

The City of Encinitas
California



PUBLIC ROAD STANDARDS

April, 1991

RESOLUTION NO. 96-12

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF ENCINITAS,
CALIFORNIA, APPROVING AN AMENDMENT TO THE PUBLIC ROAD STANDARDS

WHEREAS, the City Council adopted Resolution No. 91-39 on August 28, 1991,
approving amendments to the Public Road Standards; and

WHEREAS, the Engineering staff discovered an inaccuracy in a document reference
that reads as follows:

Section 6.9, Pavement and Structural Section, subsection c. Aggregate base shall not be
less than 4 inches for portions of driveways in the right-of-way and alleys and 6 inches
for all other roads, where required, and shall conform to the latest provisions of Caltrans
Standard Specifications Section 26, Class II or A.P.W.A. Standard Specification Section
200-2.5. Decomposed granite is not an acceptable base material; and

WHEREAS, A.P.W.A. Standard Specification Section 200-2.5, refers to Processed
Miscellaneous Base; and Section 200-2.2, refers to Crushed Aggregate Base.

NOW THEREFORE, BE IT RESOLVED by the City Council of the City of Encinitas,
California, hereby amends the Public Road Standards to read as follows:

Section 6.9, Pavement and Structural Section, subsection c, is changed to the following:
Aggregate base shall not be less than 4 inches for portions of driveways in the right-of-
way and alleys and 6 inches for all other roads, where required, and shall conform to the
latest provisions of Caltrans Standard Specifications Section 26, Class II or A.P.W.A.
Standard Specification Section 200-2.2. Decomposed granite is not an acceptable base
material.

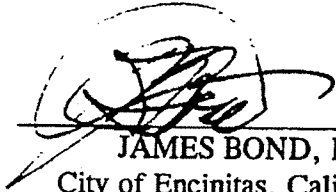
PASSED AND ADOPTED this 14th day of February, 1996, by the following vote, to
wit:

AYES: Aspell, Bond, Davis, DuVivier, Hano

NAYS: None

ABSENT: None

ABSTAIN: None


JAMES BOND, Mayor
City of Encinitas, California

ATTEST:


DEBORAH CERVONE, City Clerk



CITY OF ENCINITAS POLICY

Date: January 31, 1996

TO: City Engineering Inspectors
FROM: Greg Shields, Field Operations
VIA: Alan Archibald, Director of Engineering Services
SUBJECT: ORNAMENTAL STREET LIGHTS

San Diego Regional Standard Drawing, E-1, Street Lighting Standard, shows a standard for direct burial street lights. The City of Encinitas does not allow for direct burial street lights.

Cc: Director of Public Works
Utilities

RESOLUTION NO. 93-46.

A RESOLUTION OF THE CITY COUNCIL
OF THE CITY OF ENCINITAS
APPROVING AMENDMENTS TO PUBLIC ROAD STANDARDS

WHEREAS, City Council has adopted "Public Road Standards" and,

WHEREAS, "Public Road Standards" made provisions to designate specific existing streets to either Special Case Local, Special Case One-Way, Special Case Local 50', and

WHEREAS, the City Council on April 28, 1993 did consider Cornish Drive between East "I" Street and Santa Fe Drive and did determine that Cornish Drive between East "I" Street and Santa Fe Drive be designated a "Special Case Local" street,

NOW THEREFORE, BE IT RESOLVED that the City Council of the City of Encinitas amend the "Public Road Standards" to include Cornish Drive between East "I" Street and Santa Fe Drive in the Special Case Local category.

PASSED AND ADOPTED this 16th day of June,
1993, by the following vote to wit:

AYES: Bond, Davis, DuVivier, Hano, Wiegand

NAYS: None

ABSENT: None

E. Jane Pool
E. Jane Pool, City Clerk

John Davis
JOHN DAVIS, Mayor
City of Encinitas

AR3501

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RESOLUTION NO. 93-26

A RESOLUTION OF THE CITY COUNCIL
OF THE CITY OF ENCINITAS
APPROVING AMENDMENTS TO
PUBLIC ROAD STANDARDS

WHEREAS, City Council has adopted "Public Road Standards",
and;

WHEREAS, "Public Road Standards" made provisions to designate
specific existing streets to either Special Case Local, Special
Case One-Way or Special Case Local 50", and

WHEREAS, Engineering staff is now recommending that:

1. The roads shown on Attachment "A" (1) be designated as
"Special Case Local",
2. The roads shown on Attachment "A" (2) be designated as
"Special Case Local 50'".

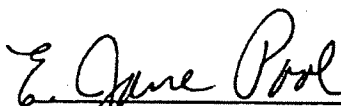
NOW THEREFORE, BE IT RESOLVED that the City Council of the
City of Encinitas amend the "Public Road Standards" to include
additional Special Case Local and Special Case Local 50' as set
forth in Attachment A of this Resolution.

PASSED AND ADOPTED this 14th day of April, 1993,
by the following vote, to wit:

AYES: Bond, Davis, DuVivier, Hano, Wiegand

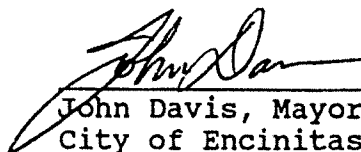
NAYS: None

ABSENT: None



Jane Pool, City Council

ar3368



John Davis, Mayor
City of Encinitas

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ATTACHMENT "A" to
RESOLUTION 93-26

(1) "Special Case Local" requiring 40' right-of-way:

1. MacKinnon Avenue - Birmingham to I-5.
2. Caudor St., Capri to Norma.
3. Burgundy Road - Capri to northerly terminus.
4. Eucalyptus Avenue - Ashbury to northerly terminus.
5. Wilstone Avenue - Ashbury to northerly terminus.
6. Clark Avenue - Puebla to Leucadia Blvd.
7. La Mirada - Puebla to Leucadia Blvd.
8. Del Riego Avenue - Puebla to Leucadia Blvd.
9. Del Rio Avenue - Puebla to Leucadia Blvd.
10. Puebla Street - Saxony to Clark.
11. Melba Road - Cornish to Devonshire.
12. Seeman Drive - Encinitas to northerly terminus.

(2) Additional "Special Case Local 50'"

1. Olympus Street - Pireaus to Caudor.
2. Wood Drive - west of Caudor.
3. Coop Street - Jupiter to westerly terminus.
4. Hermes Avenue - Leucadia to northerly terminus.
5. North Court - Highway 101 to Melrose.
6. Naiad Street - Hymettus Avenue to Eolus Avenue.

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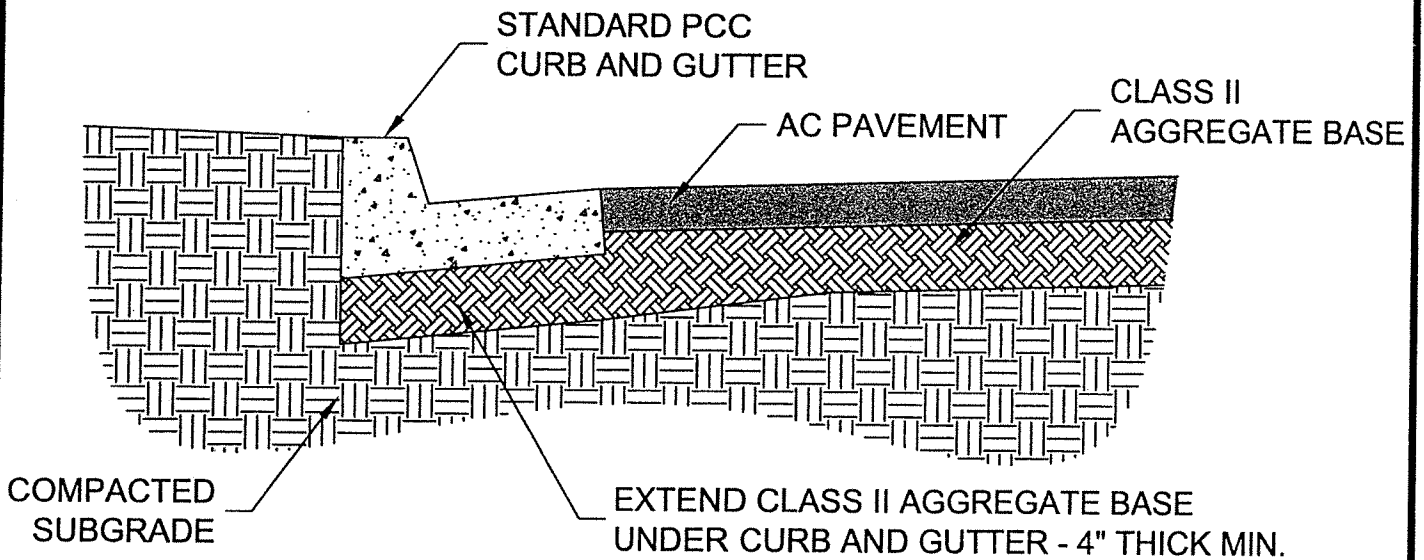


**CITY OF ENCINITAS
INTEROFFICE
MEMORANDUM**

Date: August 21, 1992

TO: City Engineering staff
FROM: Lloyd Holt, City Engineer
SUBJECT: Construction Procedures

When Portland Cement Concrete Curb, or Curb and Gutter is required to be constructed, the curb and gutter may be placed on compacted subgrade, unless the bottom of the required depth of the base material for the adjacent pavement is at or below the bottom front edge of the gutter or curb. Then a minimum of four (4) inches of base shall be placed under the curb and gutter. Transition of base thickness shall take place outside of the curb and gutter.



CITY OF ENCINITAS

BASE TREATMENT UNDER CURBS

RESOLUTION NO. 91-39

A RESOLUTION OF THE CITY COUNCIL
OF THE CITY OF ENCINITAS
APPROVING AMENDMENTS TO PUBLIC ROAD STANDARDS

WHEREAS, the City Council has directed the Engineering staff to prepare "Public Road Standards"; and

WHEREAS, "Public Road Standards" have been completed and presented before the five Community Advisory Boards (CAB's) and the Planning Commission for review and comments; and

WHEREAS, a public hearing was held on February 13, 1991 and Engineering staff presented "Public Road Standards" for discussion and implementation to City Council;

WHEREAS, City Council approves certification of the negative declaration; and

WHEREAS, City Council moved to adopt the standards, as submitted with the following amendments:

1. Addition of a special case local with parking on one side within a forty foot right-of-way and a special case one-way within forty foot right-of-way.
2. Eliminating all special case sections that require five foot easements outside existing rights-of-way.
3. Adopt alternate standards for Lone Jack Road, a sixty foot right-of-way which included a recreation trail and a parkway for utilities on one side and a parkway and two-way bike path on the other side of the road.
4. Adopt "Public Road Standards" as they effect all Circulation Element roads, with the exception of Lone Jack Road; and

WHEREAS, City Council directed Engineering staff to prepare a list of streets with existing 40' and 50' widths that qualify for exemption from future additional rights-of-way; and

WHEREAS, City Council moved to designate specific existing local streets to either special case local, special case one-way or special case local 50' as follows:

1. Attachment "A", a list of existing forty-foot streets that will not require additional right-of-way and would be classified either "special case local" or "special case one-way".

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2. Attachment "B", a list of existing 50' right-of-way streets that will not require additional right-of-way and would be classified as a "special case local, 50'",

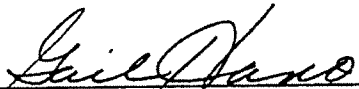
NOW THEREFORE BE IT RESOLVED that the City Council of the City of Encinitas approve all of the amendments to the "Public Road Standards" set forth in this Resolution.

PASSED AND ADOPTED this 28th day of August, 1991, by the following vote, to wit:

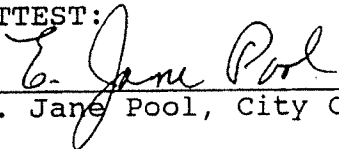
AYES: Davis, Hano, Omsted, Slater, Wiegand

NAYS: None

ABSENT: None



GAIL HANO, Mayor
City of Encinitas

ATTEST:


E. Jane Pool, City Clerk

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ATTACHMENT "A"

Existing 40' right-of-way streets that are recommended for special case local designation as set forth in the new "Public Road Standards":

1. Diana - Neptune to Hwy. 101
2. Clark Ave. - Leucadia to Puebla St.
3. La Mirada Ave. - Leucadia to Puebla St.
4. Del Rio Ave. - Leucadia to Puebla St.
5. Del Riego Ave. - Leucadia to Puebla St.
6. Neptune Ave. - N'ly. terminus to 400' so. of Athena
7. Melrose - Sylvia to El Portal
8. Florita - La Mesa to La Veta
9. Lolita - La Mesa to La Veta
10. Sylvia - La Mesa to La Veta
11. Sunset Drive - Vulcan to Orpheus
12. 5th St. (Old Encinitas) - Sylvia to s'ly 365'± of "A" St.
13. Cornish Dr. - Melba to "D" St.
14. San Dieguito Dr. - Santa Fe Dr. to E. "D" St.
15. Arden Dr. - Santa Fe Dr. to E. "D" St.
16. Stratford Dr. - Santa Fe Dr. to E. "D" St.
17. Arroyo Drive - Ocean View to terminus
18. Haydn Drive - Verdi to Schubert Ln.
19. Liszt - Haydn to Westminster
20. Liszt - San Elijo to Haydn
21. Cadmus - Hwy. 101 w'ly. to terminus
22. Brahms Rd. - Liszt to terminus
23. Bristol Ave. - Sheffield to Oxford
24. Stafford Ave. - Oxford to Cambridge
25. Rossini Drive - Brighton to n'ly. terminus
26. Rossini Drive - Montgomery to Manchester
27. Manchester Ave. - Rossini to San Elijo
28. Montgomery Ave. - Rossini to s/e'ly. terminus
29. Oxford Ave. - Stafford to s/e'ly. terminus
30. Cambridge Ave. - Stafford to s/e'ly. terminus
31. Edinburg Ave. - Cambridge to s/e'ly. terminus
32. Glasgow Ave. - N'ly. terminus to s/e'ly. terminus
33. MacKinnon Ave. - Birmingham to s/e'ly. terminus
34. Chesterfield Ave. - Manchester to n/e'ly. terminus
35. Newcastle Ave. - Orinda Dr. to Norfolk
36. Norfolk Ave. - San Elijo to n/e'ly. terminus
37. Dublin Ave. - San Elijo to n/e'ly. terminus
38. Kilkenny Drive - San Elijo to n/e'ly. terminus
39. Somerset Drive - Birmingham to Warwick
40. Sheffield Avenue - Rossini to Somerset
41. Rubenstein Drive - Rubenstein Ave. to Westminster Drive

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ATTACHMENT "B"

Existing 50' Right-of-Way streets recommended for "Special Case Local, 50'" Designation set forth in the new "Public Road Standards".

1. Eolus Avenue - Hymettus to Leucadia Boulevard.
2. Hygeia - Sanford to Calle de Madera.
3. Hymettus - Glaucus to Leucadia Boulevard.
4. E. Jason - Vulcan to Hygeia.
5. E. Glaucus - Vulcan to Hygeia.
6. Naiad Street - Hymettus to Eolus.
7. E. Fulvia - Hymettus to Eolus.
8. Glaucus - Hymettus to Orpheus.
9. Sanford - Hygeia to Vulcan.
10. Noma Lane - Caudor to Terminus.
11. Hermes - Leucadia Boulevard northeasterly to terminus.
12. Neptune - 400'+ South Athena to La Mesa.
13. Hermes - Cereus to southeasterly terminus.
14. North El Portal - Neptune to La Mesa.
15. South El Portal - Neptune to La Mesa.
16. Marcheta - Highway 101 to La Mesa.
17. La Mesa - Sylvia to northeasterly terminus.
18. La Veta - Sylvia to northeasterly terminus.
19. El Portal - La Mesa to Highway 101.
20. Roseta - La Mesa to westerly terminus.
21. Liverpool - Newcastle to MacKinnon.
22. Chesterfield - Newcastle to Manchester.
23. Montgomery - San Elijo to Westminster.
24. Westminster - Montgomery to Summit Drive.
25. Warwick - Somerset to westerly terminus.
26. Newport - Norfolk to southerly terminus.
27. Blue Sky Drive - Santa Fe Drive to Grange Hall Road.
28. Grange Hall Road - Windsor Road to Blue Sky Drive.
29. Capri Road - Gascony to Burgundy.

City of Encinitas
Public Road Standards

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SECTION 1

INTRODUCTION

Section 1.1 INTRODUCTION

These Standards are for use by individuals who as a result of the land development process desire to have the City Council accept public works improvements into the City's system of maintained public roads.

Section 1.2 PURPOSE

The purpose of these Standards is to provide for the regulation of improvements to be dedicated to the public and accepted by the City as a result of the land development process, the issuance of building permits, and approval of minor or major use permits. The Standards are intended to keep the operating cost of maintaining public facilities at a reasonable level and at the same time provide for the service, health, welfare and safety of the public. It is the intent of these Standards to implement the Goals and Policies of the City's General Plan.

Section 1.3 EXCEPTIONS

It is not possible to anticipate all situations that may arise and to prescribe Standards applicable to every situation. The Standards will be applicable to the vast majority of cases, but they are not inflexible rules to which there is no exception. Occasionally, City Council or the Director of Public Works may allow exceptions due to overriding, unmitigable environmental considerations, the identification of significant environmental features or where the application of the Standards to a specific situation results in an impractical and unreasonable hardship. The City Code and these Standards provide the procedure for modification of standards.

Projects financed with State or federal funds are subject to the standards prescribed by those agencies, and these Standards must conform to the State or federal standards in order to qualify for funding. Exceptions may be allowed to these Standards when this occurs.

SECTION 2

GENERAL DEFINITIONS

The following definitions shall be applicable to these Standards.

1. "CITY ENGINEER" means City Engineer or authorized representative.
2. "COMMON DRIVEWAY" is a driveway shared by more than one legal lot or by more than one residential dwelling unit, or commercial or industrial establishment.
3. "CROSS-FALL" is the difference in elevation of ends of a chord drawn normal to the roadway between opposite edges of the paved way. Its gradient is determined by dividing the difference in elevation between edges by the horizontal distance between edges, expressed as a percentage.
4. "CROSS-SLOPE" is the gradient determined by dividing the difference in elevation from crown to pavement edge by the horizontal distance from crown to pavement edge, expressed as a percentage.
5. "CROWN" is the highest part of the road surface between paving edges.
6. "CUL-DE-SAC" is a non-circulation element local street or street system open at only one end.
7. "DEVELOPER" includes subdivider, home builder, or any person seeking to have the City accept or include in the maintained system any road or drainage facility.
8. "DIRECTOR" means "Director of Public Works," or authorized representative.
9. "DWELLING" means a building, or portion thereof, used exclusively for residential purposes, including one-family, two-family, multiple dwellings, and apartment hotels; but shall not include hotels, motels, or boarding or lodging houses.
10. "DWELLING UNIT" means one or more rooms in a dwelling or multiple dwelling or apartment hotel used for occupancy by one family (including necessary servants and employees of such family) for living or sleeping and having only one kitchen.

11. "ENGINEER OF WORK" means a Civil Engineer licensed to practice in the State of California who has been authorized by the developer to prepare plans and specifications.
12. "GRADE" is the slope of the longitudinal road profile generally measured along the centerline, expressed as a percentage.
13. "GRADED WIDTH" means the width of the road to be graded measured from the top of the bank in embankment or the toe of the slope in excavation. It shall not include slopes or slope easements.
14. "IMPROVEMENT WIDTH" means the specified width of pavement as measured between the edges of pavement. Where asphalt concrete dikes or Portland cement concrete curbs are used, the measurement shall be from curb or dike face to curb or dike face.
15. "INDUSTRIAL/COMMERCIAL" is applied to all roads that are used to provide access to abutting industrial lots, commercial lots or office professional lots. For the purpose of these Standards there is no differentiation between the terms "INDUSTRIAL" and "COMMERCIAL."
16. "INTERSECTION" is the area embraced within the prolongation of the lateral curb lines; or, if none, then the area within which vehicles traveling upon different roadways may come in conflict.
17. "LEVEL OF SERVICE" of a road is a measure of its vehicular capacity. Six level of service (A to F) are identified in the City of Encinitas General Plan. "A" is identified as "free" vehicular flow with little conflicts or interruptions while "F" is identified as highly congested stop-and-go with many vehicular conflicts and interruptions. The level of service for a particular road is a measure of speed and travel time, traffic interruptions or restrictions, freedom to maneuver, safety, driver comfort and convenience, and economy. It is a policy of the City's General Plan Circulation Element to endeavor to maintain a level of service "C".
18. "NUMBER OF VEHICLE TRIPS" means the number of one-way trips per day anticipated on a road under consideration and includes present, proposed and potential development.
19. "PARKWAY" is the distance measured from the curb of face to the property line of a road right-of-way.
20. "PAVING WIDTH" is the specified width of paving and roadbed is

measured from curb face to curb face. In the absence of curbs, the width of paving and roadbed is measured from the edges of the paving or edges of the roadbed. If rolled curb and gutter is used, the road width shall be measured from a point one foot in front of the property-line-side of the curb and gutter to the same point on the opposite side of the street.

21. "RIGHT-OF-WAY" means the distance measured between the opposite property lines of a roadway or street.
22. "STANDARD DRAWINGS" means the current edition of the San Diego Area Regional Standard Drawings which are included as a part of these Standards. Also included are additional Standard Drawings that may be attached to these Standards or adopted by the City of Encinitas.
23. "STREET" includes roads and highways. The terms street, road, and highway are used interchangeably and refer to the rights-of-way used for vehicular traffic and, except in the case of freeways, for pedestrian traffic.

SECTION 3

GENERAL POLICY

Section 3.1 PLANS TO BE APPROVED BY CITY ENGINEER

The developer shall cause to be prepared by a California Registered Civil Engineer, in accordance with these Standards, and submitted to the City Engineer for approval, all plans, profiles, and specifications determined by the City Engineer to be necessary for the proposed improvement of all streets, easements, and drainage ways. The developer shall obtain the approval of said plans, profiles, and specifications by the City Engineer, and obtain necessary permits prior to commencing any construction.

Section 3.2 WHERE NO STANDARD IS SPECIFIED

Where no standard is specified in this document for a facility or improvement in the public right-of-way, a request for issuance of a standard shall be made to the City Engineer. The City Engineer shall then cause such standard to be issued.

Section 3.3 PAYMENT FOR IMPROVEMENTS

All improvements required by these Standards shall be constructed and installed by the developer at his expense unless expressly specified that the City will share the expense. The developer, with consent of the City Council, may finance the construction of required improvements by special assessment proceedings.

Section 3.4 WIDENING AND IMPROVEMENT OF EXISTING ROADS

Where land abutting an existing substandard road is to be developed, the developer shall dedicate and grade any necessary additional right-of-way and, except in the case of one single family structure, shall improve such road, including, but not limited to, traffic signal improvements and modifications, traffic safety and control devices, and drainage improvements to conform to these Standards except as otherwise provided in the subdivision ordinance.

Section 3.5 RELOCATION AND/OR REMOVAL OF EXISTING FACILITIES

Where removal or relocation of any overhead or underground utilities, structures, trees or plantings, etc., are necessary for a developer to accomplish roadway improvements within the public right-of-way, arrangements and permits for removal or relocation shall be made with all concerned or affected agencies or private parties prior to commencing any work within the public right-of-way. The City shall not be held responsible for any such cost.

SECTION 4

PUBLIC ROAD CLASSIFICATION

Section 4.1 Functional Road Classification

- A. The necessary width, alignment, and design speed of a road is related to its functional classification. For the purpose of these standards, the following functional classifications shall apply.
1. Freeway – A road whose only purpose is to carry through traffic, and is fully access controlled by grade separations and ramp connections. It is normally a six to ten lane divided roadway with a right-of-way width in excess of 150 feet, designed and maintained by the State Department of Transportation.
 2. Prime Arterial – A road whose major purpose is to carry through traffic, it provides the foundation of the City's circulation system. It is six lanes in width, is divided and limits access from abutting property.
 3. Major Arterial – A road whose major purpose is to carry through traffic and provide connections to the prime arterial system while still providing limited access to abutting property. It consists of four divided lanes.
 4. Collector Road – A road whose purpose is to distribute traffic between local streets and major and prime arterials. Although some collectors serve as through routes, their primary function is to provide access from surrounding land uses. It is a four-lane undivided roadway that provides access to abutting property.
 5. Local Road – A two lane road whose primary purpose is to provide access to individual parcels in the City. There are two types of local roads within the City: Circulation Element Local Roads and Non-Circulation Element Roads. The former are local roads that have been included by the City Council on the Circulation Element of the General Plan. They provide an additional function beyond that normally expected for a local roadway. Circulation element local roads may function as two-lane collectors in certain areas of the City.
- B. Prime Arterials, Major Arterials, Collector Roads and Local Roads can further be described based upon improvement refinements

necessary where physical constraints exist or to insure the preservation of community character. The General Plan Circulation Element provides for certain "Augmented", "Limited" and "Scenic" roadways as described below.

1. Augmented Roadway – Prime Arterials, Major Arterials, Collector Roads and Local Roads can have an augmented designation. The intent is to provide a means of increasing the capacity of a given type of arterial by maximizing the utilization of the basic lane configuration. Such augmentation can range from simply adding lanes at intersections to adding or expanding a median and/or other midblock measures to improve traffic flow and reduce side friction.

The augmented local may in its simplest form be just a two-lane local street with special intersection treatments such as signalization and/or added lanes. A more highly augmented form would have a central median for turn movements and would restrict access to the extent possible. Augmentation of a prime arterial may vary from added lanes at intersections to access control strategies such as provision of local frontage roads. An augmented form of a local street is more important as far as the circulation system is concerned, for example, since this roadway may function as a collector roadway while it is developed to local roadway standards.

2. Limited Roadway – Prime Arterials, Major Arterials, Collector Roads and Local Roads can have a limited designation. This limited designation is intended to allow the reduction of right-of-way width, while maintaining the same number of lanes and capacity for the respective roadway category. This reduction of right-of-way will most typically involve reductions to the parkway width, median width or excluding parking lanes.
 3. Scenic Roadway – Prime Arterials, Major Arterials, Collector Roads and Local Roads can be designated as "scenic" roadways. The scenic roadway designation will be used to aesthetically enhance such roadways through future improvements which provide amenities such as abundant landscaping, decorative street furniture, recreational trails, earthen berms for noise attenuation, and additional right-of-way to accommodate such features, in addition to the normal improvements related to vehicular accommodation and circulation convenience.
- C. In addition to the above refinements, local roadway standards may be modified per Section 4.6 of these Standards, for non-circulation

element local roads and rural circulation element local roads only, to reflect the rural and semi-rural character of communities within the City. Rural areas are defined as residential lands zoned for densities of 2.00 dwelling units per acre or less. Semi-rural areas are defined as residential lands zoned for densities of between 2.01 and 3.00 dwelling units per acre or those having a "feeling of country". Urban areas are those that are zoned for densities of 3.01 dwelling units per acre or greater.

Roads that are bordered by areas of different character must be constructed to the standards requiring more right-of-way. Roads that traverse areas of two different characters in less than ¼ mile must be constructed to the standards requiring more right-of-way.

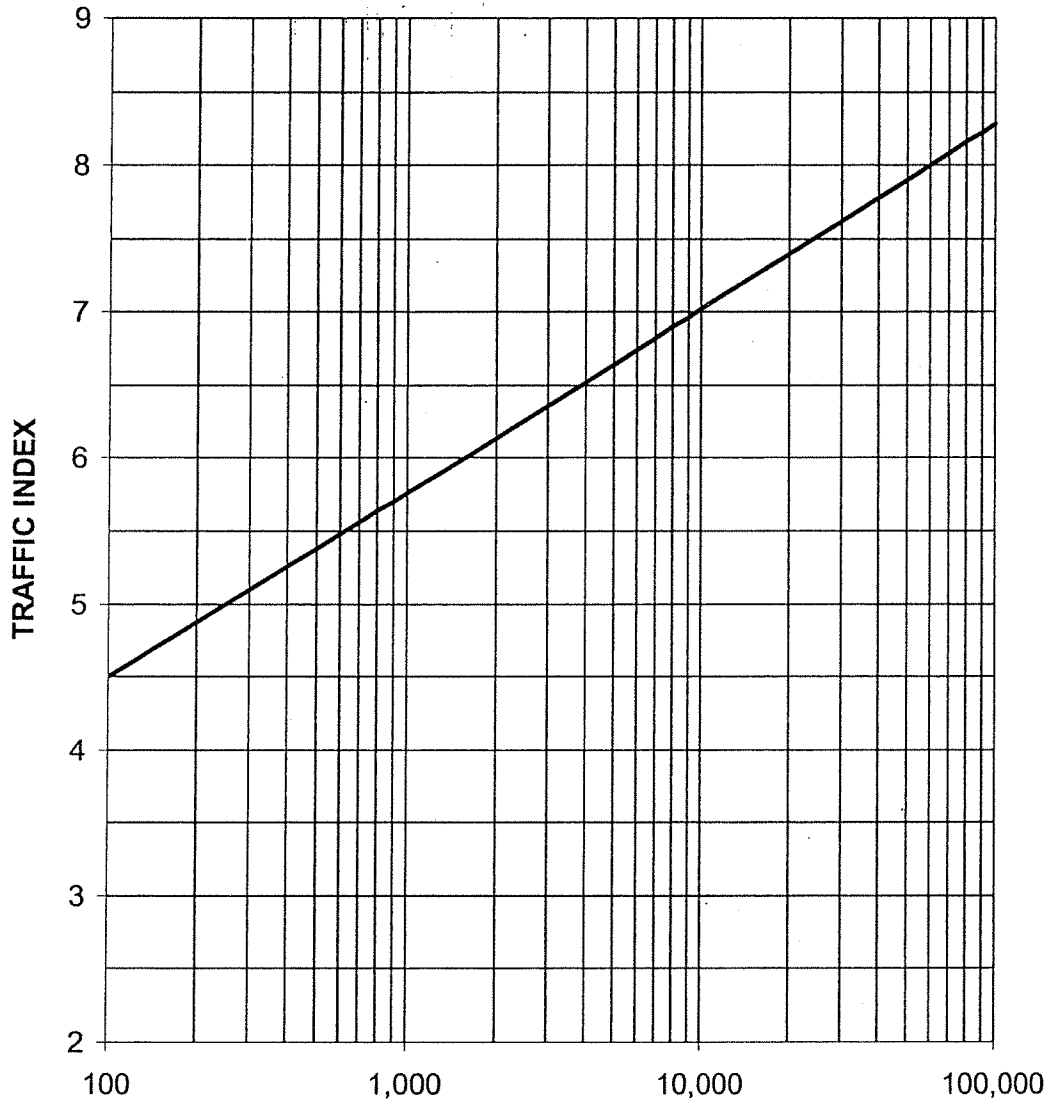
- D. Special Case Local Roadway – Non-circulation element local roads may, in certain cases, be constructed according to a "Special Case Local" standard. It is the intent of the Special Case Local standard to provide for the minimum public roadway improvements appropriate in those areas where existing development along substandard public right-of-way restricts the ability of new development to provide adequate right-of-way and improvements. The extent and type of improvements for each individual roadway will be determined on a case-by-case basis following the procedures set forth in these Standards as well as any other procedures established by City Council.

The Special Case Local standard is for use within existing subdivisions only, it shall not be used to provide public roadways in proposed minor or major subdivisions.

- E. Roadway Standards Map – A map depicting the general road classifications as well as the location of Augmented, Limited, Scenic, Rural, Semi-Rural, Urban and Special Case Roads shall be made a part of these standards.

FIGURE 3

TRAFFIC INDEX VS. ADT



ESTIMATED ULTIMATE 24 HOUR TRAFFIC VOLUME

NOTE: $T.I. = 4.5 + 1.26 \log(ADT/100)$

MINIMUM T.I. - 4.5

Section 4.2 LEVEL OF SERVICE

A roadway's ability to handle current traffic loads can be described in terms of Level of Service, or LOS. The LOS is the ratio of a road's design capacity to the existing traffic volumes. Ratio ranges can be used to describe actual traffic operating conditions as outlined in Table 1. For the purposes of these standards, the traffic volumes on all system roadways that correspond to an LOS of D (unstable traffic flows) are assigned an LOS ratio of 1.00. Any roadway which carries a traffic volume in excess of the 1.00 LOS ratio exceeds the capacity standard defined as being acceptable for streets within the City circulation system. Table 2 lists representative ADT capacities for the various types of roadways considered in these standards.

It is the policy of the City of Encinitas to maintain a level of service "C" as a basic design guideline for roadways in the City. In addition, the city will prohibit development that results in a level of service "E" or "F" at any intersection unless no alternatives exist and an overriding public need can be demonstrated.

TABLE 1
STANDARDS FOR ROADWAY LEVELS OF SERVICE *

<u>Level of Service</u>	<u>Traffic Conditions</u>
A.	Primarily free flow operations at average travel speeds usually about 90 percent of free flow speed. Vehicles can maneuver unimpeded within the traffic stream. Delay at signalized intersections is minimal.
B.	Reasonably unimpeded operations at average travel speeds usually about 70 percent of free flow speed. Ability to maneuver is only slightly restricted and stopped delays are not bothersome. Drivers are not subjected to appreciable tension.
C.	Represents stable operations, however, ability to maneuver and change lanes in midblock locations may be more restricted. Longer queues and/or adverse signal coordination may contribute to lower average travel speeds of about 50 percent of free-flow speed. Drivers will experience some appreciable tension.
D.	Borders on a range in which small increases in flow may cause substantial increases in approach delay, and hence, decreases in arterial speed. Causes range from adverse signal progression, inappropriate signal timing, high volumes, or any combination. For

planning purposes, this Level of Service is the lowest that is considered acceptable. Average travel speeds are about 40 percent of free-flow speed.

- E. Characterized by significant approach delays and average travel speeds of one-third of free-flow speed or lower, caused by adverse progression, high signal density, extensive queuing at critical intersections, inappropriate signal timing, or some combination.
- F. Characterized by arterial flow at extremely low speeds below one-third to one-quarter of free flow speed. Congestion is likely at critical signalized intersections, resulting in high approach delays. Adverse progression is frequently a contributor to this condition.

*From City of Encinitas General Plan Circulation Element.

TABLE 2
GENERAL PLAN CIRCULATION ELEMENT
ROADWAY CAPACITY STANDARDS

Facility Type	# of Lanes	ADT Capacity		
		LOS C	LOS D	LOS E
FREEWAY	6	108,000	120,000	135,000
	8	145,000	160,000	175,000
	10	175,000	195,000	215,000
Prime Arterial	6	46,000	51,200	57,000
Prime Arterial-Augmented	6	53,000	60,000	66,000
Major Roadway	4	28,200	31,600	35,200
Major Roadway-Augmented	4+	36,300	41,000	45,400
Collector Roadway	4	26,000	29,200	32,400
Local Roadway-Augmented	2+	16,000	18,000	20,000
Local Roadway	2	11,200	12,600	14,000

- NOTE:
1. Capacity means the maximum volume for the stated level of service.
 2. The above Standards are not applicable to non-circulation element roadways.

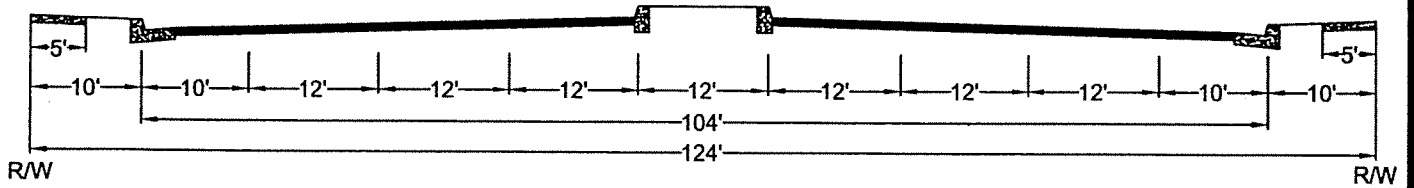
❖ From City of Encinitas General Plan Circulation Element.

TAE 3
CITY OF ENCINITAS MINIMUM PUBLIC ROAD STANDARDS

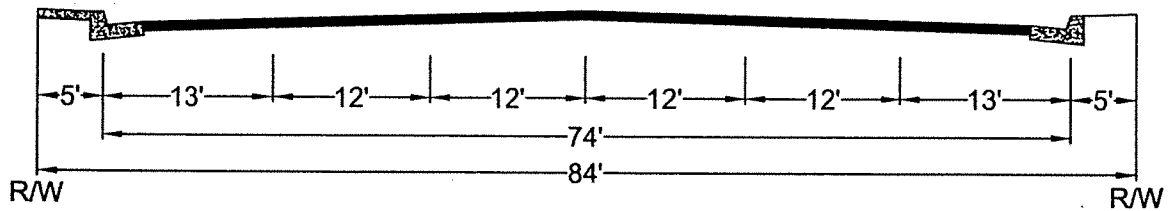
Road Classification	Number of Lanes	R.O.W. Width	Roadway Width	Curb Type 1	Parking Lane Width	Parkway Width 2	Walkway 3	Min Curve Radius 4	Maximum Grade 5	Min. Design Speed 7
Circulation Element										
Prime Arterial	6 + 12' med.	124'	104'	V	2-10'	10'	2-5'	1800'	6%	55 MPH
Limited Prime Arterial 6, 9	6	84'	74'	V	None	5'	2-5'	750'	7%	45
Major Arterial	4 + 12' med.	100'	80'	V	2-10'	10'	2-5'	1400'	7%	50
Collector	4	84'	64'	V	2-8'	10'	2-5'	750'	7%	45
Augmented Local 6	2+	60'	40'	V	2-8'	10'	2-5'	550'	10%	40
Circ. Element Local	2	60'	40'	V	2-8'	10'	2-5'	400'	10%	35
Rural Circ. Ele. Loc. 10	2	60'	30'	R	None	15'	1-5'	400'	10%	35
Non-Circulation Element										
Urban Local	2	56'	36'	V	2-8'	10'	2-5'	300'	12%	30
Semi-Rural Local	2	54'	34'	V/R	1-8'	10"	1-5"	200'	12%	25
Rural Local	2	50'	30'	R	None	10"	None	200'	15%	25
One-Way Local	1	48'	28'	V	2-8'	10'	2-5'	200'	12%	25
Special Case Local	2	40'	30'	V, R	1-8'	Vari.	Vari. 11	200'	12%	25
Special Case One-Way 1	1	40'	30'	V, R	0, 2-8'	Vari.	Vari. 11	200'	12%	25
Half Width	2	40' min.	28' min.	See Above	See Above	See Above	See Above	See Above	See Above	See Above
Alley	2	15' or 20'	Full Width	None	None	None	None	50'	15%	N/A

- Notes:
1. V= Vertical (G-2), R= Rolled (G-4); See Section 5.1 regarding further requirements
 2. Additional parkway width may be required to accommodate landscaping required by community design guidelines.
 3. Walkway width and location in parkway subject to community design guidelines
 4. Assumes no superlevation; includes standard x-fall.
 5. Not to exceed 6% through intersections.
 6. Additional lanes and/or R.O.W. may be required at intersections.
 7. Certain facilities may require higher design speeds as determined by the City Engineer
 8. Table 3 does not make provisions for Class 1 and 2 bikeways. If Class 1 or 2 bikeways are required on a road, in addition to a parking lane, the appropriate right-of-way shall be added to the minimums shown above. If parking is restricted, the bikeway may utilize the parking lane area. See Section 5.4 for bikeway requirements.
 9. Emergency turn-out areas shall be provided every 1000 feet. Additional R.O.W. will be required.
 10. Additional pavement width and/or right-of-way may be required to provide for on-street parking where necessary.
 11. The requirement for walkways or Special Case roads will be determined on a case-by-case basis.

PRIME ARTERIAL



LIMITED PRIME ARTERIAL

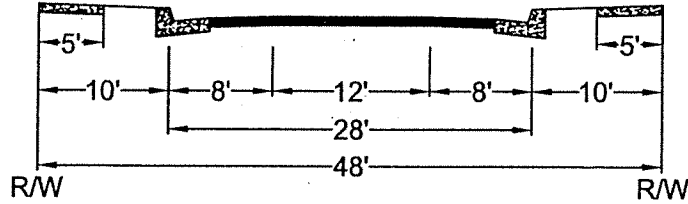


NOTE: ADDITIONAL RIGHT-OF-WAY MAY BE REQUIRED TO ACCOMMODATE BICYCLE LANE ON SIDE OF ROADWAY OPPOSITE OF WETLAND AREAS.

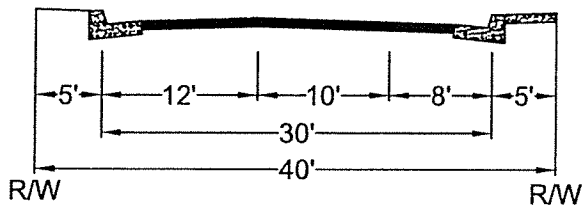
CITY OF ENCINITAS

PUBLIC ROAD SECTIONS

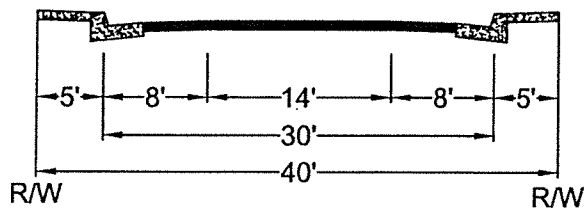
ONE-WAY LOCAL



SPECIAL CASE LOCAL* PARKING ONE SIDE



SPECIAL CASE ONE-WAY*

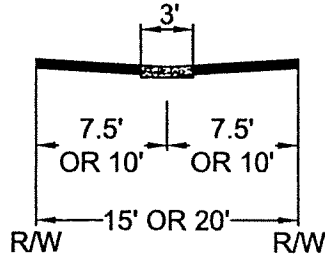


*THE SPECIAL CASE IMPROVEMENTS SHOWN ARE AN EXAMPLE OF THE TYPICAL IMPROVEMENTS WITHIN THE RIGHT-OF-WAY. THE ACTUAL EXTENT AND TYPE OF IMPROVEMENTS TO BE CONSTRUCTED WILL BE DETERMINED AS PROVIDED IN SECTION 4.6.

CITY OF ENCINITAS

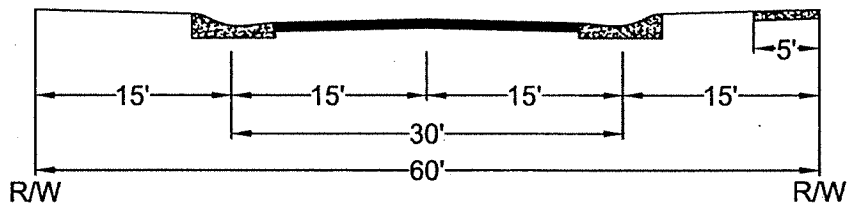
PUBLIC ROAD SECTIONS

ALLEY



NOTE: ALLEYS IN CERTAIN AREAS MAY BE REQUIRED TO BE PAVED FULL WIDTH WITH PORTLAND CEMENT CONCRETE (PCC).

RURAL CIRCULATION ELEMENT LOCAL

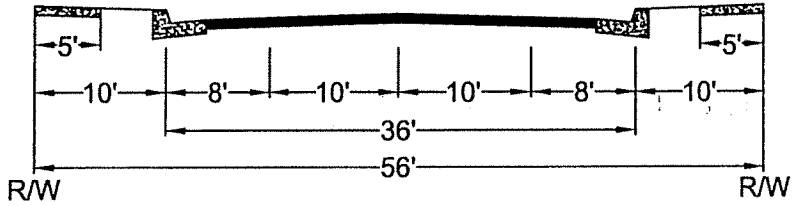


NOTE: 1. ILLUSTRATION IS AN EXAMPLE OF IMPROVEMENT LOCATIONS. EXACT LOCATIONS SHALL BE DETERMINED ON A CASE-BY-CASE BASIS.
2. ADDITIONAL PAVEMENT WIDTH MAY BE REQUIRED TO PROVIDE FOR ON-STREET PARKING.

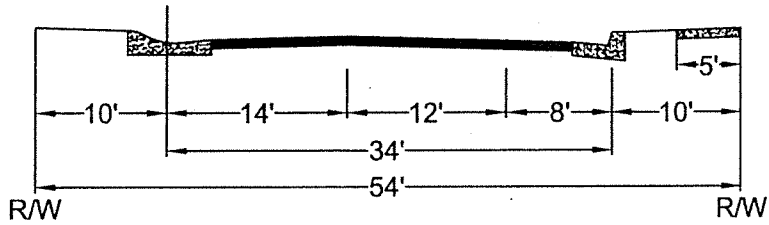
CITY OF ENCINITAS

PUBLIC ROAD SECTIONS

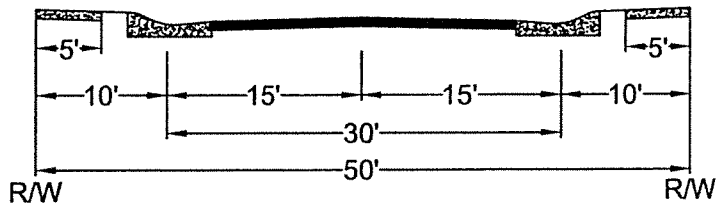
URBAN LOCAL



SEMI-RURAL LOCAL



RURAL LOCAL

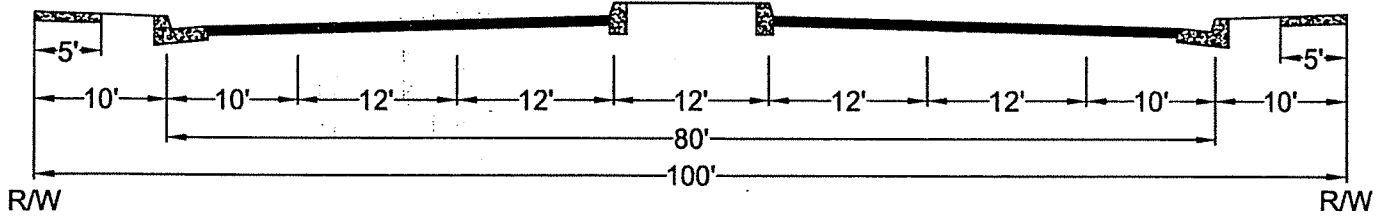


NOTE: SEE SECTION 6.7.C.7 FOR EXISTING CUL-DE-SACS IN URBAN AND SEMI-RURAL AREAS.

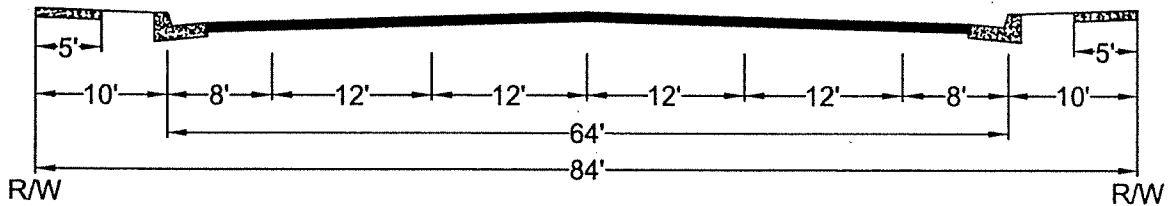
CITY OF ENCINITAS

PUBLIC ROAD SECTIONS

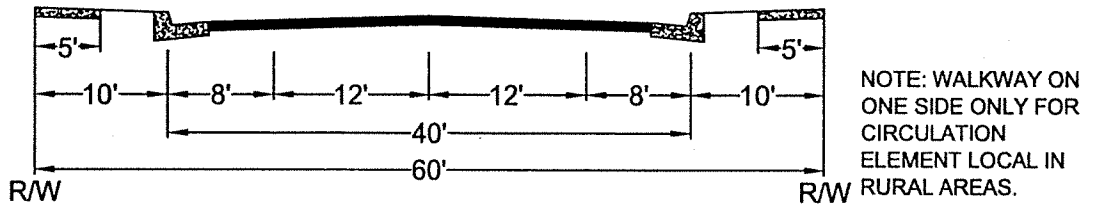
MAJOR ARTERIAL



COLLECTOR



AUGMENTED LOCAL/ CIRCULATION ELEMENT LOCAL **



** ADDITIONAL LANES AND/OR RIGHT-OF-WAY MAY BE REQUIRED AT INTERSECTIONS.
NOTE: ADDITIONAL RIGHT-OF-WAY MAY BE REQUIRED TO PROVIDE FOR BICYCLE LANES.

CITY OF ENCINITAS

PUBLIC ROAD SECTIONS

Section 4.3 ROAD CROSS-SECTIONS

Table 3 is a listing of public road requirements. The dimensions specified in Table 3 are minimums and are subject to the modification as further defined in these standards. Figure 1 illustrates the typical cross section information provided in Table 3.

Section 4.4 GENERAL NOTES

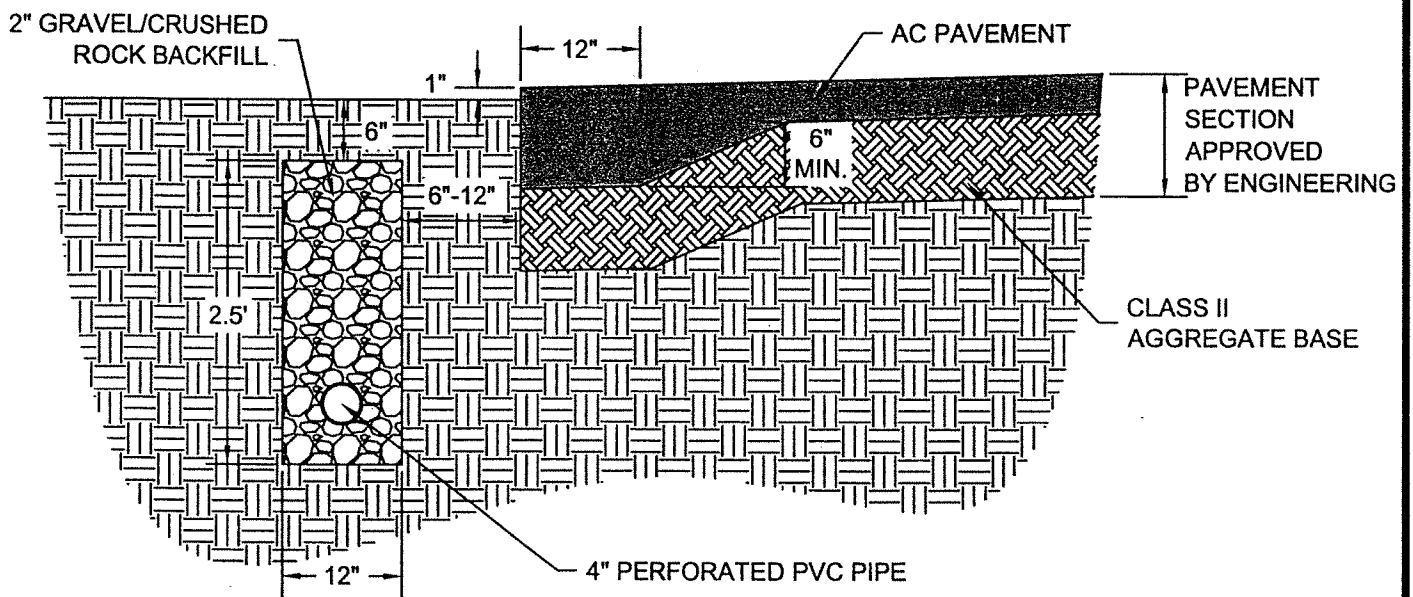
- A. Additional right-of-way width may be required to accommodate slopes, drainage structures, bikeways, parking lanes, recreational trails, additional landscaping, additional turning lanes and/or other required improvements.
- B. Roadway width includes the median strip.
- C. Where a public road is entirely within a subdivision project's boundary, the developer shall dedicate the right-of-way and construct the ultimate improvements as required in Table 3, consistent with the road classification.
- D. Where a public road is adjacent to the project's boundary, the developer shall construct any required curbs, gutters, ditches, and/or sidewalks and a minimum of one-half of the surfacing width specified in Table 3 for the particular road classification, but in no case less than 28 feet of paving and 40 feet of grading, plus slopes.

Section 4.5 EXISTING IMPROVEMENTS GREATER THAN THE MINIMUM STANDARD DIMENSIONS

Where full improvements have been constructed on 50 percent or more of a block and the dimensions of any of the improvements are greater than the dimensions shown in Table 3, the standard for that block shall be set by the dimensions of those existing improvements, unless otherwise modified by the Director of Public Works or the City Council.

Section 4.6 APPLICATION AND MODIFICATION STANDARDS

The minimum standards presented in Table 3 provide for full level of improvements normally required for each road classification. There are situations, however, where due to site specific conditions, the full level of improvements may not be appropriate or desirable for Circulation and Non-Circulation include environmental considerations, community character, the extent and type of any existing improvements and forecasted future that the improvements are required, but that a modified type, color, finish or texture would



CITY OF ENCINITAS

SPECIAL CASE ROAD EDGE DETAIL

provide an improvement that was more in keeping with the neighborhood character.

The application and modification of standards can be initiated by City Council, by any developer that is required to construct public road improvements, or by property owners adjacent to a present a recommendation to the Planning Commission. Depending on the type of modification requested (to be addressed below) a recommendation would then be passed on to the City Council via the Traffic Advisory Committee or a final determination may be made at Planning Commission level.

Table 4 below provides a guide for the implementation of modified standards. This matrix lists type of improvement and the roles of Commissions and Council. The body that makes the final determination is indicated as well as those bodies that act to recommend modified standards. The Planning Commission will act to make determinations only in the cases of major subdivisions, appeals and General Plan consistency issues. City staff would make determinations only when a precedent had been set for a specific road by a higher body.

TABLE 4
IMPLEMENTATION OF MODIFIED STANDARDS

IMPROVEMENT	ADMINIS- TRATIVE	C.A.B.	PLANNING COMM.	TRAFFIC AD. COMM	CITY COUNCIL
R/W Width	R	R	R	R	D
No. of Lanes	R	R	R	R	D
Lane Width				R	D
Parking Lane	R	R	R	R	D
Walkway	R	R	R		D
Lighting	R	R	R	R	D
Parkway	R	R	R		D
Grading	D***	R	R		D
Pavement	R	D	D		
Edge*					
Landscaping	R	D	D		
Concrete	R	D	D		
Finish**					

R = Preliminary Recommendation

D = Final Determination

* The Director of Public Works shall recommend the level of onstreet drainage facilities required to provide public safety. The Planning Commission shall determine an appropriate type, color, finish and texture of pavement edge that meets the drainage need.

** The Planning Commission may determine the color, finish and texture of concrete used for pavement edges and walkways.

*** The Director of Public Works may allow modification of the requirement for right-of-way grading where practical difficulties or unnecessary hardship would result from the strict application of the provisions of these standards.

provide an improvement that was more in keeping with the neighborhood character.

The application and modification of standards can be initiated by City Council, by any developer that is required to construct public road improvements, or by property owners adjacent to a present a recommendation to the Planning Commission. Depending on the type of modification requested (to be addressed below) a recommendation would then be passed on to the City Council via the Traffic Advisory Committee or a final determination may be made at Planning Commission level.

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R/W Width	R	R	R	R	D
No. of Lanes	R	R	R	R	D
Lane Width				R	D
Parking Lane	R	R	R	R	D
Walkway	R	R	R		D
Lighting	R	R	R	R	D
Parkway	R	R	R		D
Grading	D***	R	R		D
Pavement	R	D	D		
Edge*					
Landscaping	R	D	D		
Concrete Finish**	R	D	D		

R = Preliminary Recommendation

D = Final Determination

SECTION 5

REQUIRED ROAD IMPROVEMENTS

Section 5.1 CURB AND GUTTER

Portland cement concrete curbs and gutters conforming to San Diego Area Regional Standard Drawings shall be constructed on all public roads in conformance with the following:

- A. Vertical Curb and Gutter shall be constructed on:
 - 1. Prime arterials.
 - 2. Limited Prime arterials.
 - 3. Major Arterials.
 - 4. Collectors.
 - 5. Augmented locals.
 - 6. Non-rural Circulation Element Locals.
 - 7. Urban Locals, except as provided in Section 5.1.D, below.
 - 8. Semi-Rural Locals, one side only, except as provided in Section 5.1.D, below.
 - 9. One-way locals, except as provided in Section 5.1.D, below.
 - 10. Special case locals, except as provided in Section 5.1.D, below.

- B. Rolled Curb and Gutter shall be constructed on:
 - 1. Rural Circulation Element Locals.
 - 2. Semi-Rural Locals, one side only.
 - 3. Rural Locals.

- C. Asphalt Concrete Dikes shall be constructed on:
 - 1. The edge adjacent to or on the subdivision boundary of any half width road.
 - 2. The exterior edges of temporary roadways.

- D. On non-circulation element roads where the Director of Public Works determines that no on-street drainage facilities are required for public safety and that there are no concerns regarding violations of California drainage rules, the requirement for curb and gutter may be eliminated. A thickened pavement section and a road edge underdrain per Figure 2 will be required when curb and gutter is eliminated.

- E. Colored and/or patterned curb and gutter may be allowed, or required, if constructed in conformance with community design guidelines and with approval of the Director of Public Works. If allowed for, colored and/or patterned curb and gutter shall be provided continuously between public road intersections on both sides of the roadway.
- F. Semi-rural roads will have rolled curb and gutter on one side only and vertical curb and gutter and walkways on the other side of the road. The side that has the rolled curb and gutter will depend on the specific conditions of the street in question and will be specified by the Director of Public Works. Whenever possible, however, the location of the rolled curb and gutter should be consistent along the entire length of a street.
- G. In cases where curb and gutter is being constructed in conjunction with sewer laterals and water services, the developer shall mark the location of each sewer lateral and water service by chiseling the letters "S" and "W", respectively, 2 inches high into the face of the curb.
- H. The address of each lot shall be painted on the curb in a manner and location approved by the Director of Public Works.

Section 5.2 WALKWAYS

- A. Portland cement concrete walkways conforming to San Diego Area Regional and City Standard drawings shall be constructed along:
 1. Prime Arterials.
 2. Major Arterials.
 3. Collectors.
 4. Augmented Locals.
 5. Circulation Element Locals, one side only in rural areas.
 6. Urban Locals.
 7. Semi-Rural Locals, one side only.
 8. One-Way Locals.
 9. Special Case Locals (case-by-case determination)
- B. Walkways shall be constructed adjacent to the right-of-way line except where community design guidelines or special circumstances dictate another location and approval of the Director has been obtained. Meandering or non-contiguous walkway shall be provided for by Section 4.6 except that adjacent to schools,

churches and public buildings the walkway shall be contiguous with the curb.

- C. Walkways shall be a minimum of 4.5 feet in width when contiguous to vertical curbs on non-special case roads, 4.0 feet in width when contiguous to roadway improvements on special case roads and 5.0 feet in width in other cases.
- D. Walkway widths are intended to be clear widths. Where fire hydrants or other above-ground appurtenances reduce such width, additional walkway shall be constructed around the obstacles. Transitions at obstacles shall be four to one.
- E. Pedestrian ramps shall be constructed in accordance with the San Diego Area Regional Standard Drawings at all curb returns and other locations as required.
- F. Colored and/or patterned walkway may be allowed, or required, if constructed in conformance with community design guidelines and with approval of the Director of Public Works. If allowed for, colored and/or patterned walkway shall be provided continuously between public road intersections on both sides of the roadway.
- G. Semi-rural roads will have walkway on one side only. The walkway shall be on the same side as the vertical curb and gutter.

Section 5.3 PARKWAYS

- A. The parkway width is measured from the face of curb to the property line. Minimum parkway dimensions are given in Table 3. These are minimums only; wider parkways may be required to accommodate bikeways, recreational trails, additional landscaping and/or other improvements required by City Code.
- B. The parkway shall be graded to slope upward away from the curb at a 2 percent grade to the right-of-way line.

Section 5.4 BIKEWAYS

Where the Bikeway Master Plan requires bikeways on public roads, additional right-of-way and improvements shall be provided to accommodate the required facilities

A. Bike Path (Class I). When a two-way, off street, Class I bike path is required and pedestrian movements are provided for elsewhere, the improved width of the bikeway shall be a minimum of 8 feet.

When a Class I bike path is to be shared with pedestrian traffic, the improved width of the combined bikeway/walkway shall be minimum of 11 feet.

B. Bike Lane (Class II). A one-way bike lane on the roadway, adjacent to the curb requires a minimum of 5 feet of width, measured from the face of the curb. A one-way bike lane adjacent to a parking lane requires a total width of parking and bike lane of 14 feet between the curb and the edge of the travel lane.

C. Shared Route (Class III). Class III bikeways require no additional right-of-way or improvements beyond that normally required for the classification of the subject street except that the bike route shall be indicated by signs.

The developer shall offer to dedicate and construct, in accordance with these and any other adopted City bikeway standards, all bikeways shown on the City General Plan and Bikeway Master Plan that pass through or abut the development.

Should the City not require the construction of a bikeway as a condition of the development, the developer shall execute a covenant not to oppose a parking prohibition for the City's future implementation of a bike facility.

Section 5.5 DRIVEWAYS

All driveway construction shall conform to the applicable San Diego Area Regional Standard Drawings.

- A. Residential Driveways. Driveways serving property used solely as a single-family, double-family, or triple family residence, including farms and ranches not used for retail outlets.
- B. Commercial Driveways. All driveways other than residential driveways.
- C. Joint-Use Driveways. Developers shall construct joint-use driveways with interior circulation wherever possible, but especially when accessing prime and major arterials.
- D. All Driveways shall provide for adequate sight distance as specified

in Section 6.4.

Section 5.6 ROAD NAME SIGNS

- A. The developer shall install road name signs as a part of the improvements. Installation shall be in accordance with the Standard Drawings.
- B. One sign shall be placed at the intersection of two local streets. Two signs shall be placed at the intersection of a prime arterial, major arterial, or collector and a local street. Four signs shall be placed at the intersection of a prime arterial, major arterial, or collector and another prime arterial, major arterial, or collector.

Section 5.7 TRAFFIC SIGNALS, REGULATORY AND WARNING SIGNS

The developer shall install all necessary regulatory and warning signs at locations specified by the Director of Public Works as a part of the required road improvements. A developer may be required to install or participate in the installation of necessary traffic signals.

Section 5.8 HIGHWAY GUARDRAIL

The developer shall install highway guardrail, or other protective device approved by the City Engineer, in accordance with San Diego Area Regional Standard Drawings at locations described as follows:

- A. Where a sudden lateral constriction in width occurs adjacent to an obstruction.
- B. On the outside of embankment curves when it is determined that the installation of the guardrail will decrease the potential accident severity at a particular location, as described in Chapter 7 of the CALTRANS Traffic Manual.
- C. At Locations where existing conditions are susceptible to improved safety levels by installation of guardrail.

Section 5.9 ROADWAY LIGHTING

Street lights are installed to increase visibility for safety, security, and public convenience as it relates to volumes of vehicular, pedestrian and bicycle activity and their potential points of conflict.

A. GENERAL ROADWAY LIGHTING REQUIREMENTS for all developments shall be as follows:

1.

TABLE 5			
ROADWAY LIGHTING LOCATION			
LAND USE/ DENSITY	INTERSECTIONS OF PUBLIC ROADS WITH PUBLIC OR PRIVATE ROADS	ENDS OF CUL-DE- SACS	MID-BLOCK
ALL COMMERCIAL & INDUSTRIAL	YES	YES	YES
URBAN RESIDENTIAL	YES	YES	YES
SEMI-RURAL RESIDENTIAL	YES, WHERE COMBINED TRAFFIC ON BOTH LEGS EXCEEDS 5,750 ADT AND MINOR LEG EXCEEDS 750 ADT OR FOR SAFETY CONSIDERATIONS	FOR SAFETY CONSIDERATIONS ONLY*	FOR SAFETY CONSIDERATIONS ONLY*
RURAL RESIDENTIAL	FOR SAFETY CONSIDERATIONS ONLY*	FOR SAFETY CONSIDERATIONS ONLY*	FOR SAFETY CONSIDERATIONS ONLY*

❖ Safety considerations include but are not limited to intersections, non-standard curves, sight distance, abrupt grade change, etc. Locations to be as recommended by the Traffic Commission and approved by City Council.

2. All development projects will be required to annex to the Encinitas Landscape and Lighting District.
3. Tentative Subdivision Maps may have off-site requirements based on the above chart.

Section 5.10 SURVEY MONUMENTS

Survey monuments shall be installed as a part of a subdivision or road improvements in accordance with the San Diego Area Regional Standard Drawings.

Section 5.11 MEDIANS

- A. Medians (center dividing islands) shall be constructed of concrete curbs. Painted medians, median openings, and related left-turn storage and acceleration lanes may be permitted under special circumstances.
- B. The following warrants for median openings are established to facilitate traffic movement and safety.
 - 1. Median openings will normally be permitted at all intersections with public roads, except where such openings may impair the movement of traffic.
 - 2. Mid block median openings or other openings with turns permitted into adjacent driveways or alleys will not be permitted unless all the following conditions exist.
 - a. The property to be served is a major traffic generator and has a continuous frontage of 500 feet or more along the divided road between roads which intersect the dividend road from the side occupied by the property.
 - b. The median opening is not less than 400 feet from any intersecting local road or not less than 600 feet from an intersection with an Arterial, Major, or Collector road.
 - c. The median opening is not less than 600 feet from any other existing or proposed mid-block median opening.
- C. In locations where individual parcels desiring left-turn access have less than the 500 feet required under subparagraph B. (2) (a) of this section, two-way left turn lanes may be permitted as "traversable medians" upon approval of the Director of Public Works and the City Council.
- D. Median ends or "noses" shall be located 15 feet behind a line joining the midpoints of the curb returns at road intersections and 10 feet behind the curb opening of driveways.

Section 5.12 CROSS GUTTERS

- A. All cross gutters shall be 10 feet minimum width and conform with San Diego Regional Standard drawings.
- B. No mid-block cross gutters shall be allowed. Any variation due to special conditions will require the special approval of the Director of Public Works.
- C. No cross gutters shall be allowed on roads classified as augmented local or greater.
- D. The maximum street grade at a cross gutter shall be 3 percent for 25 feet from the edge of the cross-gutter furthest from the centerline of the cross street.

Section 5.13 ALLEYS

- A. No new alleys shall be created within the City.
- B. Alleys are to be improved as adjacent development occurs. When an entire block has been improved to City standards, the adjacent property owners can petition the City to accept the improved alley into the maintained road system.
- C. Existing alleys shall be improved as follows:
 1. The intersection of an existing alley with a road shall provide adequate sight distance.
 2. Alleys shall not intersect.
 3. Full width Portland Cement paving will be provided in commercial areas. Full width Portland Cement concrete or asphaltic concrete paving with a 3 foot wide Portland Cement concrete center gutter shall be provided in residential areas. Where both commercial and residential property abut the same alley, the alley shall be improved to the commercial standard.
- D. Properties that abut a public roadway and an alley shall take access from the alley in order to minimize the number of driveways on the public road.
- E. In cases where an existing single family lots only public access is via an alley, the Director of Public Works may approve development on such lot if the minimum right-of-way is provided and full improvements are constructed.

SECTION 6

DESIGN STANDARDS

Section 6.1 INTERSECTIONS

- A. Curb return radii. The following values are minimums and are provided for the majority of situations. The Director of Public Works will make the final determination regarding required curb return radii.
1. Commercial, Industrial, and Office Professional General Plan Areas: 40 feet.
 2. Other General Plan areas: 30 feet.
 3. Special Case Roads: 20 feet
- B. Where the angle of intersection is acute, or where a sight-distance problem may be anticipated, an increased property line radius may be required.
- C. All Non-Circulation Element roads entering upon any given road shall have their centerlines directly opposite each other or separated by at least 200 feet. Circulation Element roads shall have their centerlines directly opposite each other when entering upon another Circulation Element road or separated by at least 400 feet.
- Separations of greater than 400 feet may be required to provide for proper traffic movements and left-turn storage.
- D. The angle between centerlines of intersecting roads shall be as nearly a right angle as possible, but in no case less than 70 degrees or greater than 110 degrees.
- E. The maximum grade at any intersection of two streets shall be 6 percent within the intersection and for at least 20 feet on the approaches thereto.
- F. Where two road centerlines intersect, the lower classified road is not to intersect the primary road in a curve. Instead, the alignment of the lower classified road must intersect the primary road in a

straight line for a length not less than the full width of the primary roads' right-of-way.

- H. Elevation difference between beginning and end of curb return shall not exceed 4 feet.

Section 6.2 HORIZONTAL CURVES

- A. Minimum curve radii are shown in Table 3 for the various classifications of roads. These radii are derived from the Caltrans comfortable speed on horizontal curves chart. Deviations from these standards can be permitted by the City Engineer, but only as long as the minimum design speed is obtained, as necessary, by taking into account all other aspects of the design, such as superelevation, intersections, and sight distance.
- B. Compound curves are prohibited.
- C. Reversing curves are permitted but, for all roads other than local roads, must be separated by a tangent length adequate to provide safety of travel. Such adequate tangent lengths shall be determined by the Director of Public Works.

Section 6.3 VERTICAL CURVES

- A. On other than local streets, vertical curves shall be designed to current Caltrans Design Manual Stopping Sight Distance Charts based on design speed.
- B. For local streets, the minimum acceptable vertical curve is ten feet of curve for each 1 percent difference in grade. Vertical curves are required when grade breaks exceed 1 percent.
- C. Vertical curves leading into intersections shall be designed such that the grade immediately approaching a cross gutter is no greater than 3 percent.
- D. Horizontal curves must not begin near the top of crest vertical curves or near the bottom of sag vertical curves.

Section 6.4 SIGHT DISTANCE

- A. The minimum corner sight distance in feet at the intersections of all public or private roads with public roads shall be ten times the design speed in M.P.H. of the higher classification roadway. It shall be measured from a point 3 feet to the right of center on the minor road and 10 feet back from the curb line or edge of pavement of the major road, and measured from a height of eye of 3.50 feet on the minor road to a height of object 4.25 feet on the major road.
- B. Adequate sight distances at intersections and along horizontal curves must be obtained, even if it involves a sight distance easement which requires fences, walls, and slopes at and beyond the right-of-way line to be eliminated, kept low, or set back.
- C. Sight distance on vertical curves shall be determined from Caltrans Highway Design Manual figures 201.2 and 201.4 "Passing and Stopping Sight Distance on Crest Vertical Curves," and from Caltrans Highway Design Manual figure 201.5, "Stopping sight Distance on Sag Vertical Curves."
- D. Sight distance on horizontal curves shall be determined from Caltrans Highway Design Manual figure 201.6, "Stopping Sight Distance on Horizontal Curves."

Section 6.5 TRANSITIONS

- A. No pavement widening transition is required to increase the number travel lanes except that needed to continue smooth drainage flow.
- B. When reducing the number of through travel lanes, the paved section shall undergo a transition as follows:

$$\begin{array}{ll} V \geq 40 \text{ mph} & L = WV \\ V \leq 40 \text{ mph} & L = \frac{WV^2}{60} \end{array}$$

V = Design Speed, mph
W = Width of Roadway Transition, feet
L = Transition Length, feet

- C. When shifting travel lanes as necessary across an intersection or as required to meet existing conditions, the transition may be made by application of the minimum allowable radius horizontal curve.
- D. Guardrail and/or reflective markers may be required along transitions.

Section 6.6 ROAD SLOPE, CROSS FALL, CROSS SLOPE

- A. The minimum longitudinal road grade or slope is normally one (1) percent. Exceptions to this minimum may be granted by the Director of Public Works if hardship can be shown.
- B. Maximum cross-fall, other than superelevation, shall not exceed 3 percent.
- C. An off-center crown shall not be permitted.
- D. Standard cross-slope shall be 2 percent; minimum cross-slope shall be 1 percent; maximum cross-slope shall be 5 percent.
- E. Cross-slope and grade shall not be minimum at the same location. The cross-slope shall be no less than 2 percent where the street grade is 1 percent or less.
- F. In design of intersections and transition sections, cross-fall and cross slope may deviate from the above as necessary to meet the intersecting street.

Section 6.7 CUL-DE-SACS

- A. All cul-de-sac and turn around configurations shall be subject to review and approval by the Fire Department. Alternative turn-around configurations shall be subject to the provisions of Section 4.6 governing modification of the standards for right-of-way width.
- B. Industrial, Office Professional, and Commercial Areas
 - 1. Turnaround curb radius shall be 40 feet within a 60-foot property line radius.
 - 2. Such cul-de-sacs shall be limited to 500 feet in length, from property line of the intersecting street to end of the bulb, unless there are clearly defined topographic conditions requiring greater lengths. In such instances, compensation for more difficult emergency access may be required, such as extra street width, special turnarounds, setbacks, on-site circulation systems, or two means of access.

C. Residential Areas

1. Cul-de-sacs serving four or more living units require a turnaround.
2. Turnaround curb radius shall be 40 feet
3. Turnaround curb radius may be reduced to 30 feet if the roadway to the turnaround is 30 feet or less in width and no parking is allowed.
4. In non-rural areas, turnaround curb radius must be increased to 48 feet if cul-de-sac length exceeds 500 feet.
5. In non-rural areas, intermediate turnarounds of 35 foot radius are required when cul-de-sac length exceeds 1,000 feet. Intermediate turnarounds shall be approximately evenly spaced, no more than 800 feet apart.
6. In non-rural areas, residential cul-de-sacs are limited to a maximum ADT of 500 unless there are clearly defined topographic problems which require greater volumes. In such cases, wider roadways and/or special design will be required to accommodate access by emergency vehicles. Non-rural cul-de-sacs serving more than 500 ADT shall have minimum curb-to-curb width of 36 feet. Should more than 1,000 ADT be allowed, the width shall be 40 feet minimum.
7. Existing residential cul-de-sacs that provide vehicular access where the projected average daily vehicular trips are below 200 shall be considered fully improved if the right-of-way is at least 52 feet wide and the improved roadway is at least 23 feet wide.

- D. The maximum centerline grade for a cul-de-sac turning area shall be 5 percent. The minimum gutter grade in the turning area shall be 1 percent.

Section 6.8 GRADING

- A. Roadways shall be graded by the developer to full width of right-of-way.
1. The Director of Public Works and City Council shall have the

authority to modify full width grading requirements in areas where such modification would not compromise driver or pedestrian safety or in any way be detrimental to the public. In any such case, slope rights for future grading and drainage facilities shall be dedicated.

2. The requirement for full width grading shall apply to all circulation element roads and to all other public roads where the City has a legal interest (fee, road easement, rejected offer of dedication, irrevocable offer of dedication) in the road and improvement plans are required as a condition of approval and acceptance of the project. Grading for rural Circulation Element Local and Rural Local Roads shall not be greater than that required for construction of improvements.
 - B. Grading beyond the right of way may be required to provide for safe sight distance and to control drainage. Where sight distance is required across adjacent private property, a clear space easement shall be recorded and the easement defined by monuments and markers.
 - C. Grading or excavating in an existing City road shall not be permitted unless authorized by a valid grading or construction permit issued by the Public Works Department.
 - D. Where improvements not in the public right-of-way are required, satisfactory proof shall be provided from the owner of the adjacent land for the construction of such improvements thereon. Satisfactory proof shall consist of a minimum of a letter of permission from the adjacent owner and a "lot-book" report identifying the property owner.

Section 6.9 PAVEMENT AND STRUCTURAL SECTION

- A. All public road pavement sections shall be designed in accordance with Chapter 600 of the Caltrans "Highway Design Manual" using "R" value test of subgrade and traffic indices as set forth in figure 3. All proposed traffic indices are subject to approval and modification by the Director of Public Works.
- B. Minimum asphaltic concrete pavement thicknesses are as follows:

Driveways in Right-of-Way	3 inches
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Alleys	3 inches
Local Roads	4 inches
Collectors	4 inches
Major Arterial	5 inches
Prime Arterial	5 inches

C. Aggregate base shall not be less than 4 inches for portions of driveways in the right-of-way and alleys and 6 inches for all other roads, where required, and shall conform to the latest provisions of Caltrans Standards Specifications Section 26, Class 2 of A.P.W.A. Standard Specifications Section 200-2.5. Decomposed granite is not an acceptable base material.

D. Effect of Grades on Structural Sections

When longitudinal street grades exceed 10 percent, one-half inch of asphaltic concrete shall be added to the design thickness for each 2 percent increase in grade or portion thereof. All roads with street grades of 20 percent or above shall be a minimum of 6 inches of P.C.C. pavement.

E. Alleys

The developer may use either:

1. Asphaltic concrete with 3 foot wide P.C.C. center gutter.
2. Asphaltic concrete with P.C.C. curb and gutter with normal crown.
3. Full width P.C.C. inverted section.

F. Raised centerline reflective pavement markers are required for all streets with projected daily traffic volumes of 3000 or greater. Raised blue reflective pavement markers are required in conjunction with all fire hydrants per Fire District standards.

G. The soils engineer shall evaluate subgrade materials under roadway pavement, curbs, gutters, and sidewalks for expansion properties and shall provide recommendations to mitigate potential expansion damages.

H. Portland cement concrete pavements are allowed in alleys and may be allowed in other roads upon approval of the Director of Public Works. Such pavements will require special design, but must be a

minimum of 6 inches thick.

Section 6.10 UTILITY PLACEMENT

- A. All utilities that are to be underground shall be constructed or installed prior to the construction of any required improvements within the right-of-way or adjacent special case easements including, but not limited to, roads, curbing, sidewalk, and driveways that may hinder or restrict the proper installation of said utility, except as may be otherwise approved by the Director of Public Works.
- B. The minimum cover of any underground utility within the pavement section shall be 30 inches, except that non-hazardous systems installed outside the traveled way may be a lesser depth upon approval by the Director of Public Works. Special protection shall be required for water and sewer pipes with less than 3 feet of cover.

Section 6.11 FUTURE ROAD EXTENSIONS

When any road is extended to a subdivision boundary for the purpose of providing a future connection to adjoining property, the subdivider shall submit an alignment and profile demonstrating the feasibility of such future extension. The demonstration shall include provision of acceptable sight distance for any intersecting street shown on the plan which is within the design sight distance of the subdivision boundary. Such demonstration shall also extend for a distance of $\frac{1}{4}$ mile from the subdivision boundary or longer if specific circumstances so dictate.

SECTION 7

DRAINAGE IMPROVEMENTS

Section 7.1 REFERENCES

The following references are applicable:

- A. The design standards and specifications applicable to flood control and drainage plans is the San Diego County Flood Control District Design and Procedure Manual, and the City of Encinitas Drainage Design Criteria and Aides.
- B. The hydrologic procedures applicable to flood analysis is the City of Encinitas Hydrology Manual.
- C. The standard drawings of flood control and drainage facilities and appurtenances are the San Diego Area Regional Standard Drawings.

Section 7.2 REQUIREMENTS

- A. The subdivider shall submit plans and specifications for improvements of all drainage easements, culverts, drainage structures, and drainage channels to the Department of Public Works for approval. Unless specifically waived herein, such plans and specifications shall provide a drainage system capable of handling and disposing of all surface waters originating within the subdivision and all surface waters that may flow onto the subdivision from adjacent lands. Said drainage system shall include any easements and structures required by the Department of Public Works to properly handle the drainage on-site and off-site.
- B. Hydrology and hydraulic calculations for determining the storm system design shall be provided to the satisfaction of the Director of Public Works. When appropriate, water surface profiles and adequate field survey cross section data may also be required.

*MINUTES OF ENCINITAS CITY COUNCIL ADJOURNED REGULAR MEETING
MARCH 13, 1991, 7:00 P.M., 535 ENCINITAS BOULEVARD, SUITE 100*

1. CALL TO ORDER / ROLL CALL

Mayor Hano called the meeting to order at 7:00 P.M.

Present: Mayor Gail Hano, Council Members John Davis, Anne Omsted, Pamela Slater, and Maura Wiegand.

Absent: None

Also Present: City Manager Shafer, City Attorney Krauel, City Clerk Pool, Interim Public Works Director Nelson, Assistant City Manager Benson, Community Development Director Murphy, Community Services Director Wigginton, Sheriff's Lieutenant Hartshorn, Fire Chief McCarver, Deputy City Clerk Cervone

There being a quorum present, the meeting was in order.

2. PLEDGE OF ALLEGIANCE

3. SPECIAL PRESENTATIONS / PROCLAMATIONS

Mayor Hano presented a proclamation to the Peace Corps representative, Mr. Sovinee, proclaiming March 14th as Peace Corps Day and recognizing their 30th anniversary.

4. ORAL COMMUNICATIONS

5. UNFINISHED BUSINESS

A. Discussion of Plan for Implementation of Revised Public Road Standards. Contact Person: Interim City Engineer Holt.

Interim City Engineer Lloyd Holt reported the major concern brought out at the public hearing on February 13th was, if the public road standards were adopted with five foot easements to supplement the existing 40 foot rights-of-way, that that standard would automatically be imposed to all existing 40 foot right-of-way streets. He said due to almost complete development of the majority of existing 40 foot right-of-way streets, and the need to remove obstructions such as walls, trees, etc. to widen the streets, the use of this standard would not be practical. He provided two alternatives that could be accomplished within existing 40 foot rights-of-way: (1) "special case local" that would provide parking on one side and sidewalks on both sides of the street; and (2) "special case one way" which would be one-way

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traffic and provide parking and sidewalks on both sides of 40 foot rights-of-way.

He said it was Staff's recommendation to: (1) Certify the Negative Declaration; (2) adopt Staff recommended Public Road Standards with addition of a special case local with parking on one side within a 40' right-of-way, and a special case one way within a 40' right-of-way; (3) determine a preferred road standard for Lone Jack Road that could be implemented in the future; (4) implement the Standards as they affect all circulation element roads, with the exception of Lone Jack Road. In addition, all of the standards be immediately adopted as they affect all new development of major or minor subdivisions; and (5) direct the implementation of standards for all existing local non-circulation element roads as soon as possible on a case-by-case basis.

Bob Bonde requested that Birmingham not be expanded to four lanes but have a special case standard designation.

Community Development Director Murphy said the Road Standards document was merely a planning tool and when specific streets were targeted for improvements in the future, environmental issues would then be addressed.

Omsted moved, Wiegand seconded to certify the negative declaration. Motion carried. Ayes: Davis, Hano, Omsted, Slater, Wiegand; Nays: None.

Davis moved, Slater seconded to Adopt the Staff recommended Public Road Standards with addition of a special case local with parking on one side within a 40' right-of-way, and a special case one way within a 40' right-of-way. Motion carried. Ayes: Davis, Hano, Omsted, Slater, Wiegand; Nays: None. Council noted the intent of the motion was to eliminate all special case sections that required five foot easements outside existing rights-of-way.

Omsted moved, Davis seconded to adopt Alternate A standards for Lone Jack Road, a 60 foot right-of-way which included a recreation trail and a parkway for utilities on one side and a parkway and 2-way bike path on the other side of the road. Motion carried. Ayes: Davis, Hano, Omsted, Slater, Wiegand; Nays: None.

Slater moved, Wiegand seconded to implement the Standards as they affect all circulation element roads, with the exception of Lone Jack Road. In addition, all of the standards be immediately adopted as they affect all new development of major or minor subdivisions. Motion carried. Ayes: Davis, Hano, Omsted, Slater, Wiegand; Nays: None.

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Omsted moved, Davis seconded to direct the implementation of standards for all existing local non-circulation element roads as soon as possible on a case-by-case basis. Motion carried. Ayes: Davis, Hano, Omsted, Slater, Wiegand; Nays: None.

Community Development Director Murphy said Staff would research the standards for Lone Jack Road to ensure consistency with the General Plan.

B. Decision as to Term Length for Olivenhain CAB Appointees Gregory Post and Paul Van Slyke. Contact Person: City Clerk Pool.

Slater moved, Omsted seconded to adopt a policy to base term length of Board Members, when ties occur, and there is a one year replacement term involved as well as a normal two-year term, on the date and time when applications for the position were filed with the City Clerk's office with the longer term going to the applicant who applied first. Motion carried. Ayes: Davis, Hano, Omsted, Slater, Wiegand; Nays: None.

C. Update Regarding Solid Waste Issues Including San Marcos Landfill and Joint Meeting with the County and Other Cities. Contact Person: City Manager Shafer.

City Manager Shafer reported that San Marcos had repealed their ordinance requiring North County Cities to agree to certain terms before processing the landfill Conditional Use Permit and that the Use Permit was now being processed. He said a meeting was held the previous Friday with all North County cities and there was some direction from this group to their Staffs to focus on the mitigation fees and also to review some long-term issues and the possibility of developing a Joint Powers Authority.

He reported the Regional Water Control Board had denied the vertical expansion of the landfill. He said it was recommended that the County use the 16 acre site reserved for the proposed trash incinerator plant.

Council Member Omsted asked if Solana Recyclers could begin a public education program notifying citizens that the landfill was reaching capacity and of the urgent need to recycle.

Council Member Wiegand said she and Council Member Omsted had visited the Community and Mediation Center of San Diego. She suggested the North County Cities explore the possibility of beginning a mediation process with the Mediation Center as the facilitators in an attempt to reach a compromise on the landfill issues.

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City Manager Shafer said, in terms of addressing short-term issues and the time frames involved in this particular matter, it may be difficult to get a facilitator in a timely manner and make sure he/she is knowledgeable of all the issues. However, a facilitator could benefit the cities in dealing with long-term issues.

Slater moved, Omsted seconded to send a letter to north County Cities expressing the City of Encinitas' interest in procuring the facilitator and ask if they would be interested.

City Manager Shafer said, based on their response, Staff would research the cost of the program.

Council Member Davis also directed Staff to pursue the feasibility of forming a Joint Powers Authority.

Motion carried. Ayes: Davis, Hano, Omsted, Slater, Wiegand; Nays: None.

6. NEW BUSINESS

A. Request Support for Legislative Proposals. Contact Person: City Manager Shafer.

City Manager Shafer said the League of California Cities had recently met jointly with the San Diego County Board of Supervisors to review ways to work cooperatively to produce joint recommendations for legislative action for funding for the County. The City was being asked to support the joint recommendations.

Omsted moved, Wiegand seconded to endorse a constitutional amendment eliminating the two-thirds vote requirement for special taxes entirely. Motion failed. Ayes: Omsted, Wiegand; Nays: Davis, Hano, Slater.

Slater moved, Davis seconded not to support the above recommendation. Motion carried. Ayes: Davis, Hano, Slater; Nays: Omsted, Wiegand.

Omsted moved, Wiegand seconded to endorse the formation of a constitution revision commission (such as is proposed in SCA 55 (Alquist) to develop structural reform proposals to improve budgeting and financing at the State and local level. Motion carried. Ayes: Davis, Hano, Omsted, Slater, Wiegand; Nays: None.

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Slater moved, Davis seconded to not endorse the Governor's proposal to modify the Constitution to permit, with simple majority voter approval, a property tax override to secure general obligation bonds to finance development of education and jail facilities. Motion carried. Ayes: Davis, Hano, Omsted, Slater, Wiegand; Nays: None.

Slater moved, Omsted seconded to not endorse the Governor's proposal to provide cities and counties the authority, with simple majority voter approval, to increase the local sales tax by 1/2 cent for drug abuse prevention and crime suppression efforts - including jail operations. Motion carried. Ayes: Davis, Hano, Omsted, Slater, Wiegand; Nays: None.

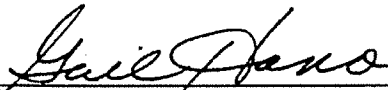
7. CITY COUNCIL / CITY MANAGER REPORTS

Information Items -- No discussion or action to be taken


Council Member Omsted said it had been brought to her attention that the current Municipal Code regulating consumption of alcohol did not prohibit drinking on the railroad tracks within the City. She asked the Sheriff's Department to research this and report back if that was correct. In addition, she asked why Lake Drive Sports Complex or the YMCA had no tot lots. Community Services Director Wigginton said there was no room at the Lake Drive Sports Complex but tentative plans for the YMCA included a tot lot.

8. ADJOURNMENT

Mayor Hano declared the meeting adjourned at 8:12 P.M. to March 20, 1991.



Gail Hano, Mayor



E. Jane Pool, City Clerk
By: Deborah Cervone,
Deputy City Clerk

