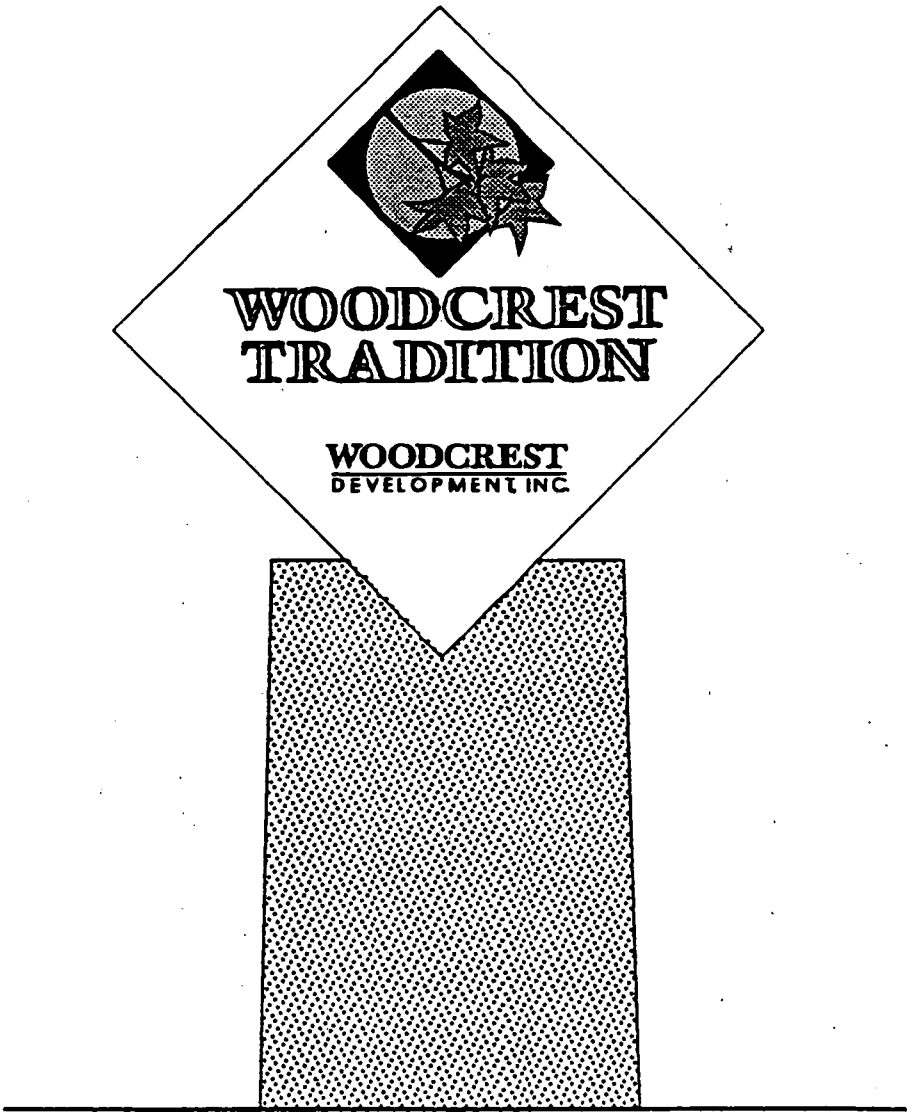


Sign Type 17

Sign Category:
SUBDIVISION IDENTIFICATION

Longevity: Long range temporary
Design: Uniform

These signs shall follow the Temporary Sign format, and identify a residential subdivision by a individual guest builder. The maximum sign face area will be 36 sq. ft., and they will be mounted on a base, with the overall height not to exceed 16 feet. They will be displayed until that phase of development is complete and sold out. These signs will not be replaced by permanent neighborhood identification signs. The builder will be encouraged to display his own logo and project marketing name.

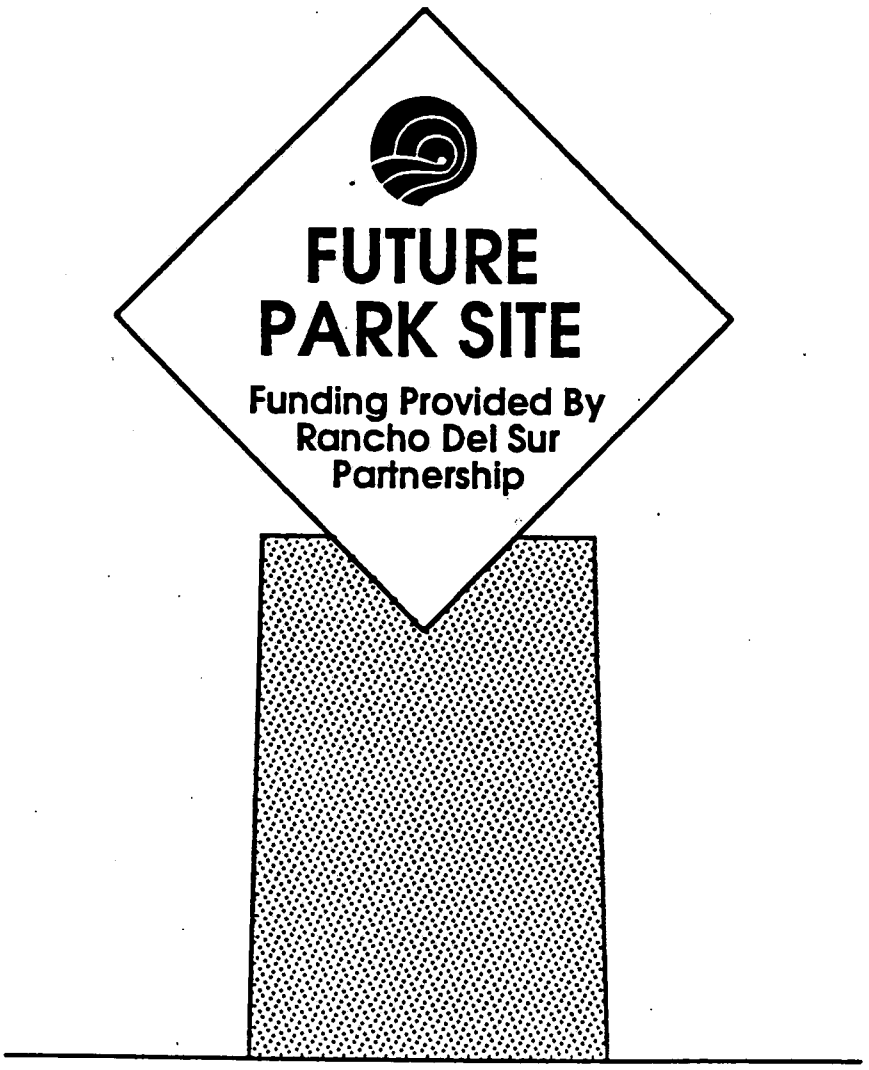


Sign Type 18

Sign Category:
FUTURE PUBLIC FACILITIES IDENTIFICATION

Longevity: Long range temporary
Design: Uniform -

For identifying during construction, these signs will conform to the standards for sign type 17. Copy is restricted to facility name Sunbow symbol and one descriptive phrase. Included in this category are parks, recreation centers and elementary schools.

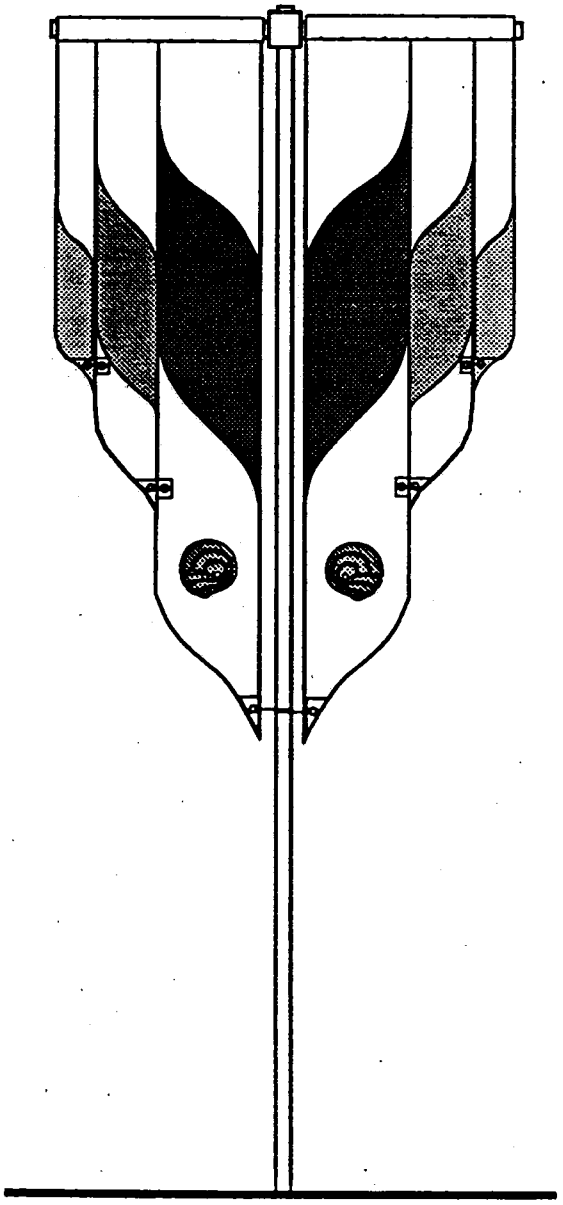


Sign Type 19

Sign Category:
SUNBOW BANNERS

Longevity: Short term temporary
Design: Uniform

To enhance the identity and assist the marketing for the community, temporary flag structures incorporating the Sunbow logo shall be used selectively on primary corridors, at the Information Center and at entrances to neighborhoods. The banners will be displayed during marketing and will be removed at sell-out of a phase. The banners at the Information Center will be removed when the Center has completed its marketing phase.



Sign Category:
DIRECTORY MAP &
RELATED INFORMATIONAL SIGNS

Longevity: Permanent
Design: Flexible

In multi-family residential developments, directory maps and related directional and informational signs shall work together as a sign program, using colors, materials, designs and forms that compliment the building architecture and landscape. Directory maps shall be lighted for night time visibility. A maximum copy area of 12 sq. ft. and 5 feet in height are permitted. All signs in any development shall conform to City of Chula Vista Standards and be a part of an overall sign program for that particular facility or site that is submitted to and granted approval by the Sunbow Design Review Committee, then to the City of Chula Vista, as outlined in the Submittals section. All signs shall conform to the Sunbow and City Standards.

Illustration to Follow

Sign Type 20

Sign Category:
VILLAGE CENTER IDENTIFICATION

Longevity: Permanent
Design: Uniform

These signs will identify the community retail center and be similar in appearance, materials and illumination to the Community Identification.

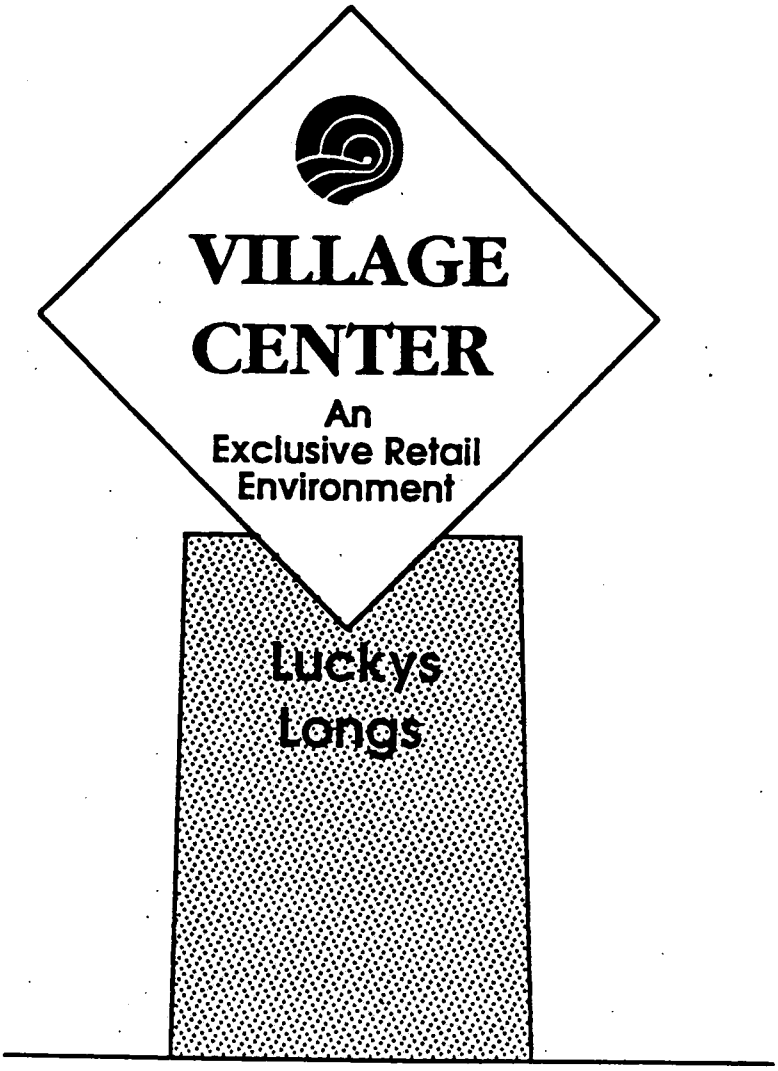
Illustration to Follow

Sign Type 21

Sign Category:
VILLAGE CENTER IDENTIFICATION

Longevity: Long range temporary
Design: Uniform

This sign will follow the design criterial for Sign Type 17, but will list two (2) anchor retail tenants on the pedestal.



Sign Category:
RETAIL TENANT IDENTIFICATION

Longevity: Permanent
Design: Flexible

Individual tenant identification will be permitted for each store front. Depending on the architectural theme up to two signs per frontage will be permitted. One will be wall mounted and will no exceed 70% of the horizontal and 50% of the vertical area available for wall signing. An additional projecting sign for sidewalk visibility will be permitted, but will not exceed 10 square feet and the mounting hardware and shape will be uniform for all tenants.

Illustration to Follow

Sign Type 22

Sign Category:
BUSINESS PARK IDENTIFICATION

Longevity: Permanent
Design: Uniform

These signs will identify the community business center and be similar in appearance, materials and illumination to the Community Identification.

Illustration to Follow

Sign Type 23

Sign Category:
BUSINESS PARK IDENTIFICATION

Longevity: Long range temporary
Design: Uniform

This sign will be consistent in design with Sign Type 17. A leasing and or sales telephone number will also be allowed on the sign panel.



CONCEPTUAL WALL FENCING AND LIGHTING PLANS

WALLS AND FENCING

As with other community design elements, wall and fence design is to be directed towards reinforcing the community theme. To facilitate an understanding of how walls and fences are to be treated and provide a framework for measuring compliance, the community has been divided into five basic wall and fencing categories. The design of these walls and fences are outlined in the following discussion. The location of the walls are shown on Exhibit 1.

Community Theme Wall

This wall will provide a major part of the theme statement of the community and will be used primarily along the major streets in Sunbow. The entire length of the wall is to be of one design as shown in Exhibit 2.

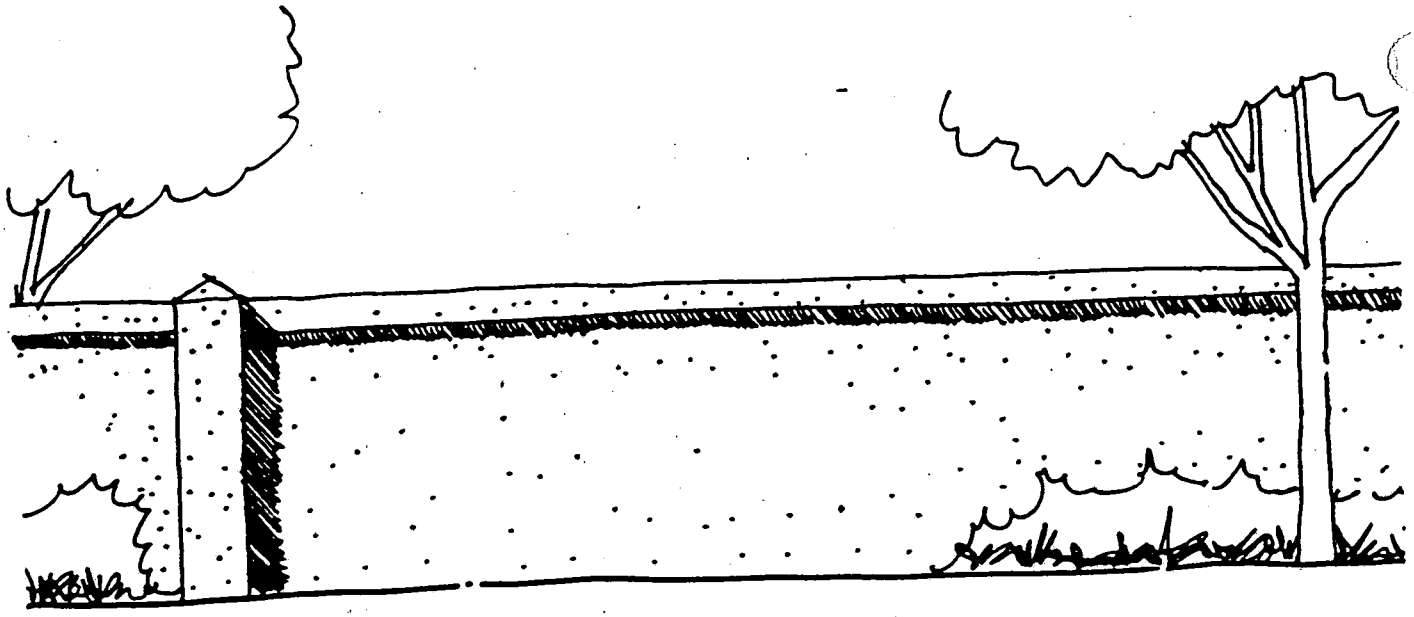
Community theme walls will consist of stucco masonry on both sides with decorative pilasters. The pilasters will be spaced in a modular pattern corresponding to the width of the adjacent road right-of-way (ROW). For example, the pilasters on Medical Center Drive will be placed 110 feet on center to correspond to the 110 foot ROW of this street.

As an integral part of the community wall design, the area in front of the wall that is visible from the street will be landscaped. The use of vines and colorful planting materials is proposed.

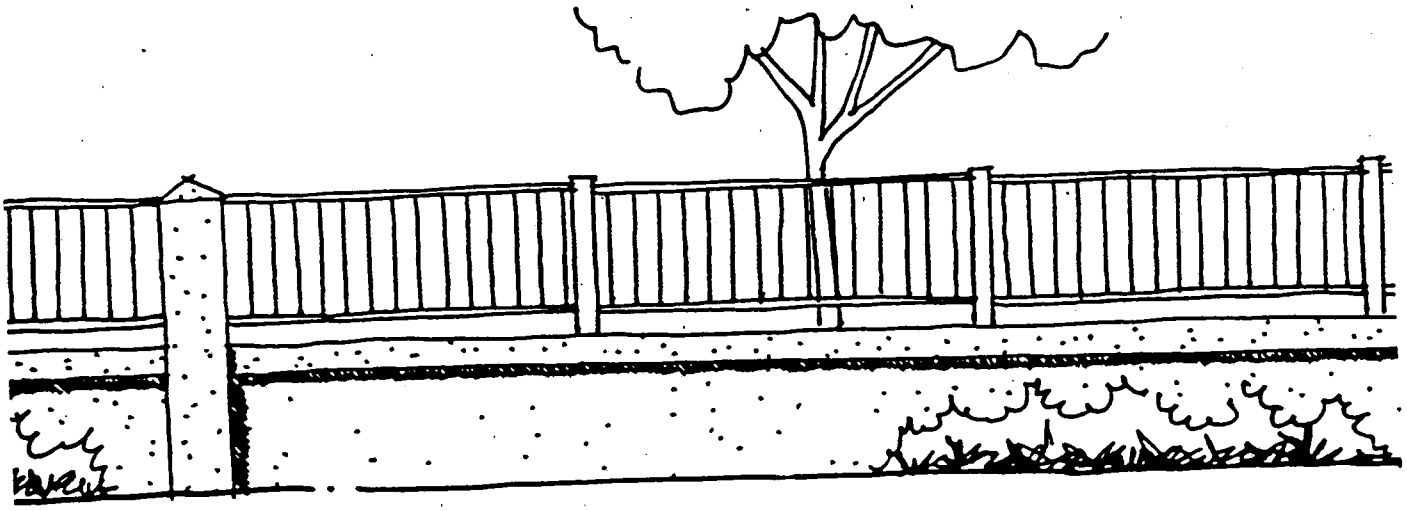
Semi-Transparent View Walls

These walls will allow select visual penetration for security while providing some degree of privacy. As shown in Exhibit 2, the walls will consist of a stuccoed masonry base of 2-feet with tubular steel or similar material mounted on top. The wall will include pilasters placed at each property line.

Opaque wall materials at a greater height may be permitted in select cases where privacy or noise issues are of primary concern.

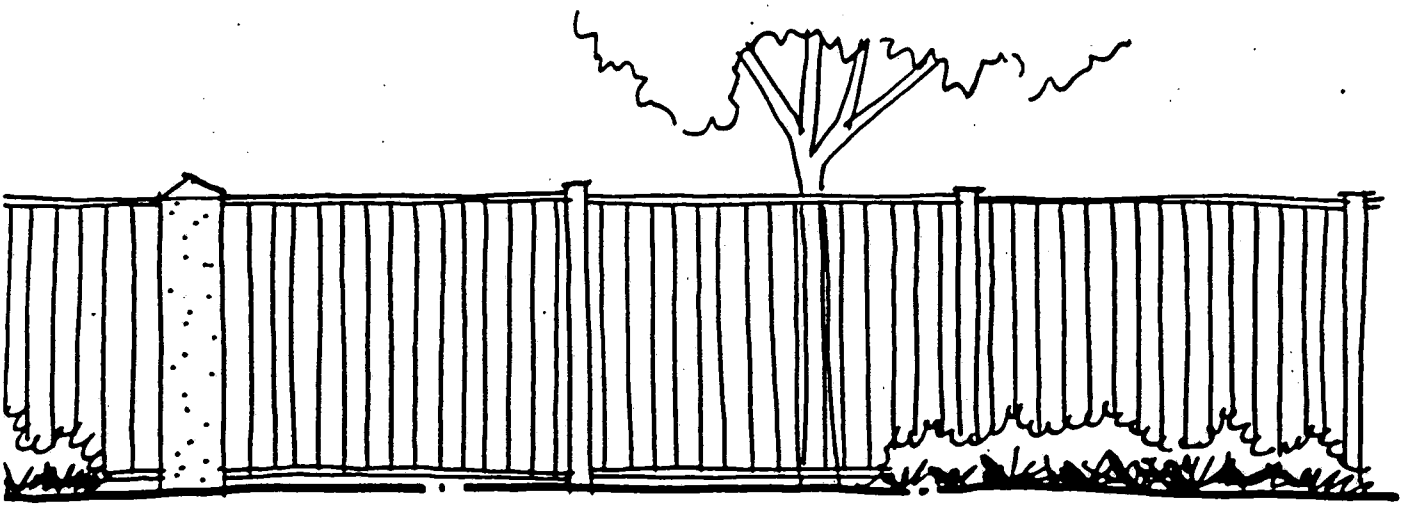


COMMUNITY THEME WALL

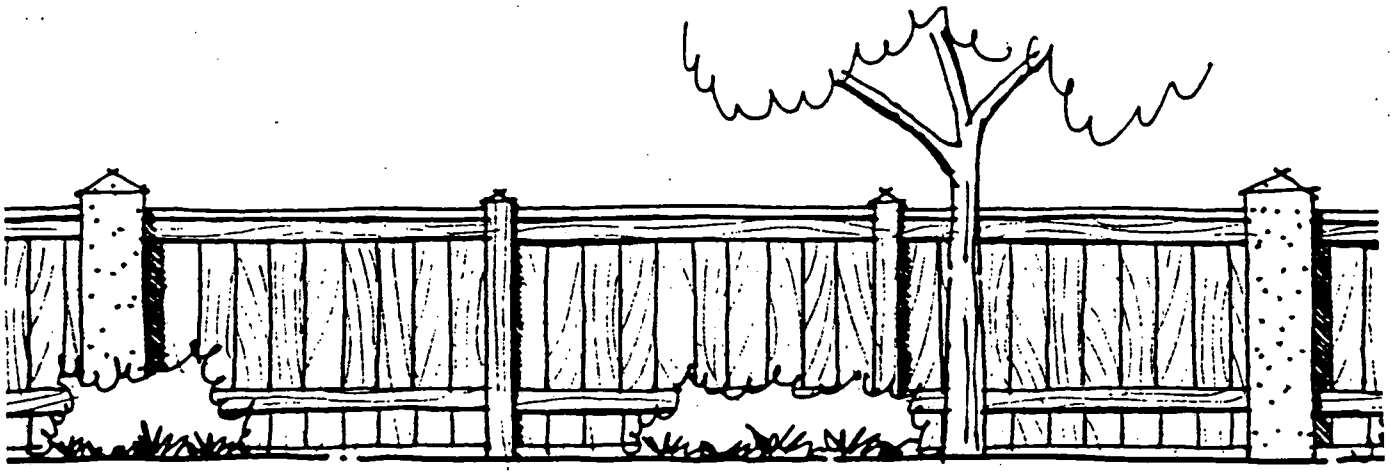


SEMI-TRANSPARENT VIEW WALL

SUNBOW



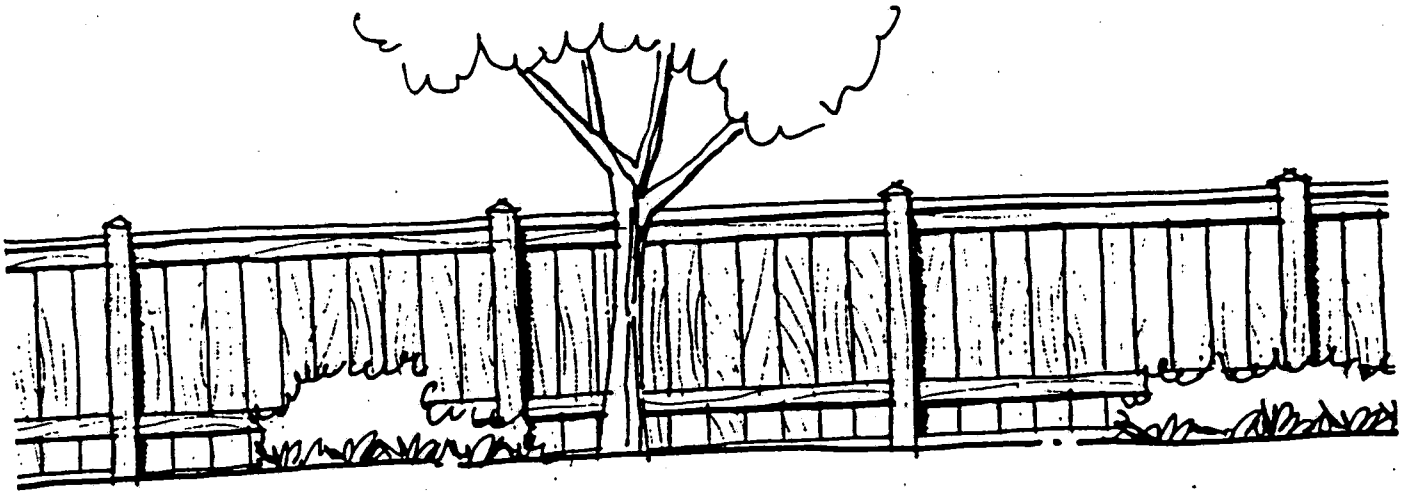
TRANSPARENT VIEW FENCE



NEIGHBORHOOD SCREEN FENCE

SUNBOW

EXHIBIT 3



SECURITY FENCE

Transparent View Fence

This fence will allow total visual penetration from premium view lots while allowing for some security. Stucco pilasters matching those of the community theme wall will occur at property corners with a 5-foot tubular steel fence in between as shown in Exhibit 3. Transparent view fences will occur at the top of rear yard slopes where premium views occur.

Neighborhood Screen Fence

These fences or screening elements are most commonly located at the bottom of a slope bank, or in more "natural" or "soft" areas of the community. Fences in these areas shall be blended into the environment by screen planting and/or earth berming.

As shown in Exhibit 3 these fences will have stucco pilasters at each property line.

Security Walls and Fences

These walls and fences are required primarily for security in areas that are not highly visible. They will have a uniform design, as shown in Exhibit 4, and will generally be constructed of wood (grapestake fences are not acceptable). Acceptable alternate materials include stucco, masonry, wrought iron, or tubular steel. Pilasters should be incorporated into the wall design if the alternate, non-wood materials are used.

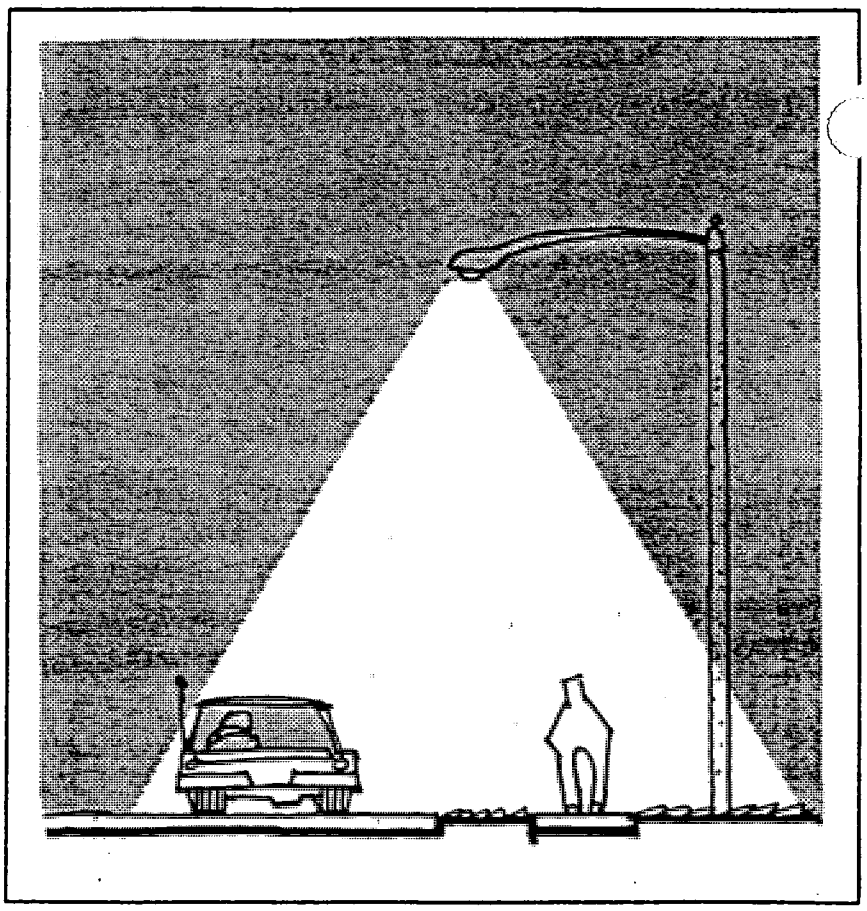
Where the security wall is between two dissimilar uses (e.g. commercial and residential) a solid masonry or stucco covered masonry wall shall be used. This solid wall will have the same design as the community theme wall.

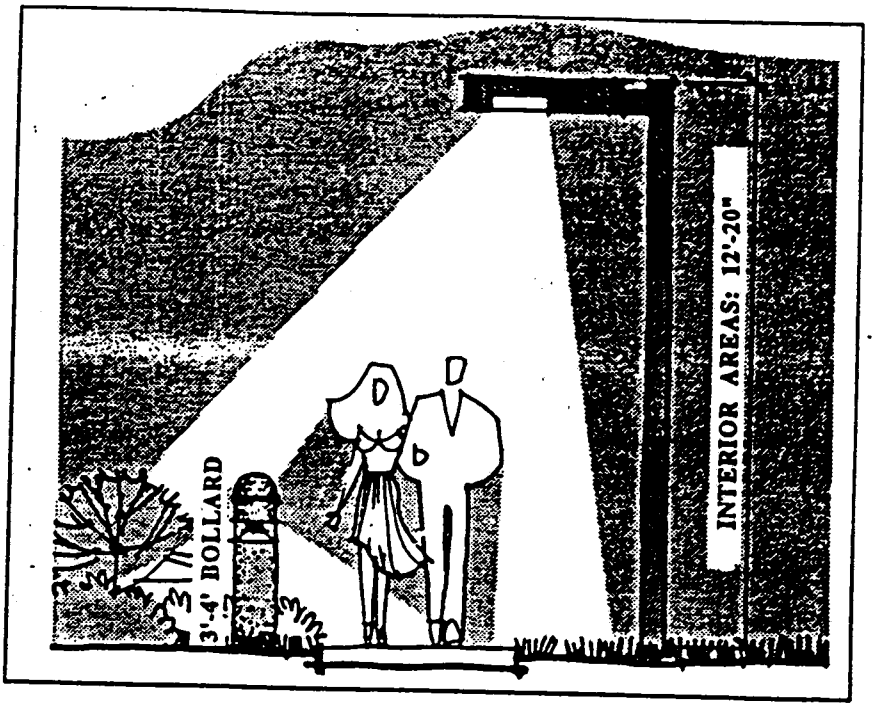
COMMUNITY LIGHTING

A unified lighting concept will be used throughout private areas of the community. This concept utilizes "Cobra" type light standards for overhead lighting along streets. Additionally, low pole or bollard lighting may be used for illuminating pedestrian areas within residential, commercial and recreation projects. The lighting along public streets will conform with the City of Chula Vista street lighting standards.

Street lights will consist of prestressed, crushed aggregate standards with "Cobra" type luminaries for overhead lighting along major community roads and residential streets.

Acceptable finish treatments for pole or bollard lighting used within pedestrian areas include dark bronze, anodized aluminum or other weather resistant coating.





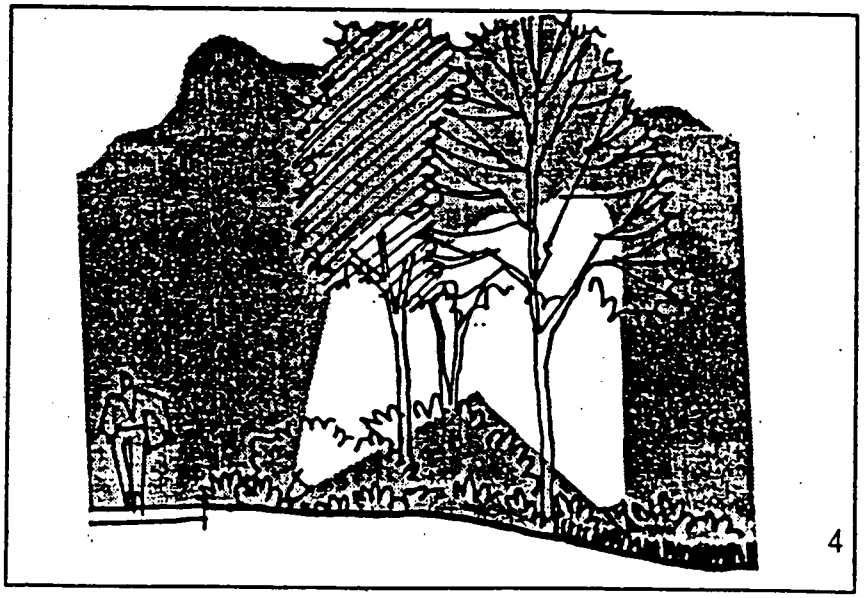
The height of street lights will vary. Lights will be 26'-9" (100 watt) or 30'-0" (150 and 250 watt) high on main thoroughfares and 23'-0" (100 watt) or 27'-0" (150 and 250 watt) high on secondary and residential streets. The light poles will be placed in accordance with City street lighting standards.

Pedestrian areas within residential projects will utilize a twelve 20-foot high pole or three 4- foot high bollard light.

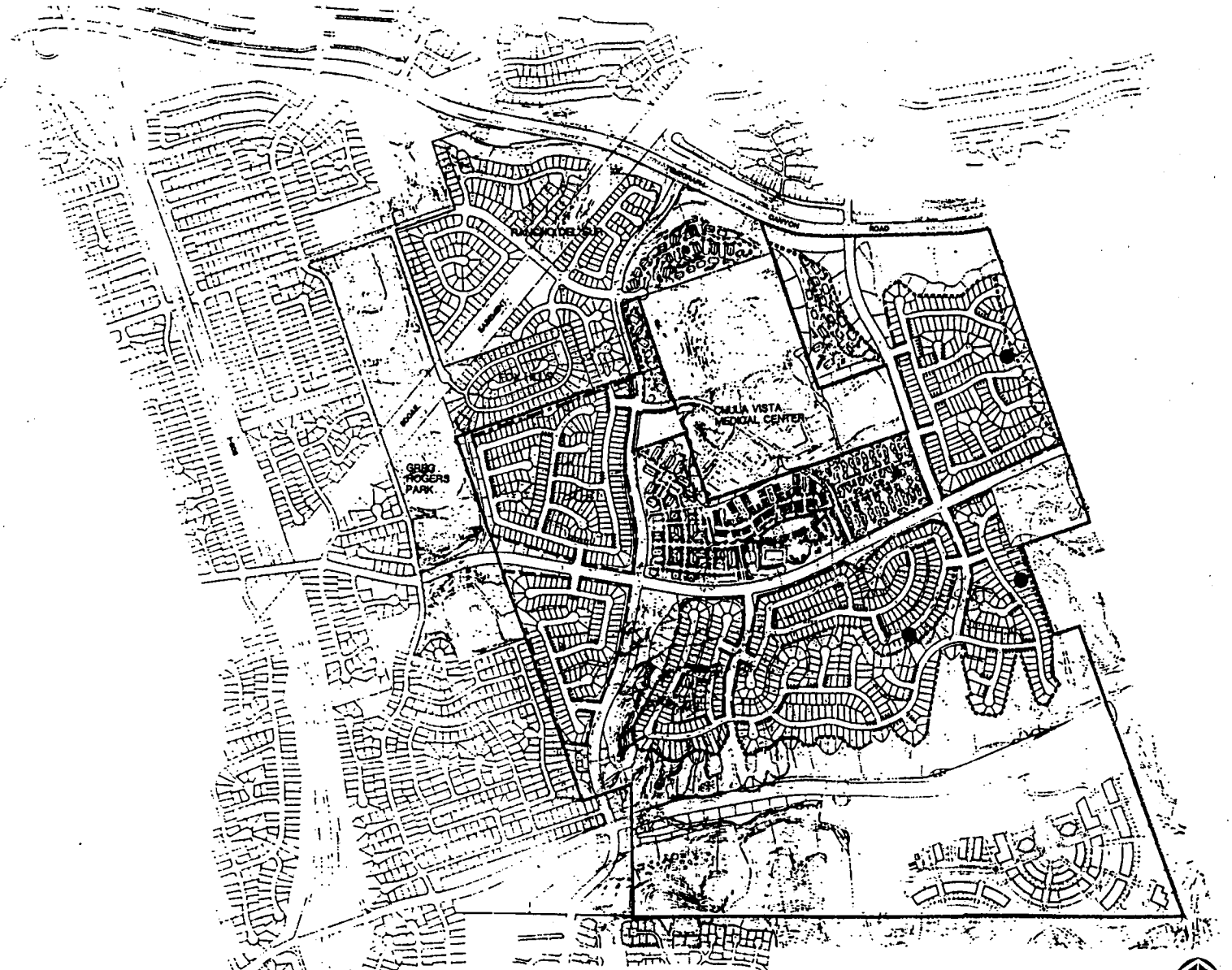
Pedestrian lights will be spaced to meet the lighting requirements of outdoor areas relative to their anticipated uses.

Landscape up-lights are effective for accentuating trees and other plant material; however, they will not be used as the sole source of illumination along walkways or other pedestrian areas.

Additional accent lighting will generally be soft, minimal indirect lighting. Light shields and time/sensor systems will be required in areas where glare is a potential problem.



WALL AND FENCING PLAN



LEGEND

- COMMUNITY THEME WALL (5' MASONRY WALL)
- SEMI-TRANSPARENT VIEW WALL (2' MASONRY, 3' IRON WALL)
- NEIGHBORHOOD SCREEN FENCE (WOOD FENCE W/ MASONRY PILASTERS 24' O.C.)
- SECURITY FENCE (5' WOOD FENCE)
- DENOTES POTENTIAL TRANSPARENT VIEW FENCE

BHA, INC.
M.W. S ROUP, INC.
BASM URNELL INC.
TIERRA 3 & DESIGN
GILLES. IENZO ASSOCIATES

SU OW

Grading Plan & Infrastructure

SUNBOW PHASING/IMPLEMENTATION

Grading

Project grading is planned in one phase (see exhibit 1).

Grading will be controlled by the anticipated construction, earthwork balance, storm drain and erosion control criteria, in conjunction with providing sufficient subsurface soil material to provide for projected building areas and maintain a logical and orderly progression of the General Development Plan.



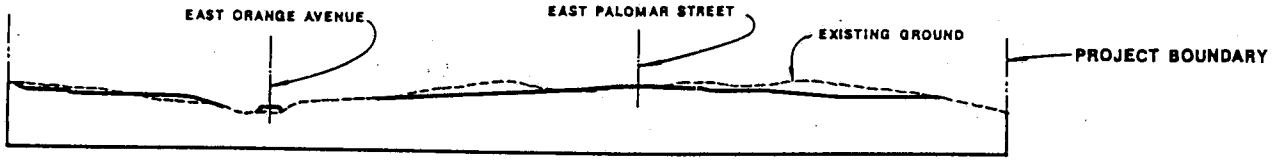
SUNBOW

MASTER GRADING PLAN

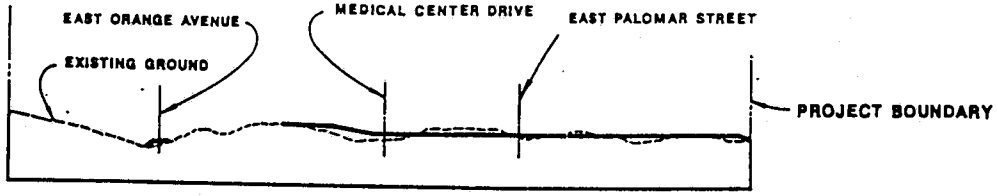
bHA, Inc.
land planning, civil engineering, surveying
(619) 755-8661
1903 Murray Canyon Road
Suite 210
San Diego, California 92108
(619) 941-1651
330 Encinitas Avenue
Suite 209
Vista, California 92084

EXHIBIT 1

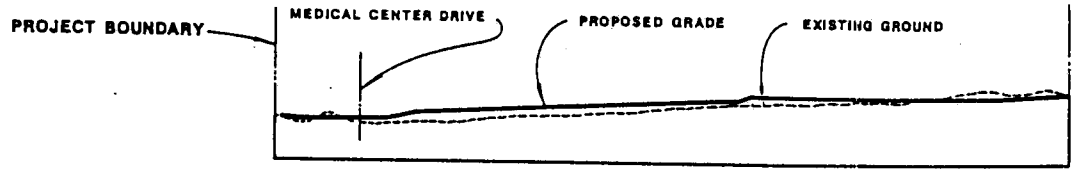
REV 1-12-90



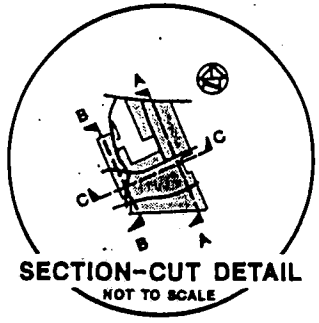
SECTION A–A (FACING WEST)



SECTION B–B (FACING WEST)



SECTION C–C (FACING NORTH)



SECTION–CUT DETAIL
NOT TO SCALE

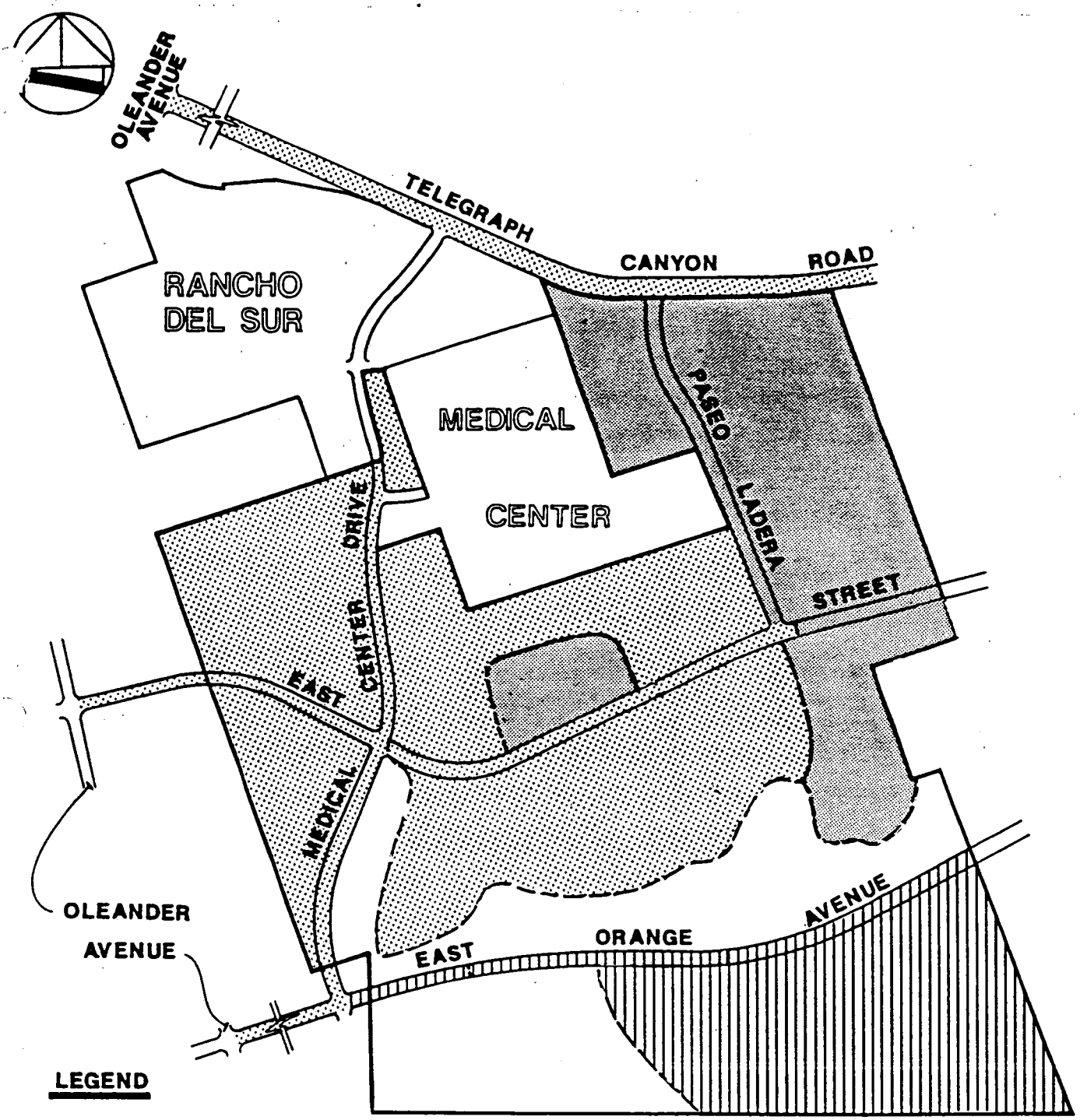
SUNBOW

GRADING SECTIONS

bHA, Inc.
land planning, civil engineering, surveying
(619) 292-0961
1515 Murray Canyon Road
Suite 910
San Diego, California 92108
(619) 945-1061
130 Escondido Avenue
Suite 200
Vista, California 92084

EXHIBIT 2

REV 10-17-89



SUNBOW

SITE CONSTRUCTION PHASING

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EXHIBIT 3

REV 11•29•89

Circulation System

The circulation system for the **Sunbow** Master Plan will be constructed to accommodate the needs of the project as it progresses from the initial development stage to final build-out. This construction will provide for a smooth transition of traffic movement not only in the project but the surrounding community. The limits of construction will be determined by the extent of each development phase and required "down stream" improvements to existing roadways (i.e., sewer water, storm drains).

The initial improvement phase will include:

a. Medical Center Drive - from the existing southerly terminus at Medical Center Court to the existing northerly terminus of the intersection at Brandywine Drive, just north of East Orange Avenue and Brandywine Drive.

b. East Palomar Street - from Oleander Avenue to Paseo Ladera.

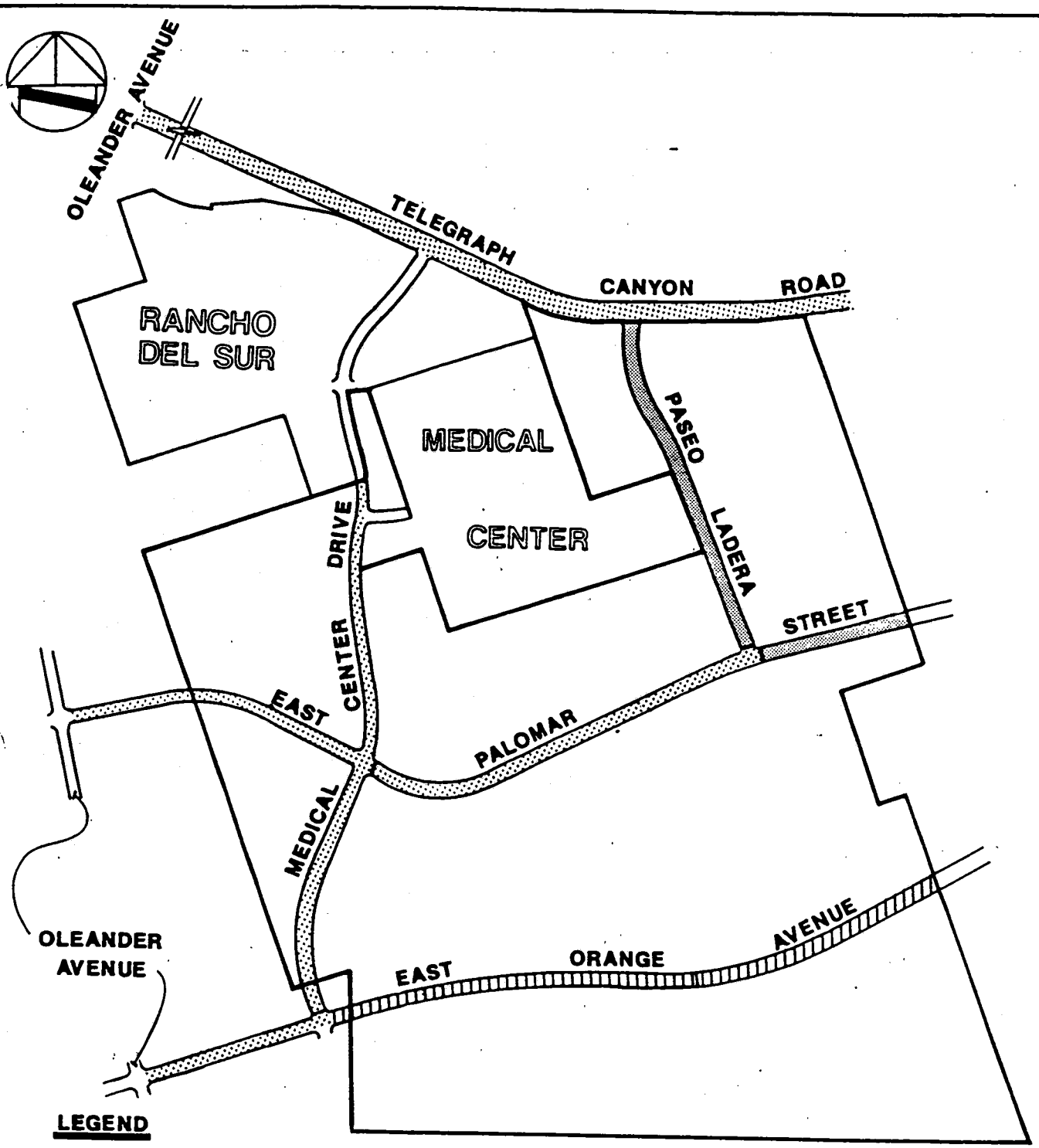
Phase II will provide:

a. Paseo Ladera from Telegraph Canyon Road to East Palomar Street.

b. For the easterly extension of East Palomar Street to easterly boundary of **Sunbow**.

Phase III will provide:

a. Orange Avenue from Medical Center Drive to the easterly boundary of **Sunbow**.



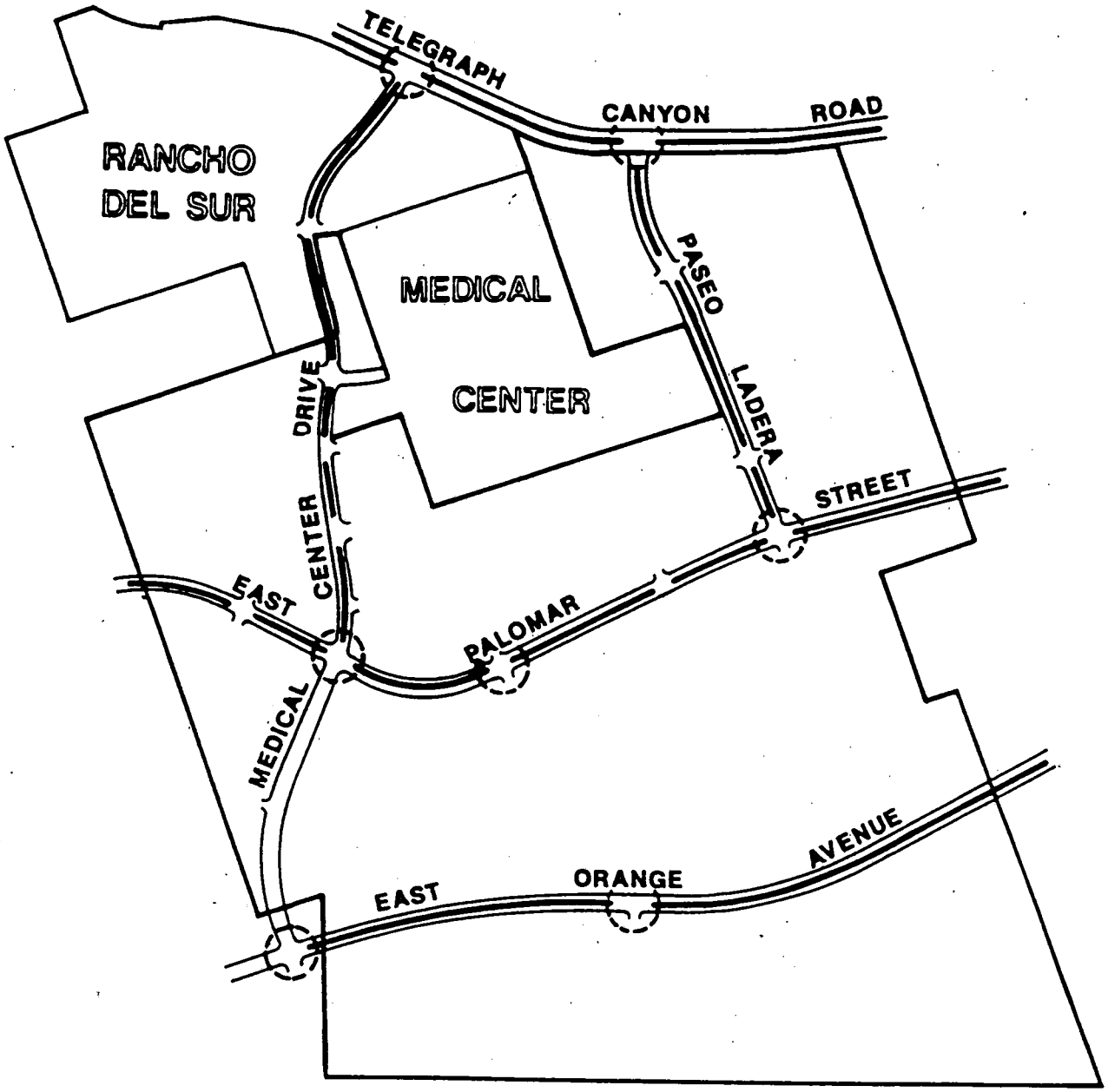
SUNBOW

MAJOR CIRCULATION PHASING

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EXHIBIT 9

REV 10•25•89



LEGEND

— MEDIAN

◯ SIGNAL CONTROLLED INTERSECTION

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TRAFFIC CONTROL

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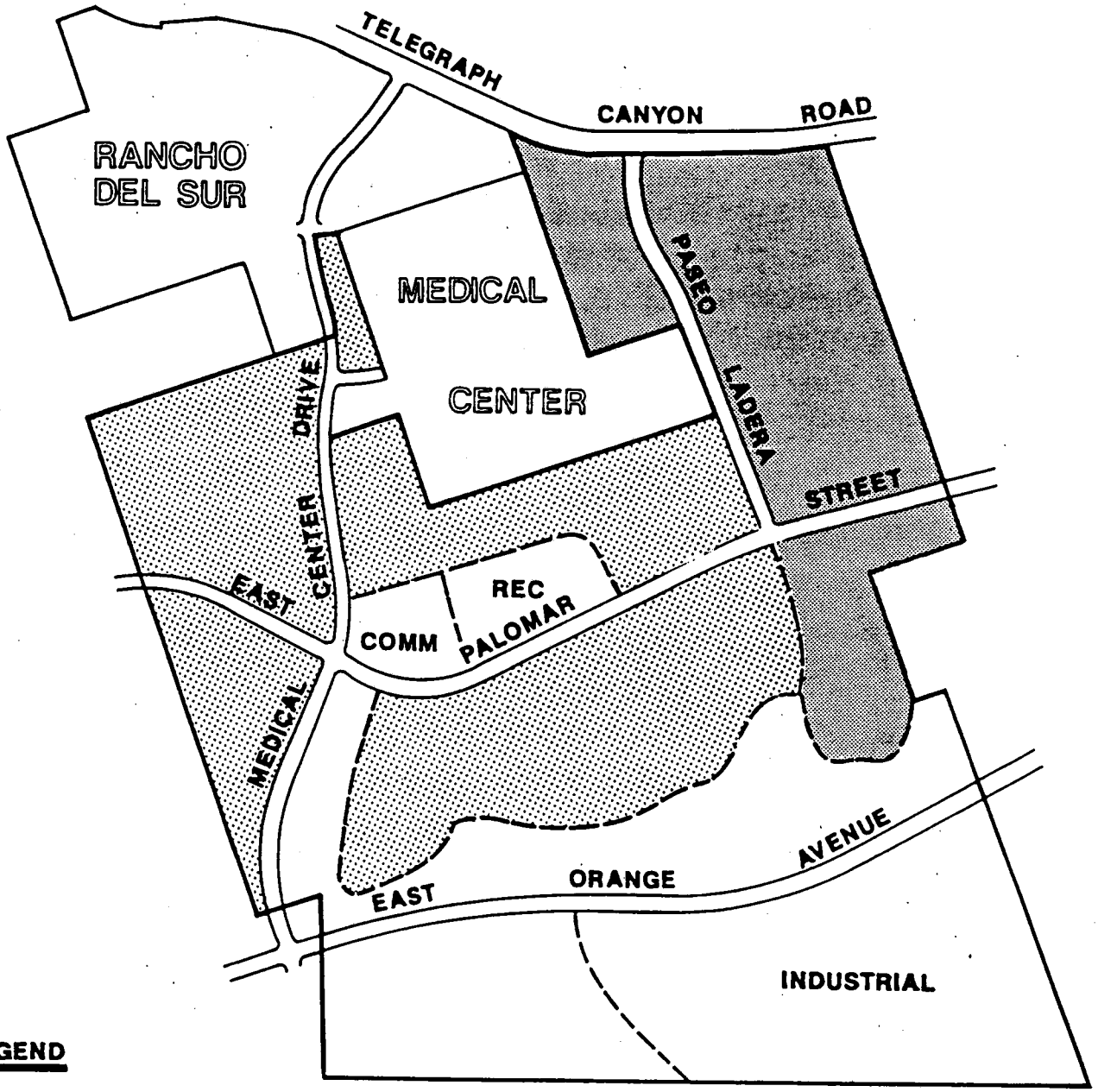
EXHIBIT 10

REV 10-25-89

Residential Development Phasing

The residential construction is anticipated to be completed within a four to seven year period, within the two phases of construction.

The initial phase will consist primarily of single-family dwellings, with multi-family units such as four-plexes and apartments in order to provide for a wide variety of housing types.



LEGEND

PHASE I

PHASE II

SUNBOW

RESIDENTIAL DEVELOPMENT PHASING

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EXHIBIT 1

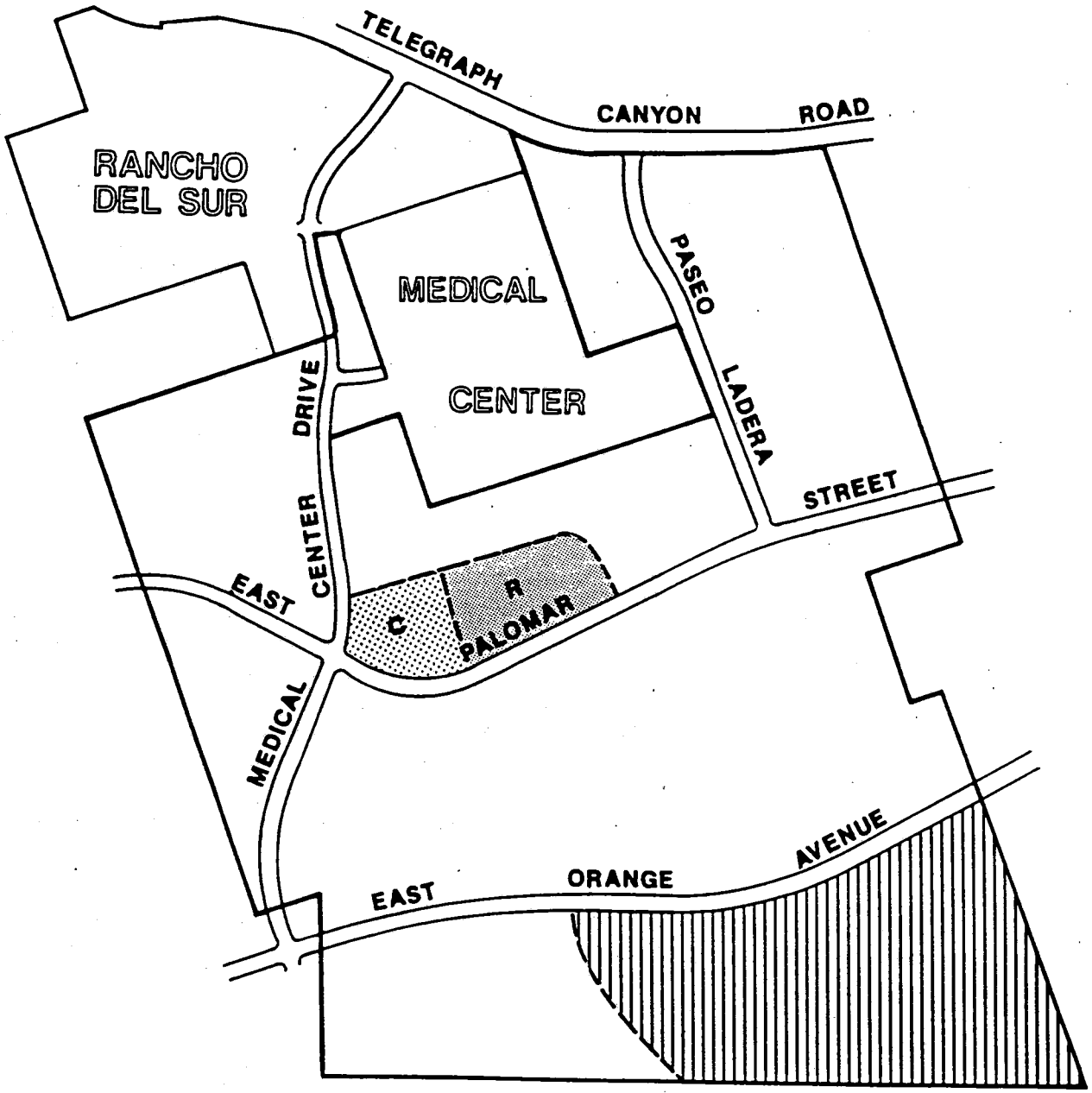
REV 10-17-8

Non-Residential Development

The non- residential development consists of the commercial site on the northeast corner of Medical Center Drive and East Palomar Street, the **Sunbow** Recreational Park on East Palomar Street and the "Industrial" parcel south of East Orange Avenue at the southeasterly corner of the **Sunbow** Project.

The grading program will provide for the "final pads" for the development of both the commercial center and recreational park, but the actual building of facilities will be phased to accommodate the needs of the community as the project develops. It is anticipated that these portions of the project will be constructed in Phase I of the project build-out program.

The industrial site and construction of on-site improvements may extend beyond the anticipated buildout schedule of the **Sunbow** Residential Development Program.



LEGEND

RECREATIONAL PHASE II	R
COMMERCIAL PHASE I	C
INDUSTRIAL PHASE III	

SUNBOW

NON-RESIDENTIAL DEVELOPMENT PHASING

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EXHIBIT 12

REV 11•29•89

INFRASTRUCTURE STANDARDS

Water System

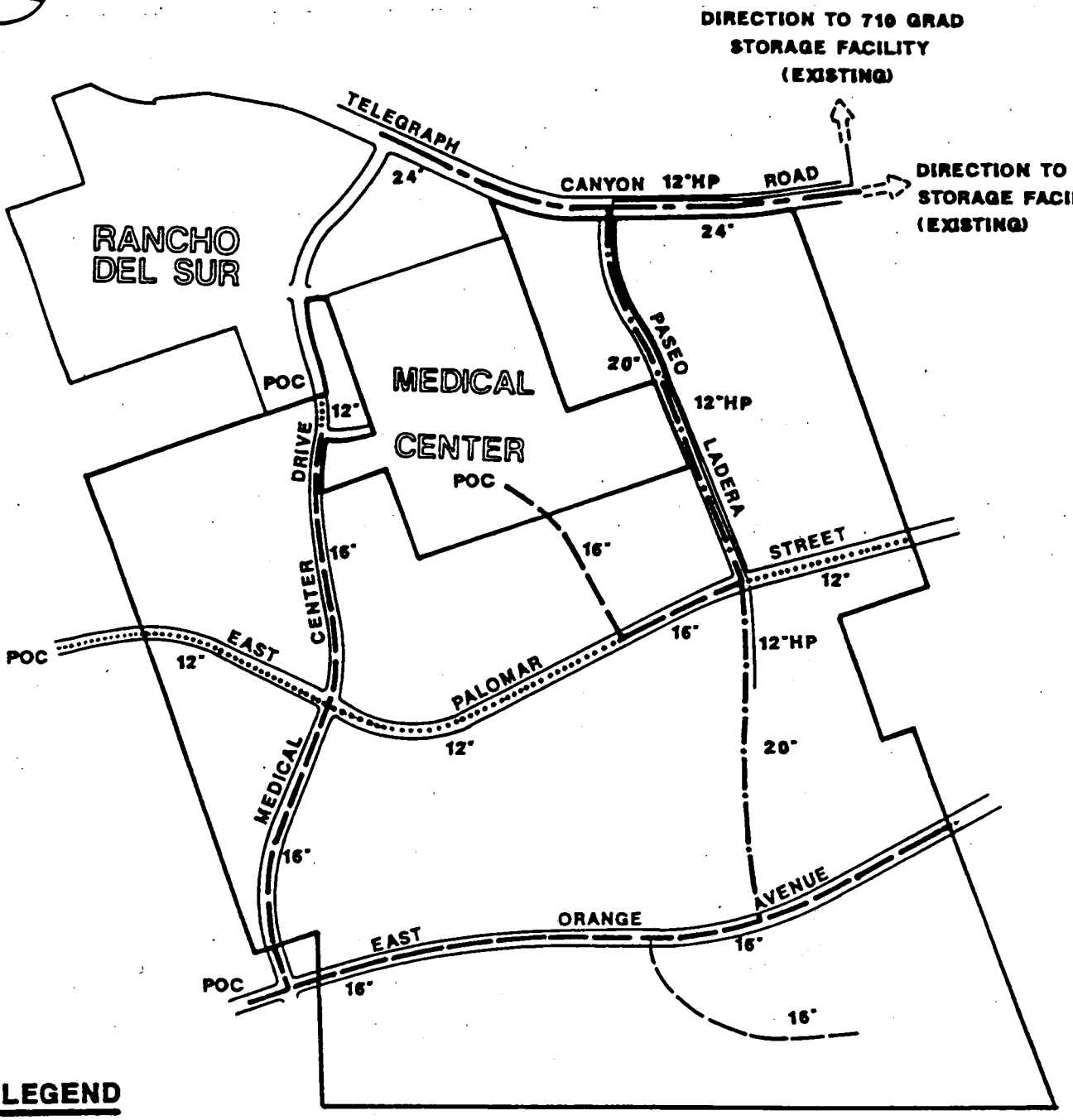
Sunbow Phase II lies within the boundaries of the Otay Water District. The site is within the District's 624 pressure zone. Water service is presently being provided to the first phase through an existing waterline in Telegraph Canyon Road.

Improvement District No. 27 (I.D. 27) is presently being formed in conjunction with an agreement with the Central Area Developers (Eastlake Development Company, Rancho Del Rey Partnership, Rancho Del Sur Partnership) to provide an additional reservoir storage capacity and distribution lines for the **Sunbow** Development, as well as the Eastlake and Rancho Del Rey projects. Approval of the Improvement District is awaiting adoption of Resolution No. 2750 by the Board of Directors of the Otay Water District at their meeting of May 3, 1989.

On-site there are currently no existing waterlines within **Sunbow** Phase II which will serve the project. Pursuant to the enclosed Exhibit, new waterlines will be extended in Medical Center Drive and in Paseo Ladera from Telegraph Canyon Road to serve Phase I. In addition, new waterlines will be constructed in East Palomar Street and East Orange Avenue. Waterlines will be provided within the local residential streets and surrounding areas in conformance with the requirements of the Otay Water Districts.

Sunbow Phase II lies within the boundaries of the Otay Water District. The site is within the Reclaimed Water Master Plan Area and will provide for the use of reclaimed water within the subdivision utility system.

The Reclaimed Water Master Plan is presently under development and is ultimately planned to be served from a 900 foot elevation pressure zone. At the present time a 16 inch reclaimed water line is planned to be constructed in Telegraph Canyon Road along the frontage of the **Sunbow** Phase II property. The cost of construction of the Telegraph Canyon Road 16 inch reclaimed waterline is to be paid for by the Otay Water District.



LEGEND

12"(624 GRAD) .....

16"(624 GRAD) — — —

20"(624 GRAD) — · — · —

24"(624 GRAD) — — · — —

12" HP(710 GRAD) ——

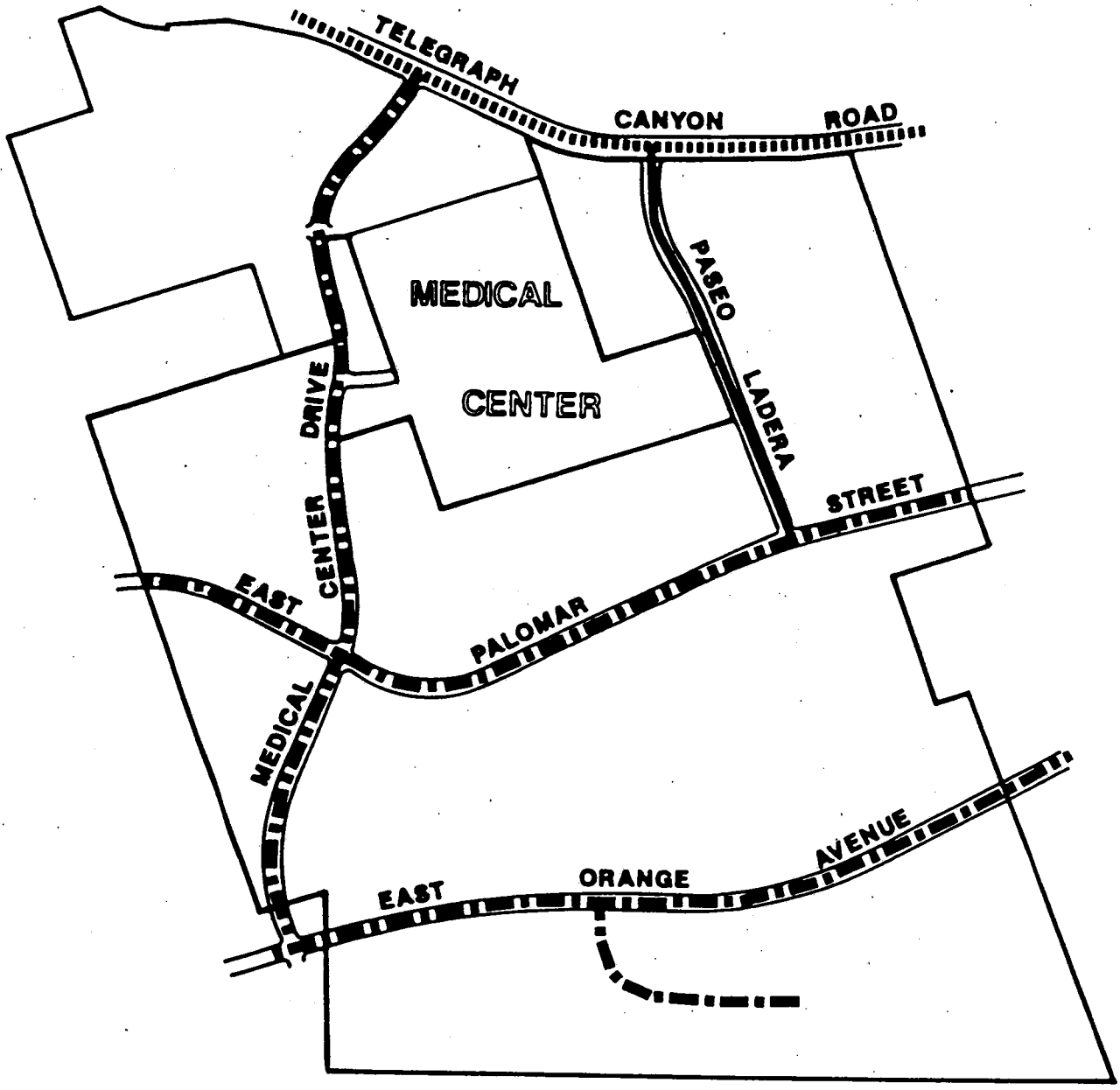
SUNBOW

WATER SYSTEM PLAN

bHA, Inc.
land planning, civil engineering, surveyin
(619) 298-8861
1615 Murray Canyon Road
Suite 910
San Diego, California 92108
(619) 941-1881
138 Escondido Avenu
Suite 209
Vista, California 920

EXHIBIT

REV 10-17-8



SUNBOW

RECLAIMED WATER SYSTEM

LEGEND

12" ——————

16" —— ▪ —— ▪ ——

16" ▪▪▪▪▪▪▪▪▪▪▪▪▪▪ (EXISTING)

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EXHIBIT 14

REV 10-25-81

On-site there are currently no existing reclaimed waterlines within the **Sunbow** Phase Development which will serve the project. Pursuant to the enclosed Exhibit 14, a new reclaimed waterline will be extended in Medical Center Drive, from Telegraph Canyon Road, through Phase I of Rancho del Sur; and in Paseo Ladera from Telegraph Canyon Road to serve Phase II. In addition, new reclaimed waterlines will be constructed in East Palomar Drive and East Orange Avenue. Reclaimed waterlines will be provided within the local residential streets and surrounding areas in conformance with the requirements of the Otay Water District. Specific use of irrigation reclaimed water and potential reimbursement schedules shall be determined by the Otay Water District.

Storm Drain System

The project lies within portions of three distinct major drainage basins identified as Poggi Canyon, Loma Verde and Telegraph Canyon. The majority of land mass is tributary to the Poggi Canyon basin which comprises approximately 375 acres, while the Loma Verde and Telegraph Canyon basins drain roughly 160 acres and 70 acres respectively.

Downstream drainage facilities of the three basins consist of lined concrete and natural channels, stormdrain conduits and multiple crossing structures. Developed flows contributions to the Loma Verde Basin appear to have been considered in the design of downstream drainage facilities; however, there exists the likelihood that such facilities associated with the Telegraph and Poggi Canyon basins may require either upgrading of their existing capacities or the installation of upstream detention facilities in order to accommodate the increase in flows resulting from development. The constraints thought to have the least flexibility with respect to their capacities upgrading are those crossings beneath the 805 freeway.

To mitigate the effects of development on storm runoff, on-site detention facilities shall be incorporated into the Storm Water Management Plan such that pre-development drainage conditions prevail downstream of the project. The planning and design of these multi-use facilities shall consider the individual basins of the development as well as the overall associated watershed upon ultimate build-out. Their construction shall be



SUNBOW

DETENTION BASIN SCHEMATIC

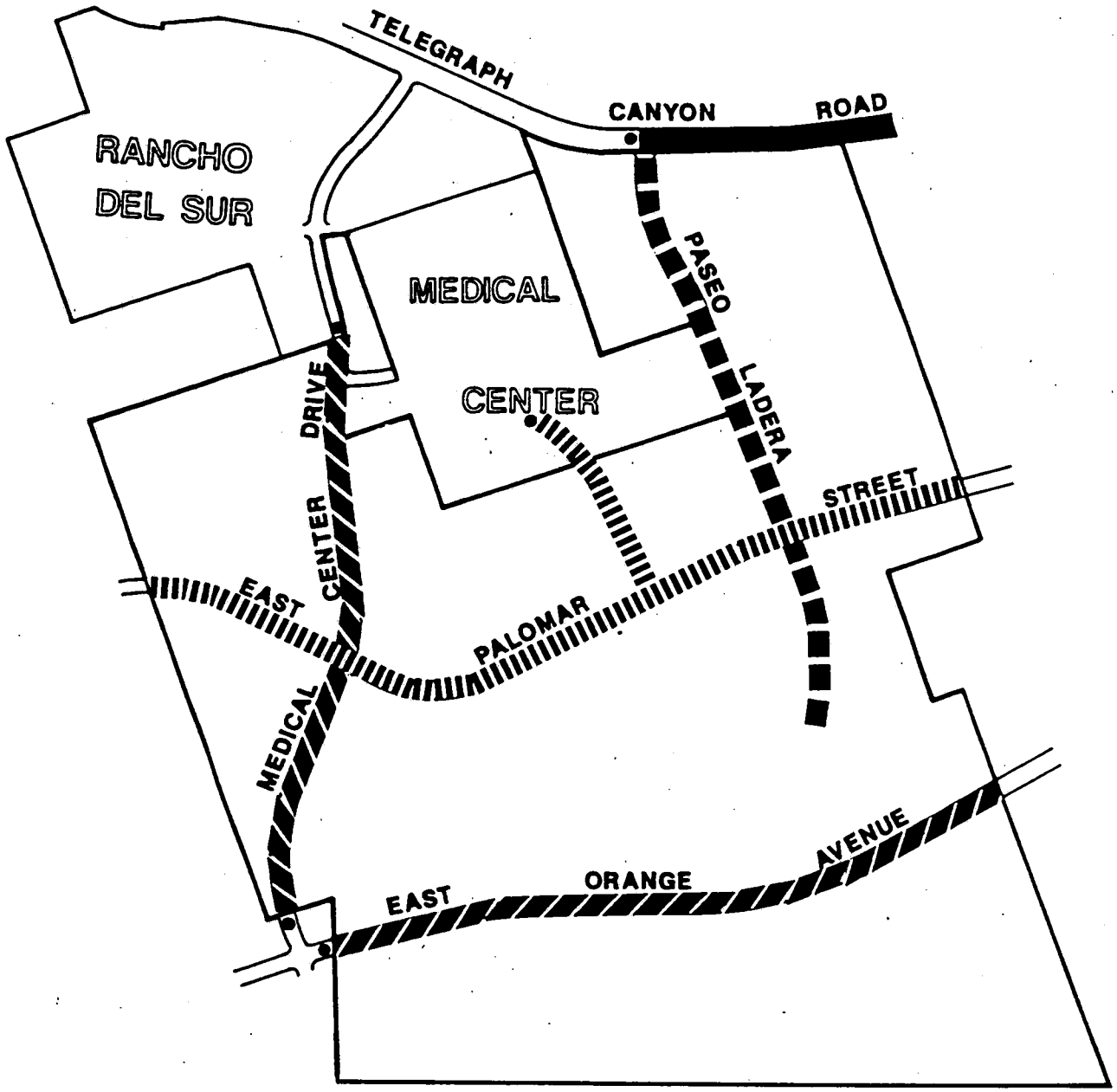
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EXHIBIT 1

phased concurrently with the grading of East Orange Avenue to Maximize construction efficiency. The integration of these detention areas into the land use scheme will serve to enhance the aesthetic appearance of the area through the design of decorative ponds and open areas supporting recreational and park amenities. The hydrologic and hydraulic responsibilities of these facilities will decrease if similar facilities are installed in upstream developments.

Utilities

Private utilities, which include gas, electric, cable television and telephone services will be phased in accordance with the site construction phasing plan. Trunk lines providing service to the project will connect into existing utilities located at the northern and western subdivision boundaries. Connection points will be provided for the future extension of the private utilities and to facilitate future development.



LEGEND

EXISTING ELECTRIC SOURCES

6-5" FEEDER SYSTEM

4-5" FEEDER SYSTEM

2-5" LOCAL FEEDER SYSTEM

1-5" & 1-4" LOCAL FEEDER & DISTRIBUTION SYSTEM

SUNBOW

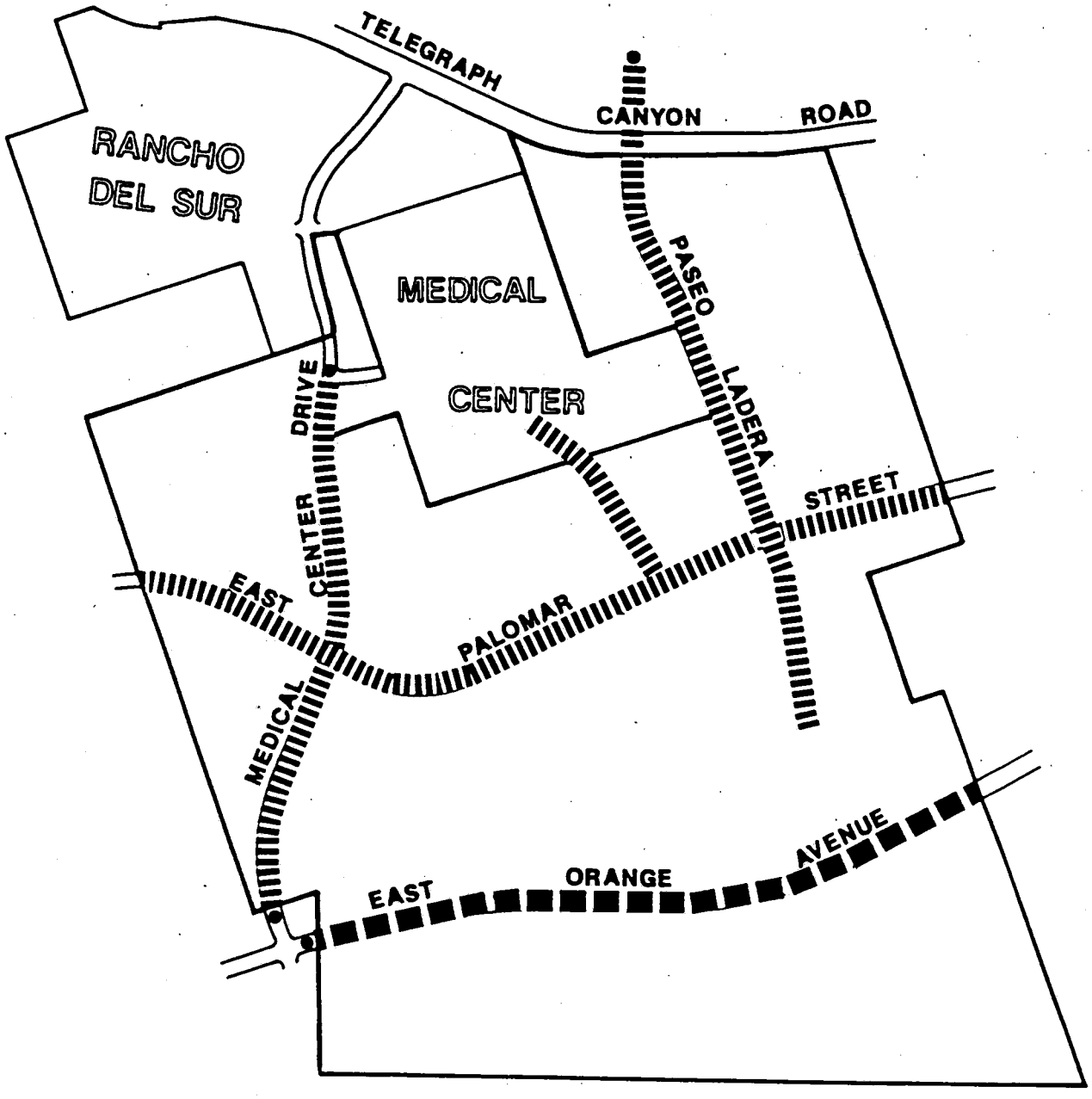
UTILITY PLAN

ELECTRIC

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EXHIBIT 1

REV 10-25-8



LEGEND

EXISTING CATV SOURCE ●

TRUNK SYSTEM 2-2" & 1-1 1/2" ||||||||||

FEEDER OR DISTRIBUTION SYSTEM 2-2" & 1-1 1/2" ■■■■

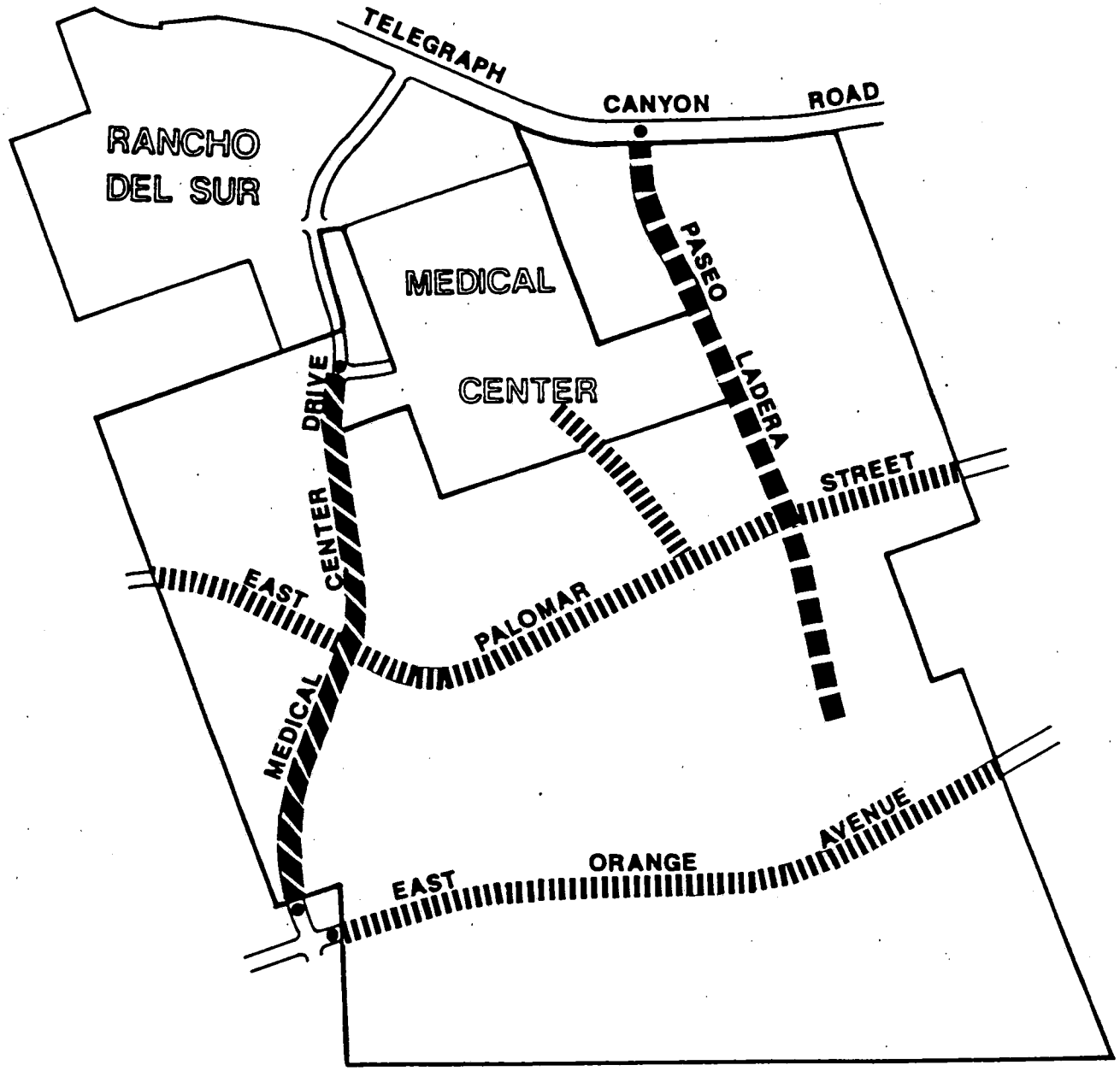
SUNBOW

UTILITY PLAN

CABLE TV

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EXHIBIT 17



LEGEND

EXISTING TELEPHONE SOURCE

5-4" FEEDER SYSTEM
TELEPHONE ONLY TRENCH

4-4" FEEDER SYSTEM
TELEPHONE ONLY TRENCH

1-4" LOCAL DISTRIBUTION SYSTEM
JOINT TRENCH INSTALLATION

SUNBOW

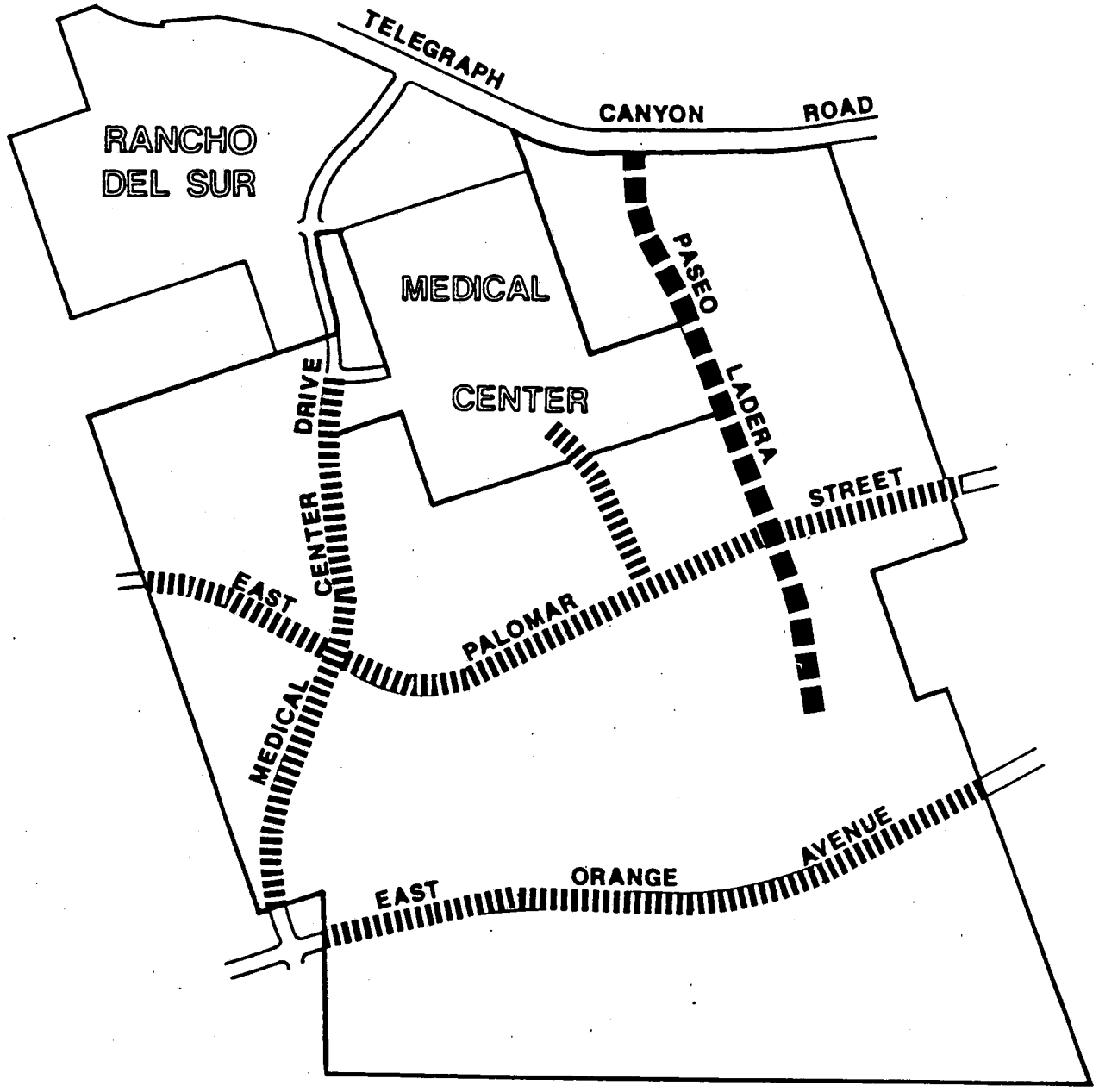
UTILITY PLAN

TELEPHONE

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EXHIBIT 18

REV 10-25-89



LEGEND

3" PE GAS MAIN IN JOINT TRENCH

4" PE GAS MAIN IN JOINT TRENCH

SUNBOW

UTILITY PLAN

GAS

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EXHIBIT 19

Sewer System

Phase II of the **Sunbow Planned Community**, Rancho Del Sur - Phase I, Chula Vista Wood - Units I and II, and three lots from County Parcel Map No. 5944 have the potential to drain into three basins: Telegraph Canyon Basin, Palm Canyon Basin and Poggi Canyon Basin. Exhibit 20 depicts the areas which currently could flow into each basin. Three possible connections are proposed from the **Sunbow Planned Community** to existing City of Chula Vista sewer system. One connection may be deleted upon sewer system design alternative approval. The following discussion will provide details and design considerations for the sewer system alternative to serve each basin.

Telegraph Canyon Basin

The Telegraph Canyon Basin see Exhibit 20 receives sewer flows from the Medical Center within Phase II of the **Sunbow Planned Community**. It will also receive flows from a portion of Phase II of the **Sunbow Planned Community** and from the majority of Rancho Del Sur, Phase I. The **Sunbow Planned Community** contributing area is in the northeast portion of the project north of Palomar Road. Total flow from this portion of the **Sunbow Planned Community** is estimated at 0.68 cfs peak. For that portion of Rancho Del Sur Phase II, peak flows contributing to the Telegraph Canyon Trunk are approximately 0.33 cfs.

The preliminary analysis of capacity in the Telegraph Canyon Trunk Sewer was performed by considering the total ultimate flow in the Telegraph Canyon Basin. Using this total flow, and subtracting the present sewer line capacity, a parallel 12-inch sewer will have to be constructed to accommodate ultimate flows in the basin. The cost for the construction of a parallel sewer shall be divided among the areas contributing to the basin based on the quantity of flow contributed.

The timing of the parallel sewer construction in Telegraph Canyon Road has not been established at this time. The City of Chula Vista has established a metering program on the Telegraph Canyon trunk sewer main. Based on the assessment of present sewer flows in the trunk sewer, it is estimated that a parallel sewer line will need to be constructed prior to the build-out of the Telegraph Sewer Basin. Present sewer capacity in the trunk sewer main would allow for build-out of the **Sunbow Planned Community**, but adjacent development

construction (Eastlake, Salt Creek and Otay Ranch) may ultimately require construction of the parallel sewer main prior to **Sunbow** build-out. It is anticipated that the City of Chula Vista will set a "maximum dwelling unit" break-off point for the construction of the parallel sewer main in conjunction with the current sewer master plan update.

Chula Vista Woods Sewer Pump Station

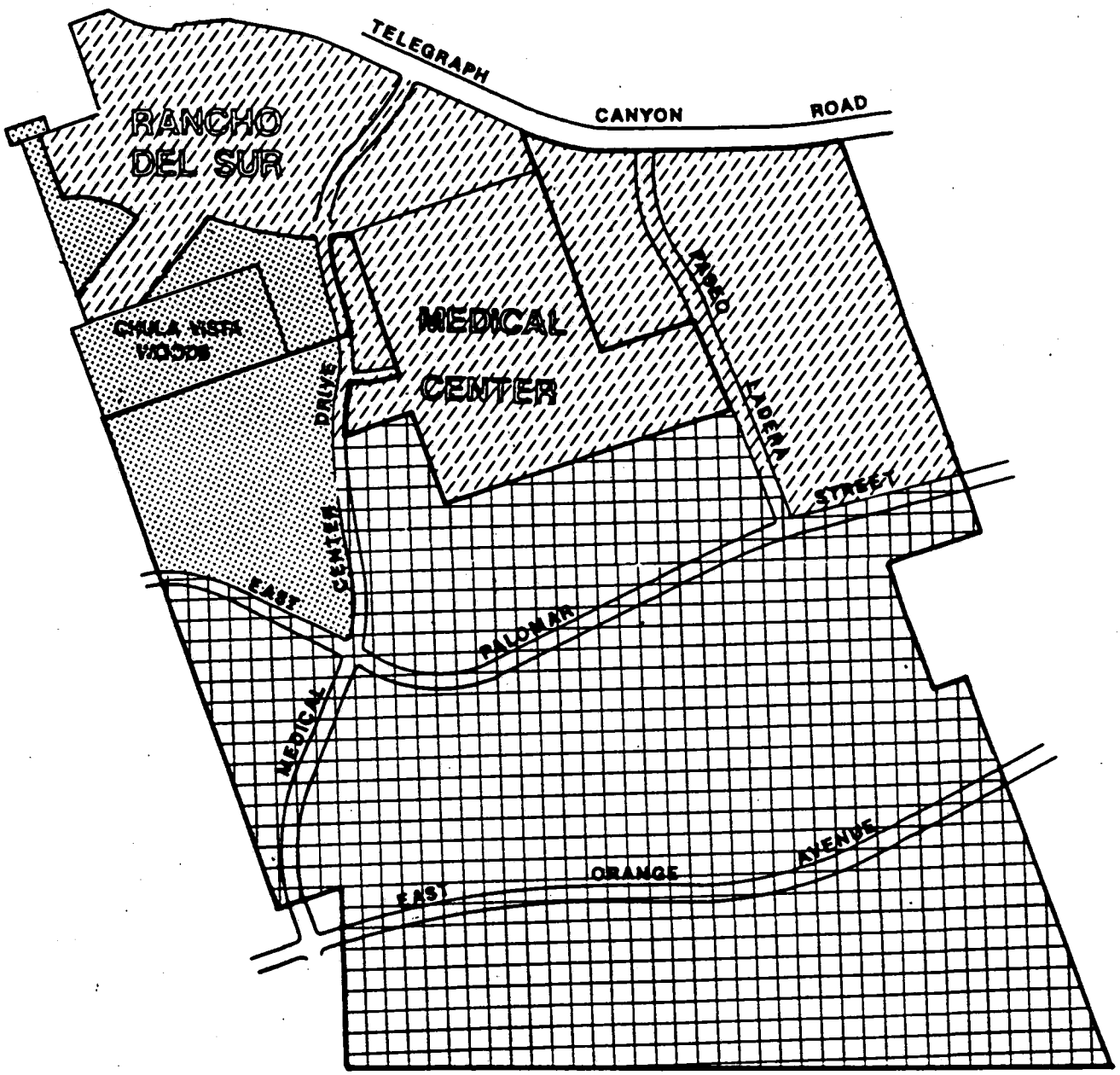
The Chula Vista Woods Sewer Pump Station (Foxhills) is located at the terminus of Foxboro Avenue and discharges into a gravity sewer main located in the intersection of East Naples Street and Foxboro Avenue. The Chula Vista Woods Sewer Pump Station and force main are designed to discharge a maximum of 280 gallons per minute; well over the forty-one (41) gallons per minute currently discharging to the pump station. The lot distribution per development currently being served by the Chula Vista Woods Sewer Pump Station is as follows:

Project	No. of Lots
Chula Vista Tract 87-08 (Rancho Vista Del Sur Phase I)	94
Chula Vista Tract 84-13 (Chula Vista Woods Units I & II)	113
County of San Diego Parcel Map 5944	3
Total Lots	210

Palm Canyon Basin

Palm Canyon Basin, as shown in Exhibit 20 , gravity drains portions of Phase I and Phase II of the **Sunbow Planned Community.** Presently, the Phase I area is designed to flow to the Chula Vista Woods (Foxhills Subdivision) Sewer Pump Station. Under a number of alternatives as Phase II comes on-line, Phase I, the Chula Vista Woods subdivision and three lots of Parcel Map No. 5944 will be served by gravity sewer together with the Phase II area. Sewer flows may be directed to Palomar Road and then flow west and south through the City of Chula Vista to Main Street or in conjunction with an approved alternative design, directed to Orange Avenue and the Poggi Canyon Basin.

City of Chula Vista standards indicate a pipe to be at



SUNBOW

LEGEND

TELEGRAPH CANYON BASIN

PALM CANYON BASIN

POGGI CANYON BASIN

EXISTING GRAVITY DRAINAGE BASINS

bHA, Inc.
land planning, civil engineering, surveying
(619) 298-8861
1615 Murray Canyon Road
Suite 910
San Diego, California 92108
(619) 941-1881
138 Escondido Avenue
Suite 208
Vista, California 92084

EXHIBIT 2

REV 10•25•88

capacity when the pipe is half full (D/d = 0.50) for pipe diameters up to ten (10) inches and three-quarters (D/d = 0.75) for pipe diameters greater than ten (10) inches. Standard industry criteria indicate a pipe to be at capacity when the pipe is approximately eight-tenths full (D/d = -.93). This will become an important consideration when reviewing the proposed alternatives.

An analysis of the existing Palm Canyon Basin sewer system has been completed based on City of Chula Vista standards by Wilson Engineering.

Under existing conditions five (5) reaches of sewer main downstream of the proposed **Sunbow Development** are over capacity by City standards. Standard Industry criteria would require none of the five (5) reaches to be replaced or paralleled at the present time.

Poggi Canyon Basin

Exhibit 20 illustrates that the majority of Phase II of the **Sunbow Planned Community** gravity drains to the Poggi Canyon Basin. The trunk lines within the project site will route sewer flows to Orange Avenue. Flows in Orange Avenue will be carried west in the existing sewer main and then south along Oleander Avenue. Ultimately, the sewer flows will be carried through the City of Chula Vista to the Date-Faivre Trunk Sewer Main, built utilizing funds from Sewer Assessment District No. 42. The majority of the **Sunbow Planned Community** lies within this assessment district.

City of Chula Vista standards indicate a pipe to be at capacity when the pipe is half full (D/d = 0.50) for pipe diameters up to ten (10) inches and three-quarters)D/d = -.75) for pipe diameters greater than ten (10) inches. Standard industry criteria indicated a pipe to be at capacity when the pipe is approximately eight-tenths full (D/d = 0.93).

An analysis of the existing Poggi Canyon Basin sewer system has been completed based on City of Chula Vista and industry standards by Wilson Engineering.

Under existing conditions five (5) reaches of sewer main are over capacity by City standards. Standard industry criteria would not require any of the five (5) reaches to be replaced or paralleled at the present time.

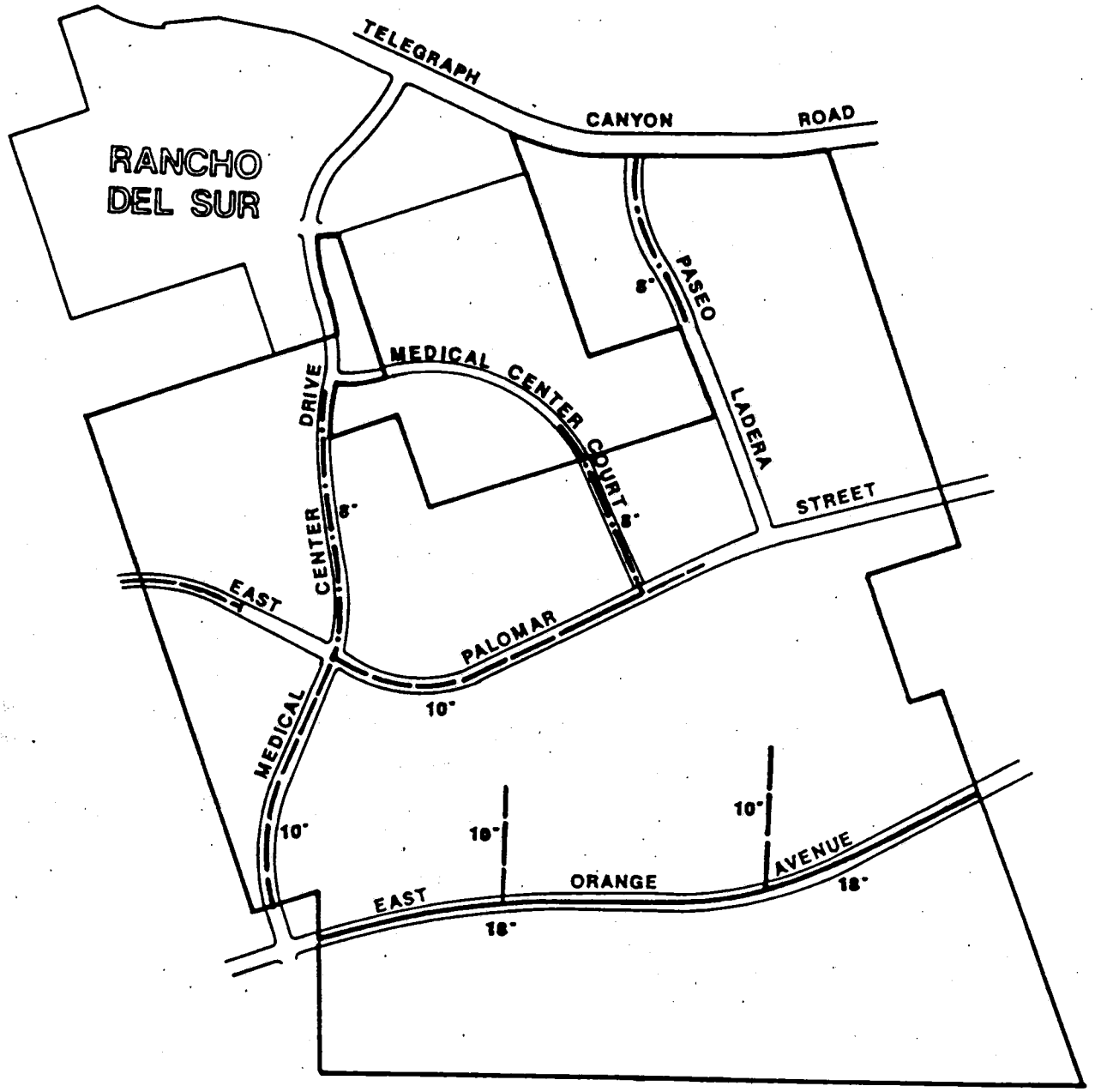
Proposed On-Site Sewer

The proposed On-Site Improvements (See Exhibit 21 & 22) will allow for the removal of the Chula Vista Woods Sewer Pump Station and allow for the discharge of the pump station sewer flows through the **Sunbow Planned Community** to the Poggi Canyon Sewer Basin. In order to accomplish this On-Site Sewer Plan approximately three thousand four hundred (3400) feet of sewer main will be constructed with a depth exceeding fifteen (15) feet. Maximum depth for this proposed section of extra-deep sewer is thirty (30) feet deep, located within a proposed street of the **Sunbow Planned Community.**

Utilizing the extra-deep sewer of this plan will allow all sewer flows from the existing sewer pump station to "gravity flow" to the East Orange Avenue 18-inch sewer main and through the proposed off-site sewer main system.

Off-Site Sewer

The proposed off-site sewer main system will require the installation of up to approximately eight thousand (8000) feet of sewer main in a parallel but off-set alignment from the existing sewer main system as shown in Exhibit 23. This "off-set" parallel alignment would be located adjacent to the existing drainage facilities traversing behind the existing single-family improvements from Oleander Avenue to Otay Valley road. At this point, the proposed sewer main would parallel the existing 15-inch sewer main in Palm Avenue. Of primary concern with this plan will be the acquisition of right-of-way along the back of existing properties where no City of Chula Vista right-of-way exists at this time. Due to the lack of obvious utility conflicts, construction, coordination conflicts and improvement replacements, this plan is the most cost effective.



SUNBOW

ON-SITE SEWER SYSTEM

LEGEND

8" —·—·—·

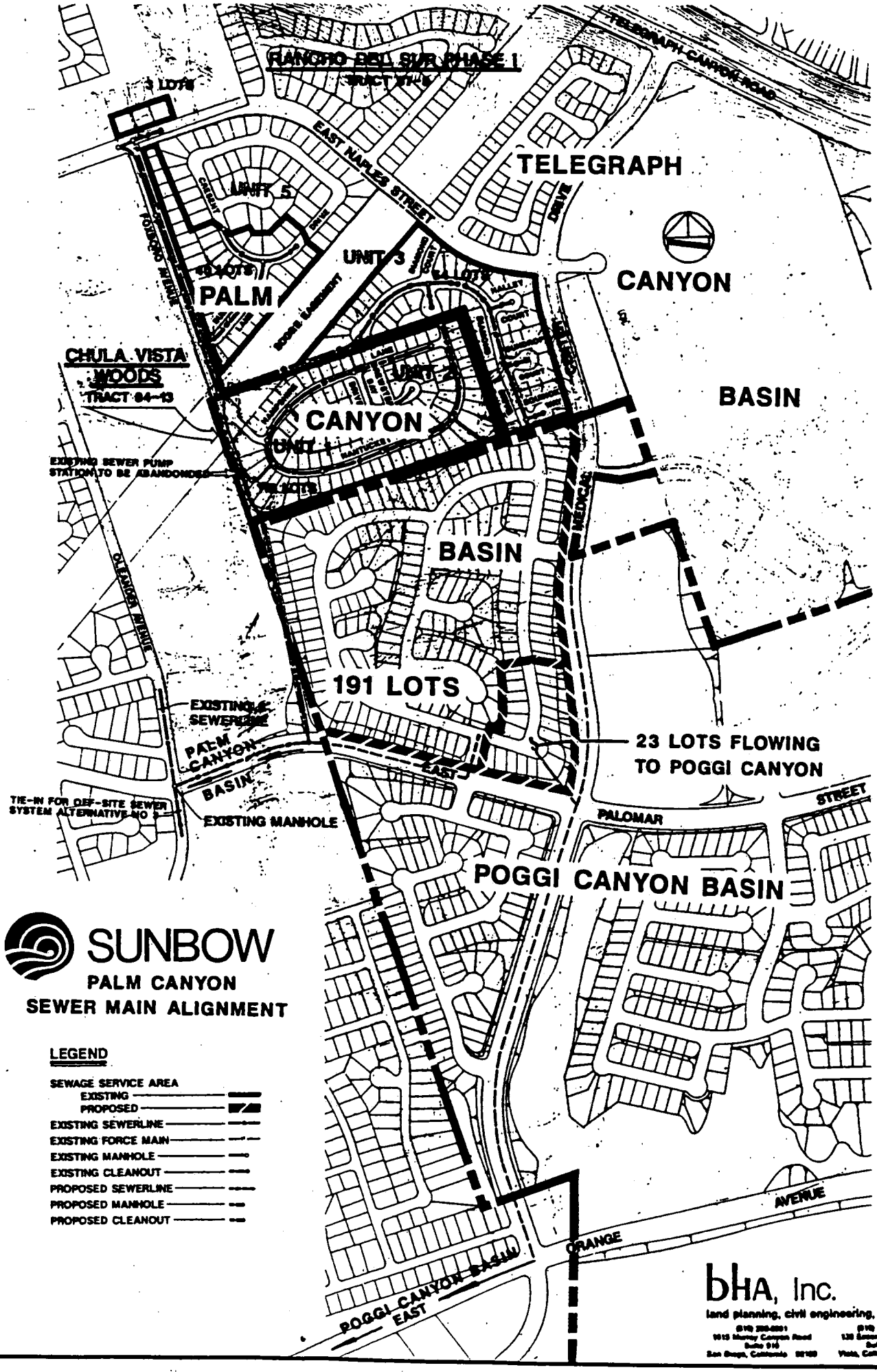
10" — — —

18" ———

bHA, Inc.
land planning, civil engineering, surveying
(619) 298-8861
1515 Murray Canyon Road
Suite 910
San Diego, California 92108
(619) 941-1881
138 Escondido Avenue
Suite 209
Vista, California 92084

EXHIBIT 21

REV 11-29-89



SUNBOW

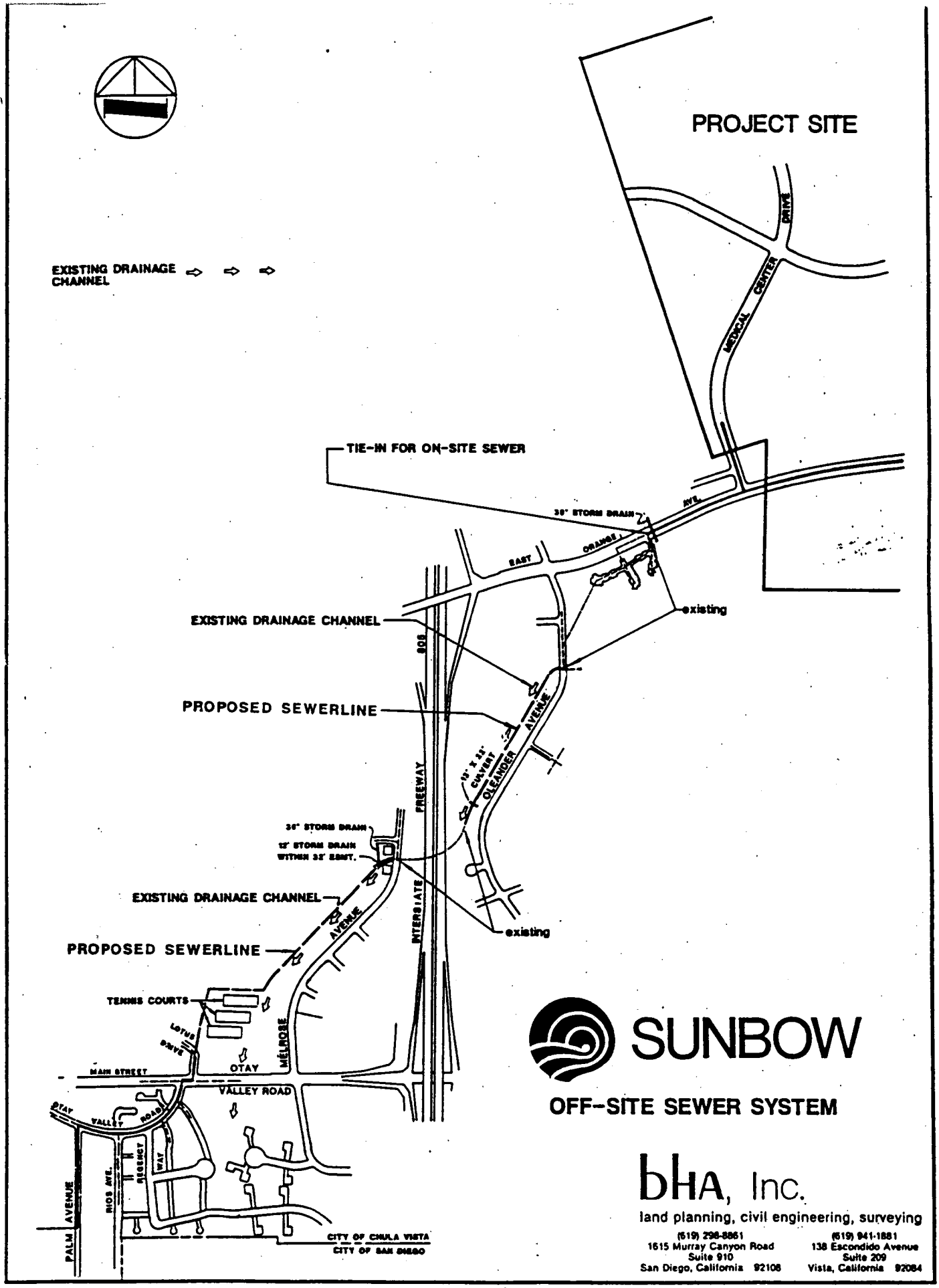
PALM CANYON SEWER MAIN ALIGNMENT

LEGEND

- SEWAGE SERVICE AREA
  - EXISTING
  - PROPOSED
- EXISTING SEWERLINE
- EXISTING FORCE MAIN
- EXISTING MANHOLE
- EXISTING CLEANOUT
- PROPOSED SEWERLINE
- PROPOSED MANHOLE
- PROPOSED CLEANOUT

bHA, Inc.
land planning, civil engineering, surveying
(619) 268-8001
1903 Murray Canyon Road
Suite 210
San Diego, California 92108
(619) 941-1001
120 Escondido Avenue
Suite 209
Vista, California 92084

EXHIBIT 22
(REV 11-29-89)



SUNBOW

OFF-SITE SEWER SYSTEM

bHA, Inc.
land planning, civil engineering, surveying
(619) 298-8861
1615 Murray Canyon Road
Suite 910
San Diego, California 92108
(619) 941-1881
138 Escondido Avenue
Suite 209
Vista, California 92084

EXHIBIT 23

REV 10-25-89

SUNBOW

PUBLIC FACILITIES FINANCING PLAN

Adopted by Chula Vista City Council
on February 20, 1990 by
Resolution No. 15525

PREPARED FOR

CITY OF CHULA VISTA
PLANNING DEPARTMENT

Prepared By:

John McTighe & Associates
&
BHA, Inc.

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CHAPTER 1 - INTRODUCTION

Purpose

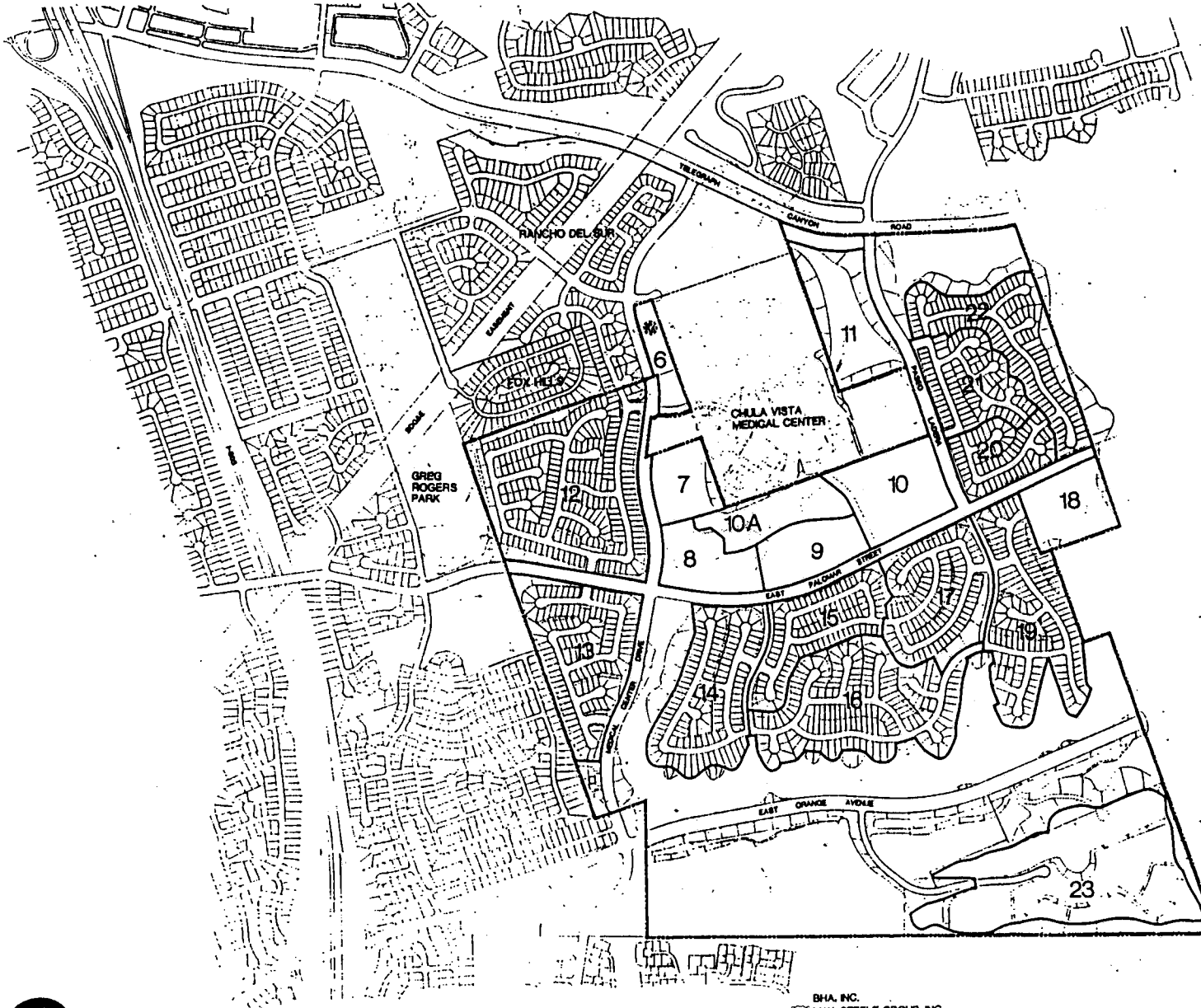
The Sunbow Public Facilities Financing Plan (hereinafter referred to as Finance Plan, Financing Plan, or Plan) is intended to identify all of the public facilities required to support the planned development of the 602 acre Sunbow Project. The "Sunbow Project" is phase 2 of a planned community to be located on the map shown on Exhibit 1, page 2. Phase 1 of the planned community consists of a 108 acre residential neighborhood directly north of the Sunbow Project which contains 485 dwelling units. The Sunbow Project is the subject of a General Development Plan adopted by the Chula Vista City Council on December 5, 1989, as Resolution No. 15427 and is the subject of a sectional planning area plan (SPA Plan) being processed concurrently herewith. The property covered in this Finance Plan is sometimes hereinafter referred to as "SPA," "Sunbow property" or "Sunbow Project." The owner of the property is the Rancho Del Sur Partnership, a California General Partnership, sometimes hereinafter referred to as owner or developer, owner/developer or Rancho Del Sur. The Finance Plan identifies all regional facilities needed to serve this SPA and the SPA's share of the cost to construct those regional improvements. Finally, in identifying the facilities required to serve the Sunbow Project, this document proposes specific financing programs to facilitate the construction of the necessary improvements.

It should be acknowledged that the projected growth shown in the Plan is based upon assumptions made concerning the marketplace. If those factors should change, the owner/developer may propose changes in the timing and sequencing of development of the onsite and offsite improvements effected. In such cases an amendment to this Plan may be processed in the future. Such an amendment can be approved by the City of Chula Vista (City) Planning Director.

Description of Scope

This Financing Plan shall address the public facilities needs related to this Project and the extent of regional public facilities needed to serve this SPA and the SPA's share of the cost to construct those regional improvements. Exhibit I on page 2 shows the location of the Sunbow Project. The SPA Plan is being processed concurrently with this Financing Plan. The SPA Plan is intended to define in more detailed terms the development parameters for the Sunbow Project, including the land use mix, design criteria, primary circulation pattern, open space and recreation concept, and infrastructure requirements. A major purpose of the SPA Plan is to "facilitate adequate provision for community facilities, such as transportation, water, flood control, sewage disposal, schools and parks and provide adequate assurance to the developer that approved development will be allowed in a timely and economically viable manner". This Financing Plan is intended to assist in carrying out this purpose of the SPA Plan.

SITE UTILIZATION PLA



STATISTICAL SUMMARY

PLANNING AREA	LAND USE DISTRICTS	GROSS ACRES	TOTAL UNITS
6	RM	5.7	78
7	RM	10.6	160
10	RC	17.0	206
10A	RC	10.8	214
11	RC	18.3	160
12	RS	60.9	216
13	RS	30.2	112
14	RS	24.6	110
15	RP	19.0	93
16	RS	34.8	148
17	RS	24.9	102
19	RS	28.6	112
20	RS	13.0	67
21	RS	16.0	81
22	RS	24.0	101
SUBTOTAL		328.7	1846
6	VC	11.0	
23	IP	46.0	
18	RS-ELEM. SCHOOL	11.0	
9	OS/COMM. REC.	10.0	
	OPEN SPACE & ROADS	194.3	
GRAND TOTAL		603.0	1846

CANDIDATE CHURCH SITE

RS - RESIDENTIAL SINGLE FAMILY
RP - RESIDENTIAL PLANNED DEVELOPMENT
RM - RESIDENTIAL MULTI-FAMILY
RC - RESIDENTIAL CONDOMINIUM
VC - VILLAGE CENTER
IP - INDUSTRIAL PARK
OS - OPEN SPACE

NOTE:
ALL GROSS ACREAGE NUMBERS FOR EACH PLANNING AREA ARE CALCULATIONS BASED ON THE PLANNING AREA BOUNDARY EXTENDING TO THE CENTERLINE OF THE ADJACENT ROAD

EXHIBIT 1

SUNBOW

BHA, INC.
W. STEELE GROUP, INC.
MACIYAN-DARNELL INC.
RA PLANNING & DESIGN
ESPIE DELORENZO ASSOCIATES

Assumptions

There are a number of assumptions implicit in the preparation of this public facilities document. It is essential that the assumptions and their relationship to this document be understood. These assumptions are as follows:

1. The Sunbow SPA is intended to be developed in phases as noted in the SPA Plan and later in this Financing Plan. The phased development is designed to be consistent with the logical extension of infrastructure and the balancing of grading requirements together with a responsiveness to the marketplace.

2. This Financing Plan is dependent on several other documents. The project specific documents are the Sunbow General Development Plan (GDP), the GDP Environmental Impact Report, and the Sunbow SPA Plan.

   The citywide documents upon which this Plan is based include the Eastern Territories Transportation Phasing Plan, the Transportation Development Impact Fee, and the Public Facilities Development Impact Fee of the City of Chula Vista.

   In addition, several technical studies relating to sewer and water, as an example, have been utilized to define the Public Facilities requirements stated herein. Changes in technical documents would be submitted to the Director of Public Works who has the ability to approve them.

3. It is understood that the financing alternatives specified herein may change due to use of other financing mechanisms such as Mello-Roos or assessment district financing or due to financing programs available in the future or requirements of either state or federal law. It should be noted that costs presented in the report are estimates based upon the best available information and that actual costs may vary from those presented here. Variations should not be deemed a need for City review or an amendment to this Plan.

4. The City adopted by Ordinance No. 2251 a Transportation Development Impact Fee (D.I.F.) to pay for transportation facilities related to development of certain projects in the Eastern Territories of the City. The provisions of the D.I.F. program have been included in this Finance Plan as obligations of the Sunbow Project. The City Council adopted an amendment to the Transportation Development Impact Fee Ordinance on December 12, 1989 that, among other changes, included the Sunbow Project within the defined "area of benefit" and included the major transportation system elements contained in the Sunbow General Development Plan and SPA as projects to be finance from the D.I.F. Some of the costs included in the D.I.F. will need to be updated in the next revision of that fee program.

5. On August 15, 1989 the City Council adopted by Ordinance No. 2320 a Public Facilities Development Impact Fee which is intended to provide the financing for city wide or in some cases Eastern Territories wide non-transportation capital improvements. The provisions of the Public Facilities Development Impact Fee program have been included in this financing plan as obligations of the Sunbow Project. Appropriate developer reimbursements or credits with the City will be entered into in the future.

Phasing of Improvements

It should be noted that the improvements stated herein shall be requirements of subsequent discretionary permits. In most cases, these improvements will become conditions of approval of tentative and final subdivision maps. In other cases building permits will be the vehicle of implementation. Improvements called for in a particular development phase are intended to be completed such that they are usable for their functions prior to occupancy of any dwelling unit within that particular development phase. However, since the phasing depicted herein is illustrative of the intended sequence of the master developer *(at the time of preparation of this financing plan)*, changes in the sequence of development may occur upon approval of the Planning Director. The phases shown on Table 1 are consistent with the phases analyzed in the environmental impact report for the Sunbow General Development Plan and contained in the SPA Plan. However for purposes of the this Public Facilities Financing Plan, phases I and II have both been broken into subphases in order to establish a more reasonable sequencing of public improvements at smaller units of development than called for in the EIR or SPA Plan phasing. Table 1 shows the relationship of the phases to the planning areas depicted on Exhibit 1.

Table 1
Relationship of Phases, Dwelling Units and Planning Areas

Phase	# of Dwelling Units	# of Cumulative Dwelling Units	Planning Areas #
IA	405	405	6, 12 & 13
IB	363	768	7, 8, 9, 14 & 15
IC	667	1,435	10,10a, 16 & 17
IIA	399	1,834	11, 20, 21 & 22
IIB	112	1,946	18 & 19
III	0*	1,946	23

* This phase includes the employment park only.

Park and Recreation improvements must be completed prior to issuance of building permits for Phase IIB. Further specifics relating to development timing and delivery of park and recreation facilities will be subject to conditions set by the City prior to tentative map approval and as further specified in SPA Plan conditions of approval.

The fire station must be completed when there are a total of 1,220 dwelling units occupied in the combined Rancho del Sur (the 108 acre residential community directly to the north and not covered by this Finance Plan) and Sunbow Project covered by this Finance Plan. This should occur during Phase IB.

For the purposes of this section, completion of road improvements will be defined by the Director of Public Works in accordance with the following. It is not the intent to define completion as acceptance by the City Council.

1 Improvement must be substantially completed and usable for its function, or open to public use, whichever first occurs; or

2. Improvement must be subject to an awarded construction contract by a government agency; or

3. Improvement must be committed by an agreement with the City which shall include, but not be limited to, all of the following requirements to the satisfaction of the Director of Public Works:

   a. All discretionary permits must be obtained for construction of the improvement;

   b. Plans for the construction of the improvement must have all necessary governmental approvals;

   c. Adequate funds (i.e. letter of credit, cash deposit, or performance bond) must be available such that the City can construct the improvement if either construction has not commenced within 30 days of issuance of a notice to proceed by the Director of Public Works, or construction is not progressing towards completion in a manner considered reasonable to the Director of Public Works.

4. Notwithstanding anything to the contrary, if the improvement requires right-of-way owned by a third party, the improvement may be considered to be complete, if approved by the Director of Public Works, even if such offsite right-of-way has not been acquired by the City.

Summary of Needs & Financing Options

Table 2, beginning on the following page, is a summary of the Public Facilities needs and recommended financing methods for Sunbow. This summary provides a quick-glance statement of the facility required, the development phase of it's construction, the principal financing mechanism, as well as the total cost for the facility and the responsibility of Sunbow. This is not intended to be all inclusive and one must refer to the text to get a total picture of the public facility requirements and financing alternatives.

Table 2
FACILITIES AND FINANCING METHODS
BY TYPE AND PHASE

No.	Facility	Phase	Principal Financing Mechanism	Total Cost (in FY 1990 $) (if applicable)	Sunbow Responsibility (in FY 1990 $) (if applicable)	Maintenance Financing	Comments
TRANSPORTATION							
1.	Medical Center Drive - construct 4 lane Collector - Medical Center Court to East Palomar Street	IA	Subdivision Exaction	$800,000	$800,000	State Monies/ General Fund/ LLMD	Developer will install a landscaped median.
2.	Medical Center Drive - construct Class I Collector - East Palomar Street to Brandywine Avenue Avenue	IA	Subdivision Exaction	$900,000	$900,000	State Monies/ General Fund	
3.	East Palomar Street - restriping - I-805 to Oleander Avenue	IA	Subdivision Exaction with D.I.F. Credit	$4,000	$4,000	State Monies/ General Fund	
4.	East Palomar - construct 4 lane Major - Oleander Avenue to Medical Center Drive	IA	Subdivision Exaction with D.I.F. Credit	$900,000	$79,489*	State Monies/ General Fund/ LLMD	Revised D.I.F. Project #17
5.	Telegraph Canyon Road - widen to 6 lane Prime Arterial - Oleander Avenue to limit of improvement made by EastLake Phase II, east of Paseo Ladera	IA	Subdivision Exaction with D.I.F. Credit	$742,000	$65,534*	State Monies/ General Fund/ LLMD	Revised D.I.F. Project #3 Improvements on north side only including median between Paseo Del Rey to just west of Paseo Ladera. The remaining section to the east requires widening both sides plus median.

* Sunbow's cost responsibility for D.I.F. projects has been calculated as 8.83% of total D.I.F. project cost based on the number of equivalent dwelling units included in Sunbow compared to the total in the area of benefit. This percentage will be subject to change with changes in cost and number of equivalent dwelling units in subsequent updates of the Transportation Development Impact Fee.

Table 2 (Continued)
FACILITIES AND FINANCING METHODS
BY TYPE AND PHASE

No.	Facility	Phase	Principal Financing Mechanism	Total Cost (in FY 1990 $) (if applicable)	Sunbow Responsibility (in FY 1990 $) (if applicable)	Maintenance Financing	Comments
TRANSPORTATION (cont.)							
6.	Telegraph Canyon Road - widen the north side to provide 4 westbound travel lanes from I-805 northbound on-ramp to a point easterly of Hale-crest	IA	Subdivision Exaction with D.I.F. Credit	$50,000	$4,416*	State Monies/ General Fund	Portion of Revised D.I.F. Project #3a. City is responsible for acquiring any needed right-of-way.
7.	East Orange Avenue - construct 5 lanes of a 6 lane Major - Oleander Avenue to Medical Center Drive	IB	Subdivision Exaction with D.I.F. Credit	$500,000	$44,161*	State Monies/ General Fund/ LLMD	Portion of Revised D.I.F. Project #16
8.	East Orange Avenue - dedicate ROW for 6 lane Prime Arterial Medical Center Drive to east SPA boundary	IB - IIB	Subdivision Exaction	n.a.	n.a.	State Monies/ General Fund	Revised D.I.F. Project #16 ROW to be dedicated in segments at request of City Engineer
9.	East Palomar Street - construct 4 lane Major - Medical Center Drive to limit of Phase IB development	IB	Subdivision Exaction with D.I.F. Credit	$1,000,000	$88,321*	State Monies/ General Fund/ LLMD	Portion of revised D.I.F. Project #17 Includes a traffic signal at East Palomar Street & Medical Center Drive

* Sunbow's cost responsibility for D.I.F. projects has been calculated as 8.83% of total D.I.F. project cost based on the number of equivalent dwelling units included in Sunbow compared to the total in the area of benefit. This percentage will be subject to change with changes in cost and number of equivalent dwelling units in subsequent updates of the Transportation Development Impact Fee.

Table 2 (continued)
FACILITIES AND FINANCING METHODS
BY TYPE AND PHASE

No.	Facility	Phase	Principal Financing Mechanism	Total Cost (in FY 1990 $) (if applicable)	Sunbow Responsibility (in FY 1990 $) (if applicable)	Maintenance Financing	Comments
TRANSPORTATION (cont.)							
10.	East Palomar Street - construct 4 lane Major - from Phase IB development to Paseo Ladera	IC	Subdivision Exaction with D.I.F. Credit	$280,000	$24,730*	State Monies/ General Fund/ LLMD	Portion of revised D.I.F. Project #17
11.	East Palomar Street - construct 4 lane Major - from Paseo Ladera to eastern SPA boundary	IIA	Subdivision Exaction with D.I.F. Credit	$520,000	$45,927*	State Monies/ General Fund/ LLMD	Portion of revised D.I.F. Project #17
12.	Paseo Ladera - construct 4 lane Collector - Telegraph Canyon Road to East Palomar Street	IIA	Subdivision Exaction	$1,000,000	$1,000,000	State Monies/ General Fund	Includes modification of traffic signal at Telegraph Canyon Road & Paseo Ladera. Developer will install a landscaped median.
12A.	Install Traffic Signal at East Palomar Street & Paseo Ladera	IIB	Subdivision Exaction	$100,000	$100,000	State Monies/ General Fund	

* Sunbow's cost responsibility for D.I.F. projects has been calculated as 8.83% of total D.I.F. project cost based on the number of equivalent dwelling units included in Sunbow compared to the total in the area of benefit. This percentage will be subject to change with changes in cost and number of equivalent dwelling units in subsequent updates of the Transportation Development Impact Fee.

Table 2 (continued)
FACILITIES AND FINANCING METHODS
BY TYPE AND PHASE

No.	Facility	Phase	Principal Financing Mechanism	Total Cost (in FY 1990 $) (if applicable)	Sunbow Responsibility (in FY 1990 $) (if applicable)	Maintenance Financing	Comments
TRANSPORTATION (cont.)							
13.	Telegraph Canyon Road & I-805 - Install a traffic signal at southbound ramp and widen the southbound off ramp to accommodate the dual left turn lanes to southbound I-805	IIA	Subdivision Exaction with D.I.F. Credit & Caltrans matching funds	$225,000 (DIF) $225,000 (State)	$19,872*	State Monies/ General Fund	Portion of Revised D.I.F. Project #3a. If proposed improvements are not approved by Caltrans prior to commencement of Phase IIA development, only traffic signal installation will be required. Caltrans is responsible for acquiring needed right-of-way.
14.	East Orange Avenue - improve one-half width of a 6 lane Prime Arterial - from Medical Center Drive to east SPA boundary	III	Subdivision Exaction with D.I.F. Credit	$1,600,000	$141,314*	State Monies/ General Fund	Portion of draft revised D.I.F. Project #18
15.	Telegraph Canyon Road & I-805 - widen south side of Telegraph Canyon Road under the I-805 overcrossing to provide a 3rd eastbound through lane & restripe/ widen the northbound off ramp to provide 2 northbound to eastbound right turn lanes	III	Subdivision Exaction with D.I.F. Credit & Caltrans matching funds	$200,000 (DIF) $200,000 (State)	$17,664*	State Monies/ General Fund	Portion of Revised D.I.F. Project #3a.

* Sunbow's cost responsibility for D.I.F. projects has been calculated as 8.83% of total D.I.F. project cost based on the number of equivalent dwelling units included in Sunbow compared to the total in the area of benefit. This percentage will be subject to change with changes in cost and number of equivalent dwelling units in subsequent updates of the Transportation Development Impact Fee.

Table 2 (continued)
FACILITIES AND FINANCING METHODS
BY TYPE AND PHASE

No.	Facility	Phase	Principal Financing Mechanism	Total Cost (in FY 1990 $) (if applicable)	Sunbow Responsibility (in FY 1990 $) (if applicable)	Maintenance Financing	Comments
POTABLE & RECLAIMED WATER							
16.	Construct water improvements in East Palomar Street from Oleander Avenue to Medical Center Drive and in all of Medical Center Drive.	IA	Subdivision Exaction	$450,000	$450,000	Water User Charges	Water District's credits will be applicable for any oversizing required by district.
17.	Construct on-site potable & reclaimed water improvements in East Palomar Street from Medical Center Drive to east boundary of Phase IB.	IB	Subdivision Exaction	$215,000	$215,000	Water User Charges	Water District's credits will be applicable for any oversizing required by district.
18.	Construct 24 inch potable water main in Telegraph Canyon Road from approximately 500 feet east of property line to Medical Center Drive.	IA	Subdivision Exaction	$200,000	$200,000	Water User Charges	Potential Reimbursement Agreement with Otay Water District
19.	Construct 12 inch high pressure potable water main in Telegraph Canyon Road and Paseo Ladera to 200 feet south of East Palomar Street.	IA	Subdivision Exaction	$115,000	$115,000	Water User Charges	

Table 2 (continued)
FACILITIES AND FINANCING METHODS
BY TYPE AND PHASE

No.	Facility	Phase	Principal Financing Mechanism	Total Cost (in FY 1990 $) (if applicable)	Sunbow Responsibility (in FY 1990 $) (if applicable)	Maintenance Financing	Comments
POTABLE & RECLAIMED WATER (cont.)							
20.	Construct on-site potable & reclaimed water improvements in Paseo Ladera, East Palomar Street from limit of Phase IB to Paseo Ladera and in extension of Medical Center Court.	IIA	Subdivision Exaction	$420,000	$420,000	Water User Charges	Potential Reimbursement Agreement with Otay Water District
21.	Construct on-site potable & reclaimed water improvements in East Palomar from Paseo Ladera to eastern SPA boundary	IIB	Subdivision Exaction	$120,000	$120,000	Water User Charges	
22.	Construct on-site potable & reclaimed water improvements in East Orange Avenue and to the south of East Orange Avenue.	III	Subdivision Exaction	$630,000	$630,000	Water User Charges	Potential Reimbursement Agreement with Otay Water District
23.	Annex 318 acres to Otay Water District's Improvement District #22		Annexation Fees	n.a.	$508,800	Water User Charges	The territory now in ID #10 will not be annexed to ID #22.
SEWER							
24.	Construct on-site deep sewer to Palm Canyon Basin	IA	Subdivision Exaction	$260,000	$260,000	Sewer User Charges	

Table 2 (continued)
FACILITIES AND FINANCING METHODS
BY TYPE AND PHASE

No.	Facility	Phase	Principal Financing Mechanism	Total Cost (in FY 1990 $) (if applicable)	Sunbow Responsibility (in FY 1990 $) (if applicable)	Maintenance Financing	Comments
SEWER (continued)							
25.	Construct off-site sewer to serve Poggi Canyon Basin	IA	Subdivision Exaction with Reimburse-ment Agreement	$1,100,000	$140,000	Sewer Service Fund	
26.	Construct 8" & 10" on-site sewer improvements in Medical Center Drive and in East Palomar Street west of Medical Center Drive	IA	Subdivision Exaction	$100,000	$100,000	Sewer User Charges	
27.	Construct 10" on-site sewer improvements in East Palomar Street from Medical Center Drive to limit of Phase IB development	IB	Subdivision Exaction	$200,000	$200,000	Sewer User Charges	
28.	Construct 8" on-site sewer improvements in Paseo Ladera and in Medical Center Court	IIB	Subdivision Exaction	$200,000	$200,000	Sewer User Charges	
29.	Construct 18" on-site sewer improvements in East Orange Avenue from Medical Center Drive to East SPA boundary	III	Subdivision Exaction with reimbursement agreement	$200,000	$200,000	Sewer User Charges	Reimbursement agreement to be approved for upsizing of line.

Table 2 (continued)
FACILITIES AND FINANCING METHODS
BY TYPE AND PHASE

No.	Facility	Phase	Principal Financing Mechanism	Total Cost (in FY 1990 $) (if applicable)	Sunbow Responsibility (in FY 1990 $) (if applicable)	Maintenance Financing	Comments
STORMWATER							
30.	Construct detention basins in Poggi Canyon	see comment	Subdivision Exaction	$1,000,000	$1,000,000	General Fund/ Open Space Maintenance District	Timing of detention basin construction will be determined as required to accommodate Phase IB & IIB drainage. Excess capacity subject to reimbursement. Possible drainage district to be formed.
PARKS							
31.	Improvements to Greg Rogers Park	IA	Developer Donation	$100,000	$0	General Fund	Improvements will be constructed by developer - Exact improvements to be determined by Parks & Recreation Director from Master Plan
32.	Develop Park and Recreation Complex consisting of: • Passive park and lake • 50 meter Olympic swimming pool • Recreation Center with 18,000 s.f. gymnasium and other uses such as meeting space and child care	IIB	Turnkey Developer Construction with credit against Park Land Dedication and Development Fees and excess contribution from developer of excess value	$5,120,000	$3,015,540	General Fund	Developer is providing excess contribution to the City of the value of the land and improvements in excess of the Parkland Dedication and Development Fee requirements. Developer's responsibility for the cost of the recreation center shall be $2,088,000 in fiscal year 1990 dollars.

Table 2 (continued)
FACILITIES AND FINANCING METHODS
BY TYPE AND PHASE

No.	Facility	Phase	Principal Financing Mechanism	Total Cost (in FY 1990 $) (if applicable)	Sunbow Responsibility (in FY 1990 $) (if applicable)	Maintenance Financing	Comments
FIRE							
33.	Construct 3,600 s.f. fire station	IB	Subdivision Exaction with P.F.D.I.F. Credit	$654,250	$185,760	General Fund	Reimbursement Agreement to be approved Fire station to be completed prior to occupancy of the 735th dwelling unit.
LIBRARY							
34.	Branch Libraries	n.a.	P.F.D.I.F.	$10,112,953	$759,294	General Fund	
OTHER FACILITIES							
35.	Civic Center	n.a.	P.F.D.I.F.	$16,417,345	$1,109,916	General Fund	
36.	Corporation Yard	n.a.	P.F.D.I.F.	$9,604,119	$650,160	General Fund/ Sewer Service Fund	
37.	Fire Training Facility	n.a.	P.F.D.I.F.	$134,779	$9,102	General Fund	
38.	Police Facility Expansion	n.a.	P.F.D.I.F.	$3,934,217	$390,000	General Fund	
39.	Geographic Information System	n.a.	P.F.D.I.F.	$1,902,600	$95,202	General Fund	

Table 2 (continued)
FACILITIES AND FINANCING METHODS
BY TYPE AND PHASE

No.	Facility	Phase	Principal Financing Mechanism	Total Cost (in FY 1990 $) (if applicable)	Sunbow Responsibility (in FY 1990 $) (if applicable)	Maintenance Financing	Comments
SCHOOLS							
40.	Reservation of 10 acre site for elementary school	n.a.	Mello-Roos Community Facilities District	$1,250,000	*	Chula Vista City School District	
41.	Elementary School	IA-IIB	Mello-Roos Community Facilities District	$4,807,000	*	Chula Vista City School District	
42.	Middel School/Junior High School	IA-IIB	Mello-Roos Community Facilities District	$14,783,000	*	Sweetwater Union High School District	
43.	High School	IA-IIB	Mello-Roos Community Facilities District	$30,904,000	*	Sweetwater Union High School District	

* The cost of school facilities will be borne by the Mello-Roos District special taxes. The totals shown for school facilities represent the total cost of land for one elementary school, facilities for one elementary school, land and facilities for one middle school/junior high school, and land and facilities for one complete high school. The number of students actually being generated by Sunbow will only require a portion of these facilities. The school cost estimates were taken from the respective school districts Mello-Roos feasibility studies and are in 1988 dollars.

APPREVIATIONS

D.I.F	=	Development Impact Fee
LLMD	=	Lighting & landscape maintenance district
N/A	=	Not Available
n.a.	=	Not Applicable
PLDO	=	Park Land Dedication Ordinance
P.F.D.I.F.	=	Public Facilities Development Impact Fee
S.E.	=	Subdivision Exaction

CHAPTER 2
PUBLIC FACILITY REQUIREMENTS, FINANCING AND MAINTENANCE

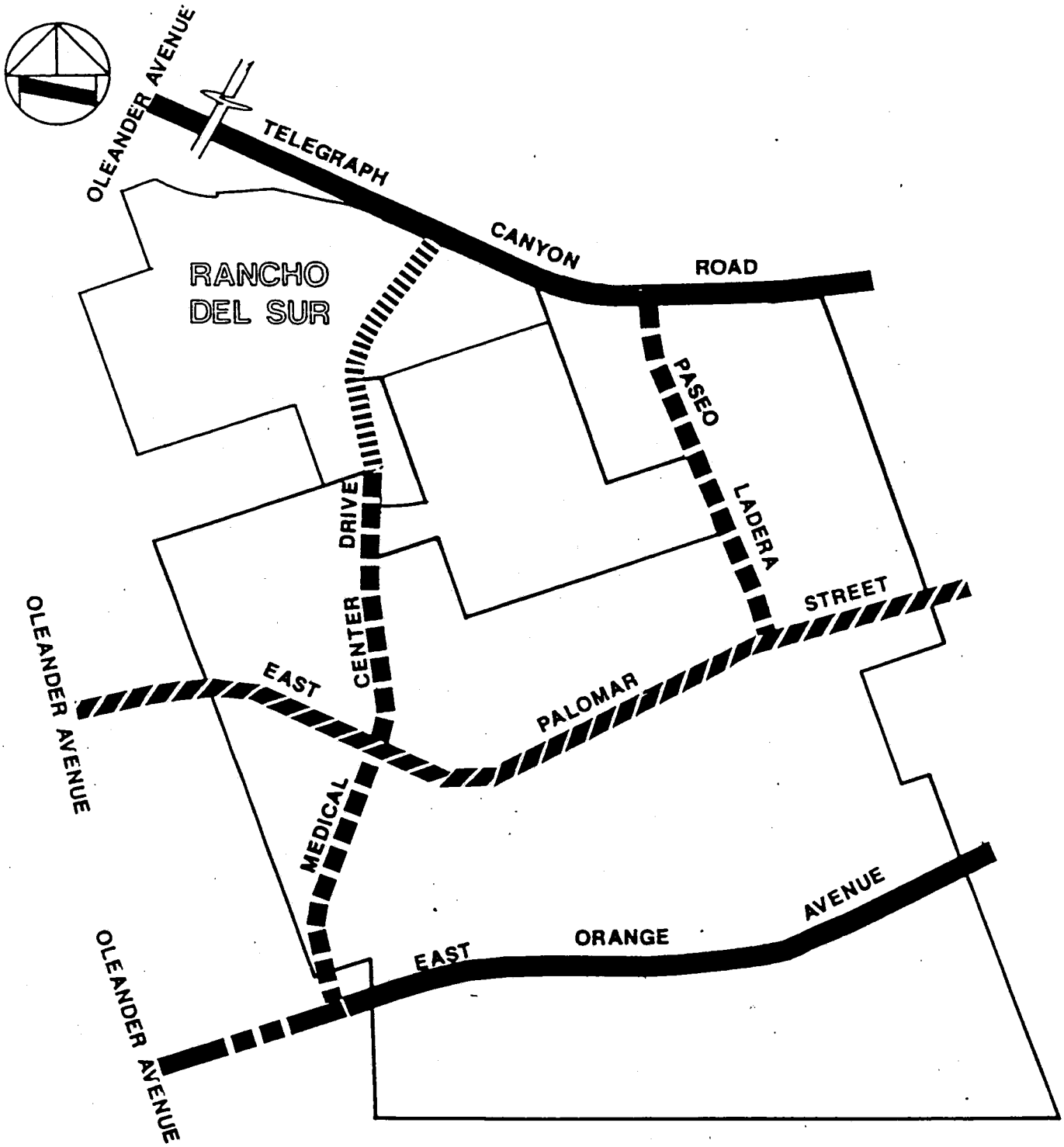
This chapter describes the public facilities required to support the development of the Sunbow Project and further describes the financing mechanisms that will be used to construct and maintain the public improvements. City and Sunbow shall cooperate to obtain in a timely fashion all appropriate or necessary approvals from other governmental agencies and/or third parties for the development of the public facilities called for in this Finance Plan and all appropriate or necessary easements, rights-of-way and leases for such public facilities or construction of such public facilities by negotiation, or if necessary, condemnation.

Transportation Systems

The Sunbow Project includes a combination of on-site roadways designed to exclusively serve project traffic and several circulation element roadways which are designed to serve regional traffic. The following discussion will summarize the requirements for those roadways that are of a Class I collector or greater classification. On-site improvements will be constructed and paid for by the developer through subdivision exactions tied to specific maps phased with the development of the SPA and consistent with the foregoing Table 2. The proposed phasing of these on-site roads has been determined based on the traffic analysis for the Sunbow Project prepared by Willdan Associates in May 1989 as part of the Environmental Impact Report for the General Development Plan. Exhibit 2 shows the circulation system for the Sunbow Project. Exhibit 3 shows the phasing of the transportation projects in accordance with recommendations of the traffic analysis and the phasing contained in the SPA Plan and the phasing contained in this Plan.

The City of Chula Vista has adopted an Transportation Development Impact Fee by Ordinance No. 2251 which is related to development of certain projects in the Eastern Territories of the City. The intent of the fee program is to collect sufficient funds to pay for the buildout of the circulation element roads in the Eastern Territories. The ordinance was amended by City Council on December 12, 1989 to expand the area of benefit to include the Sunbow Project as well as include the major transportation system elements contained in the Sunbow General Development Plan and SPA including, projects #4, 5, 6, 7, 8, 9, 10, 11, 13, 14 & 15 included in Table 2. The Development Impact Fee has been calculated sufficient to fund all roads of a 4 lane major or greater capacity contained within the area east of Interstate 805.

Section 4 of Ordinance No. 2251 contains a method for consideration of credit and/or reimbursement for construction of facilities included within the Development Impact Fee program. That section will be applicable to those roads contained within the DIF for which Sunbow will be required to construct in conjunction with this plan.



LEGEND

- SIX-LANE PRIME ARTERIAL
- SIX-LANE MAJOR STREET
- FOUR-LANE MAJOR STREET
- CLASS I COLLECTOR STREET
- CLASS III COLLECTOR STREET
- EXISTING CLASS I COLLECTOR STREET

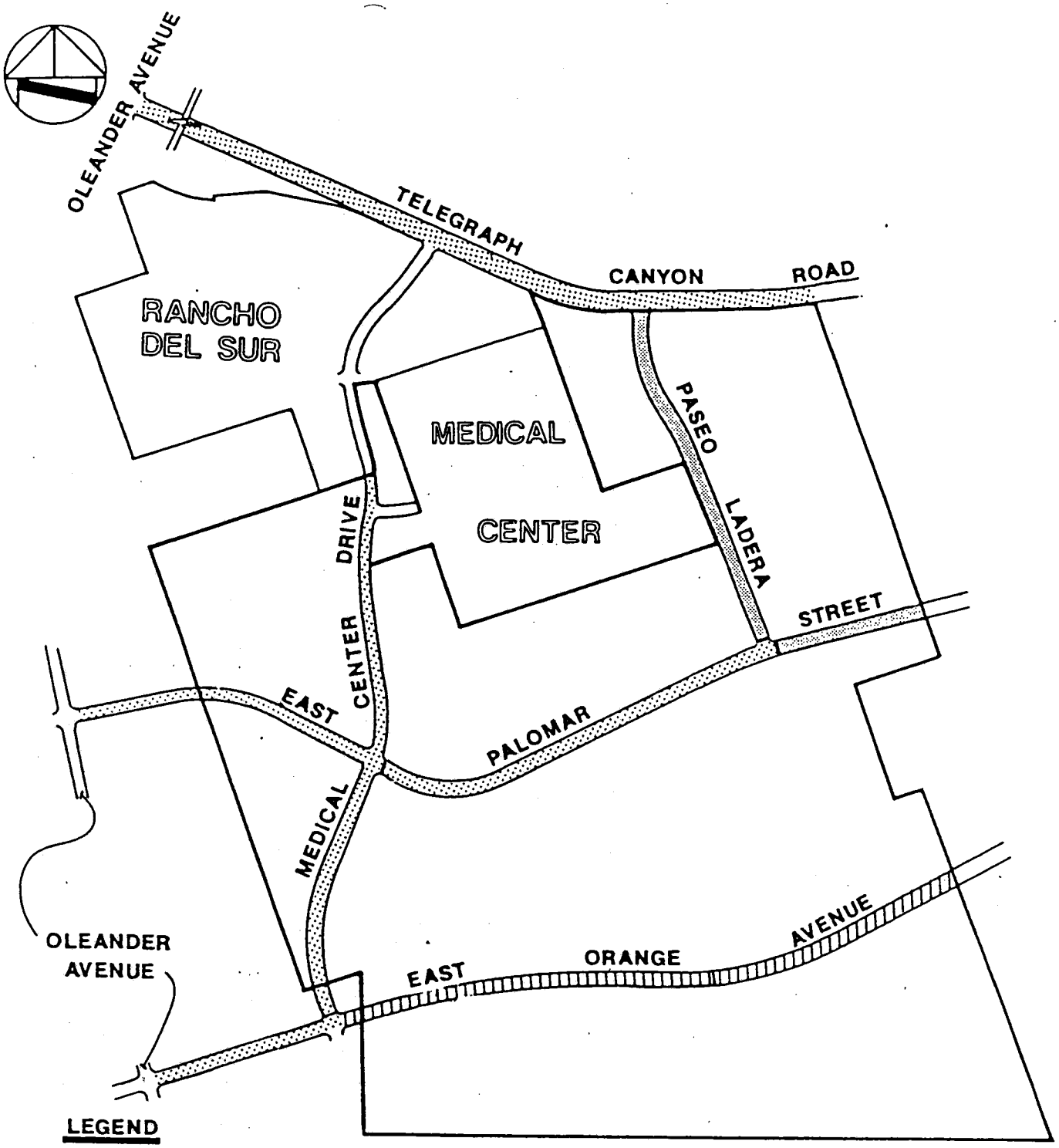
SUNBOW

CIRCULATION
EXHIBIT 2

bHA, Inc.
land planning, civil engineering, surveying

(619) 298-8861
1615 Murray Canyon Road
Suite 910
San Diego, California 92108

(619) 941-1881
138 Escondido Avenue
Suite 209
Vista, California 92084



SUNBOW

MAJOR CIRCULATION PHASING

EXHIBIT 3

bHA, Inc.
land planning, civil engineering, surveying
(619) 298-8861
1615 Murray Canyon Road
Suite 910
San Diego, California 92108
(619) 941-1881
138 Escondido Avenue
Suite 209
Vista, California 92084

There are five roads of a Class I Collector or higher classification included within or adjacent to the Sunbow SPA for which Sunbow will be required to make improvements. These roads are Medical Center Drive, East Palomar Street, East Orange Avenue, Telegraph Canyon Road and Paseo Ladera. The required improvements to each of these roads is discussed below.

The City acknowledges and agrees that some of the improvements required include obtaining and improving right-of-way currently owned by third parties. City shall cooperate with Sunbow in connection with obtaining any necessary easements, rights-of-way and/or leases for right-of-way and/or the acquisition thereof.

Medical Center Drive is designated as a north/south Class I four lane Collector running from Telegraph Canyon Road to East Orange Avenue at which point it connects with Brandywine Avenue to the south. Currently Medical Center Drive exists from Telegraph Canyon Road to Medical Center Court. The development of the Sunbow Project will require the construction of this four lane road from its current terminus to East Orange Avenue where it intersects with Brandywine Avenue. The improvement to this roadway will be made in two increments within Phase IA of the Sunbow SPA Development. The increment from its current terminus to East Palomar Street will be constructed to four lane Collector standards, while the increment from East Palomar Street to East Orange Avenue will constructed to four lane Class I Collector standards.

East Palomar Street is a four lane Major road which runs in an east/west direction from the existing improvement at Oleander Avenue to the eastern boundary of the Sunbow SPA. This roadway will be improved in four increments consistent with the development scheduled for the Sunbow SPA. The first increment of improvement will be from the existing improvement at Oleander Avenue to Medical Center Drive and will be completed prior to issuance of an occupancy permit for Phase IA. This will also include the restriping of East Palomar Street from I-805 to Oleander Avenue. The second increment of East Palomar Street will be constructed from Medical Center Drive to the limit of the Phase IB development in Sunbow prior to issuance of an occupancy permit for Phase IB. The third increment will be constructed from the Phase IB development to Paseo Ladera prior to the issuance of an occupancy permit for Phase IC. The final increment of development of East Palomar Street from Paseo Ladera to the East SPA boundary will take place prior to the issuance of an occupancy permit for Phase IIA.

Improvements to East Orange Avenue will be constructed in two segments. The first increment will improve East Orange Avenue to five southerly lanes of a six Major from Oleander Avenue to Medical Center Drive. This would take place prior to issuance

of an occupancy permit for the Phase IA development of Sunbow. Although additional eastward improvements may be made in East Orange Avenue as necessitated by the extension of utilities, the next required improvement to East Orange Avenue will take place prior to occupancy of the industrial park at Phase III of the SPA's buildout, prior to which Sunbow will be required to improve one-half width of the six lane prime arterial from Medical Center Drive to the eastern SPA boundary of Sunbow. Sunbow may oversize facilities to accommodate adjacent development. Subject to approval of the Director of Public Works, the City will participate in entering into a reimbursement agreement to provide Sunbow with appropriate reimbursement. In addition the entire width of right-of-way required for the six lane major road would be dedicated to the City.

Telegraph Canyon Road is included in the existing Transportation Development Impact Fee program for improvements from Oleander Avenue to the end of the six lane improvements currently under construction east of Paseo Ladera. However the development of Sunbow will necessitate these improvements be constructed during the project's development. Phase IA development of Sunbow will require the widening of Telegraph Canyon Road to a full six lane prime arterial from Oleander Avenue to the existing six lane improvement east of Paseo Ladera. Such widening shall take place prior to issuance of an occupancy permit for Phase IA.

Paseo Ladera will be constructed to a four lane major standard from Telegraph Canyon Road south to East Palomar Street prior to issuance of an occupancy permit for Phase IIA of Sunbow.

In addition to the specific roadway improvements discussed above, Sunbow will contribute through the Development Impact Fee (D.I.F.) for improvements to be made at East Orange Avenue and Interstate 805 interchange, Telegraph Canyon Road/"L" Street and Interstate 805 interchange, and East Palomar Street & Interstate 805. As stated above, Sunbow will receive credit for amounts due to the DIF for improvements it provides included in the DIF program.

Sunbow will contribute to the traffic signal fund from which the City will derive the revenues necessary to construct traffic signals as needed in the Sunbow Community. Sunbow will be required to include conduit for traffic signal cable in its roadway system at the time of construction of roadways to facilitate the City's construction of traffic signals at a later date.

Potable Water

The Sunbow Project lies within the jurisdiction of the Otay Water District. Portions of the project are currently within Otay's Improvement District #22. All of the project is within the recently formed Improvement District #27. Those portions of

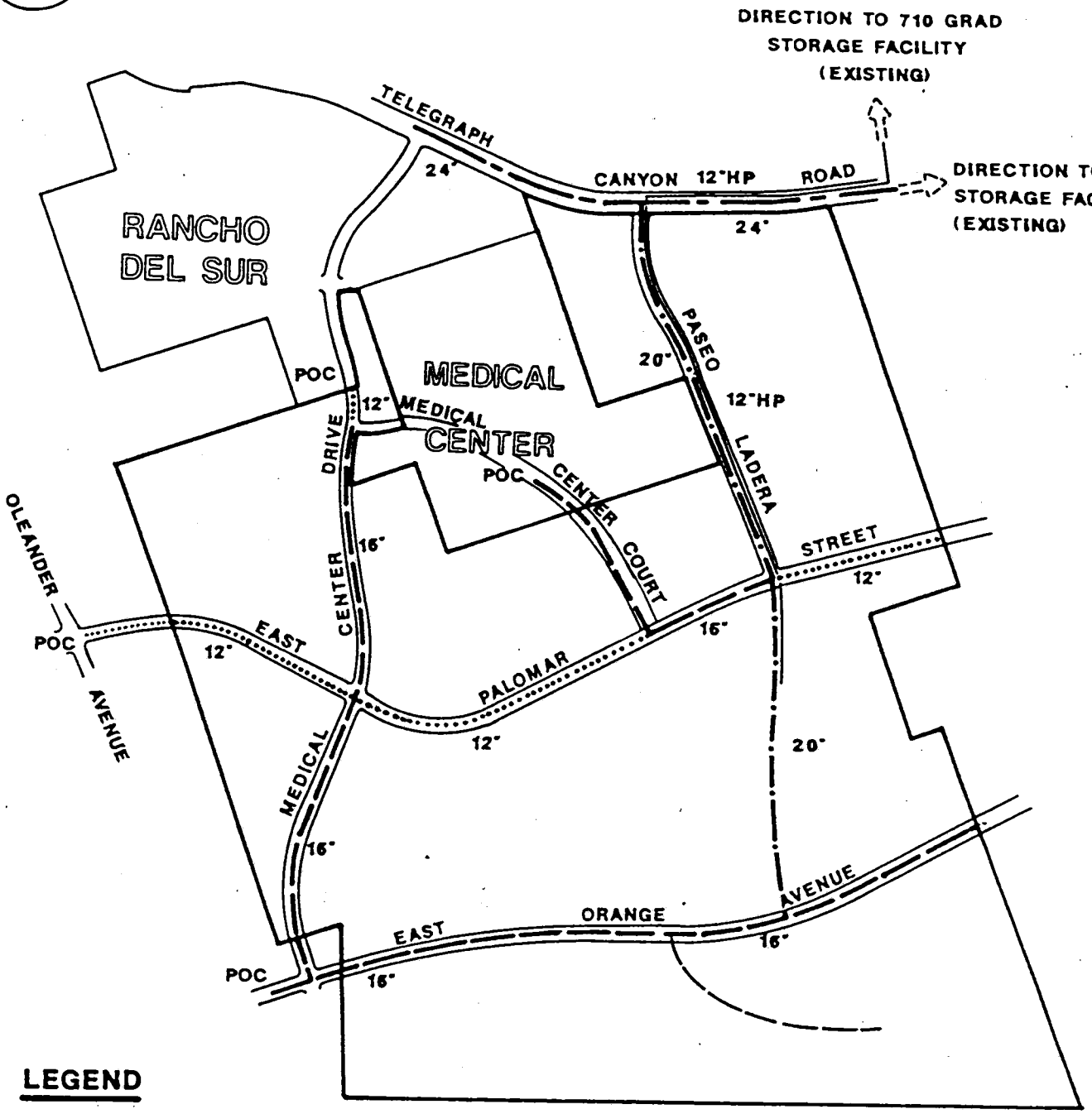
the SPA area not currently within ID #22 will be annexed to ID #22 in the future. As of the date of the preparation of this Plan, it is anticipated that 318 acres of the Sunbow SPA area will be annexed to Improvement District #22 in approximately December 1990. Based upon the Otay Water District's current ordinance, Sunbow will pay fees to the Otay Water District for annexation to Improvement District #22 equivalent to $508,800 upon annexation of this property. These funds will be used to expand the district's water transmission and storage capabilities.

The formation of Improvement District #27 was for the principal purpose of funding the construction of future reservoir facilities to serve the central area of the Otay Water District. In addition to Sunbow the central area includes Rancho del Rey and EastLake. Otay Water District and/or Sunbow or other developers of projects in the Otay Water District will construct 54 million gallons of additional terminal reservoir storage. The proceeds of bonds and other financing available to Improvement District #27 may be used for such terminal reservoir storage or other water facilities to serve the ID #27 properties. Water stored in this facility or other Otay Water District facilities will provide the supply to the Sunbow Project.

The water lines included within the Sunbow Project are shown on Exhibit 4 on the following page. These lines include both potable water lines for domestic consumption and reclaimed water lines for use in irrigation. The major potable water supply line for the Sunbow Project will be a 24 inch line in Telegraph Canyon Road. This line will be extended from approximately 500 feet east of the Sunbow eastern boundary to Medical Center Drive in Phase IC. A 20 inch line is connected from the 24" Telegraph Canyon Road line and will run south down Paseo Ladera to East Palomar Street and through the tract to a connection at East Orange Avenue. Construction of all water lines within the Sunbow Project will be financed by the developer as a part of the improvements made to the property. However, reimbursement may be available from Otay Water District for portions of these costs expended by Sunbow for oversized water lines.

Reclaimed Water

A reclaimed water system will be constructed within Sunbow in accordance with the master plan now being developed by the Otay Water District. This system will be drawn from a sixteen inch water line to be constructed in Telegraph Canyon Road. Reclaimed waterlines will be constructed from Telegraph Canyon Road down Medical Center Drive and Paseo Ladera. Reclaimed waterlines will be constructed in East Palomar Drive and East Orange Avenue. Exhibit 5 shows the location and size of the reclaimed waterline. The cost estimates for these lines has been included in the overall cost estimate for the water system shown on Table 2 and in each of the phasing tables contained in Chapter 3 of this plan. In addition to the major supply lines shown in this plan, reclaimed waterlines will be provided within



LEGEND

12"(624 GRAD) .....

16"(624 GRAD) ———

20"(624 GRAD) ——·——

24"(624 GRAD) ——··——

12" HP(710 GRAD) ———

SUNBOW

WATER SYSTEM PLAN

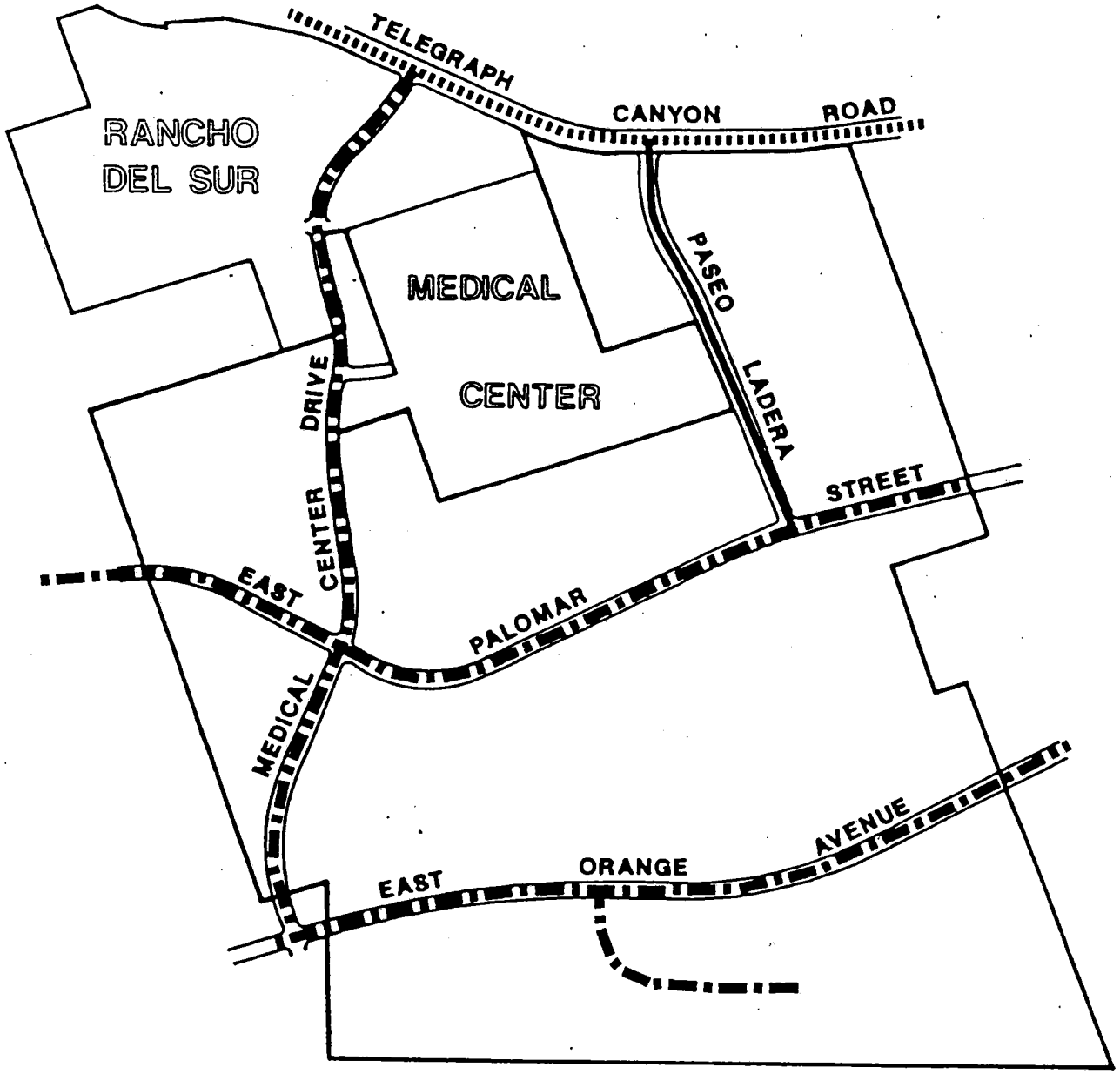
EXHIBIT 4

bHA, Inc.

land planning, civil engineering, surveyin

(619) 298-8861
1615 Murray Canyon Road
Suite 910
San Diego, California 92108

(619) 941-1841
138 Escondido Avenue
Suite 209
Vista, California 920



LEGEND

12" ——————

16" — — — —

16" ▪▪▪▪▪▪▪▪▪▪▪▪▪ (EXISTING)

SUNBOW

RECLAIMED WATER SYSTEM

EXHIBIT 5

bHA, Inc.

land planning, civil engineering, surveying

(619) 298-8861
1615 Murray Canyon Road
Suite 910
San Diego, California 92108

(619) 941-1881
138 Escondido Avenue
Suite 209
Vista, California 92084

the local residential streets and surrounding areas in conformance with the requirements of the Otay Water District.

Sewer

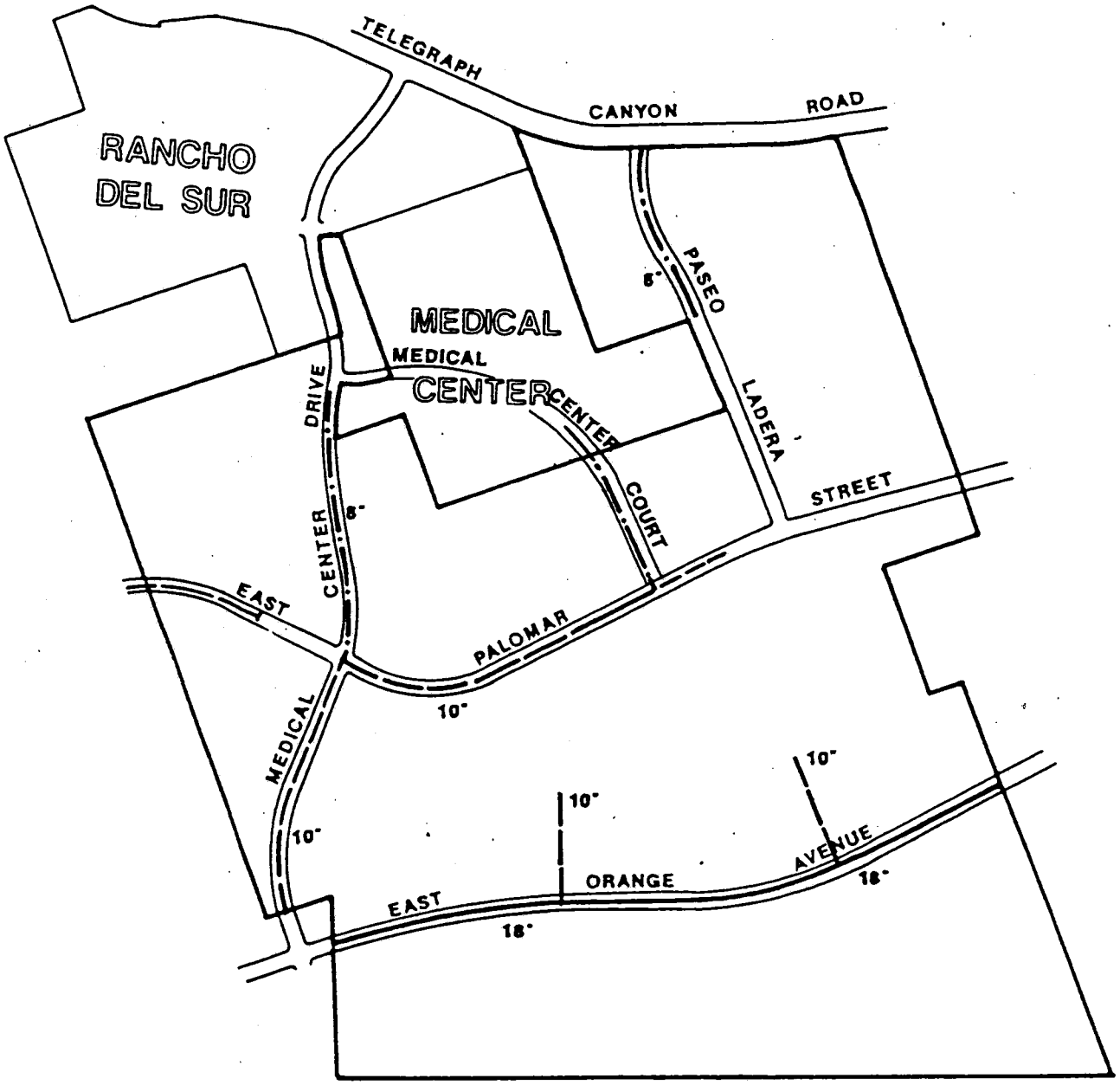
The Sunbow Project currently lies within three sanitary sewer basins. These are the Telegraph Canyon Basin, the Palm Canyon Basin and the Poggi Canyon Basin in which the majority of the Sunbow project is included. A study of sewer alternatives has been conducted by BHA, Inc. in association with Wilson Engineering. The studies have been reviewed by City Engineering staff, and a design proposal is pending approval by the City Engineer.

The proposed design for the Palm Canyon Basin (see Exhibit 7) will provide for the removal of the Chula Vista Woods Sewer Pump Station and for the discharge of the pump station sewer flow through a proposed dedicated sewer and storm drain easement to East Palomar Street and into the Palm Canyon Basin. This proposed sewer will require 600 feet of the proposed sewer main to be constructed at a maximum depth of 30 feet. As part of the Palm Canyon design, 191 lots of Planning Area 12 will gravity flow to the Palm Canyon Sewer Basin.

The Poggi Canyon sewer design will require the installation of approximately 8,000 feet of new sewer main in a parallel, but offset, alignment from the existing sewer main system as shown in Exhibit 8. This offset parallel alignment will be located adjacent to the existing drainage facilities traversing behind the existing single family improvements from Oleander Avenue to Otay Valley Road. At this point, the proposed sewer main will parallel the existing main in Otay Valley Road to Palm Avenue and south along Palm Avenue to a point of connection with the existing 15" sewer main in Palm Avenue.

An additional cost of approximately $160,000 would be incurred beyond that necessary to serve only the Sunbow project to accomplish the proposed Palm Canyon sewer design. To accomplish the Poggi Canyon sewer program, the design requires considerable offsite improvements in addition to what would be needed to convey only those flows that would naturally flow from the Sunbow Project. The estimated cost of the offsite sewer improvements is $1,100,000. All upgraded sewer main will provide capacity for the estimated "ultimate buildout" of the Poggi Canyon sewer basin and the flow, as diverted, from the Palm Canyon basin. Those portions of the existing Poggi Canyon sewer main not requiring upgrading with the development of the Sunbow project will remain in place.

Since the Sunbow Project will utilize only a portion of the capacity in the upgraded portions of the Poggi Canyon Basin line it would be appropriate that a sewer reimbursement agreement be entered into for the upgraded portions of the Poggi Canyon basin sewer improvements. This agreement will



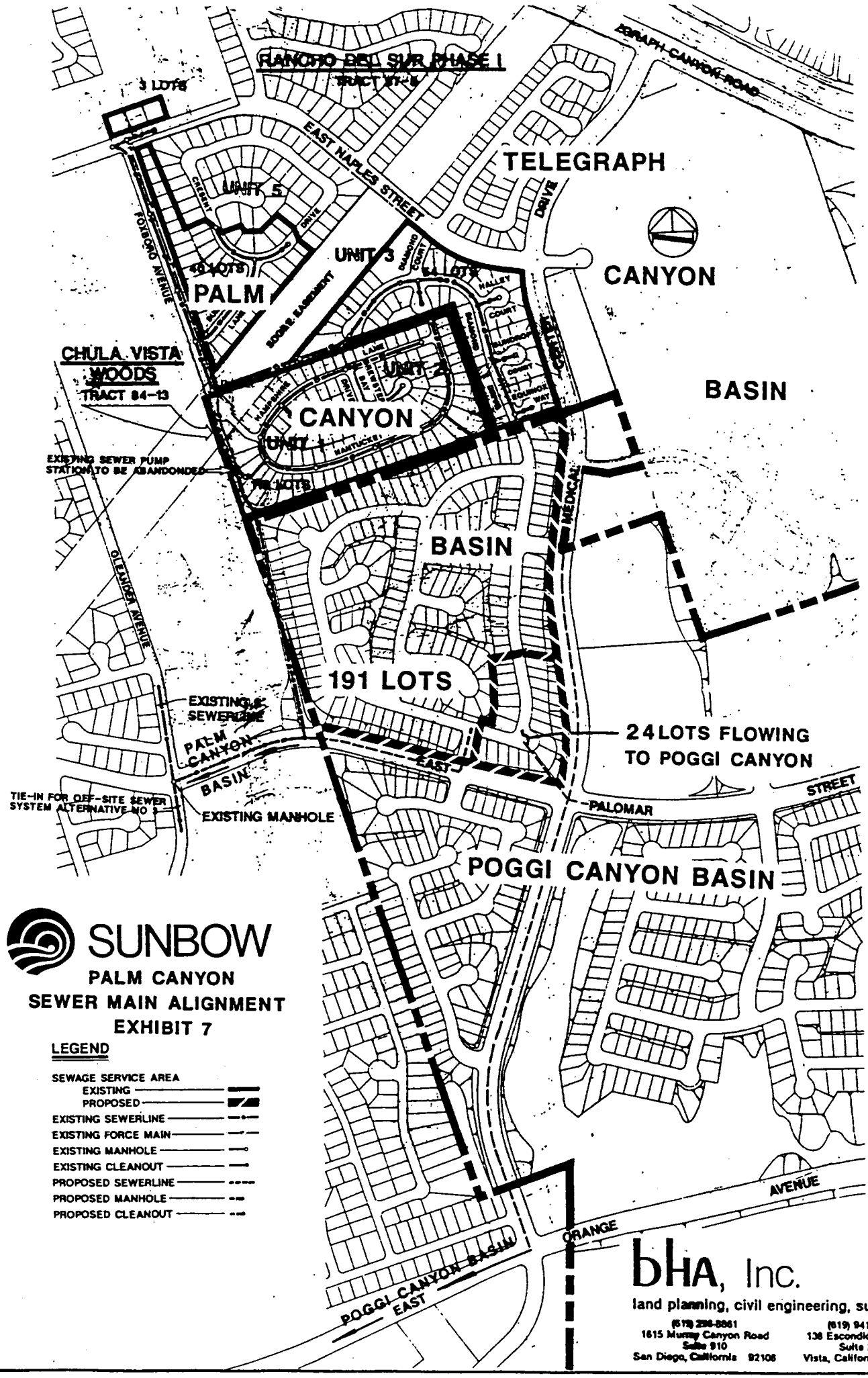
SUNBOW

ON-SITE SEWER SYSTEM
EXHIBIT 6

LEGEND

8" —·—·—·
10" — — — —
18" ————

bHA, Inc.
land planning, civil engineering, su[illegible]g
(619) 298-8861
1515 Murray Canyon Road
Suite 910
San Diego, California 92108
(619) 941-1881
138 Escondido Avenue
Suite 209
Vista, California 92084



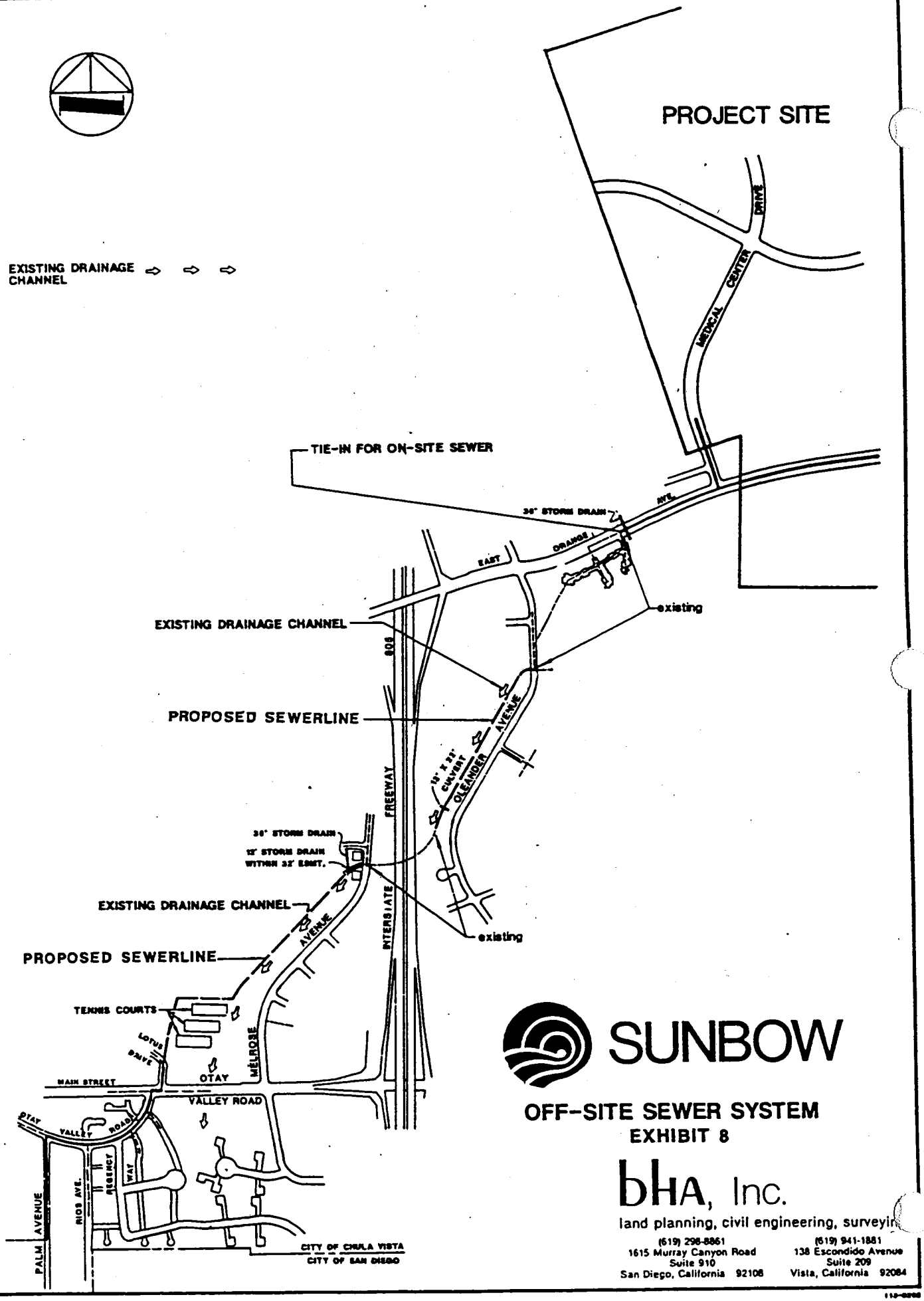
SUNBOW

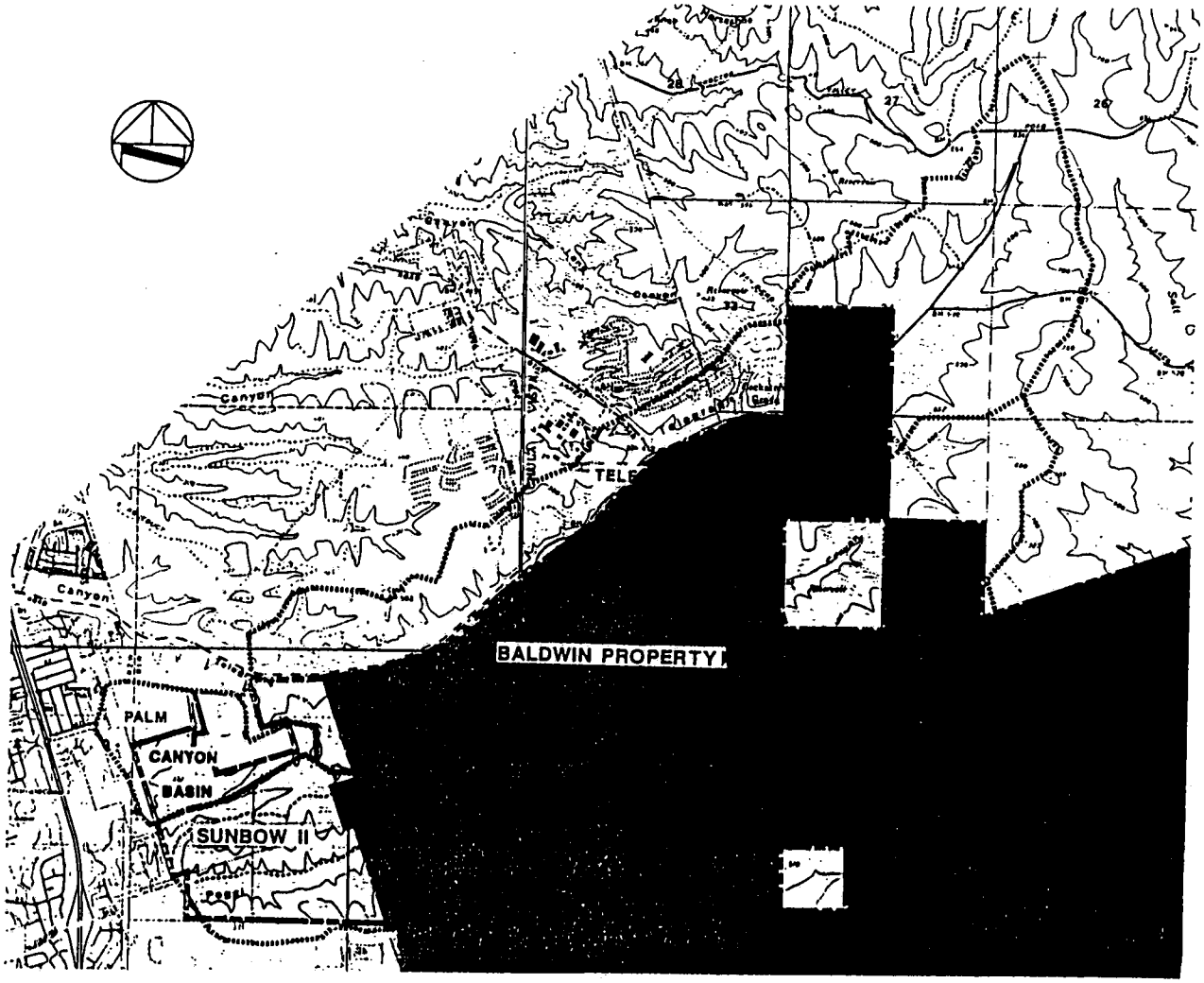
PALM CANYON SEWER MAIN ALIGNMENT EXHIBIT 7

LEGEND

- SEWAGE SERVICE AREA
  - EXISTING
  - PROPOSED
- EXISTING SEWERLINE
- EXISTING FORCE MAIN
- EXISTING MANHOLE
- EXISTING CLEANOUT
- PROPOSED SEWERLINE
- PROPOSED MANHOLE
- PROPOSED CLEANOUT

bHA, Inc.
land planning, civil engineering, surveying
(619) 298-8861
1615 Murray Canyon Road
Suite 910
San Diego, California 92108
(619) 941-1881
138 Escondido Avenue
Suite 209
Vista, California 92084


PROJECT SITE
EXISTING DRAINAGE CHANNEL
TIE-IN FOR ON-SITE SEWER
36" STORM DRAIN
EAST
existing
EXISTING DRAINAGE CHANNEL
PROPOSED SEWERLINE
FREEWAY
OLEANDER AVENUE
36" STORM DRAIN
12" STORM DRAIN WITHIN 25' EAST.
EXISTING DRAINAGE CHANNEL
PROPOSED SEWERLINE
AVENUE
INTERSTATE
existing
TENNIS COURTS
LOTUS
OTAY
MELROSE
MAIN STREET
VALLEY ROAD
OTAY VALLEY ROAD
PALM AVENUE
RIOS AVE.
REGENCY WAY
CITY OF CHULA VISTA
CITY OF SAN DIEGO
SUNBOW
OFF-SITE SEWER SYSTEM
EXHIBIT 8
bHA, Inc.
land planning, civil engineering, surveyi
(619) 298-8861
1615 Murray Canyon Road
Suite 910
San Diego, California 92108
(619) 941-1881
138 Escondido Avenue
Suite 209
Vista, California 92084



LEGEND

PROPERTY/LINE ▬ ▬ ▬

BASIN BOUNDARY ▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪▪

SUNBOW

STORM WATER DRAINAGE BASINS

EXHIBIT 9

bHA, Inc.
land planning, civil engineering, surveying
(619) 298-8661
1615 Murray Canyon Road
Suite 910
San Diego, California 92108
(619) 941-1581
136 Escondido Avenue
Suite 209
Vista, California 92084

provide for "fair share" reimbursement to the developer of Sunbow from proceeds of fees collected at the time of future connections to the sewer system. The details of such an agreement would be worked out between the developer and the City Engineer.

Stormwater System

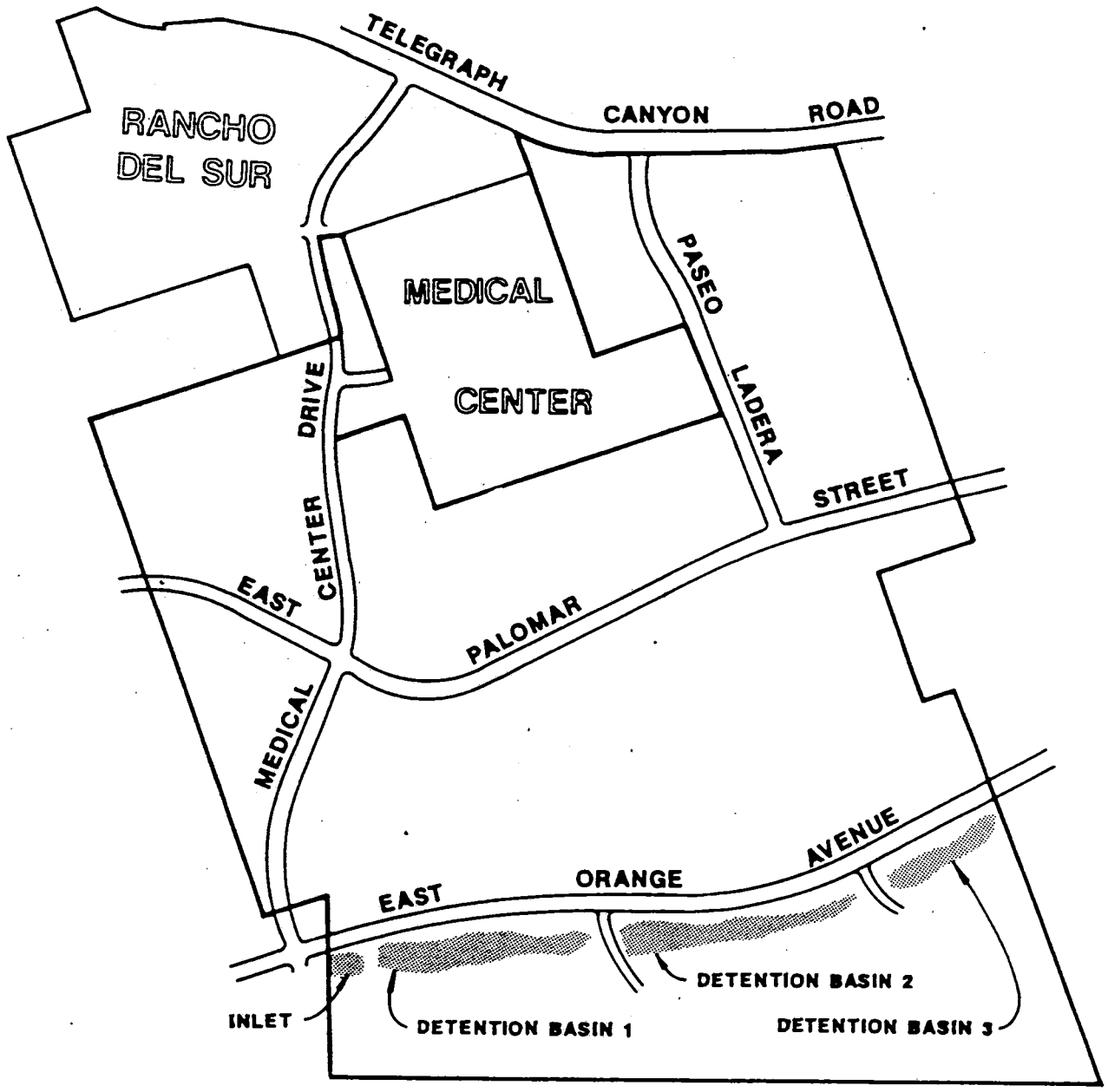
Sunbow will be served by a series of on-site stormwater facilities that will collect, detain and convey the storm waters from the project area to downstream discharges off-site in the Poggi Canyon, Loma Verde and Telegraph Canyon drainage basins. Exhibit 9 shows the relationship of the project to these drainage basins and the surrounding developments. In all cases, stormwater discharge will be regulated so that the amount discharged from the Sunbow development shall not exceed predevelopment flows. In the case of the Poggi Canyon Drainage Basin, it may be necessary to construct a series of detention basins. Exhibit 10 shows the locations of these detention basins. The construction of the detention basins shall be phased with the development of the southern portion of the Sunbow Project and the construction of East Orange Avenue. The enhancement plan for the Poggi Canyon is under development. The enhancement plan shall incorporate the detention basins in its design. All costs associated with the construction of the detention basins in Poggi Canyon shall be initially borne by the developer as part of the enhancement plan. A drainage improvement district may be formed to cover the construction costs of the ultimate drainage improvements necessary to accommodate the upstream flows. In such case, a portion of the initial costs incurred by Sunbow may be reimbursed from the drainage district.

Street Lighting and Landscape Maintenance

All street lighting and landscape maintenance within the street right of way will be installed as a subdivision exaction by the developer. All operation and maintenance costs associated with lighting the public streets within the development to normal City standards will be borne by the City. The costs associated with street lighting that is in excess of the normal City standards as well as the cost of maintaining any landscaping within the public right of way will be borne by the property owners by means of a Maintenance District set up under the provision of the Lighting and Landscape Maintenance Act of 1972 (Division 15, Part 2, Streets and Highways Code).

Open Space Maintenance

All dedicated open space areas within Sunbow will be annexed to the City of Chula Vista's existing Open Space District #18. The boundaries of Open Space District #18 will be expanded to include all development within Sunbow. An annual benefit assessment will be levied by the Open Space District upon the owners of property throughout the District to provide for the annual cost of the dedicated open space maintenance.



SUNBOW

DETENTION BASIN SCHEMATIC
EXHIBIT 10

bHA, Inc.
land planning, civil engineering, surveyin
(619) 298-8861
1615 Murray Canyon Road
Suite 910
San Diego, California 92108
(619) 941-1881
138 Escondido Avenu
Suite 209
Vista, California 920

Parks and Recreation

The Sunbow SPA Plan proposes the construction of a Community Recreation Center within the focal point of the Sunbow Community. This center, consisting of approximately 10 acres, will include an approximate 18,000 Sq.Ft. gymnasium complex and a 50 meter swimming pool. The gymnasium will consist of two sets of parallel basketball courts, 2,000 square feet of locker space. Space to accommodate a day care program to house 60 children will be included. 1,000 square feet of meeting space will also be provided. The gymnasium facility will be capable of being divided for multipurpose uses including meeting space. In accordance with the recreation center proposal, the total cost of the improvements and parkland proposed by the Sunbow developers will be approximately $5,120,000.

The developers of Sunbow have offered to construct the community recreation center as a turnkey facility. The construction of the recreation center and dedication of the land are to be accomplished in lieu of the City's Parkland Dedication Requirements and Park Development Fee Requirements. If Sunbow were to be required to dedicate land and pay fees for parkland development, the total would be approximately $3,015,540 as shown on the following table.

Table 3
Park Acquisition and Development Fees
Required Under City's Ordinance

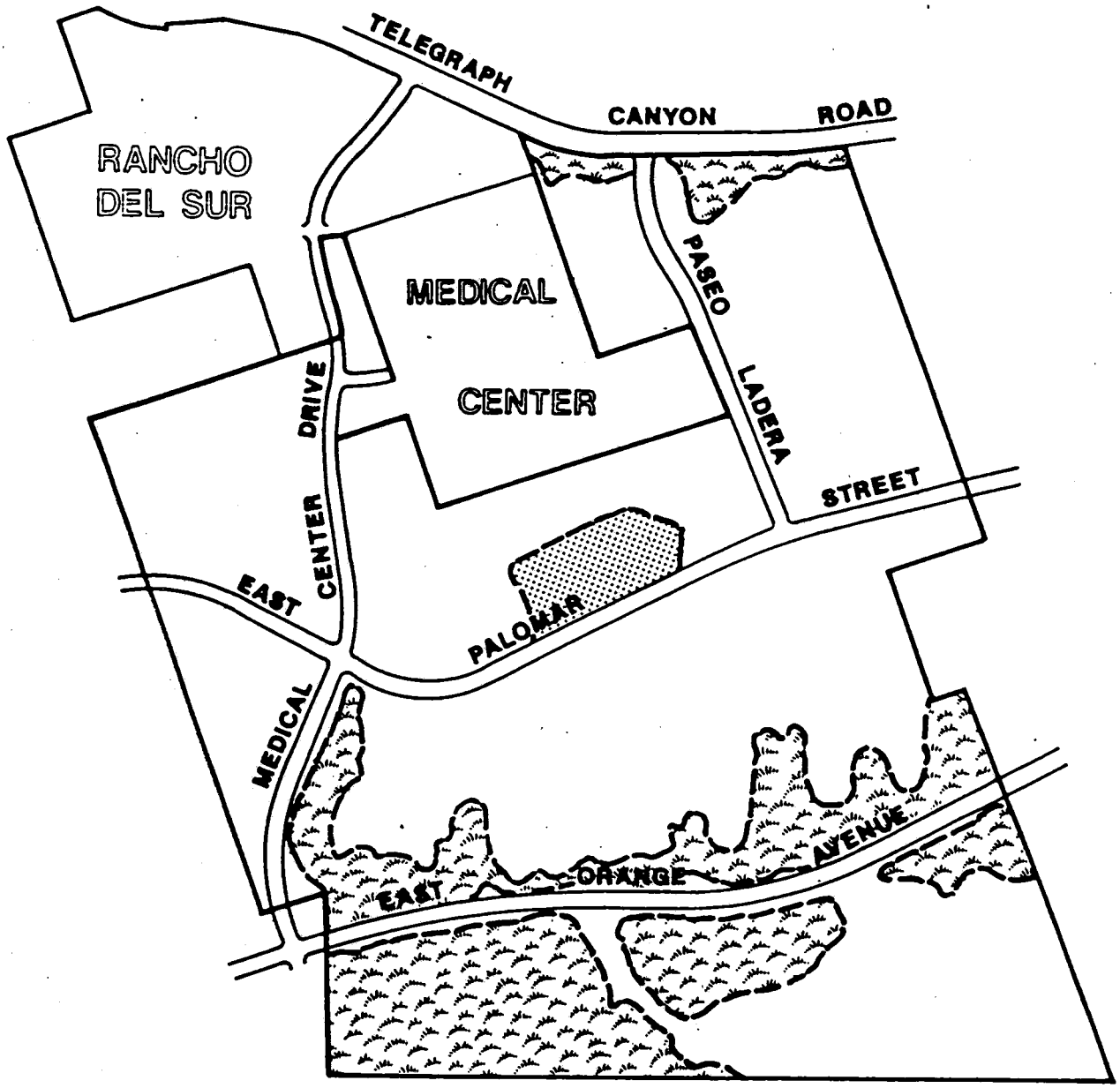
Park Development Fees

	# of Units	Fee/ Unit	Total Fee Revenue
Single Family Detached	1,128	$1,290	$1,455,120
Condominiums	580	1,125	652,500
Apartments	238	885	210,630
Total Park Development Fees			$2,318,250

Park Acquisition Fees

	# of Units	Fee/ Unit	Total Fee Revenue
Single Family Detached	1,128	$390	$439,920
Condominiums	580	335	194,300
Apartments	238	265	63,070
Total Park Acquisition Fees			$ 697,290
Total Parkland Acquisition and Development Fees			$3,015,540

In addition to the community recreation center located within the Sunbow Community, the Sunbow developers will make $100,000 of improvements to Greg Rogers Park in accordance with the Master Plan currently being completed for the park by the developer's consultant. The exact improvements to be made



SUNBOW

RECREATIONAL & OPEN SPACE AREAS

EXHIBIT 11

LEGEND

RECREATIONAL

OPEN SPACE

bHA, Inc.
land planning, civil engineering, surveying
(619) 298-8861
1615 Murray Canyon Road
Suite 910
San Diego, California 92108
(619) 941-1881
138 Escondido Avenue
Suite 209
Vista, California 92084

to the park shall be determined by the City Park and Recreation Director upon review of the Master Plan.

Library

The City of Chula Vista adopted a Library Master Plan in March 1987. That master plan calls for the addition of three large branch libraries in the City. These are located in the Montgomery /Otay area, the Bonita/Sweetwater area, and in the EastLake Development The Montgomery/Otay branch library has been determined to be related to existing population. The other two libraries have been determined by the City to be related to growth due to current and future development. Therefore the City, in adopting it's Public Facilities Development Impact Fee, has included the financing of the two branch libraries in the area east of I-805 at a cost of approximately $10,100,000. The payment of the Public Facilities Development Impact Fee by Sunbow at the time of development will satisfy Sunbow's obligation for library facilities. The estimated total amount of the fee related to library facilities at $327 per equivalent dwelling unit is $759,294 (in 1989 dollars). Since the Public Facilities Development Impact Fee has a built in inflator tied to the Engineering News Record Construction Cost Index, the actual amount to be paid for library facilities over the buildout period of Sunbow will be greater.

Table 4 shows the total amount of the Public Facilities Development Impact Fee expected to be paid by Sunbow in constant 1989 dollars. This is based on the current rate of the fee and the projected amount of development within Sunbow. This table is shown at this point because in addition to the library, the following five facilities will be financed by the PFDIF.

Table 4
Projected Amount of Public Facilities Development Impact Fee to be Paid by Sunbow (in 1989 $)

Development Type	# of Units or Acres	EDUs per Unit or Acre	Total EDUs	PFDIF/ EDU	Total PFDIF
Residential	1,946	1	1,946	$1,374	$2,673,804
Industrial	46	6	276	$1,374	$379,224
Commercial	10	10	100	$1,374	$137,400
Total			2,322		$3,190,428

Fire Protection

The City's Policy Analysis and Program Evaluation Unit completed a Fire Station Master Plan in February 1989. That Master Plan was subsequently updated in July 1989. According to the Master Plan, new fire stations will be built in the Rancho del Rey development and in the Salt Creek I or in the Salt Creek Ranch development. In addition, the City's current Fire Station

#4 on Otay Lakes Road will be closed and Fire Station #3, located on East Oneida will be relocated to a new station to be built in the Sunbow Development.

The recently adopted Public Facilities Development Impact Fee includes a factor equivalent to $80 per equivalent dwelling unit to finance the projected needs for fire facility expansion and relocation through the year 2000. However, since the City has determined that the fire station located on the Sunbow Project is needed to serve development in the near term, the City has specified that the Sunbow Station be completed when the amount of development of the portion of Rancho del Sur Phase 1 (i.e. that 108 acre residential community directly to the north and not covered by this Finance Plan) and this Project has reached occupancy of 1,220 dwelling units. The total cost of constructing a two-bay, 3,600 square foot station has been estimated by the City at $454,250. In addition, preliminary pre-appraisal estimate of the cost of acquiring one acre of land for the station is $200,000. The actual value of the land will be determined by appraisal of its value based on the adjoining residential use in Planning Area 13. The station has been tentatively proposed to be located along Medical Center Drive at the southern end of Planning Area 13. The exact site for the location of the station is subject to final approval by the City.

The station will be built by the developers of Sunbow as a turnkey facility prior to dedication to the City. The process for the design and construction of the fire station will include the developer selecting an architect acceptable to the City who will design the facility to meet City standards and conform to the design guidelines for the Sunbow Development. Prior to commencement of work on the fire station the developers and City will enter into an agreement whereby the developer will receive credit equivalent to the $185,760 from the Public Facilities Development Impact Fee Program, and the City will provide for reimbursement to the developer for the cost of the station in excess of the $185,760 attributed to Sunbow for the appraised value of the land and all attributable design and construction costs.

Police Facilities

There are no additional police facilities directly associated with the development of Sunbow. However the recently enacted Public Facilities Development Impact Fee contains a component equivalent to $168 per equivalent dwelling unit for the purpose of funding the expansion of police facilities related to growth in the City. Therefore Sunbow will contribute approximately $390,000 toward the expansion of police facilities through payment of the Public Facilities Development Impact Fee.

Corporation Yard

As the population concentration of the City of Chula Vista moves in a eastwardly direction, the City has a need to locate a corporation yard in the eastern portion of the City. An exact

location for the corporation yard has not yet been determined. However, the Public Facilities Development Impact Fee recently adopted by the City Council includes a component equivalent to $280 per equivalent dwelling unit to provide the total corporation yard financing of $9.6 million. The buildout of the Sunbow SPA will result in the contribution of approximately $650,160 (in 1989 dollars) to the total cost of a corporation yard facility.

Other City Facilities

The City has adopted a Master Plan for the expansion of the Civic Center which would increase the size of the Civic Center sufficient to meet the projected demands through the year 2010. The costs for the Civic Center Expansion have been included in the recently adopted Public Facilities Development Impact Fee. Of the total fee of $1,374 per equivalent dwelling unit, $478, or approximately 35%, relates to the Civic Center Expansion.

No other additional City facilities related to the Sunbow Development are known. However, the City has included a portion of the financing of an automated geographic information system (GIS) in the "facilities" to be financed from the P.F.D.I.F. Approximately $95,200 of this cost will be funded from Sunbow's P.F.D.I.F. payments.

Schools

The Sunbow SPA is located in the Chula Vista Elementary School District and the Sweetwater Union High School District. The developers of Sunbow have entered into agreements with both districts to form a Mello-Roos Community Facilities District for the purpose of levying a special tax for the financing of new school facilities related to the development.

At buildout it is projected that the Sunbow SPA will generate approximately 525 elementary school students, 195 junior high school students and 370 senior high school students. These totals were based upon generation factors of .27 elementary school students per household, .10 junior high school students per household and .19 senior high school students per household. The Sunbow Plan has included the site for a 10 acre elementary school. Under terms of the agreement between Sunbow and the school district, the school district is to determine whether it needs such site. The high school district which operates both junior high schools and high schools has not indicated a need for school sites on the Sunbow property. The timing of construction of the elementary school in Sunbow to house the students from Sunbow will be determined by the school district.

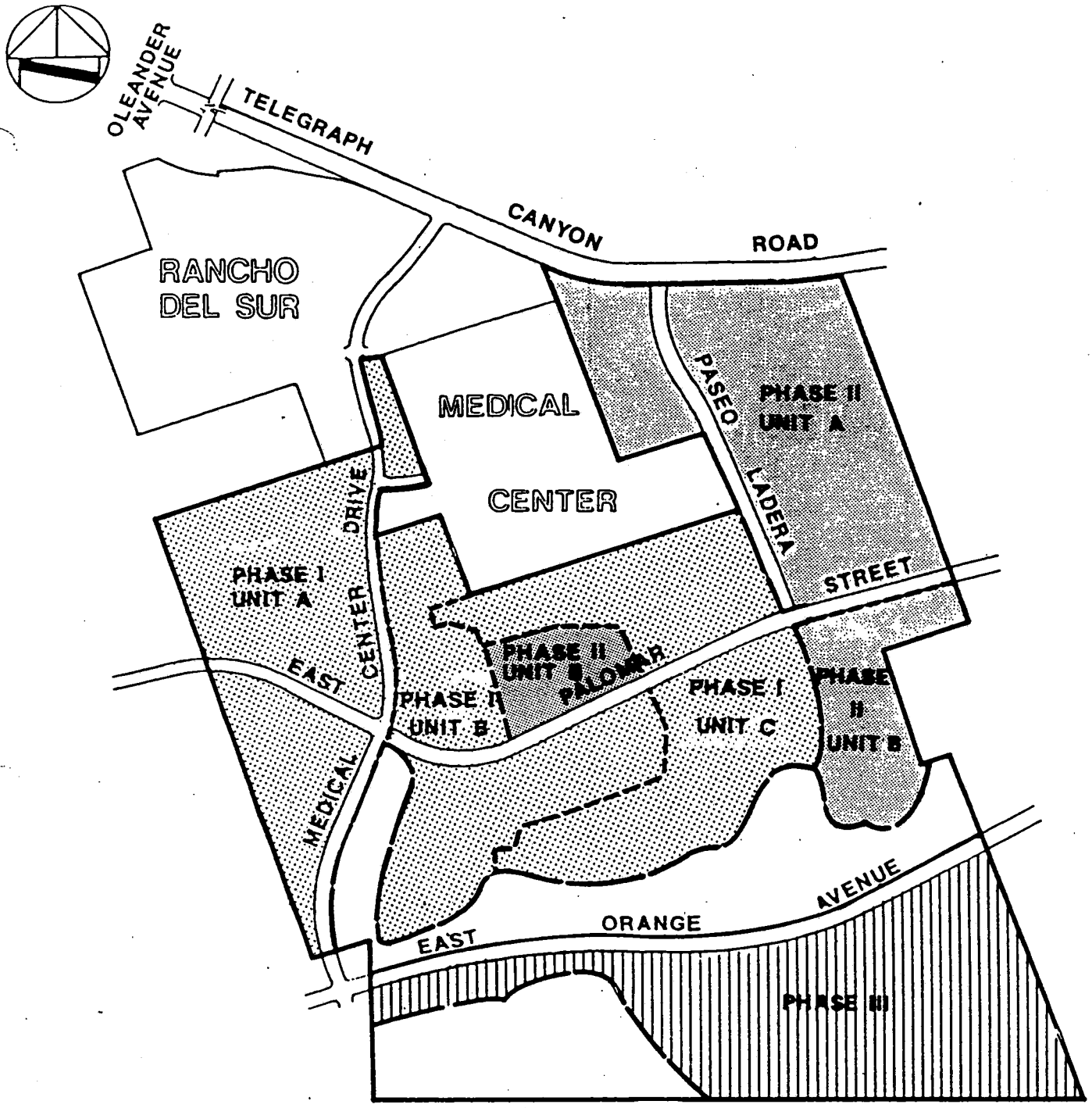
CHAPTER 3
PUBLIC FACILITY PHASING PLAN AND FINANCING SUMMARY

Development Phasing Plan

The Sunbow SPA has been planned to be constructed in three phases as depicted on the exhibit on the following page. These phases have been planned to generally flow from west to east and from north to south.

The developer may be permitted to proceed with the development of any subphase not specifically sequenced with those illustrated in this plan. If, in the opinion of the City Planning Director and the Director of Public Works, an out of sequence phase which may be proposed does not alter nor affect the conditions of approval of the project set by the Planning Commission and the City Council, they may permit this construction to proceed.

In the event the City proposes alteration to any development phasing, for example, for the purpose of building a City corporation yard in the industrial area, the developer will make good faith efforts to comply. The City, in turn, shall provide those administrative actions that permit these to occur.



LEGEND		DWELLING UNITS	CUMULATIVE UNITS
PHASE I	UNIT A	405	405
	UNIT B	363	768
	UNIT C	667	1435
PHASE II	UNIT A	399	1834
	UNIT B	112	1946
PHASE III		0	1946
		TOTAL	1946

SUNBOW

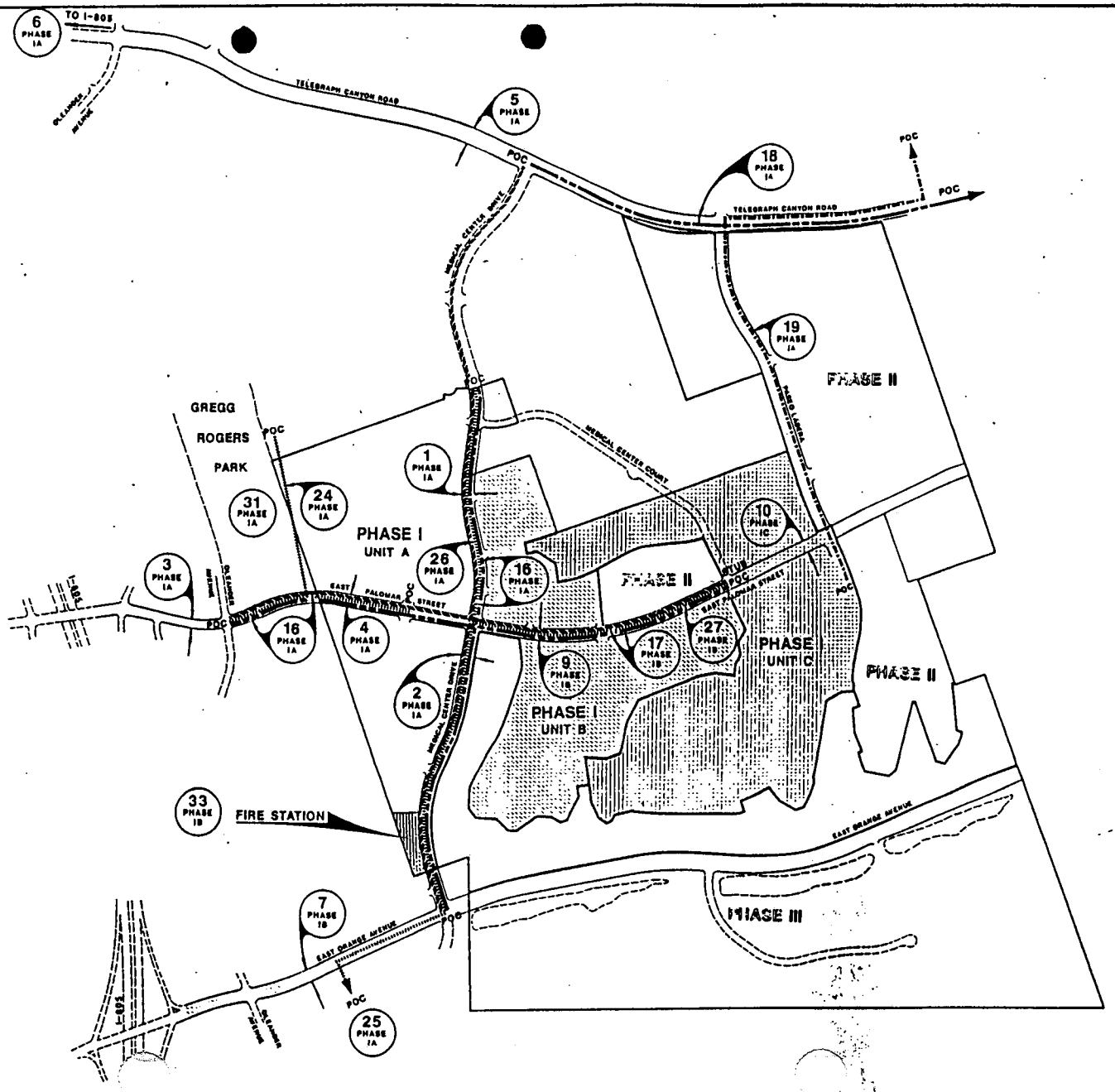
BUILDING CONSTRUCTION PHASING

EXHIBIT 12

bHA, Inc.
land planning, civil engineering, surveying
(619) 298-8661
1615 Murray Canyon Road
Suite 910
San Diego, California 92108
(619) 941-1881
138 Escondido Avenue
Suite 209
Vista, California 92084

Public Facility Phasing Plan

In conjunction with the development phasing plan, this chapter presents the phasing of required public facilities. For purposes of public facilities phasing, development phase I has been broken into three subphases IA through IC, while development phase II has been broken into two subphases IIA & IIB. The map for each phase, on the following pages, shows the location of the improvements. The tables for each subphase include a description of the improvements within the subphase, the cost and the principal financing mechanisms.



LEGEND

- SEWER MAIN
- WATER MAIN
- HIGH PRESSURE WATER MAIN
- RECLAIMED WATER
- POC ..... POINT OF CONNECTION
- STUB ..... LINE TO BE STUBBED FOR FUTURE CONNECTION
- DETENTION BASIN (AS REQUIRED)

SUNBOW

PUBLIC FACILITIES PHASING
PHASE I

EXHIBIT 13

bHA, Inc.
...g, civil engineering, survey...

Phase IB

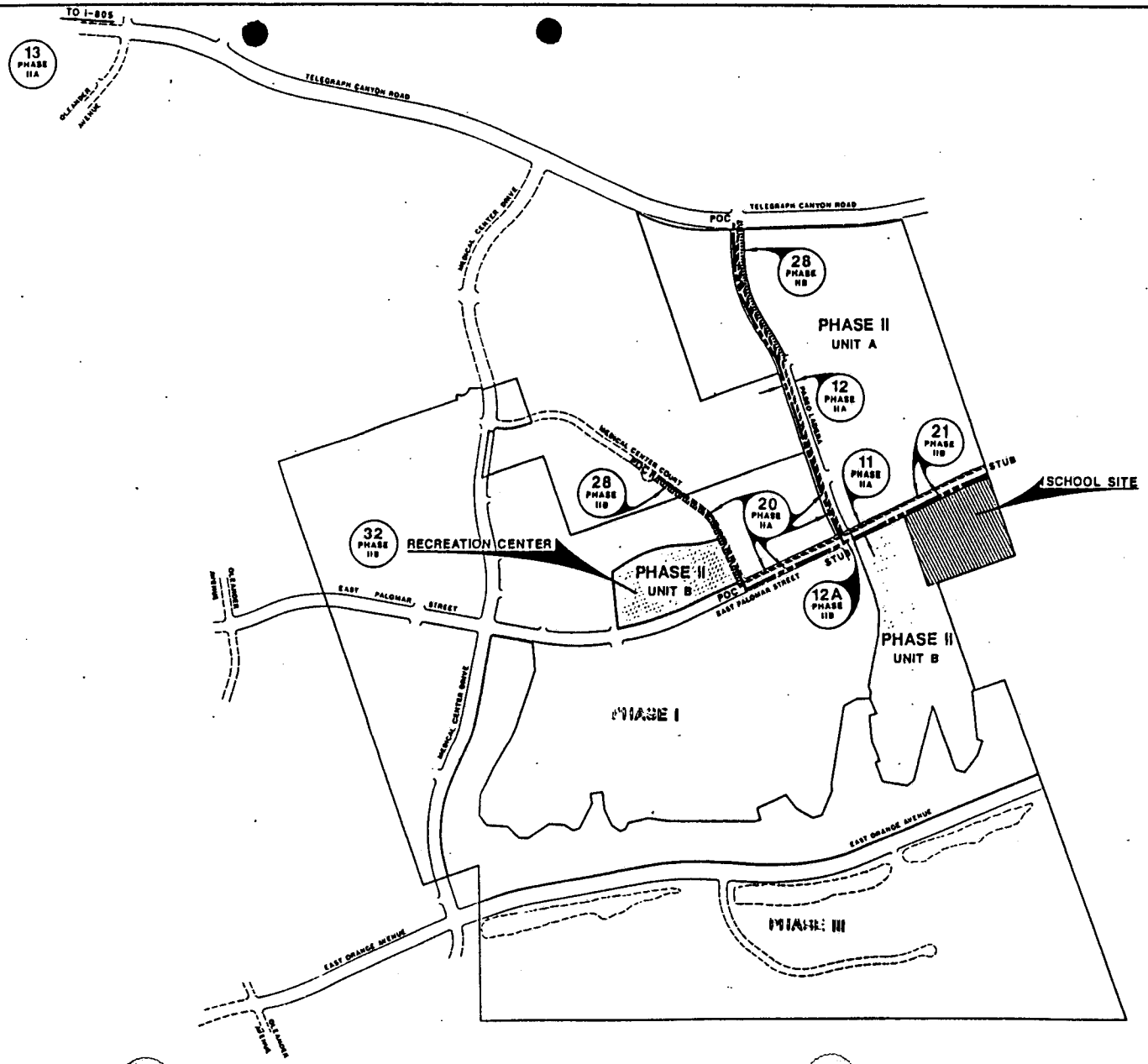
No.	Facility	Amount	Method of Financing
7.	East Orange Avenue - construct 5 lanes of a 6 lane Major - Oleander Avenue to Medical Center Drive	$500,000	Subdivision Exaction with Development Impact Fee Credit
9.	East Palomar Street - construct 4 lane Major - Medical Center Drive to limit of Phase IB development	$1,000,000	Subdivision Exaction with Development Impact Fee Credit
17.	Construct on-site potable and reclaimed water improvements in East Palomar Street from Medical Center Drive to east boundary of Phase IB.	$215,000	Subdivision Exaction
27.	Construct 10" on-site sewer improvements in East Palomar Street from Medical Center Drive to limit of Phase IB development	$200,000	Subdivision Exaction
33.	Construct 3,600 s.f. fire station	$654,250	Subdivision Exaction with Public Facilities Development Impact Fee Credit. Fire station to be completed prior to occupancy of 735th dwelling unit.

Phase IA

No.	Facility	Amount	Method of Financing
1.	Medical Center Drive - construct 4 lane Collector - Medical Center Court to East Palomar Street	$800,000	Subdivision Exaction
2.	Medical Center Drive - construct Class I Collector - East Palomar Street to Brandywine Avenue	$900,000	Subdivision Exaction
3.	East Palomar Street - striping - I-805 to Oleander Avenue	$4,000	Subdivision Exaction with Development Impact Fee Credit
4.	East Palomar Street - construct 4 lane Major - one lot east of Oleander Avenue to Medical Center Drive	$900,000	Subdivision Exaction with Development Impact Fee Credit
5.	Telegraph Canyon Road - widen to 6 lane Prime Arterial - Oleander Avenue to eastern SPA boundary	$742,000	Subdivision Exaction with Development Impact Fee Credit
6.	Telegraph Canyon Road - widen the north side to provide 4 westbound travel lanes from I-805 northbound on-ramp to a point easterly of Hale crest	$50,000	Subdivision Exaction with Development Impact Fee Credit
16.	Construct water improvements in East Palomar Street from Oleander Avenue to Medical Center Drive and in all of Medical Center Drive.	$450,000	Subdivision Exaction
18.	Construct 24 inch water main in Telegraph Canyon Road from approximately 500 feet east of property line to Medical Center Drive.	$200,000	Subdivision Exaction
19.	Construct 12 inch high pressure water main in Telegraph Canyon Road and Paseo Ladera to 200 feet south of East Palomar Street.	$115,000	Subdivision Exaction
24.	Construct on-site deep sewer to Palm Canyon Basin	$260,000	Subdivision Exaction
25.	Construct off-site sewer to serve Poggi Canyon Basin	$1,100,000	Subdivision Exaction with Reimbursement Agreement
26.	Construct 8" & 10" on-site sewer improvements in Medical Center Drive and in East Palomar Street west of Medical Center Drive	$100,000	Subdivision Exaction
31.	Improvements to Greg Rogers Park	$100,000	Developer Donation - turnkey construction

Phase IC

No.	Facility	Amount	Method of Financing
10.	East Palomar Street - construct 4 lane major - from Phase IB development to Paseo Ladera	$280,000	Subdivision Exaction with Development Impact Fee Credit



LEGEND

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- DETENTION BASIN (AS REQUIRED)

SUNBOW

PUBLIC FACILITIES PHASING
PHASE II

EXHIBIT 14

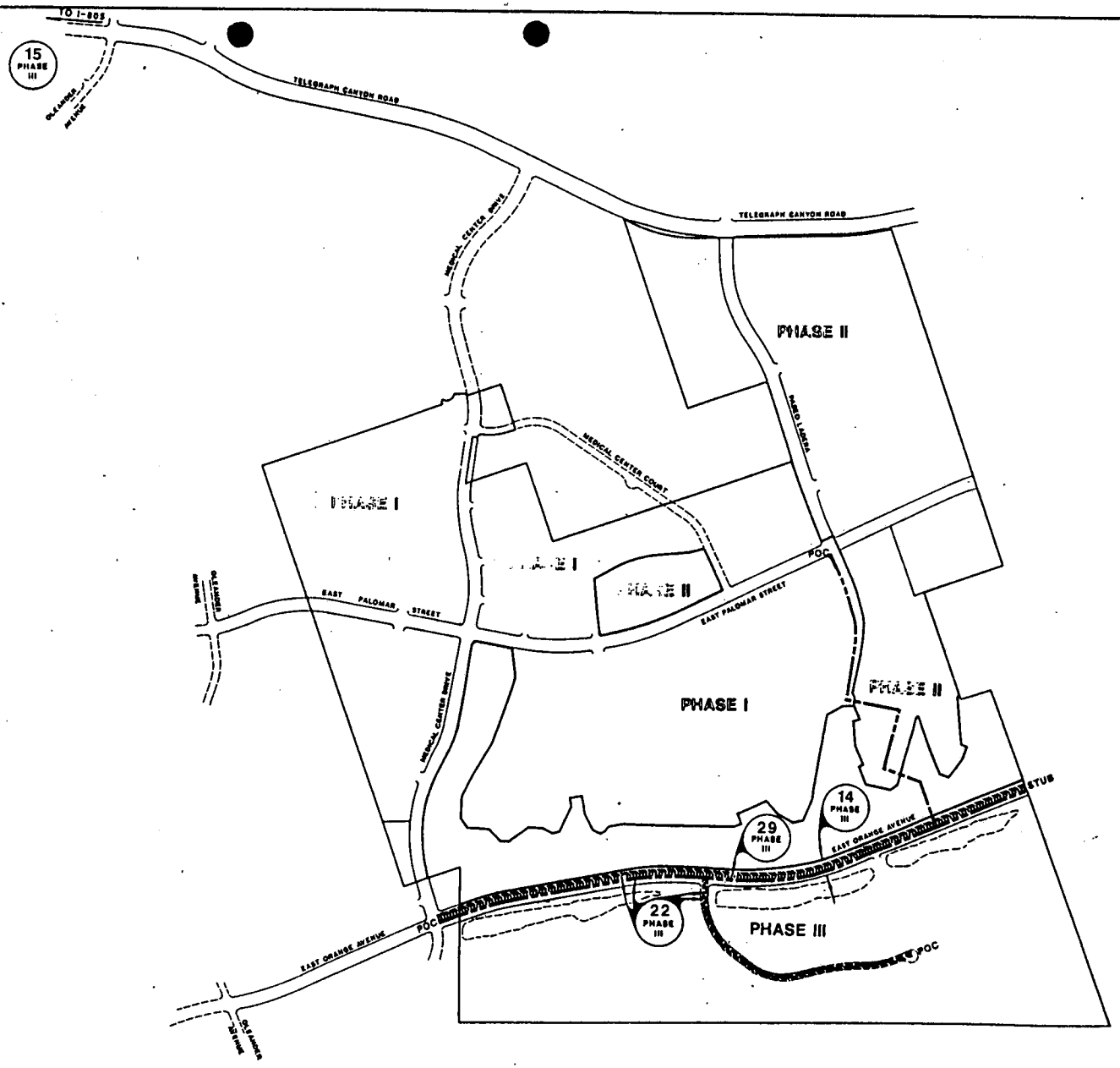
HHA, Inc.
...ng, civil engineering, surveyi...
...Carlton Road ... 130 Encinitas Ave...
San Diego, California 92108 ... Vista, California 92...

Phase IIA

No.	Facility	Amount	Method of Financing
11.	East Palomar Street - construct 4 lane Major - from Paseo Ladera to eastern SPA boundary	$520,000	Subdivision Exaction with Development Impact Fee Credit
12.	Paseo Ladera - construct 4 lane Collector - Telegraph Canyon Road to East Palomar Street	$1,000,000	Subdivision Exaction
13.	Telegraph Canyon Road & I-805 - Install a traffic signal at southbound ramp and widen the southbound on/off ramp to accommodate the dual left turn lanes to southbound I-805	$225,000 (DIF) $225,000 (State)	Subdivision Exaction with Development Impact Fee Credit & Caltrans matching funds
20.	Construct on-site potable and reclaimed water improvements in Paseo Ladera, East Palomar Street from limit of Phase IB to Paseo Ladera and in extension of Medical Center Court.	$400,000	Subdivision Exaction

Phase IIB

No.	Facility	Amount	Method of Financing
12A.	Installation of Traffic Signal at East Palomar Street & Paseo Ladera	$100,000	Subdivision Exaction
21.	Construct on-site potable and reclaimed water improvements in East Palomar Street from Paseo Ladera to eastern SPA boundary	$120,000	Subdivision Exaction
28.	Construct 8" on-site sewer improvements in Paseo Ladera and in Medical Center Court	$200,000	Subdivision Exaction
32.	Develop Recreation Center consisting of: • 50 meter swimming pool • 18,000 s.f. gymnasium • Other uses such as meeting space and child care	$5,120,000	Turnkey developer construction with credit against Park Land Dedication and Development Fees and excess contribution from developer of excess value



LEGEND

- SEWER MAIN
- WATER MAIN
- HIGH PRESSURE WATER MAIN
- RECLAIMED WATER
- POC ..... POINT OF CONNECTION
- STUB ..... LINE TO BE STUBBED FOR FUTURE CONNECTION
- DETENTION BASIN (AS REQUIRED)

SUNBOW

PUBLIC FACILITIES PHASING
PHASE III

EXHIBIT 15

bHA, Inc.
land planning, civil engineering, surve

Phase III

14.	East Orange Avenue - improve one-half width of a 6 lane Prime Arterial - from Medical Center Drive to east SPA boundary	$1,600,000	Subdivision Exaction with Development Impact Fee Credit
15.	Telegraph Canyon Road & I-805 - widen south side of Telegraph Canyon Road under the I-805 overcrossing to provide a 3rd eastbound through lane & restripe/ widen the northbound off ramp to provide 2 northbound to eastbound right turn lanes	$200,000 (DIF) $200,000 (State)	Subdivision Exaction with Development Impact Fee Credit & Caltrans matching funds
22.	Construct on-site potable and reclaimed water improvements in East Orange Avenue and to the south of East Orange Avenue.	$630,000	Subdivision Exaction
29.	Construct 18" on-site sewer improvements in East Orange Avenue from Medical Center Drive to east SPA boundary	$200,000	Subdivision Exaction with reimbursement agreement

Other Required Facilities

The following list contains facilities that are regional or sub-regional in nature. Sunbow is included within the the overall area of benefit for these facilities and consequently is participating in the financing of them through either the City of Chula Vista's Public Facilities Development Impact Fee or a Mello-Roos Community Facilities District formed by one of the school districts serving the property.

No.	Facility	Amount*	Method of Financing
	LIBRARY		
34.	Branch Libraries	$759,294	Public Facilities Development Impact Fee
	OTHER FACILITIES		
35.	Civic Center	$1,109,916	Public Facilities Development Impact Fee
36.	Corporation Yard	$650,160	Public Facilities Development Impact Fee
37.	Fire Training Facility	$9,102	Public Facilities Development Impact Fee
38.	Police Facility Expansion	$390,000	Public Facilities Development Impact Fee
39.	Geographic Information System	$95,202	Public Facilities Development Impact Fee
	SCHOOLS		
40.	Reservation of 10 acre site for elementary school	$860,700	Mello-Roos Community Facilities District
41.	Elementary School	$3,310,000	Mello-Roos Community Facilities District
42.	Junior High School	$2,170,000	Mello-Roos Community Facilities District
43.	High School	$4,924,000	Mello-Roos Community Facilities District

* Unless otherwise noted, the cost shown for the "other facilities" is Sunbow's estimated share of the cost of the facilities. Sunbow's share of the cost of the Development Impact Fee financed facilities was estimated based on the amount of the fee times the number of equivalent dwelling units in Sunbow. Sunbow's estimated share of the cost of school facilities was based on the respective districts' estimated 1988-89 cost per student times the student generation rates and the number of dwelling units in Sunbow.

Regional Transportation Facility Phasing

The third item covered by this chapter is the phasing information for the required regional transportation facilities. The EastLake Development Impact Fee Program (Ordinance #2251), adopted by the City in February 1986 and currently applied to EastLake, Bonita Long Canyon, Rancho del Rey & Rancho del Sur (Sunbow I), identifies the required region-wide transportation facilities, develops cost estimates and calculates an impact fee. The EastLake I Public Facilities Financing Plan, dated February 19, 1985, attached maximum levels of development allowed prior to the impact fee projects, as well as other projects being in place. That information has been updated with the publication of the East Chula Vista Transportation Phasing Plan.

It should be noted that the development limits which have been set for the regional facilities as shown on Table 5 cover a development area which includes most of the City's eastern territory sphere of influence. The development thresholds set for the regional improvements outweigh any limits set for local phasing. Thus, for example, if regional development dictates that Telegraph Canyon Road from Oleander Avenue to Paseo Ladera needs to be widened to six lanes before development can proceed, it must be improved prior to further development occurring within Sunbow, even though Sunbow's local threshold limit for Telegraph Canyon Road may not have been reached.

It is intended for the East Chula Vista Transportation Phasing Plan (TPP), to be revised and updated on an annual basis. Thus, each change in the TPP will automatically become applicable to Sunbow because the TPP is being adopted by reference in this Sunbow Public Facilities Financing Plan. As additional land development data and facility cost information becomes known, the TPP boundaries and fee amounts will be adjusted to reflect current conditions. Limits, facility costs, and adjusted fees in the most recently amended TPP and Development Impact Fee Program will take precedence over the information contained in Table 5.

Table 5
Phasing Program for
Regional Transportation Facilities

Facility	Limits	Cumulative Regional Development Not to be Exceeded		
		Resid (D.U.)	Comm/Ofc (Ac.)	Industrial (Ac.)
Streets				
1. Telegraph Canyon Rd.	Paseo Ladera to Otay Lakes Rd. widen to a 4-lane Major	2,100	11	30
2. Telegraph Canyon Rd.	Otay Lakes to East DIF Boundary widen to a 4-lane Major	2,100	11	30
3. Otay Lakes Rd.	Bonita Road to East "H" Street widen to a 4-lane Major	2,100	11	30
4. Telegraph Canyon Rd.	Otay Lakes Road to EastLake widen to a 6-lane Prime	6,100	62	64
5. San Miguel Road	Bonita Road to SR-125 widen to a 4-lane Class I Collector	9,100	85	172
6. Telegraph Canyon Rd.	EastLake Parkway to Lane Avenue widen to 6-lane Prime and 4-lane Major	10,600	99	199
7. Telegraph Canyon Rd.	Oleander Drive to Paseo Ladera widen to 6-lane Prime	14,800	109	287
8. Telegraph Canyon Rd.	Paseo Ladera to Otay Lakes Rd. widen to a 6-lane Prime	16,300	114	313
Freeways				
1. SR-125	Telegraph Canyon Road to SR-54 as a 4-lane Freeway	9,100	85	172
2. SR-125	Telegraph Canyon Road to Palomar St. as a 4-lane Freeway	14,800	109	287

SUMMARY OF FINANCING METHODS

General Fund

The City of Chula Vista's general fund serves to fund many public services throughout the City. Those facilities and services identified as being funded by general fund sources represent those that will benefit not only the residents of the proposed project, but also Chula Vista residents outside the boundaries of Sunbow. In most cases, other financing mechanisms are available to initially construct or provide the facility or service, and general fund monies would only be expected to fund the maintenance costs once the facility is accepted by the City.

Mello-Roos Community Facilities Act of 1982

On January 2, 1983 the Mello-Roos Community Facilities Act of 1982 become effective. This statute authorizes formation of community facilities districts which are authorized to provide the financing of certain public services or facilities through elector approved special taxes.

Facilities which can be provided under the Mello-Roos Act include the purchase, construction, expansion, or rehabilitation of the following:

1. Local park, recreation, or parkway facilities;
2. Elementary and secondary school sites and structures;
3. Libraries;
4. Any other governmental facilities that legislative bodies are authorized to construct, own or operate.

It is proposed that a Mello-Roos District be set up to cover the Sunbow development area in order to provide the necessary school funding.

Assessment Districts

Special Assessment financing is an appropriate financing mechanism when the value or benefit of an improvement can be assigned to a particular property. Assessments are levied in specific amounts against each individual property on the basis of the benefit each receives. Special assessments may be used for both publicly dedicated onsite and offsite improvements.

Generally, public right-of-way type improvements can be financed. Assessments are levied and bonds are issued to fund the construction of public improvements. Bonded indebtedness is a collective responsibility of all parcels within the Assessment District. The bond issue is a lien against all properties, although each parcel does have a specific assessment against it. Bonds are not issued to represent individual parcels but are pooled in marketable denominations.

State and Federal Funding

Several Federal and State financial and technical assistance programs are available to cities. Although rarely available to fund an entire project, some grants are available to assist in financing a portion of a capital facilities project. The primary recipient of State financing assistance would be the school districts in order to fund school services.

Dedication

Dedication of land by developers for public capital facilities is a common and straightforward financing tool used throughout the State. In the case of Sunbow, the following are anticipated to be dedicated:

1. Road and utility right-of ways;
2. Park sites;
3. Open space;
4. Fire station site; and
6. School site.

Developer Construction through Subdivision Exaction

Neighborhood level public improvements will be developed simultaneously with related residential and business park subdivisions. Through the use of the Subdivision Map Act, each separate development within Sunbow will fund and install all local street, utility and recreation improvements. The use of subdivision conditions and exactions, where appropriate, will insure that the construction of neighborhood facilities is timed with actual development.

Where public facilities are involved, the developer constructs the capital facility to City standards and, upon completion, dedicates it to the local agency.

Existing Fees

The major fees, which contribute to capital facilities improvements within the City of Chula Vista, include the Residential Construction Tax, Park Acquisition and Development Fees, sewer connection fee, traffic signal fee, the Transportation Development Impact Fee, and the Public Facilities Development Impact Fee. The Otay Municipal Water District also assesses water connection fees and School Impact Fees are payable to Chula Vista Elementary School and Sweetwater Union High School District.

The distinguishing factor between a fee and a subdivision exaction is that exactions are requested of a specific developer for a specific project whereas fees are levied on all development projects throughout the City or regional area pursuant to an established formula.

Developer Reimbursement Agreements

For facilities that are constructed offsite or oversized in order to accommodate future development, Developer Reimbursement Agreements can provide for a future payback to the developer for the additional costs of these facilities. Future developments are required to pay back their "fair share" portion of the costs for the shared facility when development occurs.

Open Space District

For the open space areas dedicated to the City, an Open Space Maintenance District will be required to fund the cost of open space maintenance.

Street Light and Landscape Maintenance District

A Street Light and Landscape Maintenance District will be established for the maintenance of street lighting in excess of City standards, as well as for the maintenance of landscaping within the public right-of-ways.

Homeowners Association

If private recreational facilities and/or private open space areas are created within individual developments, a homeowners association could be formed to find the maintenance costs associated with these improvements.

ANNUAL FISCAL IMPACT ANALYSIS UPDATE

The Fiscal Impact Analyses for the Sunbow General Development Plan demonstrates a positive cash flow to the City of Chula Vista as a result of the development of Sunbow. The projected operating revenues flowing to the City are higher than the costs to the City for providing municipal services to the development area.

Coinciding with the annual monitoring program addressed below, and after the first occupancies occur, a financial impact analysis update shall be prepared by the City. The cost of preparing this analysis shall be borne by Sunbow.

If the cumulative fiscal impact analyses indicate a positive cash flow and all other development requirements have been satisfied, then development may continue.

If the cumulative fiscal impact analyses indicate a negative cash flow, then Sunbow will contribute an amount necessary to cover the short fall so that development may proceed.

The requirement for fiscal impact analysis update shall be in effect for five (5) years from the date of City Council approval of the SPA Plan.

MONITORING PROGRAM

The facilities presented in this plan, along with the proposed phasing, financing and cost information serve to map the tentative route to be taken toward providing the public improvements necessary to support development in Sunbow. In attempting to predict future needs, projections and assumptions have been made regarding the location, amount, type , and timing of development. These projections and assumptions are based on the best information available at the time the plan is prepared, but it is the actual location, amount, type and timing of development that will determine the need for specific facilities.

With this in mind, it is imperative that in conjunction with the adoption of a Finance Plan for Sunbow, that a commitment to implement and Annual Monitoring Program also be made. This allows the Public Facilities Plan to be refined and updated as development actually occurs in order to reflect true conditions as opposed to the projected conditions presented in this report.

Each year the developer should submit updated development summaries, forecasts and development data, such as actual traffic counts and building permit information to the City for evaluation and comparison to the Finance Plan as adopted. This annual update and reevaluation will allow the City to more accurately predict public facility needs, coordinate their provision, and, if necessary, restrict building activity in order to prevent adverse impacts on existing facilities. The cost of all annual monitoring should be borne by the developer.

The annual monitoring program should also review the fiscal impacts of proposed facilities and development. The financing mechanisms proposed for the construction and maintenance of improvements shall be analyzed for continued soundness and adequacy.

IMPLEMENTATION

The implementation of the facilities and financing plan occurs on various levels. If a Development Agreement is entered into between the City and Sunbow, then the general obligations and requirements of both parties regarding the provision of public facilities, as outlined in this plan, would be included in the agreement. Detailed requirements for the provision of facilities would be included as conditions of approval on subdivision maps. Required improvements would generally have to be guaranteed prior to issuance of building permits and completed prior to issuance of occupancy permits. An evaluation must be made at each of these levels of control to insure that the facilities are being provided concurrent with need.

Several financing vehicles will also need to be established in order to carry out the program presented in this plan. These include:

a) formation of a Lighting and Landscape Maintenance District for excess street light and right-of-way landscape maintenance;
b) annexation of the property to Open Space Maintenance District #18 to provide financing for the ongoing maintenance of open space dedicated to the City;
c) execution of a reimbursement agreement for the Poggi Canyon sewer basin.
d.) execution of a reimbursement agreement for the Poggi Canyon stormwater drainage district.

Other financing mechanisms may be used where appropriate to carry out the intent of the Sunbow SPA and this Finance Plan

WATER CONSERVATION PLAN ADDENDUM
(Wilson Report Dated November 1990)

SUNBOW

Prepared for:

Ayres Land Company
550 West C Street, Suite 1750
San Diego, CA 92101

Prepared by:

bHA, Inc.
land planning, civil engineering, surveying
5115 Avenida Encinas, Suite L
Carlsbad, CA 92008-4387
(619) 931-8700

March 31, 1997

W.O. 482-0262-600

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Appendix:

Table 1 - Projected Water Use for Sunbow II

Table 2 - Sunbow II Water Conservation Measures

Table 3 - Potential Water Conservation Plan for Sunbow II

PURPOSE:

The purpose of this addendum is to update the **Water Conservation Plan For The Sunbow II Planned Development Project** prepared by Wilson Engineering dated November 1990 (Ref. A). During the six years since that plan was prepared, changes in the cost of potable and reclaimed water, Otay Water District policies and methods have changed slightly, which necessitates this addendum.

WATER USE AT SUNBOW II

Water use at Sunbow II has been estimated in the **Subarea Water Master Plan for Sunbow II** by John Powell and Associates, Inc. dated January 1997 (Ref. B) and is at this writing unapproved. Since the writing of the Wilson plan, Otay Water District has changed its rate of industrial usage from 4,000 gallons per day per acre to 1.0 acre-feet per acre-year (less than 900 gallons per day per acre). Perhaps this is because of two factors. First, implementation of water conservation measures by industrial users recently has brought down the measured rate of their water consumption. Second, businesses that occupy industrial land within the district have changed in nature to businesses that consume less water.

Another difference between Ref. A and B is the water usage in irrigated open-space. The Wilson Plan estimates that usage at 210,000 gallons per day and the Powell SAMP shows no water consumption for open-space. Wilson's usage is 2,500 gallons per day per acre for maintained open space is 12% higher than the 2.5 acre-feet per acre-year that Otay Water District now uses. Because this usage is for reclaimed water, which is in itself a water conservation measure, this plan will not concern itself with usage of within maintained open-space.

Finally, Otay Water District has assigned a single usage rate to all multi-family dwellings of 2.5 acre-feet per acre-year while Wilson used 313 gallons per day per EDU for "attached low-density" and 275 gallons per day per EDU for "attached high-density". Because the number of units is known for Sunbow II, the 2.5 acre-feet per acre-year rate works out to be 2,47.5 gallons per day per EDU, considerably less than the two rates used by Wilson.

WATER RATES

The water rates used by Wilson in Ref. A is $1.07 per 100 cubic feet (748 gallons) for residential use has increased to $1.44 per 100 cubic feet, using the same assumptions. As well, the reclaimed water rates have increased from $1.17 to $1.50 per 100 cubic feet. Using these rates and the revised usages, Table 2 shows the water conservation benefit/cost ratios updated from Table 4 of the Wilson Plan. It should be noted that Table 3 from the Wilson Plan showing the costs for water conservation devices was not updated.

WATER CONSERVATION MEASURES

BHA felt that this section of the report was up-to-date.

WATER CONSERVATION COSTS

BHA felt that this section of the report was up-to-date.

TYPICAL WATER CONSERVATION PLAN

BHA felt that this section of the report was up-to-date, except that Table 5 in the Wilson Plan was revised in this plan's Table 3 to reflect those changes already noted in the first three sections of this plan.

RECOMMENDED WATER CONSERVATION PLAN

BHA felt that this section of the report was up-to-date.

IMPLEMENTATION AND MONITORING OF WATER CONSERVATION PLAN

Implementation of the Water Conservation Plan shall be primarily the responsibility of the Master Developer. The Master Developer will establish requirements and guidelines for merchant builders and provide educational materials and guidance to new homeowners. The Master Developer will require the inclusion of drought tolerant plant materials and efficient irrigation systems in the majority of builder-installed landscaping. The Master Developer will install Reclaimed Water Mains, Services at the time of Street Improvements, all necessary irrigation piping and appurtenances for reclaimed water irrigation of park and open space areas. The Mello-Roos Community Facilities District formed for new school facilities, will be responsible for installation of reclaimed water irrigation and other water conservation measures within the school site. Related mitigation measures are specified in EIR 90-7.

A significant responsibility will also rest with the City of Chula Vista to enforce the provisions of this plan, specifically the Planning, Building, Engineering and Park & Recreation Departments. The Planning and Building Departments will review plan submittals to ensure that water conservation measures are properly included in landscape and house/building plans. The Engineering Department will review Improvement Plans to ensure that Reclaimed Water Infrastructure is included. The Parks and Recreation Department will approve planting and irrigation plans for public parks and open space.

As shown in the Public Facilities Financing Plan, Reclaimed Water Mains and Services will be installed with the major road and infrastructure improvements. The provision of reclaimed water and plan review of Reclaimed Water Mains and Services will be the responsibility of the

Otay Water District. The decision to use reclaimed water for irrigation purposes rests with the City Parks and Recreation Department for parks and open space areas, and the Chula Vista Elementary School District for the elementary school site.

In order to ensure that all provisions of this plan are met, the standard review of landscape and construction documents performed by the City will include an evaluation of compliance with the provisions of this Water Conservation Plan. This approach will allow for a formal determination by the City that each of the required measures are implemented. Future discretionary of administrative actions with regard to development within the Sunbow II Project (e.g., tentative map, building or grading permit) way be utilized to address or ensure compliance with the prescribed water conservation measures.

REFERENCES

A) Water Conservation Plan for Sunbow II Planned Development Project, Wilson Engineering, November 1990.

B) Subarea Water Master Plan for Sunbow II, John Powell and Associates, January 1997.

IMPLEMENTATION AND MONITORING OF WATER CONSERVATION PLAN

TABLE 1

Projected Water Use for Sunbow II

Type of Development	Amount	Rate (Ac-ft/Ac-yr)	Use (Ac-ft/yr)	Use (MGD)
Single Family	266.2 Acres	2.0	532.4	0.48
Multi-Family	63.5 Acres	2.5	158.75	0.14
Commercial, Business	11.0 Acres	2.0	22	0.02
School	11.0 Acres	1.4	15.4	0.01
Park & Recreation	10.0 Acres	1.0	10	0.01
Industrial	46.0 Acres	1.0	46	0.04
Maintained Open Space	84.6 Acres	2.8	236.92	0.21
Total Water Use			1021.47	0.91
Potable Water Use			774.55	0.69
Reclaimed Water Use			246.92	0.22

Table 2

Sunbow II Water Conservation Measures
(ALL COSTS IN 1997 DOLLARS)

Water Conservation Measure	Function	Water Savings Per Residence (gpd/EDU)	Incremental Cost ($/EDU)	Service Life (Years)	Annual Savings per Residence ($/EDU/Year)	Savings over Service Life ($/EDU)	Benefit/Cost Ratio (Column 5/Column 2)
Inside		1	2	3	4	5	6
Ultra Low Flow Toilet	Reduces Flush Volume	22.6	56	25	15.88	397.01	7.09
Ultra Low Flow Shower	Reduces Shower Flow	14.1	12	15	9.91	148.58	12.38
Faucet Aerator	Appearance of Increased Flow	1.4	10	7	0.98	6.88	0.69
Efficient Clothes Washer	Reduces Flow per Load	8.5	112	12	5.98	71.70	0.64
Efficient Dishwasher	Reduces Flow per Load	1.4	32	12	0.98	11.79	0.37
Pressure Reducing Valve	Reduces Flow Rate	8.5	159	20	5.98	119.51	0.75
Outside							
Low Water Use Landscape	Lowers Demand for Watering	25.4	0	20	17.85	365.9	Very Large
Xeriscaping	Lower Demand Landscaping	79	3500	20	55.51	1110.28	0.32
Soil Moisture Sensors	More Efficient Watering	39.5	105	15	27.75	416.25	3.96
Automatic Timer Shutoff	Precise, timed Watering	22.6	40	5	15.88	79.4	1.99
Water Conservation Guide	Increases Watering Efficiency	28.2	2	5	19.81	99.08	49.54

Table 3

Potential Water Conservation Plan for Sunbow II

(All Costs in 1997 Dollars)

Water Conservation Measure	Water Savings per Residence (gpd/EDU)	Incremental Cost per Residence ($/EDU/Year)	Annual Savings per Residence ($/EDU/Year)	Savings over Service Life ($/EDU)	Benefit/Cost Ratio
Ultra Low Flow Toilet	22.60	56.00	15.88	397.01	7.09
Ultra Low Flow Shower	14.10	12.00	9.91	148.58	12.38
Faucet Aerator	1.40	10.00	0.98	6.88	0.69
Efficient Clothes Washer	8.50	112.00	5.98	71.70	0.64
Efficient Dishwasher	1.40	32.00	0.98	11.79	0.37
Pressure Reducing Valve	8.50	159.00	5.98	119.51	0.75
Low Water Use Landscaping	25.40	0.00	17.84	356.90	Very Large
Soil Moisture Sensors	39.50	105.00	27.75	416.25	3.96
Total	121.4	486	85.3	1528.62	3.15

Giroux & Associates
Environmental Consultants

AIR QUALITY IMPACT ANALYSIS

AIR QUALITY IMPROVEMENT PLAN

SUNBOW II GENERAL DEVELOPMENT PLAN

CITY OF CHULA VISTA, CALIFORNIA

Prepared for:

Ayres Land Company
Attn: William R. Hamlin
750 "B" Street, St. 2370
San Diego, CA 92101

Date:

March 5, 1998

cc: BHA, Inc.
Attn: Rod Bradley/Paula
5115 Ave. Encinas, Suite L
Carlsbad, CA 92008-4387

17744 Sky Park Circle, Suite 210, Irvine California 92614 - Phone (714) 851-8609 - Fax (714) 851-8612

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1.0 INTRODUCTION

1.1 Purpose

The purpose of this Air Quality Improvement Plan (AQIP) for the Sunbow II General Development Plan is to fulfill requirements in the Growth Management Program (GMP) of the City of Chula Vista. As described below, the GMP results from a long term, comprehensive planning process.

The City of Chula Vista has looked comprehensively at future development and its related impacts on public facilities and services. The approvals of the Threshold Ordinance and the General Plan update were the first steps in growth management planning. The policy process then led to the preparation and adoption of the Growth Management Element and finally the Growth Management Program.

The City's Growth Management Program is the last component in the Plan to form a comprehensive growth management system. This program implements the Growth Management Element of the General Plan and establishes an orderly process to carry out the development policies of the City. It directs and coordinates future growth patterns and rates to guarantee the timely provision of public facilities and services. The primary area of focus of the Growth Management Program is east of I-805 where most of the remaining vacant land within the City and its sphere of influence is located, including the proposed project site.

1.2 Local and Regional Air Quality Measures

This AQIP draws from federal, state, regional and local planning requirements. The Federal Clean Air Act Amendments (FCAAA) and the California Clean Air Act (CCAA) are the driving mechanisms for the current version of the San Diego Air Basin Air Quality Management Plan. The CCAA and FCAAA require submittal and updates of air quality improvement plans for each basin not in attainment with state or federal standards. Pollutants within the San Diego Air Basin that exceed state or federal clean air standards include ozone and sub-10-micron diameter respirable particulate matter (PM-10).

The CCAA and FCAAA also serve as a base for many regional growth guidelines such as SANDAG's Draft Quality of Life Standards and Objectives document, prepared by the Regional Growth Management Technical Committee. It covers eight topics: air quality, water quality, sewage disposal, sensitive lands protection, solid waste management, toxic and hazardous waste management, transportation system management and housing. These regional standards and

objectives follow state and federal law. At a minimum, they must be implemented on a regional level by agencies such as the Air Pollution Control District (APCD), Regional Water Quality Control Board, County Water Authority, etc. The methods that guide the Regional Growth Management Strategy in San Diego County are, of necessity, long term in nature and will involve every city and special district in the county, including the City of Chula Vista.

Federal and state air quality standards provide the framework for the air quality, transportation system management (TSM) and transportation demand management components of the SANDAG Quality of Life Standards and Objectives. The California Air Resources Board (ARB) has classified the San Diego region as a serious non-attainment area for photochemical air pollution (ozone) and projects non-compliance with State standards beyond 1997. According to the San Diego APCD, the major sources of air pollutants in the region are motor vehicles and pollution transport from Los Angeles. Given this situation, local air quality improvement efforts are focused on transportation issues. To address transportation-related air quality problems, level of service standards for arterials, highways and transit systems have been developed along with goals for reducing single occupant auto trips.

Actions necessary to achieve state and federal clean air standards, and TSM and TDM objectives include:

- reducing solo auto trips by carpooling and using transit
- promoting telecommuting and staggered work schedules
- improving transit service
- building additional high occupancy vehicle lanes
- coordinating traffic signals and implementing other circulation system improvements
- reducing trip lengths through jobs/housing balance, mixed use development and focusing development near transit stations.

At the local planning level, cities must contribute to the air improvement effort with a day-to-day decision making framework to ensure attainment of regional standards and objectives. Even though no current local air quality plan exists in Chula Vista, the City Council has implemented the Growth Management Program which requires Air Quality Improvement Plans (AQIP) for major development projects (50 residential units or commercial/industrial projects

generating more than 500 trips per day). Through the Growth Management Program, Chula Vista is actively working to establish effective long-term strategies that implement state and federal air quality standards and objectives.

The legal requirement for an AQIP is stated in Section 19.09.050B of the City of Chula Vista Municipal Code. Each Sectional Planning Area (SPA) Plan submittal must contain an AQIP. The AQIP should identify those measures that:

- reduce the number of auto trips as the most effective means of reducing local air quality impacts,
- minimize energy consumption to reduce fossil fuel combustion for energy generation both to reduce "standard" air pollutants as well as greenhouse gases such as CO_2 involved in global warming,
- control fugitive dust and heavy equipment exhaust nuisance impacts during construction.

The AQIP is typically designed as a stand-alone technical report in a setting/impact/mitigation format. This structure allows the AQIP to be directly incorporated into project environmental clearance either as backup technical documentation for a mitigated negative declaration (MND) or to be summarized into the body of an EIR.

1.3 Approach

In order to insure that the role of transportation-related air pollution emissions are minimized as much as possible, measures in the regional air quality plan deal explicitly with trip/VMT reduction. Mandatory trip reduction programs have been found to be of limited effectiveness, to be economically burdensome and to be politically unpopular. Such measures have therefore been made voluntary to be implemented at a sub-regional level where they are most effective. The City of Chula Vista AQIP requirements are designed to insure that all available emissions reduction measures are incorporated into project planning regardless of whether air quality agencies have promulgated such measures on a basinwide scale.

Air quality mitigation in this AQIP focuses on the strategies and measures available to general development projects. Trip reduction strategies generally differentiate between commercial, industrial and institutional uses which are major attractors versus residential development which is the primary source of trip

generation. Successful strategies are those that most efficiently couple the attractors and generators. If attractors and generators are located in close proximity, then walking, bicycling or para-transit systems may reduce single occupant vehicle (SOV) dependence. If they are linked by efficient transit opportunities, non-SOV commuting becomes a viable option. If attractors are sufficiently large, either individually or through a specialized transportation management agency consolidating closely grouped attractors, the available pool of participants for ride-share or para-transit programs is made large enough for these programs to be effective. If commercial, employment and institutional development occurs in phase with residential growth, then trip lengths for goods, services, jobs, school, recreation, etc. can be minimized by providing needed amenities locally instead of far from the development.

Most established transportation/air quality improvement measures in the state and regional plans address issues of impact mitigation for residential projects on a limited basis. Some enhanced mitigation measures are available, however, on a local project/ developer basis. These measures include best available control measures for dust (PM-10) abatement, increased energy efficiency for reduction of fuel combustion, and incorporation of features into home design to accommodate new technologies that reduce trip-making or shift travel to less polluting modes.

New development at the edge of existing communities typically begins with a residential component. As the development grows, then grocery stores, schools, and other support facilities follow. Business park or shopping center construction may lag behind several years until the development reached "critical mass" that makes a more fully integrated community viable. The AQIP assumes that the total project will be built as planned, but the absorption rate of new development is obviously market driven. Because of the synergy between closely linked residential and non-residential development in terms of pollution reduction efficiency, concurrent phased growth of all master-planned community components constitutes the optimum air quality improvement strategy.

2.0 AIR QUALITY SETTING

2.1 Meteorology/Climate

The climate of Chula Vista, as with all of Southern California, is largely controlled by the strength and position of the semi-permanent high pressure center over the Pacific Ocean. The high pressure ridge over the West Coast creates a repetitive pattern of frequent early morning cloudiness, hazy afternoon sunshine, clean daytime onshore breezes and little temperature change throughout the year. Limited rainfall occurs in winter when the oceanic high pressure center is weakest and farthest south as the fringes of mid-latitude storms occasionally move through the area. Summers are often completely dry with an average of 10.3 inches of rain falling each year from November to early April at Lower Otay Reservoir, the nearest climate station to the project site.

Unfortunately, the same atmospheric conditions that create a desirable living climate, combine to limit the ability of the atmosphere to disperse the air pollution generated by the large population attracted to the San Diego County climate. The onshore winds across the coastline diminish quickly when they reach the foothill communities east of San Diego, and the sinking air within the offshore high pressure system forms a massive temperature inversion that traps all air pollutants near the ground. The resulting horizontal and vertical stagnation, in conjunction with ample sunshine, causes a number of reactive pollutants to undergo photochemical reactions and form smog that degrades visibility and irritates tear ducts and nasal membranes.

Because coastal areas are well ventilated by fresh breezes during the daytime, they generally do not experience the same frequency of air pollution problems found in some areas east of Chula Vista. Unhealthful air quality within the San Diego Air Basin's southern coastal communities does occur at times in summer during limited localized stagnation, but occurs mainly in conjunction with the occasional intrusion of polluted air from the Los Angeles Basin into the County. Localized elevated pollution levels may also occur in winter during calm stable conditions near freeways, shopping centers or other major traffic sources, but such clean air violations are highly localized in space and time and would not normally be found near the project site. Except for the occasional interbasin transport, air quality in the project vicinity is probably quite good.

Local meteorological conditions in the project vicinity have not been routinely monitored, but they likely conform to the regional pattern of strong onshore winds by day, especially in summer, and

weak offshore winds at night, especially in winter. These local wind patterns are driven by the temperature difference between the normally cool ocean and the warm interior and steered by any local topography. In summer, moderate breezes of 8-12 mph blow onshore and upvalley from the SW by day, and may continue all night as a light onshore breeze when the land remains warmer than the ocean. In winter, the onshore flow is weaker and reverses to blow from the NE in the evening as the land becomes cooler than the ocean.

Both the onshore flow of marine air and the nocturnal drainage winds are accompanied by two characteristic temperature inversion conditions that further control the rate of air pollution dispersal throughout the air basin. The daytime cool onshore flow is capped by a deep layer of warm, sinking air. Along the coastline, the marine air layer beneath the inversion cap is deep enough to accommodate any locally generated emissions. However, as the layer moves inland, pollution sources (especially automobiles) add pollutants from below without any dilution from above through the inversion interface. When this progressively polluted layer approaches foothill communities east of coastal developments, it becomes shallower and exposes residents in those areas to the concentrated reacted byproducts of coastal area sources.

A second inversion type occurs when slow drainage or stagnation of cool air at night creates localized cold "pools" while the air above the surface remains warm. Such radiation inversions occur throughout the San Diego area but are strongest within low, channelized river valleys. They may trap vehicular exhaust pollutants such as carbon monoxide (CO) near their source until these inversions are destroyed by surface warming the next morning. Any such CO "hot spots" are highly localized in space and time (if they occur at all), but occasionally stagnant dispersion conditions are certainly an important air quality concern in combination with continued intensive development of the Chula Vista area. The intensity of development near the project site is extremely low such that non-local background pollution levels during nocturnal stagnation periods are also low. The local airshed, therefore, has considerable excess dispersive capacity that limits the potential for any localized air pollution "hot spots" from project implementation.

2.2 Air Quality

2.2.1 Ambient Air Quality Standards (AAQS)

In order to gauge the significance of the air quality impacts of the Sunbow II development, those impacts, together with existing background air quality levels, must be compared to the applicable

ambient air quality standards. These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those people whose current health condition makes them most susceptible to further respiratory distress, such as asthmatics, the elderly, very young children, people already weakened by other diseases or illness and persons engaged in strenuous work or exercise, called "sensitive receptors."

Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed. Recent research has shown, however, that chronic exposure to ozone at levels that just meet federal AAQS may nevertheless have an adverse respiratory health impact. Just meeting standards may not provide a sufficient health protection cushion for sensitive receptor populations.

National AAQS were established in 1971 for six pollution species with states retaining the option to add other pollutants, require more stringent compliance, or to include different exposure periods. The initial attainment deadline of 1977 was extended to 1987 for certain National AAQS, and that deadline passed with the San Diego Air Basin (SDAB) still far from attainment. A California Clean Air Act (AB-2595) and a new Federal Clean Air Act have both since been promulgated that establish more realistic implementation timeframes for airsheds with moderately degraded air quality such as SDAB. Because California had established AAQS several years before the federal action and because of unique air quality problems introduced by the restrictive dispersion meteorology, there is considerable difference between state and federal clean air standards. Those standards currently in effect in California are shown in Table 2.1.

2.2.2 Baseline Air Quality

The nearest air quality measurements to the project site are made in downtown Chula Vista by the San Diego County Air Pollution Control District (APCD), the agency responsible for air quality planning, monitoring and enforcement in the SDAB. Table 2.2 summarizes the last seven years of published monitoring data from the Chula Vista (80 East J. St.) station. Progress toward cleaner air is seen in almost every pollution category in Table 2.2. The only federal clean air standard that was exceeded throughout the 7-year monitoring period was the hourly ozone standard which was exceeded an average of 2-3 times per year (once per year is allowable). The more stringent State standards for ozone and for 10-micron diameter respirable particulate matter (PM-10) were exceeded on a somewhat higher frequency; but, overall air quality in Chula Vista, as representative of the Sunbow II area, is nevertheless very good in comparison to other areas of the SDAB.

AIR POLLUTANT	STATE STANDARD CONCENTRATION/ AVERAGING TIME	FEDERAL PRIMARY STANDARD CONCENTRATION/ AVERAGING TIME	MOST RELEVANT EFFECTS
Ozone	0.09 ppm, 1-hr. avg. >	0.12 ppm, 1-hr avg.>	(a) Short-term exposures: (1) Pulmonary function decrements and localized lung edema in humans and animals. (2) Risk to public health implied by alterations in pulmonary morphology and host defense in animals; (b) Long-term exposures: Risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (c) Vegetation damage; (d) Property damage
Carbon Monoxide	9.0 ppm, 8-hr avg. > 20 ppm, 1-hr avg. >	9 ppm, 8-hr avg.> 35 ppm, 1-hr avg.>	(a) Aggravation of angina pectoris and other aspects of coronary heart disease; (b) Decreased exercise tolerance in persons with peripheral vascular disease and lung disease; (c) Impairment of central nervous system functions; (d) Possible increased risk to fetuses
Nitrogen Dioxide	0.25 ppm, 1-hr avg. >	0.053 ppm, ann. avg.>	(a) Potential to aggravate chronic respiratory disease and respiratory symptoms in sensitive groups; (b) Risk to public health implied by pulmonary and extra-pulmonary biochemical and cellular changes and pulmonary structural changes; (c) Contribution to atmospheric discoloration
Sulfur Dioxide	0.04 ppm, 24-hr avg.> 0.25 ppm, 1-hr. avg. >	0.03 ppm, ann. avg.> 0.14 ppm, 24-hr avg.>	(a) Bronchoconstriction accompanied by symptoms which may include wheezing, shortness of breath and chest tightness, during exercise or physical activity in persons with asthma
Suspended Particulate Matter (PM_{10})	30 $\mu g/m^3$, ann. geometric mean > 50 $\mu g/m^3$, 24-hr average>	50 $\mu g/m^3$, annual arithmetic mean > 150$\mu g/m^3$, 24-hr avg.>	(a) Excess deaths from short-term exposures and exacerbation of symptoms in sensitive patients with respiratory disease; (b) Excess seasonal declines in pulmonary function, especially in children
Sulfates	25 $\mu g/m^3$, 24-hr avg. >=		(a) Decrease in ventilatory function; (b) Aggravation of asthmatic symptoms; (c) Aggravation of cardio-pulmonary disease; (d) Vegetation damage; (e) Degradation of visibility; (f) Property damage
Lead	1.5 $\mu g/m^3$, 30-day avg. >=	1.5 $\mu g/m^3$, calendar quarter>	(a) Increased body burden; (b) Impairment of blood formation and nerve conduction
Visibility-Reducing Particles	In sufficient amount to reduce the visual range to less than 10 miles at relative humidity less than 70 percent, 8-hour average (10am - 6pm)		Visibility impairment on days when relative humidity is less than 70 percent



Ambient Air Quality Standards

TABLE 2.1

TABLE 2.2

CHULA VISTA AREA AIR QUALITY MONITORING SUMMARY
(Days Standards Were Exceeded and Maxima For Periods Indicated)

Pollutant/Standard	1990	1991	1992	1993	1994	1995	1996
Ozone:							
1-Hour > 0.09 ppm	21	13	14	12	4	7	1
1-Hour > 0.12 ppm	3	3	4	1	0	1	0
1-Hour ≥ 0.20 ppm	0	0	0	0	0	0	0
Max. 1-Hour Conc. (ppm)	0.15	0.15	0.15	0.13	0.10	0.14	0.10
Carbon Monoxide:							
1-Hour > 20. ppm	0	0	0	0	0	0	0
8-Hour > 9. ppm	0	0	0	0	0	0	0
Max. 1-Hour Conc. (ppm)	7	7	7	5	7	5	6
Max. 8-Hour Conc. (ppm)	4.8	3.9	3.8	3.5	3.8	4.0	3.2
Nitrogen Dioxide:							
1-Hour > 0.25 ppm	0	0	0	0	0	0	0
Max. 1-Hour Conc. (ppm)	0.13	0.12	0.15	0.09	0.10	0.10	0.08
Particulate Sulfate:							
24-Hour ≥ 25. $\mu g/m^3$	0/51	0/21	0/29	0/31	0/34	0/30	X/XX
Max. 24-Hour Conc. ($\mu g/m^3$)	16.8	11.2	9.9	19.0	15.4	22.0	XX.X
Inhalable Particulates (PM-10):							
24-Hour > 50 $\mu g/m^3$	7/62	7/60	2/60	2/60	2/60	5/59	X/XX
24-Hour > 150 $\mu g/m^3$	0/62	0/60	0/60	0/60	0/60	0/59	X/XX
Max. 24-Hour Conc. ($\mu g/m^3$)	67	73	54	56	61	103	62

Note: Standards for sulfur dioxide and particulate lead have been met with a wide margin of safety in 1990-96, and are, therefore, not shown.

Source: California Air Resources Board, Summary of Air Quality Data, 1990-96. Chula Vista APCD Monitoring Station (except for some particulate data which are from San Diego APCD Downtown Station).

XX = final 1996 data are not yet available.

There are no clear-cut trends in the Chula Vista baseline air quality data in Table 2. Improvement of the few standards routinely exceeded is relatively slow. Some very encouraging trends are seen in Table 2, particularly for the most recent data. In the last four years, Chula Vista recorded the following air pollution records in its monitoring history:

- fewest violations of the California hourly ozone standard (1996)
- fewest violations of federal ozone standard 1994 + 1996)
- lowest annual 1-hour ozone maximum (1994 - 1996)
- lowest annual 1-hour CO maximum (1993, 1995)
- lowest annual 8-hour CO maximum (1996)
- lowest annual 1-hour NO_2 maximum (1996)
- fewest violations of PM-10 standard (1993-94)

Extrapolation of the pollution trendline suggests that limited violations of standards could occur into the future but with decreasing frequency. Since observed San Diego County ozone air quality sometimes derives from the southward drift of pollution from the South Coast Air Basin (which is forecast to continue to exceed ozone standards to the year 2010), some ozone standard violations will likely occur in the County beyond the 1999 attainment target date despite Countywide pollution control efforts. A further improvement in ambient air quality from County-generated emissions reductions will thus occur within the next decade, but complete attainment of all standards may not happen until after the turn of the century.

As noted above, federal attainment criteria allow for one violation of standards per year averaged over three years. Inspection of Table 2 shows that the federal ozone standard of 0.12 ppm for one hour was only exceeded only twice from 1993 through 1996. The Chula Vista area technically is an attainment sub-area within the larger San Diego Air Basin non-attainment area. Except in foothill communities most affected by air stagnation at the base of the summer inversion, attainment of the federal ozone standard is close at hand throughout the air basin.

Some air quality concern has been raised about pollutant transport from Mexico with its considerably less stringent pollution control laws. An air quality station was established on Otay Mesa in part to monitor this phenomenon. Slight differences in ozone distribution on Otay Mesa are seen compared to Chula Vista. These differences are not so dramatic, however, as to indicate any substantial cross-border pollution transport.

2.2.3 Sources of Pollution

Nitrogen oxides (NO_x) and reactive organic gases (ROG) are the two precursors to photochemical smog formation. In San Diego County, 68% of the 310 tons per day of ROG emitted come from mobile (cars, ships, planes, heavy equipment, etc.) sources. For NO_x, 88% of the 240 tons emitted daily are from mobile sources. Computer modeling of smog formation has shown that a reduction of around 25% each of NO_x and ROG would allow the San Diego Air Basin to meet the federal ozone standard on days when there is no substantial transport of pollution from the South Coast Air Basin or other airshed.

2.2.4 Air Quality Management Planning

The continued violations of national AAQS in the SDAB, particularly those for ozone in inland foothill areas, requires that a plan be developed outlining the pollution controls that will be undertaken to improve air quality. In San Diego County, this attainment planning process is embodied in a regional air quality management plan developed jointly by the APCD and SANDAG. Several plans had been adopted in the late 1970s and early 1980s under the title Regional Air Quality Strategies (RAQS). Until recently, the 1982 RAQS was the last federally-approved (EPA) air quality plan for attainment of the federal ozone standard. More recent planning efforts have been modifications, improvements and updates of the earlier RAQS efforts.

The California Clean Air Act (AB-2595) required that a state clean air plan be developed to address meeting state standards as well as the often less stringent federal criteria. A basin plan was therefore developed and adopted in 1991 that predicted attainment of all national standards by the end of 1997 from pollution sources within the air basin, but little could be done about the problem of interbasin transport. Since the South Coast Air Basin is predicted to exceed the national ozone standard beyond the year 2000, the San Diego Air Basin, will also not experience completely healthful air for the next several decades.

A plan to meet the federal standard for ozone was developed in 1994 during the process of updating the 1991 state plan. This local plan was combined with those from all other California non-attainment areas with serious ozone problems to create the California State Implementation Plan (SIP). The SIP was adopted by the Air Resources Board (ARB) after public hearings on November 9-10, 1994, and forwarded to the U. S. EPA for their approval. After considerable analysis and debate, particularly regarding airsheds with the worst smog problems, EPA finally approved the SIP in mid-1996.

During the planning process and smog formation modeling, it was discovered that the SDAB can meet the federal ozone standard by the year 1999 without the creation of any new control programs not already in progress. Airsheds demonstrating an ability to meet standards by 1999 (in the absence of transport from one basin to another) are classified as having a "serious" ozone problem instead of being classified as "severe". The SDAPCD requested that EPA reclassify the air basin from severe to serious. This request was subsequently approved.

All progress towards attainment, including offsetting the effects of growth, is expected to derive from existing local, state and federal rules and regulations. Controversial rules previously evaluated that were judged by some people as overly intrusive into personal lifestyles (mandatory trip reduction programs or minimum average vehicle occupancy goals) are not needed to predict attainment. Any violations of ozone standards in the year 2000 or beyond are forecast to occur only on days when transport from the Los Angeles Basin creates substantially elevated baseline levels upon which any local basin impacts would be superimposed.

In general, mixed use developments such as Sunbow II are not of themselves emitters of air pollutants. Individual industrial uses may emit air contaminants from manufacturing or assembly operations. Such stationary sources are strongly controlled by SDAPCD rules and regulations. Industries unable to comply with stringent emission limits have moved out of county, out of state, or out of the country. Remaining industrial activities are mainly "clean" uses.

New developments generate air pollution almost exclusively through commuting, shopping or other personal travel. Traffic-generating sources are called "indirect sources". Indirect source consistency with any regional air quality planning is determined in terms of whether overall growth has been correctly anticipated in a given sub-region. If a given project represents an increment of growth predicted by SANDAG in its growth forecasts, and if any applicable emissions control measures applicable on a project-specific basis are implemented, then the regional air quality impact of project implementation is less than significant.

3.0 AIR QUALITY IMPACTS

3.1 Sources of Impact

The proposed project will impact air quality primarily through the vehicular traffic generated by project residents. Mobile source impacts occur basically on two scales of motion. Regionally, site-related travel will add to regional trip generation and increase the vehicle miles traveled (VMT) within the local airshed. Locally, project traffic, will be added to the Chula Vista roadway system near the project site. If such traffic occurs during periods of poor atmospheric ventilation, is comprised of a large number of vehicles "cold-started" and operating at pollution inefficient speeds, and is driving on roadways already crowded with non-project traffic, there is a potential for the formation of microscale air pollution "hot spots" in the area immediately around points of congested traffic. With continued improvement in vehicular emissions at a rate faster than the rate of vehicle growth and/or congestion, air pollution "hot spot" potential is steadily decreasing. Standards for carbon monoxide (CO), the most typical indicator of any "hot spot" potential, have not been exceeded at any air basin monitoring station since 1990.

Secondary project-related atmospheric impacts derive from a number of other small, growth-connected emissions sources such as temporary emissions of dusts and fumes during project construction, increased fossil-fuel combustion in power plants from project electricity requirements, evaporative emissions at gas stations or from paints, thinners or solvents used in construction and maintenance, increased air travel from area visitors, dust from tire wear and re-suspended roadway dust, etc. All these emission points are either temporary, or they are so small in comparison to project-related automotive sources such that their impact is less important. They do point out, however, that growth engenders increased air pollution emissions from a wide variety of sources, and thus further inhibits the near-term attainment of all clean air standards in the San Diego Air Basin (SDAB).

3.2 Standards of Significance

CEQA guidelines define a potentially significant air quality impact as one that:

a. creates violations of clean air standards,

b. contributes measurably to an existing violation, or,

c. exposes people to contaminants for which there are no presumed safe exposures.

For projects that create mainly automobile traffic whose emissions require complex photochemical reactions to reach their most harmful stage, there is no way to measure the impact to establish a "measurable contribution". Various air pollution control/ management agencies have developed guidelines using total project emissions as a surrogate for determining regional impact potential. The City of Chula Vista has no such threshold levels, but relies on guidance from other agencies. Candidate significance threshold levels include the following:

	Significant Emissions (lb/day)				
Agency	CO	ROC	NOx	SOx	PM-10
SDAPCD Rule 20.2 (a)	550	100	100	100	100
SDAPCD Rule 20.3 (b)	550	250	250	250	250
City of San Diego (c)	550*	100**	---	---	---
South Coast AQMD (d)	550	55	55	150	150

a = requires best available control
b = requires ambient air quality analysis
c = Significance Determination Guidelines (1991)
d = SCAQMD CEQA Air Quality Handbook (1993)

* = in areas of congested traffic
** = in areas of free-flow traffic

For purposes of analysis, the SDAPCD Rule 20.2 (BACT-trigger) is a reasonable compromise between the most stringent and most lenient of the four possible significance thresholds noted above.

3.3 Construction Impacts

The most significant source of air pollution from project construction will be the dust generated during excavation, grading and site preparation. Typical total dust lofting rates from construction activities are usually assumed to average 1.2 tons of dust per month per acre disturbed in the absence of any dust control procedures. These emissions are for total suspended particulates (TSP) which comprise smaller, respirable particulate matter of 10-micron diameter or less (called PM-10), as well as

larger particles that are trapped within the upper respiratory tract of people and other mammals. The PM-10 fraction of TSP is assumed to be around 50 percent. The PM-10 emission factor for project-related soil disturbance is around 55 pounds per day per acre disturbed in the absence of any dust control.

The California Air Resources Board (ARB) area source emissions inventory guidelines estimate that the net disturbance area for single-family housing is 0.25 acre per dwelling unit. Multi-family units have a presumed smaller disturbance footprint of 0.05 acre per unit. The residential development disturbance footprint for calculating dust generation for Sunbow II is approximately 300 acres. An additional 75 acres will be heavily graded for the business park, commercial, school and other community facilities. The net Sunbow II disturbance area will be approximately 375 acres, not all of which will be under simultaneous construction.

For purposes of analysis, approximately one-tenth, or perhaps 40 acres, was assumed to be disturbed on any given day. In the absence of any dust control, simultaneous disturbance of the 40 acres would generate daily total PM-10 emissions of 2200 pounds if no mitigation measures are implemented. Implementation of vigorous dust control measures would reduce PM-10 associated with grading by 50-75 percent or in the range of 550-1100 pounds per day. This range of emissions would still exceed the daily PM-10 significance threshold of 100 pounds per day. This generation of construction dust PM-10 emissions can be reduced to sub-threshold levels by reducing the area of disturbance and by using a very aggressive dust control program. Highly effective dust control can achieve a 90 percent control efficiency. If such a control program were implemented, and the simultaneous disturbance were restricted to slightly less than 20 acres per day, then daily PM-10 emissions could be maintained at less than the identified significance thresholds. Assuming that such an aggressive dust control program is implemented during construction, then with the temporary timeframe of such emissions and the generally good daytime ventilation conditions in the project vicinity, the impact from construction dust generation would be considered as individually less than significant. Components of a dust control program that use best available control methods (BACMs) is detailed in the mitigation discussion.

In addition to small dust particles that remain suspended in the air semi-indefinitely, construction also generates many large particles that are easily filtered by human breathing passages, but settle out rapidly on parked cars and other nearby horizontal surfaces. Large particle emissions thus comprises more of a soiling nuisance rather than any potentially unhealthful air quality impact. With prevailing daytime west to east winds, dust

soiling potential is likely greatest directly east of the project site. Good control of fine particulates also results in substantial reduction in nuisance potential from larger particulate matter. While dust deposition can be minimized, it often can not be completely eliminated. While temporary soiling nuisance is considered adverse, it does not constitute a significant air quality impact.

It should be noted that current regulatory philosophy relative to airborne particulates is that PM-10 is not an adequate predictor of potential health impacts. It has been clearly demonstrated that the health risk lies in much smaller particulate matter with diameters of 2.5 microns or less, called "PM-2.5". New federal standards for PM-2.5 were promulgated in 1997. Research has shown that mechanical abrasion processes such as clearing or grading of soil contribute little to the area PM-2.5 burden. Since grading is not a major PM-2.5 contributor, and since inert silicates comprising soil dust are further not particularly unhealthful, both the predicted significance of project grading and the stringency of recommended mitigation should be revisited if and when PM-2.5 standards are adopted.

Equipment exhaust as well will be released during project construction activities from mobile sources during site preparation. On-site, diesel-powered construction equipment will create gaseous and particulate tailpipe emissions that are not regulated by smog control rules such as for on-road sources. Recent new rules for off-road equipment have been adopted, but they apply to future new equipment purchases and not to the historical off-road equipment fleet likely to be used during site grading. Typical site grading was assumed to entail five (5) scrapers operating at an average power load of 60 percent of full throttle, assisted by a dozer and grader operating at a 40 percent power level each. Daily equipment exhaust emissions are shown in Table 3.1.

None of the emissions from on-site equipment operations exceed the daily emissions activity significance threshold. However, there is a possibility that daily NO_x emissions could approach the 100 pound per day significance threshold if any additional equipment were to operate on site during the grading activity. Mitigation in the form of periodic low-NO_x tune-ups for such equipment would be required to maintain NO_x emissions at sub-threshold levels.

Although the daily NO_x emissions are substantial, the mobile nature of the construction equipment will prevent any localized violation of the NO_x standard. Emissions will also be spread out over a wide area and over an extended buildout schedule. There may be localized instances when the characteristic diesel exhaust odor

TABLE 3.1

DAILY MASS GRADING EQUIPMENT EXHAUST EMISSIONS

Emissions Factors (pounds/hour @ 100% load)

Equipment:	CO	ROC	Nox	SO2	PM-10
Tracked Dozer	0.20	0.12	1.26	0.14	0.11
Motor Grader	0.15	0.04	0.71	0.09	0.06
Scraper	1.25	0.27	3.84	0.46	0.41

Daily Emissions (pounds/day)

Tracked Dozer	0.6	0.4	4.0	0.4	0.4
Motor Grader	0.5	0.1	2.3	0.3	0.2
Scraper	30.0	6.5	92.2	11.0	9.8
TOTAL	31.1	7.0	98.5	11.7	10.4
SDAPCD Rule 20.2 Threshold	550.	100.	100.	100.	100.

Source: USEPA Compilation of Air Pollutant Emission Factors, AP-42 (1995 rev.).

might be noticeable from passing trucks or nearby heavy equipment, but such transitory exposure is a brief nuisance and will not threaten air quality standards.

Construction activities are most noticeable in the immediate vicinity of the construction site. There is, however, some potential for "spill-over" into the surrounding community. Spillage may be physical such as dirt tracked onto public streets or dropped from trucks. Spill-over may also be through congestion effects where detours, lane closures, or construction vehicle competition with non-project peak hour traffic slows traffic beyond the immediate construction site to less pollution-efficient travel speeds. Such off-site effects are controllable through good housekeeping and proper construction management/scheduling. Management techniques are suggested in the mitigation discussion to reduce potential spill-over impacts.

3.4 Long-Term Vehicular Emissions Impacts

The greatest air quality concern from land use intensification usually derives from the mobile source emissions that result from project-related transportation. The Sunbow II project traffic study estimates that site-related traffic will total 28,708 "new" daily vehicle trips. The average travel distance for combined commuting, shopping and other purposes is almost 9 miles per individual trip. Project implementation will generate an additional 250,000 vehicle miles traveled (VMT) within the air basin. The corresponding air pollution emissions associated with site-related travel was calculated using the California ARB URBEMIS5 emissions model. This model calculates average daily emissions by combining the VMT data with average vehicular emission factors from the EMFAC7F(1.1) California vehicular emissions computer model. The daily mobile-source emissions for the Sunbow II project are shown in Table 3.2.

With a likely buildout by 2010, all smog-forming emissions would be above the 100 pound per day significance threshold. Regional air quality impacts from project implementation related to potential smog formation are therefore potentially significant. CO emissions will also be above the significance threshold. Steadily declining regional background CO levels, however, allow for a considerable local contribution before a "hot spot" is created. City of San Diego CEQA guidelines suggest that a detailed microscale air quality study is recommended if project-related CO levels exceed 550 pounds per day and congested intersections are forecast to occur in the project vicinity. Maintaining adequate roadway/ intersection levels of service is a condition for project approval. Traffic mitigation will preclude any possible localized congestion-related "hot spot" concerns.

TABLE 3.2

SUNBOW II PROJECT-RELATED VEHICULAR EMISSIONS
(lbs/day)

Land Use	ROC*	CO	NOx	PM-10	SOx
Single Family	66.5	516.1	79.9	14.0	9.4
Multi-Family	44.7	332.7	51.5	9.0	6.0
Elem. School	2.7	24.4	4.1	0.7	0.5
Comm. Park	6.2	56.0	9.8	1.7	1.2
Comm. Recreation	1.4	12.8	2.2	0.4	0.3
Neighborhood Comm.	19.1	172.1	30.1	5.3	3.6
Light Industry	21.7	201.7	32.9	6.0	4.0
TOTAL	162.3	1315.8	210.5	37.1	25.0
Signif. Threshold	100.	550.	100.	100.	100.
Exceeds (?)	Yes	Yes	Yes	No	No

* = assuming 95% of total organics are reactive (ROC)

Source: URBEMIS5 Vehicular Emissions Computer Model, Year = 2010

While the total scope of Sunbow II is sufficient to cause emissions-based significance thresholds to be exceeded, individual phases will likely generate less than significant mobile source air pollution increments. Table 3.3 shows the mobile source emissions increment associated with Phase 1A completion assumed conservatively to occur in the year 2000. Emission levels for all calculated pollutants are below the established significance threshold.

3.5 Stationary Source Emissions

Project-related energy consumption will cause limited amounts of combustion-related (mainly NO_x) to be generated. Energy consumption emissions for Sunbow II from electrical power plants and from natural gas combustion in furnaces, water heaters and other devices represent a small fraction of the total project pollution burden. Inclusion of stationary source emissions will increase total NO_x emissions by approximately 20 percent, but will add only 1-2 percent to all other pollutants. Addition of the stationary source component does not change any conclusions regarding impact significance. Because the mobile source contribution to the total burden is so dominant, mitigation measures that reduce trip generation and miles traveled are far more effective than those measures aimed at energy conservation.

Secondary emissions from general development will result during construction (aggregate and building materials manufacture, paints and solvents, power consumption, etc.) and operations (utility equipment, household products, cooking, etc.). These emissions are generally too small to be quantifiable on an individual household or an individual project basis. However, as SDAPCD emissions control programs encompass ever smaller source categories, even sources such as paint, mowers or insecticide sprays could ultimately be controlled.

TABLE 3-3

PHASE 1 MOBILE SOURCE EMISSIONS (lbs/day)

Pollutant	Single Family	Multi-Family	Total	Significance Threshold
ROC	46.7	18.8	65.5	100.
NO_x	37.2	14.6	51.8	100.
CO	322.0	126.0	448.0	550.
PM-10	4.5	1.8	6.3	100.
SO_x	2.9	1.2	4.1	100.

Source: URBEMIS5 Vehicular Emissions Computer Model, Year = 2000.

4.0 IMPACT MITIGATION

Possible impact significance was identified for construction dust (PM-10) and for operational vehicular and stationary source emissions.

The City of Chula Vista AQIP program does not distinguish between severity of significance. Any emissions will incrementally impede attainment of standards, and should therefore be mitigated to the extent feasible within a constraint of a reasonable cost benefit.

Sunbow II is primarily a residential project with 60 percent of trip-making from proposed single- and multi-family uses. Residential project developers have little real opportunity to reduce the mobile source emissions from future site occupants. Developers can facilitate the option to select alternatives to the single occupant vehicle, but they can do little to affect future buyers' decision to use or not use the opportunity provided. Discretionary action by a builder relates mainly to the construction itself. The three areas where a residential builder/ developer can implement some potential emissions reduction are:

1. How the project is constructed, i.e., what emissions reduction techniques are used during construction,

2. What site design features would encourage non-single occupant vehicle transportation, and,

3. What is put into the home that would contribute positively to reduced air pollution emissions.

The first area relates mainly to dust control procedures used by the contractor. Land use/site planning is an important aspect of the second area. The third area mainly entails energy saving features.

Sunbow II does include several non-residential components that have a somewhat greater potential for generating meaningful trip reduction. Employment centers such as the light industry/R&D park offer an opportunity to reduce commuting distances and to establish effective rideshare or other trip-diversion programs. Sunbow II includes commercial, recreation and school facilities that reduce travel distance or offer an opportunity to walk, bicycle or otherwise avoid using single occupant vehicles (SOV) for school, shopping, etc. Access to the proposed trolley line along Telegraph Canyon Road also offers a possibility to replace longer distance commuting with a "clean" alternative.

Those measures that are considered reasonably cost effective while achieving a potentially meaningful reduction in project-related emissions are shown in the attached suggested menu for air quality improvement plans for construction and for site operations. These measures would fulfill the requirements for the City of Chula Vista to "do its fair share" relative to air quality improvement as stated on page 3-91 of the City's Growth Management Program.

4.1 Candidate Air Quality Improvement Plan - Project Construction

Clearing/Grading

a. Maintain soil moisture at a minimum of 12 percent for any cut-and-fill areas within 100 feet of any adjacent property line to the depth of the cut.

b. Water as necessary to prevent a visible dust cloud from exceeding 100 feet in length from any disturbance area.

Disturbed Areas

a. Apply chemical stabilizer or establish vegetation on any disturbed area to be left unattended for more than 60 days to prevent a visible cloud from forming during high wind conditions.

b. Water any non-stabilized disturbed areas twice per day until vegetation is established.

Track-Out Control

a. Apply chemical stabilizer or pave the last 100 feet of internal travel path within a construction site prior to public road entry, or,

b. Install wheel washers adjacent to a paved apron prior to vehicle entry on public roads.

c. Remove any visible track-out into traveled public streets within 30 minutes of occurrence.

d. Wet wash the construction access point at the end of each workday if any vehicle travel on unpaved surfaces has occurred.

e. Provide sufficient perimeter erosion control to prevent washout of silty material onto public roads.

Dirt Hauling

a. Cover haul trucks or maintain at least 12 inches of freeboard to reduce blowoff during hauling.

High Wind Operations

a. Suspend all soil disturbance and travel on unpaved surfaces if winds exceed 25 mph.

Off-Road Equipment

a. Provide a low-NO_x tune-up (engine retard) to all off-road equipment to be operating on the site, and repeat if equipment remains on-site for more than 90 days.

4.2 Air Quality Improvement Plan - Site Operations

Energy Consumption

- Incorporate enhanced energy conservation features in excess of the minimum requirements of Title 24 of the California Code of Regulations.
- Install energy efficient landscaping in all development common areas.
- Utilize passive design concepts that make use of the naturally mild climate to increase energy efficiency.
- Utilize energy-efficient lighting wherever cost-effective to do so.
- Provide a water and electrical connection that may be accessed for optional solar-assisted water heating for domestic or pool/spa uses.
- Provide a gas connection to fireplaces to encourage use of log lighters or of artificial fireplace logs.
- Provide an outside natural gas connection to encourage use of gas-fired barbecues.

- Provide outside electrical outlets to encourage use of electrically powered yard maintenance equipment.

- Provide 220-volt electrical service to the garage for an electrically powered vehicle charging station.

Trip/VMT Reduction

- Provide safe bicycle paths along East Palomar for access to school, boys/girls club, park, etc.

- Provide cut-through walkways or bike paths to the school site for tracts south of East Palomar to minimize having to exit the tracts to use East Palomar to travel to school.

- Reserve space along Palomar Street or Medical Center Drive for possible future transit stops.

- Include adequate right-of-way for street plans to accommodate bike paths on all major street and Class I, II and III collector streets within Sunbow II where bike paths share common road surface with powered vehicles.

- Encourage the provision of shower and locker facilities for all business park uses with building sizes exceeding 12,500 square feet (~ 50 employees).

- Develop a business park transportation management agency once business park development reaches a sufficient scope of development to provide an adequate participant pool for optimizing non-SOV commuting options.

- Designate a rideshare/environmental coordinator for Sunbow II to disseminate information on ridesharing/mass transit opportunities, recycling and energy conservation for employees and residents within the development.

- Insure the availability of more than two phone lines to each home for in-home offices and other telecommuting needs.

4.3 City of Chula Vista AQIP Guidelines

The City of Chula Vista has developed guidelines for development of an AQIP that incorporates site design features that best optimize the potential to achieve meaningful trip reduction. Table 4.1 summarizes the design phase measures that are important at the master plan and development plan level. Table 4.1 identifies those planned project features that specifically address the City's AQIP objectives.

TABLE 4.1

DESIGN PHASE AIR POLLUTION MITIGATION CHECKLIST

Measure:	Applicable to This Project	Incorporated Into Sunbow II	Notes
Street Circulation/Connectivity	Yes	Yes	1
Housing Near Transit	Yes	Yes	2
Land Use Mix/Proximity	Yes	Yes	3
Pedestrian & Bicycle Orientation	Yes	Yes	4
Transit-Oriented Design	Yes	Maybe	5
Reduce Commercial Parking	Maybe	No	6
Bicycle/Transit Integration	Maybe	Yes	7
Energy Efficient Landscaping	Yes	Yes	8
Other Trip Reduction Measures	Yes	Yes	9

Notes:

1. Sunbow II has a trail system that connects its residents to Poggi Canyon, Telegraph Canyon, Greg Rogers Park, Parkview School and Sunbow II commercial uses. Walkway/bike connections are recommended between cul-de-sacs and between tracts to encourage access to parks, schools, etc. via the shortest possible route and without having to travel on heavily traveled roadways.

2. Sunbow II is adjacent to mass transit and is in close proximity to Chula Vista Hospital and Eastlake Industrial Park. Trolley access is potentially available on the proposed line along Telegraph Canyon Road.

Continued on Next Page.....

Table 4.1 (Cont'd.)

3. Sunbow II has planned its commercial and park uses to be centrally located. The development standards around the Village Center in the Sunbow II General Development Plan state as follows:

   Mixed Use Standard - Purpose and Intent:

   This area allows a mix of neighborhood commercial, professional/medical offices, residential and recreational uses in areas generally suitable for high intensity development.

4. Both Poggi and Telegraph Canyon Trails are separate from the parallel street. Other trails within Sunbow II are completely separate from the street system. Reservation of adequate roadway width in all Sunbow II major and collector streets to accommodate sidewalks and bike paths is a recommended design measure.

5. A trolley line is proposed along Telegraph Canyon Road. Access to the system at Paseo Landera or Medical Center Drive is recommended to allow Sunbow I and II residents to commute via the light rail system. Although Sunbow itself does not meet transit-oriented design standards of high intensity development near transit nodes, it does provide for numerous transit access opportunities.

6. Reduction of commercial parking may discourage carpooling and may create congestion effects due to lack of space availability during peak demand periods. Site design features for the Village Center should discourage large expanses of asphalt, but any reduction in supply relative to Code minimums should be carefully evaluated.

7. Bike paths along internal collector streets will provide substantial opportunity to deliver potential transit riders to buses equipped with bicycle racks. Maintaining tract interconnection to not force riders onto major streets before it is necessary is an important component of meeting this objective.

8. Sunbow II has a comprehensive landscape design. Water conservation is a specific requirement for all irrigation plans.

9. Measures to promote in-house office uses and to facilitate use of alternative fuel vehicles (electric) are included in the recommended menu of mitigation measures.

CITY OF
CHULA VISTA

CITY OF CHULA VISTA PLANNING AND BUILDING DEPARTMENT
PLAN CHECK CORRECTION LIST FOR
SINGLE-FAMILY RESIDENCE / DUPLEX - ADDITION

ACTIVITY NO.	B04-4041	RECHECK			
DATE REVIEWED:	15 NOV. 2004	DATE RECEIVED			
JOB ADDRESS	1029 NOLAN LN.				
PROJECT DESCRIPTION					
PLANS EXAMINER	SCOTT HARRIS	PHONE	(619) 691- 5272	Ext.	3099
APPLICANT		OCCUPANCY	R-3		
APPLICANT. PHONE #:		TYPE OF CONSTRUCTION	V-N		

Expiration of Plan Review: Permit applications for which no permit is issued within 180 days from the date of application expires by limitation. The Building Official may extend the application for a period not exceeding 180 days on request of the applicant showing that circumstances beyond the control of the applicant have prevented issuance of the permit. An application cannot be extended more than once. In order to renew an application after it has expired, the applicant must resubmit plans and pay a new plan review fee.

LINK TO CITY OF CHULA VISTA BUILDING DEPARTMENT:
HTTP://WWW.CI.CHULAVISTA.CA.US/CITY_SERVICES/DEVELOPMENT_SERVICES/PLANNING_BUILDING/DEVELOPMENT_SERVICES_CENTER/DEFAULT.ASP

Scott Harris – sharris@ci.chula-vista.ca.us

GENERAL PLAN:

1. Please pick up the red marked set of plans from the city of Chula Vista Building Department Downtown Office. Please incorporate/ include all comments as marked/red lined on checked set of plans and calculations and this correction sheet. Return originally checked plans and calculations with new corrected plans.

2. Provide a statement on the cover sheet of the plans indicating that this project will comply with Title 24(1998 Energy Conservation), 2001 CBC, CMC, CPC and CEC.

3. Approval from the Planning, Engineering or Fire Department is required prior to permit issuance.

SITE PLAN

1 Provide a statement on the plans noting: "All property lines (real or assumed), easements and buildings (both existing and proposed), are shown on this site plan".

2 Show drainage patterns and locations of lot slope, gradients of cut or fill slopes.

RESIDENTIAL OCCUPANCY

No comment

STRUCTURAL

1. Show that nailing will be in compliance with TABLE 23-II-B-1-NAILING SCHEDULE. Imprint table (or equivalent) on plans.
2. Provide pressure treated lumber for all plates, sills, sleepers on a concrete or masonry slab which is in direct contact with earth, and sills that rest on concrete or masonry foundations per UBC. 2306.4 and 1806.6
3. Identify the connection of the block to the beam at deatilC, identify the hanger number,
4. The slab should have 2" sand and visqueen and 2" sand below thje slab.
5. Identify the beam as DF#1.

ELECTRICAL

1. Show location(s) and size(s) amperage of all services, panels, and subpanels
2. One wall, switch-controlled, lighting outlet shall be required in dwelling units at outdoor entrances, all habitable rooms, bathrooms, hallways, stairways and attached garages, per section 210-70.
3. Smoke detectors shall be located in each sleeping room and hallway or area giving access to a sleeping room, and on each story and basement for dwellings with more than one story and provided as follows: (310.9.1.3,4)
   - a In new construction smoke detectors shall receive their primary power source from the building wiring and shall be equipped with battery back up and low battery signal.
   - b In existing construction smoke detectors may be battery operated, installed in location as specified in (a) above.
4. Show exterior outlet

RESIDENTIAL ENERGY

1. Provide documentation for the rigid insulation. The manufacturer as compliant shall certify insulation with the California Quality Standards for Insulating Material, Title 20, Chapter 4, and Article 3. (Title 24, Part 6, Chapter 2, Section 118)

END OF DOCUMENT

SUNBOW

AND SURROUNDING AREAS

- Existing residential
- Park, tennis courts, tot lot. track, picnic area
- Sharp Chula Vista Medical Center
- Horizons PA 12
- Daybreak PA 13
- Greg Rogers School, Greg Rogers Park, Boys & Girls Club
- ••• Regional and Community Trail System

PROPOSED FUTURE FACILITIES:

- Village 3, residential "MAR DEL SOL" 14
- Village 4, residential "ESTRELLA" 15
- Village 5, residential "SEASONS" (144) 16
- Village 6, residential "SUMMERWALK (102) 17
- Village 7, residential 19
- Village 8, residential 20
- Village 9, residential 21
- Village 10, residential 22
- Village multi-family (VMF)
- Village 11, school 18
- Village 15, park 9
- Village 16, retail center 8
- Village 19, industrial 23



Artist concept, may not be to scale.